

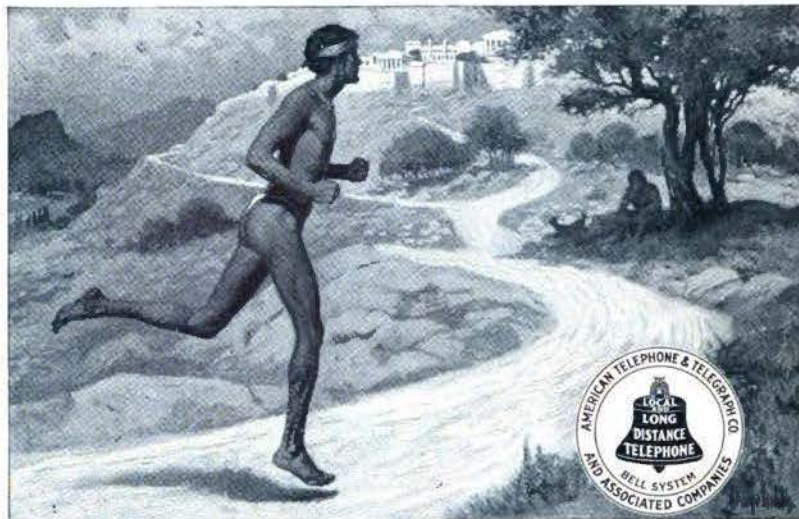
Bell Telephone News

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY

Volume 2, No. 1

AUGUST, 1912





Message Bearers Ancient and Modern

Pheidippides, the most noted runner of ancient Greece, made a record and an everlasting reputation by speeding 140 miles from Athens to Sparta in less than two days.

Runners trained to perfection composed the courier service for the transmission of messages in olden times. But the service was so costly it could be used only in the interest of rulers on occasions of utmost importance.

The Royal messenger of ancient times has given way to the democratic telephone of to-day. Cities, one hundred or even two thousand miles apart, are connected in a few seconds, so that message and answer follow one another as if two persons were talking in the same room.

This instantaneous telephone service not only meets the needs of the State in great emergencies, but it meets the daily needs of millions of the plain people. There can be no quicker service than that which is everywhere at the command of the humblest day laborer.

Inventors have made possible communication by telephone service. The Bell System, by connecting seven million people together, has made telephone service so inexpensive that it is used twenty-five million times a day.

Captains of war and industry might, at great expense, establish their own exclusive telephone lines, but in order that any person having a telephone may talk with any other person having a telephone, there must be One System, One Policy and Universal Service.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Every Bell Telephone is the Center of the System

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 1

CHICAGO, ILLINOIS

AUGUST, 1912



DISTRICT OFFICIALS, ILLINOIS DIVISION, CENTRAL UNION TELEPHONE COMPANY.

IMPORTANT CHANGES IN ORGANIZATION

General Manager in Each State to Have Charge of All Departments.

Under a plan of organization for the Central Group of Bell Telephone Companies which went into effect July 1st, the direct administration of the business will be in charge of five general managers, one for each state. A bulletin issued by President B. E. Sunny, explaining the new organization, follows:

230 W. Washington St., Chicago, Ill.
June 25, 1912.

TO EMPLOYEES:

The plan of organization adopted a year ago, when the Central Group of Bell Telephone Companies was formed, has worked excellently and many desirable results have been secured. It permitted the application of standards of great value to the business, but there was a lack of uniformity, resulting in some confusion and inefficiency.

In a great telephone system, in a compact territory, where the Bank is established, the plan of organization is ideal, but it cannot be said that the conditions are stable with us nor that they are likely to be for some years. Each of the territory was in a transitory condition because of consolidations, purchases and sales, and in states where Commissions have been appointed, new and complex problems are connected with reference to our relations with the public and local governments.

While we have appreciated the benefits that have come from the adoption of the present form of organization, we have for some time realized, that because of the exacting conditions, a modification in the form of organization in the interest of prompt action in the field on important matters would improve the efficiency.

It was not the intention, however, to make any changes in the organization until later in the year, but the resignation of Mr. B. W. Trafford, Vice President, to accept the position of Vice President of the First National Bank of Boston, which we very much regret, requires such a general rearrangement of the personnel that it is decided to put the modified plan into effect at this time.

The changes will resign with the Commercial, Plant and Traffic Departments only in the General Office and do not affect the other departments, nor do they affect the Division and District organizations. They are as follows:

CHICAGO TELEPHONE COMPANY.

Alonzo Burt will resign as Treasurer, and as Vice President will assume charge of Operations.

B. W. Trafford, 2d Vice President, resigns as indicated above.

The positions of "General Agent for Public Relations," "General Agent for Connecting Companies," "General Plant Superintendent" and "General Traffic Superintendent" are abolished.

C. E. Mosley will resign as Secretary and will be elected Treasurer.

W. I. Mizner will be elected Secretary.

H. F. Hill, General Manager, will assume charge of the Commercial Department, in addition to the Plant and Traffic Departments, with headquarters at Chicago, Ill.

S. J. Larned is appointed Assistant General Manager.

Clifford Arrick is appointed Manager of the Publicity Department.

WISCONSIN TELEPHONE COMPANY.

Alonzo Burt will resign as Treasurer, and as Vice President will assume charge of Operations.

B. W. Trafford, Vice President, resigns as indicated above.

The positions of "General Agent for Public Relations," "General Agent for Connecting Companies," "General Traffic Superintendent" and "General Plant Superintendent" are abolished.

C. E. Mosley will resign as Secretary and will be elected Treasurer.

W. I. Mizner will be elected Secretary.

H. O. Seymour is appointed General Manager in charge of the Commercial, Plant and Traffic Departments, with headquarters at Milwaukee, Wis.

Clifford Arrick is appointed Manager of the Publicity Department.

CENTRAL UNION TELEPHONE COMPANY.

Alonzo Burt will resign as Treasurer, and as Vice President will assume charge of Operations.

B. W. Trafford, Vice President, resigns as indicated above.

The positions of "General Agent for Public Relations," "General Agent for Connecting Companies," "General Traffic Superintendent" and "General Plant Superintendent" are abolished.

C. E. Mosley will resign as Secretary and will be elected Treasurer.

W. I. Mizner will be elected Secretary.

H. O. Seymour is appointed General Manager in charge of the Commercial, Plant and Traffic Departments, with headquarters at Milwaukee, Wis.

Clifford Arrick is appointed Manager of the Publicity Department.

W. I. Mizner will be elected Secretary.

H. F. Hill will continue as General Manager in charge of the Commercial Department as well as the Plant and Traffic Departments, with headquarters at Chicago, Ill.

E. A. Reed is appointed General Manager in Ohio in charge of Commercial, Plant and Traffic Departments, with headquarters at Columbus, O.

N. Whitney is appointed General Manager in Indiana in charge of Commercial, Plant and Traffic Departments, with headquarters at Indianapolis, Ind.

Clifford Arrick is appointed Manager of the Publicity Department.

THE CLEVELAND TELEPHONE COMPANY.

Alonzo Burt will resign as Treasurer, and as Vice President will assume charge of Operations.

B. W. Trafford, Vice President, resigns as indicated above.

The positions of "General Agent for Public Relations," "General Agent for Connecting Companies," "General Traffic Superintendent" and "General Plant Superintendent" are abolished.

C. E. Mosley will resign as Secretary and will be elected Treasurer.

W. I. Mizner will be elected Secretary.

E. A. Reed is appointed General Manager in charge of Commercial, Plant and Traffic Departments, with headquarters at Columbus, Ohio.

Clifford Arrick is appointed Manager of the Publicity Department.

MICHIGAN STATE TELEPHONE COMPANY.

Alonzo Burt will resign as Treasurer, and as Vice President will assume charge of Operations.

B. W. Trafford, Vice President, resigns as indicated above.

The positions of "General Agent for Public Relations," "General Agent for Connecting Companies," "General Traffic Superintendent" and "General Plant Superintendent" are abolished.

C. E. Mosley will resign as Secretary and will be elected Treasurer.

W. I. Mizner will be elected Secretary.

A. von Schlegell is appointed General Manager in charge of Commercial, Plant and Traffic Departments, with headquarters at Detroit, Mich.

Clifford Arrick is appointed Manager of the Publicity Department.

While these changes will be effective as of July 1st, 1912, it will necessarily require considerable time to complete the transfer of duties and to make necessary changes in locations. In the meantime, and until further instructions, the present routine with reference to reports may be followed.

I urge for this modified plan of organization the hearty co-operation of all employees.

B. E. SUNNY,
President.

Under this organization the assignments in the several states will be as follows:

OHIO.

General Manager, E. A. Reed, Columbus.

Engineer, Allard Smith, Columbus.

Columbus Division.

Commercial Superintendent, R. R. Stevens, Columbus.

Plant Superintendent, H. C. Sherer, Columbus.

Traffic Superintendent, F. W. Whitten, Columbus.

Local Attorney, to be appointed.

Cleveland Division.

Commercial Superintendent, P. Yensen, Cleveland.

Plant Superintendent, E. E. Ranney, Cleveland.

Traffic Superintendent, N. Anderson, Cleveland.

Local Attorney, to be appointed.

ILLINOIS.

General Manager, H. F. Hill, Chicago.

Assistant General Manager, S. J. Larned, Chicago.

General Commercial Superintendent, W. R. Abbott, Chicago.

General Plant Superintendent, Frank Redmund, Chicago.

General Traffic Superintendent, S. J. Larned, Chicago.

Engineer, W. R. McGovern, Chicago.

Attorneys, Chicago Telephone Company, Holt, Wheeler & Sidley, Chicago.

Attorney, Central Union Telephone Company, W. B. Mann, Chicago.

Chicago Division.

Commercial Superintendent, A. M. Ramsay, Chicago.

Construction Superintendent, Robert Cline, Chicago.

Maintenance Superintendent, Verne Ray, Chicago.

Traffic Superintendent, H. N. Foster, Chicago.

Suburban Division.

Commercial Superintendent, O. J. Holbrook, Chicago.

Plant Superintendent, L. C. Jones, Chicago.

Traffic Superintendent, F. A. de Peyster, Chicago.

Central Union Division.

Commercial Superintendent, C. H. Rotger, Springfield.

Plant Superintendent, H. B. Lewis, Springfield.

Traffic Superintendent, F. A. de Peyster, Chicago.

INDIANA.

General Manager, L. N. Whitney, Indianapolis.

Commercial Superintendent, G. C. Brooks, Indianapolis.

Plant Superintendent, W. R. Hirst, Indianapolis.

Traffic Superintendent, J. L. Wayne, Indianapolis.

Engineer, B. D. Wilbur, Indianapolis.

Local Attorney, to be appointed.

MICHIGAN.

General Manager, A. von Schlegell, Detroit.

Commercial Superintendent, G. M. Welch, Detroit.

Plant Superintendent, C. L. Boyce, Detroit.

Traffic Superintendent, G. E. Kerwin, Detroit.

Engineer, C. Kitttridge, Detroit.

Local Attorney, W. E. Thompson, Detroit.

WISCONSIN.

General Manager, H. O. Seymour, Milwaukee.

Commercial Superintendent, F. M. McEniry, Milwaukee.

Plant Superintendent, L. Killam, Milwaukee.

Traffic Superintendent, F. H. Lincoln, Milwaukee.

Engineer, to be appointed.

Local Attorney, J. F. Krizek, Milwaukee.

The routines now in force will continue until otherwise ordered, except that reports heretofore sent to the general plant superintendent, general traffic superintendent, general agent for public relations, and general agent for connecting companies at Chicago will now be forwarded to the general managers at their respective state headquarters. For the state of Illinois, however, the routine for reports to the general plant superintendent, general traffic superintendent and general commercial superintendent remain as heretofore. The position of general plant superintendent of the Chicago Telephone Company, as such, has been abolished and the position of general plant superintendent for the three divisions in Illinois substituted.

Vice-president Burt, who becomes the operating officer under the new organization, when asked for a word about the companies' policy toward employees, said:

"There will be no general shake-up, and no good man need be at all nervous about his position. The new alignment has brought promotion to a number of men in the force. The opportunity for advancement has been substantially broadened, and promotions will continue to be made from the ranks and on individual merit. We must keep in mind, however, that it is no small task to supply satisfactory telephone service to the 18,000,000 people embraced in our territory, and that we can only succeed by every individual in the organization knowing his or her duty, and performing it on the basis of a square deal to the public, which is really our employer, a square deal to the company, and a square deal to each other. I believe we shall be found equal to the job."

B. W. TRAFFORD RESIGNS.

Vice President of Central Group Accepts Position With Large Bank in Boston.

B. W. Trafford has resigned his position as vice president of the five Bell telephone companies of the Central Group and will become vice president of the First National Bank, of Boston, Mass. Mr. Trafford's resignation took effect July 1st and he is now touring Europe on a vacation. He will take up his new duties in Boston in September.

On June 28th President Sunny gave a luncheon in honor of Mr. Trafford at which the higher officials who had been associated with Mr. Trafford during the preceding year were present to bid him farewell and wish him good luck in his new undertaking.



ORGANIZATION CHANGES AS SEEN BY CARTOONIST.

RETURN OF MR. SEYMOUR

Contributed by One of His Admirers and Friends in Milwaukee.

On July 1st H. O. Seymour became general manager of the Wisconsin Telephone Company with headquarters at the general offices of the company at Milwaukee.

The reasons for the important move, which resulted in placing a general manager in each of the five states comprising the territory of the Central Group of Bell Companies, who will have full supervision of all branches of the business, are more specifically given in another article in this paper.

Aside and apart from the very important business reasons which bring back to us Mr. Seymour, employees of the Wisconsin Telephone Company, as well as the general public have every reason to feel extremely happy on the return of Mr. Seymour to this state to take up the managership of its affairs.

Mr. Seymour, through his uniform fairness and fine sense of consideration for others, has endeared himself to all of his fellow workers in Wisconsin, and all look forward with pleasant anticipation to having him with them again, not only as their leader, but also as their friend.

The same sentiment toward Mr. Seymour obtains with the telephone using public, and expressions of good-will and congratulations are coming from all parts of the state upon the return of Mr. Seymour to take up the work of general manager.

When Mr. Seymour left for Chicago, upwards of one year ago, to take up the duties of general agent for public relations with the Central Group of Bell Telephone companies, which was then organized, his departure was marked by the good wishes on the part of both his fellow workers as well as all others with whom he came in contact in a business and social way; but while God-speed and good-luck to Mr. Seymour were the common expressions on all sides, his departure, from a more personal viewpoint, was tinged with a keen regret on the part of all who had the good fortune to know Mr. Seymour, either as an employer or as a friend.

Mr. Seymour, however, while having his headquarters in Chicago since that time, and being necessarily more or less removed from the previous close personal association with his co-workers in Wisconsin, lost no opportunity to visit with his "boys" and "girls" in Wisconsin, and it follows that Mr. Seymour will need no introduction to either the employees of the company or to the public in Wisconsin now that he comes again to take up the reins as general manager.



GENERAL-MANAGER H. O. SEYMOUR IN HIS OFFICE AT MILWAUKEE.

It goes without saying that Mr. Seymour's return will give added stimulus and energy to every one connected with this great organization, and there surely will be no lacking on the part of one and all in the faithful and loyal discharge of their duties; and after all, we can, in this way, best and most truly express to Mr. Seymour that we are glad that he has come back to us.

When Mr. Seymour came into his office on the morning of July 1st, he found his desk and surrounding furniture covered with flowers, and was met by the superintendents in charge of the several departments and their subordinates who warmly welcomed him back to Wisconsin.

Mr. Seymour, in reply, expressed happiness in being able to be with his

associates here again and assured all that it would be his endeavor and policy to carry on the work, with the assistance of his fellow workers, in a way that would make for the best results both from the standpoint of furnishing adequate and satisfactory service to the public, as well as keeping the employees, one and all, happy and ambitious in the different duties in which they are engaged.

But You're More Liable To.

She: "In a way, getting married is like using the telephone."

He: "How so?"

She: "One doesn't always get the party one wants."—*Boston Transcript.*

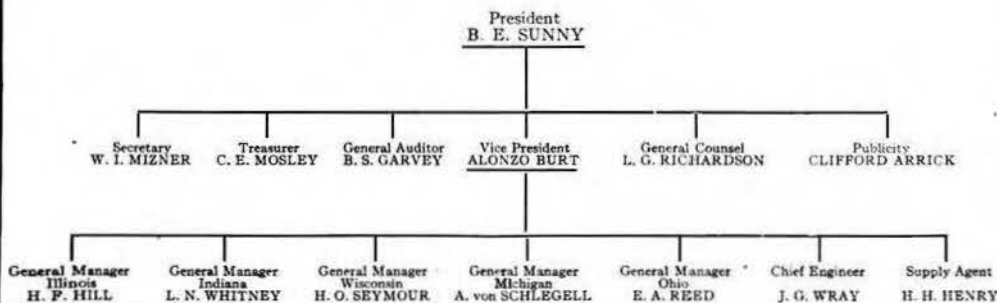
"TELEGRAM" NOT TO BE USED AS CALL WORD

Changes To Be Made Following Decision of Public Utilities Commission.

The Postal Telegraph-Cable Company in the State of New York made a complaint to the Public Utility Commission that the telephone company was diverting business intended for it to the Western Union Telegraph Company. The Commission took the ground that there was a possible discrimination against the Postal Company in permitting the word "telegram" as a designation for the Western Union Telegraph Company. A hearing was held, and arguments made for and against the use of the word. The decision of the Commission is to the effect that the word "telegram" should not be used as a call word for the Western Union Telegraph Company, or for any other telegraph company within the state.

Following the decision of the Commission, the New York Telephone Company has adopted the words "Western Union" as a designation of The Western Union Telegraph Company, and the word "Postal" as a designation of the Postal Telegraph-Cable Company. For the sake of uniformity these designations will be adopted in the territory of the five Bell telephone companies of the Central Group.

CHART SHOWING ORGANIZATION AS EFFECTIVE JULY 1, 1912.



Standardization of Local Operating Practice

By E. B. FAIRMAN

(Paper Read Before the Traffic Conference in Chicago, April 10, 1912)

(Concluded From Last Month.)

Considering only the few instances which I have pointed out where standardization of local operating methods will assist in the promotion of comparable force efficiency and service observing reports, it seems evident this work will never be brought to a proper degree of development until the highest practicable uniformity of operating practice is secured.

To illustrate further the need of more uniform operating methods I might cite a situation that has arisen and of which we have an exemplification here in our own Central group of companies. During the time in which the work of standardization has been in progress, the thirty associate companies previously mentioned have been organized into about a dozen operating units. Many of the territories embraced in one operating unit were previously covered by several local companies and the conditions at present applying to the country as a whole are now found to exist to a great extent within the boundaries of the same organization. In order to deal intelligently with each portion of the new organizations, it will be necessary to eliminate differences in practice. Executives find that, in order to establish uniform and efficient service in their territory, to introduce standard equipment and to secure comparable reports on operating efficiency, they must first eliminate many differences in operating practice. The work which confronts many of these companies in this direction is, in a smaller way, that which is already being done by the committee and there seems no reason why the work we are doing will not, as fast as completed, become available for application within the territories of the new operating units. As the practices are made standard they can be utilized, thus eliminating the necessity of many off-hand decisions or the expense and time of investigating locally the relative merits of the different methods in service.

Improvements to Follow.

Having briefly surveyed the underlying necessities for securing a standard operating practice, I wish to present a few ideas on the advantages and developments that will naturally follow the successful conclusion of the work.

We should not only secure a more uniform operating practice, but we

hope to secure a considerably improved operating practice. The present practices of the associate companies are largely a result of forced development. As conditions have arisen methods have been devised to meet them. These methods were often the result of hasty conferences, or the ready-made opinion of one or more men. Comparatively few methods I venture to say, have resulted from a critical study of conditions supplemented by a close observation of the working of the method after it was put into effect. The advantage that might be obtained from a careful analysis of the methods of several companies as applied to similar conditions has not been frequently utilized. This last is readily accounted for when it is considered that a comparison of methods is seldom of value without complete information as to the underlying reasons for the method and the exact conditions under which it applies. The general policy of the company and department must also be known before the merits of specific methods can be correctly judged.

The principal function of the committee, as at present organized, is to compare the methods of the larger associate companies, to select the best features of each practice, and to offer them for discussion, giving, as far as possible, the reasons for the selection. There seems no question but that much will be gained from this comparative study. As has been demonstrated, the companies have become widely divergent in their operating methods, each usually reaching a high degree of development along particular lines. It is evident, the most readily available road to future progress is through taking every advantage of the work done by all companies.

The selection of operating methods is largely based on three considerations, the operating labor involved, cost of equipment used, and the advantages to the public. Many instances might be given where the comparative work already done has shown that each of the three elements might be better served by a modification of methods. I have previously outlined some points where the amount of operating labor being expended in handling the same class of call varies considerably. We have in our recommendations been able frequently to select or determine upon a method

which will on the average tend toward a reduction in operating labor.

One of the most apparent places where improvement will result through a thorough comparison of methods is the advantage to the public from the improvement in service. Usually, the value of such improvement has to be weighed against the cost of furnishing the service. These points we have had constantly to consider in handling our work, and it is often difficult properly to evaluate the different elements. The value of any certain service to the public is an especially intangible consideration. It is interesting, however, in this connection, to note that our investigation has shown many places where improvement in the service rendered could be effected without appreciable additional expense. They are small points, perhaps, and are not to be taken as affecting the practice of all companies but anything which tends to decrease the liability to error and improve the service is not to be overlooked. I will mention a few of these points here:

(1). A careful study has shown the letters to use for station designations on jack-per-line party lines, best calculated to reduce misunderstandings.

(2). A complete system of multiple marking has been formulated together with a system for its application and checking. As this will usually supersede a poorer system it will tend to improve service.

(3). Considerable attention has been given to the selection of operator's phrases, to make them more easily understood and more courteous. As far as it applies we plan to use the word "Please" at the termination of phrases in which position it is most effective. We have, for example, made a considerable investigation of the phrases used in answering subscribers who report cases of "My bell rang." It is a difficult situation to handle at all satisfactorily and the efficiency of the phrases so far tried out varies widely.

(4). Whenever it could consistently be arranged, the subscriber has not been compelled to give his order a second time even though the connection is handled by more than one operator. This applies to ringdown trunked calls and is being considered in connection with two-number toll calls.

(5). Loss of calls has been avoided by extending the period for reporting "Don't answer" to cover the time during which extensive observations have shown practically ninety-seven per cent. of the called parties will have responded. By extending the period of the "Don't answer" report the calling party is encouraged to remain at the telephone for a longer period.

(6). We have endeavored to reduce the number of "My bell rang" reports by holding the called line for a reasonable period after the call has been abandoned by the calling party. In this way we are able, should the called party respond, to give him a somewhat more definite and satisfactory report.

(7). Through connections to the called station have been planned on calls for numbers which have been changed and to some extent on calls in multi-office districts which are sent to the wrong central office.

(8). Double connections have been avoided as far as possible by the testing of out-trunk assignments.

(9). A routine has been developed for quickly re-establishing cutoffs and for the more rapid clearance of double connections.

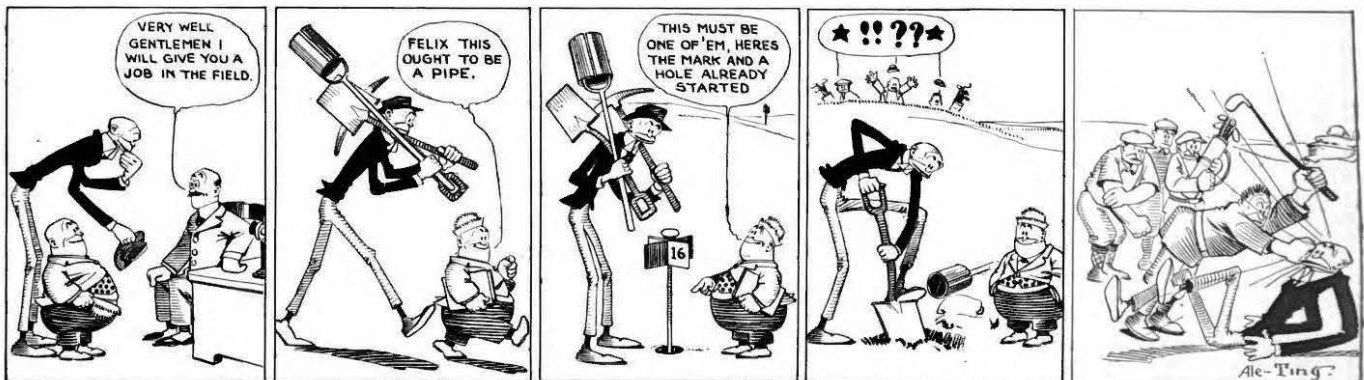
(10). Special precaution has been taken against overcharge, particularly on registered measured service, and a liberal and efficient routine has been outlined covering the adjustment of disputes regarding deposit in coin boxes.

As previously intimated, some of the above items of improved service and the many others which we have considered are already adequately covered by some companies. I believe sufficient points have been included to give an idea of the many possible improvements in service even outside of those which carry with them a definite increase in operating or equipment cost.

In addition to the benefits we expect to derive from a comparative study of operating methods, there are certain by-products of the present work that appear of considerable importance, such as the many special studies which it has so far been necessary to make in determining and verifying recommendations, and the incentive that has been given to study and closer observation of the effects of operating methods in all companies directly concerned. From both these sources, valuable information has been obtained, and I cannot commend too highly the value of opinions and information we have received from the men in the field to whom we have submitted questions on operating practice.

The reasons I have attempted to bring to your attention as justification for the labor and trouble involved in standardizing local operating practice appear to be more than sufficient. I feel, however, there is a still more important reason than any of those given for putting forward every endeavor to push this work to a satisfactory conclusion; that is, the more rapid and more general improvement in equipment and in operating practice that will follow the establishment of generally accepted methods. Heretofore it has been largely every man for himself, every company for itself, in the improvement of service. Developments of equipment to relieve the operator of certain labor have been handicapped through indecision as to whether that labor should, in the first place, be performed. If agreement is reached as to what should be done, the possibilities of developing mechanical means for its accomplishment seem greatly augmented. Take, for example, the testing of trunks. If it is determined that the testing of trunks is desirable, apparatus to remove much of the burden of this work seems

FELIX AND FINK ARE SOMEWHAT UNFORTUNATE IN THE FIELD.



easily available. We have made a limited investigation as to the value of an audible busy signal, of ringing induction, and have endeavored to develop some plan for reducing the work involved in testing large underlined groups. A plan of automatically indicating to the operator that the called party has not responded on calls from registered service lines is also being considered. These merely indicate some of the possibilities of reducing labor by mechanical means. Some of these measures have been successfully tried out by the local companies, but there are still difficulties in the way of their general adoption. Any practicable mechanical relief in the work of the A operator is extremely desirable.


It is true that there is at present apparatus being developed which will entirely eliminate many of the operating methods which we have considered and which seem to admit of reduced labor through mechanical improvement. By this I refer to the automatic listening and ringing A board as developed at Youngstown, Ohio, and the semi-mechanical board being developed by the Western Electric Company. I will add, however, that the development of these boards is, in a measure, dependent upon the definite determination of the character of service we desire to render; for example, in the completion of "busy" and "don't answer" calls, in the handling of multiple marking calls, of information traffic, delayed answer calls, etc.

Given universally accepted operating methods, improvements in practice are bound to follow more rapidly than in the past, up to the point when the entire method may be superseded by mechanical means. Suggestions for improvement will emanate from many sources instead of from a few, and if properly submitted, investigated and approved, will become available for all companies instead of being bottled up within one company or district. The adoption of standard methods has, by some, been looked upon as a stifling process for individual effort and initiative. We are inclined to look upon this question in an exactly opposite light. Under present conditions, allowed full latitude and without complete information as to the work done elsewhere, much time and effort is undoubtedly being wasted in doing work that has already been done; in adopting methods which have been discarded or improved upon. Given the benefit of the best ideas on the subject, there must still be plenty of latitude for the investment of original ideas, and the proportion of such ideas containing real value will undoubtedly be greatly increased. There will be an increased incentive in that idea, proving of value in one territory, will in most cases be found available for use throughout the country.

We have read much in recent years in regard to scientific management, investigations that modified the size of a workman's shovel according to the material handled, that told a bricklayer how to increase the results of his labor by a large per cent. without adding anything to his exertion. The accounts of the years of investigation necessary to determine the best way in which to operate a machine, together with the resultant 50 to 100 per cent. increase in product have been illuminating.

The opportunities for work of this kind with present equipment appear to be limited only by the development of mechanical improvements designed to eliminate entirely the operation under consideration. The work of an operator on a most ordinary call is complicated, the movements are many, and the distance traveled by her

Running is too Slow



TELEPHONE—Our messenger will be at your house with the medicine or goods quicker than you could reach our store.

TELEPHONE—It saves you time, trouble, expense and it's quickest.

TELEPHONE—You will find it a surprisingly pleasant and satisfactory way to trade.

Our telephone No. is 126.

WIECHMANN'S PHARMACY

74 STEPS FROM LINCOLN COUNTY BANK

A GOOD SAMPLE OF "PULLING" AD. COPY.

hands has been roughly estimated to vary between twenty and thirty feet per connection. There seems no doubt that carefully conducted investigation would show methods of overlapping or eliminating motions, and otherwise decreasing the time and labor involved. Something in this line has recently been done in connection with handling of calls from postpayment coin stations, in fanning cords by A and B operators and the results obtained seem to indicate ample opportunity for improvement of present generally accepted operating methods.

Bearing in mind all its phases, it is evident that the opportunities afforded individual initiative and local enterprise are increased by the present work of standardization. There is a recognized danger in too placid an acceptance of standards as the final answer and through a disinclination to incorporate improvements because of the difficulties involved in the investigation and in securing general adoption of any change. Judging both from the independent progress made by the associate companies in the past and the manner in which the present work has been conducted, there is little danger to be apprehended from this source. I should say there were more liability of a return to present conditions through lack of observance of standards and sufficiently close co-operation. Either of these extremes must be guarded against. Personally, it seems to me the natural evolution of the present work will be a stimulated development of plans for improving standard methods, supplemented by investigation either by the local companies or the A. T. & T. Company, and frequent regular conferences of representatives of all companies to discuss improvements and revisions in standard methods. Some such simple provision for keeping in touch with developments throughout the country will afford every opportunity and incentive to individual or local initiative.

There is but little space left in which to outline for you the progress made in the work. From the complex mass of material on hand at first, we have gradually evolved a series of thirty bulletins to cover the field of our work. Of these, sixteen have been written, twelve of which have been submitted to only the four companies directly represented on the committee, while four of the sixteen have been sent to all the companies in the form of preliminary traffic circulars. We are preparing now to issue final traffic circulars on the four which have been submitted to all companies for comment and as fast as replies are received, we will re-write the twelve bulletins and forward them to all associate companies as preliminary traffic circulars. Of the remaining fourteen

bulletins, ten are now being written up, the remaining four being delayed because dependent to a large extent on decisions in connection with bulletins already issued to the four companies.

Progress has been as rapid and satisfactory as could be expected when all of the difficulties of the situation are considered. Our plan of procedure is to examine principally the practices of the four companies and as far as practical, recommend the best that appears in them. It has often been found necessary to secure data before any selection could be made, or to conduct special investigations. In this, we have received the most hearty co-operation from the men in the field who freely lent us their time and that of their forces to secure necessary information.

After a comparison of methods or an investigation, or both, has seemed to disclose a best method, or we have felt compelled to propose an entirely new method, the task of assembling the material into the form of a bulletin is encountered. If you have never endeavored to outline an operating practice so that its form, headings, language, statements and arguments would be sufficiently smooth, correct, forceful and inclusive to satisfy a group of critics from different local companies, you have missed a real experience. After one has at hand practically all the material necessary, two or three weeks is usually required to whip a bulletin into shape and secure for it a committee agreement. The bulletins we have issued may not be literary classics, but I assure you if not, it is not through lack of effort or attention to their construction.

A bulletin when issued goes to the four larger companies for criticism and suggestions. When enough of our work is completed so that we can follow the influences of a method clear through the practice, we will endeavor to adjust the disagreements on the work already put out. This we anticipate will be a very difficult matter. There are differences in opinion only, differences in local conditions and general policy to be considered and from one side, the task looks insuperable. On the other hand, judging from what we have been able to accomplish and agreements already secured, there is every hope for securing generally satisfactory results, within a reasonable time.

In closing, I wish again to direct your attention to the important nature of this work and the many urgent reasons for its successful completion. There is a call for the heartiest kind of co-operation in boosting this work. Its success depends upon a full realization of the ends to be attained and on the spread of the "get together" spirit from the confines of local dis-

tricts or local organizations to the broader field which includes all associate companies. We must sink local differences and largely sacrifice local opinion for the good of the cause. Proposed methods should not be viewed from the standpoint of how well they apply locally or whether they meet local conditions as well as some method already in service, but should be taken first from the standpoint as to how well they meet conditions throughout the country, placing their local application second. Usually, in this way, the proposed method will be much more acceptable and on trial it will generally be found to be as good if not better than the method already in use. Local conditions must of course, be given due weight, but in considering operating methods, it should be remembered that personal opinion is extremely prone to favor that to which one is accustomed and especially that which one has fathered and promoted—it is thus liable to be an unreliable guide, meriting considerable distrust, unless supported by thorough trials and observations.

The A. T. & T. Company engineers in undertaking the standardization of local operating practice have accepted a work of considerable responsibility. They are proceeding cautiously and with due regard to local situations and the value of practical experience.

By securing representation from the different larger companies they have taken precaution against the results having a local flavor, and continual endeavor will be made to keep in touch with the work in the field.

In view of its importance, they will have every desire to push the work to a satisfactory conclusion, and work of this character requires much pushing lest it drag interminably. To succeed, they must have prompt consideration of all bulletins submitted and most open minded consideration by all operating men of the work submitted.

In many ways, it at present appears more essential that there should be an established standard practice than that all items of this standard should be the best obtainable. There will be ample time and opportunity for improvement on the more solid basis of general experience after the standard practice is in service.

The Pulpit Telephone.

A Leavenworth pulpit has a telephone attached to it, so that members of the congregation who are unable to attend the service can hear the sermon.

This seems like an exemplary provision for the stay-at-homes. It may be in spots, a helpful arrangement for those who are troubled with insomnia, and it will afford some amusement, no doubt, for the listeners who enjoy the comments of other listeners.

"Yes, Mary," a voice may be expected to say, "the parson is just tuning up. He's talking about the virtue of controlling one's temper. You ought to hear this, Mary. It's good stuff. He says we should be gentle and loving and always temperate in word and deed. Say, get off the line there, you loafer! What do you mean by butting in when a gentleman's talking? Get away!"

"Somebody on the line, George."

"Oh, no. What put that in your wooden head. It's only a gay gazoolian walking a tight rope. Confound him, he's made me miss the best part of the pastor's sermon!"—W. R. Rose, Cleveland Plain Dealer.

And Good Ears.

A nose for news has Auntie Bliss. That's really something fine. She gets the things the papers miss. She's on a party line.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

TELEPHONE BUILDING

CHICAGO, ILLINOIS

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 31,800 copies per month.

AUGUST, 1912.

INCREASE TOLL REVENUE.

President Sunney has asked that an extra effort be made to increase toll revenue during the last six months of 1912. Our tolls have shown gains during the first six months with apparently little effort on the part of the commercial people.

The figures set for the toll earnings for 1912 will require an increase as figured from our earnings for 1911 and the first half of 1912. This means that everybody will have to be on the job. Every little helps. Every employee will have to keep in mind constantly our toll revenue, and by canvassing and other methods to do all in his power to keep our patrons interested in our toll service and induce them to use more of it.

We want to pay special attention to the proper signing of our public stations; seeing that proper outside and inside signs are placed, that our booths are properly located and properly signed and also that they are kept in clean, presentable and inviting condition.

We want to establish public telephones at all points where there is a possible chance of securing additional revenue. At conventions, fairs and other large gatherings, where it is thought it might be profitable we should establish facilities for furnishing telephone service, placing attendants and properly advertising our service at these points, using such places as a medium for distributing advertising if the gatherings are places where men congregate. It would hardly pay us to distribute advertising if it were a gathering of women and children.

You should avoid, as far as possible, the "no toll" stations and cut out such stations if it can be done—that is, keep all our stations open for toll connections.

Our canvassers, managers and collectors should constantly talk toll service. Whenever possible, we should adjust toll rates to standard and so far as possible cut out all free tolls between exchanges. We should also work with the employees of our connecting companies to get them interested in the increasing toll revenue.

MOULDING PUBLIC OPINION.

"Do not forget that the ruling power in any community is public opinion and that every man and woman, in a measure, is responsible for that public opinion because they help to make it. It might be pertinent to ask what sort of sentiment are you helping to create. This is well worth thinking about."—*Dollars and Sense*.

As telephone men and women, do we realize that we are the makers of public opinion regarding the telephone business. Supposing a storm should come tonight and put out half the telephones in our exchange, how will the people feel about it tomorrow.

Will they say: "This old telephone is a perfect nuisance, after every storm it is out of order for a whole day!" Or, will they say, "I'd hate to be the telephone company. Wind and lightning play

havoc with wires and cables in the suburban districts. But we ought to be patient; they have rushed in men and they are working night and day to put things in order!"

What they say will depend entirely upon how they have been influenced by public opinion.

Supposing that we should compile a report of a storm, first showing a map, outlining the area of the storm. In tabulation, supposing we should present the actual facts. Supposing that we should then show photographs presenting several features of the break, newspaper clippings from several different towns setting forth "Damage to Wire Companies Great," in big black headlines and the engineers' estimates of the actual damage in dollars and cents.

Give any man who criticises your rates or your intentions toward the public a report of this kind to read, and it might have a great deal of influence upon his opinion. Give a dozen men the same report, and their opinion thus formed will influence a dozen others. It is truly remarkable how easy it is to mould public opinion, and especially so when the public opinion you try to mould is to be moulded by fact and truth.

We cannot all get complete reports in concrete form, but we can get a tabulation of the facts in our mind and then recite them whenever the opportunity offers. This is the way to mould public opinion. This is the way to make the people say: "Isn't it wonderful how quickly the telephone company gets our telephones fixed after a storm. That manager we have here is a hustler!"

STANDARDIZATION AND UTILIZATION.

Standardization of equipment, to the end that service to the public may be maintained at fixed standards of excellence, is one of the great aims of the Bell telephone system. This aim has been given wide publicity and the Bell engineers and employees generally have come to look upon complete standardization as one of the various summations devoutly to be wished. And so it is.

But in our zeal to standardize we sometimes forget that we must also utilize. And here we come to the real definition of standardization as it applies to telephone practice. A standard equipment does not mean necessarily the latest style of apparatus. It means an equipment which, when installed, was the latest type adapted to the needs of the service and which is maintained at such a degree of repair and in such working order as will permit the service to be kept up to traffic standards. There is, of course, a point where the increasing cost of maintenance makes new equipment imperative, but until this point is reached, standard service can be rendered and a better return realized by the use of the existing equipment than would be possible if it should be torn out and a new system installed. The problems connected with standardizing the service in such exchanges are those which reflect the greatest credit on the traffic engineers and supervisory officials in their solution.

In short, we must utilize as well as standardize. We cannot throw away good material merely for the sake of taking up a new style, even though the new style may be slightly or even considerably more desirable. For instance, the latest type of construction might call for galvanized cross-arm braces. This would not mean that any perfectly good cross-arm braces of another type should be removed. The braces in use would be expected to be utilized as long as they were serviceable. However, whenever new braces were put up the galvanized type would be used. Of course, when new systems are installed they are invariably up to date. As the plant is gradually rebuilt from year to year, the whole system becomes slowly more uniform as the changes in style of equipment are now less radical than they were a few years ago. The changes which are devised are mostly for the purpose of making the apparatus work more efficiently or economically in producing a service, the standard of which is already fixed.

THE TUG OF WAR.

When the Chicago Telephone and Western Electric employees held their annual field meet a few weeks ago, one of the principal events was a "tug of war." This contest was not conducted in the manner usual at picnics, but was staged upon a special framework of stout timbers, upon which the husky contenders sat with feet braced while their efforts were recorded on a dial which showed when either side gained a single inch of advantage in the pull of the rope.

As soon as the first signal was given the Western Electric fellows, by a sudden pull, gained a few inches start, which the telephone boys were unable to recover. The Western Electric stalwarts, from

time to time, increased this advantage by concerted heaves on the rope, the five men pulling as one in a sudden supreme effort. They had carefully studied out their work in advance, and each man knew exactly what to do and when to do it. Their opponents, on the other hand, while men of great strength and pulling valiantly, were overcome by superior team work and training.

Team work was the thing that produced the result, as team work will likewise produce results in every field of endeavor.

B. W. TRAFFORD.

In the withdrawal of B. W. Trafford from the group of high executives in the telephone organization, the industry loses a man who had made a record of accomplishment through many years of active effort. His whole business life, from the time he left college, was devoted to the telephone, and he advanced rapidly from one position of trust to another.

The First National Bank of Boston is to be congratulated on the acquisition of an official of the ability of Mr. Trafford.

MARKETING BY TELEPHONE.

Go into a grocery store and see the women there plodding about among the foods, sweeping up the floor with their skirts that but recently were dragged along the streets. Watch them fingering, smelling and tasting, worrying and puzzling over what to buy and what not, and then ask yourself if the home method of shopping over the telephone is not the saner?

The telephonic marketer can take her choice of the places at which she may care to trade. She may go near or far, to the big store or the little store. She may trade in the heart of the business district just as handily as at the corner grocer's.

A girl at a telephone can take down more orders in five minutes than a clerk can secure in an hour. Think of the time, trouble and clerk's hire this saves, to say nothing of the protection of the grocer's stock. One sampling, curious woman can finger more profits off a stock of produce than can be made up in a dozen sales. A telephone in a grocery store, meat market, or shop of any kind is worth half a dozen ordinary clerks.

APPLY YOUR KNOWLEDGE.

The trouble with a good many of us, is that we will not do more than is expected of us. We do not use any more effort than we believe is equivalent to the sum we receive.

"What's the use?" we say; "they won't appreciate it anyway." We may have brain power and experience that are the necessary qualifications to fill that opening for which a good man is needed, but no one knows it but ourselves. Our employer may know that we have experience, but have we shown him that we possess ability? Experience does not necessarily mean "ability." Have we given him a chance to judge the good that is in us? Our fellow employees keep forging ahead while we straggle in the race.

We must change our pace to reach the intended goal or we will stay in a rut, when we might as well be doing first-class work. Apply the knowledge you possess and the skill you are capable of and you will be sure to get better results.

Vacation days are here and from reports which are being received daily there is no room to doubt that the telephone employees in the Central Group are enjoying themselves to the fullest extent.

We publish in this issue a few pictures which have come in of some of the vacation places visited by the girls. These we selected to show that telephone girls know how to pick out suitable outing places and how to enjoy themselves when they get there. Hundreds of notices have been submitted, but it would not be possible to devote the space necessary to print them all.

We are glad the employees can have these vacations and can enjoy them so thoroughly. There is nothing so helpful as a little relaxation from work and responsibility, especially in the hot season. If we are not able to chronicle the happenings of these vacations we can at least congratulate those who are enjoying them.

The single telephone system will improve the disposition, soften the temper and quiet the nerves. —*Herald, Quincy, Ill.*

Does your employer regard you as an asset or a liability?

Chicago Telephone Company
 Wisconsin Telephone Company
 Central Union Telephone Company
 The Cleveland Telephone Company
 Michigan State Telephone Company

General Headquarters
 230 West Washington Street
 CHICAGO

R. E. Sunny, President.
 Alonzo Burt, Vice President.
 W. I. Mizner, Secretary.
 C. E. Mosley, Treasurer.
 L. G. Richardson, General Counsel.
 B. S. Garvey, General Auditor.
 Clifford Arrick, Manager Publicity Department.
 H. F. Hill, General Manager, Chicago, Ill.
 H. O. Seymour, General Manager, Milwaukee, Wis.
 A. von Schlegell, General Manager, Detroit, Mich.
 E. A. Reed, General Manager, Columbus, Ohio.
 L. N. Whitney, General Manager, Indianapolis, Ind.



W. I. MIZNER,
 Newly Elected Secretary of the Central
 Group of Bell Telephone Companies.

BOOK REVIEWS

TOLL TELEPHONE PRACTICE, by J. Bernhard Theiss and Guy A. Joy with an introductory chapter by Frank F. Fowle. The authors state that the great development in the telephone business has made it practically impossible to cover the subject as a whole in any exhaustive manner and therefore they feel justified in bringing out a book dealing with toll practice alone.

The book contains 418 pages of descriptive matter, illustrations, and diagrams. The introductory chapter by Mr. Fowle is of particular interest from a historical point of view. Following the introductory chapter about sixty per cent. is devoted to equipment, fifteen per cent. to line construction, fifteen per cent. to electrical reactivities in telephone lines, and ten per cent. to testing maintenance and the telephone repeater, in the order given.

The general subject of equipment is dealt with largely from a circuit point of view and very clear descriptions giving the details of operation of each circuit, in connection with the unusually clear schematic circuit drawings makes it very easy to understand them. Circuits are given for both independent and Bell companies, and outline what was usually recognized as standard practice up to the time the book went to press.

Discussions are also entered into as to application of circuits and reasons for following certain practices. No attempt has been made to deal with the electrical properties to be considered in the design of the circuits, it being assumed by the authors that the reader has at least an elementary knowledge of the laws of electricity or access to the many books published dealing with such matters.

It is to be regretted that the subject of operating methods was not taken up in this book, and it is hoped that in a subsequent edition this will be done.

Under line construction the text and accompanying diagrams cover largely standard practice as the time written. Attention has been given to the various things to be considered in the construction of a pole line, and data and formulae are furnished for use in determining the proper material or the course to pursue in any given case.

The subject of electrical reactivities is introduced to show the savings that can be made by proper attention to construction, transportation, loading, etc., and still attain the same quality of transmission value as could be had by much more expensive construction if such matters were ignored. The subject has been treated from a non-

mathematical standpoint, and should interest the student, engineer, or practical man.

The chapter on testing describes the ordinary methods of testing with the voltmeter and the Wheatstone Bridge.

The chapter on the telephone repeater is largely an abstract taken from an article by Professor John Trowbridge.

This book probably enjoys the distinction of being the only one to date to bring together data pertaining to the particular subject of Toll Telephone Practice, and is well worth reading by anyone interested in the engineering or plant end of the business. (D. Van Nostrand Company, New York.)

Most People Do Same Things at Same Times

Telephone Traffic Studies Show This By Analysis of Loads.

The trend of telephone traffic, the ebb and flow of calls, in a measure portrays the social and business tendencies in different urban localities. If the fluctuation in the number of calls originated from telephones in a residential section of the city are considered with relation to the cause, it will be discovered that the majority of people use the telephone for some certain purpose at about the same time—within a small fraction of a day's time. If it were not for this tendency the number of calls each hour between 8 a. m. and 8 p. m. would be about the same.

Take for example a typical Chicago telephone office, located in a residential district, handling about 50,000 originating calls per day. Records of calls by the hour beginning with 12 o'clock midnight show less than 100 between 12 and 1 a. m. and this number diminishes somewhat during the next hour, and between 2 and 5 a. m. there are about ten calls an hour. Most of the calls between 12 and 5 a. m. are of an emergency nature; that is, calls for doctors, calls for the fire department, calls for the police department, etc. The hour from five to six has more than a hundred calls, which is evidence that the activities of the day are beginning; the retail marketmen are commencing to call the commission houses. These calls increase between six and seven and are augmented by communications between other trades people. Between 7 and 8 the traffic has exceeded 1,500 calls; the housewives and servants commence to call the provision houses

for supplies. This traffic increases rapidly when the hour of eight approaches, and soon thereafter the school children begin calling for the time of day and other members of the household call the department stores. The rate of calling reaches its high point between nine and ten. During this hour 6,000 calls are made. After 10 a. m. the traffic commences to fall off and communications of a social nature displace the business calls to a considerable extent. The traffic remains about constant from 12 noon to 7 p. m., at about 2,600 to 2,800 calls per hour. These calls are largely of a social nature, although a great many appointment calls are made between 11 a. m. and 1 p. m. and some calls for the theaters later in the afternoon. Between 7 and 8 p. m. the traffic increases sharply to about 4,000 calls for the hour. This traffic is practically all of a social nature, largely among the younger set who have a better opportunity to use the telephone at this hour, and it continues at a diminishing rate up to 9 p. m., when things become quiet; less than 1,000 calls occur between 9 and 10 p. m. and soon after ten o'clock the few calls are largely of an emergency nature.

Now if the telephone traffic characteristics of a business district are studied, it will be found that a much greater proportion of calls originated during the entire day are crowded into the period between 9 a. m. and 6 p. m. than in a residential district; about ninety per cent. of the day's traffic occurs between these hours in a business office and sixty-five per cent. in a residence office.

Let us consider the trend of the traffic in a strictly business telephone office of 15,000 telephones, which originate close to 135,000 calls a day. The number of calls between 12 and 6 a. m. averages less than fifty an hour; considerably less in proportion to calls per day than in a residence office. The calls in this period are mostly from newspaper offices, public-service corporations and hotels. Between six and seven the restaurants and hotels begin to call the provision houses. This character of calls probably is in the majority until 8 a. m., when a part of the business houses and offices open, and soon after this hour the traffic increases by leaps and bounds and reaches a maximum rate about 10 a. m. During the hour from 10 to 11 a. m. about 15,000 calls are originated, which is one-fifth of the entire day's business. The number of calls per hour holds nearly constant until 12 noon, when the effect of the lunch period becomes apparent in a decrease of about 2,000 calls per hour between 12 and 2 p. m. The traffic increases again to about 13,500 calls an hour between 2 and 4 p. m. and between 4 and 5 p. m. reaches a volume close to the busiest hour in the morning—about 15,000 calls. Between 5 and 6 p. m. the traffic drops rapidly and only two-thirds of the number in the heaviest hour occur during this period. The rapid decrease continues, there being about 3,500 calls between 6 and 7 p. m. and 2,000 calls between 7 and 8 p. m., until at 8 p. m. the switchboards give evidence of little activity.

The great bulk of the calls originated in a business district between the hours of 8 a. m. and 6 p. m. are of a business character and up until late afternoon largely between business offices, but between 4 and 5 p. m. a great many calls are made for residence telephones; the theory is that the business man downtown usually advises his family at this time if he finds that he is going to be delayed beyond the usual hour of reaching home. The traffic of business offices is subject to more hazardous distortions at this hour than in any other period of the day, because of severe storms and blockaded transportation lines, caus-

ing a great many people to call their homes at the same time, which may overtax telephone operators and trunk lines.

After 6 p. m. there is little traffic from business offices, excepting the newspapers; most of the calls originate in the hotels, clubs and public places.

Organization of Roadway Companies

By CHARLES H. BAU
 Manager at Manitowoc, Wis.

In organizing roadway companies I pursued the following plan, which worked out very well. I obtained a county road map, giving the location and name of each farmer along the roads in the territory I wished to develop. Postal cards were sent to these farmers, notifying them of a meeting to be held in an effort to organize a telephone company, giving place, date and time of meeting. Twenty-five farmers attended the first meeting and the work of organizing was begun. Two farmers on each road within the territory were chosen to interest their neighbors and procure their signatures to an agreement to become members. By the time the second meeting was called we had forty signers. At the second meeting a representative of a telephone supply company was present, who quoted us prices on material and the instruments were ordered. The rest was easy, and before the lines were completed we had over sixty subscribers.

On another occasion I interested the most influential men in the territory I wished to develop and asked them to inform the farmers and arrange a meeting. At the meeting I gave them all the information and advice I could in building the system, with the cost of same, and a company was started.

In organizing a telephone company where it was advisable to locate the central office in a village, I called on the business men, explaining to them the value of a system of telephone lines radiating in all directions from the central office in their village. Also the necessity of starting a telephone company rather than having another line from some other location enter their field.

The manager of an exchange can do nothing better to develop his own exchange than to develop the rural district tributary to his own city, for the rural subscriber usually has friends and relatives who live in the city, and by being able to get them, the friend or relative would be more easily induced to put in a telephone. The more telephones reached in an exchange the more valuable the service will be and the easier it will be to secure more subscribers and increase the telephone facilities to the business man.

Collections Show Money Easy.

An indication of the money conditions in this city is shown by the report of collections of the Central Union Telephone Company during the past month. For this period the company collected 95.8 per cent. of the total accounts on its books. This was a record report for this company. The Bell people will show record gains for the first six months of this year in the number of subscribers. During the past month the company made a net gain of 272 stations. Its new books are now on the presses and will be distributed within the next three weeks.—Ohio State Journal, Columbus.

While it is perhaps true that money is easy in Columbus, the principal reasons for the high percentage of collections are the improved collection methods and the high grade of service being rendered.—Editor.

Telephone Statistics of the World

COMPILED BY
THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

Condition January 1, 1912, and Progress During 1911.

There were approximately 12,453,000 telephones and 29,556,000 miles of telephone wire in use in the world January 1, 1912. Compared with January 1, 1911, this is an increase of ten per cent. in telephones and nine per cent. in wire. A careful estimate places the world's telephone investment January 1, 1912, at about \$1,729,000,000, which is very nearly the value of all gold coin and bullion in the United States. The annual number of telephone conversations may be placed at 22,000,000,000, which is about five times the annual number of passengers carried by all the railroads of the world.

For the purpose of this compilation the world's telephone statistics are generally tabulated in four territorial divisions, as follows:

| | Telephones Jan. 1, 1912. | | | Wire Jan. 1, 1912. | | |
|--------------------------|-----------------------------------|------------|---------------|-----------------------------------|-----------|---------------|
| | Number | Increase | Per cent. | Miles | Increase | Per cent. |
| | (partly estimated), Jan. 1, 1911. | over | | (partly estimated), Jan. 1, 1911. | over | |
| United States..... | 8,362,000 | 10% | 67.1% | 18,179,000 | 9% | 61.5% |
| Canada..... | 335,000 | 18% | 2.7% | 788,000 | 11% | 2.6% |
| Europe..... | 3,239,000 | 9% | 26.0% | 9,461,000 | 8% | 32.0% |
| All other countries..... | 517,000 | 21% | 4.2% | 1,138,000 | 32% | 3.9% |
| Total..... | 12,453,000 | 10% | 100.0% | 29,556,000 | 9% | 100.0% |

The geographical distribution of telephones and wire is shown below:

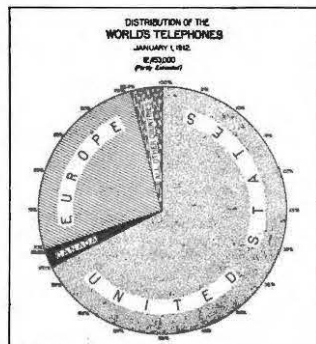
| | Number of Telephones. | | Miles of Wire. | |
|--------------------|-----------------------|-------------------|------------------|-------------------|
| | Jan. 1, 1912. | Jan. 1, 1911. | Jan. 1, 1912. | Jan. 1, 1911. |
| North America..... | 8,729,000 | 7,907,000 | 822,000 | 19,037,000 |
| South America..... | 120,000 | 86,000 | 34,000 | 233,000 |
| Europe..... | 3,239,000 | 2,966,000 | 273,000 | 9,461,000 |
| Asia..... | 166,000 | 149,000 | 17,000 | 358,000 |
| Africa..... | 41,000 | 34,000 | 7,000 | 144,000 |
| Australasia..... | 124,000 | 110,000 | 14,000 | 265,000 |
| Oceania..... | 17,000 | 8,000 | 9,000 | 43,000 |
| West Indies..... | 17,000 | 17,000 | 5,000 | 25,000 |
| Total..... | 12,453,000 | 11,272,000 | 1,181,000 | 29,556,000 |

The year 1911 is the thirty-fifth since the invention of the telephone by Professor Alexander Graham Bell. A survey of the progress of telephone service during the past year, and of the many notable events in connection with this progress, justifies the statement that all civilized nations have awakened to the value of the telephone in commercial and social life.

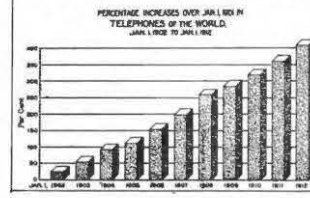
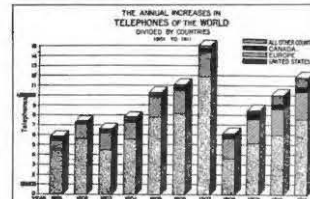
Of the various economic and social forces that underlie the recent telephone progress outside of the United States, one of the most important, and one of far reaching consequence, is the gradual abolition of rate systems that have proved inadequate to the rapid popularization of the telephone and the adoption of systems approximating the system in the United States. The telephone service of most European countries has suffered from the retention of rate systems not suitable to the needs of the public. Now, however, the difficult problem of adapting charges justly proportionate to service rendered, thus equalizing the charges among various classes of consumers, claims the attention of the telephone administrations of important European states. Austria is just emerging from a thorough revision of the old rate system adopted at the opening of the service, the revised schedule having gone into effect January 1, 1911. In Belgium, ever since 1908, considerable agitation has prevailed for more equitable rates. After a careful study of the problem, the Minister in charge of the postal telegraph administrations submitted (September, 1911) a new telephone rate law for the approval of the King, upon the adoption of which an era of

rapid development is predicted. The German telegraph administration, on the other hand, has not yet succeeded in obtaining the approval of the Diet for the proposed change of telephone rates. Indeed, the law as originally drafted has had a rather checkered career. In 1906, in accordance with a resolution of the Reichstag calling for a reform, the Government elaborated a new schedule. This was submitted to a committee of officials and representative business men, January, 1908. In a revised form it reached the Diet, which immediately referred it to a budget committee. In November, 1909, the bill was again submitted, and was again referred to a budget committee, which (December, 1910) adopted a compromise embodying further changes. Early in 1911 the bill, as modified, came back to the Diet for a second

reading, with the same result—a return to the budget committee. The latter prepared a second compromise, but adjourned without further action. What the final outcome will be is a matter of conjecture. The Swiss republic, in consequence of the rate schedule adopted in 1896, faces the problem of equilibrating telephone revenue and expenses. As early as 1903 the Federal Council submitted a report calling for an increase in rates, but political and other considerations prevented the adoption of this recommendation. In 1910 the Federal Council again issued a message on the question of increasing telephone rates. By instruction of the Swiss Parliament, however, the Council was requested to obtain more complete data on average



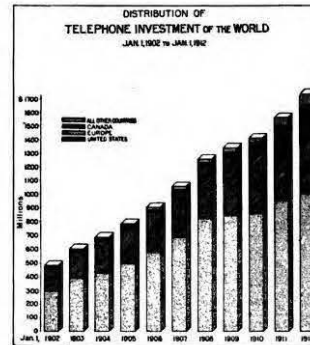
costs and to recast the entire telephone accounts according to commercial accounting principles. The result of such an investigation was embodied in a special report, issued March, 1911, which showed that as figured by the committee, the financial result of twenty-nine years of telephone operation is a deficit of several million francs. With that report was coupled the recommendation that the annual telephone revenue be increased by at least one million francs by increasing both exchange and toll rates. In consequence of the amalgamation of the



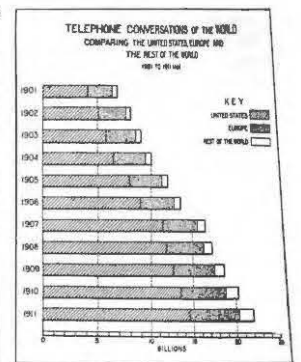
four British colonies that constitute the union of South Africa, the central telephone administration is preparing a new telephone schedule.

Italy, France, Russia, Japan, and the commonwealth of Australia contemplate a thorough reorganization of their telephone service, while Imperial China took the first steps toward the general introduction of the telephone.

The Italian government, by special legislation, has provided \$600,000 for

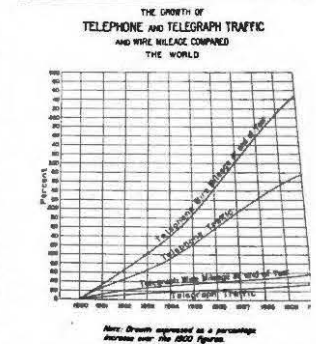


the rapid extension of its telephone service. Moreover, the recent report of the Government by the Royal Telephone Commission strongly recommends an additional expenditure of \$30,000,000 between 1911 and 1928. France, by a decree of July, 1911, has sanctioned the expenditure of \$2,250,000 for the construction and extension of the Paris exchange. Great Britain, in the telephone transfer bill recently passed, has voted \$20,000,000 for the development of its telephone service after the transfer. Again, the German Government has authorized an eleventh special appropriation, amounting to \$5,280,000, for the extension of its telephone service during 1912. Finally the budget of the commonwealth of Austria provides \$3,000,000 for its telephone and telegraph services, besides



creating a special fund of \$3,000,000 to be drawn on during the next two years.

The prospect for telephone growth in South and Central America has considerably improved. On January 1, 1912, these two continents, with a population of about 54,000,000—or lacking 10,000,000 that of the German em-



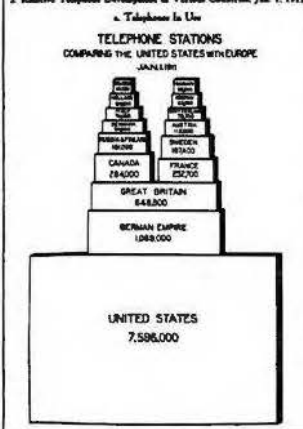
pire—showed a telephone development of about one telephone to every person as compared with one telephone to every 62 persons in the man empire. The best developed in South America is Argentina, with total of about 68,000 telephones; of Central America is Panama, with total of about 1,800 telephones. Count of the greatly improved social activities both of South and Central America, there is good reason to think that the telephone service, destined to achieve considerable proportions in the near future.

During 1911 the imperial government of China formulated a program for extending the telephone service, and included in that program provisions for the gradual development of manufacturing plants and industrial apparatus.

The Japanese Government has hard pressed to furnish telephone service to waiting applicants. As to latest reports, there are over 100 persons on the waiting list, number increases by about 100 each month. So far the administration has been able to connect only 200 subscribers per year. The administration had worked out a second plan for telephone expansion and approved \$12,000,000 for the five years ending March 31, 1913. This plan found to be totally inadequate needs, and thus a third provision of \$25,000,000 for the year 1913 is under consideration.

Noticeable progress has been made in the various states of Australia and New Zealand two dominions have about 100 telephones, or 2.3 per 100 population is worth while to recall in

3. Relative Telephone Development in Various Countries, Jan. 1, 1911



tion that the combined area of Australia and New Zealand is about equal to the area of the United States.

The recently created union of South Africa likewise shows progress as regards the telephone service. January 1, 1912, there were about 17,000 stations in the union, or 0.3 per 100 population. Omitting the native population, which is nearly eighty per cent. of the total, however, the union has a telephone development of 1.3 per 100 population.

The above facts indicate that telephone service outside the United States is destined to progress for some years at a more rapid pace than heretofore.

During the past year the long-distance telephone service of the world has received notable extensions. In the United States commercial service was opened between New York and Denver, 2,160 miles, this being now the longest distance over which oral communication is given commercially. In Europe long-distance service has been greatly extended by utilizing both the new loaded cable between Great Britain and Belgium, by which telephone service is expected to be given between London and Berlin, and the new telephone cable, constructed also on the Pupin principle, between Dover and Calais. The latter enables conversation to be carried on between Glasgow, Edinburgh and Paris, and also between Aberdeen and the French capital, a distance of 910 miles. Successful trials have also been made between London and Geneva, a distance of 560 miles, and from London to Basel, a distance of 600 miles.

Recent progress in the art of submarine telephone cable manufacture will have far reaching consequences. At the present time there are over 400



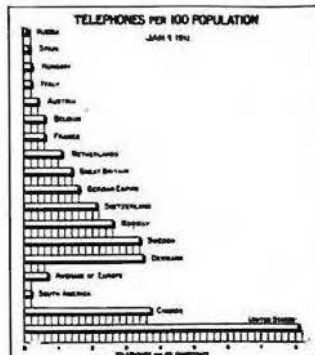
| Cities. | Jan. 1, 1895. | Jan. 1, 1900. | Jan. 1, 1905. | Jan. 1, 1910. | Jan. 1, 1911. |
|-----------------------|---------------|---------------|---------------|---------------|---------------|
| Europe— | | | | | |
| Stockholm | 4.1 | 9.7 | 13.6 | 18.5 | 19.9 |
| Copenhagen | 1.2 | 3.0 | 4.9 | 6.7 | 7.0 |
| Christiania | 3.0 | 5.4 | 5.4 | 6.7 | 6.9 |
| Berlin | 1.6 | 2.3 | 3.5 | 5.1 | 5.3 |
| Hamburg-Altona | 1.5 | 2.2 | 3.6 | 4.6 | 4.7 |
| London | 0.2 | 0.6 | 1.4 | 2.5 | 2.8 |
| Paris | 0.7 | 1.2 | 1.8 | 2.5 | 2.7 |
| Vienna | 0.5 | 0.8 | 1.2 | 2.1 | 2.3 |
| St. Petersburg | 0.2 | 0.3 | 0.6 | 1.9 | 2.2 |
| United States— | | | | | |
| Los Angeles | 2.0 | 5.7 | 14.1 | 23.1 | 24.0 |
| Chicago | 0.8 | 1.3 | 4.9 | 9.8 | 11.0 |
| Boston | 1.0 | 2.3 | 4.8 | 8.6 | 9.2 |
| Philadelphia | 0.3 | 0.9 | 4.6 | 7.9 | 8.6 |
| New York | 0.6 | 1.4 | 4.6 | 7.6 | 8.3 |

miles of submarine telephone cable in use in the world, and of this total about one-half is represented by the four cables between France and England, and the two between Belgium and England. The longest submarine telephone cable lies between La Panne (Belgium) and St. Margaret's Bay (England), a distance of 55 miles.

The European international long distance land line systems have likewise received important additions, due to the opening of the line between Paris and Madrid, 900 miles, and the direct line between Berlin and Rome still un-

development in the United States is 4.1 points above the corresponding highest development in Europe. Neither London, Paris, Vienna, nor St. Petersburg has reached a development of three telephones per 100 population. Berlin and Hamburg are 5.3 and 4.7 respectively, and Christiania and Copenhagen, with 6.9 and 7 respectively, are about equally developed.

In actual number of telephones, January 1, 1911, Berlin, London and Paris, with a combined total of 403,500 telephones, are about even with New York (402,000). The latter approxi-



mates very nearly the combined telephones of fourteen European states.

Telephone Investment.

The statistics referring to investment do not always represent the actual replacement values of the various telephone plants, as such information is not recorded by the majority of foreign telephone administrations. The only data available in many cases are the aggregate amounts that have been put into the business since its inception. The world's telephone investment January 1, 1911, is estimated at \$1,561,800,000, equivalent to \$139 per telephone. This total investment is thus approximately equal to the value of the corn crop of the United States in 1911.

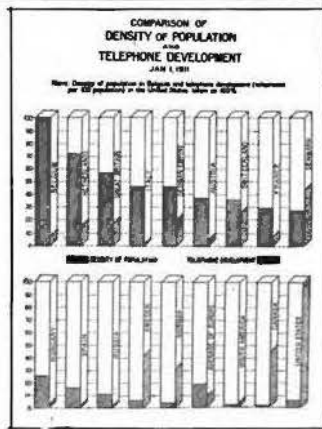
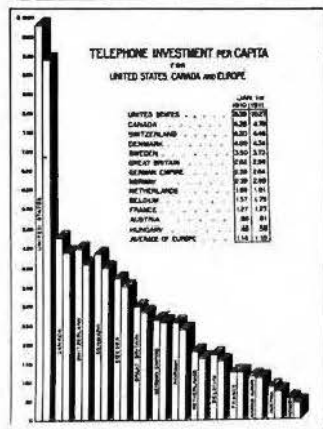
The subjoined table gives the estimated telephone investment of the world January 1, 1911:

| Division. | Investment. | Pct. of Total. |
|---------------------|---------------|----------------|
| United States..... | \$956,700,000 | 61.2% |
| Canada | 36,700,000 | 2.4% |
| Europe | 518,400,000 | 33.2% |
| All other countries | 50,000,000 | 3.2% |

Total\$1,561,800,000 100.0%

Figured on the respective number of telephones at the same date, the investment per telephone is:

| | |
|--------------------------|-------|
| United States..... | \$126 |
| Canada | 129 |
| Europe | 175 |
| All other countries..... | 118 |
| Total world..... | 139 |



der construction, a distance of over 1,000 miles. As regards the continent, there is now scarcely any important city that cannot talk with any other important city. By far the largest interurban or toll telephone plant in Europe has been built by the German Government, which, according to the latest official statistics, had about one-half of the total interurban or toll telephone wire of Europe.

Finally it is worthy of note that during the year 1911 the great United States railway systems have made rapid advances toward the general use of the telephone for train dispatching. Since the introduction of the use of the telephone for that purpose, over 200 of the United States railroads have adopted that system. In fact the telephone has supplanted the telegraph on over 50,000 miles of railroad, which is over twenty per cent. of the total railroad mileage of the country. A careful estimate places the miles of wire used by railroad companies for train dispatching at 120,000, and the corresponding number of telephones at 10,000.

The subsequent table reviews the development of nine large European cities for sixteen years, and one of the charts compares five of these cities with five United States cities. Excepting Stockholm, none of the European cities has reached the development of New York, while the highest

TELEPHONE GROSS EARNINGS OF THE UNITED STATES, CANADA, EUROPE AND ALL OTHER COUNTRIES (PARTLY ESTIMATED) YEAR 1909.

| Division. | Gross Earnings. | Pct. to Total Earnings. | Increase During 1909. | Average Earnings per Telephone. |
|---------------------------------|----------------------|-------------------------|-----------------------|---------------------------------|
| United States..... | \$221,471,000 | 67.4% | \$20,881,000 | \$32.87 |
| Canada | 6,752,032 | 2.0 | 1,161,000 | 31.87 |
| Europe— | | | | |
| Austria | 3,704,990 | 1.1 | 584,000 | 41.45 |
| Belgium | 2,066,740 | 0.6 | 152,000 | 50.75 |
| Bosnia | 11,555 | .. | 1,900 | 21.90 |
| Bulgaria | 65,135 | .. | 7,000 | 31.65 |
| Denmark | 2,040,158 | 0.6 | 233,000 | 24.45 |
| Finland | 448,518 | .. | .. | 15.95 |
| France | 8,161,600 | 2.4 | 1,098,000 | 40.20 |
| German Empire..... | 32,330,909 | 9.8 | 3,407,000 | 35.00 |
| Great Britain..... | 23,113,326 | 7.0 | 1,858,000 | 39.40 |
| Greece | 37,048 | .. | 4,000 | 26.40 |
| Hungary | 1,859,205 | 0.6 | 155,000 | 38.85 |
| Italy | 2,416,902 | 0.8 | 348,000 | 42.70 |
| Luxembourg | 62,697 | .. | 6,000 | 20.80 |
| Netherlands | 1,731,700 | 0.6 | 244,000 | 32.45 |
| Norway | 1,159,864 | 0.3 | 40,000 | 21.35 |
| Portugal | 240,516 | .. | 10,000 | 40.90 |
| Roumania | 277,947 | .. | 35,000 | 22.50 |
| Russia | 4,756,475 | 1.4 | 469,700 | 39.00 |
| Servia | 58,575 | .. | 4,000 | 37.65 |
| Spain | 831,125 | .. | 38,000 | 35.20 |
| Sweden | 3,959,765 | 1.2 | 309,000 | 23.60 |
| Switzerland | 1,996,439 | 0.6 | 169,000 | 27.95 |
| Total | 91,331,189 | 27.8 | 9,172,000 | 35.40 |
| All other countries..... | 9,163,500 | 2.8 | .. | 30.00 |
| Total world..... | \$328,717,721 | 100.0% | | |

The investment representing "all other countries" includes \$16,456,000 for the commonwealth of Australia and New Zealand, \$4,795,000 for the union of South Africa, \$15,223,000 for Japan, and about \$6,668,000 for Brazil and Chili together.

During the year 1910 \$145,500,000 was added to the telephone investment of the world, so that the above total of \$1,561,800,000 represents an increase of ten per cent. over the corresponding investment January 1, 1910. In the United States alone the estimated increase in investment during 1910 amounted to \$97,600,000, or, excluding Europe, considerably more than the total cost of all telephone plants in service in the entire world.

In regard to the more detailed investment statistics given on the following page, perhaps the most striking feature of the table is the high figure for investment per telephone in many of the important European states. For instance, Austria, Belgium, France, Great Britain, Hungary, Spain and Switzerland all show an investment per telephone of over \$200.

The German empire, Great Britain and France combined have slightly more than two-thirds the entire telephone investment of Europe.

Earnings for 1909.

The figures for gross telephone earnings in European countries are official, but those quoted for "all other countries" are mostly estimated. The total gross telephone earnings of the world for the year 1909 may be placed at \$329,000,000, of which the United States earned \$221,471,000 (67.4 per cent.), Canada \$6,752,000 (2 per cent.), Europe \$91,331,000 (27.8 per cent.), and all other countries \$9,163,500 (2.8 per cent.).

The following table shows the gross telephone earnings of the various European countries, ranging from \$241,000 (Portugal) to \$32,331,000 (German empire). The average earning per telephone for total Europe was \$35.40.

"EXCUSE BACKS OF GIRLS," ASKS EDITOR

Were Too Busy At Board To Turn and Have Picture Taken.

Local pride in the new exchange at Petersburg, Ill., prompted the *Observer* of that city to devote a page to pictures and description of the system. "The *Observer* asks its readers to excuse the backs of the girls—the lines were just too busy to permit them at the time the picture was taken to turn around," says the article.

The Switchboard.

"The switchboard is the latest design of the multiple magneto, so constructed that each individual operator can connect any line on the board that is called, for this type of board does away with the transfer from one operating position to another, thereby enabling the operators to give the desired connections in much less time. It is a fine mechanism and the patrons should take advantage of the telephone company's invitation to visit their exchange and see the new switchboard in operation.

"One of the photos shown with this article gives an idea as to the number of operators necessary to handle the business of the Petersburg Exchange. We are advised that one operator can handle 200 calls per hour. This would mean 2,000 in ten hours, or 10,000 for



OPERATING ROOM, PETERSBURG, ILL.

five operators working ten hours. While the number of calls does not average the above amount each hour through the day the telephone company must provide the facilities to take care of the busy hours. In other words the service must be there if called for.

Some Historical Facts.

"The telephone service during the years this city was burdened with two telephone companies grew worse and worse and worse each year. It appears from the experience here that where there are two telephone companies they operate at rates that the revenue derived for the service sold is below the cost of production. In consequence, the plants here were permitted to run down year by year until their physical condition was such that it was impossible for any company to render satisfactory telephone service.

New Company Makes Good.

"The new company is showing that it is equal to the task assumed. Since the consolidation of the properties, it has had misfortune after misfortune by damage from wind and sleet storms following each other so closely that it was not able to clean up one case before it ran up against another. The damage to the company due to storms runs into thousands of dollars, as well as causing much interruption to the service of the patrons. The latter, however, was small in comparison with the loss to the company.

"The People's Telephone and Telegraph Company is a home company controlled by our own people, who have associated with them people whose whole life has been given to the study of how to give the public a good telephone service at a reasonable price.

Rates Not Materially Increased.

"The new company has shown an unbounded faith in this community and has already demonstrated on its part that it believes in delivering the goods in the right kind of packages. We are assured that the rates will not be materially increased, as the new company before taking over the old companies conferred with our business men and agreed on the rates that would be charged in the city. General Manager Ramsey advises that the rate in the country will only be increased the small amount of twenty-five cents per month at this time and that the company will at no time ask a rate that is unjust to its patrons."

The Bell toll lines connect with the exchange of the People's Company, which bought the Central Union exchange in Petersburg.

SINGLE SYSTEM ASKED FOR.

Business Men of Union City, Mich., Make Application to State Commission.

Union City has two excellent telephone exchanges, which are kept in good condition and where the best of service is rendered. However, the territory is largely duplicated, while on the other hand, business men must of necessity have both telephones in order to have communication with all the people desired. One company could do the business a great deal better than two, and thus a great saving be effected, for it should be understood that each company charges a good round price for its service, and everyone with both 'phones really has to pay a double rate.

But there are prospects for relief from this condition. Recent statutes have been enacted in Michigan touching upon this subject, and there also seems to be a disposition on the part of the companies themselves to get together on the question. In some territory, St. Joseph county for instance, the Southern Michigan Telephone company takes over the local telephone business, while the Michigan State Telephone company assumes the toll line service. This is a fair division of the business and one which is approved by the public, while the companies will also find more profit therein.

Last week W. C. Henderson, president of Union City's council, circulated a petition among business men and others, asking that the local business in Union City and vicinity be merged in one company. This petition is addressed first to the telephone companies, and secondly to the state officials having the matter in charge.

The petition was heartily welcomed by nearly every telephone patron, and all gladly lent their signatures. It is quite likely that a change of the sort desired will be made sooner or later.

President Henderson has forwarded his petition to the state railway commission, and on Monday received the following reply thereto:

"This commission will use its efforts to see what can be done toward consummating the object you desire. Unquestionably it is a result to be desired by every community that has the inconvenience of two telephone systems. As soon as we receive information from the two companies, we will be pleased to communicate it to you."—Coldwater (Mich.) Courier.

SUCCESSFUL TRAFFIC PLANS FOR CONVENTION

Result in High Percentage of Completed Long-Distance Calls.

Reports from Baltimore show that the telephone was fully as important at the Democratic National Convention there as it was at the republican gathering in Chicago, and that the service at Baltimore was ably handled by the Chesapeake and Potomac Telephone Company.

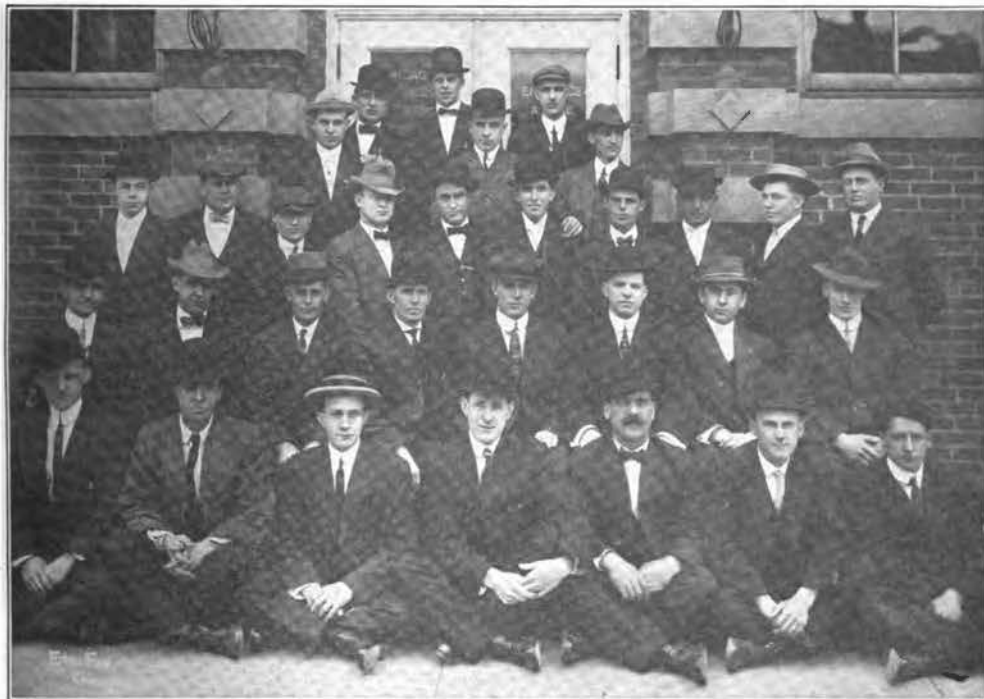
On account of the date of the republican convention, the article describing it in the last issue of the *BELL TELEPHONE NEWS* was necessarily prepared in advance and there was no opportunity to describe the work of the traffic department.

Under the generalship of Herman Thomas, division traffic superintendent of the American Telephone and Telegraph Company, assisted by H. N. Foster, traffic superintendent, and R. W. Sullivan, division traffic chief of the Chicago Telephone Company, a plan for keeping close track of convention visitors was put into operation. Before the convention opened a complete list of all delegates and alternates and as many as possible of the probable visitors, not delegates, was secured, together with their hotels and room numbers and seat locations in the convention. This information was in the hands of the long-distance forces who the convention opened and was used in securing the completion of a large percentage of long-distance calls that ever before in the history of such gatherings; in fact, the first day's receipts more than paid the extra expense involved in making the arrangements.

After the convention, Mr. Heston chief clerk, wrote a note thanking Calumet chief operator, Miss Frawley and her forces, for the excellent service he received at the switchboard. Also sent passes for Miss Frawley and four of the operators to attend the convention.

Prexie on the Wire.

I long had difficulty in remembering my own telephone number, which is 1055, and often when asked it have been obliged to stammer:—Why, to tell the truth, I've gotten it for the moment; and have had my questioner go off deriding what sort of creature I am under my new system. I am so from this humiliation. I merely to remember that my telephone is the death of Gregory VII at once I know that it must be. Similarly, when calling up the instructor who has charge of our elementary course in European history I need only think of the defeat of Franks by the Burgundians at once, and I have his number, 524 professor who gives our course ecclesiastical history approp for his telephone number 3 date of the edict of toleration by Constantine and Licinius; a one who gives the courses in Saxon literature has 659, which the recovery of independent Wulfher, the first Christian Mercia. For the head of the department I think of the noble Caelius Metellus turn tide in the troublesome Jugurtha, and call 109; while der's victory at Arbela, 331, the number of the professor of —July Atlantic.



PLANT FORCE, HUMBOLDT EXCHANGE, CHICAGO.

Reading from left to right, lower row, sitting—W. Roberts, nt. swbd. rep.; H. Flint, janitor; L. E. Doll, repm.; W. M. Larkin, wire chief; J. Mozzoccoli, janitor; E. Massman, repm. (now transferred to Installation); E. A. Graf, repm. (now transferred to Installation).

Second row, sitting—C. R. Guenther, jumperman; C. F. Schmid, evening swbd. repm.; W. Smiley, repm.; H. Nelson, repm.; F. Hoch, repm.; E. W. Anderson, repm.; J. C. Otto, testman; H. M. Hagland, testman.

Third row, standing—E. L. Morse, jumperman; H. H. Kruger, cable repm.; L. H. Newman, repm.; E. M. Grubb, swbd. foreman; W. J. Gray, repm.; H. F. Holohan, repm.; L. A. Berg, repm.; W. Faulkner, cable rep. helper; E. Hedlin, repm.; J. Luby, asst. gen. foreman construction.

Top row, standing—C. R. Locke, repm.; C. O. Gottschalk, repm.; D. O. Ogren, nt. swbd. repm.; W. Flannigan, wire chief's clerk; H. B. French, testman; E. C. Harris, repm. detailed to facilities engineering division.

H agland
Kr U ger
M orse
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H O lohan
L arkin
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Sch M id
H A rris
Sm I ley
N elson
Flin T
Gu E nther
N ewman
Gr A y
Fre N ch
Ho C h
H E dlin

F aulkner
O gren
G R ubb
Lo C ke
And E rson

HAS PICTURE TAKEN.

Humboldt Exchange, Chicago, Celebrates Rise to Head of Class in Inspection for Quarter.

Of course Humboldt has to celebrate after garnering the enviable position of head of the class on all inspections for the first quarter of 1912 for Chicago city exchanges, and from the looks of the men shown in the picture, the plant department is going to hear more from them before long.

Humboldt office district was origina-

ly a part of West and was cut into service December 10, 1905, with slightly less than 2,500 stations.

In June, 1910, the second unit (Belmont) B board was cut into service, at which time Humboldt office had reached the 10,000 mark; and again, in the spring of this year, the Armistage unit was started to relieve the Humboldt unit proper.

There are now about 9,500 stations in Humboldt, 5,900 in Belmont and 1,000 in Armistage; making a total gain of over 500 per cent. in six and a half years.

The territory west of Sacramento avenue, and between Chicago avenue and Diversey avenue, will, on account of the rapid growth, be cut into the new Belmont office some time the last of September.

Of the original force working in

Humboldt when it was cut over, only man—H. F. Holohan—remains there. The present wire chief—W. M. Larkin—assumed his duties as such in February, 1908. The opening of the new Belmont office will cause a further scattering of the force.

Brief News Notes From Everywhere

One System in Syracuse.—The consolidation of the Bell and independent systems in Syracuse, N. Y., was completed June 29th. There are 18,700 stations in the combined systems.

Consolidation in Arizona.—The era of telephone consolidation has come upon Arizona. A short time ago the merger between the Overland and Mountain States companies was announced. Now word comes from Cochise county that three companies there also wish to merge with the Mountain States. These are the Courtland Telephone Company, the Adams Telephone Company and the Riggs Telephone Company. These concerns have 400 miles of wire.

Bankrupt Concern Taken Over.—The Bell Company has taken over the automatic telephone system at Norfolk, Neb. The automatic plant was recently sold at sheriff's sale to John Parmalee, of Plattsmouth, who sold it to the Bell company.

Georgia Company Bankrupt.—Upon the application of C. J. O'Farrell, Jr., the Athens Mattress Company, the American Electric Company of Chicago, and other creditors, represented by Brown and Randolph, Parker and Scott, Judge W. T. Newman, in the United States court appointed George McDonald and F. H. Davis of Cuthbert co-receivers for the Cotton Belt Telephone and Telegraph Company of that city. The receivers are directed to continue the operation of the company, and an effort will be made to reorganize it upon a paying basis. The company operates in southwest Georgia, and also runs into Alabama, having in all eleven exchanges, and is capitalized at \$500,000. Recently an assignment was made to F. H. Davis, and this constituted an act of bankruptcy. The company will continue to operate, however, under the direction of the receivers, and there appears to be some hope of straightening out its affairs.—Atlanta Constitution.

WANTED

Hints For General Telephone Display Advertisements

Prizes Will Be Awarded For The Three Best Suggestions Received Prior To September 1st

ADDRESS
CLIFFORD ARRICK,
Manager Publicity Department

230 W. Washington Street,

CHICAGO



Telegrams by Telephone

By W. W. HILLER, Chicago.

"Every Bell telephone a telegraph station." To make this possible a large amount of work and careful study was required. Back of this phrase is the joint operation of two of the largest public-service corporations in the world—the American Telephone and Telegraph Company and the Western Union Telegraph Company.

Today the facilities of these two corporations are gradually being merged to give the public the best and most efficient telephone and telegraph service that it is possible to furnish.

For years it was thought that the telephone company was the natural competitor of the telegraph company. A study of the services furnished by these two utilities shows that each has a distinct field in which to operate and each furnishes a different class of service to the public and through joint operation each company opens a channel for the other and through these channels flow opportunities for an improved and more efficient telephone and telegraph service.

In operating the two companies millions of dollars have been invested in toll and telegraph lines. Rights of way have been purchased. Buildings

have been erected. Valuable leases have been acquired and to a considerable extent the investments of the two companies are duplicated.

Would it be fair to the public to extend this duplication and continue to spend millions of dollars that must be taken into consideration when rates are made?

The companies owe a duty to the public to conduct their business as economically and efficiently as possible. To achieve this result, Mr. Vail, president of the American Telephone and Telegraph Company, brought the operation of these two public service corporations together.

Telephone men will realize the vast amount of detail there is in telephone work, and the years required to become familiar with this detail. As many details exist in the telegraph business. To place these two gigantic services on a basis where they can operate efficiently and economically is indeed a tremendous task. For the past year and a half, plans and routines have been in preparation. They have been carefully studied and gradually placed in operation so that today there is in effect in a number of

places a joint operation of the two services which is working satisfactorily and showing results. The benefits to be derived by the public are shown by the increase in the number of telegraph offices, their locations and office hours, also the convenient method of sending and receiving telegrams.

The Western Union Telegraph Company has 35,000 offices throughout the United States. The Bell Telephone Companies reach these places and approximately fifteen thousand more. When the joint operation of the two services is established as far as it is physically or commercially possible, forty-five thousand towns and cities will be in telegraphic communication. Of the 35,000 Western Union offices, only 600 are all-night offices, so that less than five per cent. of Western Union offices are in a position to furnish service twenty-four hours a day. In many of the other ninety-five per cent., only one operator is employed, and during his absence telegrams can neither be sent nor received. Under joint operation a large percentage of these offices will become all-night offices and service will be continuous throughout the entire day. About 30,000 of the Western Union offices are located in railway depots. Many of the railway telegraph offices are located on the outskirts of the towns and the public is put to considerable inconvenience in sending telegrams. Telegraph operators at such points are primarily agents of the railroad companies and have numerous duties to

perform, therefore, the transmitting and receiving of commercial telegrams is often delayed, as the railroad work must be given the preference, so the service furnished the public at these offices is often far from satisfactory. The telephone company has at nearly all of these towns, an exchange, centrally located, and by making the telephone office the Western Union office, the public can transact business much more conveniently and also receive far better service and attention.

In the past some of the toll agents of the telephone company have acted as agents of the Western Union, telephoning telegrams received from the public to the nearest Western Union office. Arrangements are now under way by which every Bell telephone agent will become the agent of the Western Union. All public station agents of the telephone companies located in the larger cities will also become agents of the Western Union. The public will then be able to send telegrams from practically any part of the city by merely delivering their messages to the public-station agent, he arranging to telephone the message to the office of the Western Union Company, where it is transmitted by telegraph.

All attended pay stations of the telephone company located in hotels, and in the larger railroad depots, will become joint stations, so the public can file their telegrams with the telephone attendant.

The thousands of Bell connecting



SEVEN OPERATIONS IN SENDING TELEGRAMS BY TELEPHONE.

1. Sender lifts hook and asks for telegraph office. 2. Operator connects him with telegraph office. 3. Telephone clerk in telegraph office transcribes message. 4. Morse operator sends message. 5. Morse operator at receiving end receives and types message. 6. Telegraph clerk telephones message to addressee. 7. Addressee receives message.



PLANT MEETING AT SPRINGFIELD, ILL.

companies may, if they desire, become agents of the Western Union and their hundreds of thousands of subscribers will then be in the position of Bell subscribers and each one of their telephones becomes a telegraph station. By establishing these various offices, agencies and stations, the Western Union Telegraph Company will cover every bit of the populated territory in the United States, and it will be possible to send and receive telegrams at over 7,000,000 telephone stations.

The telephone subscriber in sending telegrams need no longer deliver his message to the local office of the Western Union or ring a call box to have a messenger call. He today merely needs to lift the receiver and ask for the Western Union or Postal telegraph office as desired. If he asks for the Western Union he is then immediately connected with the receiving operator at the Western Union office. This trained operator receives the message and repeats it back to him. It is then transmitted by Morse to the telegraph office at the point of destination, where delivery is made by telephone if the addressee has a telephone. When the Western Union office in his town is closed for the day his request for the telegraph office is transmitted over the toll lines, without additional cost, to the nearest all night office of the Western Union. It is then forwarded to the destination by Morse.

Under the separate operation of the Western Union it was impossible to send a message until the Western Union office was open. Today the subscriber is no longer dependent upon the hours of the Western Union office, but can send or receive telegrams at any hour of the day or night. As telegrams are usually messages of importance that require prompt attention, the quick service assured by the combined facilities of the two companies is going to benefit subscribers and the public generally.

The Western Union Telegraph Company has extended credit to all subscribers of the Bell system, and has arranged to have the charges for telegraph service included in the bills of the Telephone Company. This is an additional convenience to the subscriber in that he receives only one bill.

The limited hours that many of the Western Union offices have been open to the public have been due to the statutes of the state restricting the hours of labor of employees, the small receipts not warranting the Western Union putting on a second operator. Arrangements are now being made to have the telephone companies take over these offices and have the telegraph business, not only that received over the telephone, but all the business, handled by joint employees located in the premises of the telephone company. Under this joint arrangement service will be continuous, as the telephone companies operate twenty-four hours a day and can very easily arrange to take care of the telegraph business at the same time. The present quarters of the Western Union may then be discontinued and the employees and equipment moved into the

office of the telephone company. These offices whenever necessary can be remodeled so that the facilities offered the public will be of the best.

At all the joint offices that have so far been established throughout the territory an increase has been shown in the receipts. The public has taken to the idea of telephoning their telegrams and it is expected within a few years that the telephone will be used exclusively for sending and receiving telegrams.

The possibilities of joint operation are now just beginning to develop, and it is hard to say just where they will end, as each change is an improvement and results in better and more efficient telephone and telegraph service.

PRESIDENT VAIL GIVES LIBRARY.

Volumes on Electricity Worth \$100,000
—Were Owned by Collector in London.

President MacLaurin of the Massachusetts Institute of Technology announces the gift of a library by President Theodore N. Vail of the American Telephone and Telegraph Company. The value of the library is estimated to be \$100,000, and with it Mr. Vail gives to Technology some tens of thousands for maintenance. The gift is the Dering Library, the most complete collection of comparatively recent works on electricity in the world.

George Edward Dering of Lockleys, Herts, England, who died January 5, 1911, at the age of eighty, compiled it. He was an inventor and realized considerable sums from a chair for steam road rails and also from an invention in electric lights. Mr. Dering was more than forty years collecting his library, which was the chief hobby of his life.

He gave an unlimited order to a London dealer for all the books in whatever language that appertained to electricity or electrical engineering. In addition he attended sales and collected about thirty thousand titles. Great boxes of books that had never been opened were found in his house, and it is probable that the collection includes every book on the subject that has appeared within the last sixty years.

The Fate of a Meddler.

Recently the Chicago plant department had a case of "permanent" reported on one of the main lines. Upon investigation it was found that the trouble had been caused by a rat, which had gnawed through the circular loom in which the wires run and had chewed the insulation off of the three conductor wires. This was apparently the cause of the permanent. The rat, however, brought some trouble upon himself as well as the telephone company. As this line was a nickel line, when the operator got the permanent she attempted to clear it. This sent 110 volts out on the line and electrocuted the rat. He was taken out and duly buried.

PRANKS OF WINDSTORM IN MENOMINEE, MICH.

Tin Roof and Lumber Crash Through
Main Bell Wire
Lead.

The blowing of the roof off the armory at Menominee, water pipes and department store struck, and several fires caused during the storm of July 9th, are some of the stunts that made the weather on that occasion more noticeable than popular with Menomineers. And the Michigan State Telephone Company did not escape altogether, either.

Over 200 telephones, including those in the manufacturing district in North Menominee, were thrown out of commission. To falling trees alone were most of the disorders responsible. In every section of the city trees may be seen spread over the wires and cables. Today much of the line has been repaired, but in some of the sections normal conditions will not be restored before tomorrow evening.

There was but one cable disorder on this side of the river. The insulation of one cable was rubbed thin by contact with a toppled tree. Water was allowed to soak through this spot and moistened the cable. Two scores of linemen, one from Marquette and one from Escanaba, arrived in the city next day to assist in the repair work. The delayed service was serious inasmuch as it struck a score of plants in the north end of the city, but owing

to efficient local trouble work on the part of Manager Dixon and his staff, things were quickly adjusted to the satisfaction of telephone users.

The picture was rushed to the News by Marquette district-commercial-manager K. S. Baker, who writes: "It's pretty hard to tell whether the picture shows a flying machine or a tin roof lodged in our lead at Menominee. However, it is a tin roof."

PIONEERS MEETING IN NEW YORK THIS YEAR

Second Annual Gathering to Be
Held in Gotham Middle of
November.

William J. Maiden of Chicago, corresponding secretary of the Telephone Pioneers of America, has received an official notice from H. W. Pope, secretary and treasurer, in New York, that the second annual reunion of the association will be held in New York city Thursday and Friday, November 14th and 15th. H. F. Thurber, Gerard Swope, H. S. Brooks, A. S. Hibbard and H. W. Pope have been appointed as a general committee of arrangements, with power to add to their number as may be necessary. Information will be forwarded to each member as early as practicable.

The Telephone Pioneers of America is an association composed of telephone men and women who have seen in the service twenty-one years or more. Ex-telephone men who were in the service prior to 1891 are also eligible. The first reunion was held in Boston last November.

Plant Men Confer.

Division, district and exchange plant men met at Springfield, Ill., June 25th, and went over specifications and various matters of importance in the plant department. The picture at the top of this page shows those who attended.

Success and Failure.

There is a story told of an old, religious negro, which very aptly illustrates the difference between failure and success. Here is the story:

About two weeks before Thanksgiving the old man tried to figure out how he and his family would secure their Thanksgiving dinner. He commenced to add this to his evening prayers: "Oh, Lord, send a turkey to this poor old nigger."

Thanksgiving Day drew near. The turkey failed to arrive. The old man became worried and, as a last resort, he changed the addition to his prayers to: "Oh, Lord, send this poor nigger to a turkey."

The prayer was answered that night.



WINDSTORM EFFECTS AT MENOMINEE, MICH.



BIRDSEYE VIEW OF CHICAGO TELEPHONE-WESTERN ELECTRIC FIELD AND TRACK MEET AT HAWTHORNE, JUNE 29TH.

WESTERN ELECTRIC WINS TRACK AND FIELD MEET

Chicago Telephone Company Athletes Make Fair Showing, Though Unprepared.

The dual track and field meet at Hawthorne on June 29th resulted in a victory for the Western Electric Company by a score of 81 points to 59 made by the Chicago Telephone Company.

A heavy shower early in the afternoon interrupted the sport, forcing

the crowd of spectators to seek shelter in the big train shed. The tennis tournament and the Commercial League baseball game had to be postponed. The rain converted the courts and the diamond into swimming pools and no aquatic contests had been scheduled.

The telephone buildings had been placarded for the previous two weeks, and the telephone men had held a little tryout meet on June 23d at Marquette Square, where considerable enthusiasm was aroused.

Two special trains from the Fifth avenue terminal on the Metropolitan Elevated were provided to carry the telephone crowd. Owing to the threatening weather the crowd was not as large as expected, but numbered over a thousand, all told.

This was the third meeting of the spiked-shoe representatives of the two companies, and three times the manufacturers have shown their superiority on the cinder paths.

The first meet, on June 25th, 1910, was won by the Western Electric Company by a score of 68 to 36. The second meet, on September 24th, 1910, was won by the Western Electric Company by a score of 67 to 37.

However, the telephone men have few regrets, for they do not as yet possess the advantages of a practice field or an athletic director, and yet they have invaded the enemy's country and have brought away a few trophies, fairly won in sportsmanlike competition. The Hawthorne grounds are provided with cinder track, hurdles, jumping pits and standards, and tug-of-war cleats, clamp and dial, like a real stadium, and the occasion presented all the features of a typical collegiate or athletic club event. Seating capacity was provided for 1,200 spectators at the track and 2,000 spectators at the ball ground. Three tents were erected, one inside the track for contestants, one just outside the track for the band, and the third at the baseball ground for the officials and their wives. Telephones were installed at the track and the ball ground connected with the Chicago Telephone Company's private wire to the Balti-

more convention, so as to give the spectators the latest news regarding the balloting. Provisions were made for the sale of megaphones, pennants and refreshments.

At 1:15 p. m. the Western Electric Band, in full uniform, met the special trains at the Forty-eighth avenue station and led a gay procession up the avenue and out to the track. Everything was in readiness for a gala afternoon and the first two track events had been run when Jupiter Pluvius took a hand in the proceedings, much to the disgust of everyone, and for twenty minutes held undisputed sway. During this period the crowd took refuge in the train shed at the south end of the Merchandise Building.

As soon as the rain stopped, the track meet was continued, although the conditions were very poor for good performance in the field events. However, by the use of sawdust the runways for the jumps and the vault were put into usable condition. The heavy rainfall was more than the tennis courts and the baseball diamond could stand and these events had to be declared off. Arrangements have been made to carry out the entire athletic

program as originally proposed on September 7th.

The athletic events were well attended by the officials of both companies, prominent among whom were:

Chicago Telephone Company.

Bernard E. Sunny, president; Alonzo Burt, vice-president; H. F. Hill, general manager; B. S. Garvey, general auditor.

Western Electric Company.

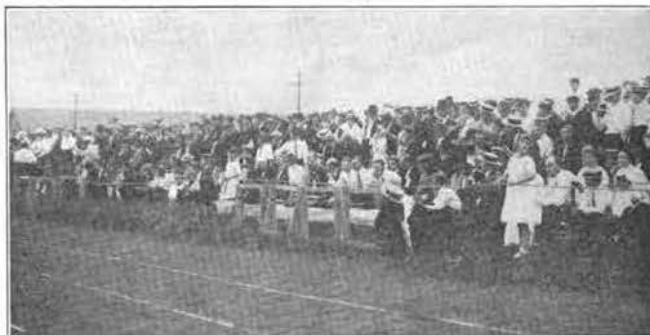
H. F. Albright, general superintendent; C. I. DeWitt, general merchandise manager; O. C. Spurling, plant engineer; A. C. Dodge, superintendent telephone apparatus shops; J. W. Bancker, superintendent cable, rubber and insulating shops.

Sylvanus Schoonmaker, a director of the Western Electric Company and of the American Telephone and Telegraph Company, was also present, as a guest of Mr. Sunny.

In the track and field meet the telephone Company started off in the lead, taking five points in the low hurdles to the Western's four. The 880-yard run tied the score at ten all, and the 100-yard dash, in which the Western won five points to the Telephone Com-



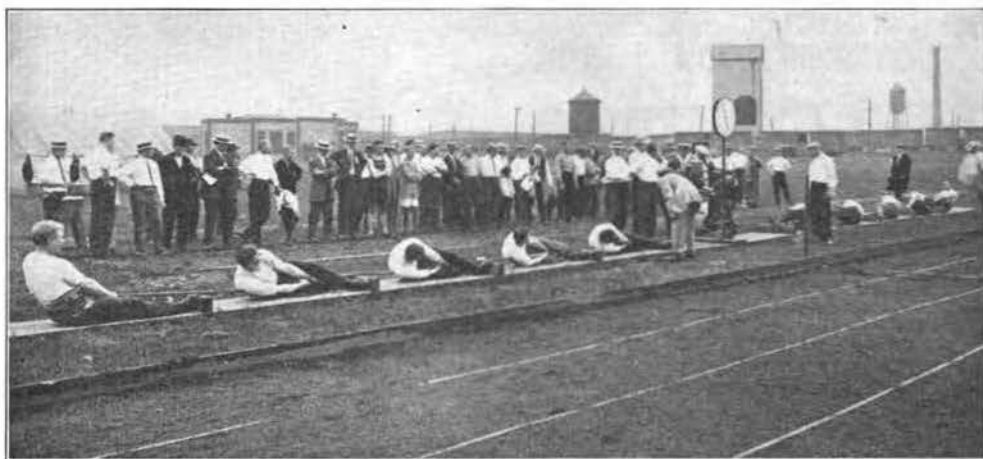
CHAMPION DOYLE.



A SECTION OF "BLEACHERS."

pany's four, gave the Western Electric the lead, which they held to the finish, although the slam scored by the Telephone Company in the mile run brought them within one point, the score after this race being: Western Electric, 23; Chicago Telephone, 22. From this point on, the final result was never in doubt, the sixteen points scored by the Telephone Company in the broad jumps, standing and running, being offset by the fifteen points scored by the Western through the tugs of war and relay race.

Doyle was the individual star by virtue of victories in the 440, 880 and two-mile runs. Doyle's performances were especially meritorious as he had been attacked only a few days before by several of the aviation crew from Cicero Field and during the encounter had sustained several bad knife cuts, which laid him up for three days, immediately preceding the meet. Benson, Fleck and Gueth were the main point winners for the Telephone Company, Benson scoring 14, Fleck, 13, and Gueth 11 points. Fleck proved to be an exceptionally versatile athlete, winning points in five different events,



TUG-OF-WAR.



POLE VAULT.

the high and low hurdles, the 100-yard dash, the pole vault and the running high jump. Robson and Duesing of the Western Electric scored 10 points each, the former taking firsts in both dashes, the latter taking seconds in the two hurdle races and the running high jump, and third in the running broad jump. Mr. Duesing's performances were considerably below his standard, due to the fact that he had not entirely recovered from a severe illness. Mr. Benson of the Telephone Company was not in condition either, owing to recent sleepless nights with

a new son and heir. Luessenhop's work in the relay race was deserving of special mention, his long strides recovering considerable lost ground and enabling Robson to catch and pass his man in the last lap.

Probably the most interesting features of the program were the tugs of war. The new clamp and dial attachment, as well as the new anchor belts, were used for the first time on Hawthorne field. The Western Electric Millwrights, with T. S. Kennan as captain, succeeded in pulling the Central Installation team of the Telephone Company entirely off the cleats. The Western Electric team representing the cable shop, with A. Amberson as captain, defeated the Central Construction team of the Telephone Company two pulls out of three, taking the first pull by sixteen inches and the second by eight inches.

The summary of events and the table of points follow:

Summary of Events.

| | W. E. | Chi. |
|------------------------------------|-------|----------|
| | Co. | Tel. Co. |
| 90-Yd. High Hurdles. Time: 14 4/5. | | |
| 1st. O. Wolber | 5 | .. |
| 2nd. P. M. Duesing | 3 | .. |
| 3rd. R. W. Fleck | 1 | .. |
| 90-Yd. Low Hurdles. Time: 12 2/5. | | |
| 1st. R. W. Fleck | 3 | .. |
| 2nd. P. M. Duesing | 3 | .. |
| 3rd. O. Wolber | 1 | .. |
| 100-Yd. Dash. Time: 10 2/5. | | |
| 1st. W. E. Robson | 5 | .. |

| | | |
|--|---|----|
| 2nd. S. L. Smith | 3 | .. |
| 3rd. R. W. Fleck | 1 | .. |
| 220-Yd. Dash. Time: 26 2/5. | | |
| 1st. W. E. Robson | 5 | .. |
| 2nd. O. Benson | 3 | .. |
| 3rd. R. Day | 1 | .. |
| 440-Yd. Run. Time: 1:00 3/5. | | |
| 1st. J. J. Doyle | 5 | .. |
| 2nd. A. L. Luessenhop | 3 | .. |
| 3rd. J. H. Brown | 1 | .. |
| 880-Yd. Run. Time: 2:12 4/5. | | |
| 1st. J. J. Doyle | 5 | .. |
| 2nd. A. Hauske | 3 | .. |
| 3rd. D. Kirby | 1 | .. |
| Fat Man's Race. Time: 5 3/5. | | |
| 1st. H. A. Kirkpatrick | 5 | .. |
| 2nd. W. P. Randall | 3 | .. |
| 3rd. J. Flehan | 1 | .. |
| One-Mile Run. Time: 5:11 4/5. | | |
| 1st. A. Bolander | 5 | .. |
| 2nd. A. Hauske | 3 | .. |
| 3rd. R. Day | 1 | .. |
| Two-Mile Run. Time: 11:43 4/5. | | |
| 1st. J. J. Doyle | 5 | .. |
| 2nd. A. Bolander | 3 | .. |
| 3rd. D. Kirby | 1 | .. |
| 12-lb. Shot Put. Distance: 43 feet. | | |
| 1st. J. E. Allen | 5 | .. |
| 2nd. J. C. Reich | 3 | .. |
| 3rd. O. Benson | 1 | .. |
| Running High Jump. Height: 5 ft. 4 in. | | |
| 1st. F. Gueth | 5 | .. |
| 2nd. P. M. Duesing | 3 | .. |
| 3rd. R. W. Fleck | 1 | .. |
| Running Broad Jump. Dist.: 17 ft. 11 in. | | |
| 1st. O. Benson | 5 | .. |
| 2nd. F. Gueth | 3 | .. |
| 3rd. P. M. Duesing | 1 | .. |
| Standing Broad Jump. Dist.: 9 ft. 2 in. | | |
| 1st. O. Benson | 5 | .. |
| 2nd. F. Gueth | 3 | .. |
| 3rd. E. L. Swanson | 1 | .. |
| Pole Vault. Height: 10 ft. | | |
| 1st. R. W. Fleck | 6 | .. |

| | | |
|-----------------------------|----|----|
| 2nd. E. B. Miller | 3 | .. |
| Tug of War Contest | 10 | .. |
| 1st. C. R. & L. Shops | .. | .. |
| 2nd. Millwrights | .. | .. |
| Relay Race | 5 | .. |
| 1st. W. J. McCann | .. | .. |
| P. M. Duesing | .. | .. |
| 2nd. A. L. Luessenhop | .. | .. |
| W. E. Robson | .. | .. |
| Total Points | 61 | 59 |

Silver watch fob medals were awarded for firsts, bronze medals for seconds and ribbon badges for thirds. There was a fine big banner for the winning tug-of-war team and a bigger and handsomer banner for the total prize. This will grace the Western Electric's newly built trophy room and future department heads will tell, with swelling chests, how they helped to win it.

Unfortunately, two of the Telephone Company's best men, J. H. Brown, the Chicago Athletic Club sprinter from the plant accounting department, and L. Dagenhardt, the sensational high jumper from south installation, also a Chicago Athletic man, were obliged to compete at Evanston that day. Probably they would have taken enough points to turn the tide and give the Chicago Telephone Company the victory by a narrow margin.

The prettiest race of the day was the two-mile run in which young Bolander made a gallant finish in the effort to overtake Doyle.

The worst of headwork was shown in the mile run, when three telephone men—Bolander, Hauske and Day—ran themselves out for the first honors when they might have saved their energies to apply where points were needed.

The two tug-of-war pulls between the cable department of the Western Electric Company and the central construction team of the Telephone Company were well contested and aroused the spectators' enthusiasm. Apparently the telephone team was fully as strong, but was not as familiar with the fine points of the game. There was a feeling among the contestants that the tug-of-war teams should have had individual trophies, and at the next meet it will be so arranged.

The fourth meet is set for September 7th, when the program of the third meet will be repeated. All telephone athletes should get themselves in condition and reserve the date. Obviously, there is talent enough in the Chicago company to win.



SOME OF THE FOOT-RACE FINISHES.

WESTERN ELECTRIC WINS—SCORE 11 TO 4

Chicago Telephone Players, Badly
Crippled, Lose at Michigan
City Picnic.

STANDING OF COMMERCIAL TEAMS

| | Won. | Lost. | Per Cent. |
|-----------------------|------|-------|-----------|
| Western Electric Co. | 7 | 0 | 1000 |
| Chicago Telephone Co. | 6 | 2 | 750 |
| La Grange | 5 | 4 | 553 |
| Peoples Gas Co. | 4 | 4 | 500 |
| Public Service Co. | 4 | 6 | 333 |
| City Hall | 5 | 5 | 286 |
| Fuller & Fuller | 5 | 5 | 286 |
| Com. Edison Co. | 6 | 6 | 250 |

History repeats itself, and the Western Electric Company has won the critical game from the Chicago Telephone Company in the Commercial League season of 1912, just as in the preceding four years.

The occasion was the Western's annual picnic at Michigan City, on Saturday, July 20th, and the two excursion boats, Theodore Roosevelt and United States, took over a crowd of several thousand people. There was music and dancing on the boats and bathing and foot-racing and tugs of war at the park, but the baseball game was the big event.

Bryant was on the rubber for the Western with young Rehoh, who is touted for the big leagues, receiving. Hooker and Stewart were the Telephone battery, Carney played at second for the first time this year, and Shannon was in right field.

The telephone team was in bad shape. Catcher Stewart's thumb, broken at La Grange, was still in a bandage. Captain Driscoll, the best pinch hitter on the team, was laid up with a boil on his neck, and Joe Bradshaw, slab artist, was away at Gunther Park pitching such air-tight ball that he won headline notices in the Sunday papers.

The features of the game were Bryant's pitching and batting and Frolick's batting for the Western, and Gilfeather's and Schuler's batting for the Telephone team.

Frolick made one double and two singles. Gilfeather was up four times, drawing a double, a single, a base on balls and getting hit on the arm. He was clever on the paths, and scored twice. His double brought in a run.

Schuler got on three times by clean hitting, but the men behind him couldn't advance him, and in the seventh, after he had hit safely through short, he and Carney were doubled. Hora to kolar to Jefsek. Savage replaced Hooker in the sixth, and Dillon went in with the bases full and none out in the ninth. Four singles and two doubles were made off Hooker in the five innings. He gave five bases on balls, made a wild pitch, and struck out two. Savage was hit safely five times, including two doubles. He gave two bases on balls, hit one man, and struck one out. Dillon allowed one hit and fanned one man. Delaney replaced Stewart behind the bat in the sixth.

| Chicago Tel. Co. | R. | H. | P. | A. | E. |
|-------------------|----|----|----|----|----|
| Schuler | 0 | 3 | 5 | 2 | 1 |
| Carney | 0 | 0 | 3 | 4 | 0 |
| Babcock | 0 | 0 | 2 | 0 | 0 |
| Hassett | 1 | 1 | 8 | 0 | 0 |
| Gilfeather | 2 | 2 | 1 | 2 | 0 |
| Kinsley | 1 | 1 | 1 | 0 | 0 |
| Shannon | 0 | 0 | 0 | 0 | 0 |
| Driscoll | 0 | 0 | 0 | 0 | 0 |
| McConnell | 0 | 0 | 0 | 0 | 0 |
| Stewart | 0 | 1 | 4 | 0 | 0 |
| Delaney | 0 | 0 | 2 | 0 | 1 |
| Hooker | 0 | 1 | 0 | 1 | 0 |
| Savage | 0 | 0 | 0 | 1 | 0 |
| Dillon | 0 | 0 | 0 | 0 | 0 |
| Totals | 4 | 9 | 26 | 10 | 2 |
| Western Elec. Co. | R. | H. | P. | A. | E. |
| McCann | 2 | 1 | 2 | 4 | 0 |
| Dies | 1 | 0 | 0 | 0 | 0 |
| Kolar | 0 | 1 | 1 | 3 | 0 |
| Hora | 1 | 1 | 0 | 1 | 0 |
| Frolick | 2 | 3 | 2 | 0 | 0 |
| Grabow | 2 | 1 | 2 | 0 | 0 |
| Jefsek | 0 | 1 | 6 | 0 | 0 |



SOME VISITORS AT TRAFFIC-PLANT GAME.

| | | | | | |
|---|----|----|----|---|---|
| Rehor | 2 | 2 | 13 | 0 | 1 |
| Bryant | 1 | 2 | 1 | 1 | 0 |
| Totals | 11 | 12 | 27 | 5 | 1 |
| Chicago Tel. Co. | 0 | 1 | 0 | 2 | 0 |
| Western Elec. Co. | 0 | 3 | 0 | 2 | 1 |
| Two-base hits—Gilfeather, Bryant (2). | | | | | |
| Frolick, Jefsek. Stolen bases—Schuler, Kinsley, Grabow. | | | | | |

RESULTS JULY 13TH.

Western Electric Company, 6; Public Service Company, 3.
Western Electric Company, 11; Public Service Company, 2.
Commonwealth Edison Company, 4; City Hall, 0.
La Grange, 11; Peoples Gas Company, 3.

The Chicago Telephone Company vs. Fuller & Fuller—Postponed.
The Chicago Telephone team has played them all now, and has shown that it outclasses them all, except possibly the Western Electric Company. The only other defeat so far has been at the hands of the Peoples Gas Company in the first game of the season, and it was only a miserable fuke, although it may cost the season's pennant, unless offset by some brilliant playing against the leaders.

As related elsewhere, the first game with the Western Electric had to be postponed from June 29th to September 7th. The game scheduled for July 13th with Fuller & Fuller was postponed also, on account of inability to obtain grounds.

"Ducky" Stewart, in the La Grange game, suffered the worst smashed thumb ever given a ball player. The bone was broken in three places and the flesh burst open like a ripped glove. He was bundled into an auto and hustled round the corner, where a doctor fixed him up in a jiffy. He will be back in the line-up before the season is over. An amusing sequel to this accident occurred to Catcher Moore of the La Grange team in the next inning. The bleachers were full of ladies, among them his mother and his bride of a week. The padding of his mask was old and thin, so that a foul tip striking the mask squarely gave him quite a jar and he sat down on the ground partially dazed for a second. Somebody threw a cup of water in his face and he was all right again, but the two ladies were almost hysterical until he was escorted to the bleachers for critical inspection. Driscoll's home run was timely, as the bases were full at the time.

In the Commonwealth Edison game, by mutual consent, "Wild Bill" Case of the West End team, pitched for the Tungstens. He lived up to his name all right and winged one, gave three passes and made two wild pitches and a fielding error in six innings. Hughie Ray, manager of the Ishpeming team, a guest of Captain Driscoll, played center field for the telephone team long enough to corral four flies.

The Bell bunch hit like fiends and used their strength in the pinches. Savage put one over the fence with the sacks full in the game with the Commonwealth, and Kinsley cut off a run at the plate by a great line throw from deep center for the last out of

the game. Delaney caught a good game, and was full of pep on the coaching lines.

Plant Department League.

At a meeting held between representatives of the various teams, the Plant Department League was organized on Wednesday, June 12th.

The plan adopted provides for a twelve-team league, with the schedule so arranged that each team plays every other team one game. The schedule ends with the last Saturday in August, leaving September available for play offs of postponed games and ties, provided there are any teams tied for first place.

Each team is to pay \$1.50 into the league treasury for each game which it is scheduled to play. In return for this the League will furnish each team a ball for each game. The balance, or about \$10 a week, will be retained by the league to purchase a pennant for the winning team and provide a foundation for an entertainment fund, which will be spent with additions at the end of the season.

The league consists of the following teams:

| Team | Manager |
|--------------------|---------------|
| North Equipment | C. W. Byloff. |
| North Installation | O. G. Haller. |

| | |
|---------------------|----------------|
| North Plant | J. J. Sweeney |
| Toil | W. A. Lodge. |
| Central | R. S. Boulard. |
| Lincoln | A. C. Brewer. |
| Monroe | P. D. Stobbe. |
| Harrison | I. W. Boylan. |
| Oakland | W. R. Moline. |
| Lawndale | A. N. Sispela. |
| Wentworth | I. D. Budd. |
| Maintenance sup'ts. | J. W. Wolcott. |

The officers of the League are as follows:

President, J. W. Wolcott; Secy., Treas., R. S. Boulard; North Director, A. C. Brewer; South Director, I. D. Budd.

Plant League Standing.

| | Won. | Lost. | Pct. |
|--------------|------|-------|-------|
| Equipment | 4 | 0 | 1,000 |
| Oakland | 3 | 0 | 1,000 |
| Lawndale | 3 | 1 | 750 |
| Lincoln | 3 | 1 | 750 |
| Installation | 3 | 1 | 750 |
| Maintenance | 2 | 2 | 500 |
| Toil | 2 | 2 | 500 |
| Plant | 2 | 2 | 500 |
| Central | 1 | 3 | 250 |
| Monroe | 1 | 3 | 250 |
| Harrison | 0 | 3 | 000 |
| Wentworth | 0 | 4 | 000 |

Wire Chiefs vs. Traffic Managers.

The first annual ball game between the Wire Chiefs and Traffic Managers was played at Washington Park, Saturday, June 22nd, before a large and appreciative audience.

The Traffics won the toss and took the field only to see the Chiefs gather four runs in the first frame. This lead was momentary, however, as the Managers whaled five runs around in their half. The game, which was replete with brilliant fielding and heavy batting, seasawed back and forth until when the Chiefs went to bat in the ninth the score was 25 to 23 against them. By the game's rally of the season, in which grand work on the bases and with the bat featured, they scored eleven runs. The Traffics fought back desperately and before Seaholm finally struck out, they herded seven of their lost sheep home, leaving the final score 34 to 32 in favor of the Wire Chiefs. The features of the game were the battery work of both teams and Cady's fielding for the Chiefs.

| | Runs. | Hits. | Errors. |
|-------------|-------|-------|---------|
| Wire Chiefs | 34 | 24 | 8 |
| Traffics | 32 | 26 | 16 |

Fourth Dual Athletic Meet

CHICAGO TELEPHONE CO.

vs.
WESTERN ELECTRIC CO.

AT HAWTHORNE FIELD
SATURDAY, SEPTEMBER 7th

COMMERCIAL LEAGUE BASE BALL GAME
MEN'S TENNIS TOURNAMENT
WOMEN'S TENNIS TOURNAMENT
FIELD AND TRACK EVENTS

Silver Medals for Firsts, Bronze Medals for Seconds and Ribbons for Thirds

Individual Prizes for members of winning Tug-of-War Team

A Handsome Big Banner for Total Points

Excursion Trains on the Metropolitan Elevated leaving Fifth Avenue Terminal at 12:45 and at 1:00 P. M.

FARE 5 CENTS.

NO ADMISSION FEE.



WORK AND HEALTH.

With the limitations we have placed on the candidates for our picture gallery in the News, it is surprising to find so many who can qualify. A record which shows three years or more of service, without even one day's absence except for vacations, would seem to be such a severe test that few could pass. But a number of our records show not only three years of unbroken service, but even up to ten or eleven years, and many with the added honor of having never been tardy.

Such records show good fortune in not having been kept at home by illness or by the necessity of caring for the sick at home. There are a great number who have only been prevented from attaining most remarkable records by the almost inevitable accidents to themselves or their friends. Some have not missed more than one day in five years, and should we place all these in our gallery, the News would have to increase its size to give us space.

In connection with these records we might emphasize a truth that is sometimes forgotten, and that is this: *Regular work is a means of promoting good health.* There have always been people who maintain that work is a curse. In certain parts of the world and among certain classes everywhere there are still those who look at work as merely drudgery and something to be looked down upon. They seek every means to avoid it and look forward to the day when they will be rich enough to live without labor.

But in the main, the attitude toward work in these days is respectful, and the idle, especially the "idle rich," are disapproved of by most people. To work is now considered honorable and the sentiment of Henry Van Dyke in his poem on work is the opinion of many, expressed for them in his most fitting words:

Let me but do my work from day to day,
In field or forest, at the desk or loom,
In roaring market place or tranquil room.

Let me but find it in my heart to say:
When vagrant wishes beckon me astray:
"This is my work, my blessing, and
not my doom;

Of all who live, I am the one by whom
This work can best be done, in the right
way."

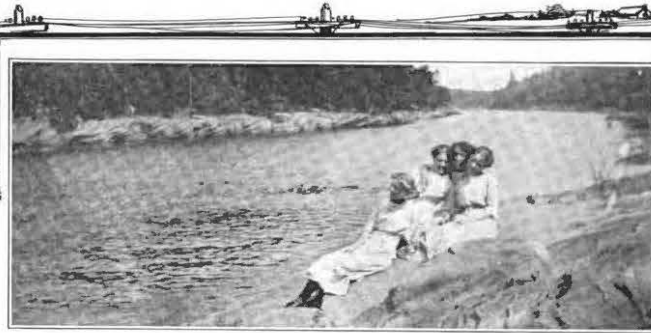
Then shall I see it not too great nor small
To suit my spirit and so prove my
powers;

Then shall I cheerfully greet the laboring
hours

And cheerfully turn when the long
shadows fall
At eventide, to play and love and rest.
Because I know for me my life is best.

It is true that work is a blessing, not a curse, and a person who would develop physically, mentally and morally must join the workers and not the shirkers.

There are many reasons for this. Perhaps the most important one is the fact that the *regularity* of life which an occupation requires is one of the best aids to health. There is a theory that our lives must have "rhythm," another word for regularity. Our meals come at certain hours each day and we miss them if, at the hour we usually eat, we are for some reason prevented. We have established a custom and our health suffers if we break into the order. If the digestive organs have been set to work at certain intervals they are on time, even if



CHICAGO OPERATORS ON VACATION IN WISCONSIN.

OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST

our meals are not, and we have that disagreeable gnawing of hunger or faint feeling that reminds us that we have missed our usual meal time. And it is just as true that a life which has work at regular hours is apt to be more healthful if that regular routine is carried out. If "vagrant wishes" do sometimes beckon us astray, it is well to call them back to the work that we need to do, for vagrant wishes, let loose too often, make the vagrant people, the "weary Willies" or the "idle rich," whom no one respects.

Not that we do not need to break the routine occasionally. One day in seven seems to fit the universal rhythm—and the annual vacations give new life and ambition. But the fact remains that health and strength are kept up better by a proper amount and regularity of work than by idling all the time.

A big book has been recently published, the fruit of an extended study of different vocations and their effect upon health. The record is interesting and helpful, but there is one point which does not appear. It is a fact that many breakdowns are caused more by the improper way of *resting* than by the amount of work done.

In the telephone vocation it is necessary to keep "Central" always ready to respond, and this involves a continuous series of relays, a relief force and adjustment of loads which requires much thought and a clear understanding of the principles of business management. If each operator could apply for herself the thought necessary to make herself use her hours to the best advantage—if she could keep a calm and happy spirit in her work, using rest periods for real relaxation, gaining "power through repose," she could add not only to her efficiency, but could add to her strength and good health by the very work she is engaged in.

In the colleges and schools, it is not the facts that one learns by heart that are most valuable. It is the training in concentration and the cultivation of mental alertness, the developing of character through regular, persistent endeavor. In our offices there are many girls who are using their brains as they work, and the fine concentration which a good operator puts into her two-hour periods at the board ought to give just the mental stimulus necessary for healthful mental exercise. Then if she knows how to rest in the rest periods as perfectly as she works, thoroughly to relax mind and body, she has discovered the secret of health and happiness, which comes only with joy in one's work. "Work while you work, play while you play. This is the way to be happy and gay."

It is a homely expression, but the truth is there. The people who are working intelligently and putting their minds and hearts into their work and have learned "at eventide, to play and love and rest," have found the secret of happiness.

KEEP COOL.

But how? With the mercury going above the ninety mark and evidently intent on making a record, the advice to "keep cool" seems to add "insult to injury." It is about as unreasonable, you say, as the mother's advice to her daughter who wishes to swim: Make all the necessary preparations but "don't go near the water."

However, there are *degrees* of heat and it is possible that some may be adding fuel to the fire. Let us not be any hotter than we need to be.

If the sun is blazing, it is not good policy to start a furnace fire and it is unnecessary expense. The advertisements that assure us that "now is the time to put in coal" need not be construed as advice to put it in the furnace during the summer months.

But you say no one is likely to be so foolish. Perhaps not, when it comes to coal furnaces, but many people are doing a more foolish thing in adding heat from *within* to the body already overheated from *without*. Their house is quite hot enough from the sun, but they pile the coal into the furnace. In other words, it takes a certain kind of food to help keep us warm in winter and quite another kind to keep us cool in summer. If in the winter a good deal of meat is used, and pork and fried foods and pastry prove to be good heat producing fuel, it is not reasonable to suppose that in hot weather, when the digestion cannot be aided by exercise or stimulated by the exhilarating temperature, that we need the same kind.

But don't fall into the opposite mistake and eat nothing. You are not as hungry as you are in winter; you have heard that too much food is bad in summer, and so you eat just a bit now and then without much concern as to what it is. Now the fact is, you don't need a large quantity, but do need nourishment, and in a more appetizing form than in the winter. That faint, tired feeling that you have on hot days can be helped by a judicious choice of food. If you absolutely can't eat, take a raw egg before coming to work in the morning. Break an egg into a glass and add the juice of an orange and you can swallow the egg whole and never know how you did it. There are many appetizing ways of taking eggs and they are a splendid nerve food, especially if taken raw. A little



bit of broiled meat or fish is appetizing and easily digested. Ripe fruit, not over ripe or wilted, is always good, but for people who work, though fruit is refreshing, there must also be something more nourishing. Choose milk and good cream soups, vegetable and salads, and let the heavier foods alone. Such a diet will feed the nerves and not overheat the blood, nor tire you out while the struggle to assimilate it is going on.

Keep cool—at least in your mind. That common slang expression about getting "hot under the collar" proves that people do get hot in cold weather even, if they get angry or indignant. Have you not heard people say when excited, "It makes my blood boil to think of it." The mind has wonderful power over the body. If it can set the blood to circulating till it seems to boil, why can it not have influence in keeping it cool and normal—at least in hot weather when we can't afford to get heated? Probably people are more irritating in hot weather and we have more occasion to get provoked, but it doesn't pay. It only sets the blood to racing through the veins and the heart to beating fast and furious. It is like starting a big furnace fire when we were hot already. Keep cool, keep calm. If some one is snappy and provoking, remember that they are not quite normal these hot days, and if you keep cool, maybe you will cool them down. If you can act as a wet blanket, maybe you will stop a big conflagration, for it is true that the mind can not only make a person irritable himself but it works on every one it comes in contact with. Prove that your mind is too strong to be influenced by another against your own comfort.

And don't worry about the heat. The newspapers keep the head lines before us, "Many dead or prostrated by the heat," "No hope in sight," "Man crazed, tries to die," but the cities are big and the proportion who die is small. Most of them probably were invalids or had big alcohol fires within. If we keep our minds calm and our bodies nourished, rest all we can and keep cheerful and patient, the heat won't seem so great and the small part of the year when we have to meet this condition will soon be passed.

"Permanent" Brings Aid.

The long-displayed signal of an open connection on a party line in the North exchange at Detroit caused the night chief operator to investigate, at two o'clock in the morning of June 20th, and when she "came in on the line," she heard faint groans. She immediately notified the police, to whom she furnished the addresses of each of the subscribers to the party line.

Motorcycle-officer Eugene Van Antwerp was rushed out to investigate, and at No. 176 Theodore street, found a carpenter pinned under a pile of lumber, where he had lain for an hour, helpless, until his groans were heard by the alert telephone operator.

The telephone had been dislodged by the falling lumber, and the receiver had fallen from the hook, turning in the carpenter's distress signal automatically, as there was no one else in the house.



MARGARET KOPP.

Long distance chief operator, Detroit. She began as an operator in 1894. Became chief operator in 1902. She has not been absent for eighteen years. She took no vacation in 1909 and only one day in 1911.



BERTHA DAVIS.

Traffic chief, Defiance, Ohio. She has been with the company nearly ten years. Has lost in all only seven days through illness. She has not been absent for five years.



JESSIE McKENNA.

Chief clerk, Columbus, Wis. She has worked without absence for ten years.



JENNIE AGNES BATTISHILL.

Began work as an operator in Detroit, July 28, 1889. She is now pay roll clerk and has not been absent a day for five years.

An Operator's Opinion of Operating

By a Cleveland Operator

Judging from my own experience, as well as from the experience of many other young women who have been under my observation for several years, there is no field today which offers greater compensation to those untrained for special work and who must earn their own living, than telephone operating. This is an age of specialties, and to be a success it is essential to possess a thorough knowledge along one line, making perfect and applying this knowledge in a practical way.

Fortunate is the individual, who having completed high school, has also been given the opportunity of a college education, and the time, effort and expense involved in mastering the art of teaching, bookkeeping or stenography are known to all; so to young women having only a grammar or high school education, and who desire to become independent and successful

in the business world, the field of telephone work stretches out its arms. Application can be made to the Telephone School, which is generally located in the Main Building. The applicant is examined by the chief instructor, and if found physically and mentally fit to take up the work, is placed in the school for a period of from two to three weeks, during which time a salary is paid. After completing the course of instruction the student is assigned a regular position (whenever possible in a central office near her home) and from that moment her advancement depends entirely on the way she applies herself to the work.

The surroundings of the telephone operator are such as to afford her every comfort. The offices where she works are models of quietness and order. Relief periods are given when the ample supply of magazines or books from the circulating library may be read, or rest can be taken in rooms provided for that purpose, which are furnished in a harmonious way and possess a homelike atmosphere. Many of the central offices have tennis courts, and where this is

impossible, roof gardens are enjoyed during the summer months. Another of the advantages given the telephone employee is the lunch room, where lunches are served at small expense.

More than one young woman thrown upon her own resources has been led to success through her knowledge of telephone operating. A visit to any of the central offices is proof of the great and splendid field which is being covered by workers who for their earnest efforts are daily receiving the consideration of a system ever ready to recognize good workmanship and advance the efficient employee.

Man of His Word.

"Central," he said patiently, "you have given me the wrong number seven times now. If you do it again I shall report you. I want Weehauken 7-50 V."

There was a whirring, a clicking, then a clicking whirring.

"Hello," he said, "is this you, Dolly?"

"Yes," answered a sweet voice, put up to it, of course, by its fair owner.

"This is Lawrence Seelingbass. I called up to tell you that if you don't

marry me I'll go to Africa and be killed by lions."

"I'll marry you, foolish boy. You've never asked me before, you know."

"What! Who is this?"

"Dolly Dartingham."

He hung up the receiver as if he had been shot. Central had given him the wrong connection again.

On his way to the jeweler's to buy Dolly Dartingham a diamond solitaire he stopped in at the Beestone telephone office to report the operator, for in all things Lawrence Seelingbass was a man of his word.—*Philadelphia Times*.

No Doubt About It.

A fellow that has one says that telephone girls make the best wives. They get in the habit of hearing kicks and growls and are compelled to keep their mouths shut and look pleasant, letting the other fellow do all the talking and they are so different from the rest of the sex that he'd advise any one in the market to make a break for the telephone office forthwith. Looks reasonable.—*Pocahontas Record*.



ISABELLA ECK.

Supervisor, North Exchange, Indianapolis. Began as operator in 1907. Walks eleven squares to the office and has not been tardy or absent.



SADIE ANDERSON.

Evening supervisor, Oakland Exchange, Chicago. She has not been absent for six years.



ZEDA BAARS.

Night operator, Hortonville, Wisconsin. She has not been absent for six years.



CLARA M. SEXTON.

Day supervisor, West Exchange, Detroit. She has been with the company ten years. Has not been absent for nearly six years.



A WESTERN VACATION.
Chicago Girl at Seven Falls, Colo.

VACATION SNAPS.

We know that many of our girls are taking vacations and outings of various kinds, but it is pleasant to see for ourselves just how some are enjoying the beauties of nature. Some have gone far, visiting scenes very different from those that usually surround them. Others are finding fun and recreation in the parks and picturesque spots near home.

One young lady from the Evanston force has sent some interesting snapshots of the Dells, Wis. She says:

"I am sending you herewith four pictures, and in connection would say that they do not do 'The Dells' justice. In fact I do not believe any photographer or artist could either paint or make a picture that would show all the beauties seen there. My sister and myself (see picture at the beginning of Girls' Section) spent a

delightful week in the 'Dells'—one never to be forgotten. We stayed at an old-fashioned farmhouse, very comfortable and clean and the meals were delicious. One advantage we had over the people in town was that we were in the midst of some of the most beautiful spots to be seen, such as Cold Water Canyon, Fern Dell and Pines Woods. We spent hours at these places and every time we would find something we had not seen before. The trip on the river to the Upper and Lower Dells is very enjoyable. We could see formations in the rocks, which the pilot of our boat pointed out as the Navy Yards, The Narrows, Sugar Bowl, Ink-Stand, Romance Rock, every formation just as natural as possible. I would advise anyone contemplating a vacation to go 'here as the money spent will more than repay the pleasure derived. The trip itself is not very expensive. By going to Milwaukee on the electric a person will save about \$1.00, and from Milwaukee we took the train to Kilbourne, the town where 'The Dells' are located. Our praise of 'The Dells' has made two of our friends, one a supervisor at Lake View and the other at Edgewater, take the trip. I wish all the girls I know could do the same."

Another young lady is quite as enthusiastic over Winona Lake, Ind.,



PICNIC AT RIVERSIDE.
The girls are from La Grange, Ill., Exchange.

where she has spent several vacations. She will be glad to give particulars to anyone who wishes to know more about it. Address Miss Hoggan, assistant principal Operators' School, Chicago Telephone Company. Some of the La Grange girls have just had a delightful picnic at Riverside. One would have to go far to find a prettier spot than this. The snapshot taken by one of the party gives a pretty view of the river and shady banks.

A good many girls have visited Colorado. The call of the mountains is strong when one has lived always on the plains, or perhaps still stronger if one has ever had a glimpse of their grandeur. One Chicago girl says that she "bought the round trip ticket to Colorado Springs for thirty dollars, which includes a trip to Denver, which is seventy-five miles north of Colorado Springs. The trip of 1,083 miles was well worth all it cost, for Colorado is certainly a glorious state and to see the sun set over Pike's Peak alone is worth the journey. I especially enjoyed the ride over the Moffat road. We took the train at Denver in the morning and by noon we were at an elevation 11,660 feet above the sea, surrounded by great banks of eternal snow. All summer long this marvelous sight is a delight to the tourist who enjoys the novelty of throwing

snowballs in summer and picking the hardy flowers that grow in the lee of these great snow banks. In the picture, the great board screen keeps the banks of snow from falling on the visitors. The trip covers seventy-two miles winding through thirty-eight tunnels, one of the greatest engineering feats of the world.

"Pike's Peak, 14,147 feet high, is reached by a cog-wheel railroad from Manitou. The ascent is worth all it costs, as the view is magnificent. The powerful field glasses enable one to see towns more than eighty miles away and one can read the signs on the stores in Colorado Springs more than fourteen miles distant.

"The picture taken at the foot of Seven Falls recalls one of the most beautiful spots in South Cheyenne Canyon. It is near here that Helen Hunt Jackson is buried. It was her desire that tourists visiting her grave should deposit two stones on the heap that forms her monument and take away one as a souvenir."

Operator Is Ready.

One of the notorious Allen moon-shining gang once tried to get a telephone and tried to hurry the operator by saying:

"I guess you don't know who I am. I'm one of the fighting Allens."

And the Virginia girl answered:

"I'm one of the fighting Wilcoxes, and when you come I'll be prepared."

And the only regret in any such case is that the insulter of telephone girls wasn't shot.—*Detroit Journal*.

Operator Aids Employer.

While her employer, Theodore S. Trimmer, head of S. Trimmer and Sons, coal dealers, at Gerard avenue and 137th street, New York, was being menaced by a discharged negro armed with a revolver, Caroline Miller, switchboard operator, called up police headquarters. Mr. Trimmer dropped to his hands and knees and crawled into a rear room, protected by desks, as the negro was prevented from entering by a railing. After the girl gave the alarm she, too, dropped and crawled to safety.

When the police from the Alexander avenue station responded the negro had escaped, but on information given by Mr. Trimmer, Joseph Haskin was later arrested.



MRS. S. C. RICE.

OPERATOR RUSHES ALARM.

Interprets Excited Calls of Men and Hurries Fire Department to Burning Factory.

Mrs. L. C. Rice, a night operator of the Lenawee County Telephone Company, Adrian, Mich., is receiving many compliments on her coolness at the time of the recent burning of the Lion Motor Car Company factory.

Mrs. Rice, who was alone on the switchboard, states that the alarm first came in from the Lion Motor offices at about one o'clock. A double trunk line runs into the exchange from the motor company's offices and the operator states that both of the numbers rang in at once.

She had two or three other calls in, but, believing that there must be something unusual to bring in a call from the Lion at that time in the morning, she answered it first. The man at the other end, she said, seemed to be terribly excited and kept ringing the bell constantly without waiting for an answer. Finally she said she made out that he was ringing and yelling at the same time, "Fire at the Lion Motor!"

Without waiting for the man to stop ringing and answer, Mrs. Rice turned in the alarm herself to the engine house. After the department had gone she declares the man was still shouting. As soon as she called the engine house, Mrs. Rice alarmed Manager Humphrey and Mr. Williman, head of the office force, that the factory was on fire.

The occurrence demonstrates the value of the telephone over the ordinary fire-alarm systems. It is said that at the time of this fire a regular alarm reached the department almost a half hour after Mrs. Rice had started the apparatus to the fire by telephone.

So Much Depends On Us.

At a large and fashionable woman's club in Chicago, the president was late. The ladies began to be impatient and there were murmurs of surprise as watches were consulted frequently. The presiding officer finally arrived and taking the chair said: "The meeting will now come to order, as it is now exactly ten o'clock. One of the women on the floor corrected her by stating it was ten minutes after ten. The president replied that her watch showed exactly ten o'clock. The other woman rejoined, 'Your watch must be wrong.' The president replied, 'Well, I did not ask the operator this morning. It may be that my watch is wrong.'"



DESCENDING PIKE'S PEAK.



SNOW FENCES.
Posed by Chicago Girl on Moffatt Road, Colorado.

LOOKS DANGEROUS FOR A SHORT TIME

But Fire Is Extinguished With
Little Damage To Ex-
change.

On June 11th at 7:30 a. m., a fire started in Henderson's department store in the Armstrong block at Lapeer, Mich.

Henderson's Department Store is but one door east of the Michigan State Telephone exchange, which is located on the second floor in the corner of the block. The fire was confined to the second floor of the store and inasmuch as the roof was constructed largely of tar, a heavy, sticky vapor was formed when water was thrown upon the burning roof. This vapor poured in through the windows of the telephone office, through the crevices and cracks of the roof and down into the operating room so thickly that at about 8:05 the operators were forced to leave the board and an attempt was made to reach the street by the hallway and the front entrance. The smoke, however, cut off the exit and immediately the firemen raised ladders to the rear of the exchange and took each operator down through the windows. At the time the fire was at its height it appeared as if the telephone exchange would be shortly destroyed. Lapeer was out of service about one-half hour.

When a return was made to the office, it was found that the furniture, walls and every exposed bit of paper had been thoroughly coated with a sticky black substance which was extremely difficult to remove. Members of the operating force found their coats destroyed and the jacks and plugs on the board had to be thoroughly polished. The Lapeer operating force maintained excellent discipline until the actual moment that it became necessary to leave the board. Toll and local calls were handled right up to that time, and the occasion furnishes another excellent example of the manner in which Bell operators handle emergency circumstances.

Messrs. Hartsell and Pierson, telephone linemen, as well as the firemen, deserve great credit for the manner in which they worked to save their office, as they realized what it meant to get water into the cables and switchboard. Each one of the operators who suffered a loss of her coat or hat was reimbursed, and with the exception of the inconvenience, the exchange was practically unharmed.



FIRE AT LAPEER, MICH.

Black cross shows window where operators left exchange. They escaped down the ladder.



EXCHANGE FORCE, LAPEER, MICH.

Genevieve Smith, Gladys Gibbons, Edith Elliott, Mildred Backus, Cashier.
Grace Glasford, Chief Operator, Mabel Pratt, Bessie Jones.

Arnold Bennett on Telephone Habit

What strikes and frightens the backward European almost as much as anything in the United States is the efficiency and fearful universality of the telephone. Just as I think of the big cities as agglomerations pierced everywhere by elevator-shafts full of movement, so I think of them as being threaded under pavements and over roofs and between floors and ceilings and between walls, by millions upon millions of live filaments that unite all the privacies of the organism—and destroy them in order to make one immense publicity. I do not mean that Europe has failed to adopt the telephone, nor that in Europe there are no hotels with the dreadful curse of an active telephone in every room. But I do mean that the European telephone is a toy, and a somewhat clumsy one, compared with the inexorable seriousness of the American telephone. Many otherwise highly civilized Europeans are as timid in addressing a telephone as they would be in addressing a royal sovereign. The average European middle-class householder still speaks of his telephone, if he has one, in the same falsely casual tone as the corresponding American is liable to speak of his motor-car. It is naught—a negligible trifle—but somehow it comes into the conversation!

"How odd!" you exclaim. And you are right. It is we Europeans who are wrong, through no particular fault of our own. The American is ruthlessly logical about the telephone. The only occasion on which I was in really serious danger of being taken for a madman in the United States was when, in a Chicago hotel, I permanently removed the receiver from the telephone in a room designed (doubtless ironically) for slumber. The whole hotel was appalled. Half Chicago shuddered. In response to the prayer of a deputation from the management I restored the receiver. On the horrified face of the deputation I could read the unspoken query: "Is it conceivable that you have been in this country a month without understanding that the United States is primarily nothing but a vast congeries of telephone-cabins?" Yes, I yielded and admired! And I surmise that on my next visit I shall find a telephone on

every table of every restaurant that respects itself.

It is the efficiency of the telephone that makes it irresistible to a great people whose passion is to "get results"—the instance with which the communication is given, and the clear loudness of the telephone's voice in reply to yours; phenomena utterly unknown in Europe. Were I to inhabit the United States, I too, should become a victim of the telephone habit, as it is practised in its most advanced form in those suburban communities to which I have already incidentally referred. There a woman takes to the telephone as women in more decadent lands take to morphia. You can see her at morn at her bedroom window, pouring confidences into her telephone thus combining the joy of an innocent vice with the healthy freshness of breeze and sunshine. It has happened to me to sit in a drawing-room where people gathered round the telephone as Europeans gather round a fire, and to hear immediately after the ejaculation of a number into the telephone a sharp ring from the outside through the open window, and then to hear in answer to the question, "What are you going to wear tonight?" two absolutely simultaneous replies, one loudly from the telephone across the room, and in the other faintlier from a charming human voice across the garden: "I don't know. What are you?" Such may be the pleasing secondary scientific effect of telephoning to the lady next door on a warm afternoon. —Arnold Bennett, in *Harper's Magazine*.

LONDON WOMEN ARE AWAKE TO TELEPHONE

English Sisters Finding What a
Convenience Westerners
Enjoy.

Paris has not wakened yet, but London has at last "discovered" the telephone. The talking instruments are coming into more general use and, as a result, London women are not doing their marketing by personal visits to the grocers' in such numbers as formerly.

As regards the telephone London is now in the position which Detroit oc-

cupied some ten years ago. Comments in the papers of the English metropolis indicate that the telephone is still considered a good deal of a curiosity and the old town is not certain yet whether its use is desirable.

For instance, in the course of a long article on "Phone shopping," the *London Chronicle* says:

"The development of the telephone has brought about something of a revolution in shopping. It is no longer necessary to spend pretty well the whole day going from one place to another. If you have a telephone in your own house, you have simply to ring up your grocer, baker, green-grocer, dairyman and so on, without walking more than a few yards. If you are not on the telephone yourself, you have only to walk to the nearest public telephone—there is nearly always one within a few hundred yards—and save a great deal of time by spending a few twopences.

"At first women were rather shy of the telephone. They complained that they could not hear, that it got on their nerves, and that it could not be relied on. Then when they found it out they incessantly borrowed it, running in on friends to telephone to the grocer or the hat shop.

"Luckily, the possession of a telephone is not now the embarrassment that it used to be. Practically every house in the West End has one, and fresh subscribers are connected every day. All the big shops have a special staff for taking telephone orders, and the tradesman who thinks there is no need for a telephone soon finds his business suffering. Not long ago the thousands of women would have had to go to Oxford street. Now they spend a few minutes at the telephone."

COST \$4.85.

But Was Worth \$10,000, Says Happy
Man Who Got Engaged by
Long Distance.

Viola Quick of Detroit, Mich., was pleased when her sweetheart proposed to her over the long-distance telephone from Chicago.

"O, you silly," she laughed when he asked if he had understood correctly that she had said "no." "I said yes—yes—yes, of course."

"She said she was awfully tickled that I telephoned her," said the man in the case, Christian Hanberg, son of John Hanberg, former commissioner of public works. "She said it was much more romantic than letter writing."

The conversation cost the young man \$4.85, but he said it was worth \$10,000.—*Chicago Tribune*.



FIRE AT LAPEER, MICH.

Bell exchange was badly smoked but not seriously damaged.

NO INDEED, NOTHING SMALL ABOUT GARY

Expects Soon to Have the Second
Largest Exchange in Chicago
Territory.

"What's the news at Gary exchange?"

The reporter's question was answered by "Well, just say that in three years this will be the biggest exchange outside of Chicago."

Four years ago this would have been too startling for the conservative reporter of the BELL TELEPHONE NEWS to dare publish lest we be called sensational; but in the light of the achievements of the past six years it requires no prophetic daring to believe that the city which has gained 20,000 inhabitants in four years will soon need the extensive telephone service which is being planned for it.

The beautiful building which is now completed and only waits equipment is situated on one of the choicest lots in Gary. It faces on Jefferson Park, which, like an oasis in a stretch of sandy level, has the charm of natural hillocks and grassy slopes. It is close to the fine tower and buildings of the Gary light, heat and water plant, which adds attractiveness to the views from the exchange.

The foreign element in the town adds somewhat to the difficulties of the operators. One peculiarity is that they have not learned the etiquette of the telephone and it is almost impossible to make them hang up until they have heard a response to their good bye. In desperation sometimes an operator has been obliged to add this phrase to those indicated in her phrase book. "Hold the string," is the common request.

From the 1,550 stations in 1907 the service has grown to 2,140 stations.

Zoological Note.

A North office operator, Chicago, upon discovering a trunk doubled, buzzed for the supervisor. The supervisor who was answering a manager's call stepped toward her and the operator said: "Tell Miss White to get off my trunk, she doubled it."

The subscriber who was talking to the supervisor laughed heartily and said: "Well, that's pretty good, I always knew you had chicken up there, but I didn't know you had elephants."



EXCHANGE BUILDING, GARY, IND.

EXCHANGE OF EXCHANGES

West, Chicago:

A supervisor questioned a call and asked the operator what position she was in. The subscriber, thinking he was being asked, politely answered: "I'm in a sitting position. Can't they hear just as well that way?"

La Grange, Ill.:

A La Grange subscriber speaking poor English called a number. The operator said: "That line is out of order." The subscriber exclaimed: "Mein Gott! The line is full of water?"

A subscriber who had been talking with a friend thought she had finished talking and hung up. Then she returned and asked the operator for the time. She was astonished to hear a voice answer: "I have looked everywhere but I can't find it." The other subscriber said: "Why, operator, did you look at the clock?" and then discovered that she was still talking with her friend who had only left the telephone to look for something.

North, Chicago:

Supervisor: "Manager's office."
Subscriber: "I want you to look in

my telephone. It makes noises just like firecrackers that we shoot on the Fourth of July."

Waukegan, Ill.:

A student who was very much interested in her work and tried to get her phrases correct, one day repeated:

Operator: "Number please?"
Subscriber: "My bell just rang."
Operator: "Excuse it please, there is no one on your telephone now."

At a magneto board:

Operator: "Waiting?"
Subscriber: "Oh, my! Willie's gone to bed an hour ago so you will have to call tomorrow."

A subscriber had called a number several times and each time received the busy signal. After a short time he again called and said: "Say, operator, for goodness sake, ain't dot line empty yet?"

Yards, Chicago:

A subscriber called a Drovers number after twelve o'clock. The operator said "What is the name, please?" Subscriber: "Say, operator, are you a priest, that I have to make a confession to you?"

Edgewater, Chicago:

A gentleman entering a telephone office went up to the desk to speak to the manager. "I see," he said, "that you advertise a telephone for sixteen cents a day." "Yes, sir," said the manager. "Well, let me see," said the gentleman. "Today is Wednesday. My wife is giving a birthday party Friday. We want the phone in by Friday so my wife can call up and invite her friends. Here's the money in advance," he said, laying sixteen cents on the desk.

A repairman asked the operator to ring a number on a circuit. When a lady's voice answered, he said: "Did you get a ring?" "Why, yes, George gave me my diamond last night. How do you know, and who are you?" But the repairman had disappeared.

Telephone operator at lunch table: "Do you know I sat up until midnight last night, trying to think of what I wanted to remember."

Second operator: "And did you remember?"

First operator: "Yes, I remembered I wanted to go to bed early."

A student giving a permanent into the hospital: "158 a peppermint."

Youngstown, Ohio:

The following letter speaks for itself and gives one more proof that no enterprise in these days is successful without the service of the girls who bring people together:

Mr. E. A. Sanders, Mgr., Central Union Telephone Company.
Mr. Dear Mr. Sanders:

I am instructed by the Executive Committee of the St. Elizabeth Hospital Campaign to thank you and your company for the good service rendered to this campaign by yourself and operators.

The three special telephones placed in our headquarters were always working and the service greatly helped the workers to raise \$100,000 in six days for this charitable cause. Yours very truly,
GRANT S. WHITSLAR,
Executive Secretary.

Milwaukee, Wis.:

"Nickel, please," requested the operator. The subscriber apologetically explained that he had paid his nickel as he entered the booth, thinking that he was using "one of those pay-as-you-enter" telephones.

Lincoln, Chicago:

A foreigner calling Lincoln 7608 gave the order in very broken English as "Lincoln 76, nothing in the middle, then 8."

Northwestern Station, Chicago:

The operator was giving a telegram to the telegraph company by the code "F. D." The subscriber listening said, "Why don't you ask for P. D. Q?"

Central, Chicago:

One of the subscribers wished to speak to an operator in regard to a connection he was unable to get. He was referred, as usual, to the supervisor, and said to her, "Why can't I talk to your operator? I can talk to the president of the United States and I can talk to God, but I can't talk to one of your operators."

Toll, Chicago:

A lady who was deaf was trying to talk with a friend in Milwaukee. Finally, not able to hear, she said to the operator, "Please tell me what Mrs. — is saying. I understood her to say that if she came to Chicago her doctor says she will have to take a foot bath." The operator listened and repeated the statement: "If I go to Chicago the doctor says it would put me back."

Avalon Cottage Open.

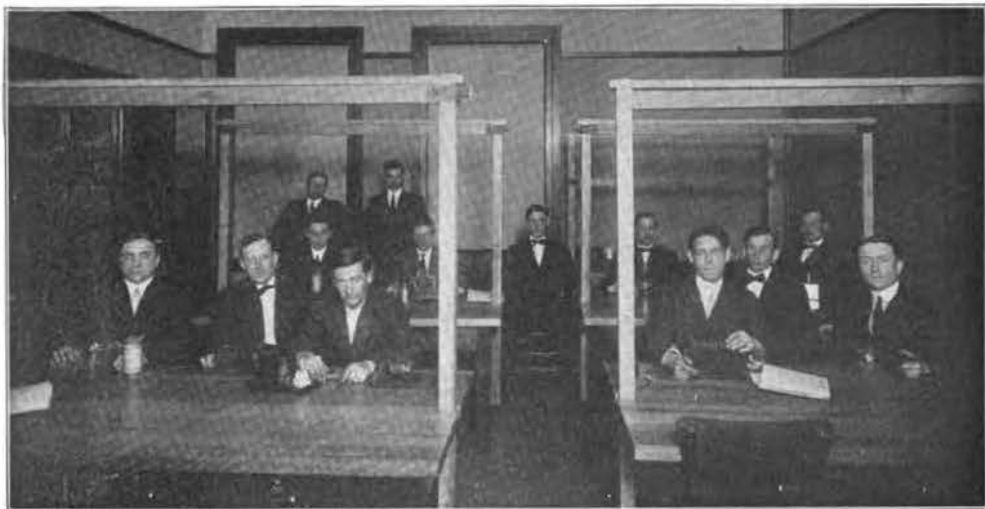
The Chicago Woman's Club announces the opening of Avalon Cottage, at Saugatuck, Mich., for this season's summer vacations for Chicago business women.

The cottage has all modern conveniences. It stands upon one of the highest wooded dunes, with beautiful views of Lake Michigan and the surrounding fruit farms. Boating, bathing and excursions add to the enjoyment of guests. A club woman is in charge as house-mother.

Board and room, \$6 per week. Guests must register at room 1223, Masonic Temple, that a room may be reserved. Further information may be had at this address.



VIEW FROM EXCHANGE, GARY, IND.



TELEPHONE PLANT SCHOOL AT GARY Y. M. C. A.

Telephone Course at Gary Y. M. C. A.

By J. C. BONE, Student last year, Plant Department School, Chicago Telephone Company.

The Gary Institute of the Y. M. C. A. at Gary, Ind., is the first in the country to start a course in telephony.

The Gary Y. M. C. A. building is one of the most complete in the country. It was erected and equipped at a cost of nearly \$300,000, of which \$240,000 was given by Judge Gary, head of the United States Steel Corporation.

The wonderful growth of the Steel City was described in the September, 1911, issue of the BELL TELEPHONE NEWS. Since that recent date a visitor to Gary, Ind., would be surprised at the development during the winter. New buildings are to be seen everywhere and still more in process of construction. Facing the park a modern telephone building is to be found ready for occupancy where a vacant lot existed only last September.

The educational opportunity offered to young men by the association institute is what is needed for what is known as the "City of Young Men." Through the influence of Manager L. H. Meyer, fifteen employees of the Chicago Telephone Company are enrolled and will devote two nights a week toward advancing their technical education in the electrical field. Everything in the line of electrical apparatus and Bell telephone equipment is provided to aid them in getting the most out of their studies. Abundance of room is provided for laboratory, class room and library purposes.

The faculty is composed of expert men in the electrical line, such as the chief and assistant chief electrical engineers and general electrical foremen of the Indiana Steel Company and an electrical engineer of the Chicago Telephone Company.

The cost to the student for the telephone course is only about seven dollars, which is a small fractional part of the prices asked in schools of technology.

The course was started with the study of electricity and magnetism as applied specifically in the telephone work, using as a text book *Electricity and Magnetism in Telephone Maintenance*, by G. W. Cummings, treating on the following: Static electricity;

voltic electricity; resistance and e. m. f.; magnetism; electro-magnetic induction; electric capacity condensers; units; Ohm's law; resistance and current; the electric circuit; magnetic fields; properties of the solenoid; the magnetic circuit; relationship between electric and magnetic circuits; theory of the dynamo; theory of the motor; instruments, their calibration and their application to the measurement of power, resistance, etc.

This will be followed with lessons in circuit drawing and tracing. An important feature of the course will consist of quizzing and open discussion of points treated on, lessons on the subscribers set, both local and common battery, illustrated by samples of apparatus and including practice in wiring up panels. Two lessons on the telephone system as a whole will follow, the first to be illustrated by skeleton panels, showing subscriber's set, cord and trunk.

Lessons on wiring covering instruction on underwriter's rules and practice in running drop and inside wires and the setting up of instruments and protectors will follow.

The switchboard and power apparatus will then follow. As the city of Gary is to have modern keyless ringing "A" board in the new office, this will prove a very interesting feature of the course. Special attention will be given to the switchboard circuits.

THE BILL AND THE BELL.

By David H. Dodge.

A telephone Bill, as I've heard tell,
Once fell in love with a telephone Bell;
They'd met at a telephone dance, last fall,
Where she was pronounced the Bell of the Bell.

And, soon as he heard her clear-cut ring,
He adored that Bell like anything!
It tickled him 'most to death to hear
Her notes fall on his financial ear.

And he said to himself, said he:
"If that is her usual tone,
What an elegant cinch 'twould be
If she rang for me alone!"

"I'll never," thought Bill, "be henceforth
Still or at rest, until she gives me a
thrill by saying, 'I will,' when I ask her
to be my own!"

Now here is a point we must treat with
skill:

Possessed a bell already, did Bill;
But the life of each was a sad mistake,
For both belonged to an old-time Blake
Which hung on somehow, spite of the fact

That the bell was rusty and aged and
cracked;

Her tongue was lengthy—that is, her
hammer.

And whenever she rang 'twas a dreadful
clamor!

And the Bill had lost his pride
And his interest in life
When he thought how he was tied
To such inharmonious strife.

But after he met his gay coquette he fell
in a pet; he'd fume and fret on a scheme
to get that melodious Bell for a wife.

At length he evolved a crafty plan
By which the discontinu—can
Might be attached to the Blake and bell
And drag them off as junk, pell-mell;
"I'll go each month with an over-charge,
With items for toll that are much too
large."

I'll make the subscriber turn quite pale—
And I'll once in a while get lost in the
mall!

And when he feels good and tired
And orders his instrument out,
As soon as the Blake is fired
I'll run to my Bell with a shout,
And tell her with glee that we both are
free for felicity, and to come with me
and to married be, for the carriage waits
without!"

Now the Bell of whom he felt so fond
With a bill had no connubial bond,
For she was part of a "public pay"
At which a collector called each day.
And it's proper to say she was quite
above

Falling with other bells' Bills in love,
So it caused not a whit her heart to stir
When she found that a Bill was stuck on
her.

But the Bill, being unaware
Of her frigid state of mind,

'Gan forthwith to prepare
His plan as above defined;

And he very soon had the subscriber mad,
who exclaimed: "By gad, it's really too
bad!" Then he seized a pad and a letter
he wrote and signed.

"Dear Telephone Company," wrote he,
quick,

"Concerning your service I don't kick;
It's always good; but say, that Bill—
It pos-it-ively makes me
I'll have my telephone out, that's flat,
Before I will pay a Bill like that."

And then, not waiting to have it adjusted,
Became a bankrupt, and went busted!
And the Bill, whose financial guile
Had been doubly incorrect,

Was buried deep in a file
Of accounts marked: "Can't Collect."

And there he'll stay, for none to pay, as
he crumbles away till the Judgment Day.
And you're right to say it is just what
he might expect!

There's a three-fold moral to this song,
Which has proved, I fear, to be somewhat
long:

The first is: Don't belong, I entreat,
To a (telephone) set that's obsolete;
The second is: Don't be noisy—or
cracked;

The third is: Always be exact!
I could dig up other morals as well,
But I want to tell you about that Bell.

She continued to ting-a-ling
In a tone that was smart and smack,
And we joyed to hear her ring,
Each day of the almanac—

Till we all were stirred by a tale absurd.
The gossip averred this is what oc-
curred: the Bell, they heard, had eloped
with a telephone Jack!

6 Models

\$175-\$250



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Reliability is Only One of Many Excelsior Features

The careful inspection and the grueling test that every Excelsior engine undergoes before it is put upon an Excelsior frame is one of the many factors that make for Excelsior superiority. Our machine is the product of careful construction in which the best of materials are used. There is nothing upon the Excelsior Auto-Cycle that is untried or untested, and the result is that the Excelsior combines comfort, cleanliness, simplicity and speed, as well as reliability.

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Excelsior Motor Mfg. & Supply Co.

2206-2266 Union Street

Chicago

After-Dinner Speeches By Telephone

By CHARLES PHELPS CUSHING in Judge

Simultaneously with the renewed applause for wireless telegraphy and the appearance of accounts of new exploits of that most marvelous of detectives, the dictagraph, behold the after-dinner speech via long-distance telephone coming again into high favor. These many years we have enjoyed the love-making and the business advantages of the telephone, without knowing how to appreciate to the full its excellence for banquet use.

The most obvious comment is from the diner's point of view, the mad joy



CHARLES P. CUSHING.

of at last being able to shut off a flow of oratory whenever the interest begins to lag. Sensing the imminence of a flight of bombast or a frayed anecdote, he may lay down the receiver and take up an apple or the nut crackers. No doubt this is a tremendous consummation. North and South, on the Pacific slope and the Atlantic, editorial writers of all parties have said so in perfect agreement.

But to stop here is to retire after only scratching with a pen point the surface of a ten-acre subject. Speakers welcome the telephone dinner as heartily at least as their listeners. Why hasn't some one remarked that the new plan proposes to annihilate that abomination, the reception committee in Prince Albert coats? That is the sort of thing we mean by "progress." And no more low-necked hacks transporting the speaker of the even-

ing up Main street to the Commercial Hotel, with three citizens assigned to pester him persistently until dinner-time!

At a telephone banquet every one can hear equally well. A speech worth listening to will penetrate to the most distant corner of the dining hall, for seating arrangements will matter not one whit. Though chair legs squeak uneasily and well-fed males sigh and cough to an accompaniment of crackling shirt bosoms, the speaker never will know; at the same time, the truly interested listener will continue to hear every word.

Once the sense of novelty wears off a bit, the quality of speaking must needs improve. After-dinner wit is soon to possess the quality Shakespeare said was its soul, and delivery is to become less artificial.

On account of telephone tolls, stop-watch law will be strictly enforced. A speaker may show the very smallest regard for the time of fellow-banqueters, but every one has been trained to hold a healthy respect for the time of the operator of a toll board.

The consumer has this joyful promise of brevity. But the orator, too, rejoices. He knows that now he will be more natural and do a better class of work. For one thing, the telephone idea means nothing less important than a decrease of dressing up among our greats and near-greats. With a telephone in their rooms, they may sit in dressing gown and slippers and talk at ease to comfortable-minded listeners. The speaker is, of necessity, in the best of spirits. Not only does he evade ruining his digestion with countless "banquets"—he also saves his temper by not having to shave and by not having to tie innumerable dress ties. Under this new system he may frequently see his wife and children. And if he happens to be "indisposed" or is at all bashful or ever has had stage fright, the telephone speech will be welcomed as one of the choicest blessings of an age of science.

Animal Intelligence.

The question whether domestic animals really think or act entirely from a blind instinct has long been disputed by men learned and unlearned. Recently a case has come to notice which seems to show that a horse not only has the ability to plan a course of action with the malicious intent of harming his driver but to form this plan quickly under trying circumstances with remorse and suddenly modify his original plan.

Recently a member of the supervisory force of the Chicago central construction division who prefers to avoid notoriety and so asked that his name



"The speaker is in the best of spirits."

should not be published, was driving along the street near one of the hospitals of the city. When nearly in front of the hospital one of the shafts of the buggy broke. This frightened the horse, which jumped and broke the other shaft. The man in the buggy tried his best to stop the horse, but the dangling broken ends of the shafts frightened the animal more and more. The horse was making pretty good headway toward some indefinite point down the street when he was passing the hospital and noticed the name over the door. He suddenly turned up the main entrance of the hospital and made straight for the door. The driver appreciated the horse's good intentions but succeeded in stopping him before he quite reached the steps to the building, so that no serious harm was done. He is always going to drive this horse in the future, however.

Some "Scientific Management."

One cold winter day some railroad officials, while making an inspection of a large yard, stopped for a moment inside a switchman's shanty to get warm. Among them was a general superintendent, who was known to have a mania for "scientific management" and the reduction of expenses. As they were leaving the switchman asked the traveling yardmaster, whom he knew:

"Now, can ye be tellin' me who that mon is?"

"That's the general superintendent," the yardmaster replied.

"What do you think o' that? He's a foine lookin' mon, and ye never would believe the tales ye are after hearin' about 'im."

"What have you heard about him, Mike?" was the curious question. "Why, they do say that he was at the funeral of Mr. Mitchell's wife, and when the six pallbearers come out he raised his hand and said: 'Hold on a minute, boys. I think yez can get along without two of thim!'"—Chicago Examiner.

Laughlin

Non Leaky—Self Filling

Fountain Pen

No Extensions to "remember"
No Locks to "forget"

The Pen without the trouble

Guaranteed absolutely non-leaky—pen and feed kept moist and primed, insuring a free uniform flow of ink, instantly upon contact with writing sheet.

May be carried in any position in pocket or bag without possibility of leaking or sweating.

Every pen guaranteed satisfactory to the user—or money refunded—size illustrated in this advertisement.

\$2.50 by mail
= prepaid

to any address—plain black, chased or mottled as desired.

It is not necessary to write us a letter, simply mail us \$2.50 with your name and address and we will mail the pen by return mail.

Send us the name of your dealer, that you asked to show you a Laughlin Non-leaky, Self-filling Fountain Pen, and we will send you free of charge one of our new Safety Pocket Fountain Pen Holders.

It is not required that you purchase a pen to get this Safety Holder, we simply want the names of dealers who do not handle this pen, that we may mail them our catalogue. Address

Laughlin Mfg. Co.

826 Griswold Street

Detroit, Michigan



"May lay down the receiver and take up an apple."

WEISHAUP

Iron and Wire Works
(INC.)

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CHICAGO

MANUFACTURERS OF
STRUCTURAL AND ARCHITECTURAL
IRON AND WIRE WORKS



ASSOCIATION OF RAILWAY TELEGRAPH SUPERINTENDENTS AT NEW YORK TELEPHONE EXCHANGE.
A number of familiar faces are seen.

DIGNITY OF THE TELEPHONE.

Its Summons for a Long-Distance Message Commands Respect From Highest Quarters.

A crowd of reporters were besieging the office of a prominent corporation official one afternoon to get his views on an important piece of information. The official had no intention of seeing them, so slipped away to his home. The newspaper men, who represented papers from all over the United States, followed him and endeavored, in vain, to interview this reticent person. Not one succeeded in getting admission beyond the front door. The official refused, absolutely, to grant a single interview, and he meant it.

And yet there was one New York newspaper which printed next morning a long and interesting interview with the corporation official, giving his views on the important piece of information in great detail. This interview was authoritative and had been obtained as follows: The editor of this journal had had his Pittsburgh correspondent call up the official by long-distance telephone, and when word was brought that "Long Distance" wanted him he got out of bed. The dignity of the approach was such that he talked freely.

In these days competition is keen and there are so many ways of approaching people that the man who doesn't want to be approached has grown very wary. He detects the simple circular and the imitation letter in his mail at a glance. The signs and hand bills which follow him as he walks along the street he usually ignores, unless they make a subconscious impression on him. He avoids even the most insistent salesman, and is never "at home" to the reporter who may be unwelcome.

But everybody is always "at home" to the long-distance telephone.

There is nothing backneyed about this means of approach. It has not been worked to death. Further, it always implies business of importance. When a man is called by long-distance telephone he may rely on not being asked to buy a nail file or a packet of pencils.

The man who has something to sell, whether it is information, newspaper space, or goods, compliments his potential customers by calling on them that way. The most tactful personal letter may be regarded as an intrusion, but never the toll call, and the

person called realizes this point in such a way that it reflects to the advantage of the person calling.

The Least Expensive Salesman.

Let it be assumed, in the case of a business office in a city, that a large portion of the business is done with half a dozen customers scattered over territory ten or twenty miles from the office, but conveniently reached by trolley lines—an area, say, of about seven hundred square miles.

To visit these customers a salesman will take certainly half a day, if he is lucky in his trolley car schedules; probably a whole day. To this cost of one day for a salesman in selling goods, there must be added carfare and expenses. Furthermore, every customer who happens to be out, or is too busy to talk, costs just as much pro rata as those who are successfully interviewed.

Or consider these six customers the same distance in the country where trolley lines do not run, where for getting around a team must be used, or an automobile. Now the cost of getting at these customers is easily twice what it was in the other case—supposing that the visits can be made under any circumstances. As a matter of fact, these conditions imply that there must be seasons in the year when the state of country roads makes it impossible to keep in touch with such trade.

Here, then, we have a simple problem in arithmetic to be solved by the merchant who wants to sell goods to such customers as are described. Is it worth while? The business man must go largely, nay, entirely, unless some part of his business is swayed for sentimental reasons—by cost. If the working at these outlying customers through his sales force eats up the profits to be accrued, he must let them alone. The pressure of other matters may prevent his laying out his sales force to take a chance on it, or he may come to the conclusion that the costs are prohibitive.

Now, with the long-distance telephone, practically every customer of this sort can be reached at an expense not greater than those of trolley fares. A salesman, who might take from half a day to a day to visit these customers in person, with the chances of missing some of them in spite of the expense, can cover the whole outlying region of them in a couple of hours. And those he doesn't succeed in reaching cost him nothing.

The directness and efficiency of the canvass are as great as in a personal

visit, and the dignity of the approach certainly impresses the customer—just as the salesman knows that he himself would be impressed if he were in the customer's place.—*Detroit Saturday Night.*

Brain a Telephone Exchange.

R. J. writes: "Has the size of one's head anything to do with the intellect or the amount of brains? Bumps projecting from either side of the head—do they indicate any extraordinary brightness? Does a bulging forehead indicate a strong memory? Where does the memory brain lie, and where the intellectual brain?"

1. No.
2. No.
3. No.
4. Some of the functions of the brain are accurately localized, others are not.

Memory, as such, has no center. Memory of an act resides in the centers having to do with that act. It is like a man walking in the snow. The tracks are where he walked. Nobody goes around, gathers up tracks, and carries them to a center. Going over things in memory is walking in tracks.

The brain is a telephone exchange. Its quality depends on the wires which come in, and the perfection with which the different boards are "hooked up." A good brain is one with lots of wires running in and out, lots of switchboards, lots of wires running from switchboard to switchboard, and good insulation, so that the wires never cross or ground.

In the brain the system is partly automatic and partly worked by operators. Most of the operators sit at switchboards over the eyes and up to the hair line. But there are others sitting all around, some at the back of the head, and others right over the ears.

The quality of the work done by the brain is determined by how well the exchange is organized; how often one gets the wrong number when he rings, or the busy signal when the line is not busy, or a crossed line, or "phone out of order, or an electric shock—these are the things which show a brain to be poor. It is not the size or bulk which means intellectual capacity.

Bumps on a head have no more to do with brain work than a bay window on a telephone building has to do with the girl who sits at the board in the "Wabash" exchange of a large telephone system.—Dr. W. A. Evans in *Chicago Tribune.*

MATTHEWS TELAFAULT



is the only instrument made that will locate "dead shorts" and wet spots. It will not "noise up" other working pairs when used for locating "dead shorts," grounds or high resistance faults.

The patented exploring coil furnished with Matthews Telafault neutralizes all sheath currents and prevents the false locations so common with other types of instruments when they are used for finding "grounds."

The patented heat coil interrupter, which is a part of the instrument, is a distinctive feature which enables the operator to "code" the tone when he is likely to confuse it with "tone" caused by induction from adjacent power lines.

Matthews Telafault can be used as a tone test set or a "howler" as well as for locating all cable troubles except "opens."

It has been thoroughly tested by your engineering department and it is our belief that your requisitions for them will be honored.

Manufactured exclusively by

**W. N. MATTHEWS
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Manufacturers of Matthews Patented Money Saving Specialties

**3128 Forest Park Boulevard
St. Louis, U. S. A.**

For Sale by the

WESTERN ELECTRIC CO.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES
GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
B. A. PRATT
G. W. CUMMINGS
Correspondents

BOUQUETS

THE HAWKEYE PRINTING COMPANY.

Dundee, Ill., July 3, 1912.
Chicago Telephone Company.
Gentlemen—Permit me to say just a word in praise of your local exchange. Your Dundee employees are a painstaking, efficient group of workers, and their efforts to give patrons prompt and courteous service are appreciated. My connection with the New Era Telephone Company has given me enough insight into the business so that I know something about what a patron has reason to expect and I also know that the company has some rights.

Very truly yours,
F. E. HOLMES.

INDUSTRIAL AND PUBLICITY COMMITTEE.

Joliet, Ill., June 29, 1912.
Chicago Telephone Company.
Gentlemen—Permit me, as one who is in touch with the general industrial and commercial interests of this territory, to congratulate you and the Chicago Telephone Company on the excellent showing which your organization has made. The recent additions to the district which you represent, as well as the increase in the number of 'phones in service, prove that the people of this community are ready to reward a public service corporation that keeps in touch with the needs of the public, and endeavors to meet those needs in the right way.
It is gratifying to know the Joliet district is the largest outside of Chicago. Its growth is an evidence of the growth of Joliet, and we trust it may continue to act as a barometer of local progress.
With best wishes for you and your associates, I beg to remain, very truly yours,
W. O. HODGDON,
Industrial Agent.

Party for P. F. Boedecker.

On Wednesday evening, June 19th, when P. F. Boedecker was hurried from the Main Office at ten o'clock to the dining room he found such a transformation there that he thought he must have strayed into a garden party by mistake. He soon found that it was only a delightful surprise party in his honor and that his going away from Main as evening manager was to be marked by this expression of appreciation by his friends in that office.

Chinese lanterns hung over the tables, which were decorated with ferns and loaded with good things. A jolly company were soon seated and the guests of the evening responded with many jokes

and pleasanties to the call of the toastmaster, Mr. Campbell.
A musical program, consisting of a vocal solo by Miss Sabin, a violin number by Miss Grey and a song by Mr. Armstrong, was greatly enjoyed and a delightful social hour was enjoyed after the supper.

Among the guests were Mrs. Boedecker, Mr. Foster, Mr. Sullivan, Mrs. Hyatt, Miss Casey and other friends who have known Mr. Boedecker many years in his long service for the company. Mr. Boedecker is now employed in the complaint department.

LeRoy Forth Dead.

LeRoy Grover Forth, of the Chicago plant department, died suddenly in St. Louis on July 15th.

Mr. Forth had been failing for some time and a short time ago secured a furlough in the hope that he might improve his condition. He visited a number of points in the west and south and up to the time of his death favorable reports were received.

Mr. Forth was born at Fairfield, Ill., March 19, 1891, and entered the employ of the Chicago Telephone Company during the year 1907. He served in the capacity of draughtsman, facility data-man, estimate clerk and just prior to his death, as plan clerk in the facilities engineering department. He was an energetic young man and his work while with the telephone company was commendable. His loss is deeply felt by all his associates.

Service Standing.

The following table shows the place positions of the offices (wrong numbers) for the month of June, 1912:

| Incoming. | Outgoing. |
|----------------------------|-----------|
| First Monroe. | Lincoln. |
| Second Calumet. | Humboldt. |
| Third Wabash. | Canal. |
| Fourth Yards. | Douglas. |
| Fifth Lake View. | Wabash. |
| Neighborhood. | |
| First South Chicago. | |
| Second Irving. | |
| Third Rogers Park. | |
| Fourth Austin. | |
| Fifth West Pullman. | |

July Promotions.

Operators changed to supervisors:
Yards—C. Severyth.
Wentworth—E. Squires, A. Keenan, N. Corcoran, M. Keane.
Calumet—C. McAleer.
Hyde Park—J. Owens, A. Hastings.
Oakland—H. O'Connor, F. Delarter.
Kedzie—G. King, T. Whittall.
Central—M. Martin.
Canal—E. Sell.
Toll—E. Grund.
M. O'Hara made evening chief operator at Toll.

Personals.

S. C. Whalen, an installation inspector in Northern Division, has entered the motorcycle races in the Motordrome at Riverview Park. Mr. Whalen started to ride from Cleveland, Ohio, to San Francisco, Cal., last fall, but fell near St. Louis and fractured his arm and was obliged to abandon the trip. He then returned to Chicago and entered the employ of the Chicago Telephone Company.



PICNIC, ROCKFORD, ILL.

Hazel Van Bergen, day operator at Austin, resigned to join the June brides. Her marriage to A. W. Portier took place June 26th. Her friends at the exchange presented her with a handsome cut glass bowl.

A miscellaneous shower was given June 15th by the young ladies in the collection department at the home of Mae Gill in honor of Katherine Kearns, a stenographer, who resigned to join the "newly-weds." Genevieve Merhan, Genevieve Flynn, Erna Blittner, Adele Rince, Anna McFoney, Evelyn Ditzell, Hermina Eichel and Agnes Kullander attended the party. A pleasant evening was spent.

Kedzie evening supervisor Katherine Klugallon resigned to be married June 19th to William Farmer. Miss Klugallon has been in the employ of the company ten years and leaves many friends, who all join in best wishes for her future happiness. At the "parting of the ways" she was presented with a beautiful cut-glass water service, consisting of a tankard and glasses, given by the evening force. On the afternoon of May 23rd a miscellaneous shower was given in her honor at the home of Emma Miller, senior supervisor. A dainty luncheon was served to fourteen guests.

On Monday, July 15th, the little seven year old brother of Corinne MacDonald, toll day operator, was run over and killed by an automobile. The sympathy of the toll force was extended to Miss MacDonald and her family in this dreadful bereavement.

Mrs. Jewell, matron of Calumet exchange, resigned to be married July 10th

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CHICAGO, ILL.



DINNER AT PARIS, ILL.

to Mr. O'Malley. During her years of service at Calumet she has endeared herself to the girls by her kindness and unfailing patience. As a token of their affection, Mrs. Jewell received a beautiful cut glass bowl from the operators and a cut glass vase from the supervisors and clerks. On Monday evening, July 1st, the supervisors and clerks arranged a very delightful surprise visit to Mrs. Jewell's home, where they spent a most enjoyable evening. Recitations and music and refreshments were all thoroughly enjoyed.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Bloomington District.

Estimate has been approved and assigned covering the erection of poles and aerial cable in the Bluffs exchange district at Peoria.

Charles Weeks has been appointed collector at Peoria, succeeding Jasper Claywell, resigned to go on the farm.

An estimate has been approved and assigned to the chief engineer for the following equipment: The steamers "Hulbert," "Comet" and "We Three" were chartered for the occasion. The picnic was so successful that it was decided to hold another in the near future. The picture shows employees just being seated for supper.

Nelle Belliss, clerk at Lewistown, resigned on July 1st to be married. Miss Belliss has been employed as clerk for the past four years.

A No. 2 automatic intercommunicating private branch exchange has been installed for the Jacksonville Courier, consisting of one trunk and five stations.

Oscar Hanson, formerly collector at Jacksonville, but recently connected with a moving picture theater, has accepted the position of clerk in the plant department.

The plant department at Kankakee has received a motorcycle for use on exchange and toll lines.

The Central Union employees at Kankakee, Ill., held a picnic at Gougers Grove on June 24th. The steamers "Hulbert," "Comet" and "We Three" were chartered for the occasion. The picnic was so successful that it was decided to hold another in the near future. The picture shows employees just being seated for supper.

Glady's Scott, local operator at St. Anne, Ill. exchange, was married to Charles Allain. Miss Scott is succeeded by her sister, Lola Scott.

Lillian E. Gillespie has been appointed clerk at Gilman, Ill., to fill the position made vacant by the resignation of Ada A. Carson.

John Simons, formerly lineman at Peoria, was transferred to the Gilman exchange, taking charge as mentioned at that point June 15th, on account of the resignation of John R. Wheaton, former manager.

Centralia District.

The Central Union Telephone operators at Alton gave a first annual excursion Tuesday evening on the steamer "Sidney," the boat leaving at eight o'clock and returning at eleven. The receipts of this excursion are to be used by the operators for their outings this summer.

Helen Rose has accepted the position of clerk at the Carrollton exchange, as of June 15th. She succeeds Mrs. J. L. Dickerson, resigned.

F. E. Speckman, commercial agent at Paris for the past year, has been transferred to Whitehall.

Rollin Calloway, formerly lineman at Nashville, has resigned and is succeeded by J. F. Smith, who was transferred from Vandalia.

Mrs. Singer, clerk to the plant chief at Alton, resigned on June 15th and was succeeded by Bessie Marston of Peoria.



NEW JOINT SIGN IN FRENCH LICK SPRINGS HOTEL, FRENCH LICK, INDIANA.

The office of the Western Union Telegraph Company at Paris, Ill., has been moved to the Central Union exchange quarters and a Class 10-A office established. Change was made on July 1st. Mrs. Darnley has accepted the position of collector at Whitehall, Ill.

Galesburg District.

An outing on Decoration Day with a picnic dinner and supper in the woods was enjoyed by about fifty of the employees of the commercial, traffic and plant departments at Rockford, with a marshmallow roast, which was attended by several officials of the construction department. Games and sport of all kinds were indulged in and everybody reports having had an excellent time. The plant department furnished two line-order wagons for the purpose. The picture on Page 25 shows some of the picknickers.

A private branch exchange has been installed in the residence of Charles S. Brantingham, of the Emerson-Brantingham Company, at Rockford.

A traffic agreement has been signed for five years with the Henry Telephone Company, Henry, Ill.

T. E. Rigen has accepted a position as commercial agent at Galesburg, and was assigned to work on the special canvass.

The following letter is quite an amusing compliment paid Manager Kelly at Galesburg, on account of making a traffic agreement with the Ellenville Mutual Telephone organizations, and means they don't know how they ever got along without Bell toll service: "Sir—Sorry to detain you, but hope it will be all O. K. What few people in the country that have used it don't see how they ever got along without it. (Signed) Ellenville Telephone Operator."

An estimate covering the removal of the aerial construction from Wyman street, between Chestnut and Mulberry street, to comply with a resolution passed by the City Council of Rockford, and placing additional underground conduit, underground cable, aerial cable, distributing poles and wires, made necessary thereby, was completed on June 5th.

About twenty of the operators of the Galesburg exchange enjoyed a picnic at Highland Park, Wednesday, June 21st. All report a fine time and plenty to eat.

A private branch exchange of twenty stations and one trunk is now being installed for the Free Sewing Machine Company at Rockford.

A No. 2 private branch exchange of five stations and one trunk has been installed for the Rockford Paper Box-board Company.

Harry E. Terry, formerly manager at Moline exchange, called on friends in the Galesburg district office on June 6th. He is now salesman for the Moline Wagon Company, Moline, Ill.

Friend Smith, formerly plant chief at Galesburg, has moved to Rock Island to accept the position of toll wire chief.

T. B. Rode, formerly of the Chicago Telephone Company, has accepted the position of toll wire chief at Sterling. H. C. Crasper, formerly wire chief at Sterling, has accepted the position of lineman at the same exchange.

Springfield District.

The regular meeting of the Illinois Bell Telephone Society was held at Springfield on June 27th. The dinner was served at the Leland Hotel. In the absence of the president, Mr. Burgess, the chair was occupied by Mr. Stanley. A paper was read by Mr. Lewis on contract work orders and plant costs. The paper contained some interesting details on costs and was freely discussed by all present. A break in the hearty good will of the evening was made when Mr. Brown received a telegram sending greeting from the Democratic National Convention at Baltimore. The telegram was signed by Mr. Burgess, who was a delegate from his district.

The commercial department at Springfield has secured contracts for a private branch exchange in the office of the secretary of state. The contracts call for five trunks and nineteen stations. A No. 4 board will be used for this installation.

J. C. Frush, chief clerk to the commercial department, has been transferred to Danville, Ill. Mr. Frush carries with him in his new position, as commercial manager at Danville, the hearty good will and best wishes of all employees at Springfield.

C. W. Romine, chief clerk to the agent of connecting companies, has been transferred to the position of chief clerk to the division superintendent.

INDIANA DIVISION

PHIL. M. WATSON, Correspondent, Indianapolis

Anderson District.

The operators at Anderson are very proud of the two new rugs furnished them for their retiring rooms, also the new table. This improves the appearance of the retiring rooms very much.

Grace Blaney, operator at Muncie, has resigned to be married.

Mary Brunner now fills the position at Muncie formerly held by Clara Blessinger, who has resigned to take other employment.

Oneida Fischer now fills the position at Shelbyville formerly held by Helen Burkler, who has resigned on account of sickness. Bertha Gartner has accepted the position made vacant by Miss Fischer.

Edith Doran, operator at Shelbyville, has resigned to be married. Grace Taylor has accepted the position formerly filled by Frances Bogeman, who has been promoted to Miss Doran's position.

Indianapolis District.

The supervisors and operators of the first and second divisions of the Main office had a most enjoyable outing at Riverside Park on July 5th. The guests were Mrs. Jones and Miss Stoner, chief operators of the Woodruff and Prospect offices.

The supervisors and operators of the third and fourth divisions at the Main office entertained at Broad Ripple on the evening of July 1st, having for their guest Miss Brethauer, chief operator.

Mrs. Katherine Vollmer Grim, supervisor of the sixth division of the Main office, entertained the operators of this division at her home, 410 West Twenty-eighth St., July 1st. After a discussion of the work, a delightful luncheon was served.

Several of the private-branch-exchange operators throughout the city were invited guests.

The I. W. C. Club gave its first outing at Brookside Park June 20th and 27th. Both were greatly enjoyed by the employees of the Woodruff office and their friends.

Mrs. Cecil Campbell, the Prospect chief operator, is taking a leave of absence and expects to spend most of the time in the country recuperating.

The June class of the Training School has donated a very lively little canary bird to the Main office rest room. This little fellow, who has been christened Central Union Jack, adds greatly to the cheerfulness of the attractive and home-like rest room.

The engagement is announced of Hazel Barker to Gus Leukhardt, the wedding to occur in August.

Carrie Barnes and Mrs. Jeanette Espey, toll operators, have been confined to their homes for several weeks on account of illness.

Private branch exchanges have been installed for N. W. Ward and Company, the Henderson Motor Car Company and the Firestone Tire Company.

A private branch exchange of three trunks and twelve terminals has been installed at the Indiana National Bank.

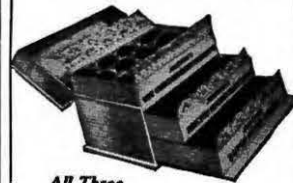
South Bend District.

The Auburn office continues to "set the pace" as regards reviving old calls. For the month of June these amounted to almost three per cent. of the total out calls.

Traffic between Elkhart and Goshen-South Bend is the first Central Union business in the First District to which method 100 has been extended. This was made effective July 6th.

The operating room at Kendallville was among the first in which were installed

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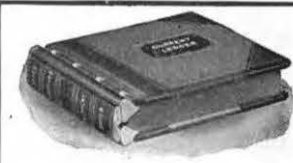
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CENTRAL UNION PICNIC, KANKAKEE, ILL.



TWO CLEVELAND "MIKES."
L. C. Rubach, suburban plant chief, and M. F. Baleyn, city foreman. The man standing in shirt sleeves is M. F. Baleyn, Broad exchange troubleman.

Western Union clocks when that service was first put into Kendallville.

The exchange at Osceola, 170 subscribers, has been recently added to the First District and placed under supervision of the South Bend office.

As an experiment it has been decided to handle long-distance information calls at South Bend by the local information operator instead of by special toll operator as heretofore.

A theater party at the Orpheum and reception later at the home of Miss Roy, one of the commercial department employees, was given in honor of Elsie V. Swint, chief toll operator at South Bend.



A PLEASANT VISIT
Nina Belknap, chief operator at Akron, and Helen Gero, chief operator at Alliance, calling on Mary Davis, chief operator at Youngstown.

on account of her recent birthday.

During her vacation, Laura Worrell, toll operator at South Bend, entertained a number of her telephone friends at a lawn party.

At South Bend on June 26th and 27th the chief operators at offices in the First District assembled for a traffic conference. Traffic Bulletins No. 2 and No. 4 were discussed in detail. On the evening of the 26th the visitors were entertained by an automobile ride into the country around South Bend.

Two new pictures have been added to the rest room at South Bend. One a picture of J. Lloyd Wayne, traffic superin-



COMMERCIAL DEPARTMENT GIRLS AT CLEVELAND.
Snapped at Home of Carrie L. Dietz.

tendent, taken from the cover of the Bell Telephone News for June and framed, and one a picture of A. S. Barnett, district traffic chief, South Bend. Lila Miller, twenty-one years old, an operator at South Bend, was drowned on July 4th while swimming in Cedar Lake.

Terre Haute District.

The newly elected officers of the Terre Haute Bell Telephone Society are: Alvin Vaneil, president; E. B. Hindel, vice president; A. K. Ross, secretary, and H. S. Post, treasurer. These officers hold their office for six months and great progress is expected under this administration. Since the formation of the society—which was at the first of the year—it has made splendid progress. The meetings are held on Thursday night every two weeks, and much enthusiasm is manifested at each meeting. The society is very cosmopolitan in its policies and beside handling the routine study of technical points of telephony, it discusses and considers current topics of the day. At the present time the membership is about thirty-five, and great work and "big stunts" are scheduled for the summer months.

Blanche Littlejohn and Cosette Siner have become phenomenal artists, as was evidenced by the walls in the district traffic chief's office at Terre Haute just prior to its redecoration.

The interior of the Terre Haute exchange has witnessed a transformation. All the walls and ceilings have either been cleaned or redecorated, and the floors have had their much needed attention. As a result the exchange is in a much better condition than before.

Fae Stafford, who for some time past has been numbered among the efficient operators at Crawfordville, was married on June 18th to Charles A. Hughes.

Legrande Marvin, manager at Frankfort, has become enthused over the wagon recently furnished him by the plant department.

Work is under way in Martinsville dismantling cable, etc., due to the sale to the independent company there.

H. M. Guthrie, chief inspector at Bedford, lacerated one of his fingers while cleaning the motor of his ringing machine. The injury caused him considerable pain at first, but it is troubling him but little now.

On May 26th a fire at Oolitic burned down about fifty feet of cable. Valiant efforts on the part of the local people at Bedford soon had the service restored.

The work at Washington of providing facilities is being rushed as rapidly as possible in order to give the Washington people a first class telephone plant.

P. H. Stromminger, erstwhile foreman at Washington, after a period of illness for two years, has returned to work. At the present time he is working for S. L. Butler, construction foreman at Washington.

W. B. Ziegler, cableman, is working on the estimate of the construction department at Washington.

Edith Vandivier, former operator at Greenwood, resigned May 1st to be married.

Mabel Richards, former operator at Frankfort, was recently married to George V. Morris, Jr.

Employees at Bedford enjoyed a jollification in the form of a banquet following the completion of the installation of the new combined system. The party took place in the room formerly occupied by the Home Telephone exchange. A number of visiting officials took part in the festivities. The people of Bedford joined in spirit, in the affair, as they are well pleased with the establishment of a single exchange under Bell auspices.

Floyd D. Allen, commercial manager at Terre Haute, was married June 22d to Alta Carver, of Alexandria, Ind.

CLEVELAND DIVISION

W. ENGLEHARDT, Correspondent

Personal.

The marriage of Della Comer, chief operator at Ridge office, to J. E. Patton was solemnized at St. Coleman's church June 26th. After the ceremony a reception was held at the home of the bride's mother and a wedding breakfast served to about fifty of the immediate relatives and friends. Mr. and Mrs. Patton left for an eastern trip and will be at home at 1811 Detroit avenue after August 1st. Jessie Meyers, formerly chief operator at West, has been transferred to the position of chief operator at Ridge, made vacant by the resignation of Miss Comer.

On June 25th the marriage of Margaret Halloran, chief operator at South office, to Dan P. Moore, who is employed in the construction department, was solemnized at St. Coleman's church. Mr. and Mrs. Moore left for a trip through the east and will be at home at 3196 West Eighty-eighth street after July 15th. On June 18th the operators at South office gave a linen shower for Miss Halloran at the home of Augusta Toetz. The house was decorated with pink and white roses. The dining room, where a six o'clock dinner was served, was also decorated in pink and white. Covers were

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MAIN SUPERVISORS AND CLERKS AT EUCLID BEACH, JUNE 15TH.

laid for thirty. Miss Halloran was the recipient of many beautiful gifts. Alma Remus, formerly evening chief operator at South office, has been promoted to the position of chief operator, made vacant by the resignation of Miss Halloran. The marriage of Anna Mawby, information clerk at Main office, to Louis Elsenman, was solemnized at five o'clock June 25th in the presence of about eighteen of the immediate relatives and friends at their new home, 571 East One Hundred and Fifteenth street. Following the ceremony, dinner was served in the dining room, which was tastefully decorated with pink peonies. Mr. and Mrs. Elsenman left for New York City and will be at home after August 1st.

Anna Mulac, operator at East office, was married to Newton E. Darrah June 8th. Mr. and Mrs. Darrah left immediately after the ceremony for a week's stay at Niagara Falls. Mrs. Darrah before her marriage was a member of the Bachelor Girls' Club and on June 13th gave a dinner to the eight remaining members of the club. The rooms were prettily decorated with pink and white roses, and a pleasant evening was spent. The Bachelor Girls surprised Mr. and Mrs. Darrah with a miscellaneous shower.

Florence Adler, supervisor at Eddy office, was married to Neil Hausen April 30th.

A delightful time was had by the Bible Class at their annual picnic, June 28th, when they were entertained at the home of Mrs. McCrackin at Engle Cliff.

The supervisors and clerks at Main office spent a very enjoyable evening at Euclid Beach Park, June 15th. After doing ample justice to a picnic supper, the time was spent in dancing and taking in the different amusements at the park.

A. D. Aylard and W. B. Chapman of the Medina Telephone Company made three trips to Cleveland during the latter part of June, each time bringing with them several of the Medina operating force. The various Central offices were visited and two afternoons were spent "seeing Cleveland" in automobiles. They were accompanied on these auto rides by N. Anderson, traffic superintendent; Amelia Kramer, long-distance chief operator; Ella Price, east chief operator, and Minnie Spencer, instructor in the operators' school.

The Bachelor Girls report a very pleasant time on the evening of June 26th, when they took a picnic lunch to Euclid Beach.

Lillie McSweeney, information clerk at

Main office, who has been absent owing to the death of her father, returned to work May 28th.

Bessie Mohr, stenographer at Main office, who has been absent on account of illness, returned to work June 4th.

Promotions for June.

Hattie Yokel, formerly supervisor at South, promoted to evening chief operator. Ida Enkler, formerly operator at South, promoted to supervisor. Kittle Casey, formerly assistant chief operator at West, promoted to chief operator.

Marie Klein, formerly supervisor at Ridge, promoted to assistant chief operator at West.

Marie Chappell, formerly operator at Ridge, promoted to supervisor.

Akron District.

The second annual picnic and reunion of the employees of the Central Union Telephone Company, Mansfield, Ohio, was held at South Park on Saturday, June 22nd, at which over sixty people were in attendance. A very interesting time was enjoyed, a number of contests adding much to the pleasure. Some amusing prizes were awarded, by a prize committee to the winning members. A sumptuous picnic supper was served, at which a number of toasts were given. J. F. Glosser acting as toastmaster. All reported an enjoyable time and a better acquaintance was the result of the employees meeting each other socially.

Edna Crane has taken the position formerly held by Sarah Furness as clerk in the commercial department of the Canton Exchange.

Contracts have recently been secured at Canton for one No. 2 and one No. 1 private branch exchange.

Material has arrived for the installation of 900 additional multiple at Canton. Contracts for seven private branch exchanges have been secured at Youngstown during the past thirty days.

The great crowds who gathered in Mansfield for the aviation meet made the boards very busy, but a good record for service was maintained.

On Thursday evening, June 7th, the lady employees of the commercial and traffic departments at Mansfield gave a picnic at Casino Park in honor of May Krabill, who leaves for Toledo. Miss Krabill will take up work with the Central Union Telephone Company at Toledo. Mary Weldon succeeds Miss Krabill at toll clerk at the Mansfield exchange.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Thanks from University.

District-manager C. J. Given, Ann Arbor, recently received the following letter:

"June 29, 1912.

"My Dear Mr. Given: The Hospitality Committee wish to congratulate you on the very efficient service during the celebration of the Seventy-fifth Anniversary of the Founding of the University. The service between Memorial Hall and the Hospitality Committee office in the American Express Company's were room at the Michigan Central station was prompt and accurate. They especially appreciate your co-operation and beg of you to convey their appreciation to the operators as well. Very sincerely yours,

"HUGO P. THIEME,

"Hospitality Committee Transportation," University of Michigan."

Detroit District.

The Detroit fire department has ordered three additional telephone trunk lines for immediate installation, to take care of the big volume of so-called "still" alarms, in which persons call by telephone to notify the department of a fire. More than forty per cent. of the calls for the department are sent in this manner, instead of by pulling a fire alarm box.

A change of managers was made July 1st at New Haven. Wilbur R. Twiss succeeding P. G. Garry.

The toll station management at Petersburg was changed June 21st from Walter Averill to the drug store of Harmon Grumlike.

W. A. Cardinal, Detroit chief collector, fell from a car and nearly broke his arm, but not quite. It is mending.

David Feltz has returned from California and has resumed his old place in the collection department.

H. M. Dubois, of the collection department, was married June 27th to Florence Bagley, of the bookkeeping department. His associates in the commercial department gave the happy pair an oak rocking chair for a wedding present.

Announcement is made with great regret of the death of the father of C. E. Gardner, on Sunday, July 7th.

A whiff of the old world is detected in the "facilities engineer" portion of the plant department when it is seen that two of the draughtsmen, J. A. Treder and N. S. Diamant, are natives of Switzerland and Athens, respectively. Both are studying telephony in the best company what is.

An estimate has been approved covering the construction of an additional toll-line circuit between Mt. Clemens and New Haven. The work will be started soon.

The Quick Road Telephone Company has been organized with the following members: Otto Kruger, president; William Donner, vice president; J. Spencer, secretary; Gust. Tessman, treasurer; R. Sauber, J. Willert. The company has made arrangements to connect on to the New Haven central when the instruments arrive.

The rebuilding of the toll lines between Mt. Clemens and Algonac has been approved and the work will soon be started. When completed this will give Algonac and the St. Clair Flats subscribers an additional toll line to Detroit. When circuits are completed Algonac can borefoot having the very best toll line service with Detroit and all outside cities.

An estimate has been approved for stringing one new No. 12 copper metallic circuit from Mt. Clemens to Baltimore. The line will also be rebuilt.

Launch rides on the "Winona" and the "Idle Hour," music, a fish supper and dancing were features of the "leap year" party given at the headquarters by the Blue Bell club, which is composed of girl employees of the Mt. Clemens exchange. After an hour's ride on the lake the party returned to Denmark's, where an enjoyable fish dinner was served at seven o'clock.

The executive committee of the Tuberculosis Blue Star Day has written a letter to Traffic-superintendent C. E. Given, thanking the company for its co-operation in making the "tag day" in Detroit a success. A large sum was realized.

Grand Rapids District.

The Grand Rapids Commercial office secured a private-branch-exchange contract with the Young and Chaffee Furniture Company, of Grand Rapids, for two trunks and five terminals. The sale of this equipment was due largely to the fact that the Grand Rapids commercial office kept track of the busy report on the one line in use by this company, and submitted to them a report by hours, showing that during three consecutive days their store had been locked 240 times, while customers had tried to enter it by telephone. Some of the paragraphs in the little booklet entitled "Long-Distance Selling Methods" were also particularly called to their attention.

On June 12th J. I. McIntyre, manager of the Vicksburg exchange, was married to Bessie Ramsdell, chief operator at the Vicksburg exchange. Mr. and Mrs. McIntyre returned from their wedding trip June 22d.

The Kalamazoo Telephone Company ball team made it two straight from the Commonwealth Power Company by winning the game June 13th, 1-0.

On June 6th the Telephone team defeated the Power Company team 7 to 6. McGregor, the telephone shortstop, knocked a four-bagger in the second game.

During June a private-branch-exchange contract was closed with the Morris Kent Company, Kalamazoo, for two trunks and six terminals.

Marrell toll station was discontinued as of June 1st, the store where the pay station was located being closed and there being no other place in town for it.

This place is not now reached by farm lines from any exchange.

Lowell, Lake View and Howard City have been changed from direct check toll stations to check toll stations.

The Grand Rapids exchange, and beginning with June 1st, Grand Rapids will report all business for those stations.

NOW THAT YOU HAVE SEEN

our advertisement and a picture of our trademark in the Bell Telephone News since the first number was issued, we will specialize on some tool and in this issue take up the



KLEIN LINEMAN'S PLIER

HISTORY—The manufacture was begun years ago at the suggestion of linemen as they could not buy pliers to stand up to their work.

MATERIAL—This is a special high grade tool steel made up to specifications.

FORGING—Is done under trip hammers similar to the way the smith would do with hammer and anvil.

TEMPERING is done by hand, each one individually, so each one has the temperer's whole attention while under the process.

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An opportunity to submit prices
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Geo. W. Bond & Co.

16-20 E. Randolph St., Chicago



THE TRUE "MANAGER SPIRIT."

The man on the left is F. L. Brockway, manager at Wacousta, Mich. Last October he deserted the plow to join the telephone ranks. In this short time, as disclosed by the picture, he has acquired the true manager spirit. His ability to land contracts for telephone service is vouched for.



EXCHANGE, CONKLIN, MICH.

The first toll line was run into Conklin in November, 1904, the exchange was built in 1905, and while it started with only seventy-five subscribers, it gradually increased to 136 subscribers in 1911. In October, of last year, the rates were increased from \$12 to \$15, which caused a loss of about forty subscribers.

The man sitting in the buggy with a telephone set, is J. C. Fitzpatrick, farm-line canvasser, who has succeeded in re-installing the larger part of the subscribers who discontinued on account of the increase in rates. Mr. Fitzpatrick has been with the telephone company for a number of years, having started in the plant department and later coming into the commercial department. Mr. Fitzpatrick has been very successful as a commercial agent, and has met with special success in securing re-installations of discontinued farm-line subscribers at Conklin and Casnovia. Having had previous plant experience, Mr. Fitzpatrick takes a telephone with him and if the old subscriber half gives his consent, places the telephone on the wall and connects up the drop. After the subscriber has called up a couple of his friends—and of course they are glad to hear from him again—there is no chance of his not keeping the telephone.

A toll station was opened at Gregory, about two miles south of Glen Arbor, Leelanau County. Manager is Mrs. Anna Gregory. Date effective, June 24, 1912.

Marquette District.

The Munising Telephone Electric Company opened a toll station at Van Mere, June 4th.

A toll station was opened June 30th at Driggs, between Creighton and Seney, Western Land Securities Company, managers.

Nathaniel Lobb has succeeded the Ann River Brick Company as manager at Halston toll station, to date from June 1st.

Germfask toll station was connected for service May 8th, L. M. French, manager.



COMMERCIAL FORCE AT ANN ARBOR.

Barbara Miller, stenographer; Grace Tessmer, lease record clerk; Edith Hintz, cashier; Edna Kearns, billing clerk. The picture was taken by Michael Welch, manager, with his fine new camera. This is a fact of considerable importance, as it shows that Washtenaw County need hereafter never fail to produce something pictorially worth while.

A toll station was installed June 24th at Spread Eagle, Wis., connected on Florence trunk. E. A. Neubauber is the manager.

Saginaw District.

There has been a change in managers at Indian River, where William G. Bradway succeeds Mrs. French.

Linwood Park toll station was opened June 16th, with Walter Kurzrock as toll agent. This toll station is handled as a check point under Bay City as a check center.

Manager G. G. French, of West Branch, has resigned his position, taking effect July 1st.

Theresa Pobuda, formerly stenographer in the district plant department at Saginaw, was married in June to George Murray.

Chief-contract-agent Fred Saunders, of the Michigan State Telephone Company, went last night to Kalamazoo, where he will attend the graduation of his daughter, Miss Velma F. Saunders, from the Western State Normal School. June, 1912, will be marked with red letters in the archives of Mr. Saunders' family, for in addition to the graduation of his daughter from Kalamazoo, a son, Claude S. Saunders, will be graduated Thursday from the eighth grade of the Grand Rapids city schools, and Friday of this week another daughter, Miss Aelia C. Saunders, will be graduated from the high school. To finish off the month in good shape, another son, Burton C. Saunders, will on June 27 be married Miss Eva Scherpeinnesse, daughter of Mr. and Mrs. Jacob Scherpeinnesse, of 1336 Lafayette avenue, N. E.—Grand Rapids Herald.

Considerable toll-line repair work and rebuilding of farm lines is being done out of the Owosso exchange.

J. H. Boardman visited Owosso and St. Johns recently, supervising the work of looping Circuit No. 1700 into the office of the Clinton Telephone Company.

Byron exchange has had the switch-board rewired and some changes made in outside plant. Things have been put in good shape. An addition of a relief operator makes a decided improvement in the traffic department.

The telephone operators at the Cheboygan exchange were remembered by J. J. Post and Company, hardware merchants, in acknowledgment of their promptness in turning in an alarm and notifying the members of the firm when a fire broke out early on the morning of June 18th. The telephone alarm preceded the regular fire alarm. The hardware company sent the operators, Viola Guetachow and Mabel Barrowcliff, each a \$2.50 gold piece.

Roadway Company Notes.

A contract has been signed with the Benton Roadway Company for connection with the Cheboygan exchange.

A contract has been signed with the Walters Roadway Company for connection with the West Branch exchange.

Contracts have been signed with the Buckhorn Roadway Company and the Valley Roadway Company for connection at Holly.

Contracts have been signed with the Ransomville Roadway Company and the McKnight Roadway Company for connection with the Sault Ste. Marie exchange.



Economy and Efficiency

GUEDELHOEFER WAGONS

Installation Wagons—Line Wagons
Made to Order from Bell Specifications

JOHN GUEDELHOEFER WAGON COMPANY

210 Kentucky Ave.

Indianapolis, Ind.

All Together for the fall campaign!

You,

Mr. Telephone Man
are a vital factor in our plans to have

Western Electric

Equipment

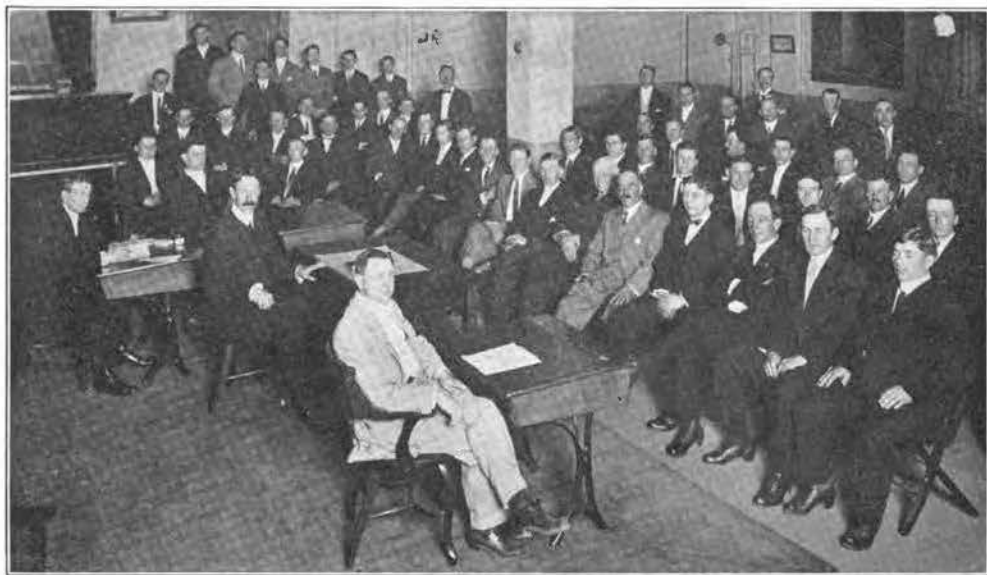
used on every new installation and extension
in your territory.

Tell us of those going to buy—

Tell them of us—

All three will be gainers—

Western Electric Company



A MEETING OF THE TELEPHONE SOCIETY OF MICHIGAN.

This flashlight photograph was taken on Wednesday evening, June 12, 1912, members having come to hear two papers read on "Copper." Owing to the extreme brilliancy of the flashlight nearly everyone closed his eyes, and so presents the appearance of enjoying sweet slumber, but fair likenesses were at any rate recorded on the plate. At the center of the three tables sits the president of the society, William E. Dawson; behind him the treasurer, E. C. Sullivan; at the desk in the foreground is C. E. Culver, the secretary, and at the desk on the other side of Mr. Dawson is W. A. Gibson, of the board of governors. Behind Mr. Gibson sits Chief-commercial-agent A. W. Leet and his brother-in-law, C. D. Kohl, chief engineer of the Tamarack and Osceola Consolidated Mining Companies, who read the papers of the evening. The others present are: J. A. Rogan, Harry Hartong, George Howe, Charles Stenzel, George Salmonson, W. F. McMullen, Harry Edsall, C. T. Strohmer, L. L. Jennings, Herman D. Osborn, D. W. Weeks, L. D. Mead, G. A. Fritz, James Beamer, John Vallier, Charles Grant, Sam Abernethy, E. H. Potter, Janitor Lowenthal, T. H. Kay, F. J. McCloskey, E. Penn, W. P. Osgood, Jason Eastland, C. W. Harris, J. A. Trefzer, Wm. A. Rideout, F. J. Ellis, C. S. Slack, Fred Clarke, E. J. Lackey, M. T. Arns, M. C. Glass, D. H. Dodge, F. M. Riegel, Jr., B. Daniels, and W. F. Smith.

A "grand opening" of the society was held July 2d, with "special speaking, special music and special refreshments." It was an informal meeting, but quite satisfactory in its nature, and was largely attended, the weather considered. The special refreshments refreshed specially, also.

The committee in charge of the Bob-Lo outing, which is to take place August 3 (boat leaves foot of Bates street at 8:45 a. m.) reported that all was going well and that tickets were selling rapidly.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent.

"Hello Girls" in Unique Stunt.

That the Wisconsin Telephone Company not only endeavors to give its local patrons good service, but also important information of general interest, was shown late on Saturday evening when the "hello girls" in response to every call said, "Taft was nominated on first ballot. Number, please."—Fond du Lac Reporter.

More Kind Words.

June 18, 1912.
The Wisconsin Telephone Co., Milwaukee, Wis.

Gentlemen—Some time ago we sent out to all of our customers letters inviting criticisms of our line and comment on the treatment by us to our customers. It is very gratifying indeed to us to have about ninety-eight per cent. of the replies to these letters compliment us very highly.

Our experience in this regard has led us to feel that business men generally would like to hear a few of the good things about themselves rather than have their associates say them after it is too late to do very much good.

With this idea in mind we are writing to say that we have never seen a more marked improvement take place in the services rendered by any corporation than that which has occurred in the conduct of the Wisconsin Telephone Company. When we came to Milwaukee early in the spring of 1906 your service was so poor that when it was not extremely annoying it was laughable. Now the exact reverse is the case and it really gives us a great deal of pleasure to say to you that we cannot suggest anything by way of improvement. We believe that your invitation to your subscribers to help you, by making fair criticisms, has been one of the influences which has helped you to arrive at the present very satisfactory condition. Very truly yours,

HARSH & EDMONDS SHOE COMPANY.

W. A. Edmonds,
Vice president.

June 24, 1912.
Mr. B. T. Chase, Manager, Wisconsin Telephone Company, Waukesha, Wis.
Dear Sir—Twenty-two years ago when

I started in business in Chicago in the office of a concern doing an annual business of over \$500,000 we had one wall telephone, which was not kept very busy. If we had to wait a minute or two for a connection it did not disturb us. Today every business man has a telephone on his desk and has gotten so used to having connections made in less than five seconds that it does not attract his attention.

We are so used to good service that we forget how much it has been improved in the last few years. We desire to take this occasion to congratulate you not only on the excellent service given on the local board, but particularly that on the toll board, as we have a great many long distance calls every week. We have found the service to various points in the state most excellent and our calls to points in Indiana and Illinois are handled with amazing promptness.

In our office we have dispensed with "Hello, who is this?" and simply say "Cratty Brokerage Company" in answering the telephone. The writer is a strong believer in good telephone manners and has four little telephone users at home who have been taught how to use a telephone properly and who will not have to be taught over again when they get out into the world. Wishing you and the Waukesha office continued success, we are, Yours very truly,

CRATTY BROKERAGE COMPANY,
Ralph W. Cratty, Manager.

Appleton District.

A connecting contract has been signed by the Red River Telephone Company, a new farmer company in the vicinity of Shawano.

Seven or eight of the long-distance operators at Green Bay left within the last ninety days to be married. It has been necessary to bring in operators from other exchanges to help out.

The Western Union Class 10-A office was opened at Shawano on July 8th. Margaret Hausma is the operator.

At Oconto, Mr. Gaffney, district commercial agent, has secured a contract for a No. 1 cordless private branch exchange with five stations for the Oconto company, a lumber concern in that city.

Mr. Ferrin, commercial agent at Oshkosh, has secured a contract from the Oshkosh Motor Car Company for a No. 1 cordless private branch exchange, with three stations.

Maie Bohar, who has been employed as night operator at the Appleton exchange for several years, resigned to be

married to Carl G. Kudy, of Waupaca. The wedding took place at the bride's home in Menasha on June 18th.

W. Q. Hall, formerly of Fond du Lac, has been employed as wire chief at the Appleton exchange, to succeed William C. Elmore, resigned.

Merle Hale, of Green Bay, has been employed as troubleman at the Appleton exchange, succeeding Charles Weller, resigned.

Arrangements for additional rooms to be used as manager's office, operators' rest room, etc., are being made, which, when completed, will give ample room to handle increased business at the Berlin exchange.

A new No. 12 toll circuit is being strung by the Berlin Telephone Company, a connecting company, which will add eight new subscribers to the Berlin exchange. Western Union Telegraph Company equipment is being installed in the Berlin central office.

Bessie Hallan, chief clerk at the Marinette exchange, met with an accident while getting off a street car. She fell and sprained her arm.

The Harmony Telephone Company, a connecting company, started July 1st to extend their lines to Walsh, Wis. This will mean a great improvement in building this new line. Up to date they have sixty-six subscribers.

Estella Herman, local operator at the Neenah exchange, was married to Paul Zielich, of Menasha.

John Nyman has been placed in the position of repairman at Neenah in place of George Rasmussen, resigned.

The Western Union Telegraph Company has moved headquarters into the Wisconsin Telephone Company's office at Oconto. The automatic collection plan was put into effect in Oconto and has worked out splendidly. Patrons seem to be well satisfied with the new plan of collecting.

J. C. Bordner, lineman at Oconto, has resigned his position as lineman and he will be succeeded by J. F. Jenkins, of Plymouth. Mr. Bordner will leave shortly for Sugarbush, where he will act as foreman of a construction crew, succeeded by Viola Curtiss, operator at the Omro exchange. Marie Abrams returned to her old position as operator at the Oshkosh exchange.

Robert Waters, lineman at the Oshkosh exchange, who was severely injured by falling from a cable pole, has been removed from St. Mary's hospital to his residence.

Material has arrived for an addition to

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

(2) It will decrease the percentage of lost calls by giving almost instantaneous connection with the particular party wanted.

(3) More than five hundred users are now enthusiastic with the results obtained from this service.

(4) It facilitates the prompt handling of long distance calls by eliminating "time lost waiting."

(5) Recommended by prominent engineers everywhere as a most valuable adjunct to the telephone.

AUTOCALL

used in conjunction with the telephone is productive of a combined service of much worth to the user and of great aid to the telephone service. Were you aware of its value you would not hesitate in recommending its utilization. To be familiar with this service is of a particular advantage.

Write for full details.

THE AUTOCALL COMPANY

110 Davis St. SHELBY OHIO



GROVER C. PARKS.

Grover C. Parks, manager at Merrill, Wis., started with the company at Fort Atkinson in 1900. The following five years were spent in various capacities in the construction crew.

In 1905 he was promoted to manager at Jefferson, and in 1908 to manager at Fort Atkinson. In 1909 he was transferred to the Pacific Telephone and Telegraph Company at San Diego, Cal., on account of ill health. While at San Diego Mr. Parks acted in the capacity of inspector.

In December, 1911, he returned to Wisconsin and accepted a position with the Wisconsin Telephone Company as manager at Port Washington, and in March, 1912, he was transferred to Merrill.

the Oshkosh switchboard and for a two-position wire chief's desk.

C. J. Jackson, formerly with the Wisconsin Telephone Company at Milwaukee, has accepted a position with the Winnebago Telephone Company at Oshkosh. This company will extend lines considerably.

Material has arrived at Green Lake for the cable work to be done there, and this will be completed in a short time.

A new switchboard has arrived at Red Granite. This will be installed shortly, giving this exchange two positions.

Lillian Coster, employed at the Clintonville exchange as toll operator, has resigned her position to go to Madison. She is succeeded by Miss Claudia Demott.

The Anawa Telephone Company, a new connecting company, has at present about twenty miles of line built and they expect to build about twenty more this season with about 100 subscribers. The exchange will be at Anawa, Wis.

The Gillett Rural Telephone Company contemplates building about ten miles of line.

The Bonduel Telephone Company is adding about eight miles of wire to its plant and intends to connect up about thirty new subscribers.

The Washington Island Telephone Company has about completed a new extension to Jackson Harbor. This company's lines now reach all the principal points on Washington Island.

Urban Freiburger started the toll deferred repairs for the year 1912 on the Milwaukee-Marquette toll line, on July 1st.

A. C. Johnson, commercial agent, secured thirty-six contracts from June 5th to July 1st, at the Omro exchange.

Lyda Murphy, night chief operator at the Berlin exchange, has resigned her position and is succeeded by Gertrude Verit.

Andy Lendved, formerly a repairman at Port Washington, accepted a position as repairman at the De Pere exchange.

Frank Haas accepted a position as repairman at the De Pere exchange.

The New Franklin Telephone Company, a new connecting company which is developing the northeastern part of Brown County, is rapidly completing its lines.

Mr. Schultz, manager at Green Bay, has just closed a private-exchange contract with the Broadway Hotel. It will start with about twenty-five stations, although the hotel contains sixty-five rooms. Forty-five of these rooms were wired for electric bells and push buttons to be connected with an annunciator in the office. The wiring is such that it can be converted for the use of telephone stations and ultimately this hotel will have sixty telephones.

The Kaukauna Telephone Company, a connecting company, has recently con-

nected an additional twenty-five subscribers at the Kaukauna exchange.

Frances E. Van Veghel, operator at Green Bay, was married in June to Fred R. Van Beckum.

A new toll line has been opened from Plymouth to Milwaukee to take care of summer resort traffic.

The Antigo Telephone Company has recently added a new section of No. 9 switchboard to the equipment at Antigo.

Eau Claire District.

Charles Henkes, commercial agent at Eau Claire, has been transferred to Ashland. J. Trock of Milwaukee succeeded Mr. Henkes at Eau Claire.

Joseph A. Goldberg, formerly with the Chicago Telephone Company and the Northwestern Telephone Company, has been employed as switchboard man at the Eau Claire exchange.

Work has been started on additional toll circuits between Chippewa Falls and Cumberland.

An estimate for additional rural lines at Ashland was completed June 19th. This estimate covers twenty-six rural subscribers.

An estimate for additional cable facilities at Hurley was completed by the district forces May 18th.

Cableman H. B. Kent and cable helper H. Auman have been transferred from the construction department to the Eau Claire district.

Cableman William Peterson and cable helper Thomas McCausland have been transferred to the construction department.

Three rural lines were completed during June by R. Dunne, crew, adding twenty-seven rural stations to the Ashland exchange.

Agnes Blehrude, chief operator at Washburn, resigned her position June 1st to take up other work. She is succeeded by Anna Arsenau.

Della McDonough, chief operator at the Superior exchange, resigned June 1st to be married. Miss McDonough was married Tuesday morning, June 25th, to Harvey Wiles. Florence Falk has succeeded Miss McDonough as chief operator.

Myrtle Strong resigned as supervisor at Superior June 1st and was married June 18th to John Hanrahan. Mayme Harrington succeeds Miss Strong as supervisor.

Bonnie Lally, assistant chief operator at Superior, resigned June 1st to engage in other work, and is succeeded by Rose O'Connor.

Western-Electric-foreman Grant has completed the installation of a seven-position No. 10 board and power equipment at Merrill.

T. Siegel's crew of installers have started removing all stations in Merrill preparatory to the cut-over to common battery.

Celia Dybalski, formerly night operator at Stanley, resigned on May 28th to be married to Walter Meloy, and is succeeded by Catherine Sensenbrenner.

Lulu Hazely, substitute operator at Merrill, has resigned to become the wife of Will Amborn.

A meeting of the employees of the Merrill exchange was held recently and a club to be called the Blue Bell Club was organized. Anna Mattson was elected president and Louise Braut, secretary and treasurer. The object of the club being to promote interest in the work and for the improvement of the service. Socials and dances are to be given so that all employees may become better acquainted with each other.

Joint class 10-A Western Union offices have been opened during July at the Hudson and Merrill exchanges.

Madison District.

Andrew Lien, a well known telephone man, died suddenly at his home at Burke on June 20th. Mr. Lien was president of the Burke Telephone Company.

An assistant to the chief operator's clerk has been appointed in the Madison office and she assumed her duties July 1st. This was necessary on account of the heavy traffic at the Madison office.

A new switchboard has been installed at the Shulbarg exchange.

Work has been started covering the installation of eighty new subscribers at the Beaver Dam exchange. When these telephones are installed Beaver Dam will have one of the greatest rural developments in Wisconsin.

A three by seven cordless switchboard with a full equipment has been installed for the Falsburg-Morse Manufacturing Company, at Beloit.

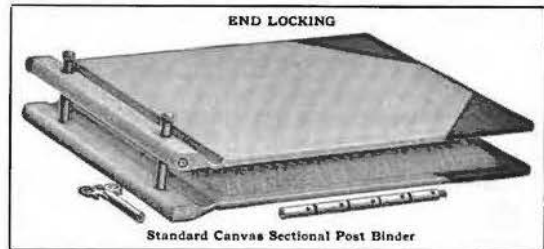
Jessie Miller, formerly a toll supervisor in the Madison exchange, has been appointed assistant cashier in the Madison exchange.

Miss M. Healy has succeeded Miss A. Fix as service observer at the Madison exchange. Miss Healy was promoted from the operating force to her present position.

Many of the Madison operators have and are now enjoying their summer vacations around the numerous lakes of Madison.

Mr. Nickerson, manager at Juneau, who had a severe operation performed some time ago, has now fully recovered and has returned to work.

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Standard Canvas Sectional Post Binder

THE covers are of tough binders board, bound in high grade drab canvas. The lock is simple and non-breakable. The key operates the lock from the end of top cover. Six one-inch sections and a top ball in each post. A perfectly satisfactory binder at a low price. Special rates for quantities to Telephone Companies.

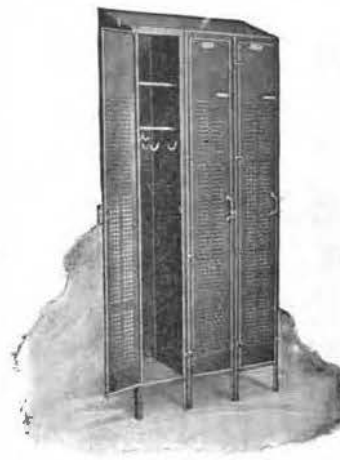
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Chicago, Illinois

DURAND STEEL LOCKERS



Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.



Before. After.
SOME TREE TRIMMING NEAR HILLSBORO, OHIO.



Maud Nequet and Vivian Dickerson gave a linen shower June 20th at the home of Miss Dickerson in Whitewater in honor of Eva Brown. The three young ladies are operators at the Whitewater Exchange.

Milwaukee District.

Sadie Leeman, who was night chief operator of the Milwaukee West office, resigned her position in June to be married. The night operators at the West, together with some of the night operators at the other Milwaukee offices, entertained for her and presented her with a beautiful picture. Miss Leeman was a faithful worker. She was in the employ of the Wisconsin company for nine years, seven years of that time she was night chief operator at the West.

Because the West and North exchanges of the Wisconsin Telephone Company are full to the maximum and to provide for future growth, the company has opened the Kilbourn exchange at Twenty-eighth and Wright streets, Milwaukee. The work of shifting subscribers from the North and West exchanges to Kilbourn started about July 20th.

Thirty-five operators left the service in June to be married.

On May 7th fire partially destroyed the Resthaven Hotel, Waukesha, making it necessary to remove the entire toll exchange system of 100 telephones.

Construction-foreman Wolf has completed the stringing of about 1,000 feet of fifty-pair cables to relieve the congested condition in the vicinity of East avenue and McCall street, Waukesha.

Grace Churchill, local operator at Waukesha, resigned her position and was married to William Koplein of Waukesha. Mr. and Mrs. Koplein will make their home at Fond du Lac.

Art. Marquardt, formerly with the North American Telegraph Company, has taken a position as lineman at Waukesha. Contracts have been secured for a No. 1 hotel exchange with thirty-five stations for the Hotel Waukesha, and a two by four cordless exchange with four stations at Tullar and Lockney, both of Waukesha.

Three more rural lines serving twenty-four subscribers have been completed, making a total of 306 rural subscribers served by the Waukesha exchange.

Ernest Borchers has been busy at Waukesha for the past month installing one additional section to the present board, made necessary by the increase in business.

Fred Manthel, manager at West Bend, was married June 17th to Cora Borsewetter.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Chillicothe District.

After three years of faithful and efficient service as information operator at the Ironton exchange, Ella Hartman left the company to be married to E. V. Perdue, local passenger agent for the Norfolk and Western Railroad Company. The wedding was solemnized on June 27th. After a short trip the couple will reside in Ironton, Ohio.

A recent issue of a Zanesville paper said: "At the recent meeting of the Fortnightly Club at the home of Miss Nellie Osborne announcement was made of the approaching marriage of Miss Gertrude Silvis and Adolph Linser. The centerpiece of the dining table was of white linen and red geraniums around this concealed the double hearts bearing the announcement. Red ribbons were attached to the hearts and also to the place cards, and the engagement and approaching marriage were made known in this way. The date of the wedding was not made public. Miss Silvis has for some time been chief operator at the Bell Telephone Company. This position she relinquished May 15th. The Fortnightly Club is an organization of telephone office girls and ex-office girls.

Columbus District.

On the 28th the toll operators of the Columbus exchange enjoyed an outing at Olentangy Park. After partaking of an excellent lunch the evening was spent in dancing and other amusements. All voted to have another outing in the near future.

W. E. Long, commercial agent, resigned June 30th to accept a position in Minneapolis, Minn.

A private-branch-exchange contract for twenty-nine stations for the Norwich Hotel and one for twenty-five stations for the Anti-Saloon League at Westerville, have been secured.

Installation of a private-branch-exchange system of four trunks and 172 stations for the new Columbus Hotel, has been started.

Bills which are to be delivered to subscribers on the first of each month are now being forwarded to the Post Office on the 25th of the month previous. This, according to the postmaster, gives the clerks sufficient time to have the mail properly distributed and ready for delivery on the morning of the first.

S. Matthy, special agent, has been transferred from the Chicago general office to the department of the agent for connecting companies, Columbus.

Toledo District.

The Farmers' Mutual Telephone Company, at Van Buren, has incorporated in the name of The Van Buren Mutual Telephone Company and the first regular meeting was held June 7th.

A. L. Jerew, of the construction department, is stringing an additional circuit from Rising Sun to Bradner.

A contract has been taken at Sandusky for a No. 2 private branch exchange with the Alvord Peters Company, publishers of the *Sandusky Star*, for two trunks and nine stations.

A. C. Arend, commercial manager at Gallon, was appointed manager of the Prospect and Mt. Gilead exchanges, succeeding L. J. House, who was transferred to Chillicothe as chief clerk to N. G. Warr, district commercial manager at Chillicothe.

Corinne Abele, toll billing clerk at the Toledo exchange, resigned June 22nd and is succeeded by Pearl Deck. Miss Abele is to be an early fall bride.

Mary Walsh, stenographer in the manager's office at Toledo, has been confined to her home on account of illness for several weeks. She is now reported improving and hopes to be back at work soon.

The Findley plant force recently installed new underground toll-line cable into the office of The Kenton Telephone Company, Kenton.

A severe electrical and wind storm visited Findlay on Sunday, June 16th, causing much trouble; about 600 telephones were out of service. The United States Company's toll lines also suffered considerable damage; the circuit furnished for the Associated Press, giving reports of the National Republican Convention, was out of commission for two nights and American Telephone and Telegraph circuits were then furnished for the press news at the Bell exchange during the interruption of the United States Company's lines.

The severe electrical, wind and rain storms of June 15th and 16th did serious damage throughout the Toledo district, the damage being heaviest in the southern part of the district.

Martha Volmer, operator at Findlay, has resigned and is succeeded by Verna Parlette.

The traffic chiefs and clerks of the Commercial and Plant Departments of the Lima exchange were guests at a six-o'clock dinner given by Jennie Stuber on June 11th. Miss Stuber was formerly employed as clerk in the plant department.

Magnolia Leming, operator at Lima, resigned on June 14th and was married June 17th to William Yeager. She is succeeded by Ora Kramer.

Hazel Brower, toll operator at Lima, resigned on June 22nd and was married on June 26th to Daniel Shine. She is succeeded by Martha Will, formerly of Muncie, Ind.

TELEPHONY—\$4.00

A comprehensive and detailed exposition of the theory and practice of the telephone, by SAMUEL G. McMEEN, member American Institute of Electrical Engineers and Western Society of Engineers, and KEMPSTER B. MILLER, member American Institute of Electrical Engineers and Western Society of Engineers; author of "American Telephone Practice."

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PARTIAL TABLE OF CONTENTS

History and Development; Acoustics; Electrical Signals; Telephone Lines; Transmitters; Receivers; Primary Cells; Signaling Apparatus; Hook Switch; Inductive Coils; Condensers; Current Supply to Transmitters; Telephone Set; Party Line Systems; Electrical Hazards; Protective Measures; Telephone Exchanges; Simple Magneto Switchboard; Simple Common-Battery Switchboard; Transfer Switchboard; Principles of the Multiple Switchboard; Magneto Multiple Switchboard; Common Battery Multiple Switchboard; Trunking in Multi-Office Systems; Automatic Systems; Loricor Automatic System; Automatic Systems; Power Plants; Housing Central Office Equipment; Private Branch Exchanges; Inter-Communicating Systems; Telephone Traffic; Measured Service; Phantom, Simplex and Composite Circuits; Telephone Train Dispatching; Telephone Lines; Cables; Poles; Underground Construction; Cable Splicing; Office Terminal Cables; Service Connections; Subscriber's Station Wiring; Electrolysis; Development Studies; Care of Plant; Testing.

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American School of Correspondence
CHICAGO, U. S. A.



B. T.

News

8-12

A. S. & C.

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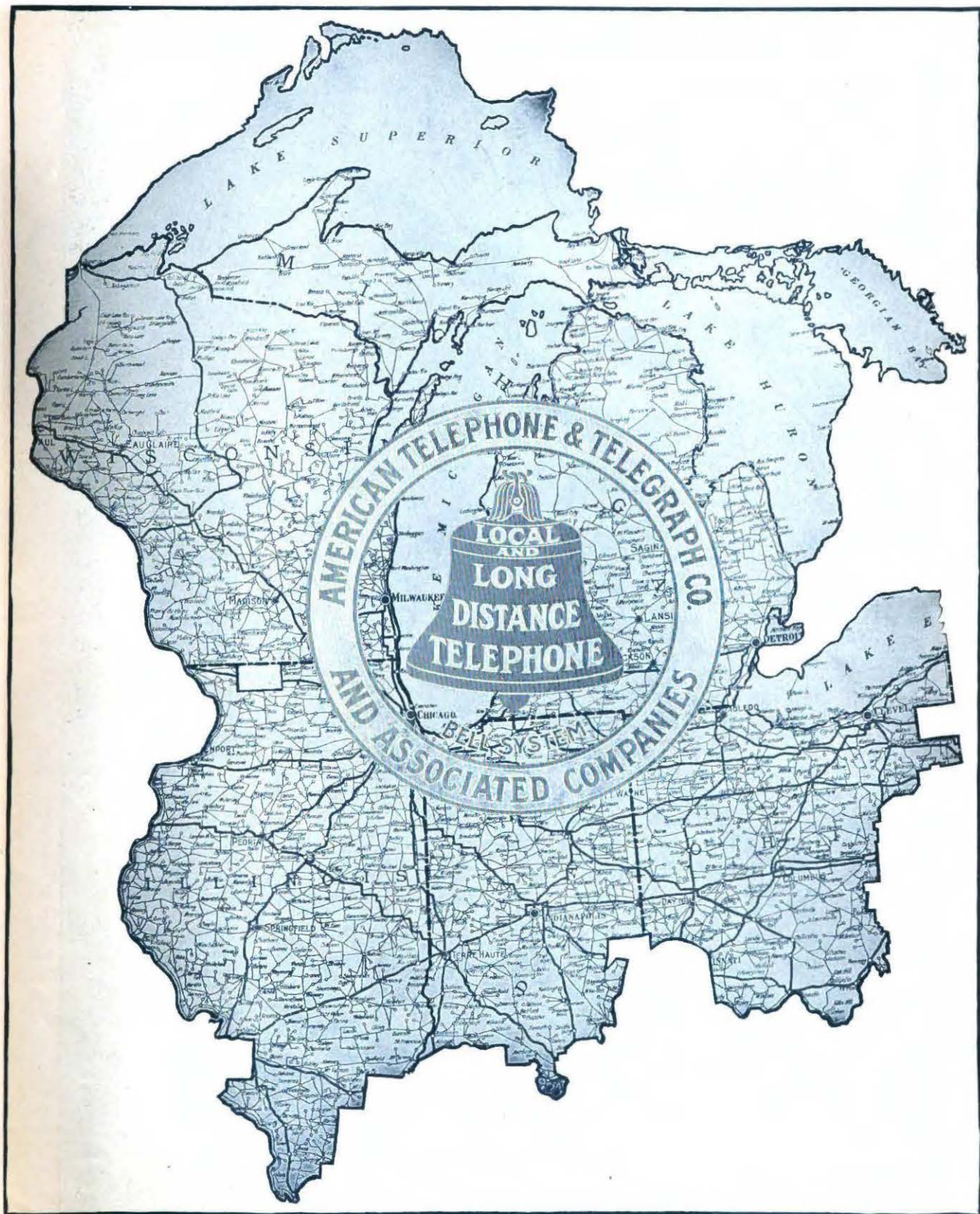
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Bell Telephone News

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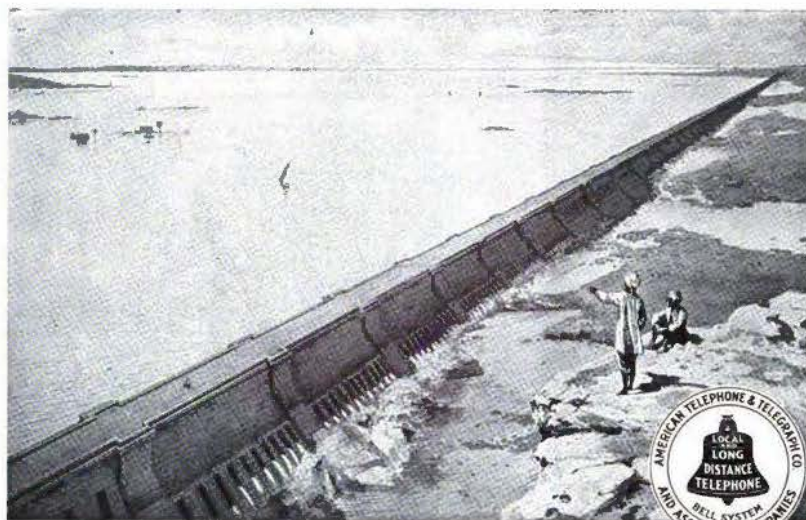
MICHIGAN STATE TELEPHONE COMPANY

Volume 2, No. 2

SEPTEMBER, 1912



NEW GENERAL HEADQUARTERS BUILDING, CHICAGO.



Assuan Dam, part of the Nile system, one of the greatest engineering projects of its kind.

The Nile System—The Bell System

For thousands of years Egypt wrestled with the problem of making the Nile a dependable source of material prosperity.

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Primitive makeshifts have been superseded by intelligent engineering methods. Success has been the result of a comprehensive plan and a definite policy, dealing with the problem as a whole and adapting the Nile to the needs of all the people.

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It is the aim of the Bell System to afford universal service in the interest of all the people and amply sufficient for their business and social needs.

Because they are connected and working together, each of the 7,000,000 telephones in the Bell System is an integral part of the service which provides the most efficient means of instantaneous communication.

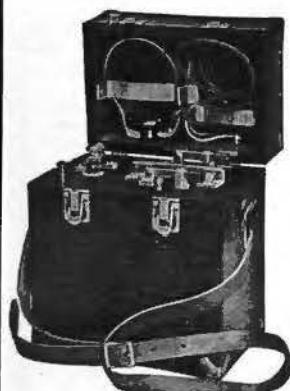
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Universal Service

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Chicago, Summer 1912
Time

My Dear Man
or Woman

When writing this my thought is to talk through this page to women as well as men. They (most of them) like to get all the "S. and H. Green Trading Stamps" they can. This store not only is advertising weekly the greatest of Clothing bargains but we "make good," they are bargains! and we give "Green Trading Stamps." Watch for our "ad" in all Friday evening papers and I will "watch" for you.

On the job all the time,
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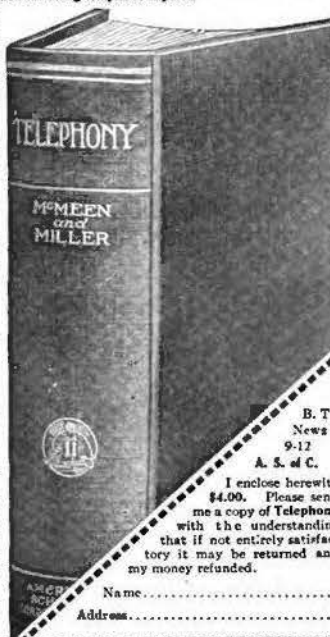
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News
9-12
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BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 2

CHICAGO, ILLINOIS

SEPTEMBER, 1912

CENTRAL GROUP AND CHICAGO HEADQUARTERS MOVING INTO THEIR NEW HOME

Unless all signs fail the majority of the departments of the general headquarters of the Central Group of Bell Telephone Companies and the various departments of the Illinois and Chicago operating organizations will be permanently housed in the new Telephone Building at Chicago before the next issue of the BELL TELEPHONE NEWS reaches all of its readers in the five states.

This will mark the consummation of the pleasurable hopes and anticipations of many hundreds of workers in these departments, who have watched with great interest the progress of the building operations since they were started a little more than one year ago.

It was originally planned to have the new building ready for occupancy by May 1, 1912, but the unusually severe winter of 1911-12 caused such delays in the steel and exterior work as made it impossible to finish on that date. In the meantime the various departments of the Chicago organization have occupied quarters in several other buildings, giving up their space in the old main building to departments of the general headquarters. Some of these leases began expiring May 1st and since that time several departments have moved into the new building, occupying floor

space merely under a temporary arrangement.

A tentative assignment of space in the new building and a re-assignment of space in the old Main building has been made, subject to changes which may be deemed desirable before all departments are permanently located. In the new building this assignment is as follows:

First floor—Chicago city commercial department. This includes offices of the commercial superintendent and his assistants and clerical forces, the collection and credit departments and cashier's office.

Second floor—This is a mezzanine floor, rising above the first floor at the rear. It will be used by the city collectors.

Third, fourth and fifth floors—Chicago plant department, including offices of the maintenance superintendent, chief inspector, construction superintendent and their assistants and clerical forces. The mailing department

will be located on the fifth floor.

Sixth, seventh, eighth, ninth and tenth floors—These are for rent until such time as they are needed for operating rooms or for office purposes.

Eleventh floor—American Telephone and Telegraph Company. Offices are assigned to the division commercial superintendent, division plant superintendent and division traffic superintendent and forces.

Twelfth floor—Division auditor of receipts, Chicago Telephone Company, and forces.

Thirteenth floor—Auditor of receipts and forces and additional forces of division auditor of receipts.

Fourteenth floor—Auditor of disbursements and forces.

Fifteenth floor—General auditor, general bookkeeper and chief traveling auditor and forces.

Sixteenth floor—General manager for Illinois, assistant general manager, general commercial superintendent, and general plant superintendent, and forces.

Seventeenth floor—Vice president,

manager publicity department, and forces.

Eighteenth floor—President, treasurer, secretary, general counsel, and forces.

Nineteenth floor—Engineering department forces.

Twentieth floor—Chief engineer, assistants and forces.

The space vacated in the old Main building will be occupied by the Chicago traffic department, employment department, claims department, suburban commercial department, and additional offices of the Chicago plant department. The exact assignment of this space has not yet been fully determined.

The pictures published this month are necessarily confined to views of the exterior of the building. It is expected to publish some interior views as soon as all departments are moved in and interior arrangements become settled. A more complete and detailed directory of offices may also be published when permanent locations are all fixed and all departments fully organized in their new quarters.

It is expected that the moves from the various outside locations into the new building will all be accomplished without any interruption of business.



ALLEGORICAL DECORATION OVER FRONT ENTRANCE OF NEW HEADQUARTERS BUILDING, CHICAGO.

Complete Description of New Telephone Headquarters Building

By D. C. HOLLOWAY, Superintendent of Buildings, Chicago Telephone Company

The Chicago Telephone Company's new twenty-story and basement fireproof General Office Building, located at 212-226 West Washington Street, is considered to be one of the finest office buildings in the city of Chicago and has also the distinction of being the best and largest telephone building in the world.

In point of extravagant detail there are several buildings in Chicago which surpass the "Telephone Building" as it has been christened, but there are few that can compare with its utilitarian features. It rises high above the noise and din of the street and those occupying space on its upper floors will find there an atmosphere of a rarer sort than they have been accustomed to dwell in during their occupation with the Chicago company in years gone by.

In general there is no working space in the building which will be more than thirty feet from outside windows. A glance at the typical floor plan will reveal the excellent conditions afforded through the shape of the building for natural light and ventilation.

As one looks upon the main facade of the building he finds there a variety of treatment which at once commands his interest and attention. The five stories of gray Bedford stone set upon a heavy course of dark polished granite form a fitting base for the shaft of brown brick extending up to the seventeenth story. From the seventeenth to the twentieth stories we find a facing of cream terra cotta, the colonnade formation of which leads the eye in a satisfying way up to the heavy projecting cornice, with which the building is capped.

The stone balconies constructed at alternate story heights from the seventh to the fifteenth, accomplish well their purpose of breaking up the uniform and monotonous effect which the facing brick alone would have produced.

Over the heavy, handsomely designed bronze entrance doors are set brown green terra cotta tablets bearing in raised profile the likeness of Mercury, who in Greek mythology was supposed to be the Messenger of the Gods. In the background of one of the tablets is shown the Eastern Hemisphere and in the other the Western Hemisphere. Mercury is depicted as bringing the two together by means of the telephone lines radiating out from his hands and encircling the globe. The artist's conception expresses well the idea of "Universal Service."

The west face from the top of the main building up to the seventeenth story is faced with red brown brick; above this height gray brick has been used which harmonizes nicely with the terra cotta of the corresponding course in front. The east wall is entirely of common brick. The smoke stack extending above the roof is artistically concealed by an inclosure of gray brick with an open lattice work design near the top. All walls facing the light court are faced with large sized white enameled brick.

That the building is entirely satisfying and pleasing to the esthetic sense is evidenced by the fact that it has elicited only favorable comment from those who have studied it.

Handsome First Floor.

The building is entered near the east end through two large arched door openings. In each opening is installed an ornamental bronze swinging door,

also a revolving door of the same material. Above the entrance doors are transoms covered by handsomely designed bronze grills. Above these are the terra cotta tablets representing Universal Telephone Service. The doors open into a main lobby which is light, airy, and spacious. It has dimensions forty by forty, with a height of twenty-six feet. Its floor is of marble, with a body color of gray, while the pattern and borders are worked out in black and green.

The inclosing walls and partitions are wainscoted from the floor to the ceiling with white Colorado yule marble excepting a few of the upper panels, which are green in color. The side walls are paneled and all openings are marble trimmed. A heavy, artistically modeled plaster cornice extends entirely around the lobby, binding the ceiling and side walls together. The entire ceiling is divided by beams and soffits into small coffers, in each of which is a plaster rosette.

On the east wall is installed a bronze directory frame and sash of sufficient size to serve the whole building. A richly designed mail box, also constructed of bronze, occupies a position in the northeast corner. Upon the east wall is installed a pneumatic clock framed with marble. The south end of the second story elevator corridor where it opens into the lobby is screened by means of a beautiful white

marble balustrade.

The lobby opens out into the main elevator corridor, where the elevator inclosures are of bronze with an elaborate grill design. The doors are arched with marble which extends to the ceiling. The walls of the corridor are wainscoted with marble from the floor level to the ceiling. All door frames and doors leading from this corridor are constructed of bronze and are of a heavy ornamental design.

The walls bear just enough carved marble ornaments, together with the bronze indicator dials, wall lamps, and bronze trimmings, to produce an artistic and pleasing effect.

Leading from the lobby to the third story is the main front hall stairs. The treads and risers as well as the side walls are of white marble. Lining the open side of the stairs is a beautiful balustrade and hand rail constructed of solid bronze.

The lobby opens into the first story space of the building. This when ready for occupancy will have a connected area of 19,870 square feet, and a ceiling height of twenty-six feet three inches. The columns and pilasters are ornamental plastered and have moulded caps. The wall panels are moulded and the ceiling is cut up into panels by beams and cornices extending between the pilasters and columns. Wherever wood trim is used, it is of mahogany finished to a hard polished surface.

The main counter and screen dividing the office space from the public space is constructed of marble up to the counter and has glass with marble columns and cornice above. The space in front of the counter is covered with interlocking rubber tiling of color and design to harmonize with the floor of the main lobby.

The ceiling area immediately below the light court is constructed of glass. Much natural light is therefore admitted to what otherwise would be a dark section of the room.

This story, with its large windows, high ceiling, massive columns and beams, depth and width of space, tends toward an expression of freedom, strength, and generosity.

A mezzanine floor has been constructed in the end of the north ell of the building midway between the floor and ceiling of the first story.

Upper Floors.

Above the first story the arrangement of the floors is typical. They are connected at the front and rear by stairs. The treads of the front stairs are of marble and the stair hall walls are wainscoted with marble. At the rear, the stairs have slate treads and the walls are plastered. The rear stairs are inclosed in a fire proof shaft with metal doors opening out into the elevator corridor, while the front stairs open directly into the corridor.

The elevator corridors are floored with tutti-colori tile. The side walls are wainscoted with marble from the floor to the under side of the transom windows in the partitions dividing the corridors from the office space. All wood trim and doors appearing in the corridors are of mahogany. The inclosure about the elevator hatchways is a grilled construction made of wrought iron bars and painted black.

The elevator shaft from the basement to the ceiling of the twentieth story is lined with white glazed terra cotta blocks. Upon the fascia of each floor in each passenger elevator hatchway there appears in blue a large raised figure molded in the terra cotta to indicate the story heights.

The arrangement of the floors for departmental use is illustrated by the drawing of the eighteenth floor.

The amount of wood in the building has been reduced to a minimum. All of the window sills have been made of marble, while the window openings have been finished with plaster, thus omitting the wood stools, aprons, and casings which not long since were considered to be indispensable trimmings. The large open spaces are trimmed with oak, as are also some of the private offices. The offices used by officers of the companies are trimmed in mahogany.

Each private office is provided with a combination clothes and lavatory closet. Interior toilet rooms have been provided on each floor for the heads of the departments in the general offices. Interior toilet and rest rooms have also been provided for the women employees working in the general offices.

Roof and Pent House.

On the roof is a pent house in which is installed all of the elevator machinery; the house tanks which supply water to the plumbing fixtures below the twentieth story; the blower which operates the pneumatic tube system and an exhaust fan which ventilates the interior toilet rooms on the eleventh, fifteenth, sixteenth, seventeenth, eighteenth, nineteenth, and twentieth stories. There is also a tunnel constructed next to the outside walls with dimensions four feet wide by seven feet high, through which the steam main that supplies steam to the various risers in the building is carried. The south portion of the roof is inclosed by high parapet walls and covered with red promenade tile. It comprises an area of 5,520 square feet, which is to serve the purpose of a roof garden for the men in the building.

Because of the east wall being a party wall, it became necessary to construct certain flues in the wall which serve a low four story building adjoining on the east. It is not anticipated that the tenants in the building will complain about insufficient draft when

TELEPHONIA

(Tune—"Annie Lisle")

I.

Towering o'er the pavement's clamor
See its stories climb
Mason's art and steel-smith's hammer
Raise its height sublime.

CHORUS.

Telephonia, Telephonia,
At our summons come
Here surrounded by thy followers,
Make these walls thy home.

II.

Loose thy myriad errant fairies,
Gird men's thoughts on each,
Launch them springing o'er the prairies,
Speed the whispered speech.

III.

Solitary, dull, unlettered
Souls entrapped and bound,
By thy magic wand unfettered,
Rise on wings of sound.

IV.

Pilot thy wish-freighted carvels,
Through the ether's flow,
Link the distant by thy marvels,
Mind on mind bestow.

—M. D. Atwater.

they start their heating stoves this fall, now that 230 feet have been added to the tops of their chimneys.

The roof of the pent house is to be protected with a guard so that it may serve the purpose of a Chicago observatory, for from this point a bird's-eye view may be had of the whole of Chicago and far out on the lake. A view of the Masonic Temple from this level will convince the observer that it no longer holds dominion, with respect to height, over the downtown district.

Rising fifty feet above the top of the south parapet wall is a hollow steel flag pole, from which is unfurled early in the morning of each working day a burgee bearing the bell symbol of the Bell Telephone Company. On special occasions the American flag is substituted for the burgee. Below is given the schedule governing the raising of the American flag:

Flag to fly full mast on all dates except Memorial Day and the anniversary of the sinking of the Maine, when it should be at half mast. The hours of flying are from sunrise to sunset.

February 12th, Lincoln's Birthday.
February 15th, Anniversary, Sinking of the Maine.

February 22d, Washington's Birthday.

April 19th, Anniversary, Battle of Lexington.

May 30th, Memorial Day.
July 4th, Independence Day.
October 12th, Columbus Day.
October 17th, Anniversary, Battle of Saratoga.

October 19th, Anniversary, Surrender of Yorktown.

November 25th, Anniversary, Evacuation of Yorktown.

The site of the Telephone Building is indicated on the block plan shown on this page. The front section adjoins the Main Building on the west. The west side of the north ell adjoins the east end of the Toll Building for a distance of 40 feet, 4 inches.

The frontage on Washington Street is 141 feet 4 1/4 inches. The depth from Washington Street to the court is 63 feet. The dimensions of the court are 45 feet by 80 feet. The building measures 181 feet from Washington Street to the alley line, which is its north boundary. It covers a ground area of 19,690 feet.

The superstructure is supported by sixty-four concrete caissons averaging seven feet in diameter, which extend to bed rock, a distance of 105 feet below grade. The basement has a depth of 18 feet, 6 inches below and the building rises to a height of 279 feet, 3 inches above grade. The building has a cubical contents of 4,601,600 feet.

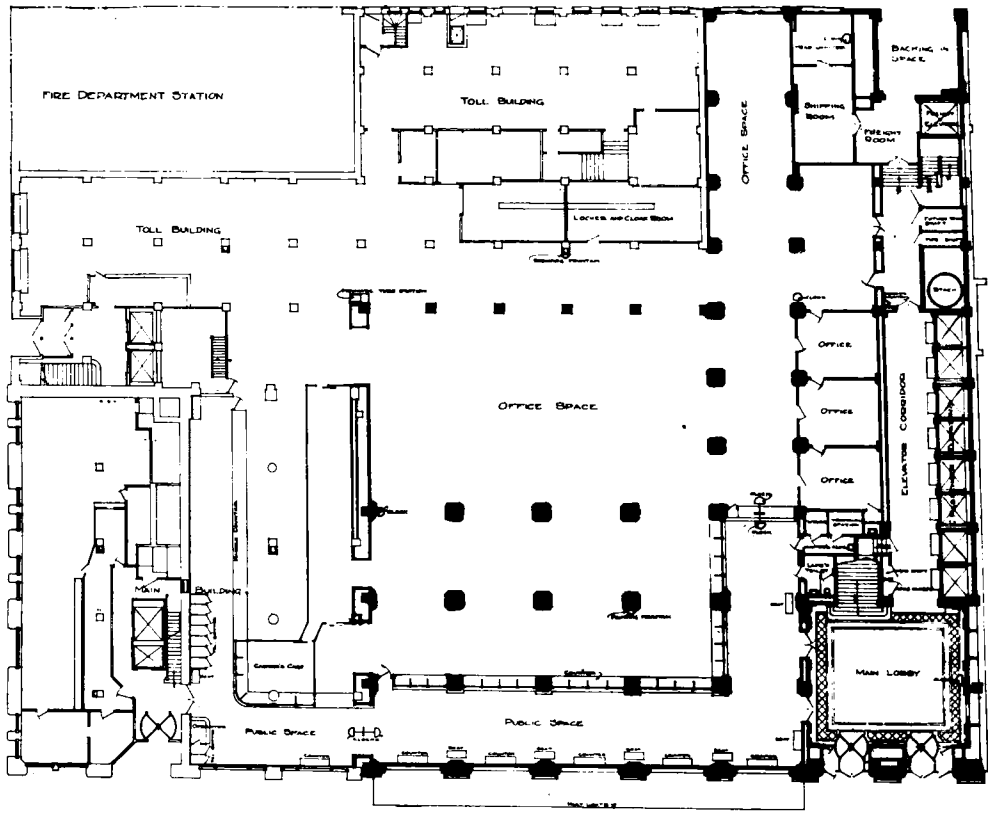
The floors of the building have been designed to carry a safe load of 200 pounds per square foot and may if required in the future be used for operating and equipment quarters.

The most recent building methods were employed in the construction of the building. It represents the product of the best that money could buy in the matter of workmanship and material. The frame work is of steel. All columns are encased in concrete. The floor arches are of hollow tile. The outside wall panels are of brick, hollow bricks having been used to line the inside of the walls as a substitute for tile furring. All windows except those in the front elevation are of fire proof construction consisting of hollow metal frames and sash glazed with wired glass.

The office floors are covered with maple flooring excepting a few private offices, which are of oak.

Assembly Hall.

Space has been reserved in the north end of the fifteenth story, and will be appropriately fitted up for use as an assembly hall. It is expected that this gathering place will fill a much felt



FIRST FLOOR PLAN

need. It will quite likely be the means of affording the employees the opportunity of not only meeting but of hearing addresses on telephone subjects by men who have distinguished themselves in the world of telephony.

It will not only serve as a common meeting ground for the discussion of business matters by the department heads and their subordinates, but it will beyond a doubt be a place where the employees will be glad to congregate in a social way for the purpose of getting more intimately acquainted, and by knowing one another better it will have the effect of dissolving their differences, should any exist, and the grand result will be a fostering of a better and a closer fellowship throughout the entire organization.

It will be observed that the floors from the sixth to the tenth inclusive are not assigned. These intermediate floors have already been placed on the market and will be rented until such time as they are required to care for the growth of the company's departments. This arrangement permits of the Chicago departments expanding upward and the executive departments of the Central Group downward.

All work except that of wrecking the old buildings on the new building site, sinking and filling of caissons and shoring the walls and columns of adjoining buildings was covered by a single general contract.

Progress of the Work.

The work of wrecking the old Forbes Building shown in the picture was started May 15, 1911. The work of excavating was begun on June 21, 1911, and the work of sinking

and filling the caissons was begun on July 13th and completed on September 16th, 1911, covering a period of sixty-five days.

The first steel was set September 22d and the structural work completed December 20, 1911, covering a period of ninety days.

There elapsed a period of 156 days from the time the masonry work was commenced until its completion. It dated from November 27, 1911, to April 2, 1912. It has required a trifle over one year to build the Telephone Building.

The question has often been asked, "How long before the old Main Building will be torn down and the new building extended to Franklin Street?"

The answer may be arrived at in the following manner:

The general auditor some time ago made the deduction from his records that for every 10,000 stations added, an increase of forty office employees is required. Assuming an average growth of 40,000 stations per year in Chicago for the next few years this would make an annual increase in the office forces of 160 employees.

The companies' forces occupying the building at the start will number 1,321. Making an allowance of eighty square feet per person, 105,680 square feet of floor space will be required to accommodate them.

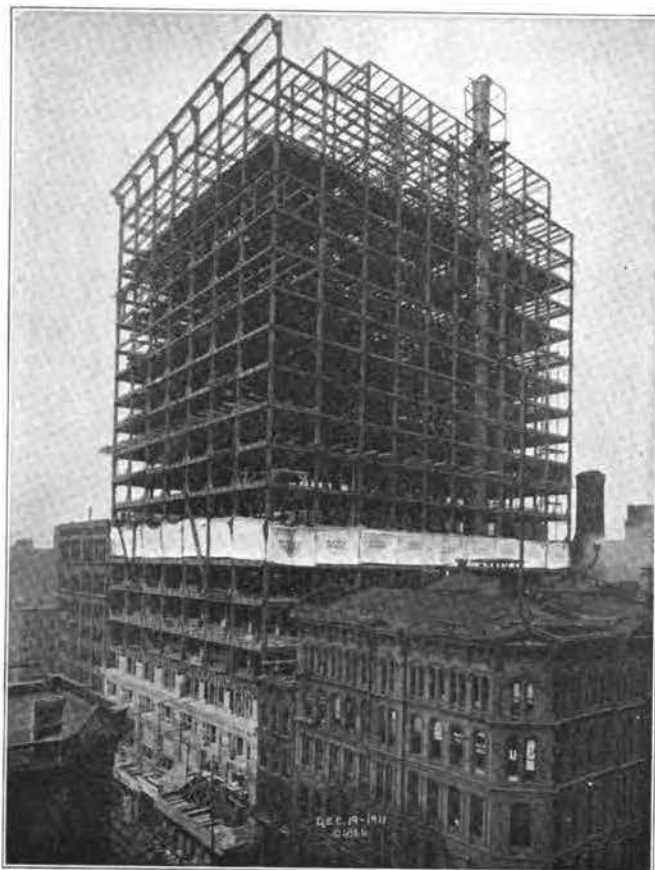
Since the building has a total area of 260,970 square feet there will remain 155,290 square feet for growth. This being sufficient to accommodate 1,941 persons and the annual growth being at the rate of 160 employees per year, the present building will meet the de-

mand for office space for a little over twelve years. This may be modified by the increase in forces necessary to handle the general administrative business of the Central Union, Wisconsin, Cleveland, and Michigan state companies, which is under the direction of the general officers whose quarters are now or about to be located on the upper floors.

Telephone Service.

The telephone service for the new building will be supplied from a sixteen position private branch exchange switchboard located in the Main Exchange Operating Room. It will require nearly 900 terminals connected to approximately 900 telephones and 200 key cabinets to supply facilities to handle telephone traffic. In addition to this the commercial department will have a four-position No. 35 private branch exchange, located in the spacious new office on the first floor, together with eight telephone or information tables and a few key cabinets to supply their service.

The house cable system, consisting of five 600-pair cables or 3,000 pairs, will be installed to supply facilities from the main office to the various floors of the building. There will be 200 pairs bridged to each floor with 150 pairs working direct, fifty pairs being overlapped to the floor above or below. These cables are terminated on the main distributing rack located in a wire closet centrally located on each floor. This distributing rack is also furnished with mounting for relays and other apparatus needed in connection with the key cabinets.



GIANT SKELETON OF NEW BUILDING

The telephone service for each floor is fed from these distributing cabinets by means of wires or cables through the runways provided underneath the flooring. It will require about 1,900 feet of 600-pair, 150 feet of 300-pair and 1,600 feet of 200-pair cable or approximately 565 conductor miles of cable for the house cable system. It is estimated that approximately 30,000 to 35,000 feet of smaller sized cable from ten pair up will be necessary to supply service from the distributing cabinets on the various floors to the desks.

Fire Escapes.

Ample provision has been made through the construction of fire escape stairs near the front and rear of the building for the safe exit of the employees from any story should their rapid withdrawal from the building be made necessary on account of fire or for any other reason. As the building is fireproof, this is a remote possibility.

Mail Chute.

A United States mail chute has been installed from the twentieth-story elevator corridor to the main lobby, where it terminates in an artistically designed mail box constructed of heavy bronze metal. The front and side panels of the chute are of plate glass and the entire front in each story is hinged, thus making the clearing of the chute easy in case the mail becomes clogged in it during transmission.

Pneumatic Tube Service.

Throughout the building there has been installed a pneumatic tube service

for the purpose of transmitting correspondence and official papers between the many departments, which will materially expedite the dispatch of all papers.

On the fifth floor in the space to be occupied by the mailing department is located the terminus of all lines in the building. It is at this point that all mail will be opened and distributed throughout the departments by use of the pneumatic tube service. If the general commercial superintendent on the sixteenth floor should desire papers which are in the commercial department on the first floor, he would telephone to have the papers sent to him by tube. Since the message by telephone would require but a few seconds and the carrier travels in the tube at the rate of thirty-five feet per second, requiring but two seconds at the central station for transfer, it will be seen that it is a matter of but a very short time to complete a transaction between the sixteenth floor and the first floor.

The carriers are drawn through the tubes by a vacuum; this vacuum is created by a blower located in the pent house on top of the building. The blower is operated by a twenty-horse power variable speed motor. At first thought, one would imagine that the expense of operating a motor of this size would amount to considerable, but owing to the fact that this service is equipped with electric power control apparatus, power is consumed only while the carriers are passing through the tube lines.

The speed of the motor and blower is regulated by the vacuum at the blower which is governed by the air required, this quantity being determined by the number of lines in operation. Should the fluctuation of the number of lines in service increase or decrease the normal vacuum by one-half ounce, the motor would decrease or increase its speed through field control to compensate for the fluctuation in the air supply.

It is evident that the service described above would be quite indispensable where over 1,300 workers are gathered together under one roof, handling the affairs of five large public-service corporations and where the interchange of such a large volume of correspondence and mail takes place.

Refrigeration System.

There has been installed in the new building with branches extending to the Main and Toll buildings a refrigeration system which is designed to supply all of the drinking water required. The equipment is of the carbon dioxide compression type and consists of a single eccentric horizontal steam engine direct-connected to a compressor having a twenty-five ton capacity, together with the necessary condensing coils, cooling tanks, filters, circulating pumps, etc.

The system is designed with a capacity sufficient to cool 800 gallons of drinking water per hour from a temperature of seventy degrees to thirty-eight degrees Fahrenheit. The water is to be kept in continuous circulation through the pipes. At convenient locations throughout the buildings have been installed drinking fountains provided with bubbling water cups.

It is expected that this system on the whole will prove to be a decided improvement over the portable cooler service.

Elevator Service.

The occupants of the building may be assured of having the very best elevator service that it is possible to supply with machines that have been highly developed through years of experience and expensive experimentation.

The eight passenger machines are of the one-to-one direct-drive traction type and are operated by slow-speed spiral-wound motors with the cable-driving sheaves mounted upon the motor armature shaft.

These cars travel from the first to the twentieth story, a distance of 247 feet. The speed at which they are designed to operate is 500 feet per minute with a load of 2,500 pounds. The very latest types of safety and protective devices have been applied to this equipment. Perhaps the most important of these are the limit switches, which operate automatically as the car approaches its limits. By means of them the speed of the car is gradually reduced and at the extreme landing is stopped from slow speed to a standstill. This is accomplished independent of

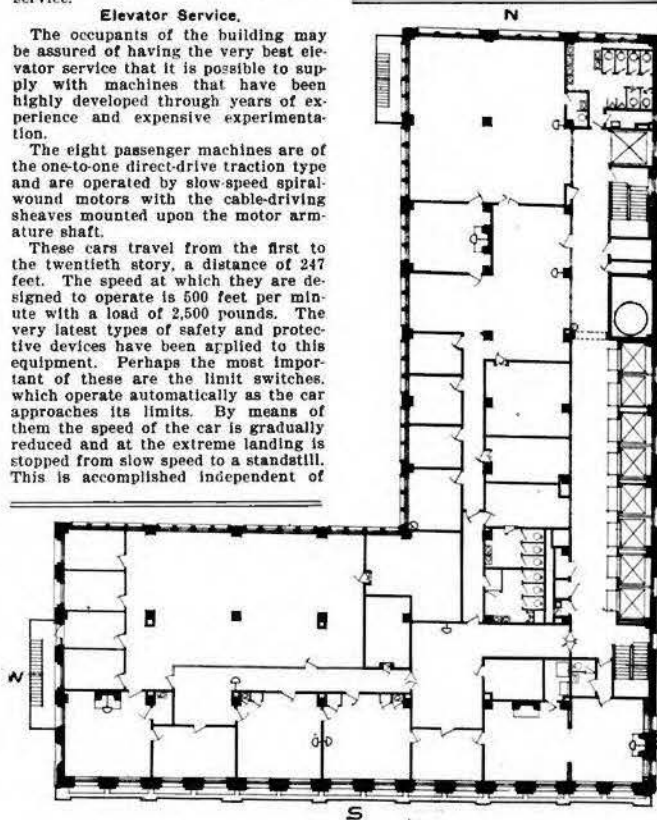
the operator should he neglect to operate his controlling lever properly.

There are devices applied which would prevent the operator from starting his car should it be overloaded, and if he should exceed the speed limit the car would be stopped in the same manner that it would if the cables should break. In case the current is interrupted for any reason, the car is brought to a standstill. An approved type of oil buffer has been installed to absorb the shock produced by the landing of the cars and counterweights.

The cages are constructed of metal, the lower portion of the sides consisting of solid panels with a bronze base, while the upper section is of open grill work. Each car is to be illuminated by a sixty-watt tungsten lamp in a ten-inch ribbed globe. The lamp is controlled by a flush push button switch in the car.

The passenger elevators are all equipped with a complete signal system of the office building type, consisting of an open operator's signal fixture in each car and an "up" and "down" cast bronze fixture in front of each car at all floors. Each car is equipped with a "call back," consisting of a buzzer in the cage connected to a push button on the first floor. Passenger car No. 1 is provided with a flashlight type of night enunciator so arranged that this car only will receive the signals for the night service. Provision has been made in the signal system so that cars No. 5, 6, 7, and 8 may be run "express" from the first to the tenth floors and "local" beyond. There have been installed two motor generator sets, either of which is sufficiently large to operate the entire signal system.

The cars are equipped with devices for lubricating automatically both the



TYPICAL FLOOR PLAN, UPPER STORIES.



BUILDING AS IT APPEARED ALMOST FINISHED.
This also gives a good idea of the view from the east.

car and counterweight guide rails. This installation has been made with the idea of safeguarding the lives of the passengers while riding in the cars against injury or death from almost every conceivable operating cause.

An important and much used piece of apparatus is the freight elevator. It is located near the north end of the building in order to facilitate the distribution through the building of furniture, freight, express packages, etc., that are delivered to the alley loading platform. The car travels from the basement to the twentieth story, a distance of 265 feet. Its capacity is 5,000 pounds.

Heating System.

The building is heated by means of what is known as the Webster system. It is designed to operate under vacuum and is especially adapted to the use of exhaust steam in heating.

The steam is carried to the roof in a twelve-inch riser, where mains are taken off and run around the outside walls of the building. At the radiator locations risers are connected into the main and are dropped to the third floor. These supply the radiators with steam on all of the floors from the twentieth down.

Small return risers are run from the radiators to the vacuum pump in the basement. On the drip end of each radiator is placed a thermostatic water and air relief valve. The pump exhausts all water of condensation and air into a receiving tank. The air escapes to atmosphere through a vapor pipe, extending from the top of the

tank above the roof, while the water is pumped back into the boiler, where it is evaporated and started again on its circuit carrying heat units to the radiators.

Excellent results are expected from this system owing to the fact that in recent years many of our best and largest office buildings have been successfully and economically heated through its employment.

System of Heat Regulation.

In the planning of the new building it was realized that the loss due to no or even improper regulation of a heating system comprising 34,000 square feet of radiation would amount to a large item, when measured in tons of coal burned during the heating season. It was decided therefore to completely equip the building with the Johnson system of automatic heat regulation.

The system consists of a diaphragm valve placed upon the supply end of each radiator. The valve is controlled by the operation of a thermostat properly located to indicate the average temperature of the section of the room governed by it.

If the temperature falls below what it is desired to maintain, the thermostat causes the diaphragm valve to open and admit steam to the radiator until the standard temperature has been restored. Should the temperature get too high, the operation is simply reversed. The valves are actuated by means of compressed air, which is supplied to the system by an air compressor in the basement.

Lighting System.

The lighting system is installed on the three-wire 115-230 volt plan. All wires are pulled in iron conduits concealed in the floor, ceilings or walls. The building is supplied with current from the Commonwealth Edison Company's leads, which enter the basement through the south retaining wall and terminate on a service board erected there. From this location lighting leads are carried up the wire shaft to the twentieth story.

On each floor adjoining the wire shaft has been constructed a closet in which is installed a metal cabinet containing the distribution panel for that floor. Each panel from the third to the twentieth story inclusive is fully equipped for the installation of sixteen meters. The first and second floor panels will take four meters each, while but one is planned for the basement.

Fixtures have been installed for single unit tungsten lamps. The fixtures are located on approximately ten foot centers and are designed so that the lamps will furnish an intensity of illumination equivalent to one watt per square foot of floor space.

Pneumatic Clock System.

The building has been completely equipped with a pneumatic clock system of the most approved type, the master clock being located in the office of the building engineer and something over 150 secondaries distributed throughout the building.

A line of wrought iron tubing connects the master clock with all other timepieces. The former, a chronome-

ter of almost astronomical accuracy, is equipped with a second beat compensating pendulum which is kept under unvarying tension and consequently insures absolute uniformity of time. The original power for operating the master is derived from a weight.

At minute intervals a self contained air transmitting device sends a slight impulse of air into the tubing to the secondary movements. These have small diaphragms which are alternately inflated by this impulse and released again at one minute intervals by the automatic opening of a valve in the master clock. Each action moves forward the perfectly balanced hands exactly one minute with unfailing certainty.

Due to the fact that the tubing is opened to the air every other minute, expansion or contraction of the air, due to atmospheric changes, is eliminated. The correct operation of the system can be maintained, therefore, independent of the atmospheric conditions.

A few of the frames are designed for mantel clocks. The most of them, however, are round and each is made of material corresponding with the trim of the room in which it is located.

From Blacksmith Shop to Skyscraper

By F. H. BAKER, Chicago Plant Department

The evolution in buildings and reality values which the not-to-be-de-



REAR VIEW OF COMPLETED NEW BUILDING.

nied spirit of progress has made in the downtown district of Chicago the past few years, has been no more clearly demonstrated, or with a more complete contrast perhaps, than on the corner in which we, as telephone people, are interested; the corner of West Washington and North Franklin streets, where our twenty-story new home is being erected.

By catching some of the "old timers" in a reminiscent and retrospective mood, the writer has been able to secure a few items which may be of interest.

The cuts shown were made from photographs secured through the courtesy of J. J. O'Connell of the engineering department, who by the way, recalls how things looked in this district before the big fire, as though it were but yesterday.

The first cut is from an ambrotype picture taken of the corner before "the fire." A son of the elder Mr. Haas, who owned the blacksmith shop, presented the picture to Mr. Campbell of the collection department. A two-story building stood on the corner, and when the street was raised to grade, it left the building looking like a one-story affair from a street view standpoint, and exemplifies the ups and downs to which the people were subjected in those days in the struggle toward the upbuilding of a great city.

To the east on Washington street is the blacksmith shop, its door corresponding approximately with the location of our present Main building entrance.

The second cut shows the first telephone building erected on the corner



BEFORE THE FIRE OF 1871.
Corner of Washington and Franklin Streets showing old dwelling and blacksmith shop.

in 1887. This was of seven stories, with the main floor along Franklin street serving as the company's warehouse. The operating quarters were on the seventh floor and the other departments, together with several tenants, left so much vacant space that they used to wonder why the company ever put up such a monstrous building. The sign of the "Champion" sa-

loon next door shows in this picture.

The third cut shows the east half of the Main building, built up eight stories in 1899 on the site of the saloon with one story added to the original building to correspond, and to which the operating quarters were moved.

The Forbes building next door east, was erected four stories high after the fire as a tenement building and was considered one of the best of its time. Note the old grip and cable train in front of the Main building, stopping as was customary before entering the tunnel. The Forbes was occupied by the company in recent years to care for the overflow of its clerical forces and was razed last summer to make way for the new home.

The building on Franklin street in the rear of the Main building, was destroyed by fire in 1907, making room for the Toll building. In this connection it is probably not generally known that the company had planned before this to erect an eighteen-story building in the alley in the rear of the Forbes building, cutting an entrance from Washington street at the west side of the Forbes on the main floor back to the new building, using the space in the Forbes until the new building was completed, to transfer the people from the Forbes to it, and raze the old building and erect a structure on its site to correspond with the rear building. The fire which destroyed the Ticket and Tablet Company's building, therefore, in reality made our present new home possible.

J. J. O'Connell, speaking of the history of the site, said:

"I am sorry to say I am not familiar with the early history and the location of the new Telephone building. I know this, however. The Forbes building was put up after the big fire of October 9, 1871. The stores on the first floor were occupied for business purposes. The second floor in front was used part of the time for small printing offices. The remainder of the building was used for rooming purposes. There was no elevator in the building, as was the rule in Chicago at that time, so you can see what a task the telephone trouble man had climbing stairs to reach the wire fixtures located on the roofs. (All wires were not in cables then.)

"I have seen a trouble man sitting on the stairs taking a rest before going up the last flight (which happened to be a ladder reaching to a scuttle hole through which you had to pass before reaching the roof). One man

I saw, told me he had heart trouble and could go no further.

"There was, however, in some of the wholesale business houses, an elevator called the man-killer. It was used for freight and we would have to pull it up ourselves by pulling on an endless rope over a large pulley. It was a slow process and I found it was easier to walk up four stories than to haul myself and the elevator.

"To go back to the Forbes building. It was about as good a building as there was in the district at that time. The front was of a quality of stone which would endure for ages. (It was not the common limestone.) It was machine-dressed, for at that time concrete tile or ornamental brick was not extensively used. The sidewalk was made of large common limestone flags.

"The general construction of the interior consisted of timber for supporting the floor joists, except on the first floor and basement, where iron columns were used; wooden floors, mostly pine; lath and plaster partitions, pine doors and pine molding trimmings. Only the best pine was used. You could not buy it today for less than \$80 per 1,000 feet. It sold then for \$35."

Statistical Information and Items of Interest About the Building

| | |
|---|-----------|
| Ground area covered, square feet | 19,690 |
| Cubic contents, cubic feet | 4,601,570 |
| Total gross floor area, square feet | 330,276 |
| Total floor area for office use, square feet | 260,970 |
| Area of marble floors, square feet | 32,600 |
| Area of marble wainscot and toilet partitions, square feet | 34,000 |
| Kind of marble used: Corridors, Colorado Yule; toilet room, partitions, Colorado Yule; main floor, commercial office, Tennessee. | |
| Number of panes of window glass | 2,500 |
| Area of window glass, square feet | 37,000 |
| Number of electric fixtures | 3,200 |
| Number of passenger elevators | 8 |
| Number of freight elevators | 1 |
| Total travel all elevators (round trips), feet | 4,486 |
| Number of radiators | 420 |
| Total radiation, feet | 34,030 |
| Number of men's toilet rooms (public) | 15 |
| Number of women's toilet rooms (public) | 4 |
| Number of men's toilet rooms (private) | 8 |
| Number of women's toilet rooms (private) | 7 |
| Total number of lavatories | 181 |
| Area of roof garden, square feet | 5,520 |
| Total length of raceways: | |
| Main line, feet | 5,720 |
| Laterals, feet | 29,840 |
| Frontage on Washington street, feet | 141 |
| feet 4 1/2 inches | |
| Depth to court, feet | 63 |
| Depth to alley, feet | 181 |
| Heights above street level: Roof, 259 feet 11 inches; pent house roof, 279 feet 3 inches; top of smoke stack, 306 feet 3 inches. | |
| Total height of smoke stack, feet | 324 |
| feet 9 inches | |
| Depth of basement, feet | 18 |
| The building rests on 64 solid concrete caissons, with an average depth of 105 feet to bed rock, and an average diameter of 7 feet. | |
| Number of tons of steel used | 5,500 |
| Number of yards of crushed stone | 25,000 |
| Number of yards of concrete | 25,000 |
| Number of barrels of plaster | 2,000 |
| Number of barrels of lime | 5,500 |
| Number of yards of excavation | 45,000 |
| Number of barrels of cement | 42,500 |
| Number of common brick | 2,688,000 |
| Number of facing brick | 176,000 |
| Number of glazed brick | 115,000 |



FIRST CHICAGO TELEPHONE BUILDING.
Erected in 1887.



MAIN BUILDING AS IT APPEARED IN 1899.

CONSOLIDATION AT CRAWFORDSVILLE, IND.

Central Union Takes Over Property of Home Telephone Company.

The Central Union Telephone Company has become the owner of the plant and business of the Home Telephone Company, of Crawfordsville, Ind. For the present the two plants, one of which is automatic, will continue to be operated. The Central Union has a new exchange at Crawfordsville.

H. H. Ristine, president of the Home Telephone Company, made the following statement to the *Crawfordsville Journal*:

"The bondholders will get eighty-five per cent. of the money they actually paid into the treasury of the company. They also received the interest on the bonds at the rate of five per cent. since the company was organized. We were making no money and we had been unable to pay for the installation of the automatic system which was installed about two years ago. That cost us \$31,500 and these 'phones have stood the test remarkably well. None of them have needed much repairing in that time. We regard the deal as being very satisfactory one, as we had found out we could not make any money so long as there were two systems in the field. Neither can any company make any money at the \$1 flat rate for residence

'phones we were charging. I think the sale of one of the plants was the only solution. It will be a great saving to the business and professional men of this city now that they will only have to maintain one telephone."

ANNUAL CAR SHORTAGE WARNING GOES OUT

Telephone May Perform Important Part In Preventing Immense Business Losses.

Already the traffic associations are issuing warnings to shippers and commercial organizations, asking them to do all in their power to prevent a repetition of the disastrous freight car shortages of previous years. A circular letter issued by the Association of Western Railways' headquarters in Chicago says that if the reduction in the available car supply between July and October, 1912, be only equal to the smallest reduction that has taken place in the same period in any of the preceding four years, viz., 128,540 cars, the shippers will be confronted on October 25th with a net shortage of 59,618 cars. If the reduction in the available supply of cars should be as great as it was in 1909, the shortage on October 25th will be 179,833 cars.

The crop prospects this year are unusually good and this makes the car shortage prospect unusually bad. The association asks shippers to move all the heavy freight possible during the

next few weeks and not throw it all on the railroads when they are staggering under the crop movement.

In all times of emergency in commercial matters the telephone becomes an increasingly valuable agency. Its service, both local and long distance, can be employed with great effect in facilitating the movement, both of orders and deliveries and the importance of the telephone in the impending car shortage ought not to be overlooked. Commercial managers everywhere ought to make it their business to see that shippers and consignees are not allowed to remain in ignorance of the value of the Bell service.

DO NOT WASTE TIME.

Public Service Commission Finds New York Operators Answer Calls in Five Seconds.

The State Public Service Commission has completed an inspection of twenty of the twenty-six central offices of the New York Telephone Company in Manhattan, which serve 327,840 subscribers, or about seventy-eight per cent. of the total number of subscribers within the main section of Greater New York.

The commission's inspectors made records of over 2,500 test calls from subscribers' stations and the company's central offices. The average speed of first answer by operators was found to be a fraction above five seconds.

Special attention was given to causes for defective service where complained of, and the inspectors' reports call the

telephone company's attention to the specific cases where there was found to be an overload and where there was a shortage of operators or too high a percentage of inexperienced operators. These matters have since been taken up in informal conference with the officers of the telephone company, with the result of effecting a number of changes which will tend to improve the service.—*New York Sun*.

Quick Cable Splice.

Less than twenty-four hours after the Bell cable across the river broke Monday morning, it had been raised and spliced and in working order. Of the 200 pairs of cable, all but two pairs were in working order at six o'clock this morning and before 8:30 the cable was in complete working order. The cable broke Monday morning at 9:30 o'clock, and the company was of the opinion that it would take until Wednesday evening before the Rock Falls people west of First avenue would have service. Cable men were hurried here, a row of electric bulbs were strung along the bridge and men worked all night making the repairs. Those who are acquainted with this kind of work say the repairs were made in such a remarkable short space of time that it surprised the officers of the company. The patrons are well pleased over the quick work.—*Gazette*, Sterling, Ill.

Linguistic Prodigies.

Telephone operators in Egypt are required to speak English, French, Italian, Greek and Arabic.

MAIN BUILDING AS IT APPEARS TODAY.
Toll Building in rear to left.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

TELEPHONE BUILDING

CHICAGO, ILLINOIS

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 31,800 copies per month.

SEPTEMBER, 1912.

WEAK POINT FOUND.

A splendid piece of "boiler plate," describing the experience of a big manufacturing firm and its office boy, is going the rounds of the papers. The story shows that a chain is only as strong as its weakest link and that vast business machinery is often dependent for smooth running upon exceedingly obscure cogs.

The large firm bought heavily of raw material and simultaneously with its delivery came the sudden announcement of a great "trust" in the purchasing field. That meant, of course, that instead of there being numerous markets, the unfortunate manufacturers found themselves face to face with the necessity of securing the entire business of the combination—or going to the wall.

The entire sales force was ordered to work. The product of one manufacturer was essentially no better than that of another, and the outcome of the solicitation depended chiefly upon demonstration of adequate service in the handling of the goods. The campaign was tactfully handled along those lines, with steady insistence upon "personal attention," and day by day the manufacturers grew more sanguine. Finally, to their great jubilation, verbal assent to a contract was secured. Then one morning—an extremely cold morning—the telephone bell rang in the office of the manufacturers.

As usual, the nearest person answered it. In this instance it was the youngest and "freshest" of office boys.

"This is Blank & Co.," said the voice at the other end, naming the purchasing coalition. "Will you send a boy right over to us? We—"

"G'wan," broke in the office boy. "Don't you think we've anything to do but send out kids?" There was a short pause. Then: "All right," said the voice quietly. "Send one when you're ready. Good by."

Within an hour the much desired contract was signed—in favor of others. The voice had belonged to the president of the purchasing corporation.

The office boy was, of course, discharged. But the blame for his error in judgment belonged rightfully upon the shoulders of those whose laxity made it possible for any but a carefully trained and naturally adapted expert to handle so difficult and so vitally important a post as that of telephone operator.

PROSPERITY IGNORES POLITICS.

Although "presidential" years are supposed to cause a general slackening of prosperity, this year seems likely to overthrow the precedent. This, however, is a precedent destroying year, especially in things political.

According to the *Wall Street Journal* foreign commerce of the United States in manufactures alone for the fiscal year ending June 30th rounded out \$1,000,000,000 in value. We have sold an enormous bill of goods to the foreign world and got as good as cash for every bit of it.

During all this period we have been supplying a home market in which the value of exchanges, counting one turn for each commodity for the same form is safely estimated at a volume of trade amounting to \$33,000,000,000. That is about equal to the foreign commerce of the entire world's trading nations.

By far the greater proportion of our last year's productions of agriculture, amounting to about \$8,000,000,000, and of manufactures amounting to \$20,000,000,000, are sold right at home; so that the people who produce them sell to their neighbors and fellow-citizens.

Wages have been advanced in hundreds of lines of industry and prices have been at a more profitable rate for many of our most important manufacturers. That is especially so of cotton goods and other staple commodities.

Since the panic of 1907 the country has pulled itself out of the slough of despond and is doing business on about as big a scale as ever.

Our total foreign commerce is practically \$4,000,000,000, or four times as large as in 1870. In that year we grew 1,000,000 bushels of corn, but now we grow about three times as much.

The Western Electric Company's average monthly business is running slightly better than last year and the year's total may reach the record figures of 1906. This means that there is no slackening in the rate of telephone development. The situation as a whole is, in fact, exceedingly encouraging to the telephone industry.

MENDACITY OF A BARN.

A sprightly zephyr, such as we have been enjoying at various places this summer, recently passed over the home of Isaac Vancil, a farmer near Edinburg, Ill. It lifted Farmer Vancil's barn, containing, among the other usual contents, a setting hen, and deposited the entire structure astraddle a telephone pole. After the storm the faithful hen was found still conscientiously busy in the work of hatching the eggs, all of which were unbroken, although the barn and the telephone pole were demolished.

This occurrence excited great interest in the neighborhood and the cyclone proof eggs of Farmer Vancil have become a proverb.

The matter of damages was ingeniously dismissed by the local newspaper with the statement that the barn "was insured for \$150, which was about two-thirds of its value." Nothing was said about the damage to the pole and the wires which it carried. No expression of regret was heard that the mendacious barn while quixotically preserving the farmer's eggs had at the same time sadly scrambled the telephone service of the community, which must be restored with great expense on the part of the telephone company and toil under forced draft on the part of its employees.

The havoc of the elements has been unusually great this season. The bill for repairs to toll lines particularly has been fearfully heavy. The lines, it must be remembered, are no better after they are restored, but they represent a considerably greater investment. This investment demands the reward of interest just as does the original cost of the plant, and the only source of such reward is the rates which the companies must charge for the service.

AIR AND BREATHING.

All indoor workers should cultivate the habit of walking with the shoulders thrown back; that is, to carry themselves erect.

They should also form the habit of deep breathing at frequent intervals throughout the day.

The breathing exercises should be taken out of doors, if possible; if in doors, then before an open window in order that the air taken into the lungs may be the best to be had.

These habits, even if followed regularly, are not expensive and will be of much greater benefit than some other habits that not only cost a lot of money but do us a great deal of harm. Why not then trade the costly and harmful habits for those that cost nothing but a little effort and that do us good? Think it over.

There is nothing that can take the place of plenty of fresh air as an agency to keep people well and strong. Every work room should have it in abundance.

By the way, try the suggestions made here as to walking erect and deep breathing whenever you are out of doors; especially when you are walking to and from your work.

The extent to which the telephone is now used in replying to inquiries in instances where it is not desirable to go on definite record is little less than

remarkable. It used to be the rule, for instance, in all the great banking houses that every letter of a courteous character should receive an equally courteous, even though entirely non-committal, reply. Today this rule is not by any means as actively observed as it was even a year ago, says the *Chicago Journal*. Letters of a superficial nature are now answered by telephone in a great many offices. This new branch of correspondence is conducted by private secretaries capable of being in the highest class of diplomatists and who when they hang up the receivers are able to leave an impression of such kindly courtesy that it usually converts a refusal of whatever request is contained in the letter a positive pleasure. Furthermore, there is no record left that can be used for ulterior purposes.

A telephone publication is offering prizes for the best articles or essays directed to bringing "to the public mind a realization of the simplicity and certainty of long-distance telephoning, and to overcome the feeling of dread with which most people undertake a long-distance conversation."

It is doubtful if there is much confusion in the public mind as to the simplicity of long-distance telephoning. There may be doubt as to its "certainty." But there is no feeling of dread on the part of any large proportion of the people who talk long distance.

There is unfortunately a feeling among those who seldom or never use the long-distance service that it is expensive—exceedingly so. A more practical and profitable result to the telephone business as a whole might be accomplished if some word wizard were able to convince telephone subscribers that the long-distance service is worth all it costs and is cheap at that.

No one could complain of injustice but few would distinctly approve the ruling of the Nebraska Railway Commission authorizing an extra charge of twenty-five cents a month for a desk telephone. But why not?

If a desk set costs more to maintain than a wall set, it is only fair that the subscriber who gets the use and advantage of the more perishable apparatus should pay the extra cost. If he does not, it is certain in the long run that the subscriber who has the wall set will have to share in the cost of maintaining the desk set, which is not fair to the wall-set subscriber.

The Nebraska commission's decision is sound to the core.

If, as is reported likely, a law is passed making it obligatory on telegraph and telephone companies to send with each message the exact time it was filed for transmission, the Bell operating department will not be found wanting.

The purpose of the proposed law is doubtless to place information in the hands of toll users which can be used as the basis of protests over charges. It will really show that both long-distance calls and telegrams are actually put through more promptly than is supposed. The subscriber who is waiting at his telephone for the completion of a connection is very liable to think seconds are minutes and minutes hours.

In the five telephone companies represented by this publication there are 25,000 or more "ex-officio" commercial agents. By this we mean that every one of our 25,000 or more employees can help sell telephone service.

In one way or another we are all engaged in the production of telephone service. Every one of us has it in his or her power to do something toward increasing the sale of this service. The summer months usually show a decrease in the rate of expansion of the business. Let us all, by talking Bell telephone service, help all in our power to keep this decrease as slight as possible.

This issue of the BELL TELEPHONE NEWS might be called the "Outing Edition." It carries more vacation matter than any other feature. This is as it should be in a publication prepared in August.

The fact should always be borne carefully in mind that a telephone company sells service. It does not rent instruments.

Is it such a rainy place in Michigan? Both Mr. Wilde and Mr. Heywood were recently presented with umbrellas.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
230 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonso Burt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. C. Wray, Chief Engineer.
H. F. Hill, General Manager, Chicago, Ill.
H. O. Seymour, General Manager, Milwaukee, Wis.
E. A. Reed, General Manager, Columbus, Ohio.
L. N. Whitney, General Manager, Indianapolis, Ind.
A. von Schlegel, General Manager, Detroit, Mich.



CLIFFORD ARRICK.

Recently Appointed Manager of the Publicity Department of the Central Group of Bell Telephone Companies.

DETROIT INDEPENDENT IS BOUGHT BY BELL

Railway Commission Stamps "OK" on Project of Single System.

One telephone system for the city of Detroit, Mich., and several other cities nearby is promised by the sale, just concluded of the Home Telephone Company of Detroit, and allied companies, to the Michigan State Telephone Company. The formal application of the parties to the State Railroad Commission was made July 11th, and the approval of the commission was announced August 8th.

The application was entered by former Judge James O. Murfin of Detroit, counsel for the Michigan State Telephone Company.

According to Mr. Murfin, the price the Michigan State is to pay for the newly acquired properties is approximately \$3,500,000 cash.

In the seven years of its life the Home company, according to Mr. Murfin, has never been able to meet its interest payments on the bonded indebtedness, much less pay dividends.

The companies affected by the purchase are, after the Michigan State, the purchaser, the Home Telephone Company in Michigan, operating in Detroit and Wayne county, with connections to several cities in Michigan and Ohio; the Macomb County Telephone Company of Mt. Clemens; the Interstate Long Distance Company, operating principally in Livingston county, with some long-distance connections round about; the Detroit River Telephone Company, operating a small line in Trenton and Wyandotte, and the Wayne County Telephone Company, operating a small line in Wayne and Northville. The principal exchanges are in Detroit, Wyandotte, Mt. Clemens, Trenton, Northville and Plymouth.

General Manager A. von Schlegel of the Michigan State, said that from the operating standpoint the consolidation is bound to mean increased efficiency, and consequently better service on the part of the Bell telephone in Detroit and the state cities most affected by the change.

"The two systems stand in such relation to each other," said Mr. von Schlegel, "that telephone engineering will probably be able to bring them into a unit with the minimum of waste. It will take some time to weave them together—how long a time I cannot estimate at present—

and the work of unifying them will present several neat problems to the engineers.

"I think the Michigan State will need the services of all the Home switchboard girls, linemen and other operatives, for some time, at least, and possibly while the interweaving process is taking place we shall need more workers than even the combined forces will allow.

Commission's Strong Indorsement.

In approving the merger, the members of the State Railroad Commission issued the following statement:

"When the Michigan State Telephone Company made application to the railroad commission for authority to purchase the Home Telephone Company of Detroit, and its associated companies, a hearing was ordered and wide publicity was given to the notice, and all independent companies of the state invited to attend and participate.

"After due deliberation, the discussion centered upon the terms of the order that should be made by the commission in the event it was deemed advisable that the purchase and consolidation were permitted.

"In order that the interests of all telephone companies and through them, their present and future subscribers should be properly cared for by the order, if made, the commission appointed a committee to agree upon the draft of the proposed order, and as such committee named three representing the independent companies of the state, one representing the purchaser, Michigan State Telephone Company, and one representing the city of Detroit, where the Home Telephone Company is located. After ten days' deliberation this committee submitted at the adjourned meeting, which was largely attended, its report. The same was fully discussed and to the sufficiency of the proper order all present, except one party, assented, and with whose terms they expressed entire satisfaction.

"The commission received several letters from the owners of private switchboards in Detroit asking that their contracts with the Home company be respected, and with this assurance they approved of the merger.

Of Value to Patron.

"The two questions to which the commission gave most serious consideration were: First, would the merger, which would thereafter require connection with one phone system only, be beneficial to and approved by the

public? Second, would the interests of all parties be fully protected by the order?

"The commission believed the addition of expense to the subscriber of the extra or second phone and the greatly increased number of subscribers which could be reached under the new conditions would prove popular and beneficial to each and every subscriber, present and future.

"The commission considered withholding granting the necessary authority till after the courts had passed upon the constitutionality of the act as to the regulation of rates and the authority to order physical connection, and had not the committee's report and proposed draft of the order so fully protected these points, such would have been done.

"However, it is not for the commission to question the constitutionality of the act, as this was fully discussed at a conference held by the commission with Attorney General Kuhn and an able assistant of the attorney general's department and final action of the commission was based on the result of such conference.

Correct Future Ills.

"It is evident that the commission could not, under the law, more than require present contracts to be respected. They could not perpetuate nor insist on their renewal after expiration, either now or hereafter. The belief seems to be entertained by many that the cure for all present and possible future ills should be accomplished before the merger be permitted, but the public are reminded that the statutes prescribe the limit of the commission's power, and wherein the law is weak, the legislatures must correct. The commission cannot enact laws, however, the next legislature will convene in January, 1913, and any amendments to the present law which conditions suggest as necessary can then be made.

"As to the reasonableness of terms of future contracts, the rental to be charged for different kinds of service, the sufficiency of equipment now the property of subscribers, are now all under the jurisdiction of the commission.

"The Home Telephone Company admitted at the meeting that its business had been a losing venture from the start and could not be continued. Therefore, should it pass into the hands of a receiver and by him be sold, the purchaser would not have to ask permission from the commission or any other party for authority to purchase and operate. It was therefore decided that under the terms of the order to be made the sale should be permitted.

"Subscribers should not expect ideal conditions to obtain at once, but the commission believes the future will estimate the wisdom of this initial step, which we believe will eventually result in making it possible for a subscriber to any telephone company in Michigan to talk from his own phone to the subscriber to any other company in this state.

"The several companies named in the order are required to acknowledge receipt of the same and express in writing their entire willingness to be bound by the terms thereof before said order permitting the consolidation shall become effective."

Public Is Pleased.

The newspapers in the localities affected were practically unanimous in endorsing the proposition of a merger, as it is called, and it is declared that the telephone users will be heartily glad to get rid of the duplication of service heretofore obtaining. The *Detroit Free Press*, in its issue of July 12th, said:

Rumors for months and prophecies for years have foreshadowed the amalgamation now announced of the Home and

Michigan State Telephone companies and very few, if any, will be surprised at the news. It was predicted when the second corporation began operations here, in fact.

The outcome, however, renews the lesson often enough impressed upon the public mind, that telephone service is essentially a monopoly, and can only be treated as such, whether for the public welfare or for the profit of those who put their money into it.

Monopolies, naturally enough, are unpopular, and it is through the inevitable dislike for them that occasionally hungry promoters and self-serving politicians are able to induce cities to permit new ventures under the alluring pretense of providing competition.

The promoters come out all right; they look after that always.

The politicians realize that the consequence of their advice will not be charged up to them by sickle-memoried voters.

But the general public, the long-suffering public that pays the freight every time, bears the brunt as usual.

The advent of a second telephone company has brought confusion and expense to Detroit. Merchants and ordinary individuals have had to install two instruments when one would have been quite sufficient.

The money that went into the Home plant to a large extent duplicated the investment made by the Bell company, and every dollar of duplicated outlay was sheer waste.

The price paid by the buying concern to the seller in this instance is said to be \$3,500,000. If the Bell company had spent that amount on extensions and improvements of its own system here, or had spent even a major fraction of it, the result would have been that Detroit would now have one telephone plant superior to either of its present two and better than any consolidation of the two can possibly effect.

Since, in the long run, the public pays for all investments of this kind and meets all losses, it is evident that the city would have done much better if it had not encouraged the newcomer under the specious pretense of competition and had allowed the original company to put into its system the money that now to a considerable degree must be considered wasted.

It is to be hoped that the consolidation will not encounter any more opposition from the state railroad commission than will be necessary to secure proper scrutiny of its details and sufficient protection for the public interests after the merger is made.

There can be little danger that the resulting monopoly will in any way injure the patrons, since the act of the present legislature has made the commission supreme in authority over rates in this field, and the public will be amply protected. But the advantages of single service, of paying for and maintaining one instrument instead of two, and of relief from the confusion of the last few years will be decidedly welcome.

NORTHWESTERN IND. COMPANY PURCHASED

Important Independent Plant Acquired By Chicago Telephone Company.

Early in August Commercial Superintendent O. J. Holbrook, of the Chicago Telephone Company, closed negotiations for the purchase of the Northwestern Telephone Company of Indiana. This company had operated a number of farmer lines in Lake County south of Hammond between Dyer, Crown Point and Lowell. At the time of its sale and subsequent dissolution the company had about 375 subscribers.

The Northwestern Indiana company had never been highly prosperous. A large patronage was secured at first but this was not held. In 1911 a cyclone leveled a large portion of the outside plant. This caused a further shrinkage in business. Negotiations were opened with the Chicago Telephone Company in July.

The deal is important both to the Chicago company and the telephone users of the community affected. Improved service is secured to the farmers, who also secure a Bell toll outlet. The Chicago company's subscribers in Hammond, Lowell and other nearby places also secure additional connections.

Efficiency Engineering in Traffic Work

By J. LLOYD WAYNE, III., Traffic Superintendent for Indiana.
(Paper read before the Indiana Bell Telephone Society)

From a scientific point of view, the efficiency of any process is the ratio of the input and output. With an over supply of available energy, efficiency may be increased by increasing the effective input while keeping the waste constant. It may also be increased by decreasing the waste. For example, take the case of the efficiency of the steam engine. The efficiency of the process is represented by the ratio of the heat units in the coal pile to the units of useful work. It will be understood that anything which puts more heat units out of a given pound of coal into the steam engine will increase the efficiency; also, anything which cuts down the friction or improves the operation of the engine, or which cuts down the radiated heat, will increase the efficiency. Strictly mechanical processes have been studied for a long time from the efficiency standpoint. The application of this principle to the study of human endeavor has however been confined to a very recent period, so recent in fact, that when Mr. Brandeis, a Boston lawyer, remarked a year or two ago that, "By the application of scientific management the railroads of this country could save a million dollars a day," all the country "sat up and began to take notice."

The information that went with this remark showed "scientific management" to be a study of efficiency, and as interest was centered upon this subject, it was brought out that there has been a group of men, styling themselves as "efficiency engineers," who had been working for some twenty years improving processes involving human labor. They had done their work quietly without attracting the attention of the general public. The new interest awakened in the subject by Mr. Brandeis was so great that magazine after magazine published articles upon it. New books bearing upon this or that phase of the subject were published and books and articles which had been heretofore published were revived and given a considerable circulation.

The keynote of efficiency engineering seems to be analysis. Analysis alone, however, will not get one anywhere. To get results, the efficiency engineer must also be a good synthesist; that is to say, he must, after obtaining the fundamental parts by analysis, build them up in an open minded way, so that they will have a better arrangement than the original structure. In other words, in rebuilding, the parts must be assembled upon a scientific and logical basis without regard to the dictates of habit or tradition.

A moment's thought will show that there are two main factors in every process involving labor. These are the "appliances" and the "workers." The problems of the two are very different. Improvements in appliances may be effected by pure invention and design. Improvements in the worker (that is, in his output) require not only the devising of a new method but also the adjustment of the worker individually so that he will be willing to use the improvement and have confidence in its success.

Scientific Management.

Probably the first systematic efficiency work was done by F. W. Taylor at the Midvale Steel Works. Probably all of us have read how he later at the Bethlehem Steel Company, multiplied the day's work of a gang of laborers, without really overburdening any man. He accomplished this by studying "fatigue;" by discovering that

his men worked too fast in the morning and too slowly in the latter part of the day; by applying a stop watch and teaching each man to work at a uniform rate and to cut out lost motions. In this case there were no changes whatever in the appliances, as the men were merely loading pig iron. In the machine shop Mr. Taylor found it necessary to give attention to the appliances. His work here resulted in the production of air hardening steel, which has revolutionized machine shop practice.

Co-ordinate with Mr. Taylor were a number of other engineers, each following up efficiency work upon that line which appealed to him individually. Some of these men devoted themselves more particularly to shop arrangement in order that work be passed through the various processes in the shop, in a definite and fixed direction. Others devoted themselves to the study of wage systems and rewards, in order that the worker would be stimulated to put forth his best efforts. Another phase of the question is that of "motion study," by which is meant a reduction of the motions of the worker to the minimum required to accomplish the task.

No matter which side of efficiency engineering one of these men has undertaken, all seem to agree that the first attention must be given to a study of costs. To this end the work is analyzed and the proper proportion of the costs assigned to each part. Those parts of relatively great importance in determining the cost of the whole are then analyzed in great detail in order that every bit of waste may be cut out. When everything possible has been accomplished with these, then the smaller items are undertaken, etc.

Unit Cost System.

I believe we can all now see a foundation for our own unit system. This is evidently the foundation of a study of efficiency. The problem is considerably more difficult with us than with many of the shop processes, for our work and workers are scattered for the tangible part of our output and where our force is concentrated, as in the traffic department, the output is largely intangible. These peculiarities of our work lead some to question the possibility of applying efficiency engineering methods. Personally, I believe it can be done and it is being done, and that we shall see a more and more scientific application of these principles. In applying unit costs, we must have, of course, a uniform work unit. Here, I believe, we shall agree we have been weak. We have been told in the past that "in the long run our jobs will average up," or that "any two considerable areas will compare," etc. I, personally, do not believe that this is so, unless we interpret with a clear knowledge of the local conditions. I think we may expect a gradual adoption of more satisfactory and specific units. This seems to be quite near with the traffic department, for a "fundamental work unit" has now been adopted. This is 15.65 seconds of an operator's time; that is, 230 units constitute an hour's work. From another viewpoint, the unit is "one completed flat rate call on a No. 1 full multiple switchboard from one direct line to another direct line in the same office." Every other duty of an operator may be expressed in multiples and fractions of this unit. Costs will probably soon be expressed for all traffic work, both local and toll, in cost per work unit. Of course, while values in units may be or have been assigned to each class of call,

nevertheless these values will undoubtedly change as experience with results become wider.

Local Operating Costs.

While waiting for the establishment of our unit and unit relations we can, of course, begin the application of efficiency principles. Let us investigate and analyze local operating costs from this standpoint. Fundamentally our cost depends, as stated above, upon the appliances and the worker; however, a little more specific division will be:

- 1st. The appliances.
 - 2nd. The average cost per employee hour.
 - 3rd. The output per employee hour.
- Before going further into this, however, it should be stated that the quality of output is supposed to be fundamentally fixed. This standardizing is easy where the product is tangible and may all be inspected. Where it is intangible, as in our work, the problem is more difficult. It is easy to inspect a part of the product, sufficient to indicate whether or not the standard is being approached. However, there is no possibility of inspecting every part of the product, and the best we can do in any case is to make our inspection simultaneously with its delivery to the customer.

Now to revert to the items fixing costs. With us the appliances for service must of course be studied. In numerous instances we can probably prove in better types of switchboards. However, in the usual case, the type of switchboard is usually pretty well fixed and in those cases where it is not fixed a change can only be accomplished after considerable time. I shall pass over this item without further discussion in order that we may get to the more human side.

The second item, the "salary per employee hour," is important and worthy of study at each point. We should, of course, pay that salary which will bring us the minimum cost in the long run. In saying this, I do not wish to be understood to mean that this is at all the lowest salary at which we can employ help. As with the appliances, changes in salary scale do not usually bring immediate results. To get quick results, we must study the third item.

This third item, "useful work units per employee hour," depends upon many factors, such as character of the employee, the state of mind, contentment, personal ability and personal interest. In fact, to classify more systematically, it may be said that the useful work unit per employee hour will depend,

- 1st. Upon the natural capacity of the average worker.
- 2nd. The special education or knowledge of the job.
- 3rd. The acquired skill or practice.
- 4th. The degree of effort.

Changes in items one, two and three are a matter of considerable time. Item four is the only item which we can change quickly. Gilbreath in his book, "Motion Study," tells us that this item four is dependent,

- 1st. Upon the variables of the worker.
- 2nd. Upon the variables of the surroundings; and with our work should be added to this—
- 3rd. Supervision.

Variables of the worker are divided by Mr. Gilbreath into the following factors, to which I have added comments:

- 1st. Anatomy, i. e., condition of senses and frame.
- 2nd. Brawn, i. e., suitable muscular development.
- 3rd. Contentment—enables the mind to be kept on work.
- 4th. Creed—differences sometimes cause petty strife.
- 5th. Earning power, i. e., chances of increased remuneration by good work.

6th. Experience, i. e., experience in our work or other service.

7th. Fatigue—of three classes: That brought to the job. That due to unnecessary actions. That due to necessary actions.

- 8th. Habits, i. e., personal habits.
- 9th. Health.
- 10th. Mode of living.
- 11th. Nutrition.
- 12th. Size—suitable to the work.
- 13th. Native skill—as effecting deftness and speed.
- 14th. Temperament.
- 15th. Training, i. e., general training in everyday affairs.

I think you will see at a glance that improvements in any of these items affects the output, and we could probably spend an evening discussing these. It, therefore, does not seem worth while now to more than direct your attention to them.

Similarly, it will be well to enumerate the factors included under variables of surroundings. In enumerating these I will give some suggestions as to how each may apply in the operating work. The factors are:

- 1st. Appliances, i. e., special appliances, rather than the main switchboard.
- 2nd. Clothes—suitable for the work and freedom.
- 3rd. Color, i. e., relative color of the light and apparatus.
- 4th. Entertainment, i. e., for relief hours.
- 5th. Heating, cooling and ventilation.
- 6th. Lighting—such as degree, bothersome reflections, etc.
- 7th. Quality of material—not in our work.
- 8th. Rewards and penalties, i. e., for special standards attained.
- 9th. Size of unit moved—akin to most efficient hour load.
- 10th. Fatigue—eliminating devices.
- 11th. Surroundings, i. e., cleanliness, spaciousness, etc.
- 12th. Tools—with us, condition of apparatus, operator's tools, pencils, etc.
- 13th. Mutual agreement, i. e., agreements between employees.
- 14th. Weight of unit moved—corresponding to tight jacks, too heavy key springs, tight fitting cords, etc.

In the matter of item three, "supervision," the factors are probably:

- 1st. Quality of supervision.
- 2nd. Temperament.
- 3rd. Relation with workers.
- 4th. Methods.
- 5th. Proportion of supervisors.
- 6th. Effort of supervisors.

Many of the sub-classifications, you will see, are largely inter-dependent, and I believe that one could not effect the desired improvement by applying them one at a time. The general scope of them is what is interesting here.

Good Already Accomplished.

I doubt if any of us would hazard the suggestion that he had attacked his problem in any such detailed and systematic way as this; however, having the above factors in mind, it is interesting to consider what may have been done. As a matter of fact, I believe there has been something done along this line in the traffic department.

For example, in that matter of supervisors, the supervisors have been coached in methods, improved ideas of supervision have been introduced at several points, the number of supervisors has been adjusted, effort has been made to improve the relation between operators and supervisors, competition between supervisors has been started where they are in sufficient numbers.

Take the matter of surroundings. Considerable has been done—rest rooms and operating rooms have been cleaned up, broken furniture has been replaced by new, needed lockers are

being provided, the light has been adjusted by better window shades, good ventilation has been preached, more fans have been provided, the tools have been watched closer as the plant men will testify, and there is coming a new operator's chair for lessening fatigue. We are, also, now considering a standing rest for the operators of five minutes at stated periods. This is now done in New York.

In the matter of variables of the worker, we have interested ourselves so far, most in sub-item No. 3, that is, "Contentment." It has been our endeavor to make each operator feel the importance of her personal interest in the work and her personal effort.

As a matter of fact, probably no results have thus far been apparent in reducing costs. The reason for this is, that our product was not standard. I hope the standard is a good deal higher now than it was a year ago. Unfortunately, we are not thus far well enough equipped with observing apparatus to state this upon any stronger evidence than that of impression. When we get general observing apparatus and a service observing department installed, we can speak with more assurance, and then, in case reduction does not follow after a reasonable time, and careful analysis, we may rest assured that our present costs are strictly commensurate with the appliances and grade of service given.

FEARFUL EFFECTS OF STORM AT ALTON, ILL.

Stone Walls and Brick Streets
Washed Away Like So
Much Earth.

By H. H. Routson.

Sunday morning, July 14th, between the hours of one and five Alton, Ill., was visited by the most severe rain and electrical storm in the history of the town. It is estimated that there was an average of eight inches of rainfall all over the city. The streets were raging torrents and the sewers were unable to withstand the great pressure brought to bear upon them. Those

familiar with the city of Alton will recall the sewer from Ninth Street to the Mississippi River which carries the Piassa Creek. This sewer collapsed in many places, leaving great holes in the streets. Where it passes under the city gas plant an immense cave-in caused, putting the entire plant out of commission and leaving the city without gas for several days. At this point a huge boiler disappeared and it was several days before it could be found.

At Sixteenth and Belle streets, better known as Five Points, the street caved in for a great distance, leaving a hole large enough to put in a couple of two-story houses. The street car tracks were twisted into all manner of curves like so much hemp.

The water stood six feet deep in most places and at Ninth and Belle it reached the height of ten feet. It was at this point that four people lost their lives in the raging torrent. A mother who was deaf and unable to realize the dangerous conditions was drowned with her little babe in her arms. An aged colored couple were drowned like rats in a trap. Through the efforts of those who were abroad at that hour, many were saved from death by being warned of the serious condition of the flood.

The water flowed down Belle street to Third, in the very heart of the business section, at a depth of three feet. This raging torrent carried the body of a seven-year-old girl for several blocks and it lodged on a fence.

At the foot of Seventh street fully two car loads of stone were deposited. Some of them were immense boulders. The force of the flood at this point was terrific, having washed bricks out of the pavement and carried them for many blocks.

On Ridge street the flood raged with considerable force, uprooting trees and carrying them for several blocks. Stone walls were crumpled up and washed away like so much earth.

At the foot of College avenue near Rock Springs Park the flood tore out a new concrete bridge and it was swept down the creek.

Considering the great amount of damage done, the plant of the Central Union Telephone Company came through with only a few scratches one might say. In all we had about twenty-five poles down. The most trouble was in the cable plant. About all of them were in trouble at some place, the Upper Alton cable being entirely out of commission. The company acted with its usual rapidity in times



RUINS OF GAS PLANT AT ALTON, ILL.

of emergency and by Monday night a large force of men were at work clearing up the bad conditions.

Those who were in Alton at this time will long remember the terrible night of July 14th when five lives were lost and \$100,000 damage done.

OPERATORS DONATE MONEY FOR SUFFERERS

Set Aside Funds Intended for Outings to Aid Flood Victims.

On July 10th operators and other employees of the Central Union exchange at Alton, Ill., gave a moonlight steamboat excursion on the Mississippi river, from the proceeds of which they expected to pay for several chicken suppers in the country. Four days later a terrible storm visited Alton, leaving death and suffering in its wake. The generous girls promptly decided that they might somewhat curtail the extravagance of their proposed outings and devote a

part of their money to the relief of the sufferers.

The steamboat excursion was on the steamer *Sidney*, which was chartered for the occasion. The girls sold tickets and filled the steamer almost to capacity with their friends. The operating schedule at the exchange was so arranged that one-half of the girls might go early in the evening and one-half later. The boat left Alton shortly after eight o'clock and went for a trip below the bridge and then returned to Alton, where the change of girls was made. The boat then went up the river and did not return until after eleven o'clock.

This changing of girls during the evening added variety to the excursion and made it different from any that has ever been taken out of Alton. It is not often that an excursion goes out for an hour and then puts on a new crew of merry-makers to entertain their friends.

The disposition of the surplus funds after paying expenses, about \$100, had been planned by the young ladies. In relays they were to go out to Riehl's and eat fried chicken suppers until the fund was exhausted. But after the flood the plan was changed. Manager Wilder called up the relief committee headquarters in the Board of Trade rooms.



TELEPHONE LINE AFTER ALTON FLOOD.



SIXTEENTH STREET AFTER ALTON FLOOD.



PICNIC OF ALTON EMPLOYEES.

Given with proceeds of steamboat excursion.

Sunday was a big day for the young ladies employed by the Bell Telephone Company in Alton. The girls arranged a big day for themselves and plans were made during the week to have the day's outing at the Yost pavilion on the east limits of Upper Alton. The girls packed their lunch baskets and when they arrived at the place Sunday morning they

were ready for a day's enjoyment. The lunch baskets were filled with all kinds of good things to eat and many games were played during the day. The entire day was spent out in the open air where the girls who answer the busy public's wants over the phone do not have the opportunity to enjoy many days of the year.—*Alton Telegraph*, August 12.

"Do you need more money for the flood sufferers?" he asked.

"All we can get," was the reply.

"Send over to the office and get a check for \$25," said Wilder. "Credit the subscription to the Bell Telephone girls."

In ten minutes the check was in the hands of the committee, with the following letter:

Mr. E. M. Dorsey, Chairman Relief Committee.

Dear Sir: We recently had an excursion, the proceeds to be used by us in having an outing. The public was generous enough in their patronage to allow us to make over \$100.

We feel like we can enjoy our outing, which we intend to have in the near future, much more by donating \$25 to the poor people who are now suffering from last Sunday's storm. Enclosed please find check. Respectfully yours, Operators of Central Union Telephone Co. By Anna Monke, Traffic Chief.

The storm and its effects are described elsewhere in this issue of the BELL TELEPHONE NEWS. A picture is also printed of one of the outings in the country enjoyed by the girls.

INDEPENDENT PLANT DISABLED BY FIRE

Disastrous Blaze in Main Terminal
Room of Indianapolis Telephone
Company.

Fire which started in the terminal room of the Main exchange of the Indianapolis Telephone Company, Indianapolis, Ind., about eight o'clock in the morning of August 15th, completely paralyzed the company's service in the greater portion of the city.

The exact cause of the blaze is unknown, but it is believed that a short circuit somewhere in the myriad of wires in the terminal room ignited the rubber insulation, which is highly combustible. The fire was extinguished quickly, but not until every line and trunk in the building had been put out of service.

The branch exchanges which this company operates in several different parts of the city were able to continue service with each other, but as the bulk of the traffic is through the Main Exchange the interruption was almost total.

The fire caused a sudden heavy increase in traffic in the Central Union exchange, but the forces were equal to the occasion. Some of the girls from the disabled Indianapolis ex-

change were put to work at the Central Union boards and good service is being rendered. In the meantime the independent company is working hard to restore its service.

ADDITIONS PLANNED FOR HAWTHORNE SHOPS

Buildings to Cost \$750,000 to Be
Erected by Western Electric
Company.

The Western Electric Company has made plans for some new buildings to be erected at Hawthorne, Ill., near Chicago, which will cost approximately \$750,000, and which will take care of increases in business in the future. This construction follows out the company's general policy of concentration of the manufacturing part of the business at Hawthorne, where upwards of 11,000 people are now employed.

Business of the Western Electric Company for July was three per cent. greater than for the corresponding month last year. For the seven months ended July 31st, business was at the rate of over \$67,000,000, which was the estimate made at the beginning of the year of what the company would do in 1912. In some portions of the Western Electric's business, especially in lighting and general supply products, last month was the largest July in the history of the company, and this condition is expected to continue.

The portions of the country which seem to have responded most slowly to the increasing business are the West and the Pacific Coast, while in the East, South and Central West demand has increased considerably over a year ago. Not only has the volume of orders actually completed and billed increased, but also the volume of orders taken during the seven months was larger than sales. In other words, orders on hand at the first of August were approximately \$1,500,000 greater than orders on hand the first of this year.

Foreign business of the Western Electric Company is also good, and shows even a more satisfactory increase than that in the United States itself. This is partly due, no doubt, to the greater and more scientific efforts being made by the company to secure business outside of the United States, as it is devoting a great deal of time and energy to extending its foreign trade.

Brief News Notes from Everywhere

Application for Receiver.—Application for receiver for the Bourbon County Home Telephone Company, of Kentucky, has been made in Federal Court. It is claimed that interest on bonds has been defaulted and merchandise accounts are unpaid.

Favor Timing Messages.—Favorable action was taken by the House interstate commerce committee on the Cary bill to fix requirements governing the receipt, transmission, delivery and preservation of messages of interstate telegraph and telephone companies. Its purpose is to require all telegraph companies to send with each message the exact time it was filed for transmission, thus enabling the person receiving the message to estimate how long it had been in transit. Violations of the proposed law would be punishable by not over a year's imprisonment or fine of not more than \$1,000.

Receiver for Independent.—Theodore A. Lamb has been appointed receiver of the Union Telephone Company of Erie, Pa. The company's lines are leased by the American Union Telephone Company, which is in the hands of a receiver.

American Telephone Earnings.—The American Telephone and Telegraph Company continues to show substantial expansion in earnings, total net earnings for the first six months of 1912 having been \$18,062,702, as compared with \$16,421,163 for the same period last year. Interest charges for the last six months actually showed a decrease of approximately \$100,000, and the balance for dividends was \$15,301,983, as compared with \$13,555,278 for the first half of 1911. This larger balance, however, had to be distributed over about \$46,000,000 more stock, with the result that the balance in question represented 4.84 per cent., whereas for the first six months of last year the balance represented 5.03 per cent.

The Telephone in Denmark.—The annual report of the telephone company of Copenhagen for 1911 shows receipts from rents, \$1,050,000; from public telephones, \$191,000; for removals and entrance fees of new clients, \$54,000. The government will take over the company in 1918. The Copenhagen Telephone Company operates not only in that city, but also over all the island of Zealand, which includes a territory of 2,000 square miles, with 1,100,000 people.

New England Telephone and Telegraph.—It has been ordered by the board of directors of the New England Telephone and Telegraph Company that 39,178 shares of capital stock of

the company be offered to stockholders for cash at par.

Physical Merger Completed.—Independent lines at Topeka, Kan., recently bought by the Missouri and Kansas Telephone Company, were merged into the Bell System July 13th.

New Pacific Stock.—There has been admitted to the stock exchange list \$14,000,000 additional preferred stock of the Pacific Telephone and Telegraph Company.

Cut-Over at Watertown.—The New York Telephone Company's new exchange at Watertown, N. Y., has been cut into service. The exchange is now one of the best in the state.

Big Deal in Texas.—The Southwest Telegraph and Telephone Company has bought out the system of the Central Texas Telephone Company, with headquarters at Huntsville.

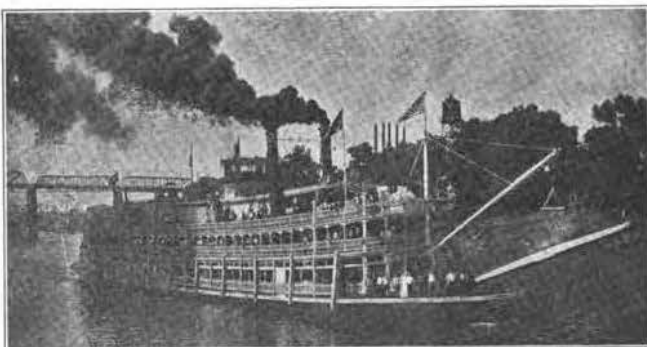
New York Companies Unite.—Announcement has been made that the Bell and Interstate systems will be united in Little Falls, N. Y. The Business Men's Association has been working for some time to bring about the merger.

Mr. Hibbard Talks.—A. S. Hibbard, former general manager of the Chicago Telephone Company, now in the executive department of the American Telephone and Telegraph Company in New York, was one of the speakers at the recent annual convention of railway telegraph superintendents in New York. Mr. Hibbard described the relations of the telephone and the telegraph in their practical operation. He stated that there were now over 300 joint telegraph and telephone offices in small towns, and very satisfactory service was being rendered. By this arrangement twenty-four-hour telegraph service was given where it would not pay to keep telegraph offices open continuously. He referred in detail to the methods of handling the service, between the telegraph and the telephone, and pointed out the many advantages to the public therefrom.

Another Merger Perfected.—The New York Telephone Company has completed connection with the Home Telephone Company at Catskill, N. Y. The combined exchanges will give the village 750 stations.

Address Wanted.

Wanted.—To know the present whereabouts of Frank J. Constantine, a line-man probably in the employ of some Bell Telephone Company. Address Editor BELL TELEPHONE NEWS.



STEAMER SIDNEY, WHICH CARRIED ALTON TELEPHONE OUTING.

WISCONSIN CITIES TO HAVE UNIFIED SERVICE

Exchanges of Fox River Valley Co. in Several Places Bought by Wisconsin Co.

One of the most important recent telephone transactions in Wisconsin was consummated when the properties of the Fox River Valley Telephone and Telegraph Company were transferred to the Wisconsin Telephone Company on July 23rd.

The Fox River Valley Company had been operating exchanges at Green Bay, Appleton, De Pere, Wrightstown, Little Chute, Weyauwega, New London and Waupaca, and all of these towns will in a short time have the advantage of the bringing of the two telephone properties together, in order that a complete telephone service may be rendered locally.

This result has been secured after negotiations between the two companies covering several years. It is especially important and beneficial from a public standpoint, inasmuch as it will make possible a realization of a unified system and universal service for the people in the different communities and cities affected.

The number of subscribers of the Fox River Valley Company affected is approximately 5,000 and the number of the Wisconsin Company subscribers affected is approximately 7,000, which will bring together in the different communities an aggregate of 12,000 people who will have the advantage of one system.

According to the business men and the newspapers, the consolidation of the Fox River Valley Telephone and Telegraph Company and the Wisconsin Telephone Company plants is already being appreciated, especially that feature of long-distance service which has already been instituted and arrangements made whereby the subscribers of the Fox River Valley Company properties can call the toll board of the Wisconsin Telephone Company's office and the long-distance operator will take the calls and pass them on to Milwaukee, Madison, Oshkosh, or any other points in the state.

The local subscribers of both exchanges will probably not be able to talk together for a few months, this operation entailing a large expenditure and months of work and will not be undertaken until everything has been made ready.

Expressions of appreciation coming from business men and residents of the different communities make the officers of the Wisconsin Telephone Company and the officers of the Fox River Valley Telephone and Telegraph Company feel that the unification of the systems is something that should have been done before this time, in order to give a service that would be most appreciated by the public, and the importance and the benefits to the public of bringing these two properties together cannot be overestimated, for the reason that other communities that did not have communication with exchanges of the Fox River Valley Company were embarrassed by not being able to reach subscribers who had that service alone.

The engineering forces of the Wisconsin Telephone Company, together with the other departments, are making every effort to bring about the consolidation of the exchanges at the several points, in order to render the service from one switchboard in each individual community.



TELEPHONE BUILDING, APPLETON, WIS.

LAST MEMBER RESIGNS.

McKinstry Family, Were Pioneers in the Telephone Business in Cleveland.

After ten years of service with the Cleveland Telephone Company, W. Scott McKinstry, son of the late J. P. McKinstry, resigned as chief collector to accept a position with the Winton Gas Engine Manufacturing Company as secretary and treasurer.

In token of the esteem in which Scott was held by his associates and fellow employes in Cleveland, a handsome black traveling bag and a well filled purse were presented to him on the afternoon of his departure. Scott appreciated the remembrance, but was so overcome by emotion that he delegated T. P. Cagwin the pleasant duty of thanking those who had united in making the gifts.

It was as assistant cashier that Scott began his connection with the Cleveland Telephone Company, his employment dating back to June, 1902. He became cashier in 1908; his next and last appointment was January 1, 1912, when he was made chief collector.

The name "McKinstry" has been prominent in the history of the Cleveland company since its birth. In the year 1879, J. P. McKinstry left the employ of the Western Union Telegraph Company, as general manager, to establish the telephone business in Cleveland. He was the first general manager of the Cleveland Telephone Company. He had been in authority

over many thousand Western Union employes and was a developer of a system that covered a large portion of the inhabited country, consequently had a quality that well fitted him to develop the telephone business. Even in that day of small things and amidst the confusion of pioneering he mapped out the broad policy that prevailed today.

C. T. McKinstry, now president of the Erner Electric Company, was also connected with the Cleveland Telephone Company for many years, first as cashier and then as manager. He is the son of the late J. P. McKinstry and a brother to Scott.

J. P. McKinstry died in 1905, but the memory of his untiring efforts and great kindness will always live.

Western Telephone Dissolves.

On July 12th stockholders of the Western Telephone and Telegraph Company voted to dissolve the company. The directors will set a date for the sale of the company's assets, when they will be bid in by the American Telephone and Telegraph Company, which owns ninety-nine per cent. of the outstanding stock. The practical dissolution of the company and the re-alignment of its various subsidiary companies into other operating units of the American company were effected some time ago and the proceedings mentioned are merely necessary to comply with the law. The Western Telephone and Telegraph Company holds controlling interests in the Cleveland, Wisconsin, Northwestern and Southwestern Bell companies.

APPLETON EXCHANGE QUARTERS FINISHED

New Building Will Also Contain Headquarters of District Officials.

District offices of the Wisconsin Telephone Company are now located in the company's new building at Appleton. Apparatus is being installed and in a few months Appleton will have complete, up-to-date universal telephone service. The universal feature will be secured by the merger recently authorized by which the properties of the Fox River Valley Telephone Company in several cities and towns have been acquired by the Wisconsin Telephone Company.

Entrance to the new exchange building is on Washington street, which communicates directly with the commercial department on the right and the apparatus room on the left. The officers' apartments will be on the second floor, southwest. A stenographers' room, rest room for operators and operating room occupy the balance of the second floor. The operating room, containing the local and toll switchboards and chief and information operators' desks, is on the north side of the building, second floor. It is a commodious apartment, well lighted and ventilated. The local switchboard is one of the largest in the state outside of Milwaukee, having an ultimate capacity of 10,000 lines. The present capacity of the local board is 1,440 lines, or approximately 2,600 telephones.

"Everything related to the new exchange building has been designed with a view to convenience, accessibility and efficiency, a slogan the company has constantly in mind," says the *Appleton Post*.

A gas engine, twelve horsepower, generates electricity for the batteries used in the operation of the local plant. Frank J. McCormick is local manager and will have his office on the main floor of the building on the Washington street side.

"The operators' rest room on the second floor will be equipped with a gas range and utensils for cooking, and will be appointed with comfortable chairs and other fixtures calculated to make the rest periods as refreshing and enjoyable as possible.

"The new building is indeed a credit to the city. In architectural design it is attractive and in interior arrangement it does not seem that the plan could be improved upon for the purpose to which it has been put. Appleton can justly feel proud of such an institution as the Wisconsin Telephone Company in its midst and welcomes the employees that have been brought to this city through its agency."

The district offices were moved from Green Bay to Appleton last April. The removal caused the transfer of the following officials and other employees: J. T. Quinlan, district commercial manager and district traffic chief; James Hobbins, district plant chief; J. W. Wilson, district wire chief; T. Garland and H. Brooks, plant clerks; D. Gaffney, district commercial agent; B. Parsh, service inspector; John Sigi, chief clerk; Ella Herrmann, Agnes Marchant and Pauline Cole, stenographers.

Not Spoiled, Evidently.

Commercial-manager John D. Heas, Jr., of the Michigan State Telephone Company, is back on the job after a ten days' vacation spent in Detroit. After his rest-up he is more pleasant than ever before.—Grand Rapids (Mich.) *Creston News*.



THE BUSY MAN'S VACATION.



PICNIC OF THE CENTRAL UNION CLUB

MR. FOSTER ENTERTAINS BOYS.

Chicago Traffic Superintendent Gives Annual Outing at His Home and On Nearby Beach.

For three years H. N. Foster, traffic superintendent for Chicago, has been giving an outing every summer for the office boys. The first one included the traffic department boys only. Since then as many as possible of the other boys have been included.

This year the party was given on Saturday, August 17th. The boys left the office at 10:30 a. m. and returned about 4:30. Mr. Foster's home in Rogers Park is well situated for such an outing, his yard sloping down to the shore of Lake Michigan. The most of the day was spent on the beach where corn was roasted and potatoes baked in an open fire. Mrs. Foster had prepared a bounteous supply of sandwiches of several kinds, boiled eggs, fruit, cake, etc., which supplemented the amateur cooking of the boys. The afternoon was spent on the beach and in the water.

A Little Slow.

Because a telegraph company sent the message, "I love you forever" as "I leave you forever," an engagement was broken and the company is being sued. The young man should have written a letter.—*Michigan Tradesman.*

Is there no other suggestion?



CHICAGO OFFICE BOYS IN SATURDAY OUTING.

SERVICE BODY FROWNS ON DOUBLE SYSTEM

Unprecedented Ruling of Ohio Commission on Application of New Company.

In the exercise of its authority, to withhold a certificate of public necessity, the Public Service Commission of Ohio will prevent the establishment of a dual telephone system in the village of New Washington in Crawford County. The case is the first of its kind that has come before the commission.

Application to start a new telephone system was made by the Cranberry Home Telephone Company and resisted by the Local Telephone Company, which alleged the telephone system served the community well and that establishment of a competing system would work hardship. The commission agreed with the Local Company after a full hearing of the case.

Under the commission's authority, local independent companies buy Central Union Telephone Company properties at Marysville, Union County, and at Ada, Hardin County. Exchange of service contracts are supplemental to the sale of the plants.—*State Journal, Columbus.*

Engle's Catch.

Walter Engle, assistant manager of the Monon Telephone Company, of Monon, Ind., catches fish these days without hook and line. One evening last week while visiting the camp of Harve Critten on the banks of the Tippecanoe, he concluded to wind up his evening's sport by a boat ride. While he was enjoying this treat a three-and-a-half pound bass took his position

that made no difference to him. He climbed in, left his pole for Harve and started for the central office, his place of abode.—*Monon News.*

Fire in Underground Vault.

District-manager J. C. Wylie reports quick action in replacing underground cable, and the damage by fire has attracted attention to a very peculiar case of trouble at Chicago Heights, Ill.



OFFICE BOYS FROLIC ON LAKE MICHIGAN BEACH.

along side of Walt in the boat. Without hesitation he grabbed the fish, poked him under a seat in the boat and then commenced yelling with delight. Persons on the shore thought he was fishing and that his line was in trouble, and from the continued yelling some thought his wires were crossed, but Harve Critten, being a fisherman of ye olden times placed his voice in high pitch and said, "Number?" Walter answered "one." "Plug him and don't let him drop," Harve cried. The party lined up on the shore to await Walter's arrival, and previously told him to ring off until better speaking connection could be had. But it wasn't long until he was on the ground, and then is when he gave the appearance of Goliath in his physique, for he stood there with crossed arms, and began to tell how busy it kept him in capturing the three pounder. While he told the story of his circuit he put the fish on a cord and said, "While I am the receiver of this prize, I'll transmitter to the camp." The generator and batteries were not working on Walter's machine so he had to return by horse and buggy, but

Smoke was noticed coming from a vault in the heart of the business district of Chicago Heights at 1 p. m. on July 26th. Upon investigation, it was found that the pump log in the vault around a 200-pair cable that feeds the east and southeast sections of the city was on fire.

"Kilfire" was used to extinguish the fire very successfully. The cable sheath was melted, however, and the insulation burned from the wires.

The damage was such that no slack cable was available for splicing and no stock of cable could be obtained nearer than from Chicago. The Western Electric Company received an order at 5 p. m. and by prompt action delivered by express 534 feet of 200-pair cable at five the following morning. This cable was pulled in and spliced by 1 p. m. that day, restoring service within twenty-four hours.

The fire was supposed to have been started by lightning on the previous afternoon. A transformer on a pole eighty feet east of the vault was burned out at that time. Gas in the vault was probably exploded, igniting the pump log, the fire smoldering until discovered the following day.



DAYTON, OHIO, AT KILKARE PARK.

SOFT DRINKS AND SOFT SOLDER AT "BOB-LO"

Successful Outing of Telephone Society of Michigan at Detroit.

Nothing could have been more successful than the holiday for the second annual outing of the Telephone Society of Michigan, Saturday, August 3rd, the scene of the same being Bois Blanc Island, commonly known as Bob-Lo, a piece of land entirely surrounded by water (guiltless of alcohol



EGG RACE FOR LADIES.
Won by Barbara Wilson, who succeeded in not making an omelette of her burden.

in any form, according to the regulations of the ferry company, which owns said island).

A big boat-load of telephone men, and the ladies whom they escorted, went down to the island as a first contingent at 8:45 a. m. and these were added to in the afternoon by as big a crowd as the first. There was dancing on the boat, of course, and lots of it.



JOHN WARDLE AT BAT.
Despite his exertion his team was second. But he has written about it.

The outing committee, W. F. Smith, J. H. Rath, C. E. Culver, M. W. Ewald and F. Wardle, started the athletic events without delay. The programme follows:

Program of Events.

1. Boys' Race, Under 14 Years. Won by young Casenhiser, son of the construction foreman. Prize, a baseball.
2. Ladies' Race. Won by Lillian Weston, of the commercial department. Prize, a crocheted purse.
3. Three-Legged Race. Won by William Cardinal and A. F. Henniger. Prizes, neckties of brilliant hue.



A. HANSON
Winning Pole Climbing Contest.

4. Fat Men's Race. Won by Harry Dubois. Prize, box of socks.
5. Ladies' Base Ball Throwing Contest. Won by Barbara Wilson, a guest of the Society. Prize, crocheted purse.
6. Egg Race for Ladies. Won also by Barbara Wilson. Prize, silk hose of dazzling sheen.
7. Potato Race for Men. Won by Frank Horstman of the plant department. Prize, box of socks.
8. Girls' Race, Under 14 Years. Won by Alice Elspind, a nimble little maid in the party. Prize, coin purse for Alice to keep her wealth in.
9. Pole Climbing Contest. Won by A. Hanson of the plant department. Note: This was a 35-foot pole, with a push button on the cross arm to ring a bell on the ground. Mr. Hanson's time was ten seconds. The prize was a five-dollar gold piece.
10. Free-for-all Hundred Yard Dash. Won by Stanley Arthur and Johnson Hayde. Cash prizes.

These events aroused intense interest in the crowd, and gave a great deal of pleasure. W. A. James, district manager at Mt. Clemens was the starter and was strictly on the job. To

him is due the speed and the smoothness with which each event was run and the next one arranged. Mart Ewald's stentorian voice through the megaphone also assisted in preventing gaps of waste time.

The baseball game was played in the afternoon, between the "Commercial Tigers" and the "Plant Giants." The following account of it is written for THE NEWS by Mr. Wardle, pitcher for the "Tigers," who evidently can "sing a pen" as neatly as a ball:

As far as being one-sided is concerned the ball game was a howling success. The "Commercial Tigers," exponents of the art of playing baseball for the commercial department, were pitted against the "Plant Giants" and the latter, as is characteristic of giants, were on top at the close of the festivities. The Tigers' runs were few and far between. They made the circuit only twice. The Giants made nine runs, which proves that there is still something in a name. 'Jimmy' Allen twirled for the Plants and the score shows that his iron arm was strongly in evidence. The hurrying for the Commercialities was done by John Wardle, who was as good as the rest of his team-mates. The big scream of the game came when W. D. Clark, district commercial manager, and C. S. Slack, commercial manager, entered the contest in the fifth inning, the former taking left field and the latter center. As a ball was hit between left and center the fans noticed two huge shapes slowly moving after the sphere. By a superhuman effort Mr. Clark captured the ball and threw to third-base just getting the runner as he was sliding into the bag. The cheers were deafening. W. D. made up for this wonderful play by striking out in the next innings. Mr. Slack starred when he almost made a single in the sixth. After the slaughter the fans pronounced the game all that could be desired. So it was—for the plant men. Score: 9 to 2.



TENSE MOMENT IN POTATO RACE.
Mr. Horstman, the winner, is seen coming up on the final lap.

The weather was inclined to be variable throughout the day, the thermometer doing some queer chasing, but there was no rain, and no one complained of discomfort, unless perhaps some may have thought the return trip somewhat chilly on the boats.

Mr. James brought a large contingent of telephone men and girls from Mt. Clemens.

Secretary Culver of the society reports that while he has no accurate figures at hand he can state that the affair was also a success from a financial point of view. This is gratifying, though not so important as the fact



FREE-FOR-ALL RACE.
Stanley Arthur was first and Johnson Hayde second.

that everybody had a corking good time. Thanks are due to Commercial Superintendent Welch, Plant Superintendent Boyce and Traffic Superintendent Kerwin for granting Saturday to their respective departments as a whole holiday. Without this, there could have been no such crowd.

The photographs illustrating some episodes during the day are the contribution of Norman F. Hammell.

Smile!

Smile! That genial captain of industry, Charles A. Coffin, president of the General Electric Company, says that "a sense of humor takes a man over many a rough place." We are inclined to be too serious. Muck rakers have made the people believe that it is better to kick than to smile, better to see the shadows than to enjoy the sunshine, better to tear down than to build up. Hence this era of trust-busting, railroad-smashing and tariff-tinkering. Hence the clamor to upset the courts, to substitute the town meeting for the well-regulated convention and to make the town crier take the place of the President. Is the world any happier when it cries than when it smiles? Is there more joy in the graveyard than in the banquet hall? Mr. Coffin is a philosopher. He preaches the true philosophy for this time of unreason and unrest. He does this in spite of a name that would indicate an entirely different frame of mind.—*Leslie's Weekly*.



ANNUAL PICNIC OF WISCONSIN TELEPHONE EMPLOYEES AT MILWAUKEE, JULY 25TH.

MILWAUKEE PICNIC "GREATEST EVER"

Ideal Weather for Annual Outing
of Wisconsin Telephone
Employees.

On July 25th the Wisconsin Telephone Company held its annual picnic for the employees at Washington Park, and from the length of the parade that marched from the Grand Office building to the waiting cars at the Public Service building, every one of them was there. Those that had them brought their families, too.

Ideal weather, the vital spark of every outing, was the order of the day and added greatly to the joyful spirit that prevailed.

Little time was lost after the arrival at the park in putting a varied program of athletic events into action. A baseball game between carefully picked teams of the plant and commercial department furnished plenty of "fodder for the fans" by running to the twelfth inning, when the Commercial cinched the championship with three runs. Simultaneously with the "real" game, the Chicago officials and the Milwaukee officials were playing out the "Bean Bag Championship" under complete disguises as "The Has Bins" and "The Never Wuzzers." The former won by a score of 12 to 11, which bears little indication of the intense excitement under which each play was made. The smiling faces and familiar figures of some of Wisconsin Telephone Company's "finest" were seen in action, in the persons of W. R. McGovern and W. W. Hiller, both of whom are now connected with the Chicago offices.

Several races were also run off in the morning and then the next two hours were given over to satisfying of the inner man and his social inclinations.

Ice cream in cones was served in an abundance never before known in picnic history. The professional caterer who had been engaged for this task broke his contract a few days before the picnic, but C. T. Loring shouldered the burden in the face of several difficulties and set a record that will be hard to beat.

The afternoon contests brought out a large field of entries and a many times larger gallery, who cheered their favor-

ites with loud and lusty cries as they sped by.

The summary of events and their winners is as follows:

Baseball Game.
Plant Dept. vs. Commercial Dept.
Holub..... p..... Krueger
Krueger..... c..... Herr
Siebert..... 1b..... Dannenberg
Burghardt..... 2b..... O'Day
Brennan..... 3b..... Clausen
McDermott..... ss..... Hammon
Gunderman..... rf..... Lehin
Wm. Gallagher..... lf..... Meiseroff
E. Gallagher..... cf..... Kessler
Score—Commercial, 8; Plants, 5.
Umpires—Paul Eastey and Paul Zipperer.

50-yard dash (ladies)—Olive Poedtko, Frances Loeffler.
Potato race (ladies)—Ida Hadler, Irene Olson.
75-yard dash (men)—M. B. Dougherty, B. Textor.

50-yard dash (girls 14 years or less)—Jane Blommer, 14; Helen Cosgrove, 12.
Sack race (boys, 14 and less)—Wesley Walker, 14; Edward Steiner, 12.

50-yard dash (lady clerks and stenographers)—Nora Fucha, Clara Kubasch.
100-yard wheelbarrow races (men with girl in barrow)—C. Keller and Lucy Dannenberg, W. W. Hiller and Clara Kubasch.

50-yard dash rolling hoops (operators)—Adelaide Zindli, Viola Luedke.
75-yard dash (couples, ladies choice)—W. W. Hiller and Clara Kubasch; E. Brennan and Eleanor Gebel.

Three-legged race (men)—E. Brum and H. Brodie; A. C. Kessler and H. O. Dannenberg.

Nail driving contest (chief operators)—Margaret Britt, night chief operator, main; Anna Bower, chief operator city department.

75-yard sack race (men)—F. Herold, H. Body, plant department.
Relay race (couples, 75 yards for men and 25 yards for girls)—George Euler and Adelaide Zindli; H. O. Dannenberg and Viola Luedke.

The starters were H. O. Seymour, L. Killam, H. J. Bendinger, A. F. McKivitt, J. F. Krizek and Elizabeth Rose. The clerks of the course were T. S. Bell, L. G. Barnes, F. W. Stelzel, W. D. Hobbs and W. O. Schilling.

Prizes for first and second places in each event were distributed.

The tug of war between the commercial and plant departments was won by the commercials in twelve seconds and that between the Chicago officials and Milwaukee department heads by the latter in seventeen seconds. Both of these were stubbornly contested and furnished considerable amusement for the spectators. Watermelons were awarded the winners in these events, with the stipulation "to be eaten on the grounds," and they were, each and all of them.

That the picnic was a success in every way there seems no doubt, and it is greatly due to the increased enthusiasm and true picnic spirit evinced by every employee and to the faithful and energetic work of the picnic committee.



GOOD SHIP MARINAUKA.

ENGINEERS DROP PLANS.

And Take Up Deck Swabbing and Other Nautical Stunts on Boat Trip.

There are some members of the General Engineering Department at Chicago who think that too much planning is not good—neither good for their health nor good for the things planned on—so they did just a little preliminary engineering one day last month. The fundamental plan was to take a lake trip on Saturday afternoon, Aug. 24th. The traffic study showed that twelve men of the department and a few guests were willing and anxious to go. The details of the outing and the equipment necessary were determined upon en route for somewhere, this somewhere proving later to be Waukegan.

Below is a list of the enthusiastic voyagers who for a short time forgot their strenuous labors and enjoyed such pleasures as Father Neptune and the natives of Waukegan have to offer on the nearby shores.

First, there was "Cap" Gamet, who generously offered his services and his yacht, the *Marinauka*. This good ship, the finest of her class on the great lakes, as is conceded by Commodore McGuire of the Columbia Yacht Club, was designed, built and launched by the modest "Cap" single handed. Two of his regular crew were also taken along. In addition there were Messrs. W. E. Thomas, J. J. McDonald, J. J. Coyne, H. Harris, O. C. Walther, A. E. Helzer, C. B. Aiyee, G. Van Ness, R. T. Roth, D. A. Lawyer and F. C. Reynolds, of the Engineering Department, and Messrs. J. S. Stephens and M. F. Sullivan, guests of the above.

The start was rather late, and the

sea heavy, but nevertheless the dauntless crew and merry guests stuck to the good ship *Marinauka* to the jolly end. About 8:30 the Waukegan light was sighted by the forward lookout, and the merry singing of the quartet was drowned by a grand hurrah. By 10:05 the ship was safely anchored in the harbor. All hands on deck now—all aboard in the dinky—pull for the shore, boys, for our friends and the "eats." A half hour later the dear ones at home and the friends in Waukegan had been notified by telephone of the safe and rather unexpected arrival. But these Waukeganites are good fellows. To prepare a banquet for seventeen on short notice is unusual, but the natives of this town showed that they know how. All agreed that nothing could have been done to add to the pleasure of the trip so far.

By noon Sunday the ship was a-bustle with the noises usually accompanying a merry departure. The ranks of these "jolly good fellows" had been thinned out considerably by the previous departure of several of them. Other duties and engagements (or was it a regard for their complexions?) prevented them from completing the return trip by water.

The pictures shown give a fair idea of the pleasures that were so fully enjoyed. Nothing happened to mar the pleasure of the voyage back home.



CAPTAIN AND CREW.

BREAKS LEG SLIDING IN FIRST SERIES GAME

Left Fielder Sam Babcock of the
Telephones Hurt as Team

Loses.

Standing.

| | Won. | Lost. | Per Cent. |
|---------------------------|------|-------|-----------|
| Western Electric..... | 11 | 0 | 1.000 |
| Chicago Telephone Co..... | 9 | 3 | .750 |
| People's Gas Company..... | 8 | 5 | .615 |
| La Grange..... | 7 | 5 | .583 |
| Public Service Co..... | 4 | 9 | .307 |
| Commonwealth Edison..... | 4 | 9 | .307 |
| City Hall..... | 2 | 7 | .222 |
| Fuller & Fuller..... | 2 | 8 | .200 |

The Commercial League baseball season in Chicago, is over, except for the big postponed game with the Western Electric at their grounds, Sept. 7th.

The Chicago Telephone Company is sure of second place, but will not be able to overtake the Westerns, who haven't lost a game this year.

A series of three match games between the two teams has been arranged to fill out the season and to decide the Bell Telephone Championship of the city. On Aug. 24th the Hawthorne Braves took the curtain raiser, at Lawndale Park, 3 to 2, before a yelling crowd of a thousand red hot partisans. The teams were much better matched than the result indicates. Each made the same number of hits and earned runs, and only a "bonehead" throw of Hooker's in the fifth unbalanced the contest. When an easy double play would have retired the Westerns without a run, he "lobbed" over third and three came in.

Sam Babcock, the telephone left fielder, after squeezing three flies and polling two blows, came to grief sliding to third. His spike caught in the bag and he was safe, but as Grabow

fell over him, Sam's right shin bone snapped in two places. He is a heady, consistent player and his loss weakens the team seriously for the balance of the season.

Carney of the traffic squad played third, and made six perfect stops. One of his pegs was a little wide and though Hasset tagged the runner friend Umpire couldn't see it.

Bryant of the Westerns struck out seven men in five innings and made a timely two-bagger. We have to admit that he is the best in the league at his job. The second series game will be Sept. 12th. Score:

WESTERN ELECTRIC.

| | R. | H. | P. | A. | E. |
|------------------|----|----|----|----|----|
| McCann, lf..... | 1 | 1 | 0 | 0 | 0 |
| Doe, rf..... | 1 | 1 | 1 | 0 | 0 |
| Kolar, 2b..... | 1 | 0 | 4 | 5 | 0 |
| Hora, ss..... | 0 | 2 | 0 | 5 | 0 |
| Frolick, cf..... | 1 | 0 | 1 | 0 | 0 |
| Grabow, 3b..... | 0 | 1 | 0 | 1 | 1 |
| Jersek, lb..... | 0 | 1 | 11 | 0 | 0 |
| Rehor, c..... | 2 | 2 | 10 | 1 | 0 |
| Bryant, p..... | 1 | 1 | 0 | 1 | 0 |
| Evans, p..... | 0 | 0 | 0 | 1 | 0 |
| Totals..... | 8 | 8 | 27 | 14 | 1 |

CHICAGO TELEPHONE.

| | R. | H. | P. | A. | E. |
|---------------------|----|----|----|----|----|
| Schuler, ss..... | 1 | 0 | 2 | 2 | 0 |
| Driscoll, cf..... | 0 | 1 | 3 | 0 | 0 |
| Babcock, lf..... | 0 | 2 | 3 | 0 | 0 |
| O'Connell, 2b..... | 0 | 0 | 0 | 0 | 0 |
| Hasset, 1b..... | 0 | 1 | 3 | 0 | 0 |
| Carney, 3b..... | 0 | 0 | 0 | 6 | 1 |
| Kinsley, 2b-lf..... | 1 | 1 | 2 | 1 | 0 |
| Shannon, rf..... | 1 | 1 | 2 | 0 | 0 |
| Delaney, c..... | 0 | 1 | 3 | 0 | 0 |
| Stewart, c..... | 0 | 1 | 3 | 0 | 0 |
| Hooker, p..... | 0 | 0 | 0 | 6 | 1 |
| Dillon, p..... | 0 | 0 | 0 | 0 | 0 |
| Totals..... | 3 | 8 | 27 | 9 | 4 |

Western Electric.....1 0 0 0 2 1 0 3 0-8
Chicago Telephone.....1 0 0 0 0 0 0 2-3
Two base hits—Hora, Kinsley, Shannon, Bryant. Struck out—By Bryant, 7; by Evans, 3; by Hooker, 4; by Dillon, 1. Bases on balls—Off Bryant, 3; off Evans, 2; off Hooker, 2. Time—2:00. Umpire—Broad.

An Inconsequential Difference.

We wish to rectify the mistake in regard to the amount raised for the telephone line. It was \$26.50 instead of \$2,650 as was stated in Wednesday's paper.—Smithfield correspondence in Canton (Ill.) Register.

District Collection Rating

| Position. | Total to be collected during June. | June collections. | Unpaid July 1st. | Per cent. | Stations. |
|--|------------------------------------|-------------------|------------------|-----------|-----------|
| 1. Wis. Tel. Co., Appleton Dist..... | \$ 51,435 | \$ 48,010 | \$ 1,849 | 93.3 | 20,428 |
| 2. C. U. Tel. Co., Columbus Dist..... | 41,980 | 41,056 | 2,410 | 92.2 | 19,352 |
| 3. C. U. Tel. Co., Anderson Dist..... | 24,903 | 22,741 | 1,854 | 91.8 | 13,329 |
| 4. C. U. Tel. Co., Terre Haute Dist..... | 34,240 | 31,081 | 2,913 | 90.8 | 17,889 |
| 5. Wis. Tel. Co., Milwaukee Dist..... | 120,240 | 107,718 | 11,066 | 89.5 | 55,350 |
| 6. C. U. Tel. Co., Dayton Dist..... | 53,738 | 47,322 | 5,901 | 88.1 | 22,119 |
| 7. C. U. Tel. Co., Galesburg Dist..... | 45,304 | 40,366 | 5,141 | 88.1 | 20,060 |
| 8. C. U. Tel. Co., Chillicothe Dist..... | 29,733 | 26,153 | 3,389 | 88.0 | 16,765 |
| 9. Wis. Tel. Co., Madison Dist..... | 42,875 | 37,380 | 4,231 | 87.1 | 18,012 |
| 10. C. U. Tel. Co., Toledo Dist..... | 57,410 | 49,578 | 7,209 | 86.4 | 25,118 |
| 11. Mich. State Tel. Co., Marquette Dist..... | 34,315 | 29,478 | 4,249 | 85.9 | 13,626 |
| 12. C. U. Tel. Co., Bloomington Dist..... | 32,036 | 26,680 | 12,799 | 83.7 | 32,347 |
| 13. C. U. Tel. Co., Akron Dist..... | 61,477 | 51,160 | 10,404 | 83.2 | 23,121 |
| 14. C. U. Tel. Co., So. Bend Dist..... | 21,126 | 17,550 | 4,314 | 83.1 | 10,327 |
| 15. C. U. Tel. Co., Springfield Dist..... | 25,181 | 20,704 | 4,080 | 82.2 | 9,143 |
| 16. C. U. Tel. Co., Centralia Dist..... | 20,570 | 16,739 | 3,540 | 81.4 | 10,659 |
| 17. Wis. Tel. Co., Eau Claire Dist..... | 34,054 | 28,124 | 5,708 | 76.7 | 12,201 |
| 18. C. U. Tel. Co., Indianapolis Dist..... | 53,678 | 57,967 | 16,434 | 76.6 | 27,048 |
| 19. Mich. State Tel. Co., Detroit Dist..... | 313,033 | 241,539 | 69,102 | 76.8 | 92,708 |
| 20. Mich. State Tel. Co., Saginaw Dist..... | 47,728 | 33,755 | 12,806 | 70.7 | 20,613 |
| 21. Clev. Tel. Co., Cleveland Dist..... | 112,777 | 71,961 | 39,573 | 63.8 | 49,601 |
| 22. Mich. State Tel. Co., Grand Rapids Dist..... | 92,870 | 58,675 | 31,501 | 63.1 | 42,664 |

Interdepartmental Base Ball League—Chicago

STANDING OF THE TEAMS.
AUGUST 17, 1912.

| | Won. | Lost. | Pct. |
|-------------------|------|-------|------|
| Installation..... | 7 | 1 | .875 |
| Lincoln..... | 6 | 2 | .750 |
| Equipment..... | 6 | 2 | .750 |
| Oakland..... | 5 | 2 | .713 |
| Plant..... | 5 | 2 | .713 |
| Central..... | 4 | 3 | .571 |
| Lawndale..... | 4 | 3 | .500 |
| Maintenance..... | 3 | 5 | .375 |
| Wentworth..... | 2 | 5 | .375 |
| Monroe..... | 1 | 6 | .142 |
| Toll..... | 1 | 6 | .142 |
| Harrison..... | 0 | 7 | .000 |

SCORES AUGUST 17, 1912.

| | |
|---------------------|--------------------|
| Equipment.....11 | Monroe.....1 |
| Lincoln.....14 | Wentworth.....8 |
| Installation.....13 | Maintenance.....5 |
| Lawndale.....14 | Harrison.....7 |
| Oakland.....8 | Lincoln.....7 |
| Toll.....No game. | Plant.....No game. |

Telephone Service Should Be Unified

Reprinted From STAR, Marion, Ohio, July 13th.

The day of a dual telephone service is gone. The telephone is being made a genuine public utility by the elimination of competition and making all 'phones available to the subscriber at one cost, which not only enhances the service, but makes for economy. At Columbus, the public service commission has just forbidden the establishment of a competing 'phone system at New Washington. This is a significant policy on the commission's part, and a sensible one, provided the commission is as decisive in demanding good service to the public at the hands of the company it protected.

The telephone is a natural monopoly. There should be but one, and we have finally come to the plan of making it a monopoly and regulating that monopoly.

It is interesting to record that the first step in this direction in all the country was taken right here in Marion. Marion had a Central Union exchange. The business appealed to a number of local men and they sought to establish competition, as was done in hundreds of other cities. It sounded good to talk of competing with the "Bell monopoly." They knew nothing of the business, but imagined great profits. It was easy to get subscribers to both telephones and capital stock. When the construction was finished the telephone competitors found they had expended five times what they estimated. It didn't pay. A large part of the public was doubly assessed by the dual 'phone rental. Soon the Bell people began to do the natural thing—to fight for its own, to hold old patrons and add new. Then the telephone competitors saw their thousands of investment seriously threatened. Out of that situation came the negotiations for unification in Marion.

The good results are everywhere manifest. The patron gets a better and wider service. If it costs a trifle more than one of two competing telephones under the dual system, it is still cheaper. The public service commission will keep rates within reasonable bounds, and the only people injured will be the stockholders in inflated companies where the only money ever made was in the business of promotion.

A Definite Location.

The Chicago complaint department asked the record clerk whether it was "an office or aerial bridge." "Neither one," was the reply; "It is a wagon works."



CHICAGO TELEPHONE BASEBALL TEAM IN COMMERCIAL LEAGUE.

Left to right, standing—Driscoll, sub.; Shannon, rf.; Hasset, lf.; Kinsley, lf.; F. W. Driscoll, capt., cf.; Dillon, p.; Stewart, c.; Alwater, mgr.
Sitting—Delaney, c.; Hooker, p.; Margraf, ss.; McConnell, 2b; Schuler, 2b; Savage, p.; Bonga, mascot.



THE RIDERS.

Perhaps you may wonder where this group of horsewomen are spending their vacation. The romantic surroundings suggest some picturesque spot in New England or more likely we may conclude, as we see the same group in the picture, "following the trail," that it is in the far west—perhaps a group of feminine "rough-riders."

But your guesses are far astray. These girls are not on their vacation. They are out for their weekly horseback ride in the romantic environments of the city of Chicago. They are evening operators who have discovered that one can have a good time at home and a vacation distributed through the summer.

If you will visit Main Exchange in Chicago some Wednesday evening you will notice a number of young ladies whose faces are glowing with color, whose eyes are bright with animation. They are the girls whose pictures you see, but unfortunately you do not see all of the girls who go on these rides. Some time we hope to get the whole club of fifteen or more who are enjoying these weekly trips into the country.

These outings are not very expensive, considering the pleasure they give. As it is a weekly ride, the riding school makes a special price and provides a teacher to accompany them. They ride about four hours and take their dinner at some desirable place before they return. The habits are supplied for those who do not own them and the total cost is about a dollar a week. The gain in health is worth much more than the money.

But the greatest gain is in the animation, the real joy of life which the girls get. It means so much for those who live in the city to get out into the country and it is particularly ideal to go on horseback. No automobile ride can give the exhilaration that comes to one who rides well. The very strength of the horse seems to be imparted to the rider. You are one with your mount when you attain the ideal



OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST

relation, and nothing can quite equal the joy of such a ride.

Divided skirts make riding much safer and far easier for the horse and under the guidance of a good teacher and with well-trained horses the danger is well-nigh eliminated. We hope the club will grow in numbers and that new ones will spring up. No more ideal sport for telephone operators could be devised and we imagine that the girls who take their fun on horseback will make most efficient operators. For all that one adds to vitality and strength must show in service.

The young ladies who are in the picture are Christine Schroeder, Florence Scott, Lillian Schwartz, Lillian Gray and Martha Ross.

Yes, How Would You?

When you are tempted to be impatient with "Central" because she cannot give you your number with quite the speed of lightning, it would not be amiss to remember these facts. The British postmaster general has stated that the average time, on 50,000 calls observed, taken from the moment of ringing up to the moment the operator responded, was 5.1 seconds, and the average time till the person called answered 28.6 seconds. But that was in phlegmatic England. In nervous Chicago the corresponding average times were 3.1 seconds, and 25.4 seconds. How would you like to try to do it quicker than that yourself?—*The Outlook*.

KEEPING AN EYE ON THE BAG.

A few weeks ago the newspapers reported a most peculiar theft. A traveling salesman, with valuable gems, engaged a man to carry the two heavy bags containing his jewels from his hotel to the store, where he wished to show them. The man preceded the salesman, and when he reached his destination he sat down on one of the bags, placing the other one by his side, where he could keep his eye on it.

He had not long to wait, for in a few minutes he saw his employer coming. As he approached, he arose from his seat on the jewel case and taking it by the handle, turned to pick up the other.

It was gone.

But where! He had been there only a few minutes and was sure no one could have taken it. His frantic appeal to the police was of no avail. The bag containing thousands of dollars' worth of precious stones was lost and no trace of it could be found.

The man was sure he had kept his eye on the bag, but the fact that the bag was gone proved quite conclusively that he had not. What clever means had been used to distract his attention while some one slipped quietly away with the treasure is not known, but the salesman lost his valuable bag and the man who had been hired for a half hour's work was held by the police under suspicion of having been an accomplice in the theft.

The one thing that stands out clearly in the story is the inadequacy of



the man who was hired for the service. Presuming that he was honest in intention and not at all connected with the burglar who got away with the treasure, he was still not honest in his relation to his employer. He was hired to keep his eye on the bag and he should have concentrated his mind on that one purpose. On the contrary, he had probably become interested in some passing sight, and comfortably seated, his mind wandered and his responsibility was forgotten. Gems that he could never hope to replace slipped from his sight unnoticed.

It is a fine illustration of the way in which we may let the precious things in life slip by while we idly waste our moments on some trifling thing. We miss great opportunities by our lack of alertness. We are not wide awake, not ready to seize the precious opportunity before it slips from our grasp.

Perhaps the man was comfortably considering his good luck in getting such good pay for so little work. To sit on one bag and watch another was almost too easy. It gave time for a wandering mind. To be sure, his time had been sold to his employer at a good price, but he was not thinking of what he had been hired to do, but of what he was to get for it. Or, more likely, he was not consciously thinking of anything. He sat listlessly waiting till the salesman came to pay him, and listlessness brought the usual result—work unsatisfactory, and in this case it brought disaster to both his employer and himself.

One of the best things which telephone operating cultivates is concentration. The listless, absent-minded operator finds no chance for success at the switchboard. Her jewels are the flashing opal lights before her, and she sets her mind on meeting each signal with quick and ready service. She does not notice the curious visitors who often come and stand behind her chair. In the midst of confusion and even danger she has



EVELYN MOHR.

Assistant Chief, Grand Exchange, Milwaukee. Has not been absent for 4 years.



JOSEPHINE KOEHLER.

Assistant Chief, Eddy Exchange, Cleveland. Has not been absent for 7 years.



MARIE SCHOPF.

Supervisor, West Exchange, Milwaukee. Has not been absent for five years.



ANNA OURADA.

Toll Operator at Menominee, Mich. Has not been absent a day in four years.

proved time and again that she has heroic stuff in her. Floods and fires, smoke and falling walls have not driven her from her post. The discipline she has gained by constant concentration shows finely in the emergencies which occasionally arise.

But a concentration which is cultivated for the purpose of telephone operating has more than money value. It is a valuable asset for life. A girl who can keep her mind on her duty at the switch board, who is alert and intent on doing the one thing she has to do with undivided mind, will be able to apply this splendid power to all the other duties of life. She is not likely to let the treasures of life slip from her grasp through inattention.

Why not take the training, then, which comes from keeping one's eye's on the board as an opportunity for adding to one's resources. The inefficient carrier of jewels made a sad failure of it. The efficient operator gives the service which satisfies the public and brings honor to the company because she works with undivided mind, and she may also gain the greater treasure of a mind thoroughly trained to concentrate the power to keep her "eye on the bag."

CLERGYMEN VISIT CHICAGO EXCHANGES

And Gain Much Better Understanding of Large-City Traffic Problems.

Results are already shown of good accomplished by entertaining clergymen and members of educational societies last spring and summer in Chicago.

Since the first of the year the Chicago traffic department has been entertaining a number of clubs and other organizations, together with the ministers in Chicago, in the Main office dining room. Invitations have been issued asking them to take lunch in the operators' dining room, the regular luncheon being served, and afterwards young men have taken the guests through the local, toll and long-distance operating rooms, the school, the recreation roof garden, parlors, etc.

In a number of cases the clergymen have afterwards referred to their visit with the telephone company in their sermons and a great deal of favorable comment and commendation have been received as a result of this work.

It is believed that a campaign of this sort of publicity has done a lot of good, as in each one of these bodies were found some subscribers who did not understand how difficult it was to render a reasonably satisfactory service and had, up to the time of their visit, criticized severely, but who went away from the building with a kindly feeling, and many of them stated that they would not be heard from again in a criticizing spirit.

Following is a list of the number of people entertained:

| | |
|---|----|
| January 22, Methodist clergymen... | 63 |
| January 29, Congregational clergymen... | 42 |
| February 12, Presbyterian clergymen... | 45 |
| February 19, Christian clergymen... | 16 |
| February 26, Baptist clergymen... | 40 |
| March 4, Episcopal clergymen... | 19 |
| March 11, Lutheran clergymen... | 60 |
| March 18, Unitarian, Universalist, and New Thought clergymen... | 7 |
| March 29, Catholic priests... | 6 |



FOLLOWING THE TRAIL

| | |
|--|----|
| Other organizations— | |
| April 8, Efficiency Club, Auditing Dept., C. T. Co. | 25 |
| March 30, Chicago Training School for Teachers | 10 |
| March 30, Kentucky College Students | 21 |
| March 30, Boys and Girls, Chicago Geographical Society | 25 |
| March 30, Boys' Y. M. C. A., Sears-Roebuck branch | 20 |
| February, Presbyterian Bible Class students | 14 |
| February 3, members Chicago Geographical Society | 75 |
| January, Armour Institute students, engineering class | 15 |
| April 13, members Y. W. C. A., Sears-Roebuck branch | 23 |
| May 21—Rotary Club, Mr. Ramsay | 60 |

SOCIALISTS ARE LOQUACIOUS.

At Least this Was Experience of Operator in Milwaukee City Building.

"No, I did not select the avocation of telephone operator for my life's work," says Miss Ella Klein, chief operator at the city hall at Milwaukee. "It was forced upon me. By necessity, of course."

Miss Klein sits in a long, dark room in the city hall and one would think she would go mad with the maze of wires before her. Her hours are from 8 a. m. to 5 p. m., with an hour and a half at noon for lunch.

One would think, to hear Miss Klein's pleasant voice over the 'phone, that she has a temper. But she says her auburn hair is proof enough of that.

"I get pretty mad here sometimes," she says, "but I try not to show it. Once in a while it does get the better of me, but there are fifteen lines in here and 115 'phones in the building and sometimes the people are so unreasonable. They do not realize that sometimes there are as many as fifteen lights going at once and that in this office there is no privileged class."

A Typical Conversation.

"For instance," she declares, "we sometimes get a call like this:

"Is this Main 2595?"

"Yes."

"Is this the city hall?"

"Yes."

"Well, give me the health department."

"Who do you want in the health department?"

"None of your business; I'll tell the health department when I get them."

"But there are from nine to fifteen telephones in every department of the city hall. Will you please tell me what you want to talk about?"

"Garbage."

"Now, you see, they didn't want the health department at all. They wanted the board of public works. So you see, that while the people in the building may be very courteous, outsiders make our bed in here anything but one of roses."

"Who gets the most calls?" she was asked. "Garbage," came quickly.

Questioned as to how many "cranks" there are in the city hall, she says there are only two or three. "But, one meets cranks in every line of business, so why not here?"

Miss Klein has been on the switchboard at the city hall for seven years. Before that she was at the Chamber of Commerce. "There's more money here," continued Miss Klein. "And I needed that more than the easier job. The work here was much easier when I first came, but grows harder with each year. The Socialists were the hardest people to work for. They had by far the most calls. But they did two very nice things for me. They raised my salary and they gave me an assistant. Before I had help I used to go home every night so wearied in body and soul that I wondered if I would be able to get to work the next day."

Wanted to Be Musician.

Then Miss Klein sighed ever so lightly. But still it was a sigh.

"Why the sigh?"

"Well, if you must know, I wanted to be a musician. I wanted to sing and play the piano and the organ. But necessity came in and blocked the way. Really, I could play the organ when I was 5. But just as soon as I began in this work I had to give everything up. I got such busy places that I could not keep it up. Perhaps I will try again in the fall."—*Milwaukee Journal.*

OPERATOR HEROINE OF HOTEL BLAZE

Bessie Mahady Wakes Up Whole Town of Trenton, Mich., to Fight Fire.

Bessie Mahady, operator at the Michigan State Telephone exchange at Trenton, Mich., is heroine of the latest storm and fire story, as the result of her presence of mind in giving a general alarm, when the Grande Hotel on Washington avenue in that village, was struck twice by lightning and set afire at two o'clock on the morning of July 24th.

The first crash came as Miss Mahady, seated at the switchboard, was looking through a window at the heavy rain and wind storm. In a minute the cupola of the hostelry burst into flames.

Realizing the danger to the seventy people asleep in the hotel, the operator quickly made a connection with the hotel telephone and kept it continuously ringing, while at the same time she sent an alarm to the pumping station of the Washtenaw Light and Power Company, which supplies the village with water, and caused the fire whistle to be blown. Rapidly she followed this by telephoning to others who rushed out to fight the flames.

Aroused by the incessant jingle of the telephone bell, guests in the hotel began to come out of their rooms in



BESSIE MAHADY.

negligee and one of them came in on the wire, and was told the top third story of the place was on fire. He dropped the receiver and rushed through the halls warning those who had not yet left their rooms.

Never in the history of the village had the fire department and volunteers been warned in time to reach a night-time blaze so quickly.

She Is Glad.

A troubleman from the west coming to work for the Chicago Telephone Company was assigned his first case of trouble, "Noisy line." On asking the lady the nature of the trouble he was informed that the line was noisy.

"Well," said he, "that noise is caused by sparrows picking on the wire. On being told that sometimes it was noisier than at others, he replied, "That noise was caused by crows."

"Well," said the lady, "if you cannot fix the trouble so the line will be quiet you can take the telephone out."

"Lady," said he, "you ought to be glad you are not living out west where I came from—the eagles pick on the wires out there."

A Friend of the "Nickel-First."

A subscriber of the Wentworth Exchange, Chicago, recently asked to know the number of an operator in order to send her a remembrance in appreciation of the good service rendered over a nickel pre-payment telephone.



ROSE EVANS, Supervisor, West Exchange, Milwaukee. Has not been absent for six years.





ANNA GOGLIN.
Chief Operator, Eddy Exchange, Cleveland. Has not been absent for three years.

"OUT OF ORDER," IT SAYS.

Phonograph in Berlin Does Work of Telephone Operators When Lines Are Bad.

The phonograph has been temporarily installed as an adjunct to the telephone service of Berlin. When the line gets out of order the phonograph automatically calls out to would-be talkers, "The line is not working." The operators may also switch on the phonograph to ask persons what numbers they want.

It is said for the new instrument that it is so nearly inaudible that the work of the exchange can be carried on with less noise and wear and tear.

The Retort Hyperbolic.

A quizzical patron recently engaged in a good natured dispute with Mr. Pemberton, division auditor of receipts office in Chicago, regarding the timing of a toll call.

"See here," he said, "I used to be official timer at the old Washington Park track, and this stop watch I now have cost me \$350. It hasn't varied a second in two years. C. D. Peacock's chronometers are set from it."

"It must be a fair time piece," replied Pemberton, "but you know our calculagraphs regulate the sun."

EXCHANGE OF EXCHANGES

Lincoln, Chicago:

Hospital operators had a call for Lincoln 2981. The lady calling was told that Lincoln 2981 had been taken out. She said, "Can you please tell me where it was taken to?"

Joliet, Ill.:

A doctor upon answering his telephone heard a woman say, "Doctor, Doctor! Come quick, my little girl is sick." The doctor tried to find out what was the trouble and asked, "Is the child unconscious?" The woman replied, "No, doctor, it isn't her conscience, it is her stomach."

Upon answering a telephone which had been ringing the subscriber was greeted with, "Number, please," from the operator, to which he answered, "Well, Central, my bell rang, but I'll say it for you,—Excuse it, please, there is no one on my line now."

A subscriber calling from a pay station deposited her money before taking down the receiver. The operator of course did not get the ring and asked her to deposit another nickel, which she did. Upon reaching home the subscriber called in and said that there was an extra nickel at that box and one of the girls might just as well have it as not to buy an ice cream soda.

A subscriber calling his own telephone number and being told it was out of service wanted to know why it was out of service. The supervisor handling the call asked him if it was his own telephone and he stated, "No, it belongs to the Chicago Telephone Company. I am just paying rent for it."

One of the subscribers in Joliet, in calling a party by name, was asked if he had referred to his directory. He answered in a very excited tone of voice, "You're going to have me arrested?"

West Chicago:

Subscriber calling did not receive an answer. Then he said, "Oberador, please gib me de operation debarment so I can repord mine telephone."

Subscriber: "My bell rang."

Operator: "We rang your bell by mistake."

Subscriber: "Steak! This is no meat market. It is a private residence."

North Chicago:

Subscriber called "Canal 4 yoy-yoy-yoy." Operator repeated, "Canal 4,000?" Subscriber laughed and said, "Yes, ma'am."

Edgewater, Chicago:

A subscriber flashed and asked the return of a nickel, saying she had been told the telephone was taken out. The operator referred the matter to the supervisor saying, "This party said the telephone was taken out, but I don't believe it, for when I took the nickel I heard a phonograph on the line."

Bay City, Mich.:

A new operator received a call for the attorney general at Lansing. She filed the ticket with Lansing as the "Eternal General," and the Lansing operator referred the matter to the district traffic chief, who seemed to her to be the proper recipient of this message.

A collector called recently on a party-line subscriber who habitually disputes items on toll bills and is always sure that the other party on the line must have done the long-distance talking. The collector, referring to a Saginaw call in the bill, stated that the call was to "804-L, Saginaw." The lady immediately spoke up and said she knew no one in Saginaw by the name of Ada Forell, and that it must have been the other party on the line, as they were always talking.

Wheaton, Ill.:

A subscriber called the chief operator and after giving her name said, "I have a complaint for you. Your girls don't eat enough of my cake, so I am sending you a loaf."

Milwaukee:

"2-81J" should be the telephone number assigned to two cannibals who feast on one farmer, according to information received by a Grand Office operator from one of his subscribers.



HILDEGARD STELDT.
West office, Milwaukee. Has not been absent for eight years.

A subscriber visiting at Main Office, after watching the operators for some time, asked: "What is done when the girls run out of those strings?" And then, fearing she was thought stupid, hastily added: "No doubt, in such cases, some are borrowed from the girls who sit at the next boards."

Edgewater, Chicago:

A subscriber received a busy signal. The operator returned on the line, but the nickel cashed instead of returning. The subscriber flashed and said, "Say, lady, ven you took dat nickel you pulled der wrong string."

A subscriber hearing a jerky busy signal on his line, flashed and said, "Say, operator, we want a new busy signal on our line; this one is rusty."

An operator wanting to look up the errors of the day before went up to the bulletin board, saying, "Oh, where are the sins of yesterday?"

Toledo, Ohio:

Subscriber: "See here, operator, my nickel is in the box and I didn't get my party. Don't I get something for my money?"

Operator (a beginner): "Oh, I can give you something. The score is 6 to 3 in favor of the Mud Hens."



BESSIE MURRAY.
Trouble Operator, Grand Exchange, Milwaukee. Has not been absent for 5 years.



LOTTIE B. GERRIE.
Chief Operator, Sault Ste. Marie, Mich. Has not been absent for four years.



ANNA GALLAGHER.
Chief Operator, St. Ignace, Mich. Has not been absent for four years.



KATE MANTZ.
Night Operator, Calumet, Mich. Has not been absent for four years.



THE LAST OF A GREAT RACE.

Rumor says that certain zoological societies are offering a fancy prize for a pair of passenger pigeons. Scientists believe this species, like the famous dodo, to be extinct, and with this in mind we beg to suggest that steps be taken to rescue from utter oblivion the name of another, though wingless bird of Chicago fame. To that end we have had our naturalist photographer working, and he has finally succeeded in obtaining a typical pair in a favorite pose near their home, or to be accurate we could say habitat, the Central Division Barns.

We are not capable chroniclers of history or incident, but there is much that could be told about these birds which would be entertaining if not instructive.—*Requiescat in Pace.*

BAD SERVICE FOR HALF HOUR

Subscribers are Mollified When Explanation Is Made That Operators Were Very Busy.

There was a bad half hour yesterday with the Houghton and Hancock telephone service, the entire copper country service for that matter. It became noticeable to subscribers about 11 o'clock that the service was impaired and they also noticed that the unpleasant condition continued till nearly 12 o'clock. It was almost impossible to get a call answered within that half hour, at least difficult, and subscribers fumed and fretted and rattled the receiver hooks in a fury of exasperation.

But after 11:30 the explanation came out: "Operator" refused at first to answer questions as to the inconveniences to which the subscribers had been put. They seemed to be making an effort to put forth some excuse connected with the mechanics of the system, but did not succeed and the inquiring subscribers became suspicious. Then the girls, in a burst of confidence, admitted that the whole delay was

due to the fact that retiring Manager Rollin T. White and been in to say "goodbye."

Mr. White has been manager of the copper country branch of the Michigan State Telephone Company system only a short time, about two months, but in that time he has become very popular. He has been a courteous and energetic manager from the viewpoint of the patrons of the exchange, a kind and a just from the employees' side. So when he went into the central office yesterday morning to make his adieu to the central girls the whole discipline went to pieces.

Mr. White left yesterday for Grand Rapids to take a position as special agent. He is succeeded in Houghton by Fred E. Reiff, who has been here for the past two weeks picking up the details of his work.—*Mining Gazette*, Houghton, Mich.

A Negligent Company.

Installer—"I have come to put in your new telephone."

New subscriber—"Well, all right, but they only brought part of it. I ordered a desk set and they didn't bring an; desk, and I thought a chair went with it, too."

STUFFS \$1 BILL IN SLOT.

Patron Is Then Surprised That She Does Not Get Immediate Long-Distance Connection.

The toll operator at Manchester, Mich., received a call from a lady at Hotel Green for Chicago, Ill. After getting the Chicago party on the line, the operator informed the lady at the hotel that she had her party and to drop in \$1.25. The lady put her money in, but all the operator heard was 25 cents; she told the lady she had the quarter and to drop in the dollar. The lady told her she put the dollar in first. The manager was notified, and when he got there the lady was very angry, saying she had paid her money and then they wouldn't let her talk. While the manager was taking the pay station apart, she said the operator must have the dollar, as she took a hair pin and pushed it down as far as she could. When the top of the pay station was removed a dollar bill was pulled out. She said: "There, I told that girl I put my money in, but I guess she was trying to knock it down." The lady was informed that only silver money was used in a pay station, and was shown why. Then she smiled a little. (She said she was from Chicago, but who could believe it?)

Didn't Want the Police.

At the entrance to Douglas office, Chicago, is a sign which directs the visitor upstairs. Recently the operating-room was invaded by a determined-looking colored lady, who, upon being questioned, exclaimed:

"Ah wants to see the chief of police."

She was informed that there was a police station a short distance down the street, but apparently this did not satisfy her. Shaking her head, and evidently in some perplexity, she slowly made her way down-stairs again to the sign, at which she gazed intently for some moments. Then,

with new determination, she once more approached the operating-room. "It ain't the chief of police Ah wants to see," she explained, "it's the chief operator."

MR. VAIL ON PUBLIC CONTROL.

Government Can Not Run Business nor Business Run Government, He Says.

In a recent interview, Theodore N. Vail, president of the American Telephone and Telegraph Company, said no government can run business and no business can run government; business should be given a pretty free hand, but should be made and held responsible; that there are laws enough, but there should be no doubt as to the meaning of a law. "It is uncertainty," he said, "that kills business." He urged that corporations be allowed to capitalize their good will, saying that it is really earning capacity capitalized. Mr. Vail said that all public utilities could hope for is to be allowed to earn a fair return on their capital, and that monopolies are virtually impossible. In the old days, he said, there was a good deal that was unfair, but nothing of the kind could have existed then had the law been enforced.

Some Sound Advice.

Some telephone subscribers have the habit of using long distance service to only one or two points and the mails to other equally important points. It is simply a habit which the subscriber may be readily prevailed upon to break if his attention is called to it.

When you find a subscriber using your long-distance service to but one or two points, suggest to him that, if he found the service economical in saving a trip of ten miles, it will be proportionately useful in saving one of fifty or a hundred. You will find him a far more easy prospect for business than the man who has never learned the benefit and the actual saving to him of the use of the long-distance lines.—*Telephony*.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
B. A. PRATT
C. W. CUMMINGS
Correspondents

Expansion at Elgin.

Expansion of plant to meet local needs has made it necessary to use the entire telephone building at Elgin. Since J. W. Schramm has been made district manager greater space was required for office purposes and the Western United Gas and Electric Company has moved its office from the telephone building. This will not only permit larger office space but will allow the plant department to use the old commercial offices for plant purposes.

Good for Oak Park.

On August 1st the Oak Park exchange passed the 6,000 mark, showing a development of about one telephone to every five of population. This puts Oak Park several hundred subscribers ahead of any other exchange in the suburban division. The outlook for future growth indicates Oak Park will nearly reach the 7,000 mark in a year's time.

Joliet District Enlarged.

Nine more villages and cities, eight in Grundy county, have been added to the district managed by District Manager A. H. White of the Chicago Telephone Company. The Joliet district is now the largest, except the Chicago.

The villages and cities added are: Gardner, Essex, Braceville, Mazon, Kinsman, South Wilmington, Coal City, Verona, Custer Park, Will county.

Mr. White came to Joliet to assume the management of the local exchange five years ago June 1st. At that time there were but 3,500 subscribers. There has been such a steady growth that now in Joliet alone there are close to 6,000 patrons.

The district heretofore managed by Mr. White had about 8,500 instruments. The addition of the new territory gives him control of 10,000.—*Joliet News*.

Chicago Telephone Employees' Benefit Ass'n.

Following is a letter from William B. Kent, who has drawn benefits from the association:

Chicago, Aug. 7, 1912.

Chicago Telephone Employees' Benefit Association:

Mr. Harold Smith, manager.

Dear Sir: I consider myself greatly indebted to the C. T. E. B. A. for the numerous benefits received during the past year, and owe to it a debt of gratitude which can hardly be repaid.

To one who has undergone a siege of sickness, the compensation received from the association tends to a large extent to decrease the accrued expenses. When you stop to consider the nominal sum it costs to belong to this association, I fail to see why each and every employee of the Chicago Telephone Company should not avail themselves of an opportunity that few corporations present.

I joined the association at its inception, April 1, 1909, and it has only been during the last eighteen months that I derived any benefits, but the aggregate amount



MAYME MAX.

Supervisor, West Office, Milwaukee. Has not been absent for eleven years.



PAULA HOLTMAN.

Supervisor at Milwaukee. Has not been absent for five years.

received would more than offset any dues I would have to pay for years to come.

The good work of the association is well worthy of commendation and I urge upon all to join in its membership. Thanking you for the prompt remittances, I remain, Yours truly,

WM. B. KENT,
Suburban Plant Dept.

Suburban Division Notes.

La Grange exchange in June showed the best gain in stations since its inception. Forty telephones were added, bringing the total to 2,002.

The district manager's office at Aurora has been redecorated.

The Joliet commercial department has taken a contract for a switchboard and forty-five terminals for the Joliet Township High School. The ultimate capacity is sixty stations which will probably all be installed soon.

Personals.

Elizabeth Schneider, chief operator at LaGrange, has been transferred back to Hinsdale and Miss J. Lange of Riverside has taken the LaGrange chief operator's position. Mrs. W. Moran, assistant chief operator of Riverside has been promoted to chief operator.

Margaret Hedge, chief operator at Hinsdale, has been transferred to the Chicago plant department.

Helen Ryther, clerk in the commercial department at LaGrange, resigned July 1st to study domestic science.

Repairman Frank Summerling, of Oak Park, was severely injured while riding a motorcycle near Downers Grove. He lost control of the machine and was thrown into a ditch. He was with a party bound for Stevens Point, Wis., when the accident occurred.

J. W. Shepherd, repairman at Oak Park, has been transferred to Elmhurst as wire chief.

Minnie Hartman, evening chief operator at Oak Park, was married June 28th to Elmer Foster, of Harrison exchange. A kitchen shower was given at the home of Miss Miles for the bride. Mr. and Mrs. Foster now live on Lathrop avenue, Forest Park.

Stanley Henderson has gone to Wilmette to take the position of wire chief at that exchange.

W. E. Vaughn, commercial agent at Oak Park, after undergoing an operation for appendicitis, is in Macomb, Ill., where he is rapidly regaining his strength.

A miscellaneous shower was given June 14th by the Gardner operators and clerks at the home of Lulu Barton, one of the clerks in honor of Sarah Bradbeer, who has been an operator at the Gardner exchange for the past four years. The evening was pleasantly spent in playing games and music. Miss Bradbeer was the recipient of many beautiful presents. Refreshments were served for forty. Miss Bradbeer has resigned her position to become the bride of Charles A. Pagel, of Ravenswood, where they will make their future home.

Daisy Barrett, lost-time operator at the Gardner exchange, has been promoted to a regular position to take the place of Miss Bradbeer. Zena Holm has been given the position of lost-time operator.

Bernice Pearce, who has worked in the Commercial Department of the Aurora District Office for about three years, resigns her position as of October 1st to spend the winter in California.

James O'Neal, the popular umpire of the Joliet Telephone ball team, broke his collarbone.

Emma Miller, operator at Kedzie, resigned and was married June 19th. Anna Mechaelsen was also a June bride. Gifts

of cut glass were sent with best wishes of the gay force.

Kathryn Roche, supervisor at Kedzie, was married June 28th to Joseph C. Darling. A shower for the bride was given at the home of Gertrude King.

On the evening of July 29th eighteen friends of Helen Butler gave her a linen shower at the home of Florence Silnton, in honor of her approaching wedding to Godfrey Anderson. The party consisted of the clerks and supervisors who had worked with Miss Butler in toll office. A very pleasant evening was spent. The house was decorated in pink and white, wedding bells forming a pleasing effect in the decorations. The wedding of Miss Butler and Mr. Anderson took place on the 31st of July. Mr. and Mrs. Anderson are now receiving their numerous friends at their home, 1508 Lawrence avenue. Miss Butler had recently been promoted to day supervisor in the toll operating room, and she leaves many friends who wish her well.

District Foreman N. L. Thompson of the Woodstock District was married to Bertha Toegler on July 27th, at the home of the bride, Palatine, Ill. Both bride and groom are widely known in the telephone circles. Miss Toegler has been assistant chief operator at the Palatine exchange for the past five years. Mr. Thompson has been an employee of the Chicago Telephone Company for twelve years, having worked in the subscription department office for two years, and as construction foreman for the past ten years. They will reside at Woodstock.

At the rate the girls in the Joliet office are being married, it would be a good idea to call it the "Bleeding Place of Cupid" instead of a telephone exchange, says a correspondent.

Mayme Riley, evening chief operator at Joliet, was mated to Walter Crate on July 24th.

Florence Smith, night operator at Joliet, was married to Miles Brown on July 22d. Lillian Meadmore, night operator at Joliet, was married July 3d to Roy Baker, and if one can believe rumors and the signs of diamond rings, there will be several more weddings in the near future.

The other evening about twenty of the Joliet operators left the office at 9 o'clock to enjoy a pleasant evening with Mrs. Crag, former evening chief operator. Mrs. Crag was Mayme Riley. On the way to her home the controller on the street car blew up shooting flames back into the car and causing a panic among the passengers. A number were violently thrown from the car while it was under high speed, among them one of the operators, Mary Bluth, who suffered a number of serious bruises and scalp wounds.

Invitations have been issued for the marriage of Gertrude Hill and Louis W. Layton. Miss Hill is the daughter of General Manager H. F. Hill and Mr. Layton is traffic supervisor in the Illinois organization. The wedding will take place at Green Harbor, Mass., September 7th.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Bloomington District.

Mrs. Maud Gilmore, toll billing clerk at Bloomington, Ill., exchange for the past eleven years, has resigned.

An estimate covering additional pole line and aerial cable for the territory of the East Bluff at Peoria has been assigned to Foreman J. H. Champion, the work to be started immediately.

The operators at Peoria, Ill., gave their fifth annual excursion on July 12th. The excursion was given on the Steamer



MRS. MARGARET HYATT.

Mrs. Hyatt, instructor and lecturer for the Chicago Telephone Company, is taking a furlough of several months, visiting friends and traveling in Europe.

Preferably no face could look out from the columns of the Chicago section of the BELL TELEPHONE NEWS into more friendly faces than does hers. Her position as manager at Central Exchange brought her into contact with a great force of girls who respect and love her, and her relation to the company has made for her many friends who appreciate her remarkable efficiency and personal charm. Her more recent work in lecturing to the force all over the city has widened her acquaintance and won many new admirers. Mrs. Hyatt has had experience not only in Chicago but also in California where she spent several years with the Pacific Telephone and Telegraph Company. It is probable that no woman—perhaps it would be safe to say—no one on the force of the Chicago Telephone Company knows more about the practical side of operating, nor understands better the human side.

She has extensively travelled visiting the farthest west, and the most interesting places throughout our country. Her many Chicago friends wish her a most delightful journey and will greet with gladness her return in the fall.

G. W. Hull, which is one of the best equipped excursion boats on the Illinois river. There were about 1,500 in attendance, two trips being made, one in the afternoon and one in the evening. Dancing was indulged in and everyone reported the excursion a remarkable success. The operators cleared \$200, which will be used in giving a chicken supper in the near future.

Dadie Wood has accepted the position of billing clerk at Peoria, succeeding Mazie Cooney, resigned.

Mary McEnaney has been appointed peering attendant at Peoria, succeeding Mamie Kirby, resigned.

F. C. Becher has been appointed collector at Peoria, succeeding Charles Weeks, resigned.

Ninety members of the operating force of the Central Union Telephone Company on Thursday enjoyed another big outing at Webb's farm, near Mesquite, in celebration of the annual picnic of the hello girls on the big telephone system. On Wednesday the other half of the company's force had taken the trip, the excursion of last night giving the remaining ones a chance at the fun. The girls were transported to the end of the car line in special cars furnished by Manager R. W. Bailey, of the Peoria Railway Company. At Virginia park the crowd was met with hay racks, and the rest of the trip made. The return ride was made at ten o'clock. —Peoria Herald-Transcript, August 16.

Centralia District.

Cairo is rapidly recovering from the effects of the flood of April 1st. Service has been restored between Cairo and Mounds and Mound City, and within a few days the entire drainage district will again have service. This section required many new poles and this work was somewhat hindered by the shortage of poles.

A new local position will be added to the board at Nashville.

Pearle Irene Lemen has accepted the position of clerk at Nashville.

Carrie Robertson, collector for the past seven years at the Centralia exchange, resigned on July 15th on account of ill health. The services of Miss Robertson have been good and the position will be hard to fill for the reason that she made above ninety-six per cent. in collections nearly every month.

Edward Miller of Edgewood, Ill., has accepted the position of collector at the Centralia exchange.

O. A. Cole, formerly special agent for this district, is now traveling for the Mills Electric Company of Peoria, Illinois.

An estimate has been approved and assigned to the plant department to care for the work of rebuilding the Taylorville-Stonington, Taylorville-Butler and Taylorville-Pana toll line. Circuit 31, Taylorville-Pana is to be replaced with a copper circuit, and a phantom transposed with circuit No. 10.

Effective August 1st, Manager Seymour, Collinsville, Ill., took charge of the plant departments at Collinsville and Highland, which were formerly in charge of the Edwardsville plant chief.

Work under the estimate covering rebuilding and stringing another circuit between Centralia and Murphysboro and Centralia and Nashville was completed about August 10th by Foreman E. W. Lindsay.

John Heimerberger, commercial agent, was transferred from the Springfield office to Collinsville.

At a meeting of the Cairo Council on June 17th, a resolution was passed attending a vote of thanks to all individuals and corporations that assisted in saving the city of Cairo from the flood. The Central Union Telephone Company was thanked for assisting very materially by placing telephones in the city and drainage district for the use of authorities on account of the flood, without making any charge for this most valuable service.

The following clipping was taken from the Alton Telegraph of July 29th, covering the engagement of Alice Williams, clerk at Alton, Illinois. Miss Williams being married on July 28th. "Eleven members of the Billiken club were prepared to hear an announcement of an engagement of one of their club members last evening but the wedding, Alice Williams, had made no preparations for the event. The girls in the club had heard that she intended announcing her engagement very soon and made up their minds that it should happen last evening. The girls came to the meeting of the club and played games during the evening. After the games the regular business session was called to order. The girls told Miss Williams that they had heard of her intended announcement and demanded that it be made before the meeting adjourned. At first she refused, but the other eleven members of the club refused to adjourn and the club was in a deadlock. At ten o'clock it looked as if the club was in for an all night session but Miss Williams finally gave in and announced the engagement. She tendered her resignation from the club and it was accepted under the circumstances. Miss Williams will be married to Frank Hittler, formerly of Peoria, some time in the near future. The couple are very well known here and have a host of friends who will be surprised and pleased to hear of their engagement. The couple will make their future home in Cincinnati. Miss Williams is one of the charter members of the Billiken club which was organized four years ago by two popular young ladies. She is the second member to desert the club for matrimony since it has been organized."

Springfield District.

A private branch exchange of the No. 4 board type has been installed in the office of the secretary of state. The board has five trunks and eighteen stations in service at the time of installation. The secretary's office is very much pleased with the new installation.

M. H. Riley, facilities engineer at Springfield, has moved into his new quarters in the Springfield Evening News building. Mr. Riley now has a nice large office with plenty of room and good light. The many friends of Iva McCormick and Volney Barber extend congratulations at the announcement of their marriage August 1, 1912. Miss McCormick is a former employee of both the traffic and commercial departments at Springfield and Mr. Barber has been with the Central Union for a number of years as state cable man.

The commercial department has secured a contract covering a private branch exchange in the office of Woods and Metcalf in the Ferguson building. The contract calls for two trunks and four stations and the board will be of the cordless type.

Galesburg District.

E. A. Wood, clerk to the local plant chief at Galesburg, resigned July 15th to accept a position as instructor with the Brown's Business College at Danville. Mr. Wood carries with him the very best wishes of his fellow employees in his new position. He is succeeded by Walter E. Pickering.

George Irvin has accepted the position of storekeeper at Galesburg exchange, succeeding R. L. Harris, resigned.

The estimate at Moline has been completed. This covers a mile of underground conduit required in order to place conduit on Eighth avenue in advance of paving the street.

An estimate has been approved and assigned to the plant department to cover



FLOAT IN PARADE AT CHICAGO HEIGHTS, ILL.



INDIANAPOLIS TOLL OPERATORS' MUTUAL SERVICE ASSOCIATION GROUNDS.

the new direct route, Rockford to Oregon to Dixon, with additional copper metallic circuit Rockford to Dixon, and new copper metallic circuit Rockford to Oregon with phantom; this estimate provides for re-routing circuits now on the Oregon pole line and the Oregon-Rochelle line, which will allow of dismantling the Mt. Morris pole line and the Oregon-Rochelle line.

C. R. Silkey, E. A. Albright and J. J. Wilson are new commercial agents at Galesburg.

Charles G. Abbott, formerly of the state equipment department, has accepted the position of switchboardman at Rock Island.

Lulu Hollister, toll operator at Rockford, resigned on July 4th and was married to Mr. Reichstein of Rockford, Illinois, on July 24th. The toll force were entertained at the home of Mrs. W. G. Taphorn in honor of Miss Hollister, who was presented with a handsome set of silver teaspoons.

An estimate has been approved for toll line work in the vicinity of Rock Island, covering the repairing of pole line, stringing a new copper metallic circuit and phantom, transposing with one of the existing copper metallic circuits between Rock Island and Hillsdale, rebuilding pole line between Milan and Andalusia, building new pole line and stringing one iron metallic circuit from the Rock Island-Andalusia line south to Taylor Ridge, and stringing a new copper metallic circuit from Rock Island to Coal Valley and repairing the pole line from allian to Geneseo and Lynn Center.

Lester R. Pettus, service inspector in the Galesburg district, has been transferred to the Centralia district and R. Seguin takes the position in the Galesburg district.

INDIANA DIVISION

PHIL. M. WATSON, Correspondent, Indianapolis

Indiana Bell Telephone Society.

The regular meeting of the Indiana Bell Telephone Society was held at the University Club, Indianapolis, on the evening of July 29th. The society had the pleasure of hearing a highly interesting and instructive talk by M. J. Carney, of Chicago, on the "Dollars and Sense" phase of the telephone business. Mr. Carney held the undivided attention of his audience for over three hours and a general expression of regret was heard when he concluded.

Anderson District.

Opal Goodrich, who has been employed at the Muncie Exchange for nine years and a half, has resigned her position to be married.

Bessie Shile, who has been with the telephone company for nine years, has resigned her position as toll operator at the Muncie Exchange.

Marie Leyendecker has been compelled to resign her position as operator at the Muncie Exchange on account of sickness.

Frances Lloyd, operator at the Anderson Exchange, has resigned her position, owing to ill health. She had been with the company for nearly three years.

Margaret Loftus, local operator at the Anderson Exchange, has resigned to take a position as private-exchange operator.

Nellie Snyder of Anderson Exchange has resigned, to be married.

Genevieve Pyle has resigned her position at Anderson. She will be succeeded by Rose Linville.

Grace Laidley of Muncie exchange has resigned her position, owing to a change

of residence. She will be succeeded by Dorothy Kraus.

Hilda Riegel of Muncie exchange has resigned her position and will be succeeded by Agnes Wattles.

Nina Shull, night chief operator at Richmond exchange, has resigned to take a position with the American Seeding Company as private exchange operator. She will be succeeded by Irene Needham.

Helen Burkher has accepted the position of collector at Shelbyville exchange, succeeding Ray Barker, resigned.

Webb DeVor, construction foreman, has started an estimate in Shelbyville, which will require about three months for completion.

The Shelbyville, Fairland, Manilla and Boggs town rates were raised on the Farmer lines and the two-party residences July 1st, all bills to be paid by the fifteenth of the current month.

A. B. Porter, manager at Lebanon before the recent consolidation there, has been appointed manager at Elwood, succeeding C. R. Day.

Lawrence Cain, repairman at the Elwood exchange, resigned his position July 6th and was succeeded by Herman B. Wright.

Indianapolis District.

On August 1st and 2d two trolley rides were given by the operators of the main office, the proceeds of which were for the benefit of the Star Summer Mission fund. The cars left Ohio and North Meridian streets at 8 o'clock and visited Fairview and Riverside parks. Refreshments were sold on the cars by several of the girls, who found no difficulty in dispensing their wares. The party enjoyed two pleasant evenings, and a neat little sum was turned over to this fund, which is to be used in making sick babies well and happy.

The operators of the Prospect office gave two outings at Broad Ripple on July 18th and July 24th, having as a guest their former chief operator, Mrs. Campbell. The girls had a fine lunch and all had a jolly good time.

The Woodruff operators gave a trolley party on the evening of July 11th for the benefit of the Star Summer Mission fund.

A miscellaneous shower was given by Mrs. Espey in honor of Hazel Barker, who is soon to be married. Miss Barker was the recipient of a number of very useful and beautiful gifts.

The commercial superintendent's office has been moved to the fifth floor adjoining the general manager's suite.

Private branch exchanges have been installed for the B. F. Goodrich Company and the Diamond Rubber Company.

South Bend District.

A new switchboard has been installed at Avilla.

Telephone people of Kendallville held their fifth annual picnic at Sherman park August 18th. A jolly time was enjoyed.

BELL TELEPHONE'S LATEST EMBLEM



Price 50 Cents Each

SPECIAL PRICES IN QUANTITY LOTS

THE JEB NOVELTY COMPANY

J. E. BRIDGES, Mgr. SAGINAW, MICH.
P. O. Box No. 205



PROSPECT OPERATORS' PICNIC.

Terre Haute District.

W. C. Douglas, one of the collectors of the Terre Haute Exchange, was married last month to Anna Herter of Indianapolis, Ind.

D. E. Lund, line foreman at Terre Haute, was transferred the first of the month to the Frankfort exchange to take the position of chief inspector.

George Cook has been employed as switchboardman at Terre Haute, which fills the position made vacant when Ben Axton was assigned to outside work.

Amy Dodd, chief operator of the Bedford exchange, has been seriously ill for several weeks.

J. D. Evans, clerk of the plant department, Terre Haute, after an illness of two weeks, during which time he was threatened with typhoid fever, is again back to work.

Aida Shuttlesworth, chief toll operator at Terre Haute, spent her vacation at Lake



TERRE HAUTE BELL TELEPHONE SOCIETY OUTING.

On Sunday, August 4th, the Terre Haute Bell Telephone Society held its first annual outing. The Steamboat Winner was chartered for the occasion. About forty members of the society and their guests were on the boat when Captain Morris weighed anchor to start up the river. After a pleasant trip of fourteen miles, the boat landed on the sand bar above the mouth of Otter Creek. Various diversions, such as shooting, bathing, baseball practice and running barefooted in the sand, were indulged in before the chef, "Bill" Shaw, called "dinnah." Amid jests and merry making the members and guests then got busy and enjoyed an elaborate "gastronomical."

In the afternoon the Athletic Committee composed of J. H. Cooper, F. H. Kinsling and William Lucas started the athletic events and many exciting contests resulted. The winners of the various events were: Standing broad jump, Charles Reynolds; running broad jump, Charles Reynolds; high jump, Charles Reynolds; 200-yard dash, Charles Belknap; hammer-throw, Joe Thompson; bird shooting, A. L. Vrydaugh; swimming, Z. William Leach; tug-of-war-team, Joe Thompson, Icky Vannell, H. S. Post and A. L. Vrydaugh. After these events the baseball teams of Captains Ira Humphries and F. D. Allen clashed for the championship. The game was hard fought and spectacular but resulted in the annihilation of Captain F. D. Allen's team by a score of 35 to 15. One contest was protested when A. L. Vrydaugh claimed he lost the swimming event because F. D. Allen swam in front of him and kicked water in his face.

By this time everybody was tired and hungry, so, after eating supper, the boat was headed down stream. When the wharf was reached everyone departed declaring the occasion a huge success and one to be long remembered.

The society entertained as guests, A. W. Mann, of Anderson, and J. H. Cooper and V. N. Gregg, of Indianapolis.



WINDOW DISPLAY AT KENDALLVILLE, IND.



MILWAUKEE CHIEF OPERATORS.

Geneva, where she was sent as a delegate to attend the Young Woman's Christian Association convention.

On the evening of August 8th the Lafayette plant department started a series of meetings to study and discuss the new specifications. These meetings will be held weekly until the specifications have all been gone over. Manager A. E. Smith advises that cigars were necessary to keep away mosquitoes at the first meeting.

The automatic company made an unsuccessful attempt to secure a franchise for a duplicative telephone plant in Vincennes.

A merger has been effected at Crawfordville, whereby the Central Union Telephone Company took over the independent company at Crawfordville. C. Severson will be manager of the consolidated plant. For the present both plants will be operated.

Estimate work calling for additional cable at Bedford has been started by Assistant Foreman P. H. Strohminger, and as soon as Foreman Lee Butler completes the work at Washington he will move to Bedford.

An important telephone combination was consummated when the Farmers' and Merchants' Co-operative Telephone Company and the Cadwallader Telephone Company, owning and operating exchanges in all towns in Warren county, with the lines connecting them, were consolidated and the company was capitalized for \$90,000. Ira Cadwallader, of West Lebanon, was elected president of the new organization, which will be known as the Cadwallader Telephone Company, with headquarters at West Lebanon. The work of consolidating the exchanges and strengthening the lines will begin immediately. The new company has exchanges at Williamsport, West Lebanon, Marshfield, State Line, Pence, Tab, Rainesville and Judyville, in Warren county, and Ambia, in Benton county.

The chief operator and operators of the Washington Exchange met on the evening of July 2d and organized "The Bell Traffic Club." The motto of the club is, "Good Service," and the aim is to be the leading exchange in the district. The president is Helen Dougherty, chief operator; vice president, Martha Fields, supervisor; secretary, Ruth Buhner, toll operator; treasurer, Ethel Bowling, an operator. The members are: Stella Beatty, Maud Campbell, Anna Benson, Lulla Crabbs, Martha Johnne, Flossie Milley, Lydia Bowling, Lulla Gregory, Cecelia Brown, Ursula Duffy, Emma Kelly, Nora Luke, Lillian Williams and Lillie Buhner. Guest, Nora A. Thurston, traveling chief operator. The club will meet each month and after the business part of the meeting a social meeting will be enjoyed by all. Each member is assessed a small sum and a committee

of two is appointed at each meeting to take charge of the social meeting, so at each meeting there is always a surprise for all except two, and they have the pleasure of surprising the other members. At the November meeting the operator having the best record will receive a handsome present from the chief operator. Lela Fromme, toll operator in Terre Haute four years, designed July 15th and was married July 7th to Edward Critchelon. The toll operators gave Miss Fromme a granite shower the Wednesday before her marriage and presented her with silver knives and forks for a wedding present.

A dance was given at Lake Wood park on the evening of June 21st by the Misses Mary Griffin, Clara Williamson, Nell Thomas, Elizabeth Jansen, Bessie Tinkle and Bess Brubeck, supervisors and operators of the Vincennes Exchange. The party was chaperoned by LeRoy Smart, wire chief and wife. The out of town guest was Nora A. Thurston, traveling chief operator. A very enjoyable time was spent by all the young folks.

The Washington chief operator, operators and office force gave their annual picnic on June 2. Their guest was Nora A. Thurston, traveling chief operator. The young ladies enjoyed themselves very much, fishing and boating.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent.

Actually Hunting Trouble.

The Wisconsin Telephone Company is no longer content to wait for trouble reports. Its officers and employees now go out looking for them. There is hardly a business man of the city who is not asked at regular intervals whether he is satisfied with his telephone service. The first time the question is put to him he usually regards it as a joke, but when he realizes that it is meant seriously he heartily commends the plan, the object of which is to give the public the best possible service at all times. That the plan adopted has met with the hearty approval of the public is evident. It is things of this sort which are steadily increasing the success and patronage of the telephone company.—Fond du Lac Reporter.

Eau Claire District.

Ray O. Dunwell, repairman at Ashland, is confined to his home at Milton, Wis., on account of injuries he received from slipping on a bent toe bolt while coming down a pole. Eugene Schultheis, of Abotsford, has been temporarily placed as repairman at Ashland to fill the vacancy. H. L. Tyson, wire chief at Ashland, has been promoted to the position of manager at Chippewa Falls exchange. Mr. Tyson acted in the capacity of wire chief at Ashland for three years, during which time he made friends who wish him success.

J. A. Baney, assisted by Charles Billings and W. W. Richter, all of New York, have completed the installation of additional Morse apparatus for the A. T. & T. Co. at Ashland and are now located at Indianapolis, Ind. The Blue Bell Club has been organized by Manager G. S. Parks and employees of the Merrill exchange. Its purpose is to discuss the bulletins and in general co-operate in improving the service up to higher standards.

Tressie May Fuller, formerly assistant clerk at the Menomonie exchange, was married June 26th to Seymour Housen, of Spooner, Wis. Foreman McCoy has completed the building of four new rural lines at the Menomonie exchange and thirty-three new rural subscribers have been connected.

A. W. Johnson, repairman at the Me-



ANOTHER FISH STORY.

Those fish stories keep coming in. This time the heroes are Mr. Schumacher, wire chief at the Grand Exchange, Milwaukee, and Mr. Moederer, wire chief at Wauwatosa Exchange, same city. The picture shows 110 fish caught in four and a half hours at Okauchee Lake, July 12th. The two men took 530 fish out of the lake during their two-weeks' vacation.

nomonie exchange, has been transferred to the district plant chief and will take out a toll line repair crew. John G. Hanous, of Boyceville, and formerly repairman at Eau Claire exchange, supercedes Mr. Johnson. Bessie Hoag resigned as local operator at Madison and is succeeded by Stella Wallace.

The Murry Telephone Company, at Bruce, has added two more rural lines and is receiving local switching through the Chippewa Valley switchboard.

A. T. Butler, commercial agent at the Superior exchange, has resigned to accept another position.

Flora Crawford, night operator at the Bayfield exchange, resigned and is succeeded by Gertrude Harding. In order to give the best service possible, the employees of the Ashland office have formed a club with semi-monthly meetings, and at which meetings all things in general for the betterment of the service and employees, will be discussed. The first meeting was held in the manager's office which was strictly a business meeting for the organization of the club. The second meeting was held at the residence of Manager W. F. Hallfrisch, who with the assistance of Mrs. Hallfrisch entertained the members. In order to keep the spirit of what the club considers a good move, it was decided that one-half hour of each meeting be on telephone talks, and the remaining time for social doings and a good time. It is expected that the work of the club will result in a higher standing of all departments.

Joseph A. Goldberg, switchboard man at Eau Claire, has been transferred to Ashland as local wire chief.

Madison District.

Carrie Geisinger, supervisor from Milwaukee, who spent the past few months in Madison, has returned to Milwaukee.

The following connecting companies signed contracts during the past month: La Valle Telephone Company; Lime Ridge Telephone Company; Gazonovia Telephone Company. A No. 2 private branch exchange has been installed in the Wisconsin State Journal, one of Madison's leading newspapers.

An additional toll circuit is being strung to Livingston, Iowa county.

Western Union Class 10-A offices have been established at Columbus, Ft. Atkinson and Stoughton. Miss Petterson is operator at Columbus. Mr. McCoy at Ft. Atkinson and Lulu Barker at Stoughton. Work of rebuilding the Madison Exchange will be started in a few days. The work will be done by the plant department under C. W. Wilson.

Adolph Bullerjahn is spending his summer in Madison working as a clerk for District Plant Chief Schroeder.

The Western Electric Company and the Wisconsin Telephone Company at Madison are playing a series of ball games. One game is played each Sunday and every one enters into the sport in sportsmanlike style. J. V. Young is manager of the Bell team, while C. Lonegan pilots the Western Electric Company. The exchange at Stoughton under the management of E. L. Smiley has been making rapid strides. New lines have been extended towards Lake Kegonsa and on some of the rural routes. In addition, a large number of city subscribers have been added and it becomes necessary to increase the central office facilities, and a crew of men are now adding an additional section to the switchboard.

Active work has been started on the remodeling of the Wisconsin Telephone Company's building at Baraboo, and \$30,000 is to be expended this summer on improvements in the building and equipment of the plant. Contractor John Pugh has the contract for the work on the building and will sublet some of the work to other local men. The cement work will be done by C. L. Laird and

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A. E. JOHNSON

142 27th Street, Milwaukee, Wis.

the electric wiring by Ray Jeffries. The annual picnic of the Madison employees, held at Monona Park July 25, was a great success. The offices of the company were closed and the "shifts" on the boards so arranged that the operators could all attend the picnic during some portion of the day. It was a typical telephone picnic at which everyone forgot "work" for a time and settled down to have a "good old time." There were games of all sorts and races. There was a base-

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IN THE DAISY FIELD.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Chillicothe District.

William E. Hurtt, formerly wire chief at Chillicothe, died at his home in Circleville August 6th. Mr. Hurtt resigned his position about ten months ago and went to California for the benefit of his health but the improvement was only temporary. He was twenty-three years old.

Dayton District.

The annual picnic of the Central Union Club of Dayton was held at Kilkare Park, Saturday, July 20th. There were over 400 employees and their friends present during the day which was spent in playing games

of various kinds. Visitors were present from Columbus, Springfield, Troy, Middletown and surrounding places.

Toledo District.

C. L. Overly, toll repairman at Findlay, had his right arm broken on July 3d while making repairs at Kenton. The pole on which he was working broke off. In jumping to save himself he landed on his hand, causing the fracture.

The Norwalk and Findlay exchanges have just completed the distribution of new exchange directories.

The plant department is installing a Warner pole changer and dry cells at the Delaware exchange to take care of the ringing and transmission.

At the regular session of the Norwalk City Council on July 15th a resolution was adopted thanking the Central Union Telephone Company for prompt and efficient service rendered on the evening of July 9th when the Huron County Court House was destroyed by fire.

Extensive repairs are being made to the local and toll switchboards at Bowling Green.

The numerous and severe electrical and wind storms passing over the Fourth Ohio District during the month of July caused a great deal of trouble both local and toll.

Mary Walsh, stenographer at the Toledo exchange, is still confined to her home on account of illness.

The Central Union Club at Toledo gave its fifth annual moonlight excursion on the steamer *Greyhound* on Friday evening, August 2d. Although the weather was extremely cool for an event of this kind, the inducement of a trip on the lake with the Central Union Club as host and a real moon was too great to be resisted and about 2,000 attended. This proved to be one of the most delightful excursions ever given by the club.



COMMERCIAL DEPARTMENT, YOUNGSTOWN, OHIO.

ball game between the telephone company and the Western Electric Company teams. The toll operators and the local operators matched strength in a tug-o'-war, as did teams picked from the men in the plant and commercial departments.

Jessie Miller, bookkeeper at Madlaon, died August 7th from typhoid fever. Miss Miller had been operator and supervisor before her employment as bookkeeper.

Milwaukee District.

Bertha Beltman, who was an operator at main office for four years, died, after being ill and having been confined to her home for about ten months. Six of the main office operators acted as pallbearers, viz.: Mary Garner, May McNeven, Martha Schroeder, Nettie Johnson, Berdie Grittner and Elsie Schmichen. All who knew Miss Beltman deeply mourn the loss of one who was thought of most highly, both in a business and social way.

Helen Troy, who has been in the company's employ for five years recently as an operator, resigned her position July 3rd to be married.

The Milwaukee chief operators recently made an afternoon trip to the daisy field about eight miles north of the Milwaukee city limits. Mabel Kenney in the traffic department of the Chicago Telephone Company was the honorary guest of the picnicers. Everybody reported having had a very enjoyable time.



PLANT DEPARTMENT, YOUNGSTOWN, OHIO.

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

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THE AUTOCALL COMPANY

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The ladies' popularity contest held in connection with the moonlight trip proved quite interesting. Fifteen contestants entered the race and the prizes were won by the following: Hazel Cunningham, pay station attendant at No. 1 pay station, first prize, solid gold watch; Alice Everett, clerk in the commercial agent's department, second prize, gold bracelet; Mary Hartnett, chief operator at the East exchange, third prize, gold locket and chain.

Cleo Whitacre, toll operator at Bowling Green, has resigned to take up other employment. Miss Whitacre is succeeded by Lillian Renz.

On July 6th Rose Lapp, supervisor at Fostoria, was married to Lertis Aldrich at Monroe, Mich. Mr. and Mrs. Aldrich will reside at Fostoria, Ohio.

On Thursday evening, July 18th, the retiring room at the Fostoria exchange was beautifully decorated with flowers and a miscellaneous shower given in honor of Mrs. L. Aldrich, a recent bride. Mrs. Aldrich is supervisor at Fostoria.

Aldeline Monroe, clerk in the traffic department at Lima, resigned July 15th and was married on the twenty-fourth to Ralph Munk of Columbus, Ohio. Miss Monroe is succeeded by Olga Bateson.

Ethel Covey, operator at Lima, resigned on July 25th and was married on the twenty-seventh to Frank Stepleton, of Lima. Miss Covey is succeeded by Cordelia Judy.

Edna Parker, toll operator at Lima, resigned on July 15th and was married on the thirtieth to John Harlow of Birmingham, Ala. Miss Parker is succeeded by Oral Whynman.

CLEVELAND DIVISION

W. ENGLEHARDT, Correspondent

LETTER NO. 6115.

Fully as Great a Mystery as the Celebrated French Case of "File No. 113."

The Cleveland Telephone Company is anxious to secure a translation of Letter No. 6115. Here it is:

June 27, 1912.

To Bell Telephone or Cleveland Telephone Company:

I am sending you a statement about 5-Y line. Sometimes when calling and having someone on line can not get a very good satisfaction in talk, because there are some one on the line. So please give reason or cause why such things may occur on line when telephoning, and I have telephone poles or pegs runnings over property of Wallings 5-M line, and property of Chas. H. Miller. Without having any contract or any kind of security of having a right-of-way of having my poles set over said property. Then in the map there is another way which said wires should be run, because I having trouble and people thinking because pegs are run over their property they can run and do just as they please with their ways of business, and then I am not married and had telephone here and worked in City of Cleveland and had my business broken, had Mr. Miller running around after me as if he run the saws, or as if he had a right to run any one under and charge. I remain as ever.

T. BILEK.

Brecksville, Ohio, Wallings 5-Y line. P. S.—I shall give further information.

AID SOCIETY HOLDS PICNIC.

Bell Employees, Their Relatives and Friends Spend Pleasant Day at Crystal Beach Park.

The weather was ideal and the spirit of good fellowship was even more cordial than usual at the eighteenth annual outing of the aid society, held at Crystal Beach Park, Saturday, July 20th. The attendance was larger than in previous years, and doubtless as many would have been present if the aid society had not followed its time-honored custom and paid the fare of its members. They came, with members of their families, with friends and with those who were nearer than friends. The "kiddies" were also brought to the picnic in great numbers.

Luncheon was a continuous performance from eleven until after two o'clock, and it seemed as though nothing in the line of good things to eat was missing. The tables were scattered through the pretty grove and there was much hilarity at the "spread." When the evening repast was served the scene was duplicated.

Bathing was one of the most popular sports for the men, many of them donning their bathing suits directly after leaving the train and remaining in the water nearly all day. Many of the gentler sex went near the water, too, but no spectacular swimming or diving stunts were witnessed. Too bad the toboggan-slide

was closed, as it prevented "Deacon" Wood and J. K. Maitland from proving their marvelous feat, "The Slide for Life." The merry-go-round was a great attraction for the children, and R. S. Underwood, who evidently does not believe in signs, for there was one plainly visible which read, "Free rides for the children only."

"The Missing Telephone Girl" was found in the person of Edith Campton, by Florence Sidley, who attended the picnic with her sister, a supervisor at the Doan office. She received a prize of \$5.00.

The baseball game between picked teams, representing the Plant and Commercial departments, was close and exciting, the victory going to the former by a score of 4 to 2. The features of the game were the pitching of Finke of the Plant, and the hitting of Bodner of the Commercial, who was the only one able to safely connect with his delivery each time up to bat, a batting average of 1.000. The game between the married men and the single was entirely one-sided, the former winning by a score of 18 to 2.

The field day events were open to all employees, the following prizes were awarded: First prize, \$2; second prize, \$1, and third prize, fifty cents. The winners were as follows: 100-yard dash—L. Lawrence, first; W. Toner, second; W. Fox, third. 50-yard dash for women—Della Letourneau, first; Marguerite Smith, second; Sue Reilly, third. 50-yard dash for girls under 12 years—Mamie Fletcher, first; Rose Budolwyll, second; Elsie Ackerman, third. 50-yard dash for boys under 12 years—James Harrington, first; E. V. Felcamp, second; Henry Yager, third. Fat men's race—A. Bodner, first; W. Finn, second; L. C. Kubach, third. Three-legged race—W. Finn and P. Green were first. The second prize was divided between two teams on account of the race being a tie. They were: F. Ryan and F. Spreitzer, and R. Brown and Leroy Herrig; L. Lawrence and A. Jones, third.

Personals.

We are glad to see Messrs. P. F. Cox and John D. Templeman back on the job after their recent illness. They both wish to acknowledge the receipt of delicious fruit and beautiful flowers received at that time, and to voice their appreciation of the many kindnesses shown by their fellow employees.

It was an occasion for celebration in the home town of Carrie L. Deltz in Chagrin Falls, Ohio, when she arrived to



OPERATORS AT THE CLEVELAND PICNIC.

spend her vacation there. Almost the whole township broke out with an epidemic of measles.

M. A. Kellogg has left the employ of the Cleveland Telephone Company, having resigned to accept a position with the Mechanical Rubber Company.

C. W. Gebhard, district traffic chief of the A. T. & T. Company, and Amelia Gebhard, chief operator, presided over the regular monthly meeting at Euclid Beach Tuesday evening, July 9th, when the various phases of long-distance operating were discussed. Sixty-five operators were present. N. Anderson, local traffic superintendent, and Mrs. Anderson, attending as guests. Following the meeting a six o'clock picnic supper was served. It seems that Miss Bowen, who had formerly been on the refreshment committee at such occasions, debated with Miss Blackmore and Miss Pearce, her successors, as to who was the best chef. To settle the question it was proposed that the debating parties run a race. This suggestion was carried out, Miss Bowen being the triumphant winner. The remainder of the evening was spent in dancing and bowling. A profitable as well as enjoyable time was had by all.

The engagement of Edna Keah, operator at Main office, to Carl Samuels, was announced the latter part of July.

The operators at Eddy office spent a pleasant evening at Euclid Beach, June 25th.

Mrs. J. E. Patton, formerly Della Comer, entertained the operators at Ridge office the evening of July 18th, at her home, 10811 Detroit avenue.

Akron District.

Margaret Davies, of the Youngstown exchange, has resigned to be married. Mary Stoner succeeds Miss Agnes



AUDITING DEPARTMENT GIRLS. Cleveland.

Houan as operator at Struthers, O., exchange.

Gertrude Brodie, chief operator at Akron exchange, resigned June 15th to be married to Guy Hartzell. Bernice Jackson, clerk to the district traffic chief, has been promoted to the position made vacant by the resignation of Miss Brodie. May Warjon is now filling the position of clerk, formerly held by Miss Jackson.

A very pretty double wedding was solemnized at Akron, July 16th, when C. A. Andrews, service inspector, was married to Helen Purcell, local supervisor. The same evening Mr. Andrews' sister, Mrs. Bessie Koehl, collector, was united in marriage to V. La Van. All were well known among Akron telephone people.

At the Canton exchange a canvass is being made to change existing four-party service to two-party. The canvass, to date, has been successful, as the loss has been practically none.

Foreman Goodnight of the Western Electric Company, with a force of men, has started work on an estimate, which will provide 900 additional multiples for the Canton exchange.

For and About Commercial Agents.

Four recent contracts for private branch exchanges have been secured by C. H. Ellert. They are to be placed in the offices of the Motch and Merryweather Machinery Company, Lakeside avenue; the Enterprise Printing Company, 1011 Power avenue; the Wilson Dress Hook Company, Vulcan building, St. Clair avenue, and the Petrequin Paper Company, 1250 West Third street. The Motch and Merryweather Company will have a No. 4 board equipped with two trunk lines and seven stations. A cordless board will be installed for the Enterprise Printing Company. This will be equipped with two trunk lines and seven stations. The Wilson Dress Hook Company will also have a cordless board. The equipment will be one trunk line and six stations. A No. 2 Exchange will be installed for the Petrequin Paper Company. The equipment calls for two trunk lines and seven stations.

A contract for a private branch exchange consisting of one trunk line and six stations was secured by S. J. Dennison, who recently joined the forces. The exchange will be of the No. 4 type and will be installed in the plant of the National Tool Company, Madison avenue and L. S. & M. S. Railway.

On the return from his vacation, J. P. Willman "waded right in" and secured a contract from the Cleveland Canning Company, Denison avenue and B. and O. Railroad, for a No. 4 private branch exchange with equipment of two trunk lines and ten stations.

A private branch exchange to consist of a No. 4 board with two trunk lines and six stations was secured through the solicitation of N. J. Forgue, from the East Fifty-fifth Street Hospital, 2415 East Fifty-fifth street.

G. Vernon Shaw also "came across" with a contract from the Consolidated Fruit Auction Company, Stones Levee, for a Cordless board with equipment of one trunk line and six stations.



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ESTELLE MCGRAW,
Detroit Directory Clerk.

Estelle McGraw has been in the telephone business twenty-five years, and is, therefore, one of the few feminine members of the Pioneers' Society. She was from fourteen to fifteen years of age when she joined the Telephone and Telegraph Construction Company of Detroit.

Stella, as the girls have always called her, began as an operator, working at the local board for three months, and was then promoted to a position known as "switching girl" in the toll room. Her duties in this capacity were interesting. The toll business—it was before the time of the A. T. & T. Co. in Detroit, when the only line outside of the State ran to Toledo—was handled by four operators. Detroit subscribers at that time were called by name, and Miss McGraw, who had memorized the whole lot of them—there were then, she says, "only" 1,700,—worked at a four-multiple board behind the toll operators. When an incoming toll call came in for a Detroit subscriber the toll operator would call out across the room to the switching girl, "give me So and So." Miss McGraw knowing So and So's number would plug in on the multiple corresponding to the toll operator calling, and the connection was then effected by the other end of the toll operator's cord. For outgoing toll calls, the local operators communicated direct with the toll board, but the switching girl was of course required to put up her connection as soon as the parties were ready to talk. Miss McGraw says those were fine times, but she had to keep her head clear on some occasions, when all four toll operators, for instance, would call out for connections at the same time. The switching job lasted for about two years.

From that work Miss McGraw was transferred to the general office, where she

was the first telephone girl to meet the public of Detroit. She had charge of the public telephones, and was occasionally deputed to calm some irate subscriber complaining of the service of the brand of 1887. At this work she displayed so much tact and cheerfulness that she was kept at it for eight years.

Miss McGraw's retentive memory in connection with the names of Detroit subscribers naturally led to her taking charge of the directory as soon as it became large enough to be important. She was made directory clerk in 1897, which position she has retained to this day. With her assistant, Miss Brodie, she produces a work of reference three times a year that is said to be without a parallel all over the United States so far as freedom from mistakes is concerned.

So much has Miss McGraw's work been appreciated by the powers that Miss McGraw is to be placed in charge of all the Michigan State directories. This is indubitably a large job.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Detroit District.

Congratulations of the employees of the Michigan State Telephone Company are extended to Commercial Superintendent George M. Welch, who was married on August 3rd to Sadie McElligott, of Minneapolis. The honeymoon was spent at Lake Gogebic, Mich.

Robert James Hall, of the commercial department, is a Republican candidate for the State Legislature for the First District, which includes the city of Detroit. The primaries were to be held August 27th. Mr. Hall, who is a graduate of Michigan Agricultural College, recently returned to the telephone company after a year's absence. He is a busy contract taker, and an expert regrader, "raising" subscribers on party lines to individual lines with signal success.

Hartland has been changed from a "check direct" toll station to "check Brighton."

Emma C. Kittle of the Ann Arbor exchange was married to Adolph J. Schleede.

Charlotte Smith, of the auditing department, was married August 5th to Mr. Reader of the Detroit city postoffice.

A number of the employees of the Mt. Clemens exchange area attended the second annual excursion of the Telephone Society of Michigan, to Bob-Lo, August 3rd. All reported a good time.

Irene Elsey has resigned her position as evening chief operator of the Mt. Clemens exchange. Miss Elsey will be married early in September.

The Portage Lake toll station has been closed.

The Detroit employees are pleased at the return of M. B. Hutton of the engineers' department.

Amy Miles, chief operator at the Jackson exchange, was married June 23rd to Chas. W. Bailey. Mrs. Bailey will still continue in the capacity of chief operator. Beale Wesley, clerk in the Jackson traffic department, and the day local and toll operators, gave a supper and linen shower at Vandercok's Lake in Miss Miles' honor. Jackson relief oper-



JAMES LIBBEY DELL.

This is the Charlotte wire chief as he appears on the stage. The Grand Rapids correspondent says he is advised that Mr. Dell is thinking quite seriously of making his vaudeville sketch a specialty.

ators also gave a dinner in Miss Miles' honor at the home of Grace Penrose, and presented Miss Miles with a beautiful oak rocker, also one-half dozen hand-painted china plates.

Anna Watson, for several years Detroit toll operator at Jackson, has been promoted to be toll supervisor. Margaret Malloy, A. T. & T. toll operator here, has resigned on account of the death of her mother and taken up her residence with her sister, Mrs. Frank Brogan of Detroit.

Mae Seger, one of the local day operators at the Jackson exchange, was married August 7th to George Hallett. Several shower parties were given in her honor.

Mabel McGregor, formerly billing clerk at Jackson, has resigned, being succeeded by Nora E. Dunning. Estella Freer, former bookkeeper at the Jackson exchange, has resigned, and Vera Dinus has been appointed to fill the vacancy.

Frank G. Layher has resigned his position as Jackson wire chief, a position he has held for the past seven years. He has been in the employ of the company over twenty years. Mr. Layher is now engaged in the business of electrical contracting, with his brother, Harold Darling, testman at the Jackson exchange, has been appointed wire chief to succeed Mr. Layher. Harry Hawley, plant clerk, succeeds Mr. Darling.

On July 1, 1912, the office at Parma was closed, and a contract was made with the North Parma Telephone Company to handle the toll lines. Under this arrangement connection is had with about 450 independent subscribers. The subscribers at Parma are greatly pleased with the new arrangement.

A new switchboard has just been installed at the Rives Junction exchange, replacing a board of the "independent" type. The installation was made by Installer Kline, from the Detroit office.

The bookkeeping department has suffered the loss in July of two capable young workers, each of whom had been with the Michigan State Telephone Company at least six years. Harriet Michels went to be married to a Mr. Moti, a promising young architect of Detroit. Mabel Minds has departed on a trip to California, giving no information concerning the name of a young man, if any.

J. F. Wardle will take the position of chief clerk in district commercial office, vacant because of J. H. Alfred's leaving to join the Goodyear Rubber Company.

Among the bridegrooms of July were numbered Messrs. Russell Casey and Lorne Burdick, of the North office, who are receiving congratulations from all



EXCHANGE OFFICE, CHELSEA, MICH.

Mabel Rottey, cashier, and Michael Welch, manager. The picture was taken with Manager Welch's new camera.



BAY CITY OPERATORS.

The above picture shows Barbara Gates, assistant chief operator; Margaret Brinker, information operator; and Bertha Schantz, supervisor at the Bay City exchange. A glance at the pleasant features of these young ladies will explain why there are so many satisfied subscribers in the Bay City exchange.

offices. Mr. Casey married a girl from Jackson; Mr. Burdick's wife is from Elm, Mich.

The Fairfield office of the Lenawee County Telephone Company is closed. Subscribers at this point are receiving service from Jasper exchange.

Manager C. J. Given, of Ann Arbor, recently received the following letter from a former subscriber, now residing in Livingston, Tenn.: "Dear Sir—Your bill as enclosed is correct and I take pleasure in remitting the check. I wish I were able to use your phone this year and enjoy the courteous treatment I always received. Sincerely yours truly, H. J. Dorthick."

Sixteen unsolicited contracts came in at the Pontiac office during the month of July.

Pontiac exchange is congratulating itself daily on the new furniture which has arrived for the rest room. Operators think they ought to be given extra relief time to enjoy the easy rockers.

Ethel Smith, toll operator at Pontiac, has been forced on account of ill health to take a month's vacation, which she is spending at her home in Traverse City.

The Pontiac commercial department was delightfully entertained by Anna Grey Stanley, stenographer, at her cottage at Casa Lake. Boating, fishing and a delightful porch supper were part of the good time.

Grand Rapids District.

Dating from July 3, 1912, R. T. Morris succeeds E. R. Averill as manager of Meigs toll station.

L. C. Dawes has succeeded J. E. Shaw as manager of the Rapid City toll station, as of May 1, 1912.

Edna N. Hill supersedes F. Denison as manager of Hesperia toll station, effective August 1st.

On August 13th Allen Campbell succeeded E. L. Berry as manager at Charlevoix.

On July 1st the Cloverdale exchange, Kalamazoo area, was changed from the rural plan to the sub-license city plan. The new company consists of 121 subscribers and is to be known as the Cloverdale Telephone Company.

On August 8th Mrs. Gertrude Castree resigned her position as lease record clerk at the Kalamazoo exchange to enter other work. Florence Welch, formerly check ledger clerk, was promoted to fill the vacancy caused by Mrs. Castree's leaving.

On August 8th a private switchboard was installed at the Morris Kent Company, Kalamazoo, with two trunks and six terminals. The contract for the private exchange in the New Central High School at Kalamazoo will be closed some time during the month.

C. Lockwood has been appointed manager at Otsego, effective August 1st, to replace W. Badour, resigned.

A change was made at Coloma exchange on July 20th, Mrs. Ruth Boyer, manager, resigning, and Mrs. Etha B. Smith taking charge.

The installers have just completed installation of the two-section No. 105 switchboard, with new main frame and complete new central office equipment at Okoma. The exchange quarters are to be completely renovated, the public office being provided with a booth, and the interior painted and papered, making a much needed improvement. This exchange handles a large summer resort business at Paw Paw Lake, making it necessary to put on an additional toll section to handle the heavy traffic during the summer months.

The equipment supervisor's department has just completed the transformation of two toll sections of No. 9 switchboard at the St. Joseph exchange, cutting them over to local positions and providing 160 additional lines. The toll sections were no longer necessary, on account of the toll being handled from the Benton Harbor exchange. This will greatly facilitate the handling of local traffic, which is extremely heavy during the summer months.

Anna Muschott, who has been collector at the Benton Harbor exchange for the past few years, resigned her position on August 3rd and was married on the same day to Charles F. Davidson of Laporte, Ind. The young couple will make their home in Laporte.

Fredrick Crowhurst has taken the position of collector at Benton Harbor exchange.

Gertrude Morrell, operator at Charlotte, has been absent from her duties on account of sickness.

Charlotte exchange has passed the six-hundred mark in stations; it now has 612. James "Libby" Dell, the wire chief at Charlotte, has purchased a home on West Seminary street.

Resorters at Traverse City appreciate the service they receive. Mrs. M. B. Shryer, of Chicago, gives a supper each year to the operators at her summer home at Edgewood. This year a supper consisting of every imaginable

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75¢ WOMEN'S

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50c pair—4 pair box \$2

Guaranteed three months

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75c pair—4 pair box \$3

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Men's extra heavy, No. 281, 75c pair—4 pairs \$3

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good thing to eat was served on the beach. Frankfurters were roasted in the fire, giving a touch of real camp life to the event. After the supper, marshmallows were roasted. Later in the evening the company repaired to the cottage where music and games made up the program of the evening.

Roy Earl and Georgia Dago, both at one time employees at Traverse City, slipped away to Elk Rapids and were married. Mr. Earl is still with the company.

A. J. Tillotson succeeds O. C. Atwood as manager of the Bayshore toll station, effective July 1, 1912.

Marquette District.

On July 21, 1912, William J. Jory succeeded the Gwinn-Savings Bank as toll-station manager at Gwinn.

Diomed District Commercial Manager K. S. Baker recently received the following letter from a subscriber in Marquette:

My Dear Mr. Baker:
I wish to compliment you on the artistic appearance of the new list of subscribers that has just been placed on my desk, and upon the gratifying growth it shows in the list of subscribers. I only hope you will soon be under the painful necessity of issuing another book, in order to include those mislaid persons who are, at present, subscribers of the ——— Telephone Company.

Yours very truly, A. E. Miller.

Saginaw District.

Lucy McCourt, billing clerk at Saginaw, has resigned and Elsie Ganne, formerly check ledger clerk, has been appointed to take her place.

During the month of July the Saginaw commercial department secured contracts for three new farm lines.

Auditor G. J. Brett paid Saginaw a visit and left some good pointers which are

working out fine. We now find that we can bill five days' tickets in three and one-half days, while formerly it took us five days. This is brought about by bunching five days' tickets together and billing at one time.

Saginaw has just added another new roadway, consisting of ten subscribers, known as the River Roadway Company.

There is to be a two-position test board installed at the Saginaw exchange.

The plant department is now hauling poles to build farm lines.

The following item appeared in the Saginaw News regarding Saginaw toll operator, Mabel Himm: "A party of the toll line operators of the Michigan State Telephone Company gave a miscellaneous shower for the bride-elect, Miss Mabel Himm, at her home, 1716 Lapeer avenue, last evening. The house was artistically decorated with sweet peas, daisies and other flowers of the season. The table decorations were very pretty and small favors were placed at the cover of each guest. Games were played and music was enjoyed and the honors at cards fell to Misses Anna Baumann, Mamie Smith and Estelle Kirtz. Dainty refreshments were served at 11:30 o'clock. The bride-elect was the recipient of many useful gifts for her future home."

Saginaw is enjoying a big building boom, which "never was better," declared a local architect; but labor is scarce. Many large manufacturing plants are under construction as well as numerous homes, and by the looks of this building boom Saginaw will have a banner year. Politics have had little effect.

An estimate, amounting to \$920, providing for a new toll line and cable extension at St. Charles, has been approved, and work assigned to the construction department.

A new toll station has been opened at Averill, Midland county, C. W. Siebert, manager.



PICNIC AT "GREVE'S DELL" NEAR HOUGHTON.

The event took place July 25th at night. The locality was named "Greve's Dell" in honor of G. J. Greve, traveling auditor, who came to Houghton to check accounts at the time of the recent transfer of managers.

"The Houghton force is a fine group of men and women," said K. S. Baker, district commercial manager of the Marquette district to the News correspondent. "There isn't one of them that isn't working every day for the benefit of the telephone company. Their organization is perfect. There are no sore spots or 'scraping' going on here."

Those present at the picnic were: Bella Perreault, Stella M. Latourelle, Ethel Thomas, Gertrude Fisher, Lydia Watterson, Elizabeth Burg, Eva Perreault, Julia McCarthy, Jean Kearney, Viola Watterson, Elizabeth Davis, Clara Reault, H. C. Burg, Beatrice S. Knight, Minnie Weber, Mae E. O'Neill, Stella Allie.
F. E. Relf, Jas. Carroll, Mr. Post, Clyde H. Mitchell, R. T. White, F. E. Meosta, J. A. Sherman, G. J. Greve, Mr. Carpenter.



GEORGE R. HEYWOOD.

George R. Heywood, former district commercial manager at Grand Rapids, has been transferred to Detroit as special agent. C. E. Wilde, former commercial superintendent, resumes his old position of district commercial manager. The *Grand Rapids Herald*, of July 21, said:

"Mr. Heywood began his telephone career just ten years ago as office boy for the president of the Northwestern Telephone Company, in the general offices of the company in Minneapolis. His general makeup is of that aggressive type that is bound to make the most of every opportunity that presents itself, and Mr. Heywood was not long an office boy. His adaptability to the business quickly won him merited recognition and in less than five years he had risen to the position of contract agent for the city of Minneapolis.

"About five years ago Arthur von Schlegel came to Michigan from the Northwestern Company to accept a position with the reorganized Michigan State Telephone Company as general contract agent, and Mr. Heywood came with him to be his chief assistant. During the time that has elapsed since locating in Michigan his work with the Michigan State Company has been such that he has several times received substantial promotions, and is now considered one of the strong men of the company's organization.

"Mr. Heywood has devoted considerable of his leisure time to study of law, and it is said that with very little effort he could qualify as a full fledged exponent of Blackstone.

"He has made many friends during the three years he has been connected with the Grand Rapids district of the Bell company, and his permanent removal to De-

troit is a source of keen regret to his associates, even while they offer their congratulations on his advancement in his chosen line of business."

A rousing farewell was given to Mr. Heywood at Grand Rapids on July 30th, upon his leaving for Detroit to join the office of the general manager as a special agent. The proceedings took place on the boat *Major Watson* at Reed's Lake, and was participated in by about fifty people.

Commercial Agent Edward Davison acted as toastmaster at the supper table, and made several felicitous references to Mr. Heywood, who retorted as felicitously. Short speeches were made by C. E. Wilde, who resumes his former office as district commercial manager, Traffic Manager L. J. Walley, Commercial Manager W. D. Clark of the Detroit district, representing the general officers, and E. P. Platt, district plant chief of the Grand Rapids district.

The boys at the office gave Mr. Heywood a handsome umbrella, which was presented, together with a graceful speech, by Mr. Davison.

After the supper on the *Major Watson*, Mr. Heywood invited the crowd to go as far as they liked on the merry-go-round at his expense, which dissipation was immediately indulged in by many. He also invited them to attend the dancing at the expense of W. D. Clark, an invitation which was probably endorsed heartily by Mr. Clark, although nobody caught the exact words he muttered in response.

Telephone Society of Michigan.

The Telephone Society of Michigan has lost, in the resignation of W. A. Gibson from the Michigan State Telephone Company and therefore from the society, a member whose work it valued extremely. Mr. Gibson never hesitated to spend his energy on the affairs of the society, worked heartily and all the time for it; and by his unselfishness and optimism did so much to raise the value of the society as an organization to a telephone man that it would be surprising if we failed to acknowledge it thankfully. Mr. Gibson has joined the employ of the Michigan Inspection Bureau and Insurance Company of Detroit.

Martin Ewald, general installation foreman, was, at a governor's meeting of the society, unanimously chosen to serve out the remainder of the term for which Mr. Gibson had been elected plant department governor.

Roadway Company Notes.

A contract has been signed with the Lansing Telephone Company for connection with the Houghton exchange.

A contract has been signed with the Ridge Roadway Company for connection with the Sault Ste Marie exchange.

A contract has been signed with the Benton Roadway Company No. 1 for connection with the Cheboygan exchange.

A contract has been signed with the Benton Roadway Company No. 2 for connection with the Cheboygan exchange.

A contract has been signed with the Stillwagon Roadway Company for connection with the West Branch exchange.

A contract has been signed with the Ruckhorn Roadway Company for connection at the Holly exchange.

A contract has been signed with the North Canal Telephone Company for connection at Houghton exchange.

A contract has been signed with the Stevensburg Telephone Company for roadway service into the Soo exchange.

Mr. Wilde Gets an Umbrella.

Employees in the office of the commercial superintendent, upon learning that C. E. Wilde had decided to return to Grand Rapids as district commercial manager, as a consequence of the reorganization in the five companies, bought an umbrella and placed it on his desk with a note running as follows: "This is presented as a token of our appreciation of your occupancy of the blue room for the past six months." Mr. Wilde replied, "To my boys and girls: your acceptable gift was a great surprise to me, and I thank you heartily. I shall always remember with pleasure my occupancy of the room you mention, and shall be careful to keep in out of the wet."

Why Withhold the Explanation?

Messrs. Regal, Ridout, Watts and Alward, accompanied by Al. Garland, took in the sights at Mackinac Island Sunday. While there they met Mr. von Schlegel, the general manager of the Michigan State Telephone Company, who was going through on the *Northland* to Chicago. Garland was sporting a fine new white flannel suit, but in some way, which he will not explain how, it caught fire. Didn't burn Al, but it gives a job to the tailor. —Cheboygan (Mich.) Democrat.

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Standard Canvas Sectional Post Binder

THE covers are of tough binders board, bound in high grade drab canvas. The lock is simple and non-breakable. The key operates the lock from the end of top cover. Six one-inch sections and a top ball in each post. A perfectly satisfactory binder at a low price. Special rates for quantities to Telephone Companies.

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EXCHANGE AT STANWOOD.

In the picture is Bertha Larned, operator. The people of Stanwood are much worried over the report that Miss Larned is to be married. A Stanwood paper says: "Those who have been charmed by the soft and musical cadences of her voice over the wire, dread losing her. Hence, they have proposed what appears to be an easy way out of the difficulty. They have resolved to help her land the exchange for herself if she would bring her husband to Stanwood and settle down here. This happy suggestion is now under consideration."

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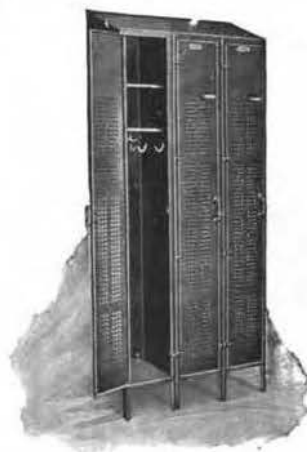
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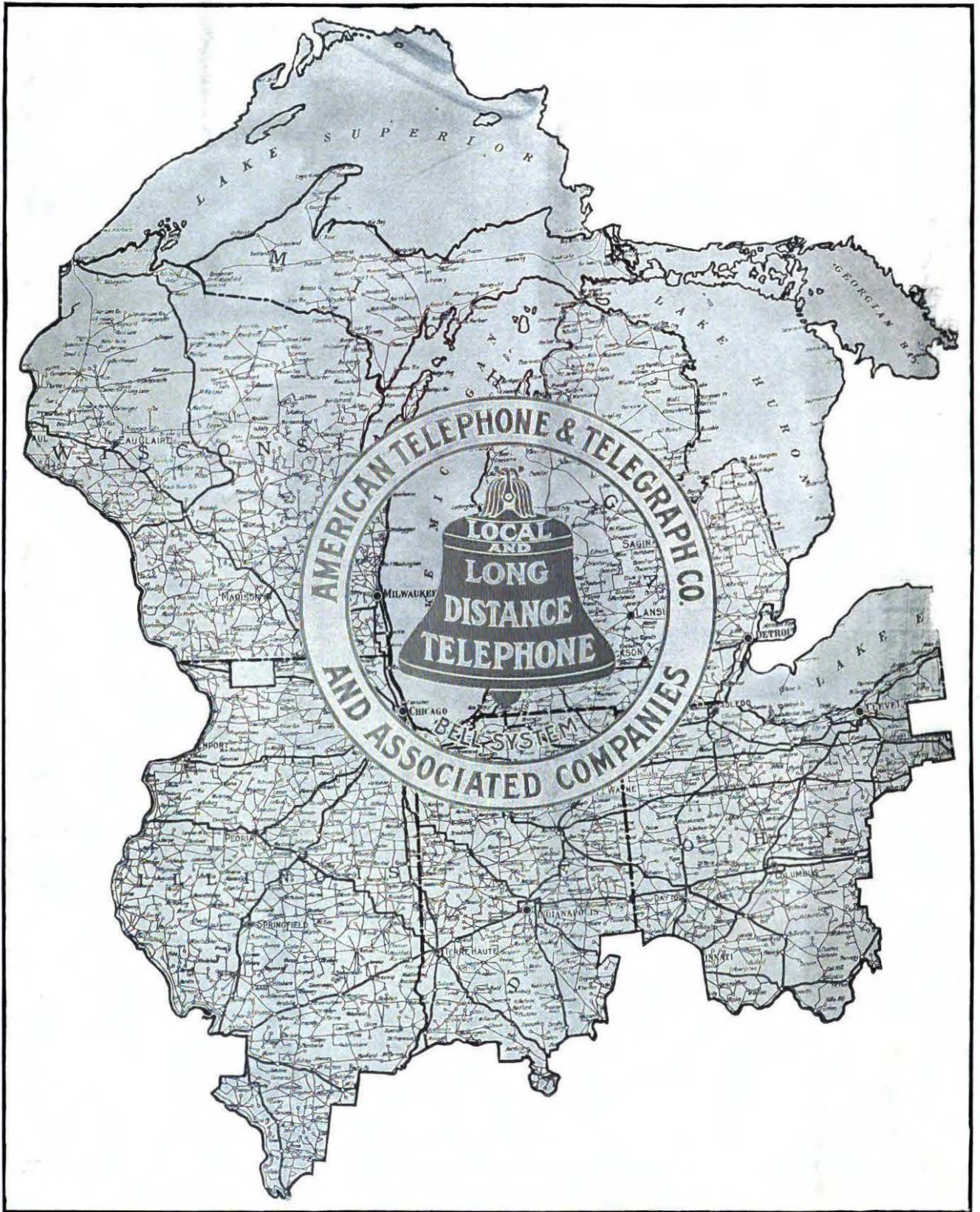
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Bell Telephone News

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THE CLEVELAND TELEPHONE COMPANY

CENTRAL UNION TELEPHONE COMPANY

MICHIGAN STATE TELEPHONE COMPANY

Volume 2, No. 3

OCTOBER, 1912

1,696,589 Daily Telephone Calls

"Made in Chicago"





Your Telephone Horizon

The horizon of vision, the circle which bounds our sight, has not changed.

It is best observed at sea. Though the ships of today are larger than the ships of fifty years ago, you cannot see them until they come up over the edge of the world, fifteen or twenty miles away.

A generation ago the horizon of speech was very limited. When your grandfather was a young man, his voice could be heard on a still day for perhaps a mile. Even though he used a speaking trumpet, he could not be heard nearly so far as he could be seen.

Today all this has been changed. The telephone has vastly extended the horizon of speech.

Talking two thousand miles is an everyday occurrence, while in order to see this distance, you would need to mount your telescope on a platform approximately 560 miles high.

As a man is followed by his shadow, so is he followed by the horizon of telephone communication. When he travels across the continent his telephone horizon travels with him, and wherever he may be he is always at the center of a great circle of telephone neighbors.

What is true of one man is true of the whole public. In order to provide a telephone horizon for each member of the nation, the Bell System has been established.

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Every Bell Telephone is the Center of the System.

Certain Continuous Service!

That is what we offer in

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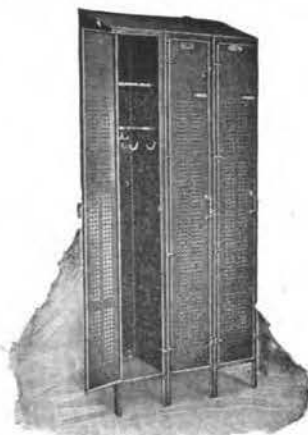
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They can not keep their clothing neat without lockers.

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steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

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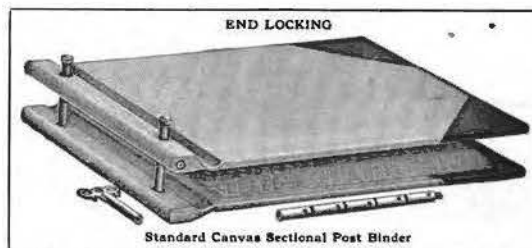
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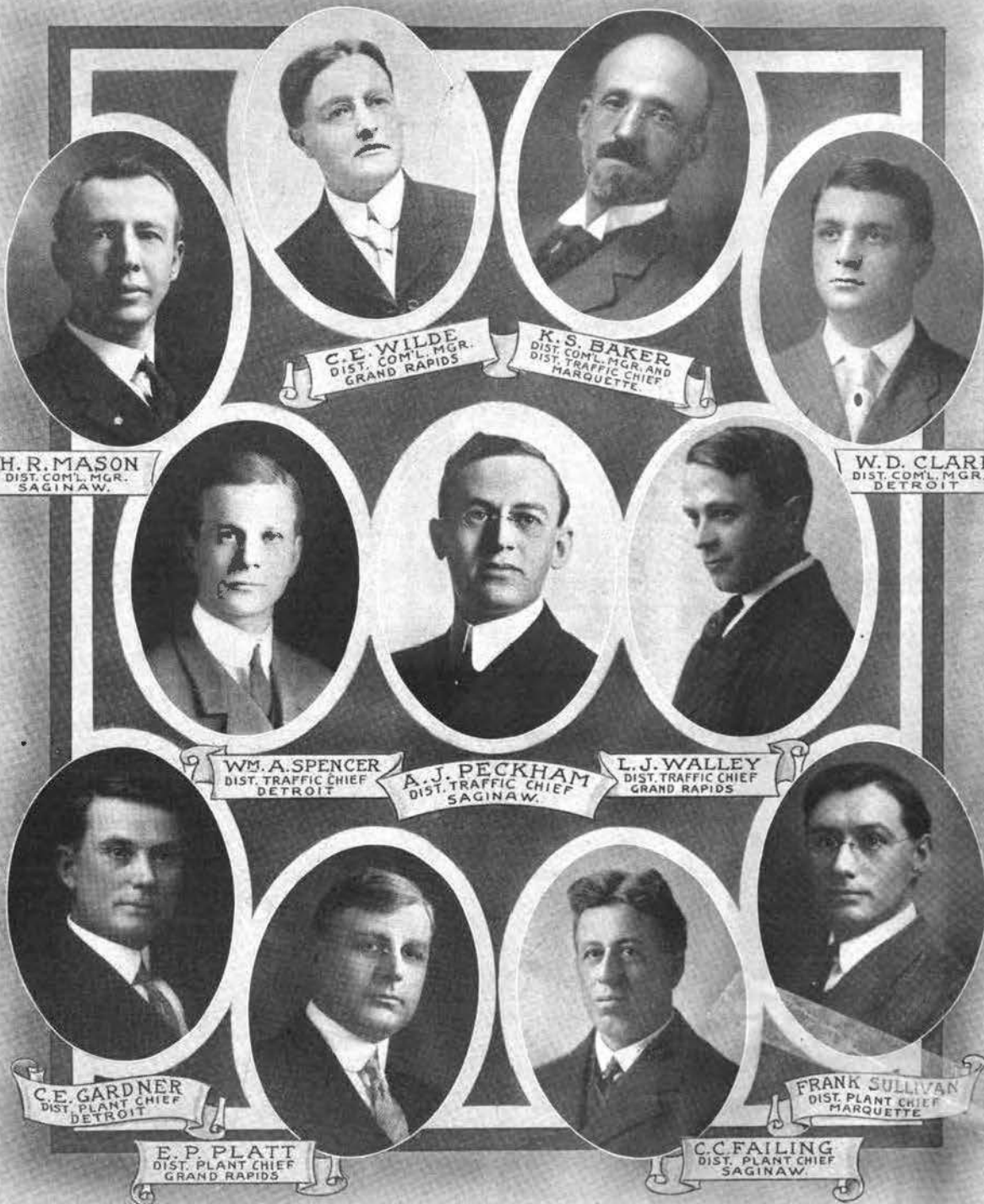
THE covers are of tough binders board, bound in high grade drab canvas. The lock is simple and non-breakable. The key operates the lock from the end of top cover. Six one-inch sections and a top ball in each post. A perfectly satisfactory binder at a low price. Special rates for quantities to Telephone Companies.

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DISTRICT OFFICIALS, MICHIGAN STATE TELEPHONE COMPANY.

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 3

CHICAGO, ILLINOIS

OCTOBER, 1912

ENTRANCE OF SECOND COMPANY BARRED

Michigan Railroad Commission Fails
to Find Reason for
Competition.

In an opinion handed down August 29th, the Railroad Commission of Michigan denied the application of the Vermontville Farmers' Independent Telephone Company to establish a telephone system in the Eaton county town in competition with the Citizens' Telephone Company, which now occupies the field.

The decision is considered the most important rendered since the Giles telephone act went into effect, as it bars out a competing company on the ground that the new company is not a public convenience or necessity.

It is the first decision of so broad a character in any state in the Union except New York.

The applicants claim that the Citizens' company is charging exorbitant rates for service, but the commission says there is a remedy for this condition, if it exists, in the provisions of the Giles law allowing the filing of complaint and the determination by the commission as to the justice of the complaint.

The opinion, which is a long one, was written by Commissioner L. T. Hemans. Reference is made to the location of the Citizens' Telephone Company in Vermontville in 1900 establishing a rate for party-line service of \$10 per year. This rate was increased later to \$12 and in July, 1911, to \$15, whereupon the subscribers entered an emphatic protest and formed a committee to organize a competing company.

The application on the part of the Farmers' Independent Company, which was the company organized, was made last April and the applicants contended that they had a common right to enter the field as a matter of public convenience and necessity.

The requirements of the Giles law and its provisions affecting the application are discussed in the opinion, and it is stated that while earlier this form of competition did not affect the public, yet "modern development has brought about the need of greater restriction in granting franchises to operate in the first instance and far more efficient regulation when in operation, in the second instance."

Reference is made to the fact that six other states have practically identical laws. It is stated that the Michigan statute is clear in its language as to its proper administration, the general purposes being stated that of "preventing the needless duplication of telephone facilities, to prevent financial loss and unsatisfactory service as well as prevent competition between two or more companies in a territory that cannot supply more than sufficient business for one."

The commission states that the question of the degree of public convenience and necessity rests in "sound reason and discretion and is largely determined by the facts as to whether



WINDOW DISPLAY, "MADE IN CHICAGO" WEEK.

or not a given community has or has not efficient telephone service."

It is said that the commission is prohibited from granting the application on these grounds and referring to the claim that the Citizens' is charging exorbitant rates for service, the commission says this would not ordinarily justify granting a certificate for the reason that there is an adequate remedy in the authority of the commission to hear complaints and correct abuses.

The commission, in the course of its investigation of the matter, had the Vermontville plant of the Citizens' company appraised as well as examined its books and accounts. This, it is stated, showed that after charging off six per cent, for depreciation the earnings of the plant for eleven and one-half years were less than one per cent. It is said that there is no immediate chance of an increase in patronage in the territory served.

While admitting that the new plant could be established at less than the reproduction value of the present plant, it is declared that the new would simply divide the revenue rather than increase it, would greatly increase the cost of operating and maintenance, would duplicate facilities and

limit general telephone use, and where subscribers felt obliged to install both telephones would practically double the burden of expense.

Commenting on the decision the Grand Rapids Press said:

In the opinion handed down by the state railroad commission in the Vermontville telephone case the feature that looms up big is the notice served that when telephone rates are too high the public has a remedy other than placing a competing company in the field. This remedy is that provision of the Giles law which gives the public the right to protest against what it considers are exorbitant rates and empowers the commission to make an investigation on that protest. If the facts are found to be as stated a reduction may be ordered. In the Vermontville case the application of a competing company to enter the field was denied on the ground that there is no room for another concern and that so far as high rates are concerned the public has the remedy stated above. This will strike the average man as far sounder sense than permitting a duplicate telephone plant with all the ultimate inconvenience and annoyance to the public of two systems. The telephone is a natural monopoly. The one necessary accompaniment of that monopoly is public supervision and control of rates. The trouble with monopolies up to date has been that usually they drifted into extortion. With that possibility prevented it is not likely that the public would object to a monopoly in a natural

Continued on Page Four.

TELEPHONE SERVICE "MADE IN CHICAGO"

Two Companies to Show Inside
Workings of System at
big Exposition.

A "Made in Chicago Show" and Home Products Exposition is to be held in Chicago, November 2nd to 10th, inclusive. The big Coliseum, the largest place of assembly in the city, has been engaged for the exposition, which is expected to show in a way never shown before the extent and variety of the manufactured products of the city.

The Chicago Telephone Company and Western Electric Company have engaged two booths where the telephone service of Chicago will be, in a sense, placed on exhibition. That is, the complete working of the telephone system will be shown, and the Western Electric portion of the exhibit will be designed to give an adequate as possible idea of the apparatus which is necessary to be used to produce service in a city as vast as Chicago.

The determination to hold this exposition was partly the outcome of the success of the "Made in Chicago" week about two months ago. This was an exhibition of home-made goods held all over the city in store windows. It was so well liked by the public that it was decided that a show which would bring together all these exhibits in one place would be of even greater interest. The show is also intended to fill a place left open by other trade shows. It will afford a medium of display to numerous manufacturers who are not connected with a trade of sufficient magnitude to have a show of its own. The show will be restricted to exhibitors manufacturing goods within fifty miles of Chicago.

The Western Electric Company and Chicago Telephone Company booths will be almost in the center of the building, where they cannot fail to attract a great deal of attention.

"Made in Chicago" Week.

Probably no exhibit during "Made in Chicago" week created as much favorable comment and aroused as much interest as that of the Chicago Telephone Company. When the company was approached to lend its aid to make this week a success, it became a problem what, when and how an exhibit in keeping with the nature of the show might be devised. The plan was finally suggested of putting in window exhibits in various parts of the city, and W. G. E. Peirce, chief commercial agent, was placed in charge. Mr. Peirce succeeded in arousing the interest of about thirty druggists in different parts of the city, who agreed to allow the telephone company to place special exhibits in their windows during "Made in Chicago" week. Examples of these exhibits are shown in the pictures in this issue of the BELL TELEPHONE NEWS. The exhibits were practically the same, varied by the size and shape of the space available. In each was shown a paste-board effigy

of an operator seated at a section of switchboard, in the act of making a connection on the board by means of a cord. The board was wired so that signal lamps would glow at intervals. The figure of the girl was surrounded by pieces of telephone apparatus, instruments, etc., with explanatory signs telling something about the purposes of the articles displayed.

Almost all of the druggists reported that large numbers of people stopped to examine the windows and appeared to be deeply interested. Several reported that their own sales increased. Several others who had declined the company's offer to install the display called up to ask to be included in any future distribution of such displays. Below are samples of letters received.

Chicago, Sept. 2, 1912.

Chicago Telephone Co.
Gentlemen: I am in receipt of your favor of the 29th Inst., as well as enclosed photograph, taken of our window during the time that your company had the telephone display. I am very pleased to state that this window was very attractive, causing larger crowds to assemble at this window than any other window in the store, during the "Made in Chicago" week. I wish to congratulate you upon the thoroughness of your display, and the most important part of all was, that the receipts of our telephone booths increased about 25 per cent.

Yours very truly,
CENTRAL DRUG COMPANY,
A. J. Dubar, Manager.

Chicago, Ill., Sept. 5, 1912.

Mr. A. M. Ramsey,
Commercial Superintendent,
Chicago, Ill.
Dear Sir: Replying to your letter of August 29th, I wish to state, that I never had a window display that proved more attractive or caused such favorable comment. It was no doubt very instructive. Thanking you for the photograph and hoping the displays have been of benefit to you in adding more subscribers to your list, I remain,

Yours very truly,
B. A. C. HOELZER, Druggist,
2403 W. North Ave.

THE CHICAGO ASSOCIATION OF
COMMERCE.
September 14, 1912.

Mr. A. G. Francis,
The Chicago Telephone Co.
Dear Sir: The Market Co-operation Committee of this Association desires to express its deep appreciation of the splendid support accorded "Made in Chicago" week by you and your company. The material assistance afforded by the many window displays which you so generously arranged throughout the city will ever be gratefully remembered. The Committee also desires to express its thanks for the photographs with which you so kindly favored it.

Sincerely yours,
SOL H. SHONINGER, Chairman.
Arthur Felchenfeld, Geo. C. Ebeling,
C. L. Kelley, C. A. McCarthy, C. T. Randall, Bruce M. Gelsh, O. E. Hagen.
Market Co-operation Committee.

Heavy Penalty Asked.

A heavy penalty in connection with the exploitation of the United States Independent Telephone Company, of

Rochester, N. Y., is asked by Receiver Frederick L. Johnson in a complaint against the four voting trustees brought in the Federal Court. The complaint recites that the company had \$50,000,000 capital stock, but no assets except the liability of stockholders to pay the full amount of subscriptions. Claims aggregating \$1,567,825 were presented by creditors in 1910 and on June 11, 1912, the Court of Chancery of New Jersey ordered the voting trustees, as joint holders of 385,975 shares of total par value of \$38,597,500, to pay assessments of \$5.40 a share. Payment was not made and suit was brought August 2nd.

TELEPHONE SAVES LIFE.

Physician Gives Directions for Stopping Flow of Blood From Deadly Cut.

The efficiency of the telephone as a life saver was proven again a few weeks ago when Asa Allen, living two and a half miles south of Markle, Ind., cut an artery in his leg, and the Markle physician who was called gave directions over the telephone how to staunch the flow of blood.

Mr. Allen was using an axe to cut off an obnoxious sprout from the side

of a tree. The axe slipped and the blade struck him in the leg, severing the artery. The physician was summoned soon afterward over the telephone, and, knowing that the man could not live until he reached him unless home remedies were applied, he gave the directions over the telephone to the ones calling him, and these were followed out, so that when he arrived the wound had stopped bleeding sufficiently to insure the farmer's recovery.

ENTRANCE OF SECOND COMPANY BARRED.

Continued from Page Three.

field for monopoly, like the telephone service, any more than it does to the government monopoly of postal service.

Two telephones in any one community are a never ending nuisance. That seems to be the general experience wherever the double system has been tried. It is better to have one company which makes fair profit on its investment than two that hardly eke out a living and so necessarily cannot give adequate service. If the state commission is vigilant in its duty the prosperous company will be forced to reduce rates as its earning capacity increases, always reserving to the investors, however, an amply reasonable return on the money they have risked in the enterprise. Public control and fair profits—this is the tendency all over the country and this is the system to which the companies sooner or later must adjust themselves.



TELEPHONE WINDOW DISPLAY, "MADE IN CHICAGO" WEEK.

NEW WELLINGTON UNIT IS CUT OVER

Local Forces Handle Event Without
Error by Good Advance
Generalship.

Not many years ago the question of cutting in a new telephone exchange in place of an old one was most momentous. Everybody from the lineman's helper to the president was on the *qui vive*; it was talked about for months before it happened and months afterwards.

The percentage of mistakes made in the cut was a topic for talk and argument for a long time. Gradually this condition was eliminated until the cut-overs were made without the knowledge, or at least the presence of the general manager, who found a notice of the performance of the work in his mail when he arrived the following morning.

Later as plans were improved the superintendent of maintenance found it unnecessary to be present to direct the forces, though perhaps attending the lunch and smoker given by the Traffic Department; and now only a few days ago the new Wellington unit was cut in service at Lake View Office, Chicago, and even the equipment superintendent was not present, and no errors were made.

This example is quoted as indicative of good generalship all along the line. Things that a few years ago were thought all important have by systematic development become as commonplace as if they were but minor affairs.

The new multiple unit comprising 2,200 stations was bridged on the old lines and preliminarily tested out by the Equipment Division. Then when it was desired to make the change it was done by a simple order from the traffic chiefs for the operators to move from the old positions to the new ones. It then remained for the Equipment Division to cut off the old wires

which is even yet in progress, no haste being necessary, it being done under the regular work routine.

Twenty years ago the general manager would not have risked being away on a vacation when so important an affair came off as the cutting in of a new Exchange.

Tempus Mutatur.

INTERESTING LIGHTNING CASE.

Telephone Wires Act as Conductors and Protect Chicago Building.

By J. A. Simpson, Canal Wire Chief, Chicago.

Before electric light and telephone wiring in buildings became common, all fires of unknown origin were cheerfully attributed either to "Spontaneous Combustion" or to the match-gnawing rat. With the extension of house-wiring systems the number of fires due to the above mentioned sources have suffered a notable decline and "crossed telephone wires" and "defective electric light wiring" have now become the standard "goats."

One of the beauties of this more modern explanation is that it also serves the same purpose in connection with damage by lightning which is always "supposed to have come in over the wires to the building." No relief is in sight, and the long-suffering wires must continue to bear the blame of a multitude of sins until some invention or system of the future takes the popular fancy and renders the present "wire" theory *passé*. In the meantime, however, an entry should be made on the credit side of the ledger to cover the following case where the telephone wiring in a building acted in the role of a protective lightning conductor and saved the building from serious damage.

During the thunderstorm on the night of August 19th, a three-story flat building on the West side in Chicago was struck by lightning. The bolt first struck the roof, knocking a hole in it, and then jumped to the north wall of the building at the garret; the woodwork of a window in this wall was shattered and the heavy wires of a large mesh screen burned apart in several places. The lightning then passed down and through the



WINDOW DISPLAY, "MADE IN CHICAGO" WEEK.

IMPORTANT RULING BY OHIO COMMISSION

Company Cannot Be Forced To
Give Connections To
Rival.

When one telephone company, operating between two points, is able and willing to handle all the business between them, it cannot be forced to establish connections with a rival company, which is represented at only one of the points. This was the ruling handed down by the state public service commission, when the case of the Hamilton Home Company, operating in Hamilton and Butler Counties, against the Cincinnati and Suburban Bell Telephone Company, which is represented at those localities and also at Cincinnati, was dismissed. The Home Company at present is practically excluded from Cincinnati, and the action was brought to force the Bell Company to furnish connections with the Queen City at Hamilton.—Columbus Journal.

The Secret.

It was one of the "Tall enders" of the field force who approached the "Star commercial agent" one day and asked "How do you manage to secure so much business while I just secure enough to hold my position?"

"Well," said the "S. C. A.," "there is a secret about it. I have been in the business a good many years and I have finally solved the selling puzzle. You are a new man and I am willing to give you a pointer; but remember it is a secret."

"I will," said the "T. E." beaming with eager anticipation, "Now for the answer—how do you manage to be so successful?"

The "S. C. A." dropped his voice to an impressive whisper, "I'll tell you," he said, "I always make it a point to wear out the soles of my shoes, instead of the seat of my trousers."



DOUBLE WINDOW DISPLAY, "MADE IN CHICAGO WEEK."

Merger in Delavan.

Delavan, Ill., is to be one of the fortunate places where one telephone system only operates. The work of merging the home system into that of the Central Union is in progress. The Central Union exchange will be used.

REGULATED MONOPOLY BENEFIT TO PUBLIC

Ruling of Michigan Court in Denying
Petition to Enjoin
Detroit Merger.

"It cannot be held that a law which protects the public by compelling telephone companies to furnish reasonable and adequate service at just and reasonable rates and charges a public commission with the enforcement of these matters creates such a monopoly as to be in restraint of trade or injurious to the public."

This was the language of Judge C. Collingwood of the Ingham county Circuit court, Lansing, Mich., in denying the petition of the Grass Lake Telephone Company, which sought to enjoin the Michigan Railroad Commission from permitting the merger of the Detroit Home and Michigan State Telephone Companies. The court's opinion, in part, follows:

On August 14, 1912, a bill was filed in this court by the Home Telephone Company, of Grass Lake, Mich., by its secretary, Nelson F. Wing, against the Michigan Railroad Commission and others. The bill prays that the order of the Railroad Commission, which allows and authorizes the purchase and consolidation by the Michigan State Telephone Company of the several defendant companies, be set aside and vacated. The bill asks for an injunction restraining the said Railroad Commission from issuing an order authorizing said purchase and restraining said Michigan State Telephone Company from purchasing or merging with other defendant telephone companies. At the time of filing the bill the court was not requested to issue a restraining order and none has been issued. The order of the Railroad Commission became operative on August 15, 1912. The case was argued upon demurrer.

1. Complainant claims that Act 138 of the Public Acts, 1911, entitled: "An act to declare telephone companies and lines within the state of Michigan to be common carriers, to regulate same, and prescribing a penalty for the violation of this act," under which the order of the Railroad Commission was issued, is unconstitutional in that it contravenes Section 21 of Article V. of the constitution. And that the order and the proposed merger is unlawful because in restraint of trade and contrary to Act 329 of the Public Acts of 1905.

The Railroad Commission claims its authority from Article 6 of the said act, which, after prescribing the fee a telephone company is entitled to receive for switching service for other telephone companies contains this:

"That the provisions of this section in regard to switching charges shall not apply when two or more competing companies in any locality shall merge or consolidate their property and business in such locality under the direction of said

Railroad Commission of this state, or when one competing company shall lease or sell its plant, property and business to another company in the same locality, such merger, consolidation, sale or lease, with the approval of said Railroad Commission being hereby declared lawful."

These acts were passed by the legislature for the avowed purpose of preventing "restrictions in trade or commerce." Such an object is clearly within the legislative province. Telephone companies are not mentioned in either of these acts, but even if intended to prevent the consolidation or merger of such companies it does not extort other legislatures from passing laws to protect the public.

Act 138, of the Public Acts of 1911, was passed for the express purpose of regulating telephone companies. If the legislature deemed it more efficient regulation to allow competing companies to merge under the authority of a public commission which is authorized to regulate the service and the cost to the public and to prevent unreasonable terms and conditions from being imposed upon the public, such legislation is strictly within the province of that body and not to be interfered with by the courts.

It cannot be held that a law which protects the public by compelling telephone companies to furnish reasonable and adequate service at just and reasonable rates and charges a public commission with the enforcement of these matters creates such a monopoly as to be in restraint of trade or injurious to the public.

Qualifications for Earning \$10,000 to \$25,000 a Year

As Defined by Theodore N. Vail

Wide publicity was given a short time ago to a statement by Theodore N. Vail, president of the American Telephone and Telegraph Company, that he had places for a number of men who could earn from \$10,000 to \$25,000 a year. Mr. Vail was asked to state the qualifications he considered necessary to make a man worth a salary of from \$10,000 to \$25,000 a year. He said:

"The man who earns \$10,000 to \$25,000 a year must first of all know his business from the ground up. He must be absolutely efficient; that is, he must have ability, judgment, courage, enthusiasm, energy, self confidence, initiative, foresight, experience, a great knowledge of human nature, and personality enough to be a real leader of men. He must take infinite pains in small things as well as large. He must demand of himself as well as of others nothing but the best. He must win and retain the confidence of his superiors, his associates and his subordinates. He must be ready to take responsibility, to decide quickly, and he must be right more than half the time. With all that he must have backbone and a real desire not only to excel but to serve."

TELEPHONE CHAOS IN "DEAR OLD LUNNON"

Subscriber's Diary Gives Idea How
Government Ownership
Operates.

To the Editor of the *Daily Mail*:

Sir—The following diary gives an idea of the government control of telephones:

Feb. 16.—Ordered at Gerrard exchange two exchange lines and three private telephones. Told probable time of completion three or four weeks. At their suggestion, to avoid delay, posted check in payment to London Wall.

Feb. 24.—Account received from Queen Victoria street for telephones paid for. Finding other check not presented, stopped payment, and issued duplicate check, fully explaining matters. Both checks ultimately presented at my bankers.

March 8.—Three weeks later nothing been done. I made inquiries at Gerrard Exchange.

March 11.—I am assured at Gerrard street that my offices being on the boundary of three areas—City, Mayfair and Gerrard—unavoidable delay had occurred, but the point was not settled and a superior official had the matter in hand, and a day or two would see the telephone fixed, the engineers having received the order.

March 19.—The Engineers' Department assure me that no such order is in hand in City, Mayfair or Gerrard Exchange.

March 20.—Receive notice of my exchange numbers.

March 22.—Engineers' Department inform me on inquiry that my order is marked: "Do nothing pending further instructions."

March 27.—Two exchange lines fixed after daily worrying, but Distribution Department refuse to connect with exchange, some official permit being lacking.

April 2.—Men come to fix two of the private telephones, unable to procure steps or ladder from Engineers' Department, leave me to borrow. No wall instruments in stock, and proposed fixing desk instruments and replacing as soon as wall instruments received.

April 3.—Am informed that if I accept these instruments, I must do so permanently, or I must wait a further indefinite period.

Seven full weeks have now gone by, and I am wondering what would have

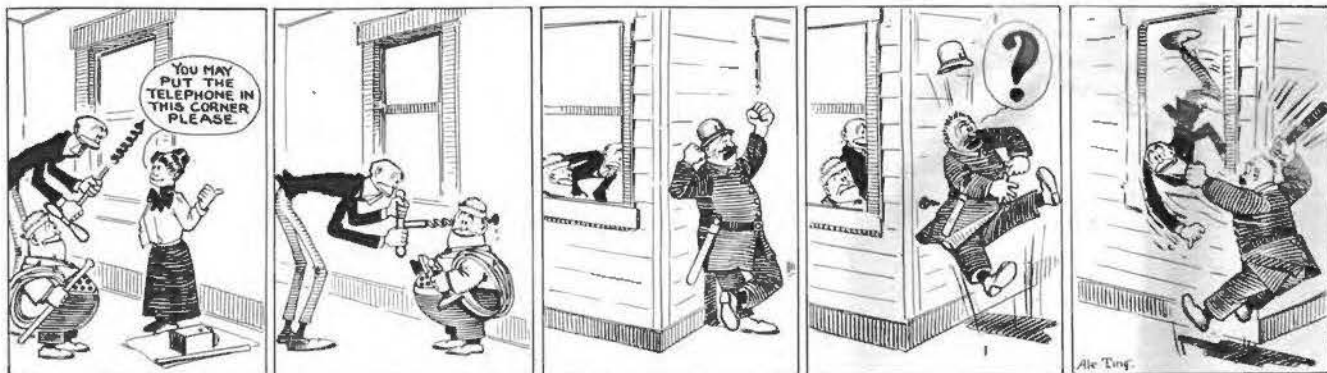
happened if I had not paid at the time of ordering to save delay. I enclose my card.—784 City, in London *Daily Mail*, April 9, 1912.

Dissatisfaction with the service is not confined to London, but covers the island. According to a London dispatch to the *New York Tribune* it is planned to ask for a parliamentary inquiry on what is commonly termed the scandalous condition of the telephone service. At the meeting of the Chambers of Commerce Congress at Newcastle this week, Herbert Shaw, deputy mayor of Newcastle, said he had taken careful note of the experience of one hundred personal local calls. Sixty-two were interrupted and forty-nine cut off before completion of the conversation. On no occasion did he get connection in less than two minutes. Experiences in London are even worse than in the outside towns. It has been the habit of exchange operators to take their own time in answering calls and in making connections, with the natural consequence that there have been many scoldings by the users of the 'phones. To rid themselves of this nuisance operators now say when asked to get a number that there is no such number and cut off the connection. At other times the operator merely pays no attention to the call. It is not at all unusual for a subscriber after calling for a number to wait several minutes and to hear the operator walking about the room talking to friends. After a while she will come back to the instrument and say: "What was that number you asked for?" If a subscriber asks for the manager to make a complaint he frequently finds himself talking to the very person whose service is unsatisfactory; in fact, there seems no way to get any results unless by parliamentary inquiry and a reform of the government system.

Value of One Good Concern.

The Wing Telephone Line at Grass Lake has been anxious to get into Manchester, but the Michigan State Company, known as the Bell Company, has given such good satisfaction to its subscribers and the business public that certain of our citizens who have always guarded the interests of the village would not listen to it. What is the use of having two telephone lines when one can and does do the business satisfactorily? Why, it would be a useless expense and an annoyance. It is the same in other lines of business; one good concern is worth half a dozen poor ones. Give your support freely and prevent an excuse for a kick.—Manchester (Mich.) *Enterprise*.

"THIS TELEPHONE BUSINESS IS A BORE, ANYWAY," SAYS FELIX TO FINK.



Compressed Air for Testing and Drying Cables

By B. V. HILL, Chicago Plant Department

Several years ago in Chicago three or four very puzzling cases of cable trouble developed. Water was found in sleeves, which were apparently sound in every way, and it was impossible to find how the water could have entered. Finally dry air at a pressure of fifty or sixty pounds was forced into these cables while the solution of soap containing a little glycerine was spread over the outside of the wiped joints and several cases were found where the air would bubble right through the wiped joint. This was found to be due to the splicer's having mixed too much lead with his "half and half" solder, making what the men know as too coarse a solder. This difficulty was at once corrected. It is not the purpose here to discuss the matter of solder, but rather to describe the construction and operation of the air compressing outfit, which was developed in this connection, and which has been used with great success for testing cables for porous solder or possible defects in the armor, as well as for drying out sections of cable which had accidentally become wet.

Figure 1 shows the apparatus on a wagon ready to be taken wherever it may be needed. The engine, the compressor and the drying and cooling tanks are mounted together on a heavy platform so that they may be taken bodily in and out of the wagon. The cut also shows a barrel containing the cooling water for the engine, a hose for filling this barrel from a hydrant and a pressure hose for conducting the air from the compressor to the cable.

Figure 2 shows the diagram of the connections. A two-cylinder gasoline engine drives the air compressor. From the compression cylinder the air passes through a lead coil, which is immersed in a wooden tank containing water, or in winter, snow. The air comes from the compressor hot and saturated with moisture. A large percentage of this moisture is condensed in the lead coil. At the bottom of the lead coil is a pet-cock, which is left slightly open so that

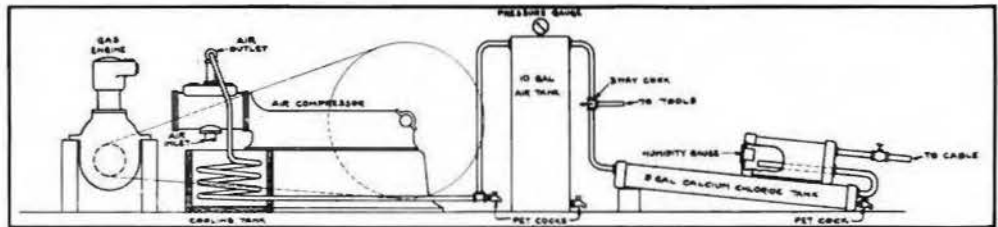


DIAGRAM OF AIR COMPRESSOR AND CONNECTIONS.

the condensed moisture may be blown out. From the lead coil the air passes into a reservoir on which there is a pressure gauge and from the reservoir, by way of a three-way cock to a drying tank. This tank is made of a piece of six-inch gas pipe, containing about nine gallons and filled with coarse granular calcium chloride. A plug of cotton waste is put in the end of this tank farthest from the compressor to prevent the calcium chloride from being driven out of the tank into the connecting pipes. From this calcium chloride tank a pipe leads to another smaller reservoir, also made of six-inch gas pipe. At one end of this last reservoir a hole about two inches in diameter has been bored and a piece of plate-glass cemented against this end of the cap with plaster of paris. Against this glass window is fastened a small hygrometer such as cigar merchants put in their show-cases to indicate the humidity of the air in the case. The pipe from the drying tank passes through the small reservoir to a point directly under the hygrometer so that the air must pass over the hygrometer. In this way the humidity of the air which is being forced into the cable can be watched, and if it rises above about thirty per cent, the calcium chloride in the drying tank is renewed. From the last small reservoir the air is led through a piece of pressure hose to the cable under examination. The hose is attached to the cable sheath usually by means of a piece of a twenty-five-pair cable armor which is wired into the pressure hose at one end and sweated onto the cable armor at the other, a hole about an eighth of an inch in diameter having been made in the armor. If it is desired to use the compressor to drive tools the air is taken from the three-way cock so that the calcium chloride in the drying tank is not wasted. A pressure of fifty or sixty pounds at the machine

is generally employed. In this way a pressure of four pounds has been obtained three miles away from the compressor after about three hours pumping.

This apparatus has been used very successfully for a variety of purposes. In the first place it was employed to test wiped solder joints to find whether too coarse a solder had been used. During the course of the first day a hole was found in the armor of a 300-pair nineteen-gauge cable at a point where the cable had been under water for a number of days. The sleeve was removed from the splice just beyond the hole and the air forced into the other end of the wet section, about 700 feet away. After about eight hours' pumping the insulation resistance of the cable had been raised to about 3,000 megohms per mile. In another instance a cable under the river had been maliciously sawed off and its end allowed to drop under the surface of the water. This section was also dried by means of the compressed air. Both of these were extreme cases, but in both the cost of drying cable in this way was very considerably less than the expense of replacing the wet section would have been. At another time two sections of an important toll cable were not only held in service but entirely dried out, only one line having been out of service.

If a working cable has been wet for a number of hours with "battery" on some of the lines electrolytic action may have taken place and impregnated the paper insulation to some extent with copper salts. In such a case it may be impossible to bring up the insulation of the cable. In our experience in the city of Chicago, however, we have found but one case of this kind.

In a few cases of trunk cables the insulation was found below standard though not low enough to permit of a location of the fault being made with a bridge. Compressed air was put into the cable and the sheath examined from vault to vault until the defect was found. The air will, of course, seek out the most minute hole or crack, which would otherwise escape detection altogether.

Altogether the use of compressed air has proved itself a very efficient trouble saver and has very considerably reduced maintenance expense in cases where it has been used.

Wandering Willie Stung Again.

No one will dispute that the South office, Milwaukee, carries an air of domesticity with it. Only the other day a passer-by mistook it for a residence, rang the bell and asked the matron who answered the ring if she would favor him by serving him breakfast. When informed that nothing was on hand, as the girls only brought what they wanted for their lunches, the stranger looked very surprised, until he took notice of the Blue Bell sign which hangs outside. Even then he did not seem quite satisfied, and it is believed that the fact that curtains are hung at the windows of the rest and lunch rooms had something to do with it.

FIRE CUTS LONDON FROM REST OF WORLD

Post Office Burns and Telegraph and Telephone Service Stops.

Fire in the General Post Office Building in London, England, on August 24th stopped telegraphic and telephonic communication with the rest of the world.

While the fire was extremely fierce, no lives were lost and the damage was confined to the inside of the building. A thousand employees, a majority of them women, got out of the structure promptly and without panic. Telegraph service was crippled for several days.

The fire started at seven o'clock in the evening and was caused by the fusing of a wire in a test box on the fourth floor. The gallery affected soon was filled with volumes of thick smoke, but the employees of that floor and those on the third and fifth were the only ones who left the building.

The building suffered no structural damage, but the losses to cables and instruments and furniture were heavy, the furniture being damaged from the tons of water poured in streams through the whole building. The entire fire brigade of the east end of London was on the scene with a big salvage corps.

By eight o'clock the fire was over. The lighting apparatus was out of commission, however, and a strange scene was presented as the salvage men groped about the huge structure with lanterns and candles.

Thousands of wires underneath the floors had fused, and the firemen were forced to tear up parts of the floor to get at the flames.

Getting the employees out without a panic was an achievement on which the officials congratulate themselves. On Saturday night the staff is considerably smaller than usual, as the volume of business handled is less. As soon as the fire was discovered all the women were ordered to quit the building immediately. They were thoroughly familiar with the fire drill and marched into the street without the slightest disorder.

The male employees attacked the flames with sand, pending the arrival of the fire brigade.

Temporary repairs were started, immediately after the fire had died out, to restore emergency communication with the principal cities, American and the continent, but the damage to the instruments and wires was so great that several days elapsed before work on a normal scale could be resumed. The only communication with the outer world for three hours was by telephone to Paris from branch exchanges.



COMPRESSED AIR MACHINE FOR DRYING CABLES.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

TELEPHONE BUILDING

CHICAGO, ILLINOIS

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,300 copies per month.

OCTOBER, 1912.

"MADE IN CHICAGO."

In no other city in the world would an exhibition of "home-made" products have a greater interest to telephone people than in Chicago.

In addition to being the executive headquarters of companies operating nearly one million telephones the city is the manufacturing center for the entire Bell telephone industry in the United States. Literally, the telephone is "made in Chicago." And the Chicago people appreciate this condition. They are the largest users of telephone service in the world. Chicago has the largest telephone development of any large city in the world. The exchange is about to reach the tremendous figure of 300,000 stations within the city limits. Another 100,000 are in the immediate suburbs, in most respects a part of the Chicago development. More than 500,000 more, directly in the Bell system are controlled from executive headquarters located in Chicago, while 658,000 connecting stations in the five states immediately outlying Chicago are accessible to the Chicago subscriber over the Bell toll lines which weave the whole 1,620,000 into one compact system.

Chicago has reason to be proud of her prominence in the Bell Telephone System, even as we all are proud of Chicago as the metropolis of the great inland empire of America.

PROSPERITY HERE.

President McCrea, of the Pennsylvania Railroad, when asked recently what he thought of the business situation, said:

"Prosperity—why, it's here. Everybody can see that. The pulse of the whole country is beating to the rhythm of happier times, and we are just entering the new era of prosperity."

It is apparent that the proof of this optimistic utterance is of such common knowledge that to refer to its details would be in the nature of surplage.

Bank clearings are on the increase. Railroad earnings show heavy gains. Mills are running full time and overtime. Every indication upon which the future can be forecast points to an era of prosperity greater than any known in the United States before.

In addition to the bright industrial prospect, extraordinarily large crops will tend to augment the wealth of the nation. The production of the staples of the country, with the exception of corn, has been harvested and the yield is the heaviest average crop in ten years. The corn crop, which is now practically safe, promises to justify the appellation of "a bumper crop" and to be of record breaking proportions. A gratifying feature of prosperous agricultural conditions is that they are not limited to certain sections, but are universally good and every section of the country will reap its full share of nature's bounty.

With the accelerated movement in manufactures and general business, and the harvesting and marketing of the crops, will come a tremendous increase in the use of the telephone. The business

man is growing more and more dependent upon the local and long-distance service in the conduct of his business, while the farmer has found it to be indispensable as a means of keeping in touch with the grain and provision markets.

Those upon whom the responsibility rests of keeping the efficiency of the Bell System up to its present standard of excellence, urge all in the service to co-operate with them heartily, to the end that every demand may be met, the credit of the system maintained and the integrity of the claim of Universal Service upheld.

FINANCIAL STRENGTH.

It is pleasant to have a plentiful supply of this world's goods but, failing in this, the knowledge that one's employer's purse is amply lined, is a source of comfort and security.

The pride of association, the thought that one is an active agent in the operation of a great undertaking whose credit is unblemished, whose obligations are promptly met, whose management has been economical and thrifty enough to put aside a surplus sufficient to meet unlooked for contingencies and lean business periods; whose stockholders are receiving regular dividends at liberal rates; this knowledge brings a glow of satisfaction and is an incentive and an inspiration to renewed and greater effort on the part of all from the highest official to the humblest worker in the ranks.

We have before us a financial exhibit of the Bell Telephone System compiled by a Boston banking house which for years has made an exhaustive study of the system's securities from an investment standpoint.

Twenty-eight Bell companies are referred to in the tabulation but our limited space will only permit of the reproduction of the figures covering the American Telephone & Telegraph Company's system as a whole. These follow:

| | |
|---------------------------------------|---------------|
| Capital Stock | \$379,727,832 |
| Bonds | 241,032,822 |
| Net Earnings | 51,586,297 |
| Interest | 13,610,860 |
| Net Income | 37,975,437 |
| Dividends | 25,966,876 |
| Surplus | 12,008,561 |
| Total Surplus and Reserves | 146,583,626 |
| Average Earnings on all shares | 7.9% |
| Average Dividends on all shares | 6.3% |

These gigantic figures comport well with the gigantic system whose condition they reflect, which after all is but the reflection of the combined efforts of its thousands of earnest, ambitious employees, each of whom is doing his or her part toward meeting the public's telephone needs.

The esteem in which American Telephone is held by investors is indicated by the fact that that company alone has over 50,000 share holders. And the high regard is justified by an unbroken dividend, record of seven and one-half per cent. or better, over a period of twenty-five years.

Employees may well take pride in the financial record as well as the efficient and comprehensive service of the Bell Telephone System.

SWITCHBOARD HEROINES.

Again, this time from New Castle, Ohio, comes the story of the telephone operator who remained at her post and summoned help for the burning hamlet, though the house in which she sat was itself threatened by the devouring flames. It's a familiar story and no newspaper account of a rural calamity is complete without one.

Occasionally it's a fire alarm that the brave telephone girl gives and now and then she figures in murder, suicide or robbery, uniformly to her credit. But the typical picture has to do with a flood and shows the heroine sticking to her switchboard whence all but her had fled, patiently pushing in the plugs and warning all and sundry of their peril, the while a devastating wall of water rushes down the valley and threatens to engulf the main exchange.

She gets a lot of credit and deserves it. She is a splendid instance of that beneficent force of habit which keeps the worker on the job, faithfully doing the accustomed thing when the need is greatest, rising to an emergency as part of the day's work, setting aside everything else, including danger, as comparatively unimportant. Hers is the spirit of fidelity to work that can be found among workers everywhere and is not recompensed anywhere.

True, Jim Bludsoe couldn't have been a hero if there hadn't been any steamboat, and the telephone girl couldn't sound the alarm if the telephone had never been invented or built. Without his wireless equipment Jack Binns would have remained unknown to fame. The satisfaction we feel in the saving of life or property by timely recourse to any

of the wonders of modern invention may well include a share of honor for the original inventor and the enterprising builder, as well as for the immediate operator. They, too—the scientist, the experimenter, the thinker, the dreamer, the inventor, the manufacturer and the capitalist, contribute to humanity's safety and welfare in the course of their day's work.

A MILLION TELEPHONES.

The official enumeration of telephones in the territory of the Central Group of Bell Telephone Companies, as printed in a table elsewhere in this issue, shows that on August 31, 1912, there were 960,423 regular stations in our system in the five states. Almost a million telephones!

On December 31, 1911, the number of regular telephones in the same area was 896,940. The net gain for the first eight months of 1912 was therefore 83,483, or more than 10,000 per month.

It would probably be a source of some chagrin to the general officers of the five companies, if, with this splendid start the total should fail to reach the one million mark by the end of the year. We do not believe that it will. The city of Chicago, with its total almost touching 300,000, can be depended on to supply from 3,000 to 4,000 net gain per month. Detroit, Cleveland, Milwaukee, and Indianapolis will also make good gains. But a large part of the increase must necessarily come from the medium sized and smaller exchanges. Every station will count—and a station saved is a station earned.

STILL ANOTHER USE.

Some of the most valuable advertisements are those which develop spontaneously from circumstances. Such an advertisement for the telephone has just been provided by a lady in Steubenville, Ohio. She was spending the afternoon at bridge in a friend's house, as any lady should, when the telephone rang and her baby's nurse repeated that the infant was crying loudly for its mother and refused to go to sleep. Was that mother disconcerted? Not for a minute.

Begging the indulgence of those at her table for a moment she took up the telephone and directed the nurse to bring the baby close to the telephone in her own house. Then she sang a lullaby, sweet and low, into the transmitter, and the infant, recognizing its mother's voice, ceased wailing and fell into a peaceful sleep. Then the lady returned to her duty at the bridge table.

It is not likely that any telephone commercial or advertising man, however keen, would have conceived the idea of recommending telephone service to provide for such an emergency. But who can foretell what wonders the telephone is yet to accomplish!

"A company is judged by the people it keeps."

This is a whimsical reversal of an old saying and it is just as true in this form as the old.

Every employee who comes in contact with the public either directly or over the telephone is regarded not as an individual but as the company itself. To every employee is given the privilege of making or losing friends for the company. Friends count as much in business as in social relations and are as indispensable.

Therefore, in dealing with the public, take the attitude that you are making a personal friend.

It is the general policy of the Bell companies to fill vacancies in advanced positions from the ranks whenever possible. To carry out this policy it is essential that there be material from which to make promotion. Therefore, when men or women are being employed the managers or heads of departments should try to select those who possess the ability to develop and qualify for advancement.

The annual telephone bill system is in the \$160,000,000. But what is that! The average bill alone of this country during 1912 will amount to \$120,000,000, to say nothing of the gasoline and the tremendous repair bill on the 600,000 cars rolling around our country.

A telephone system is to be installed in the big penitentiary of Pennsylvania, presumably to make life more agreeable for the boarders. It is not stated whether or not connection with the governor of the state will be permitted.

It is as easy to be careful as careless. Little attentions cost nothing and gain everything.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
230 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonso Burt, Vice President.
W. I. Misner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. G. Wray, Chief Engineer.
H. F. Hill, General Manager, Chicago, Ill.
E. A. Reed, General Manager, Columbus, Ohio.
H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegel, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.



A. R. BONE.
Recently Appointed Commercial Superintendent of the Chicago City Division.

WESTERN ELECTRIC TO HAVE PROSPEROUS YEAR

Gross Business Promises To Run \$2,000,000 Ahead of Last Twelve Months.

Earnings of the Western Electric Company continue to run strikingly close to the forecast of the showing for this year made soon after the new year began. It was then figured that 1912 ought to yield a gross business of something like \$67,000,000. Returns for the eight months ended with August give an indicated gross business for the year of approximately \$68,000,000.

July was about three per cent. ahead of the same month in 1911 and August was three per cent. ahead of the corresponding month a year ago. The eight months of the current year are also about three per cent. ahead of the same period last year. The most interesting feature of the company's business recently has been the tendency of the West to show greater activity. Last winter was severe and as a consequence there was a general slow-

ing down of affairs in the spring and early summer. The weight of the approaching harvest is commencing to make itself felt and consequently there is a greater tendency towards expansive development among those states west of the Mississippi.

New business of the company is greater than the rate of deliveries. On January 1st, for instance, unfilled orders on hand totaled \$8,000,000 and on September 1st \$10,000,000, an increase of twenty-five per cent. There has been no radical change in the average level of prices for the Western Electric's products recently, yet the company is now realizing a better average margin of profit than a year ago, due chiefly to the many improvements made in both the manufacturing and administrative departments and to careful study of the principles of operating efficiency and economy. Improvement in business has been fairly evenly distributed both in respect to territory and nature of goods shipped.

About \$750,000 will be spent in erecting new buildings at Hawthorne this year to take over the company's New York manufacturing business. The additions will be completed in about a year and are in line with the company's policy of concentration of the manufacturing branches at Chicago.

Export business during August and the last eight months has shown a relatively greater improvement than the domestic business.—*Wall Street Journal*, September 13th.

Discount to Employees

We have recently received from the American School of Correspondence a proposition whereby the employees of the Central Group may obtain copies of McMeen & Miller's new book, "Telephony," at a considerable discount from the regular price, if their orders are placed through the Western Electric Company. As indicated by the title, the book is a general work on telephony and contains 960 pages (seven by 10 inches) and 700 illustrations. Its list price is \$4.00, which will be reduced to \$2.67 to regular employees who wish to purchase the book through the Western Electric Company in the same manner that is now followed in purchasing tools under the Tool Account.

Seven Wonders of The Modern World

RESULT OF INTERNATIONAL POLL OF SCIENTISTS.

1. Wireless.
2. Telephone.
3. Aeroplane.
4. Radium.
5. Antiseptics and Antitoxins.
6. Spectrum Analysis.
7. X-Ray.

THE SEVEN WONDERS OF THE ANCIENT WORLD.

- Pyramids of Egypt.
- Pharos of Alexandria.
- Hanging Gardens of Babylon.
- Temple of Diana at Ephesus.
- Statue of Jupiter by Phidias.
- Mausoleum of Artemisia.
- Colossus of Rhodes.

The spirit of the Seven Modern Wonders of the World—every one of them the result of the application of man's thought to the service of mankind—

District Collection Rating

| August, 1, 1912. | | | | | | |
|---|---|------------------------|---------------------|--------------------------------|----------------|--|
| Position. | Total to be col- lected dur- ing July. | July col- lections. | Unpaid Aug. 1st. | Per cent col- lected. | Sta- tions. | |
| 1. Wis. Tel. Co., Appleton Dist..... | \$ 52,336 | \$ 49,086 | \$ 2,042 | 93.7 | 20,715 | |
| 2. C. U. Tel. Co., Anderson Dist..... | 36,224 | 33,094 | 2,844 | 91.4 | 13,145 | |
| 3. C. U. Tel. Co., Columbus Dist..... | 71,264 | 65,067 | 5,892 | 91.3 | 19,444 | |
| 4. C. U. Tel. Co., Terre Haute Dist..... | 46,146 | 41,737 | 3,880 | 90.4 | 17,923 | |
| 5. C. U. Tel. Co., Chillicothe Dist..... | 47,473 | 42,636 | 4,638 | 89.8 | 16,711 | |
| 6. Wis. Tel. Co., Madison Dist..... | 42,674 | 38,967 | 2,875 | 89.2 | 18,086 | |
| 7. C. U. Tel. Co., Dayton Dist..... | 67,186 | 58,976 | 6,919 | 87.5 | 22,941 | |
| 8. C. U. Tel. Co., Toledo Dist..... | 75,950 | 66,197 | 8,930 | 87.2 | 25,132 | |
| 9. C. U. Tel. Co., Galesburg Dist..... | 52,311 | 45,180 | 6,692 | 86.4 | 19,532 | |
| 10. C. U. Tel. Co., Centralia Dist..... | 25,128 | 22,538 | 4,075 | 83.9 | 10,737 | |
| 11. C. U. Tel. Co., Springfield Dist..... | 129,293 | 108,023 | 19,914 | 83.5 | 41,478 | |
| 12. C. U. Tel. Co., Akron Dist..... | 86,326 | 71,676 | 14,259 | 83. | 23,173 | |
| 13. Chicago Tel. Co., Chgo. Hts. Dist..... | 6,580 | 5,452 | 1,060 | 82.9 | 2,318 | |
| 14. Chicago Tel. Co., Blue Island Dist..... | 8,596 | 7,173 | 1,519 | 82.5 | 2,941 | |
| 15. C. U. Tel. Co., South Bend Dist..... | 27,628 | 22,542 | 4,765 | 82. | 10,247 | |
| 16. Chicago Tel. Co., Chicago Dist..... | 1,274,558 | 1,040,126 | 230,134 | 81.6 | 292,718 | |
| 17. Chicago Tel. Co., La Grange Dist..... | 12,345 | 10,046 | 2,247 | 81.4 | 4,031 | |
| 18. *Wis. Tel. Co., Milwaukee Dist..... | 345,023 | 276,427 | 66,678 | 80.1 | 54,660 | |
| 19. Wis. Tel. Co., Eau Claire Dist..... | 33,377 | 26,104 | 5,920 | 78.2 | 12,565 | |
| 20. Chicago Tel. Co., Gary Dist..... | 8,829 | 6,884 | 1,819 | 78.0 | 1,824 | |
| 21. Chicago Tel. Co., Evanston Dist..... | 37,648 | 29,000 | 8,433 | 77.0 | 8,918 | |
| 22. Chicago Tel. Co., Woodstock Dist..... | 9,253 | 7,086 | 2,131 | 76.6 | 3,223 | |
| 23. Chicago Tel. Co., Oak Park Dist..... | 32,528 | 25,919 | 7,389 | 76.2 | 9,129 | |
| 24. Chicago Tel. Co., Aurora Dist..... | 16,307 | 12,333 | 3,880 | 75.5 | 5,995 | |
| 25. Chicago Tel. Co., Elgin Dist..... | 15,237 | 11,466 | 3,684 | 75.3 | 5,970 | |
| 26. C. U. Tel. Co., Indianapolis Dist..... | 129,625 | 96,803 | 30,839 | 74.7 | 27,043 | |
| 27. Chicago Tel. Co., Wheaton Dist..... | 10,518 | 7,771 | 2,650 | 73.9 | 3,541 | |
| 28. Chicago Tel. Co., Hammond Dist..... | 17,021 | 13,011 | 4,246 | 73.3 | 4,747 | |
| 29. *Cleveland Tel. Co., Cleveland Dist..... | 436,146 | 312,971 | 121,373 | 71.7 | 49,535 | |
| 30. Chicago Tel. Co., Joliet Dist..... | 25,654 | 18,149 | 7,246 | 70.7 | 9,135 | |
| 31. Mich. State Tel. Co., Detroit Dist..... | 443,130 | 313,022 | 122,522 | 70.6 | 92,783 | |
| 32. Chicago Tel. Co., Waukegan Dist..... | 37,358 | 27,358 | 8,673 | 67.7 | 7,107 | |
| 33. Mich. State Tel. Co., Marquette Dist..... | 87,870 | 48,351 | 38,851 | 55. | 18,596 | |
| 34. Mich. State Tel. Co., Saginaw Dist..... | 118,986 | 61,297 | 55,558 | 51. | 20,444 | |
| 35. Mich. State Tel. Co., Gd. Rps. Dist..... | 240,969 | 114,501 | 125,275 | 47.8 | 42,416 | |

*Quarterly rental billing.

dominates the August number of *Popular Mechanics* magazine. The publication conducted an international poll to determine what the eminent scientists of the world regarded as the seven greatest modern achievements. The result was most interesting in that, as H. H. Windsor, the editor, declares: "The wonder of our modern wonders is the thing itself—not the instrument. To the ancients, a wonder had to be fashioned with the strong arm; its virtues were chiefly those of size and strength. The modern wonders find their inspiration in an improvement of human life—every human life—and their conception in minds, not in muscle." Each of the modern wonders is discussed in the August magazine, the contributions including: "The Telephone," by Alexander Graham Bell; "Wireless," by F. Minton Sammis; "The Aeroplane," by Albert F. Zahn; "The X-Ray," by Robert Williams Wood; "Antiseptics and Antitoxins," by E. E. Hyde; "Spectrum Analysis," by David Todd; "Radium," by Herbert N. McCoy.

Nearly 1,000 scientists in Europe and America were invited to participate by ballot in the selection of the seven wonders of the modern world. The final analysis of the poll shows the ten subjects highest on the list were:

| | |
|---------------------------------|-----|
| Wireless telegraphy | 244 |
| Telephone | 185 |
| Aeroplane | 167 |
| Radium | 165 |
| Antiseptics and antitoxins..... | 140 |
| Spectrum analysis | 126 |
| X-Ray | 111 |
| Panama canal | 100 |
| Anesthesia | 94 |
| Synthetic chemistry | 81 |

Chicago Methods in South America.

The following is an extract of a letter received by J. Vranek, Plant Wire Chief, Suburban Department, Chicago, from one of his former employees:

"I have received the assurance from the President of this republic and the Minister of Industries that I will be given the position during the construction, of Government Inspector, and when finished, that of Wire Chief. I am very anxious to make a success of this undertaking, and, knowing what I do of the present system, and how

far they are behind the system of the United States, I feel sure that by introducing the American equipment and ideas I will have no trouble in giving them an up-to-date service.

"A few months ago I was in the interior constructing the telephone and telegraph line for the Pan-American Railway and had very good success with American methods, which brought forth very complimentary remarks from the Uruguayan Government Inspector.

"Shortly before the line was finished we had a severe wind storm, very common here, during which all the telephone lines in this city and the telegraph lines in the country went down, including a new line recently constructed for the Central Railway. My line never moved and was in use five minutes after the storm. I was inside my 'Cassilla' (little house), a photo of which is inclosed, when it blew over. The tents were found a mile away; houses, trees and barns went down, but the telephone line seemed to be all that was left.

"Again thanking you for any information you may give me and always ready to reciprocate, I am, yours very truly,

"F. Landon Goding,
"Vice Consul, Montevideo, Uruguay,
S. A."

A Valuable Suggestion.

L. L. Davenport, a switchboard man at Little Rock, Ark., has made a suggestion through the *Southwestern Telephone News* which might be followed with profit wherever soldering irons are used. He says:

"We have found that by cutting a couple of pieces of ordinary iron pipe the length of the gas furnaces and about two inches in diameter and placing them in the furnaces where the irons were ordinarily placed, we had an oven that would completely protect our irons. It seems that the pipes prevent the corrosive action of the gas and flame from acting on the soldering irons and thus preserve the tinning.

"We have had such remarkable results with this simple device that I wish to pass it on to the rest of the boys who have, no doubt, used many a strong word when they went to solder a jumper and found the tin all burned from their irons."

Simultaneous Telegraphy and Telephony

By R. T. CLOUD, of the Chicago Plant Department

When the comparatively recent performance of talking from New York to Denver, a distance of 2,010 miles, was made practicable, the Pupin loading coil was accredited with the glory of the achievement, and justly so, but it was its adaptation to the phantom circuit that made the performance possible, the loaded phantom being about fourteen per cent. better than the loaded physical circuit. The principle of the phantom circuit, however, is not new and has been known and used by telephone companies for a number of years, as well as the composite telegraph circuit, which is closely related to it. Although there are comparatively few telephone men that are directly concerned with this phase of the work, it is thought that a discussion of the principles of simultaneous telephony and telegraphy will be of interest. Numerous railroads are now combining the telephone with the telegraph at practically little or no expense compared with the actual building of separate lines, and the advent of recent innovations in way of cheaper telegraphic communication by means of the night and day letter has made simultaneous telegraphic and telephonic operation an economic factor not to be overlooked.

The application of the principle of these circuits while simple, smacks somewhat of necromancy to the uninitiated, especially where coupled with such a term as a phantom circuit. However, such is not the case, and the circuits should be easily understood by anyone having any conception whatever regarding the action of electric currents.

To understand the principle of such circuits, the operation of the repeating coil must first be understood. A typical symbol drawing of the repeating coil is shown in Figure 1. This coil essentially consists of two windings on one iron core, the core being in the form of a closed ring. A current flowing through either winding sets up lines of magnetism, commonly called lines of force, in the core of the coil; these lines of magnetic force being proportional to the current flowing through the winding. Any change in the quantity of the current flowing in one winding will therefore cause a consequent proportional change in the magnetic lines of force in the core. The fluctuations of the magnetic lines of force in the core set up currents in the opposite coil, and these currents are proportional to the change of the magnetic lines of force in the core. It is to be noted that the secondary current set up in the second winding is caused by changes in the magnetic intensity, and consequently when the current flow in one winding is constant and does not change, there is no resultant current flow in the other winding; however, talking or ringing current, which is alternating in character and is in the state of constant change, is reproduced in either direction by the repeating coil. Figure 2 shows a telephone line with a repeating coil at either end. Here an alternating current originating at one end is reproduced at the other end.

With an arrangement as shown at Figure 3, current impressed on the coil A and flowing through the winding does not magnetize the core as the current divides and flows in two directions through the winding, and the magnetic tendencies oppose each other and are balanced; consequently there is no change in the magnetic lines of force due to this current, and no resultant current is set up in winding

D. A change in a current flowing in winding D will, however, cause a proportional change in the magnetic lines of force in the core, which will in turn cause a proportional flow of current through the other winding and through branches E and F, but not through the battery circuit ABC.

This principle is used in the simplex telegraph circuit which is shown in Figure 4. The core of the repeating coil is left out of the drawing for the sake of simplicity. With this arrangement telephone conversation can be held between A and B and at the same time telegrams transmitted between C and D, neither telegraph nor telephone interfering with the other. The telegraph current splits at the repeating coil, one-half going to each wire, so that in reality the two wires are used as one and the ground is used as the other side of the telegraph circuit. The talking currents, however, circulate, the current on one wire going in the opposite direction to that on the other.

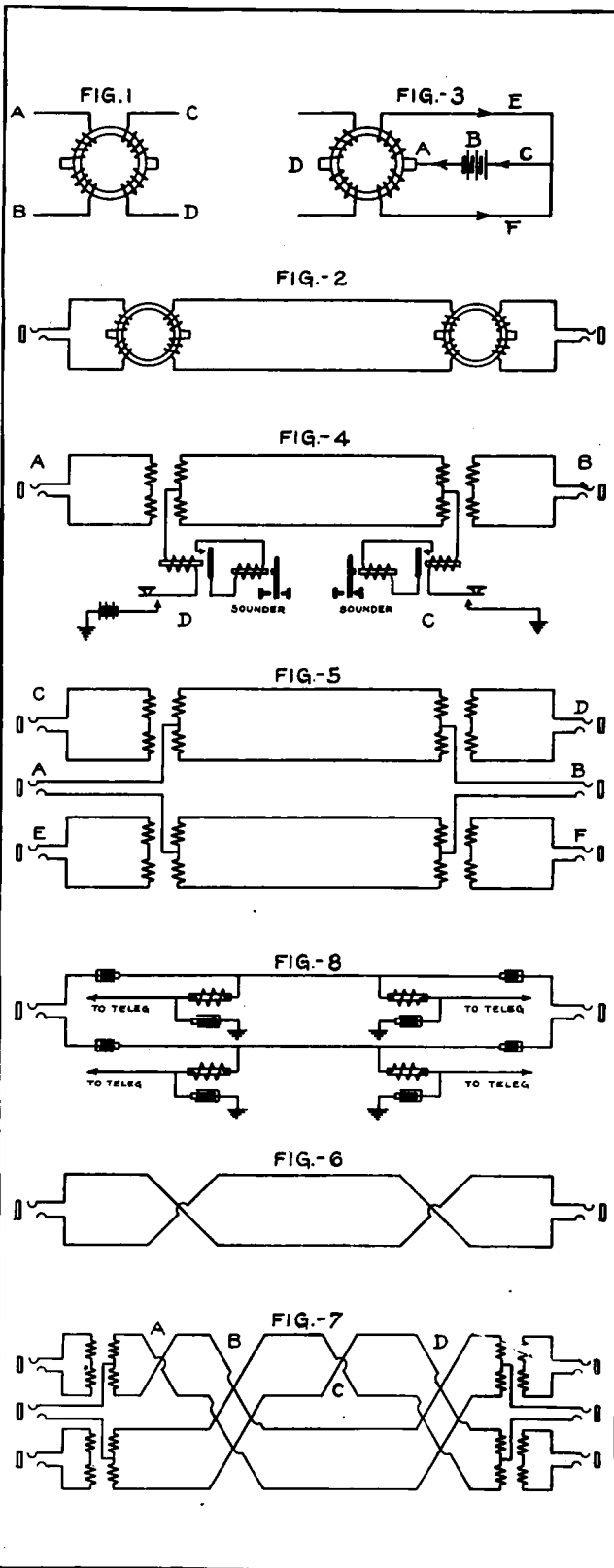
By combining two of these circuits and substituting telephone for telegraph, we obtain an arrangement as shown in Figure 5. With this arrangement two telephone circuits are used to obtain a third. The circuit A to B is known as a phantom circuit, and conversation can be held on this circuit, without interference, at the same time as the outside or physical circuits are in use. The phantom circuit is from fifteen to twenty per cent. more efficient than the physical circuit on which it is built.

For the proper operation of a phantom circuit it is necessary that all four of the wires on which the circuit is built up be of the same resistance and that the insulation leakage be at a low point. Various methods have been used for balancing against unequal resistances and insulation leakages, but none has proven to have been very satisfactory, and to get good results all wires should be of the same material and size and the line should be in first class condition.

Prior to the advent of the phantom circuit cross talk and inductive noises on lines had been cared for by reversing the sides of the line at stated intervals in the manner shown by Figure 6. These reversals are called transpositions, or physical transpositions in this particular instance. This arrangement when a sufficient number of transpositions are cut in their proper locations along the line prevents disturbance by presenting the two sides of the line alternately to the cause of the disturbance, thus neutralizing electrostatic and electromagnetic induction.

Again referring to Figure 5, you will see that the phantom in reality uses the two sides of a physical line as one wire, and although transpositions may be cut in the physical circuits the phantom would still be susceptible to both electrostatic and electromagnetic disturbances. To overcome this both sides of one of the physicals on which the phantom is built are transposed with both sides of the other physical circuit. Figure 7, B and D show phantom transpositions and A and C are physical transpositions.

There is another method of working telegraph on telephone lines, which is used more especially in large offices and is known as compositing. On composited lines both wires of the telephone circuit are not used as a single telegraph circuit, as in the case of the simplex method, but a separate telegraph circuit is worked on each



side of the telephone line. The circuit arrangement of a composited telephone line is shown in Figure 8. To prevent noise on the telephone line the telegraph is introduced through a retardation coil which smooths out the telegraph current so as to prevent any high frequency effects induced by the make and break of the telegraph current from disturbing the telephonic balance and a condenser is bridged to ground ahead of the retard coil so as to prevent static disturbances. The telegraph current is prevented from entering the telephone apparatus by condensers, which are cut in between the line and the central office equipment.

The ordinary low frequency ringing current would disturb the telegraph instruments of a composite set, causing them to chatter, so a special ringing apparatus has been devised for ringing on composited lines, the principle of which is that a high frequency current is used for signaling between stations. This high frequency current changes direction so rapidly that the comparatively sluggish telegraph instruments do not respond, but a howler or specially constructed relay at the far end of the line is actuated, and controls a signaling mechanism so that the operator is informed that some one is ringing on the telephone line.

This special ringing apparatus is also used with some phantom repeating coils designed for high talking efficiency, which makes ringing through them with the ordinary low frequency ringing current practically impossible.

The physical lines on which a phantom circuit is made up may also be composited and by working quadruplex telegraph on each leg it is possible for nineteen pairs, or a total of thirty-eight persons, to communicate with each other without any one pair interfering with another. With this arrangement there are thirty-two telegraph operators and six telephone users.

It is also possible to work telegraph on loaded circuits provided the telegraph current is limited to a low figure so as not to affect the loading coils.

The above is an outline of the principles of all the present commercial methods of simultaneous telephone and telegraph systems now in use, although the details may be varied slightly for different installations in actual service.

During the year 1911 Major George Owen Squier, of the United States Army, dedicated to the public a multiplex telephony system whereby a number of telephone messages might be sent over a pair of wires at the same time. In this system the telephonic fluctuations of current are impressed upon high frequency alternating currents, which are in themselves beyond the range of audibility, and the receiving ends are attuned to the various fundamental frequencies of these currents. The system as far as the writer can ascertain has never been used on commercial lines.

WHO, INDEED!

Would Blame This Impatient Subscriber for His Natural Anxiety.

The following is an exact copy of a letter received at the exchange at Ann Arbor, Mich.:

June 18, 1912

Mister Keach
Our fone no 518 1 1 & 3 short is outa order it axas the its hare spring was caught over the transmitter bobin, cause it dont click in your ear when you listen and there trin to get you to hang up. I wish it could be fixt I understan in a round a bout what 2 of our neabors are at outs over a filly, and we are some-what anxus as to how the mater is fixt up. Yours in haste,

For his ma. She says the fone bill.

PUBLICITY VALUE OF BAD SLEET STORM

Quick Restoration Impresses People and Liberal Gain Results.

When the old Greek philosopher, or whatever it was, delivered himself of the proverb, "It's an ill wind that blows nobody good," he scarcely supposed that his saying might be applied to a sleet storm, that bane of the telephone man's existence. But it appears that this miracle has happened in Green County, Ill.

The sleet storm of March 20, 1912, almost totally destroyed the outside plants of the Central Union Telephone Company in Carrollton, Whitehall and Roadhouse, Ill. With characteristic energy the plant forces restored service and within a short time practically rebuilt the exchanges. The subscribers watched these proceedings with interest and were particularly interested in the improved grade of service rendered. They also appreciated the efforts made to secure new subscribers and thereby increase the value of all the telephones.

Since April 1st a gain of 500 subscribers has been made in the three places. About 300 of these were secured in Carrollton, making the total list at that point about 900.

The commercial men, whose portraits are shown on this page, have been actively presenting the advantages of Bell service to the people of Green County, and their efforts have largely contributed to the results.

ANOTHER "EPOCHAL" DISCOVERY.

Loud Speaking Telephone Invented by Englishman Said to Perform Wonders.

A telephone that promises to fulfill some of the Utopian prophecies of imaginative novelties—a telephone that talks to you clearly and distinctly as you sit motionless in your chair—is at present working in a building, not a stone's throw from Piccadilly circus, London. The present need for speaking—or shouting—down a mouthpiece will be obviated by the new loud-talking telephone. You will be able to walk about the room and talk in ordinary conversation tones, or even a whisper. A little instrument like a bell-push collects and carries your words, and the person to whom you are talking—without taking up a receiver, without lifting a finger—hears you as distinctly as though you were only a yard away. Your voice comes from another little piece of apparatus—a box with a perforated opening—and when that apparatus is fixed in the wall, so that only the opening is visible, one is ready to believe that the babble machine, born in the imagination of H. G. Wells, has been made real a century too soon. The inventor of the loud-talking machine is W. Kennedy-Daurie Dickson, who for many years was one of Edison's helpers. Recently he gave a group of newspaper men an opportunity to test his invention. A reporter stood in one room, with the little push-button-like apparatus before him on a table, and in another room some distance away, Mr. Dickson or his assistant spoke, shouted and whispered as they moved about. A whisper uttered five or six yards away from the transmitter came as clearly as an ordinary speaking voice in the same room. So greatly is the sound of the voice mag-



COMMERCIAL FORCE, GREEN COUNTY, ILL.

Left to right—William Wilhite, commercial agent, Carrollton; F. E. Speckman, commercial agent, Whitehall; F. R. Jarboe, commercial manager, Carrollton, Roadhouse and Whitehall; L. F. Neal, commercial agent, Roadhouse.

nified that the ordinary tones, spoken closely into the receiver, as with the ordinary telephone, seemed like a deafening shout to the listener in the other room. The new telephone as yet has not been tried, only over comparatively short distances, with the idea of providing a perfect means of intercommunication from room to room in houses or factories. But Mr. Dickson claims that there is no reason why the loud-talking telephone should not be used over any distances. Means are provided to increase or decrease the sound of the voice as it is transmitted through the new telephone, and there is no reason why a public speaker should not harangue a hall full of people without moving from his own fireside.—Tennessean, Nashville, Tenn.

EDITOR'S NOTE.—Every few months announcement is made that a marvelous microphone or some improved form of transmitter has been developed, but these inventions have invariably failed to show any merit when subjected to the acid test of use under practical conditions of telephony.

ALSO IN KENTUCKY.

Telephone Consolidation Started Under New Utilities Law Recently Passed.

Winchester, Ky., through its City Council, has authorized consolidation of the two telephone companies operating in Winchester into one, under the provisions of the Wilson bill passed by the last legislature. The proposition to consolidate the two companies already had the backing of the Merchants' Protective Association and the Winchester Commercial Club, and it now goes to the Railroad Commission to approve, though the Governor and Attorney General will be consulted and told just what the consolidation means. If the proposition is finally approved by the proper authorities the plant of the Home Company will probably be the one that is operated, as it is in the better condition of the two. The plant will be run under the provisions of the present franchise, which is for twenty years, and it is estimated that the citizens of Winchester and Clark County will save upwards of \$5,000 a year through the elimination of a duplicate telephone cost. Other cities, it is said, are seeking to get rid of the double telephone system, among them Shelbyville, while but one system has been carried on in Richmond and Mt. Sterling for years and they have declined to permit another to enter. It is the policy of the promoters of the consolidation that the widest publicity be given their operations, and for that reason the Governor and Attorney General will be consulted, though the law does not require it.

STARRED AS FOOTBALL CAPTAIN

B. W. Trafford Headed Harvard Nine in Early Nineties and Won High Praise.

It was very seldom that B. W. Trafford, who recently resigned as vice president of the five telephone companies of the Central Group to become vice president of the First National Bank of Boston, could be induced to talk about his football honors at Harvard, his modesty on this subject being well known. This never prevented his associates being any the less interested, however.

C. L. Boyce, plant superintendent of the Michigan State Telephone Company, while looking recently through an old bound volume of *Harper's Weekly*, belonging to a neighbor, was



B. W. TRAFFORD.
As he appeared while Captain of Harvard Eleven.

delighted to come across a picture of the former vice president in his fighting regalia. This picture is herewith reproduced. It is one of the illustrations to an article on football by Walter Camp, and was published a few weeks before the Yale-Harvard game, in which, alas for the side on which our sympathies should rest incidentally at this particular moment, Harvard failed to score.

However, B. W. Trafford's reputation as a football player was wide at this time. Not only had he been arousing attention by his play on the team during the two years which elapsed between entering Harvard and being chosen captain, but even while at Phillips Exeter Academy at Exeter, N. H., he had been marked as a future leader by expert observers.

To Study Methods.

The German postoffice department is sending three officials to the United States to study American telephone methods.

BEATS WESTERN 4 TO 2; CHICAGO WINS FINAL

Joe Bradshaw Toys with Champions,
While Capt. Driscoll Poles Home
Winning Run.

The Chicago Telephone Company beat the Western Electric, September 7th, on Hawthorne Field, by a score of 4 to 2 in the final baseball game of the season.

This was the Commercial League game postponed from June 29th, and was the first game which the Western Electric champions have lost this year. It did not affect the final standing of the two teams for the Telephone Company was already secure in second place, but owing to the long-standing rivalry between the companies, it was full of interest and was hotly contested throughout.

The crowd numbered 2,000, and was strongly in sympathy with the home team, using all the noise-making expedients of the expert rooters' repertoire to encourage their favorites and dismay the enemy.

Joe Bradshaw, the "big leaguer," saved the day for the Telephones. This was his first appearance in the box for his own team this year, as his other engagements have had him tied up all summer. After his masterly demonstration in this game, nobody doubts that with his help, the pennant could have been won hands down. It would have been like taking candy from a child to put Bradshaw up against the Westerns for a full game. Captain Driscoll showed his sportsmanship by playing out his string of regular pitchers first, and giving the champions a chance. At that his team held their own, played a fierce up-hill game, and was invincible in the pinches, which were frequent and hair-raising.

The Westerns scored one in the second and Chicago came back with one in the fourth. In the fifth, the Manufacturers again took the lead, but in the seventh, the Operators again tied it up. Then Bradshaw clamped down the lid on the Electrics with five strike-outs, while Carney hit and Driscoll scored him in the eighth, and again in the ninth McConnell hit and Bradshaw himself scored him with a two-bagger, to make it perfectly safe.

The winners hustled every minute and never overlooked a bet. Driscoll's single in the fourth was timely, after Hassett's two-bagger. In the seventh Shannon got himself hit, "Stubby" McConnell shrunk himself even shorter and earned a pass, and Delaney came through with the necessary sacrifice. Carney in the eighth, playing off first and Hassett at the bat undoubtedly worried pitcher Bryant enough to give Driscoll a better chance.

The game was so late that the sun was low and Bill Kinsley in left field couldn't see a thing. Rehorr's fly dropped at his feet for three bases and Bryant's went for a home run, while Mora's highboy in the eighth, which Kinsley got his hands on after a run, was invisible most of the way. However, the Westerns had the skill to put them over there, so give them their due.

In the sixth Driscoll stumbled twice on the rough ground, going after Farmer Frollick's fly, but he finally made the pinch.

Delaney had the true fighting spirit and kept the runners guessing. He got four of them all told, three at second and one at first. One throw was



CHICAGO TELEPHONE TEAM DEFEATING WESTERN ELECTRIC.

low, but McConnell made the perfect pick up.

Even in the third when the Westerns got three hits, they couldn't score, as Hassett and Schuler each made a lightning peg to the plate, cutting down Bryant and McCann each within a foot of victory. This same "Crab" Shuler pulled a nice double play in the second on Frollick and Grabow. The only other double play of the year by the way, was also made by the Telephone team against the Westerns.

This victory was particularly timely, as the Westerns had won the track meet earlier in the day. "Honors are even" was the general verdict at the close, and good fellowship between the two branches of the business was closely cemented by the even break.

The baseball season of 1912 has been the most successful in the Telephone Company's history, in spite of bad luck. It has been marked by serious setbacks and even disasters. Sam Babcock's broken leg, Stewart's broken thumb, Driscoll's illness and Bradshaw's absence, were discouragements aplenty, and the fluke loss of the first game gave away a handicap from which the team never recovered. The rain on June 29th prevented an almost sure win over the leaders, and might have changed the season's result, but taking it all in all, the Telephone Company may well feel proud of its team, and may look forward to a bigger and luckier season next year.

The Score:

| C. T. Co. | A.B. | R. | 1B. | P.O. | A. | E. |
|----------------|-----------|----------|----------|-----------|-----------|----------|
| Schuler, ss. | 5 | 0 | 0 | 4 | 0 | 0 |
| Carney, 3b. | 4 | 1 | 1 | 0 | 1 | 1 |
| Hassett, 1b. | 3 | 1 | 1 | 1 | 1 | 1 |
| Driscoll, cf. | 3 | 0 | 3 | 2 | 0 | 0 |
| Kinsley, lf. | 4 | 0 | 0 | 0 | 0 | 1 |
| Shannon, rf. | 3 | 1 | 1 | 0 | 0 | 0 |
| McConnell, 2b. | 3 | 1 | 1 | 1 | 0 | 0 |
| Delaney, c. | 4 | 0 | 0 | 9 | 4 | 0 |
| Hooker, p. | 2 | 0 | 0 | 0 | 2 | 1 |
| Savage, p. | 1 | 0 | 0 | 0 | 0 | 0 |
| Bradshaw, p. | 1 | 0 | 1 | 0 | 0 | 0 |
| Total | 33 | 4 | 8 | 27 | 12 | 3 |

| W. E. Co. | A.B. | R. | 1B. | P.O. | A. | E. |
|---------------|-----------|----------|-----------|-----------|-----------|----------|
| McCann, lf. | 4 | 0 | 3 | 0 | 0 | 0 |
| Daes, rf. | 4 | 0 | 1 | 1 | 0 | 0 |
| Kolar, 2b. | 3 | 0 | 0 | 0 | 2 | 0 |
| Horn, ss. | 4 | 0 | 0 | 4 | 3 | 0 |
| Frollick, cf. | 3 | 0 | 0 | 1 | 1 | 0 |
| Grabow, 3b. | 4 | 0 | 1 | 2 | 1 | 0 |
| Jefsek, lf. | 4 | 1 | 1 | 8 | 0 | 0 |
| Rehorr, c. | 4 | 0 | 2 | 8 | 1 | 0 |
| Bryant, p. | 3 | 1 | 1 | 0 | 3 | 0 |
| Total | 33 | 2 | 10 | 27 | 10 | 0 |

| C. T. Co. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|---|---|---|---|---|---|---|---|---|
| W. E. Co. | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 4 |
| W. E. Co. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Two-base Hits—Hassett, Bradshaw. | | | | | | | | | |
| Three-base Hit—Rehorr, Home Run—Bryant, Double Play—Schuler-Hassett. | | | | | | | | | |
| Hit by Pitcher—By Hooker, 1; Bryant, 2. | | | | | | | | | |
| First on Balls—Hooker, 1; Bryant, 2. | | | | | | | | | |
| Struck Out—By Hooker, 2; Bradshaw, 5; | | | | | | | | | |

Bryant, 9. Time—Two hours. Umpire, O'Brien.

Final Standing of Teams in Commercial League.

| Team | Won. | Lost. | Pct. |
|-------------------------|------|-------|------|
| Western Electric Co. | 13 | 1 | .929 |
| Chicago Telephone Co. | 11 | 3 | .786 |
| La Grange | 9 | 5 | .643 |
| Peoples Gas Co. | 8 | 6 | .571 |
| Commonwealth Edison Co. | 5 | 9 | .357 |
| Public Service Co. | 4 | 10 | .286 |
| Fuller & Fuller | 2 | 12 | .143 |
| City Hall Co. | 2 | 12 | .143 |

Batting Averages.

| Player | A.B. | R. | H. | T.B. | Pct. |
|-------------|------|----|----|------|------|
| Bradshaw | 1 | 0 | 1 | 2 | 1000 |
| Glilfeather | 26 | 16 | 14 | 26 | .538 |
| Dillon | 2 | 1 | 1 | 1 | .500 |
| Driscoll | 23 | 10 | 11 | 15 | .379 |
| Kinsley | 31 | 11 | 11 | 17 | .355 |
| Stewart | 27 | 3 | 9 | 10 | .333 |
| Margraf | 3 | 0 | 1 | 1 | .333 |
| Schuler | 45 | 13 | 14 | 16 | .311 |
| Shannon | 29 | 9 | 8 | 16 | .276 |
| Hassett | 47 | 17 | 18 | 26 | .261 |
| Babcock | 44 | 7 | 11 | 12 | .250 |
| Delaney | 21 | 5 | 5 | 3 | .238 |
| McConnell | 24 | 9 | 5 | 6 | .208 |
| Savage | 12 | 2 | 2 | 5 | .177 |
| Carney | 9 | 1 | 1 | 1 | .111 |
| Hooker | 24 | 4 | 2 | 2 | .083 |

Total Times at Bat—374.
Total Number of Runs—108.
Total Number of Hits—114.
Average Team Per Cent—305.
Opponents' Runs—50.
Opponents' Hits—91.

Fielding Averages.

| Player | P.O. | A. | E. | Pct. |
|------------------|------|----|----|------|
| Margraf, 2b. | 0 | 1 | 0 | 1000 |
| Stewart, c. | 59 | 7 | 1 | .985 |
| Hassett, 1b. | 85 | 4 | 2 | .978 |
| Driscoll, cf. | 19 | 6 | 1 | .961 |
| Delaney, c. | 35 | 6 | 2 | .953 |
| McConnell, 2b. | 12 | 8 | 3 | .952 |
| Kinsley, cf. | 14 | 2 | 1 | .941 |
| Hooker, p. | 14 | 1 | 1 | .937 |
| Carney, 3b. | 3 | 1 | 1 | .933 |
| Babcock, lf. | 1 | 1 | 1 | .929 |
| Schuler, 3b. | 26 | 5 | 5 | .904 |
| Shannon, rf. | 12 | 6 | 2 | .857 |
| Glilfeather, ss. | 14 | 4 | 4 | .840 |
| Savage, p. | 1 | 5 | 3 | .700 |
| Bradshaw, p. | 0 | 0 | 0 | .000 |
| Dillon, p. | 0 | 0 | 0 | .000 |

TIE TO BE PLAYED.

Elements Have Heretofore Been Unfriendly to Equipment and Installation Teams.

The Equipment and Installation teams in the Plant Department League, Chicago, are now tied for first place. Two attempts have been made to play off the tie, but in each case rain interfered. A final booking has been made for October 12th at 2 p. m., when the tie will be fought out. The contest will be staged on the diamond at the American Giants Park, Thirty-ninth street and Wentworth avenue. Tickets sold for either of the other two Saturdays will be honored.

WESTERN ELECTRIC WINS MEET; SCORE 85 TO 50

Exciting 'Contests and Big Crowd
at Field and Track
Events.

In the second and last dual track and field meet of the season, held at Hawthorne September 7th, the Western Electric team defeated the Chicago Telephone team by a score of 85 to 50.

The electric company's representatives went into the lead at the start and with the holding of every event they increased their margin. The contests attracted a crowd of 5,000 supporters of both teams, and every time the winning athletes breasted the tape they were given rounds of cheers.

Doyle Leading Point Winner.

J. J. Doyle, the versatile athlete of the winning team, was the star performer of the meeting. He scored fifteen points by virtue of victories in the ninety yard low hurdles, half mile, and two mile runs. In addition he ran a good race in the half mile relay.

As the track is small, eight laps to the mile it was impossible for the contestants to make fast time, but most of the races were keenly fought and the performances showed the results of hard training. W. E. Robson of the winning team was the only athlete to establish a new track record. He ran the furlong in :25, closely pressed every step of the way by Brown. Robson had the pole and won by less than that advantage. The former mark was :25 2-5. Robson also won the century around one turn in :10 3-5. H. A. Kirkpatrick of the Western Electric Company won the seventy-five yard fat men's race in the fast time of :09 4-5, and the Western Electric company team won the tug of war in straight pulls, Chicago, however, making a greatly improved showing. Neither time could the Western gain more than two inches.

Benson lost the shot put on the very last trial, by a margin of a few inches. Joe Brown was the main winner for the Telephone team, securing fourteen points. Dagenhardt had a bad ankle, which lost him the medal in the high jump.

Summaries of the Meet.

90 yard low hurdles—Won by Doyle, Western Electric; Benson, Chicago Telephone, second; Wolber, Western Electric, third. Time :11 4-5.
90 yard high hurdles—Won by Wolber, Western Electric; Dick, Chicago Telephone, second. Time :14 3-5.
100 yard dash—Won by Robson, Western Electric; Brown, Chicago Telephone, second; Patterson, Western Electric, third. Time :10 3-5.
Fat men's race, 75 yards—Won by Kirkpatrick, Western Electric; Adamson, Western Electric, second; Simons, Chicago Telephone, third. Time :09 4-5.
220 yard dash—Won by Robson, Western Electric; Brown, Chicago Telephone, second; Dick, Chicago Telephone, third. Time :25.
440 yard run—Won by Brown, Chicago Telephone; Patterson, Western Electric, second; Hoyer, Chicago Telephone, third. Time :53 1-5.
880 yard run—Won by Doyle, Western Electric; Farrell, Chicago Telephone, second; Kirby, Western Electric, third. Time :2:13 1-5.
1 Mile run—Won by Kirby, Western Electric; Day, Western Electric, second; Kent, Western Electric, third. Time :8:33 2-5.
Two mile run—Won by Doyle, Western Electric; Farrell, Chicago Telephone, second; Kirby, Western Electric, third. Time :11:34 4-5.
Pole vault—Won by Miller, Western Electric; Dick, Chicago Telephone, second; Sears, Western Electric, third. Height, 10 feet 6 inches.
Standing broad jump—Won by Benson, Chicago Telephone; Gennerman, Western Electric, second; Cox, Western Electric, third. Distance, 9 feet 9 inches.
Shot put, 12 pounds—Won by Reich, Western Electric; Benson, Chicago Telephone, second; Allen, Western Electric, third. Distance, 44 feet 3 3/4 inches.

Running high jump—Won by Cox, Western Electric; Gueth, Chicago Telephone, second; Benson, Chicago Telephone, third. Height, 5 feet 8 inches.

Running broad jump—Won by Benson, Chicago Telephone; O'Brien, Western Electric, second; Gueth, Chicago Telephone, third. Distance, 19 feet 5 inches.

Tug of war—Won by Western Electric in straight pulls.

Relay race, half mile—Won by Western Electric (Robson, Luessenhop, Doyle, Patterson). Time, 1:44 3-5.

Girls Win; Partners Lose.

Agnes Long of the Central Division, and Helen Freund of the Legal Department, easily won their matches at the Western Electric courts on September 7th, and Miss Freund and H. O. Turvey also won.

H. W. Turvey beat C. N. Weir in the men's singles. All the rest of the matches went to the Western.

Captain "Jack" Riddell organized the tennis tournament, and the fair showing of his pupils did him credit.

Prevention of and First Aid in Accidents

Campaign is on to Encourage Safety Habit in Routine Work.

Wherever there are large numbers of employees engaged in any undertaking, whether they be in large or small groups, it is of course realized that accidents will occur. Realizing this fact, practically all large companies have taken steps to keep these occurrences at a minimum. Nine large railroads have done so recently.

It is usually in routine work that accidents occur. Men use the tools, make inspections, travel, and do other daily work with such rapidity and regularity that they fail to realize that no two duties are exactly alike. Even if they seem similar there should always be exhibited a mind prepared for an emergency.



JOINT TELEPHONE AND TELEGRAPH OFFICE AT OAK PARK, ILL.

pervision of the use of safety appliances may aid in the work, much more may be obtained by the men themselves in the exercise of good judgment and precaution.

Instances.

A central office employee tripped over tarpaulin used to cover the frame dur-

stand from a booth let the screwdriver slip, cutting his left eye.

In digging a ditch to repair a cable the sand caved in. The employee stepped backward into a manhole. He skinned and bruised his leg and side.

A motorcycle rider rode over and became entangled in a rope, which threw him. It bruised him severely and sprained his right knee.

A coil of cable pinched the finger of another man.

Slightly strained while loosening and lifting a manhole cover, another man was incapacitated for a day.

A combination man on a motorcycle rode into a rut and was thrown, bruising his knee.

A helper slipped in descending from a pole and fell about eight feet, spraining his ankle.

In assisting at the pulling in of cable a repairman slipped and his finger was pinched by a near-by gear.

The unloading of a pole while the wagon was in motion caused a line-man to have his foot run over.

Sand caused a motorcycle to skid and the rider was thrown. His knee was cut.

The snap on a safety belt unlocked. The employee fell and sprained his knee and arm. His lip was cut so that four stitches were necessary.

Rope was being pulled in for stringing cable. One man tripped and sustained a fractured elbow.

In descending from a pole a spur "cut out," throwing the man to the ground. A rib was broken.

A four-pound soldering iron fell on a helper's foot, bruising it.

Solder rolled off a rag while a splicer was wiping a joint. Three fingers were burned.

The bulb came off of a plumber's furnace. During the extinguishing of the flame the employee's hand was burned.

A screwdriver slipped, cutting an inspector's palm.

Poison-ivy concealed among weeds severely injured a climber.

In stapling ground wire to the pole a helper slipped and was bruised.

During the coiling of messenger wire a lineman's hand was caught in a kink. It was cut and bruised.

A lineman slipped in stringing a line over a roof. His arm was cut on a skylight.

A chauffeur's forearm was burned when it came in contact with an exhaust pipe. He was adjusting the throttle-rod.

In sorting material on a rack a foreman was bruised by the breaking of the rack.

Dark cellar-stairs caused a repairman to stumble and fall, breaking his wrist.

The slipping of a ladder during the inspection of ring-wiring work resulted in a combination man's fall. He cut his hand on an iron fence.

A testman held two pencils and a sharpener in his hand while he attempted to jump up to a window-sill. A gash in the calf of the leg required a stitch.

A nail in a cable reel lag which projected penetrated the forearm of a splicer.

An installer cut his thumb while "skinning" wire.

In removing boxes from the doorway of a wareroom a large angle iron fell and cut a helper's head.

A tree-limb broke, causing a repairman to sustain a strained ligament in the neck.

A burning wick from an alcohol torch lighted the contents of a nearby receptacle, burning an installer's face.

Lead from an indelible pencil flew



COMMERCIAL DEPARTMENT, OAK PARK, ILL.

One prominent Western railroad issued a booklet not long ago on this subject. On the cover was this sentence: "It takes less time to prevent an accident than it does to make report of one." Inside there were listed nearly sixty things which employees should not do. On the other hand, they tried to emphasize above everything the acquiring of the safety habit.

To impress upon their own men how important the little things are, how serious slight negligences may be, the Bell Telephone Company of Pennsylvania collected a series of instances of typical accidents. The object was to show how such mishaps occur so that men may guard against the misfortunes that are always imminent. The conditions under which the Pennsylvania men work and the character of their employments are approximately identical with those in the Central Group territory. While constant su-

ing building alterations. He fell and struck his head against the frame. Four stitches were taken by the surgeon.

A defective butt-step on a pole slipped when a repairman placed his weight upon it. This caused him to slip and lose his hold. His wrist was sprained.

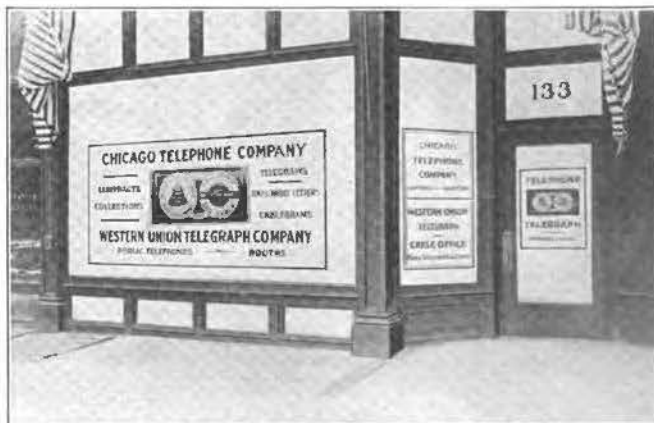
Hurried use of a knife in cutting cloth to clean an electrical instrument caused another employee to cut his hand deeply.

A foreman's arm was scratched while he was "dead-ending" wires at a window. A slight case of blood-poisoning resulted.

Hot solder splashed on a cable-splicer's instep as he was working in a manhole.

While passing a window where an electric fan was running a foreman's arm was cut.

An installer in removing a desk-



SHOWING SIGNS ON FRONT OF OAK PARK TELEPHONE TELEGRAPH OFFICE.

into the eye of a clerk who was sharpening it. Slight inflammation resulted.

A lineman stood on a pole while sharpening a draw-knife. The pole rolled and he fell, cutting his hand so that stitches were required.

The forks of a bicycle broke, throwing the rider and dislocating his thumb.

While drilling a hole in a wall the installer's hammer slipped, bruising his thumb.

In unloading poles a climber sustained a crushed toe.

Dangling wire caught a motorcycle rider and injured his neck.

In the majority of these accidents the men remained at work. A careful study of the cases shows that the exercising of ordinary precaution in inspecting tools and conditions or in weighing the probable results would have prevented perhaps ninety-five per cent. of these mishaps. Let's determine to acquire the safety habit. Every accident is a notice that something is wrong with the man, equipment or methods. Whichever may be the cause, let's apply the remedy.

First Aid to Injured.

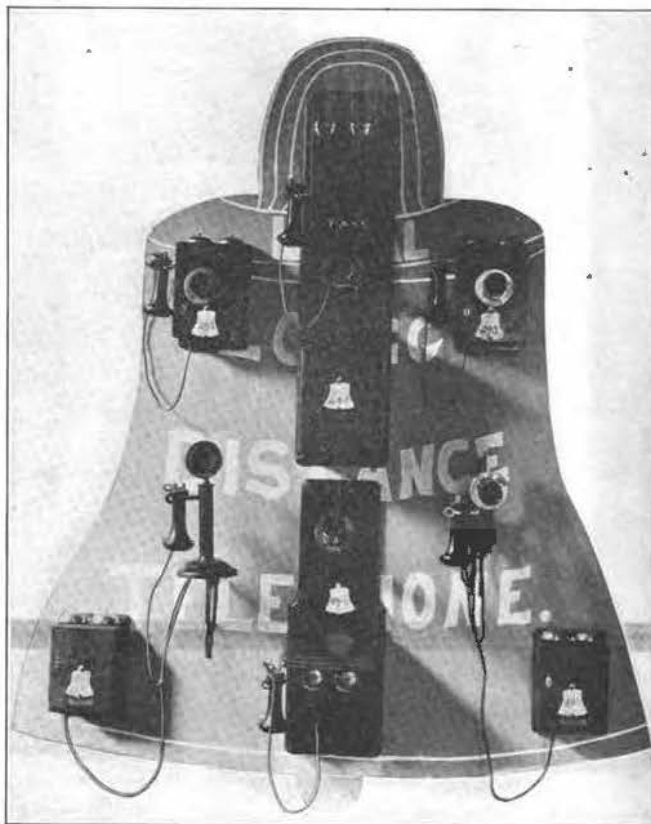
When, in spite of all reasonable precautions, accidents do occur, prompt and intelligent aid will do wonders. The *Manufacturers' News* prints a splendid article on this point, from the pen of Dr. J. E. Tuite, chief surgeon of the Eclipse Gas Stove Company of Rockford, Ill. Dr. Tuite says:

Promptly report every injury as soon as it occurs. Give it temporary aid and if there is any doubt call a physician at once. A few good men should promptly go to the aid of the injured. It is not necessary to discontinue the work in the department. Carry the injured man to a light, clean, airy place and place him in a recumbent position. Better that his feet be higher than his head. This will often prevent fainting as well as make the injured person more comfortable. Men often faint because there is some slight disturbance in the circulation and you need not become alarmed because of this. Do whatever is necessary, regardless of the faint. If it is an open wound and foreign matter has entered, this would be a good time for you to remove it, as it would save the pain of doing so after he has revived. Note carefully the color of the patient. If you can take his pulse, do so. Note his respiration and the pain, its location and extent. Under ordinary circumstances you may give the patient water to drink.

If there is an open wound, remove, if possible, all foreign matter at once. You may pour real hot or real cold water directly on the wound. If the opening is of considerable size you may pour directly into the wound peroxide of hydrogen. After this rinse off with a little water and pour on some alcohol or tincture of iodine. Alcohol is one of the best antiseptics and you may use it without fear. Tincture of iodine will probably be even better than alcohol. It is an alcoholic solution of iodine, so that you get the benefit of both alcohol and iodine.

After you have covered the wound with a little tincture of iodine, if you will place over it a strip of sterile gauze you will have done all that it is possible for you to do. Do not fail to look for other injuries. Many a man will make a big fuss over a little cut from which he sees the blood oozing and overlook a more important injury, such as a fracture some place else.

Ordinary puncture wounds, such as will occur when a man will run a tack or nail into his hand or foot or some part of the body, should receive prompt attention. Because these wounds do not bleed freely and do



INSTRUMENT DISPLAY, COMMERCIAL DEPARTMENT, LA SALLE, ILL.

not seem to cause much distress, they are most often neglected. At this time of the year it is best to enlarge the opening freely, and if you cannot do that you can at least, with a toothpick which has been dipped in pure carbolic acid, puncture the wound to its full depth. Swab out the surfaces reached thoroughly with the carbolic acid. After two or three minutes remove this toothpick and force into the wound by means of a medicine dropper, or another toothpick, some of the tincture of iodine. This will go a long way toward preventing further infection.

Accurate Measurement.

On September 5th the Chicago-Milwaukee underground circuit No. 30, tested open. Upon further investigation it was found that the No. 67 conductor was open between Milwaukee and Kenosha. This is a distance of about thirty-three miles. There being no other trouble in the cable, former Cable Tester George Crowell, now in the Engineering Department, Milwaukee, was called upon and after a careful capacity test was made, he advised opening the cable at manhole No. 588, in the city of Milwaukee, as he believed the trouble would be found very close to that point. This manhole was opened, the sleeve removed from the cable and an open wire was discovered in the loading coil.

As it is very seldom a trouble of this kind is located with sufficient accuracy to necessitate only one opening of the cable, this is considered a very fine case of locating trouble.

WHERE TELEPHONE IS HANDY.

"Shut-ins," Confined by Contagious Diseases, Find an Easy Method of Communication.

In a circular distributed by a stenographer occurred the phrase "Contagious diseases correspondence promptly attended to."

"Dictation over the telephone by people who have been quarantined on account of scarlet fever or diphtheria, that's what that means," she said. "Many families that are thus shut off from the world do not wish to send out a scrap of paper that can possibly carry contagion. Of course, there are many ways of overcoming the difficulty, and people laid up with disease that is catching have always found a way to let their friends know what ailed them, but it seems to me that the safest and sanest way is to dictate the news over the telephone."

"The mother of two children that had measles suggested that I make that line of work a specialty. She got my address from the doctor and dictated a two-page letter before I had had a chance to look up her references. She was good pay, though. Most quarantined letter writers are. In this long-distance correspondence you have to trust largely to the good faith of your employer. When a stranger wishes me to take a letter I inquire the name of the doctor, and sometimes I take the precaution to telephone him to find out if the patient is responsible financially, but usually I go ahead with the letter and trust to heaven for the money. Heaven, I am glad to say, has generally stood by me."

INDIANA COMPANIES SELL OUT TO BELL

Several Important Cities Will Enjoy
Return To Single
System.

Muncie, Peru, Alexandria, Elwood and Columbus are among the important cities of Indiana which are about to be relieved of the double telephone nuisance in the near future. In all these places arrangements have been made by the Central Union Telephone Company to take over and operate the independent properties and merge them into the Central Union system and furnish unified service as soon as possible.

The exchanges at Muncie, Elwood, Alexandria, Summitville and Gaston were owned by the Delaware and Madison Counties Telephone Company, which was at the time of the sale the largest independent organization in Indiana not already connected with the toll lines of the Bell system.

The Delaware and Madison Counties Company also operates an exchange in Anderson, but that was not included in the transaction because of adverse action of the city authorities.

The engineering department is working on plans for the consolidation of the plants in all the cities where two are in operation. In all places the service will be brought up to Bell standards as soon as the consolidation of physical plants can be accomplished.

The purchase of the Peru plant is of unusual importance, as it gives the Central Union Company a list of about 4,000 stations in Miami County, "which will mean a big thing for the subscribers," as the *Peru Evening Journal* puts it. In acquiring the Home Telephone property the Central Union also secures a lot on West Main street, Peru, on which a new building may be erected in the near future.

The Citizens' Telephone Company, of Columbus, Ind., has purchased the plant of the Central Union Telephone Company in Columbus and will combine the two exchanges, using the new common battery exchange previously owned by the Central Union. The resulting exchange will give a unified service to almost 2,000 subscribers, and furnish an adequate long distance service.

In all the cities named above the people have expressed themselves as thoroughly approving a return to one system under Bell ownership or with Bell connections.

Not Bought to "Give Up With."

Among some skaters was a boy so small and so evidently a beginner that his frequent mishaps awakened the pity of a tender-hearted, if not tactful, spectator.

"Why, sorry, you are getting all bumped up," said a girl. "I wouldn't stay on the ice and keep falling down so; I'd just come off and watch the others."

The tears of the last downfall were still rolling over the rosy cheeks, but the child looked from his adviser to the shining steel on his feet and answered, half indignantly:

"I didn't get some new skates to give up with; I got 'em to learn how with."

Life's hard tasks are never sent for us "to give up with;" they are always intended to awaken strength, skill and courage in learning how to master them.—*Forcard.*

EIGHTEEN YEARS OF COMMERCIAL SUCCESS

Good Record Made by Connecting
Company Giving Service At
Wausau, Wis.

The reproduced photographs show what the Wausau Telephone Company of Wausau, Wis., a connecting company of the Wisconsin Telephone Company, has accomplished in the way of constructing and furnishing a modern telephone building and general office quarters.

Wausau is the county seat of Marathon County with a population of approximately 17,500. It is not only the commercial center for Marathon County but of a large territory in the north central part of the state and by reason of its location it is destined to become one of the largest and most important cities in the state.

About eighteen years ago the company was first organized on the mutual plan which proved successful as demonstrated by the subsequent history and progress of the company.

The telephones and switchboard first installed were the "Standards" manufactured by the Standard Electric & Manufacturing Company of Madison, Wis. Some of these early telephones would "stump" the present day troubleman. For switch hook they had a double spring and split hook arrangement which would open one circuit, at the same time closing another.

In 1904 the directors of the company realizing that the time had come to rebuild their entire system began to look around for some one to take charge of the work. H. I. Crawford was engaged for the job as superintendent.

The new exchange was cut over on October 7, 1905. The company had 675 subscribers. This has been increased in less than seven years to 1,300.

Along with this growth in subscribers has been a constant increase in cable capacity until a year ago the directors became convinced that it was no longer practical to put so much cabled overhead and plans were made to put the main leads underground. During the summer of 1911, 23,000 duct feet of underground conduit were laid in 3,600 trench feet. This made it possible to put the main cable leads underground in the business section and also to extend them well into the residence portion of the city.

Work on the new building was started in April, 1911, and the completed building was ready for occupancy March 1st of this year.

As shown in the photographs, the building is practically a four-story office building, with a front and side finished in white terra cotta and liberally supplied with windows. It is of reinforced concrete construction; the foundation, columns, beams, girders and floor slabs being of reinforced concrete. The only wood work in the entire building is in the interior finish. The basement, which is a very high one, has been fitted up for offices and here are located the general offices of the company as shown in the photographs. The offices have been arranged with reference to the particular needs and requirements of the place and as shown it looks somewhat like a bank. Back of the screen or counter is a large roomy office with desk room for clerks and the superintendent's office. Along the entire north side of the basement is the ca-



TELEPHONE BUILDING, WAUSAU, WIS.

ble vault in which the underground cables are brought in from the office manhole on Fourth Street in front of the office to the cable shaft where they are carried up to the main distributing frame on the third floor.

A rear stairway, constructed entirely of reinforced concrete leads to the third floor where the switchboards are installed. The switchboards are of the Automatic Electric Company's three-wire local-battery type. A complete duplicate plant was installed during January and February so that the cut-over on March 5th was merely the cutting in of the new switches and the cutting out of the old ones at the old office.

The first and second floors have been fitted up for office purposes and have been leased as such to business and professional people.

As shown in the photograph the entire office part of the building is lighted by the indirect or "eye comfort" system. The heating is by means of hot water, and the building is well supplied with toilet rooms and lavatories, with both hot and cold water. In addition the building is equipped with a complete vacuum cleaning plant, which is piped to openings convenient to every part of the building.

The main entrance corridor, main

corridor and corridors on both first and second floor are floored with tile and fitted with marble base.

The steps in the entrance corridor as well as the main stairs are of heavy white Italian marble risers and stringers and marble balustrade wall to match.

The building complete with office furnishings, heating, etc., but exclusive of the telephone switchboards cost approximately \$45,000.

Officers of the company are: Nathan Heinemann, president; E. B. Thayer, vice president; W. W. Albers, treasurer; James Montgomery, secretary; G. D. Jones, counsel; H. I. Crawford, superintendent.

ABOUT THAT AIRSHIP TRAP.

Wires "Got Crossed" But George Henry Persisted in Trying to Discuss It.

This is George Henry Smith of Cedar Grove, N. J. This *The Sun* All right, take this down. Squire Hezekiah Baldwin has built an airship trap in his back yard—

(Petulant voice: "Now, Central, you know I asked for Metuchen 44, party J, and you've given me Melrose 48, party R. Get off what wire? I'm a what? You'll what?")

Now we're all right again. And the Squire invited the local Board of Poultry Trade up to his house today—

(Soggy voice: "An' what I wants to know is this, if I ain't in Jack's, where am I?")

Let's see, where were we? Oh, yes. And when they came he showed them his invention, which is to hitch a rope to a carrier pigeon—

(Feminine voice: "I says now you go on and sell your lace curtains; you had ought to be ashamed of yourself, you had, pulling that stuff on a refined lady, and with that I reaches out and")

And the carrier pigeon is set loose whenever an airship comes over Cedar Grove—

(Official voice: "Five cents, please." Oh, Central, reverse the charge, will you? And the Squire has hold of one end of that rope—

(Foreign voice: "For what is it he done that to me? Am I a bad friend of his ever? Who was it paid the rent the last time when")

And he has trained the pigeons to fly over the aeroplane and then turn and fly beneath them—

(Tough voice: "You get the gate, see? Horrid Harriet and Coriolanus the Cheese will be waiting for you on the corner in a taxi in front of the hoghead of Gore.")

And so they get the aeroplane all snarled up and then the Squire he pulls on the string—

(Servitor's voice: "When he blows the whistle drop a hash plate and walk out, balancing a fork on your nose. This is the signal.")

And down comes the pigeon and the aeroplane—

(Distressed voice: "But, doctor, he's all red over his po'ar little chest and John says")

And there you are. Just a minute. The Cedar Grove Board of Poultry Trade when interviewed today were unanimous in their opinion that the scheme is—

(Squeaky voice: "Yes, this is Mr. Buttonbeazer—Mr. Percival L. Buttonbeazer, Jr. Oh, you've got the wrong number; you want Woodycrest S F. ring three J.)

Imprecable. Good night.—*New York Sun*.

THINKS EXCHANGE HOTEL.

Bibulous Traveling Man Tries to Rent Room in Telephone Office at Battle Creek.

"Send a policeman up to the Bell telephone office, quick, please. There's a man up here trying to beak into the building." Central called over the telephone to police headquarters at Battle Creek, Mich., early one morning recently. "I can hear him fumbling around the front door right now."

Patrolman Ely was sent to the rescue of the telephone girls at full speed. With a flashlight drawn and ready for action the patrolman approached the building. The light in the hall was burning, and there was a man inside trying to open the inner door.

He looked up at the officer and blinked.

"Where's the devil ish the clerk?" he hiccupped. "I wansh a room right away quick."

"Where do you think you are?" the officer asked.

"Why, the Clifton house, of course. I want a room quick."

The supposed burglar was taken in tow by the officer and gently led to the hotel he was seeking. He was a Lansing traveling man, and the clerk cared for him.

Central was notified not to worry any more about the burglars breaking into the building.



GENERAL OFFICE, WAUSAU TELEPHONE COMPANY.

HUDSON, OHIO, HAS MODEL EXCHANGE

All Cable Plant with Much Underground Has Replaced Open Wires.

Last winter, when nearly all other telephone companies were experiencing so much trouble due to storms, the Hudson Telephone Company was practically free from this condition, and W. C. Wood, manager, believes this to be the result of the superiority of their underground system. Two years ago poles loaded with hundreds of wires could be seen along the business streets of Hudson, but these have now been removed and beautiful elm trees, which were transplanted last winter, have taken their place. Not a single telephone pole is located in the streets, the aerial construction all being in the back yards and alleys. This was made possible by James W. Ellsworth, a resident, who during the remodeling of the village granted the company special privileges which reduced the cost of the work materially.

The Hudson Company was organized in the spring of 1910, taking over the old Bell and Cuyahoga equipment, which was used until December, 1910, at which time the new plant was put into operation, though the old lines were used until the fall of 1911. The exchange is now pleasantly located on the second floor of the Hudson National Bank building. The switchboard and instruments are of the common battery type and are the best that money can buy. There are two toll lines connecting with the Bell and two with the independent company. The office is also equipped with a test-panel for locating trouble. The outside plant consists of 27,000 feet of underground conduit, 20,000 feet of underground cable and 3,000 feet of aerial cable, and the company expects to extend the underground and aerial cable next spring.

At the time of the transfer to the new board the Hudson Company had less than 400 subscribers at the old rate of \$12 per year, but on February 1, 1912, the rate was increased to \$18 per year, and at the present time the number of stations is twenty-five per cent. more than a year ago. It has been the purpose of the company to increase the use of the telephone by rendering the best service possible, and extending the lines where necessary, at the same time reducing the number of telephones on former lines from fourteen and sixteen-party service to eight and ten-party service. This arrangement seems to meet with the approval of the rural community, as there are now more than 500 subscribers. A complaint of any kind in regard to telephone service is almost an unknown thing to the Hudson Company. On visiting the operating room it is seen that much credit is due to Jessie Pontius, chief operator, who has her force of efficient operators well in hand.

While Hudson has many things in its favor over other towns of its size in the way of ideal location, paved streets, electric lights, etc., its telephone plant should head the list.

The company was financed by local capital. Its officers and directors are: T. B. Terry, president; A. H. Dittick, treasurer; W. C. Wood, secretary and manager; F. F. Barlow, Clarence Bouton, W. J. Chamberlain, T. B. Terry and A. H. Dittick, directors.

TO ELECTRICITY

Ere the storm-clouds curled 'round an infant world,
Ere the air was cleft by a wing,
You encircled space in an endless race,
A wild, unfettered thing.
In creation's art you wrought your part,
Subject to Nature's skill;
From zone to zone, a power unknown,
Unshackled by man's will.

On a summer eve strange scenes you weave,
Where the fleecy clouds pile high;
When your lightnings shift from rift to rift,
As you play in the twilight sky.
Oh, there's grotto and wall, palace and hall,
Quaint ships on an ocean blue,
Your flashlights run like molten sun
Blent with the sea shell's hue.

But you come to our eyes in another guise,
Where motor harnesses bind;
And the ocean's wide sweep and the mountain steep
Cannot measure your worth to mankind.
Oh, the matchless speed of the winged steed,
Needing not bit nor spur,
Where the broad belts slant and the engines pant,
And the spindles reel and whirl.

—RENICE RADCLIFF in *Popular Electricity*.

UNUSUAL TRAFFIC LOAD.

Caused by Screaming Locomotive with Whistle Out of Order in Chicago.

It was neither Gabriel's horn nor Mrs. O'Leary's cow. It was not even the clarion blast of a new found campaign orator, nor a premature New Year, but it was a considerable scream.

It was a long, loud, furious, continuous scream, beginning somewhere near the north city limits at ten o'clock one night recently, and screeching through the north side for forty-five minutes. Nearly everybody heard it.

At 10:10 o'clock Tony Czarnecki, member of the board of election commissioners called up *The Chicago Tribune* and said:

"That whistle. It's been blowing for ten minutes, and it's still blowing. It is some demon blowing a fog horn blast all over the north side."

But before any investigation could

be made, the Illinois Club called up: "What has happened? Is the town on fire? Somebody has been blowing a whistle for nearly fifteen minutes out our way."

There were scores of other calls, all demanding the explanation of the blast.

It remained for the fire department to locate the cause. It was a broken whistle on an engine of a Chicago, Milwaukee and St. Paul railroad train coming into Chicago from Milwaukee. The whistle broke when the engineer pulled it at a crossing just north of the city. It screamed all the way through the city till the train stopped in the union depot and the mechanicians gagged it.

Then Chicago went to sleep.

The unusual noise caused a heavy increase in the traffic through Humboldt and West exchanges between ten and eleven o'clock. It was necessary to hold some of the ten o'clock girls as late as eleven to explain to excited subscribers what the trouble was.

THAT ANCIENT CARD AGAIN

Manager Good Naturedly Confounds Subscriber Who Used It as Directory.

The manager of one of the Wisconsin exchanges recently had occasion to call at one of the down-town stores, and was about to leave after making a purchase, when the proprietor, who was sitting in the rear of his store, called to him in a loud, indignant voice that the service at his store was "absolutely rotten," and that invariably every time he called for a number he was connected with the wrong party. He then volunteered the suggestion that if the operators, instead of reading novels, gossiping with each other, eating candy and so on and so forth, would attend to business a little more often, perhaps he could get the parties he gave the numbers for occasionally. The manager, somewhat surprised to hear of such a state of affairs, went to the telephone to make a test call and his attention was immediately called to a cardboard bearing at the top an advertisement of some patent medicine and under the caption of "Put your frequent telephone calls here" was a long list of names of those frequently called. Some were written in pencil, some in ink and all in general had the appearance of having been written at least three years back. Such proved to be the case when the manager referred to the directory hanging within a foot of the card and showed the indignant proprietor that with the exception of two the entire list of numbers he had written down for "ready reference" did not correspond with the numbers listed in the current directory. After apologies from the subscriber, and an invitation for him to visit the operating rooms to see the girls read, crochet, gossip and chew gum," the manager was seen coming from the store with a smile on his face and smoking one of the subscriber's perfectos.

Which Is Your Good Ear?

"Which is your telephone ear?"

That, according to a "hello girl," is a question which, if propounded to the thousands of people who gossip over the wires every day, would result in a far better understanding between them.

"Every one has one ear that is better than the other," she theorized; "and yet if you will notice you will see that in 999 cases out of a thousand the person at the 'phone places the receiver to the left ear. It is because the receiver is hung on that side of the instrument. The wire is always long enough so that the receiver can be held to the right ear, but this never seems to occur to the 'party.'"

"He may be half deaf in his left ear and may be perfectly sound of hearing with the right, but this makes no difference. There he sits and fumes and struggles and perspires trying to find out what the person on the other end of the line is saying, and all the time he is busy playing the game by making his 'own ear' do the work. I'm thinking of putting up a sign here over the booths, 'Are you right or left eared? Find out before calling your number.'"

"That's right, too," said the sister operator. "Half these fellows that get their numbers mixed up and then want to 'get your job' could save themselves lots of worry and trouble by going to a physician and allowing him to pick the 'good ear.' When you're talking to a man lots of times he'll turn his head just a little to hear better; and yet this same man will wriggle into a telephone booth and sob his heart out because we poor girls can't bring back the hearing to his dead auricular."—*Chicago Daily News*.



TELEPHONE BUILDING, HUDSON, OHIO.

THE CUSTOMER

How He Should Be—and Is Not Always—Handled By the Representatives of Modern Corporations.

By CROMWELL CHILDE

(Reprinted from the Telephone Review)

Late one Saturday afternoon, through an error, a telephone message never meant for him personally got on the private wire of a big official of a certain company. The big man was staying downtown, making up arrears of work. His immediate staff had gone. The message was vitriolic. Whoever was at the other end was wholly exasperated by a fancied or actual wrong.

The important official had taken up the telephone mechanically. Anyone watching his face would have seen that, within a moment, he had recognized an emergency and was intending to deal with it.

It happened the man who is writing this, a social friend, was sitting a few feet away. For the next few moments, not meaning to listen but unable to help hearing, he was held spellbound by the masterful way the man at the telephone handled the situation. With dignity, but at the same time with the finesse, skill and cajoling words of a successful salesman, he took, at the very first, the ground that the man at the other end of the wire was very possibly right, that it was very possible the company's representatives were wrong, he conceded there had been such cases. Would they—oh, of course, and it was very kind of Mr. ———— to ————, very kind.

The Science of Business.

Of a sudden, so cleverly that it could scarcely be seen when it began, his talk changed. Now he was pleading the cause of the company. He was, in effect, an assistant reporting, the man he could not see and did not know was his superior passing the evidence in review. In a dozen sentences more it was all over. A pleasant final word that it was certain was responded to equally pleasantly, and the big man hung up his receiver.

"He was going to sue," the big man said to me. "He was intending to direct his lawyer to begin on Monday. Now not only has he given all that up, but he says we were perfectly right. In our place, he says, he would have done exactly the same thing."

"I am glad I answered that call," he went on. "A man who would have been an enemy is now turned into a friend. What that means to a business, any business, we older men at the head know. It is the one thing it is most difficult for our younger, enthusiastic men to understand."

Up the Ladder. Why?

"Choosing men to act in the capacities is the most difficult part of executive heads of any big company have. Before his chief, many a man appears admirable, full of intelligence and magnetic. He is to be displayed and use these same qualities in just this fashion when he is no longer under our eye? We cannot tell. We can only hope. If he does not he may be doing irreparable harm to the company's good will, and it may be a long while before we find it out. The man that we know 'makes good' has proved himself a prize. His fortunes with this or any other company are secure."

In no other end of a big corporation is there so great an opportunity for the young man of today to display his skill and resources as in those departments where the outside world can gain admittance any time and where it must be met and listened to. For the want of a better word this outside

world is generally spoken of as "the public." Modern business science is changing this and, where expert handling prevails, is saying "customers" and thinking of them as that. The theory is that the man or woman who rides on a car, who uses gas or electric light in a flat, who wants to know the time the next train leaves for Newark, or New Haven, who rings up a call at a telephone pay station, buys a ten-cent article in a department store or a twelve-cent meal in a "quick lunch" room is a "customer." He or she may be a "customer" on a very small scale, but many a modern business enterprise is based on an infinite number of small sales. It pays to satisfy every one.

The People Who Are Paying.

What is it that these "customers" want? Their money, though it comes in little sums, added up makes the big revenue. The clerk, going to and from his work, is a customer of the street railroad to the extent of some thirty dollars a year, and the most modest housekeeper in a flat pays the gas company about as much. Even the most insignificant man with a telephone in a big city like New York hands over during the year thirty-five or forty dollars. The business problem is to get as many of these people as possible as "regulars," and then, wherever it can be done, to sell each more service.

Frank Jones is the smart, bright salesman of a big "house." He has his own valuable trade. It foots up to such good proportions that, based on what he can do, he is paid close to \$4,000 a year. Let a growl, a complaint come from one of his customers and young Mr. Jones is off like a shot to patch it up. "Must keep his business," he says. "H'm, they sent you the wrong grade in that line, and when you couldn't get me, somebody of ours over the telephone spoke rough. By George, we can't stand that. Let me get back to the office. Good of you to tell me, Mr. Seaman. 'Bliged. We've got some fresh youths down there who need taking down."

A few brisk remarks are made in a certain office an hour later, and one or two young men are made to realize that mere perfunctory, ordinary, elegant, not-interested-particularly courtesy doesn't fill the bill when you are trying to please people that are buying from you. The young men are made to understand that they have given their business careers quite a little of a setback and that it will take some effort on their part to remove an unfortunate impression.

Sam Brown, Who Will Win.

This is not sentiment. It is just plain, straightaway business that a good many hundred managers are trying to drive into the heads of their young men. Frank Jones has a friend, Sam Brown, who, being a personable, fluent-talking and seemingly judgmental man of twenty-five, has been entrusted by a large corporation with a desk and a job that brings him in contact every day with many people who have criticism or grievances.

Sam Brown is a wise young man. Some day he will be signing letters as a vice president, in all probability, for jumped from a clerkship where he dally did what he was told along narrow lines, into this position of authority, he realizes from the first moment

that the business of his company is to sell service in small lots.

It doesn't matter, for this particular page out of business life in New York City, where Sam Brown—who is a very real personage with his name changed here, and just commencing to be known among powers downtown as a man that can "handle any one"—is with a company that sells gas, or telephone calls, or street-car rides. The principle is the same. He thinks of just one thing, that the littlest man or woman has money that must, if possible, get into the company's revenues, that what he is being paid for is to hold every cent of that already coming in, and lay plans for attracting as much more as possible.

\$30 a Year Each.

"Frank Jones," he says to himself, "sends a man who will buy \$3,000 worth of goods from him worth spending some time on, satisfying all he can. A hundred people, each of whom spend \$30 a year with us in dribbles, mean just as much money to our company. All it requires is a little sympathy here, a little obliging there, and never an insistence upon the wonders of our company and our employees, antagonizing by perfunctory attention and heavily-laid-on superiority."

Four Errors of Judgment.

Four phrases the young man given authority should put on his list of "never use." They annoy the outsider, and have no justification. So four important men of widely different interests say. The phrases are—

"We have a system that takes care of all these matters."

"I can't understand it. That is one of the best men we have."

"I find he has an absolutely perfect record. There has never been a complaint against him."

"Now, you are an intelligent man."

The four men agreed unanimously that the last was the most ineffective and foolish phrase. "Yet," said one of them, "I imagine that many men trying to do this sort of work make use of it very frequently. A man of limited mental calibre who happens by chance to get into one of these positions probably thinks it a very fine phrase. I know of one time when it was said patronizingly to a rather distinguished New York lawyer. The young man who said it to him didn't quite realize who the man was—a somewhat important thing to do, by the bye—and the lawyer told the story at one of the downtown lunch clubs. For months afterward his friends always began, when they spoke to him: 'Now, you are an intelligent man.'"

Mistakes of Youth.

A very far-seeing big business man said the other day that one error of judgment he had often known men who handled "complaints" to make was the way they would claim to be personally acquainted with men of high standing, particularly the chiefs of the company the complainant was attached to. "Sometimes this is the truth, sometimes not," he said. "Even if it is the truth it is of no value and it does not impress the 'customer' at all. I had an instance of that myself. One of my really good men put in a complaint to one of the big companies. The man he saw said he knew me very well. I had never heard of him."

The man from the outside does not want cold, formal courtesy and machine-made politeness. In the hands of any one but a very skilled man, this becomes aggravating. Nor is he awed by a private room and a shiny topped desk. The real genius makes the visitor feel that he is glad he has come, that this is not "just another."

"Here is a little thing," said a street railroad manager. "One of those lit-

tle things that becomes of the greatest importance. I found out the other day, quite by chance, of complaints made with reference to a certain line of our cars that go through a fine residential section very frequently not stopping on signal. The man we have in charge of these complaints I discovered had sent these complaints through the usual routine, and had given no special attention to them."

"Yes, they were very little matters, just cars not stopping. But here's what this 'trouble man' of mine ought to have foreseen. We were missing fares at a slack time of the day. We were discouraging people from using our cars, for the shops where they wanted to go were really within walking distance of these points. We were neglecting to pick up a lot of very profitable short-haul business, and we were getting ourselves unpopular in a certain section. We could have taken in a lot of extra nickels from the 'automobile trade' and we were carelessly letting them go."

Bringing an Ebullient Clerk to Book.

"Do you know what I did? Something unusual. I asked one of the men who had made these complaints if he would call on me. I knew him well by reputation, though I had never met him personally. He was a prosperous, decisive, decided man, of good judgment and knowing what he wanted. He was too strong a man to care about deference. All he wanted was to be understood. My man had treated him like a little clerk. I don't think he realized he had."

"Frankly, Mr. ———, I am glad you have given me the opportunity of meeting you," this gentleman said, "I consider I was treated in a way that is not injurious to me, but will come right back on your company. There was no discourtesy, rather too much exaggerated courtesy of the posing style. Your man sat at a big flat-topped desk; he put on 'side.' He was very important. He had a big sheaf of papers before him; he raised his hand graciously to a waiting stenographer as I entered—and dramatically held her there with her notebook open. There was too much granting an interview about it. His manner was, 'Yes, my man, what can I do for you?'"

High-Flown Nonsense.

"He received my complaint in a most perfunctory way remarked, 'Yes, we have a system for handling these cases,' and then occupied several moments with laudatory statements about the road that was employing him—your lines—delivered in high-flown fashion—mainly regarding what the company had done for the city."

"We look for citizen co-operation," he said, "for the civic patriotism of people that ride on our lines." You know "form letters." Mr. ———, this was a "form interview" if there ever was one. As I went out I pinched myself. "Am I a responsible individual like I thought I was?" I mused, "or am I a clerk somewhere?" That man acted as if I were the latter."

"I had picked that 'complaint man' out of a dozen possibilities," went on the railroad manager. "He appeared to have every qualification. He was bright, he dressed natty, he was quick and seemed to have good judgment and the ability to 'size up' people. I never imagined he would do that way. Somehow, I believe my visitor's story. He may himself have been aggravating; he is a man, I can see, who would push for what he wanted—but bless you, I picked my young man to handle just that class of people. What is quite evident is that my chosen man 'rubbed him the wrong way.' If he did that in one case that I know about, in how many has he done it that I haven't heard of?"

Central-Office and Sub-Station Equipment Supervision

By M. J. ENNIS, Manager at Fond du Lac, Wis.

To supervise properly the equipment at the central office it requires considerable detail work which cannot be given too much time. No doubt the most individually important part of the central office equipment is the storage battery, and, while it is necessary that this be given very close attention, it has been observed on more than one occasion that the person handling the storage batteries was not familiar with their action during the charging and discharging period. I do not believe too much supervision could be given to this part of the plant to be sure that it is in A-1 condition at all times.

Next in line of importance, no doubt, are the supervisory relays which should be watched closely to see that they are operating properly. If there are numerous supervisory relays out of adjustment on the switchboard, it is impossible for the traffic department to furnish satisfactory service. It is very well to watch tests on these relays made twice a week and to observe if the same relay appears in trouble consecutively; also to see that the total number of relays found not operating properly does not exceed the proper proportion of the total number. Line relays should be gone over at least twice a year to see that they are adjusted properly and are kept so; also when a new relay is installed to know that this has received the proper adjustment rather than be installed with the armature showing a good action. Supervisory relays need more attention than a line relay because if the supervisory relay were out of adjustment any and all subscribers could be affected, whereas if the line relay were out of adjustment it would only affect that individual line. It is very necessary that the man doing the switchboard work be a competent man, as trouble can be caused by incompetent work which never can be overcome. For instance, in soldering wires on relays and other places an incompetent man frequently leaves a job in such condition that the insulation on the wire will peel back, which presents a bad appearance; also, in repairing troubles in the multiple, if this work is not done in a proper manner in a short time the multiple begins to look bad and it can never be put in good condition, so it is necessary that this be carefully supervised.

The main frame and the intermediate frame should be gone over carefully and frequently to see that all of the work done is properly soldered and that no loose connections are left around these frames. Also an important item is to know that the proper style of fuse is used on the fuse panel

for the different circuits and as this can very easily be done, it is well to go over the entire fuse panel quite often and check this.

Cleanliness is a big item in the matter of central-office supervision and where you find a switchboard and the other frames which are not free from dust, you may usually expect to find poor attention paid to the different repair work. The dust on the relays inside the switchboard and the different cord shelves should be removed at all times and kept in a clean condition. When an inspection of this is made and the first appearance presents a clean condition, nine times out of ten you will find that the equipment is also in good condition.

Close supervision should be given to the charging machine and ringing machines to know that the commutator brushes are in good condition and are set properly and that the commutator on the machine has a smooth surface.

The cords on the switchboard should be looked over to see that ragged cords are removed when they become frayed and look bad. This is an item which frequently does not receive as close attention as it should be given. Of course, it is very necessary that the cards and cable records covering this equipment be in good condition and up to date at all times. A good method of supervising this work is to take approximately twenty cards from the wire chief's and twenty cards from the chief operator's file, both of these at random, through the entire amount and check one against the other and this will offer a good idea of the condition of these cards as regards correctness.

To supervise properly the sub-station equipment, a certain proportion of each month's installations should be inspected to see that the work is done in a proper manner and that the cards and cable records, connection notices and chief operator's records all agree. On the inspection of this work it is necessary that the men be notified of any defects found and to observe on the next month's inspection if these same defects occur. A good plan is to call these items to the installer's attention in each instance.

The Mission Telephone.

Near the middle of the meeting, says the *New York Herald*, the mission telephone bell rang. Presently the clerk interrupted the services to say:

"Is Harvey McIntyre here? He is wanted at the 'phone."

Without saying a word a poorly dressed man got up from a seat near the door, hurried down the aisle and across the platform to the telephone booth. When he reappeared he stopped by the superintendent's chair and sought permission to address the audience.

"Fellows," he said, "I've got a job. This afternoon I asked a man for work. He couldn't answer me then, but he said if I would tell him where to find me maybe he would let me know tonight whether he could take me on or not. I looked up the telephone number of this mission, and asked him to call me up here. He has done it and I go to work tomorrow."

That brief address formed the keynote for the rest of the unusually successful meeting. At the close of the service a friend complimented the mission superintendent on his clever stage management.

"You mean that fellow McIntyre?" he said, "you think I planned that? Well, I didn't, but it was tremendously effective."

"The thing happened just as McIntyre said it did. A lot of fellows whom we do not know give our telephone number and ask to be called during services."

Brief News Notes from Everywhere

Telephone Equipment in New York Hotel.—The New York Central and Hudson River Railroad Company will build a twenty-three story hotel adjoining its new station in Forty-second street, New York. It will be named the Hotel Biltmore, and will have an extensive telephone plant. Each of the 1,000 guest rooms will be equipped with a telephone. The main switchboard will have twelve operating positions, each equipped with telautograph sections. In addition to the main switchboard, four subswitchboards will be installed. Thirty-eight telephone booths will be distributed at convenient locations on the main and mezzanine floors. There will be 100 trunk lines running into the main and sub-switchboards, and a total of 1,200 telephone stations will be located on the premises. It is estimated that during the first year half a million local telephone messages will originate from the hotel.

Telephone Cables Out of New York.—The main borough of New York city—Manhattan—being situated on an island, telephone submarine cables must necessarily be used as a link in the means of communication with the rest of the country. There are now sixty-three armored submarine telephone cables leading from Manhattan Island in all directions, with a total number of pairs of conductors of 10,684. In addition, there are three cables laid in the subways of the Pennsylvania Railroad and five cables in a telephone subway across the Harlem River, which total 2,877 pairs. This makes seventy-one cables and 13,561 pairs of conductors (27,122 wires) passing under the North, East and Harlem rivers. In laying these submarine cables the utmost care must be exercised not to have them cross each other. They must occupy the same relative positions in the cable houses on each side of the river. By being chained as low as possible there is little slack for an anchor to catch, and the cable is far enough from the surface to avoid being caught by a steamer or tug propeller.

Sale at Auction.—At Philadelphia on July 31st, first mortgage, five per cent bonds, face value \$100,000, of the American Union Telephone Company, were sold at auction for \$2,100 for the lot.

Receivership Proceedings.—Judge Henry of Lebanon, specially presiding in Common Pleas Court at Harrisburg, Pa., on August 19th appointed S. B. Caldwell of West Chester, Pa., secretary and treasurer of the United Telephone Company, temporary receiver. The United is a subsidiary of the American Union Telephone Company, which is in the hands of receivers named by the Federal Court. At the same time a motion was made in the Federal Court to require the receivers of the American Union company to turn over to Theodore A. Lamb of Erie property owned by the Union Telephone Company of Erie, which was leased to the American Union company.

New York Telephone Bonds.—The stock exchange has listed \$10,000,000 first and general mortgage, thirty year, four and a half per cent, sinking fund bonds of the New York Telephone Company, due 1939.

Deal in Texas.—The Southwestern Telegraph and Telephone Company has become the owner of the entire system of the Northwest Texas Telephone Company, of Plainview; consideration, \$101,000.

Heavy Losses by Bondholders.—Some of the bondholders of the insolvent Independent Telephone Company, of Omaha, Neb., are receiving twenty cents on the dollar and some forty-three. This is said to be due to the fact that the Nebraska Telephone Company paid \$400,000 more for the plant than the sum bid at the receiver's sale July 1st. The extra sum is being distributed to the bondholders' committee. The company bid \$1,000,000 for the plant, but had previously agreed, it is said, to pay \$1,400,000.

Receiver for Iowa Company.—Clifford B. Paul has been appointed receiver for the Jones County Telephone Company of Anamosa and Monticello, Ia. The action was brought in foreclosure of a deed of trust, given in 1903 to secure bonds issued by the company.

MORE ABOUT PARIS.

Society Makes Known History of Doctor's Attempt to Get Good Service.

The Society of Telephone Subscribers, an association which grew out of the chaos and inefficiency of the government owned telephones in France, has just made known the history of the lawsuit of Dr. Serolison, of Paris, against the telephone administration.

The doctor was frequently bothered by patients informing him that they could not obtain his number or that if the number was obtained, the reply frequently was that no such person as Dr. Serolison was known at the address. Five years of this passed. Then, having lost many patients through bad telephone service, the doctor investigated and discovered that his number had been given to a laundress and to still another person as well as to himself. So he brought suit.

He got a verdict for \$40 damages, but the administration appealed and the verdict was reversed, the court finding that the state, though proprietor of the telephone lines, was not responsible for errors committed in the official directory.

Appointments.

A. R. Bone has been appointed commercial superintendent of the Chicago City Division, Chicago Telephone Company, succeeding A. M. Ramsay.

A. M. Ramsay has been appointed directory superintendent for the Chicago Telephone Company. The present directory Division of the Chicago Commercial Department and the directory work of the Suburban Division are transferred to his division. He will report to the general commercial superintendent.

B. A. Pratt, press agent in the Suburban Division, Chicago Telephone Company, has been transferred to the Publicity Department of the five companies of the Central Group, reporting to Clifford Arrick.

J. R. Ruddick, formerly chief clerk to the division auditor of receipts at Chicago, has been appointed division auditor of receipts at Indianapolis, succeeding M. Quinlan, who resigned to accept a position with the Western Union Telegraph Company in New York.

The territory of A. G. Francis, subscriber's agent for railroads and transportation, has been extended to include all of the State of Illinois.



One of the reasons why people leave St. Louis for Chicago is that there are two telephone companies in St. Louis and the person you want to talk to always has the other one.—Chicago Daily News.

RELAY ADJUSTMENTS

By W. P. Cook, Detroit City Night Wire Chief

For the benefit and guidance of those who have not had the opportunities that others may have had in studying relay adjusting, a few remarks concerning the 118-A are offered, with a feeling that a general good may be done by way of causing the details and faults of this relay to become more generally understood, not only among the junior switchboard men, but among all others who may be interested in the subject.

Since only those who are familiar with the 118-A relay, and its use, can derive any benefit from these notes, its general description seems therefore unnecessary, the point in view being to analyze the faults which are common to this relay, and suggest methods in detail for correcting them, as met with in general service.

1. It is essential that the relay be securely held on the mounting plate. The fibre disc which separates the relay proper from the mounting plate, has a tendency to swell in a moist atmosphere and shrink in a dry. In summer time, the air is of much higher humidity than in winter time, when the heat is on in an operating room.

For apparent reasons it is advisable to tighten up all the relays in the office during the dryer season, when the fibre is shrunk to its smallest.

2. Often when testing cords with a test box on a No. 1 switchboard, the relay responds to the test all right, but the lamp lacks sharpness in its flashing, presenting what appears to be a sluggish relay.

If an examination of the relay is made, it will be found that the end of the spring, in place of resting firmly against the spool head, is resting away from it, thereby giving the armature a rebound action as it strikes the spring.

This springy effect will produce a buzzing contact, which will offer a higher resistance to the shunting circuit than if the contact was made positively, thereby shunting the lamp down slowly.

3. The relay should be horizontal and level on the plate, so that the armature will not work over to one side or the other and bind.

4. Contact, and back screws sometimes become stripped. Instead of throwing a screw away, first try exchanging it with one of the same style of a different relay. Often this will avoid the necessity of ordering a new screw.

5. There should be ample freedom sideways between the armature and the two retainer prongs.

The two screws that hold the retainer to the iron pole piece, should always be tightened before a lasting adjustment can be expected.

6. The little pin which rises up in the groove, or slot, of the return pole piece, often is too long, and causes the armature to ride on its topmost end.

This not only causes the armature to keep shifting its position with respect to the core tip, and in the groove, but continually alters the magnetic circuit as it rocks about.

In drifting this pin down, care must be taken that no iron filings are left in the slot.

7. The relay caps sometimes come off hard and go on the same. An oily piece of cheese cloth applied to the inside of the cap will remedy the annoyance.

8. A thin coat of shellac applied to the outside of the relay shell and cap will greatly reduce the amount of free dust that may settle. What does lodge may be blown away readily.



WINDOW DISPLAY IN GROCERY STORE IN FLUSHING, MICH.

Many annoying little faults creep into the relay during the manufacturing processes, that materially affect their nature, and practically gives each relay an individuality of its own. For these reasons, two relays can seldom be adjusted by giving each the same attention. Iron filings, a burr here and there, dust in the groove, gum or grease on the working surfaces, or an unbalanced armature, all must be reckoned with, in performing intelligent adjustments. Indeed, it is an art to be able to recognize all these faults and properly deal with them.

A. The presence of gum or grease on the platinum points will cause trouble so long as it is permitted to remain there. An excellent instrument for cleaning the platinum, may be made from a thin piece of steel clock spring, which has been scratched cross ways with a file, like a file. By placing the instrument between the points and pressing lightly against the armature, the points will be cleaned as the steel is pulled out.

B. Grease or gum on the back face of the armature where the screw strikes it, plays a surprisingly important part in holding the armature back. To be specific, on one occasion the current that was required to pull an armature up was .029 mills before it was cleaned, but after it was cleaned it required only about half the current, .014 mills. This may be an abnormal case, yet serves to illustrate a strange feature that is often overlooked.

A thin strip of close grained writing paper, about one-quarter of an inch wide and four inches long, serves effectively in removing foreign matter at these points. Slip the paper in between the armature and the screw, then slowly pull the strip out as the armature is given a slight pull and wiggle. The black streak of deposit on each side of the paper strip will indicate the quantity of grease present.

C. The nature and condition of the armature edge is of great importance. Often an armature is found with a flat, irregular or crooked edge, and sometimes a burr is noticed. To perform an adjustment that will endure service, all of the faults must be corrected, leaving a straight, sharp and smooth edge.

To obtain this desired edge, the following method has been used with a success that leaves nothing to be desired. Procure a new single cut file of about an eight-inch length. When an armature needs a new edge put on it, take it out and hold it in the hand and against a rest in such a manner that it may be filed lengthwise with the edge, then cut down the beveled side at its natural angle until a burr is felt on the opposite side. Now turn it over and apply the file

to the flat side of the armature until this burr disappears, but reappears on the beveled side. Stand the armature straight up on the flat face of the file, and by drawing it lightly back and forth a time or two, the burr should drop off. Repeat all of the above processes on sandpaper, finishing off by drawing the armature lengthwise over the sandpaper, at the same time giving it an even rocking motion at right angles to the line of the edge. No. 00 sandpaper is recommended.

Do not use sandpaper on the platinum, and always wipe off the sand dust that lodges on the armature, also strike the armature a sharp blow to remove any stray iron filings that often cling to it. The burr that is usually left in the slot of the armature after it has been filed, must be cut out with a knife. Do not allow the polished armature edge to touch the hand or fingers, since the salts that are secreted by the body will cause corrosion to set in, in time.

D. Iron filings on the relay core at the pole tip will dance around from time to time, thereby altering the magnetic air gap to such an extent that a great deal of trouble will be experienced if they are not brushed off. Lasting adjustments can never be made when filings are present.

E. The soft iron which is used in the construction of these relay parts, is not supposed to retain a magnetic charge after the current is taken off.

The following notes are interesting, and make it appear as though the iron retains some of its magnetism:

Saturate a relay with eighty ohms in circuit, then adjust it to pull up on exactly .015 mills. Try it several times to make sure that it operates on just .015 mills, then with a pair of long-nose pliers, give the return pole piece a twist as though trying to straighten up the relay, or give it a sharp blow, but be sure the relay is tight on the plate. With the aid of the millimeter, it will now be observed that the armature will scarcely hold up on .015 mills. Further proof and explanation of this phenomenon follows.

F. Temperature figures in the permanency of the magnetic charge. By way of illustration, if a relay is adjusted to operate on a given current at a temperature of seventy degrees, and there are no mechanical or electrical disturbances while it lays at rest, it will be found to operate on exactly the same figures and margins a year hence as it would the next day, provided the temperature did not change. But if the temperature rises or falls from seventy degrees (or whatever temperature it may have been adjusted), the mechanical strain thrown upon the mass of iron as it shrinks or expands

will disturb the magnetized molecules to such an extent that they will relax their position and become null, thereby relieving the relay of its residual charge of magnetism, and changing the operating figures accordingly.

G. Calling cord relays are more generally found to be off of adjustment than answering relays. If an operator, when ringing on a line of high capacity, happens to close the ringing key just at the instant when the ringing current potential is at the maximum point on the wave, the line will discharge back into the battery through the supervisory relay. The polarity of this discharge is liable to be either negative or positive. In one case it may saturate the relay more in its natural direction, and in the other it may either reduce the magnetic charge to zero or reverse the polarity of its magnetism entirely. In either of the two extreme cases, the relay's condition has been changed so that it will not operate on the figures that it would previously. If the key is closed at the instant the alternating wave crosses the zero line, there will be no charging of the line or discharging into the relay.

H. Crossed ringing key contacts, where the inside contact is not broken, but permits ringing current to get to the relay will produce the same results. An operator ringing in on an already busy line will affect the relay that is being rung into, likewise.

There are perhaps other details on this subject that might be discussed at this writing, but are omitted for the sake of dealing more liberally with the more important parts.

It is the intention to describe in a subsequent issue of THE NEWS, a new and quite thorough system for testing and adjusting supervisory relays, at which time further details concerning relay adjusting will be taken up.

Chicago Telephone Practice Gains Notoriety Abroad

Michael Seery, one of the construction foremen of the Chicago Telephone Company, recently returned from a trip to the old sod. He considers the time well spent because he learned something he did not know before about Chicago practice, as evidenced by the following clipping from the *Dublin Evening Telegraph*. He has placed a requisition for the necessary material:

Why Not String the Rat?

The Chicago Telephone Company have adopted an ingenious method for laying telephone wires.

A rat is loosed in a pipe through which a cable is placed. A string is tied to a ferret, which pursues the rat, carrying the string through the pipe.

Shippers' Telephone Guide.

The transportation committee of the Merchants' and Manufacturers' Association, of which C. N. Turner is chairman, has compiled a "Milwaukee shippers' guide."

It is a book of handy size, in good-sized, legible print, giving information as to how to reach various departments of the railroads, steamboat and express companies by telephone. Subjects on which shippers are liable to question the companies are listed and given numbers, and the one who telephones asks for the number corresponding to the subject on which he desires information.

The book is probably the first of its kind issued in this country. It has made such a hit with railroad officials that efforts are being made to have similar systems established in St. Paul and Minneapolis. The association is having 5,000 of the books printed, and they will be distributed among the members.—*Milwaukee Free Press*.

Duties of A Chief Clerk

By JOSEPH H. ALFRED, Chief Clerk of the Detroit District.

The writer will attempt to bring out in this article a few of the conditions which surround the chief clerk in the telephone business in the present day, the intention being to point out how the most good can be accomplished for the employer with the so-called "troubles" kept at a minimum and under the surface.

With the acceptance of such a position the chief clerk acknowledges at once the authority of his superior. He should at once realize that the authority vested in his superior is a bona fide authority, and his first measure of success in the position depends entirely on his acting in a manner which will bring to him the full support and confidence of his employer. Once he has established that relation, the road will not be hard, provided that he continues to perform his duties to the very best of his ability and, being himself satisfied that he is delivering the very best that is in him. The next step should be a consistent effort to gain the good will of such of his subordinates as perform their duties in a creditable manner, not losing sight of the fact that he is directly responsible for results. When loose methods and dilatory tactics are pursued without interruption by those under his charge, he not only does the offending parties irreparable injustice, but he makes himself absolutely impossible to consideration for further advancement. When that condition has arrived and he sees from month to month others advanced to positions for which he was directly in line, he has left just one avenue of escape to avoid the "tin-can" route. That chance is to tender a resignation, accept some flowers and a humidor, and go out and hunt for a position with a determination to benefit by his experience and make good.

His resignation under such circumstances benefits himself and his employers, but the greatest benefit comes to those who have been "stalling along" under his guidance.

It is the duty of the chief clerk to issue many orders, using, of course, the authority of his superior. In such cases he should at all times conform as closely as is possible to his superior's wishes, and he should at all times remember that his superior will be called to account for his shortcomings. When acting along these lines he has a right to expect the unqualified support of his chief and when such support is not extended, it impairs the usefulness of the chief clerk.

The chief clerk is besieged by the subscribers to perform little favors and courtesies which can, in many cases be extended without additional expense to the company, provided that the various departments are working in harmony.

Under our present functional organization conditions are vastly different from those which existed previously. "Rush installations," "Rush interior moves," "Rush exterior moves," and, in fact, all rush orders should be kept at a minimum. However, the fact remains that conditions present themselves daily which warrant prompt action, even though a slight additional expense is entailed, and I cannot impress too strongly, upon all concerned, the necessity of perfect co-operation in the fulfilling of promises made to the public.

One of the real troubles of the chief clerk is to find that, through no fault of his own he has lost the confidence of a subscriber, such loss being due to the failure of some one else to make good. The subscriber then turns, and

rightly so, to ones higher in authority, who accomplish the desired result, and, rest assured, the chief clerk then becomes a "dead one" in the eyes of that particular individual.

Many problems confront the managers in charge of the districts out in the state and the chief clerk is in a position to be either a real help or real obstruction in disposing of such matters to the satisfaction of all concerned. His attitude at such times is supposed to reflect the attitude of the district commercial manager and if a few hours of overtime, a few pieces of mislaid correspondence, the absence of a couple of assistants and a real high grade "bawling out" from a party-line chronic kicker have combined to ruffle his temper beyond control, you may at once decide that he is the wrong man for the job.

Almost daily we receive a communication from a subscriber who has experienced some line or instrument trouble having been out of service for a few hours. The subscriber explains that his loss is hard to estimate on this account, but "conservatively" places it at somewhere between \$50 and \$300.

Now, understand, it is not up to the chief clerk to question the veracity of the writer of such communication, but just about the time he has switched his record by changing that particular subscriber from a "conservative" to a "progressive" he bumps into the gentleman arguing over the sixty-six-cent discount on a four months' old bill. The chief clerk is wrong again; the gentleman has proven that he is consistently conservative. Only a few days ago a gentleman called the writer on the telephone to enter a complaint. I tried to learn the telephone number but he told me he used telephones from all parts of the city. I tried to learn his name and he explained that his name could not in any way better our service. I was unable to learn whether or not he was a subscriber, and finally told him we could not take any record of a general complaint in the manner offered, and he gave me a parting shot that would not look well in BELL TELEPHONE NEWS. In my own mind I was satisfied that the complainant was not a subscriber to the service, or that he was a subscriber and in arrears.

However, the chief clerk is permitted to have those little consolatory thoughts, but if he wishes to remain even a chief clerk a little delayed expression is the finest thing under the circumstances.

The position of the chief clerk does not by any means require a man of extraordinary ability, but it is essential that he have at least ordinary ability and be absolutely reliable.

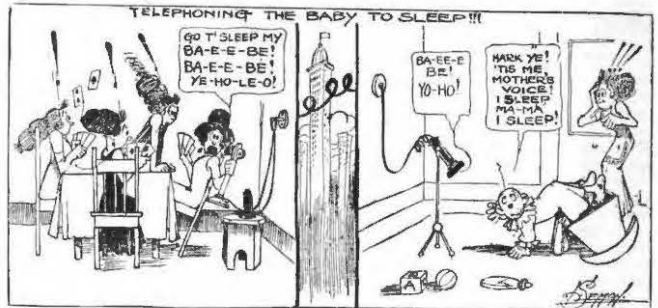
I have given in the rough my prescription for the compounding of a model chief clerk and in concluding I wish to speak of an engineer named Halley who, at eighty years of age, was still running an engine. Having finished his fiftieth year with the company his associates presented him with a very fine rocking chair. In his little speech of acceptance he assured them that he would use the rocker and take great comfort when he got old.

Shades of Bobbie Burns!

The province of Manitoba, Canada, now has public ownership of telephones. A disgusted Winnipeg subscriber has written the following ode:

It's two bawbees at every crack,
Nae Scots wi' ony self-respect.
But wishes his Bell 'phone was back,
An' wishes it maist dearly.

Will ye no come back again,
Can't we coax you back again,
We'll pay ye—aye, we'll pay ye weel,
If ye'll but come back again.



QUIETS BABY BY TELEPHONE.

Mother Succeeds in Putting Little One to Sleep by Singing into Transmitter.

Putting babies to sleep by telephone is an innovation in society circles of Steubenville, Ohio.

This method of quieting fretting children whose mothers leave them at home while they enjoy bridge was introduced by Mrs. Harry G. Zanier while attending an afternoon affair.

The nurse telephoned Mrs. Zanier that the baby had been crying for an hour and that she could not quiet the child. Mrs. Zanier gave a few hurried instructions to the nurse. A moment later the guests were surprised to hear Mrs. Zanier singing a soft lullaby into the transmitter.—*New York Sun*.

ANTS NEST IN SLEEVE.

Odd Case of Cable Trouble Encountered by Bell Plant Men in Ohio.

On August 2nd, A. D. Odell, of the cable department of the Cincinnati and Suburban Telephone Company, received a report of trouble in a fifty-pair aerial cable at Moscow, Ohio. The report came in that the Shiloh circuit was crossed. The test showed trouble on or about a thirty-foot pole at Fifth and Broadway, Moscow. An exterior examination of a splice about three feet from the pole showed a small hole in the under side of the sleeve. The sleeve was opened by blowing the joints with a gasoline torch, and when opened it was found that a colony of black ants had taken possession of the splice. The orifice in the sleeve was conical in shape, with the widest part on the outer surface precluding the idea that the original puncture was caused by a bullet, and also had the hole been made by any foreign object it would have been found embedded in the cable. The excessive heat of the gasoline blow-torch melted the paraffin and killed the ants, but preserved them in the cooled wax. About one-third of the space in the sleeve was taken up by the cable wires, which were paper covered and the whole wrapped in linen. The ants had worked through the linen and were using some of the space between the wires.

The use of a powerful magnifying glass reveals very minute ridges in the lead sleeve as if made by the teeth of a flea.

The cable was placed in its present position in 1907 and there had never been any trouble reported from damage by lightning or any other cause.

Experienced cable men and telegraph men say that they have found ants on the tops of poles, but this is the first time they ever found them at home inside of a lead sheathed sleeve.

The sleeve, with the dead ants ex-

crusted in the paraffine has been turned over to Professor John Uri Lloyd, who has interested himself in the case, and the specimen will be sent to Cornell University and studied, and the local office will be interested in the report made by the experts at that institution when investigation is completed.—*Cincinnati Telephone Bulletin*.

TEACHES ANIMALS TO TALK.

Professor Alexander Graham Bell Obtains Curious Effect of Study of Articulation.

Professor Alexander Graham Bell, inventor of the telephone, who since his retirement from the telephone field has devoted himself to efforts to improve the hearing and speaking powers of the deaf and dumb, has recently obtained some curious results of experiments on dumb animals. Apparently Professor Bell has taught a dog to talk, although the professor would probably not guarantee that the dog knows what he is saying.

Professor Bell's method consists in manipulating the voice producing parts of these animals. He uses this method because it is the one his father used with splendid results in a school to cure stammering. He says: "When I was a young man and visited my father's classes I took special notice of the difference in the size and shape of the mouths of stammering pupils, and so was led to study the vocal organs of persons who had no defects of speech. Incidentally it occurred to me to wonder if the mouth of a dog would produce anything like articulate speech.

Terrier Says "Mamma."

"I had a skye terrier more than ordinarily intelligent. Taking his muzzle in my hand, I tried to manipulate his mouth, causing his lips to open and close a number of times in succession while he growled. He had been taught to growl. And in this way he was made to give utterance to the syllables 'ma, ma, ma.'

"After a little practice I was able to make him say with perfect distinctness the word 'mamma,' produced in the English way, with the accent on the second syllable. I then placed my thumb under his lower jaw, between the two bones, and, pushing up a number of times in succession, I caused the dog to pronounce the syllable 'ga, ga, ga.' By pushing up the thumb once and then squeezing his muzzle twice in succession he was made to say, 'Ga, ma, ma,' and by practice this was rendered ludicrously like the word 'grandmamma.'

"Through careful manipulation of the muzzle (the lessons being helped by a system of rewards) I obtained sounds that passed for 'ah,' 'oo,' and 'ow.' The culmination of this linguistic education was reached when the dog was able to speak in an intelligible manner the complete sentence, 'How are you, grandmamma?'—pronounced 'Ow ah oo, ga-ma-ma?'

Following Up Service From Manager's Standpoint

By BENJAMIN PARISH
District Service Inspector, Appleton, Wis.

In following up service, both local and long distance, the manager must always be on the alert for complaints; for it is from the criticisms of the traffic work that the manager can get at the very heart of any trouble.

Subscribers are oftentimes reluctant in reporting trouble and really have serious complaints and do not wish to report them, fearing that some operator may lose her position. As a matter of fact, everyone in an office should watch the service—installers, linemen, troubleshooters, collectors, etc., and all should be instructed to make frequent tests and welcome complaints.

The lines between various departments should not be drawn too closely, and especially when dealing with subscribers. For instance, if a subscriber states to a troubleman that the service has been slow and asks if they have a large number of new operators on, the troubleman should never reply that the traffic department is having a hard time getting girls or something to that effect, at the same time implying that the matter is entirely out of his department. All departments must work together to get results. When a subscriber reports trouble, always take it for granted that the complaint is legitimate, and look into it thoroughly; if bad plant conditions, they must be fixed, and if bad traffic conditions, immediate steps must be taken to remedy them.

A service complaint form of some kind is very essential and should be made out at the time the complaint is received, the trouble, if any, repaired, and the subscriber called every day or two and asked regarding the service. A complaint should not be filed or checked until the subscriber has given the traffic department at least three consecutive O. K.'s.

The plant department must co-operate with the traffic department in order to give good service, for with poor switchboard equipment, good service cannot be given. Subscribers' lines and instruments must be kept in good working order at all times, and the traffic department must understand that it is their duty to give the best service and therefore they are responsible for the plant insofar as its proper maintenance affects the service.

In the operating room itself, the lines of authority must be strictly drawn and everyone concerned should know exactly whom she reports to and what she is responsible for. The manager in making tests will be able to determine if the operators are using the proper authorized expressions when dealing with subscribers. Any irregularities should be taken up with the one in charge. The manager should inquire of subscribers concerning the toll service, and must see that the business is handled rapidly and with accuracy in the operating room. A very important item is to have the recording service rapid; getting a poor recorder or a delay of any kind in getting the recorder, gives the subscriber a bad impression at the outset.

A friendly feeling must exist between the various toll centers in order to give good service, and all the toll operators must work together, always having in view the idea of furnishing good service to the public at all times.

The manager should see that frequent meetings are held at which the operators should be instructed in the rules and regulations made up for their guidance. Any questions or matters of importance should be discussed. Too much stress cannot be

laid on the value of these meetings of the employees. Then the manager should spend the greater part of his time out of the office, away from the routine work. He should be out visiting with the subscribers and in this way will know exactly how the service is at his particular office at all times, and if any bad conditions develop, they can receive immediate attention.

What Is Real Service?

By C. M. LEMPERLY,
Manager Service Department, American Multigraph
Sales Company, Cleveland, Ohio

I assume that the great word in the telephone world is S-E-R-V-I-C-E, and that the people on the outside and on the inside of your wonderful organization must hear it a great many times. Service generally consists in dealing with chronic kickers in such a manner as to appease their wrath and keep them satisfied. If a concern such as yours succeeds in this, it is indeed deserving of the name "Public-service corporation."

Service is diplomacy commercialized. It embodies tact, originality, perception, diagnosis. The telephone operator who has these qualifications serves her clientele.

Modern business is based on service. Time was when the purchaser of goods or the user of so-called public-service could go hang. There were "lots more pebbles on the beach" and these great corporations cared naught for the individual.

Today these self-same giants of commerce spend millions of dollars to give satisfaction in what they have to offer the public.

Just as your old friends are the truest, just so they should be given the preference in business dealings, I say get all the new business possible—you would soon be dead ones if you didn't. But I also say treat the old customers on the square and never fail to remember that they bought your goods or signed your contract once and that they are entitled to your loyalty and fair dealing until the sheriff hangs his sign on your door or the contract is cancelled or expires.

I believe in the individual who serves his company—he is greater than a king and richer than a nation because he has inculcated within him the divine spark of loyalty. I am not a hanger-on of Fra Elbertus. Yet I believe he uttered a profound truth when he said "when you work for a man for heaven's sake work for him."

The great service campaign of advertising now being carried on by the telephone interests is an evolution and a revolution. It evolved, I presume from the idea that the public could be put on the telephone payrolls if properly approached and by cleverly showing the public how they could help the operators, the telephone companies succeeded in getting the good will of the telephone-using public. This is service advertising that makes for efficiency and speed in telephone transmission.

Support your magazine. It serves you. Why not serve it?

Every employee of your company can be an associate editor or a contributing editor by merely remembering that behind it all, the man who puts the most into life takes the most out of life when he leaves this world. That's SERVICE!

Company Gives Pole.

A year ago when the roof of the old school building in Chelsea, Mich., was being repaired the flag pole was found to be so badly rotted that it was considered unsafe, and the board decided that it would be unwise to allow it to remain. Since that time efforts have

been made to secure a suitable pole. Prices were obtained upon steel and wooden poles, but were so high that they seemed to be unreasonable. The committee looked over the poles of the Michigan State Telephone Company and selected one which they considered suitable, and asked the local manager to ascertain the cost. This was done, and a few days ago, when C. J. Given, district manager, was in town he called upon Director John Kalmbach and notified him that the telephone company was pleased to present the flag pole to the public schools of Chelsea with best wishes.

The Board of Education wishes to thank the telephone company on behalf of the people of Chelsea for the pole, which will be raised as soon as it can be put in proper condition.—Chelsea (Mich.) Tribune.

Cockroach Balks User.

"Hello! Hello! Heller—Well, why don't you give the number? Hello! This is Hetzel. Hetzel of the Equator Cafe—what? Hello! I don't hear you! What in—Hello! Is it on the bum, it is it. Why don't you say something? Bah! I go outside and get a new telephone? Speak out; I can't hear you! Ooh!"

This was Hetzel's own telephone he was talking to and it was two days ago. Not a response came to his irritated outpourings. There had been no strike in the Equator Cafe, as Hetzel knew. But why he couldn't get "Central" he couldn't quite understand. Again and again he shouted into the mouthpiece. He couldn't even get his nickel back. Five nickels he had put into the place where nickels were scheduled to be dropped. There was no response and there was no return of the nickels. Evidently the telephone was out of order.

He would go outside and use another telephone to register his kick. There are lots of telephones in his immediate vicinity. He got one and accounted for his vocabulary. What he didn't say to "Central" couldn't be found in Coney Island.

This morning a man from the telephone company called on Hetzel. When he asked the proprietor of the Equator if his telephone was out of order Hetzel grew tropical in his speech. So the man from the "office" went to work, blithely humming a tune. He took the machine apart, but when he looked inside he dropped his tools.

"What iss?" cried Hetzel.

"Come here; you got a central of your own," yelled the telephone man. "How do you suppose we can take care of things like this?"

Hetzel went cautiously to the telephone. There inside the machinery, was one big cockroach holding down the five nickels. Hetzel threw up his hands, then threw up his eyes.

Then he shrugged his shoulders. "Well, if you can beat that!" he said. "I see it. What will you have?" —St. Louis Republic.

One Way to Win a Bet.

"I have made a bet with a friend and we have agreed to leave it to the Star to decide," said a voice over the "information" telephone in the Star office yesterday.

"The question is, How many years was Roosevelt president?"

"Seven years," was the answer given.

"How's that?"

"Seven years."

"Nine years, hey?"

"No, seven years."

"Yes, that's just what I said, nine years."

"No, not nine years—seven, s-e-v-e-n, seven years."

"That's just what I bet, that he was



THE FIRST LONG-DISTANCE BELL SYSTEM HEARD AROUND THE WORLD.

—From Judge.

president nine years. My friend bet it was seven years. So I win, hey?"

"No, you lose."

"All right; so your decision is that Roosevelt was president nine years, and I win the bet. Is that right?"

"No, sir, you are wrong; you lose and the other man wins."

"Yes, sir, thank you;" and before he hung up the receiver he was heard to say:

"He says Roosevelt was president nine years and that I won."—Kansas City Star.

TIME UP; OPERATOR QUILTS.

But Telephone Steps In and Saves Newspaper From Serious "Scoop."

The following letter, received by the manager at Springfield, Ill., shows what the editor of the *Rushville Times* thinks about Central Union service:

"I am sending you by same mail a copy of the 'extra' which was made possible by your kindly co-operation when our wire service was abruptly terminated. Your summary contained every essential feature and I certainly am grateful to you and the *State Register* for the aid extended."

Mr. Dyson had telegraphic service for the night of the finish of one of the recent conventions and was just getting the final vote on nominations when the clock struck and the operator declared it was quitting time. Mr. Dyson then resorted to the telephone with the result as stated above.

Central-Station Telephone Service.

In large central-station companies the telephone service is an almost essential feature of the business and one that assumes large proportions. The principal telephone switchboard of the Commonwealth Edison Company of Chicago, for instance, had a traffic record of about 13,000 connections in twenty-four hours during the month of May, 1912. This is an increase of about 116 per cent. in the volume of telephone business in a period of four years. The equipment consists of a ten-position switchboard with an auxiliary two-position board designed to help out during the hours of the peak. Seventeen telephone operators are employed at this private exchange, and they are divided into shifts to insure continuous service day and night.

Fast Service From La Harpe.

W. W. Coulson of Chicago came Friday and remained till Monday morning with relatives. He called his wife on the 'phone and in just five minutes had gotten the desired information through and an answer, as it were, face to face. That's convenience and satisfaction. Some 'phone lines are not quite so prompt in service.—La Harpe, La Harpe, Ill.

My First Day's Experience in the Commercial Department

By J. F. PIECHOCKI, Detroit

An employee who has been in the habit of receiving work completed from one department to another and only has his certain part to perform, naturally finds it rather hard to enter a department where everything is handled and all parts of the work must be performed. Such has been my experience, having been employed where the work was given to me completed up to the time I received it, and now I enter the Commercial Department of the company where there are so many varieties and details.

The Commercial Department, as I found it my first day, is the root of all work, which is caused by the great growth and popularity of this company's business. For instance, a person who takes hold of the receiver and telling the operator the desired number, with ease and courtesy, reaches the party, never stops to consider the skill it requires to bring about such a convenience and necessity. On the other hand, a person is irritated by some other party on his line, and just by a mere telephone call to the Commercial Department the whole trouble is remedied.

It is amazing to me to stop and think of the many different questions that arise each day and of what is expected of a commercial employee and department head, their duty being to accommodate all and not to allow a single person to leave the office or hang up his receiver unless he has had absolute satisfaction.

The principal and most important duties of this department are, taking new applications, handling of complaints, adjusting toll items, party line interference and many others too numerous to mention.

What I accomplished in my first day's work was merely getting a general idea as to what is handled in this office and to look with amazement upon the different subjects which arise and which are entirely foreign to me. The Commercial Department, as I would define it, is the hub of the great wheel of this corporation.

Passing of Telegraphy on Railroads.

The continued and steady introduction of the telephone on railroad systems for handling and controlling the movements of trains makes it perfectly feasible to do away with the night operator at the isolated waystations. A Western Electric Company railway specialist recently mentioned the fact that one railway system, to which he had sold telephone train dispatching equipment, had done just this thing and that each passenger and freight conductor has been furnished with a so-called "master key" for the stations along the line to enable him to enter, lift the telephone receiver from the hook, put himself in instant communication with the train dispatcher at headquarters, receive his orders verbally and go on his way.

New Use for a Telephone.

The widow of a counsel to the court of Bavaria has taken remarkable precautions against being buried alive. The coffin is arranged with a number of holes so that if a person be prematurely buried, it will be possible for the victim to breathe. A telephone is also arranged within the coffin with wires running to the house of the cemetery keeper. With these precautions, the fear of being buried alive is eliminated.—*Electrician and Mechanic.*



GIRAFFO TELEPHONIA.

Another Rare Specimen.

Professor Burbank may be able to develop a seedless tomato or a tasteless prune, but he must share scientific honors with Maintenance Superintendent V. Ray, who discovered an old skeleton of a prehistoric animal, the "Giraffo Telephonia," which when rejuvenated may by a proper amount of training be taught to locate bullet holes in aerial cables and clear crossed wires in Chicago.

Our naturalist photographer, who never by any chance misses getting the picture of any rare species that may cross his path, followed this specimen the other day and actually caught the trainer Halberg putting it through a little cable trouble drill. Repairmen who care to learn to ride this fractious beast should file their application early.

It seems strange, but it is nevertheless a fact, that fourteen years ago this identical specimen traveled the streets of Chicago, and stranger still the Park Commissioners at that time gave orders to the Park Police not to allow either this machine or automobiles to drive through the parks on account of frightening horses. How times are changed! It is now nearly up to one point where horses will not be permitted to appear on boulevards for fear of frightening timid chauffeurs.

Prevention Better

Than Cure

By a Central Union Employee at Edwardsville, Ill.

Commercial department, plant department, traffic department—Do you ever stop to think how much more expensive it is to adjust trouble than to prevent it? How much easier and pleasanter it is, usually, to prevent trouble than to adjust it? Telephone employees are paid to prevent trouble as well as to receive and repair it. All come in contact with the public, more or less. The public is not paid to be pleasant, but will return good for good.

According to our business routine, the traffic department receives trouble, the plant department repairs trouble, the commercial department anticipates and prevents trouble, or suffers the consequences—adjusts trouble. Therefore, we can all answer to the obsolete title, "Trouble man," and should be glad to do so. There is a cause for every complaint and it is the "Trouble man's" duty to find

the cause and prevent future trouble. Every individual has some good qualities, and it is the "Trouble man's" business to see these qualities only and not make trouble by seeing others' faults.

A word of explanation often throws a different light upon a situation. True it may take a little time and patience to satisfy, but time thus spent is not wasted. The manager who attaches the first rental bill to an installation order with this instruction, "Installer collect or bring in the instrument," not only invites trouble but shirks his duty. Business relations begun in this manner will never end favorably. If the plant department is called and given a complaint that the traffic department should have received, the plant department is inviting trouble if it does not politely take the complaint or make sure that the complainer is properly connected with the traffic department. Do not allow a complainer to be transferred from one department to another in a manner that would appear careless and unnecessary. The traffic department can prevent trouble by giving good service, expecting and insisting upon prompt repairs. The object is to do the work assigned to each department and in such a manner that it will not cause, but will prevent trouble for the other departments. There should be at all times a happy rivalry existing between the departments to act as a stimulant for good work.

Burlington Extensions.

The Chicago, Burlington and Quincy Railway Company recently placed an order with the Western Electric Company for apparatus to be used in extending its telephone train dispatching circuits. The successful operation of the present lines and the economy resulting therefrom have been the incentives for the extension.

At present, there is a train wire, operated by special No. 102-type selector sets of Western Electric manufacture, from Kansas City, Mo., to Napier, Mo., with the train dispatcher at St. Joseph, thus working the circuit from St. Joseph to Kansas City on one end and from St. Joseph to Napier on the other. The extension will bring the train wire into Council Bluffs, Ia., from Napier. This branch is now operated by telegraph and it will be simpler to operate the entire line by telephone than by using a combination.

Fourteen special No. 102-type selector sets will be installed in way stations along the line to Council Bluffs. The dispatchers will be located at St. Joseph. The new line is approximately ninety-five miles long.

DISCIPLINE

By W. F. HALLFRISCH, Manager at Ashland, Wis.

"For the good of the service" is a term commonly used by all who have an interest in this direction, but that which has played the most important part will be found to be discipline.

Our instructions are placed before us with a routine plan of doing our work. Without discipline instructions are often ignored and the routine of work improperly carried out, misleading those who have given the order, and in many cases creating bad sentiment with the public toward the company you represent.

It ought not to be necessary to repeat an order unless it is not clearly understood, for to do so means a weakening of good discipline.

Confidence can only be had in those who do their work according to their instructions, and obey an order when

given, hence it can be plainly seen that the one whose work is most pleasant is the one who has followed instructions and relieved those in charge of repeating orders on the same work which without a doubt will be repeated with some force if repeated too often.

Promotions can only come to those who have made themselves favorably known by carrying out their work according to instructions, and with an interest at all times in the good of the company they represent.

Should all take a like interest in the duties assigned them, they will find it beneficial to themselves, and for the good of the service.

THE TELEPHONE DOLLAR.

Has Increased in Value While Other Dollars Are Worth Less Than Formerly.

The Wisconsin Telephone Company's local exchange, which under the management of F. L. Smiley has been making rapid strides forward the past two years and a half, now numbers 915 phones, and as more and more are joining, the telephone company has found it necessary to install an additional section to the switchboard at the exchange, which will afford facilities for handling eighty more two-party lines. A crew of men in charge of W. Davis, came from Shullsburg today to install the new section. At present thirteen farmers are waiting to be connected with the exchange and it will not be many months, we predict, before the number of subscribers will have passed the thousand mark. To every patron this rapid growth of the exchange, including as it does numerous farm lines extending out for miles in every direction, should be a source of great satisfaction, for while the purchasing power of the dollar has diminished with respect to almost everything, the dollar with which we pay our telephone bill buys for us vastly more than it did for those who were subscribers only a few years ago.—*Courier Hub, Stoughton, Wis.*

Holds Five Jobs.

Think of a man who has the ability to hold down five managerial positions, do credit to all of them, and then find time to raise a family, take care of the lawn about his house, feed the chickens in the morning, help his wife out at times, carry in the wood and water and play with his children as well. But that is the kind of a man B. J. Miller of Copemish is. Miller is known to a great many Cadillac people. He is agent for the Wells, Fargo & Company express and is manager for the Postal Telegraph Company as well as the Western Union Telegraph Company. He manages the Bell Telephone Company lines there and holds similar positions for the M. & N. E. private wires and a farmer telephone company. And after each day's work Miller is at home, not cross or "crabby," but pleasant, affable and willing to help his wife. Friends of Miller state that they are considering making a claim for Miller for championship honors on the "ideal husband" assertion.—*Cadillac (Mich.) Express.*

New York Directories.

It will take a force of more than 400 men to deliver the fall edition of the New York telephone directory, which consists of 1,385,000 copies. Each subscriber will receive two books, the city and suburban directories. About one million of these directories will be delivered by hand.



WORK AND JOY

Suggestions for Successful Service.

A year ago in the October number of the BELL TELEPHONE NEWS, we were fortunate enough to be able to show some pictures of the Lyndon Agricultural School which Mr. Vail has founded for Vermont boys.

On a recent visit to Speedwell Farm, I asked Mr. Vail about the progress of the school. With a smile which expressed real satisfaction, he said, "It is doing splendidly; we have just graduated our first class, and the school is full."

I found that an address to the graduates had been made by Mr. Vail and begged the privilege of using it in the girls' department of our magazine. Mr. Vail kindly consented, saying that he supposed the suggestions he had made on work might be as applicable to our operators as to the Vermont boys.

I am sure that after reading it each one may conclude that the advice might have been written for her personally. The fact is that Mr. Vail meets every question in a big way and applies principles which are fundamental. He believes thoroughly in work, and his own life has been and is still full to overflowing with activity. His words could have no better illustration than his own life supplies. He has not "jumped into success," but years of patient industry and application, together with his great natural insight, have placed him in a position of international honor.

He has not tried to live by his wits, but has given full value for all he has received, and now in these years when most men would think they had earned a rest with time for travel or amusement, he still works, planning practical means of efficiency in the great telephone and telegraph service of the world and cultivating with interest his Vermont farm, where he is producing crops supposed to be impossible in that climate and making efficient farmers of the boys who come to his agricultural school.

It was pleasant to hear in the village that the students adore him. The influence of such a personality on the lives of these young men will be of far reaching value.

Let us all take the message and enter the year's work with the spirit of joy and enthusiasm. Let us put our heart into the work we are doing, and not only will our service become more valuable but we shall be happy and freed from the thought that work is a necessary evil; for work is not an evil, it is a blessing. It is no drudgery unless we make it so.

Mr. Vail's Address as Text.

On every Saturday morning a graduating class goes out from the operators' school of the Chicago Telephone Company. On Saturday, September 21st, the address made by Theodore N. Vail was used by the principal as a basis for her parting remarks. The young ladies appreciated the honor of having a word from the president of the American Telephone and Telegraph Company and look forward to having a copy of the address, which appears on this page.

OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



THEODORE N. VAIL AT HIS DESK.

Address of Theodore N. Vail to Graduates of Lyndon Agricultural School.

Graduates:

For two years most of you have been busy learning how most effectively to do things, how to combine intelligence with your work.

Work in itself, without any other thought of what you are doing than to get through as quickly as possible, is mere drudgery—it is unpleasant and disagreeable, but on the other hand there is no work which cannot be made pleasant if you are interested in it and your mind is on the purpose of your work.

It is not only that work in which you are interested will have a wonderful effect on the enjoyment and happiness of your life, but also that work performed in that way will be useful and profitable.

Every bit of intelligence and interest you bring to your work adds to the pleasure, the ease and the profit of its doing, and as we are all obliged to work, these are most desirable things to have accompany, and as a result of our labor and effort.

We are all apt to indulge in hard luck stories and thoughts, to dwell on our difficulties, and our bad luck, to think of the hopelessness of our getting on or bettering our condition. Always keep in mind that every one has difficulties, every one is surrounded with unfavorable conditions, and the more one thinks about them and dreads them the harder they seem. The easier one's life is, the greater the apparent troubles. Trouble and worry are the easiest and most prolific crops one can cultivate, but like all easy things useless. Real difficulties are as a rule surmountable, at least they have to be overcome but once; imaginary difficulties, inexhaustible and have to be overcome many times.

If you have your health and strength, and cultivate the capacity that you are endowed with to its greatest possible extent, and exercise it properly, there are few difficulties you cannot overcome or few obstacles you cannot surmount in obtaining your share of the good things of this life.

Every one of you cannot expect to reach the top notch of fame or riches, but with a predisposition to do the best you can and make the best of everything, each of you can get all that is necessary for the highest enjoyment and happiness in this life. Enough is as good as a feast—in all material things enough is all that you need; more than enough brings with it care and trouble, worry and anxiety. All experience teaches that the highest enjoyment in life comes through simple sources, sources at the command of every one, and if you have all the enjoyment one can have, what matter if you have practiced sensible thrift and reasonable economies.

If you have the ambition and ability to do great things and your paths in life lead in that direction, remember that the enjoyment comes in accomplishing, not in fulfillment or after enjoyment. This is not only true of great but of small things. Each step in the progress of your work should bring with it the daily enjoyment and satisfaction of something done, some progress made. If you take this view of life and work you cannot fail to be successful.

Remember also that every bit of reward over and above the daily wage or your daily sustenance comes because of the intelligence, the direction, the organization which enables you to save labor of yourself and others or to accomplish more with the same labor, or to produce something new which will add to the comfort of man. Mere ordinary labor only will produce that which will

sustain us—it is intelligence accompanied by industry that produces more than this. Make your rule of guidance, industry controlled by intelligence and combined with thrift and economy. Economy of labor or economy of money are equally effective. Expend all in the shape of either labor or money that is necessary to accomplish, acquire or produce anything, but do not waste or throw away even a trifling amount.

Do not expect to jump into success. It is only by patience, industry and application that you can accomplish anything.

Do not try to live by your wits. Do not try to get something for nothing. You may succeed occasionally but you cannot permanently, and you lose more in self respect and reputation than any profit can balance. Never make a trade without giving the other man that which is as valuable to him or which is as desirable to him as that which you receive is to you.

And now as you go forth to your homes and to your real life, try to improve upon all that you take with you. Set an example of what such teaching, and such industry as you bring to bear upon your work, will do. By showing others by your example what modest effort and right ideas will bring in the way of all that is desirable in this world, you are giving others the greatest aid and comfort that you or anyone else can give. By helping to teach others how to take care of themselves, you are doing the greatest good that can be done to others. Let charity be confined to those unfortunates who have not had the opportunity or capacity or ability to do what you can do, and by teaching all who possibly can be taught to take care of themselves, you have lessened the demand upon others by a great amount and made all those who otherwise would be objects of charity, independent, self respecting citizens.

Convenient 'Phone.

Since we have had our 'phone put in We've called up all our kith and kin, And visited across the wire As frequently as we desire.

The grocer and the butcher, too, We call by 'phone, as others do. They send our orders, day by day, For 'phoning's such an easy way. We 'phone for this, we 'phone for that, For cabs and cane, and gloves and hat. For medicine and fancy drinks, For caddies on the golfing links.

We 'phone our love, we 'phone our hate, We're 'phoning early, 'phoning late. A 'phone is near our little bed; At night we clasp it on our head And gently close our tired eyes To telephonic lullabies.

We hope in time—let this be known— To take our exercise by 'phone. —Berton Braley.

Oldest Operator Quits.

After eleven years of faithful work, Jane Meeker has resigned her position as operator for the Kansas-Westfield Telephone Company at Kansas, Ill. Miss Meeker is now seventy years of age and has been for many years on the night shift.

INDIANAPOLIS GIRLS WIN CHARITY PRIZE

Head All Organizations In City in
Contributions To "Sympathy
Saturday."

In every large city numerous charitable movements are carried on; the larger the cities usually the more numerous are such activities. However, in these largest cities the various movements tend to become segregated. It is only in the moderate-sized cities where there are opportunities for truly general participation. Thus in Indianapolis there are several charities such as the Santa Claus Fund for providing Christmas cheer for the poor, and the Summer Mission Fund which provides summer recreation and outing for sick babies and children and their parents, to the support of which everybody rallies.

In the winter of 1911 the Central Union employees apparently came to their first realization of what their united efforts might do in this direction with the result that they were presented with a beautiful silk flag in recognition of their having subscribed more to the Santa Claus Fund than any other organization of individuals in the community. It is but natural, therefore, that when the Summer Mission appealed for aid and there was set aside a special day for general giving, that the Bell employees should have entered such a worthy movement with enthusiasm. August 17th was set aside as "Sympathy Saturday."

There were not only the usual united efforts of many societies, clubs, churches, etc., but twenty-five large buildings were set apart as a special department. The Central Union Building was among these, with District Traffic Chief Green appointed in charge by the Mission Society.

As characteristic of all telephone movements the first thing done was to set up an organization. To this end a representative was appointed for each department to receive donations from the employees of that department. The operators, however, under the leadership of Miss Welch, chief instructor of the Training School, and Miss Cooper, chief toll operator, set out to multiply their donations by devoting themselves to making each donation earn something more.

In the Toll Department each of the forty-eight operators was started out with a nickel donated by Miss Cooper to see what could be earned. The results were most praiseworthy and interesting. Mrs. Espey earned \$3.20 writing fancy script cards. Misses Cooney and Nelson made 110 pounds of candy which was sold with the aid of Misses Rooney, Faut, Barnes, Hahn and Mrs. Castor, netting \$24.75. Misses Newboles, Gilck, Harkins, Heyer, King, Pavey and Glass earned \$21 jointly. Misses Hurst and McGuire sold peanuts, netting \$1. Miss Cooper herself sold quite a number of articles.

In the local branch each office developed a different plan for raising its share. At Main the operators served lunch all week, not only to their own number, but also to all other employees and tenants of the building. The operating divisions were grouped so that there would be a group responsible for each day. The operators of the divisions spent their individual donations to purchase food and their supervisors proved themselves most admirable cooks by preparing it. The luncheons were of infinite variety, but all patrons were united in their praises of the quality, tastiness and the manner in which the operators who acted as waitresses served them. These luncheons netted \$101.90, and Miss Elkins, assistant chief operator, and Misses Dugan, Busch, Everson, Holder, Hohenfeld, Houghton, Barrett, Haviland, Monteth, Vollmer, Schmidt, Cornelius, Bireley, Dunn, Seib, Parsons, Elder and Kaufman, supervisors, and all their operators are to be credited with an undertaking well done. Mrs. Busch personally earned \$2.50 from the sale of neck bows she had crocheted, and then by devoting this to materials for candy, succeeded in raising it to \$4. A pillow top made and donated by a student, Avis Smith, resulted in proceeds in the amount of \$12. Divisions 1 and 2 together cleared \$9 outside their luncheon day.

The chief operators at the other offices arranged various plans. Belmont and Irvington offices, the two smallest, under Chief Operators Stewart and Smith, accepted a big undertaking, renting outright for one evening a five-cent theater, from which they were able to produce \$50, a splendid average for forty employees. Prospect office, under the guidance of Miss Stoner, held a lawn fete and a trolley ride, netting \$30 jointly. Mrs. Jones arranged a trolley ride for the Woodruff office, clearing \$10 for the Mission. To all this must be added the donations of the young ladies from the North office, under Miss Dugan's supervision, amounting to \$17.



REST ROOM, MAIN EXCHANGE, INDIANAPOLIS.

When all were through with their activities the Central Union employees had a neat little fund of \$452.05, which not only brought their building far above any other of the selected twenty-five, but again gave them a flag for leading all other organizations of individuals in the county in the amount of their donation.

The efforts were so surprising in results that there has been considerable public comment in the newspapers and also numerous questions from the charity organization officials as to how it was accomplished. Of course, there is but one answer and that is: "Enthusiastic, united, harmonious effort."

SIX MONTHS FOR OATH.

First Portland Man Arrested Under a
New Statute Gets the Maximum Penalty.

For swearing over the telephone at girl operators Edward Murphy was sentenced to imprisonment for six months and to pay a fine of \$100 at Portland, Ore.

This was the first complaint and the first conviction under the new statute, which makes the public use of profane or indecent language vagrancy, and the sentence imposed was the maximum provided by the law. Murphy took an appeal.

Continued offenses preceded the arrest. While an operator held Murphy in conversation, the police were notified and arrested Murphy.

The Girl Who Wrote by Sound.

I advertised for a shorthand girl
To write from my dictation.
And, from the answers, picked a pearl
(Judged by her application).
On either Smith or Remington
No other girl was "in it."
In shorthand she had often done
Two hundred words a minute.

She also wrote she was young and smart,
And acquainted with business ways;
Six dollars a week she'd accept for a
start.

If I'd promise an early raise,
I hired this paragon "off the bat."
She went to work today,
A pert young Miss in a picture hat
And a very engaging way.

She had pompadour hair and a Marcelle
wave,
Tan pumps with a Cuban heel;
Her fingers were freighted with gems that
gave

Sparkles almost like real.
I started her off on a letter to Brown.
I found she was slow, so I waited
For her to catch up. At last 'twas all
down,
And this is what I dictated:

"In re your wire of this date
To buy Amalgamated,
We counseled you before to wait
Till we'd investigated.
When copper shirks a point or two,
We'll fill the order duly.
If this does not seem wise to you
Advise, Yours very truly."

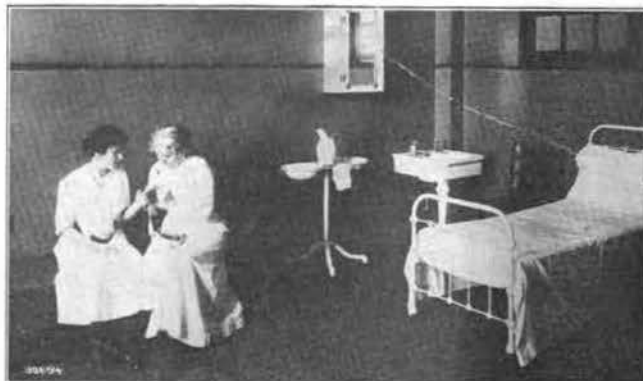
This done she faded from the room
Into her private lair,
Leaving an odor of perfume
Upon the desert air.
An hour passed by ere she returned,
Brown's letter written out.
And here it is. I never learned
What it was all about:

"Henry, you are out of date.
Too bad and amble-gaited.
We can't sell you at forty-eight
Till we've investigated.
When the copper drinks a pint or two
We'll fall toward her, Dooley.
If this design seems worse to you,
Devise, Yours very truly."

—William Hickox, in *The Burroughs*.



MAIN OFFICE, DINING ROOM, INDIANAPOLIS.



HOSPITAL ROOM, MAIN EXCHANGE, INDIANAPOLIS.

Chicago Operator Makes Flight in Aeroplane

Kathryn Miller, chief operator of the Chicago Telephone Company's exchange at Coal City, Ill., is probably the first telephone operator to enjoy a trip through the air in an aeroplane. Miss Miller went up in a biplane invented and constructed by Robert Summerfield, mayor of Coal City. Her own account of the trip, written for the BELL TELEPHONE NEWS, follows:

By Kathryn Miller.

The first flight made by Carl Dougherty in the Summerfield Biplane made me an "aero-fan" for life. For weeks afterward I talked of nothing but propellers and planes, ailerons and angles, barographs and "Billikins" until my long-suffering friends began to get out their ear-muffs. Just to see "Old Reliable"—as she is lovingly dubbed by her pilot—point her nose skyward and climb until she is chipping pieces out of the blue is enough to enthrall the soul of a stone Buddha.

It came about that I was sent to the Grundy County Fair at Mazon, Ill., to do the honors for the Chicago Telephone Company. It also came about that "Old Reliable" was scheduled to make her first exhibition flights there.

"I have made arrangements," Aviator Dougherty told me, "to race the Santa Fe's California Limited on Thursday morning. Do you suppose you can get away long enough to come along?" I answered in the affirmative.

It was on Thursday morning, August 29th, at just 10:50 o'clock—to be explicit—that I saw Mr. Dougherty in the office doing mysterious wig-wag stunts with his fingers. I finished placing a call for Gardner, collected five cents from a fat gentleman with a wilted collar, directed three ladies and a baby to the rest-rooms, told a small boy that six "blue-bells" were about his portion, gave Mr. Plant my toll memo, and then slipped away with my pencil still behind my ear. (Come to think of it, I must have lost that pencil en route; at any rate, it wasn't with me when I got back.)

They were running the big biplane out when we reached the hangar. I hurried into a long coat and tight fitting cap and raced Mr. Dougherty across the field to where the plane rested.

My seat was just back of and facing the motor, while the aviator sat just back of me. As soon as we were tucked in and the safety belts fastened, one of the mechanics "turned her over" and the motor started with a roar that drowned even the cheers of the thousand watching. Almost at once the avi-



TELEPHONE OPERATOR IN AIR SHIP.

ator gave the signal to "let go." We ran along the ground for about fifty feet getting up speed, and then, without any perceptible change in position or apparent effort, our great little boat just walked straight up for a good 1,000 feet.

As far as any particular sensation goes, I would not have known that we were rising. Looking back to wave at friends in the crowd, I saw that they were growing smaller every second, and for the first time realized that we were really flying. It was wonderful to float there between sky and earth. I forgot to remember that our lives depended on only a frail contrivance of wires and canvas and a hard working motor. Things material seemed far away and unreal, and I felt kinship with the clouds and sun and the Gods that dwell on high Olympus. (Sounds like I'm "up in the air" again, doesn't it?)

We flew in a great circle over the country, which looked from our height like a wonderfully well kept garden—each great field a little blossoming flower bed. Just below us the dark green of the corn, to the left the soft yellow of oat stubble, and yonder the paler green of a meadow blended in an effect indescribably lovely. And between the fields the section roads ran like narrow foot paths.

Far to the east we saw the smoke of a train and, turning, hurried to meet it. Instead of the expected "Limited" we found it to be the "Fair Special" carrying hundreds of our friends, so we stopped for a delightful game of "tag." During the three mile run we circled over our slow friend a half dozen times and then did a figure

eight over the station just to show them we could.

On our last turn we sighted Santa Fe No. 14, east bound, and starting even left it more than two miles in the rear in a straight run of six miles. And here at last we met an opponent worthy of our steel. The California Limited, late, and crowding on every ounce of steam, was speeding westward at the rate of sixty miles an hour. In the six miles between our meeting and the finish we passed the train three times. Our speed was so terrific that it was impossible to breathe looking straight ahead. I was forced to turn my head to one side and make a shield of my hands. I longed mightily for a little cotton from our "First Aid" kit, to protect my poor ear drums. I tried to tell Mr. Dougherty how glorious it all was, but I couldn't hear my own voice in the uproar, so had to content myself with clapping my hands and kicking my heels together. Twice we crossed over the train and flew in a huge circle to one side of it. Only once did I experience any "sensation." At the finish of the first half circle, the aviator pointed "Old Reliable's" nose almost straight at the earth and made a sheer drop of eight hundred feet. Just for a second at the start, I had that "scenic - railway - going - down - in - an - elevator" feeling you are all familiar with. But the finish of the "dip" was glorious, and so was the "spiral" that took us down close enough to wave "good-by" to the Limited's passengers before heading for the Fair Grounds. The biplane settled to the earth so lightly that I did not feel the slightest jar when we landed.

And then the crowd was around us cheering like mad, they say, but never a cheer heard I nor anything else, for a good fifteen minutes. By that time I was back at the telephone establishment listening to fatherly advice from Mr. Peck—all about not doing it again, you know—and trying to locate another pencil.

And so endeth the greatest experience of my (not too) young life, leaving me with a great desire to do it again and unbounded confidence in "Old Reliable" and her pilot.

Why, just day before yesterday the connecting rod on her motor broke when she was 2,300 feet in the air, and that glorious old ship came down like a bird and landed without even scratching either herself or two passengers.

A Fresh Air Fund.

Establish one for yourself. It will serve both as a protection of principal and a guarantee of interest on same. Health as we all know is our principal, and efficiency the interest.

Walk to business in the open air or part way, according to your sense of physical strength. Breathe deeply. Walk vigorously. Get the blood circulating.

Learn to love the feel of the open air and sunlight. Don't worry while you are walking. Keep your mind clear, and your heart happy.

View your life and work from an inspired standpoint and enjoy indoors because you love outdoors.—Hugenot.

Special Requests by Subscribers.

Among novel requests received from subscribers the two following from Chicago are about as original as any:

"The man that installed our 'phone forgot to put a lightning rod in to protect the lightning from the wire. We would like to have one put in. Will you please attend to same."

In the other case the lady asked to be given a private key to her coin box so that she might remove everything in excess of \$1.50 each month before the collector called.

Telephone Aids Hearing.

Dr. Hubert D. Hamilton of Montreal, delegate to the Ninth International Congress of the Ear Specialists at Harvard University, declares the telephone is a great help to the ear.

"Too many old-fashioned remedies like hot onions," says Dr. Hamilton, "have made people deaf. Trust science to give her best. Stick nothing in your ear except your elbow. The telephone vibrations help rather than hinder the ear."



START OF BELL OPERATOR'S AERIAL FLIGHT.



OPERATOR LANDING AFTER AERIAL FLIGHT.



STELLA REATTY.

Toll Operator, Washington, Ind. In six years she has been absent only one week, and then on account of illness.

A LIVING WAGE

By GUY HAWTHORNE in *The Outlook*

In a recent article in *The Outlook* the writer says: "Employers of women and girls in stores and factories must pay a living wage." As a man who has had considerable experience in the employment of salesgirls, I am going to tell you something which I believe to be true, though it may be rather unpalatable. That is, that a large proportion, possibly a majority, of girls employed in stores are *not* worth living wages, and that any store which paid such wages to all female employees would probably fail in business. With most girls, employment is regarded as a mere temporary makeshift, something to fill in time until they are married. They look forward to a home of their own, and cannot, or do not, take the whole-hearted interest in the business that is necessary if they are to receive living wages. The male employee, who cannot look forward to having the burden of his support assumed by some one else, knows he must make good or he will be "down and out."

If a minimum wage law is ever passed, it will not result in careless and indifferent female employees re-

ceiving increased wages. On the contrary, they will probably lose their jobs, and a higher grade of women, many of whom do not now seek employment, will fill their places.

A movement to educate girls to the requirements of modern business, to show them the necessity of being worth living wages, might accomplish more than laws compelling the payment of such wages.

Courtesies by Wire.

Are modern women growing discourteous, even while they prate and sigh about the loss of chivalry and politeness among men? It would seem so, when one of the biggest telephone companies in this country of ours has been forced to send out notices to subscribers pleading with them for courtesy to other phone users.

And most of the offenders are of my own sex, so officials of the company reluctantly confess. It is the women who are curt and rude to the telephone girl, declaring they "don't believe her" if she says the wire is busy. It is the women who listen on a two-party wire and the women who say tartly, "Get off the line, get off the line," if by any chance they get a wrong number.

We need, it seems, an actual bodily presence to remind us of our breeding and the necessity for courtesy under all circumstances, and when the other person is merely a voice rushing out of the unknown from some distance away, we fling aside politeness and let the snappish, disagreeable self come to the surface.

It might all be avoided, too, if we'd try to assume a face-to-face attitude. We might remember, too, that courtesy means good breeding, and that the surest sign of a gentlewoman as well as a gentleman is a kindly reply and a quiet voice.

It isn't necessary to be brusque to get what you want nor is it necessary to be impatient and discourteous to the operator. She has enough to bear. So why not let's start—we women who use the telephones so much—to organize a little campaign of courtesy and kindness over the wires?

It may take a little practice, but it will work wonders in your forbearance and in the brightness and happiness of your days if you will remember to be courteous to those with whom you come in contact, vocally or personally.

And, what is more, the rudeness of some one else on the line doesn't excuse it in us, so let's avoid it in the future and not have to be brought face to face with our shortcomings by the telephone company's polite little requests for courtesy between telephone users.—Peggy Van Braam in *Pittsburgh Sun*.

EXCHANGE OF EXCHANGES

Edgewater, Chicago:

Hospital operator—"What number are you calling, please?"

Subscriber—"Is dis de cheese perlice?"

Operator—"What number, please?"

Subscriber—"I vant de cheese perlice."

Operator—"What is it, please?"

Subscriber—"Operator, put a key on this line; it's so buzzy."

A subscriber having credit for a call flashed and said, "Operator, you owe a party call."

Hospital operator—"E— is out of service."

Subscriber—"Oh, is he out of Chicago. Well, then, I won't talk to them."

Operator—"Number, please?"

Subscriber—"Austin 16,104. You know dot's ein automatic 'phone. Dey put de nickels in folst."

Operator—"Number, please?"

Subscriber—"I was talking, but you stepped in on the wire and smashed the connection."

Operator—"Number, please?"

Subscriber—"Harrison 72 and a couple of large goose eggs."

Operator—"Harrison 7200?"

Subscriber, laughing—"Oh, operator, you're fine."

The subscriber received the right number but the wrong party and flashed for his nickel. The supervisor answered the call. The subscriber said, "Des all right but I vant nine fife cents back." He was told charges are made if number answers. "Oh why is it mit mine nickel," he said. "I can't return the nickel, you got the number you called for," answered the supervisor. "Oh you can be sheep if you vant to, I vood not be so sheep to fight for von nickel, I am a chentlemans."

Subscriber—"Please, Miss Manager, I have a squeak in my telephone."

Supervisor, Manager's Office—"Did you put your nickel in?"

Subscriber—"Yes, I did and she registered myself."

Hyde Park:

A subscriber called and said she had forgotten the number, but she wanted a number with water in it. The supervisor gave her Edgewater.

Pontiac, Mich.:

The chief operator was interviewing what appeared to be a very promising applicant for position as operator. On being asked if she had any previous experience the P. A. replied: "Oh, yes, my sister has had a telephone two months."

Clare, Mich.:

Letter from Subscriber: "Manager—Would like for you to come and fix our telephone. There was a clap of lightning this morning and we can't hear a thing over it."

Getting Her Placed.

"How would you classify a telephone girl?" asked the Old Fogey. "Is hers a business or a profession?"

"Neither," replied the Boob. "It is a calling."—*Cincinnati Engineer*.

Crossed Wires.

Several evenings ago a young man repaired to a telephone office and rang up his sweetheart at her residence. The bell was answered and the young fellow inquired: "Is that you?"

"Yes, George, dear," came the reply. "Are you alone?"

"Yes, darling."

"I wish I were there."

"I wish so, too!"

"If I were there, do you know what I would do with my darling?"

"No, George, I do not."

And then somehow the lines got mixed.

"Well, I'd pull her ears back till she opened her mouth, and then I'd put a lump of dirt in it. If that didn't answer I'd give her a sound flogging," came the startling reply. And then Estelle fainted.

Now they never speak as they pass by, and the man who was talking to his farrier about a balky mare says that anybody who will advise a man to put his arms around the neck of an obstreperous horse and whisper words of love in its ear ought to be hung to the nearest lamp-post.—*Exchange*.

That Squelched Him.

A pay-station operator who is stationed at one of the Milwaukee hotels, and whom Dame Nature presented with an abundance of "sun kisses," or freckles, was trying to put through a Chicago call for a son of Israel, who, while waiting, noticed the sun kisses, and asked "Did you ever sing that song entitled 'Freckle Face'?" The alert operator smilingly answered "No, sir, I did not, but I have often sung 'That Yiddish Rag!'"

The Telephone Girl.

We read of fair maidens in story,
Whose deeds set the earth in a whirl,
But for genuine gems they're not in it
With the up-to-date telephone girl.

We see her trip by in the morning,
From her cap peeps a soft, fluffy curl.
This great central link of existence,
Indispensable telephone girl.

The day through she promptly assists us,
And it must be an out and out churl,
Who can't name by hundreds the favors
We get from the telephone girl.

Few there be who cheerfully serve us,
In modern day life she's a pearl,
Just try living one day without her,
Hats off to the telephone girl.

—*Exchange*.



OPERATORS IN DANCING EXERCISES. MAIN EXCHANGE, INDIANAPOLIS.



CORA TIBBETT.
Evening Chief Operator, Alton, Ill. Has not been absent for six years.

"A Reward."

The Wisconsin Telephone Company's desire to have the right environment for their operators has again been manifested at the new Kilbourn office.

All rooms, the operating locker, etc., are just fine, but the one which was most attractive to the writer was the "Rest Room."

Upon entering the rest room, its spaciousness and grandeur is at once apprehended; the arrangement of the rugs, chairs, leather couches, etc., which does not escape one's notice, offers no chance for criticism, and everything generally looks comfortable and homelike.

The privilege of spending fifteen minutes (rest period) in a room of this kind is a reward for the hours spent at the switchboard.

"A Subscriber."

Operator Saves Town.

Sticking to her post while buildings around her were ablaze, Mrs. Dillon, a telephone operator, saved the town of New Castle, Ohio, from destruction by fire. She called for help from the surrounding country. Volunteer fire fighters managed to check the flames, but not until one store and three warehouses had been destroyed.

The Kind of An Operator The Business Man Wants

A business man relating his experience in choosing an operator for his private branch exchange, illustrated clearly the necessity of such an applicant presenting a business-like appearance, and the importance of neatness and good taste in dress. He stated that the first young woman interviewed was most prepossessing, neatly clad in tailored suit, waist, small hat, neat gloves and shoes, and her hair was combed in a simple but becoming way. The references furnished by her proved to be altogether satisfactory and he felt sure, after a short conversation, that she would ably fill the position. The second applicant was described by him as being dressed for the matinee. The elaborate arrangement of hair, the large hat, low-necked lacy waist, and pumps in place of oxford shoes, made her appearance a striking contrast to that of her competitor. Although she could give as satisfactory references as the first young woman interviewed, he said he



Miss Kohlsaat Returns.

Cora Kohlsaat, who has been away for her health for several months, has returned to the personal service department of the Chicago Telephone Company. During the latter part of her absence Miss Kohlsaat has visited many industries in Germany, Holland and London, and her observations will be of value in her work here. Miss Kohlsaat has a large circle of friends in the operating force, who have appreciated her sympathy and helpfulness in the past, and who rejoice that she is able to take up her work again.

could not conscientiously offer her the position, purely on account of the inappropriate way in which she was dressed.

Who ever saw a man appear at his office ready for the day's grind in evening dress? Yet there are many women who think nothing of coming to their work in clothes only suitable for party or theatre. There are undoubtedly many who put real thought into choosing clothing that will be appropriate for their use in business life. It is true that a neat appearance many times opens the way toward securing the desired position, and after that it is, of course, up to the individual to prove what she is worth.

It is safe to say that the young woman who applies herself intelligently to the work at hand, and who is suitably dressed to do that work, is the one in demand by the business world of today.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
C. W. CUMMINGS
Correspondents

Luncheon for H. B. Judy.

On Thursday evening, September 12th, the night operating force of Main Exchange pleasantly surprised H. B. Judy with a dainty luncheon as an expression of their high esteem for him as city night manager. Among the guests were Mr. Judy's mother, Mrs. Regan, Mrs. Fay, Miss Joyce, Mr. Nevins, Mr. Burke and Mr. Cloyd. The best wishes of all go with him to his new position in Central district.

Service Standing.

The following statement shows the place position of the offices (wrong numbers) for the month of July, 1912:

| Outgoing. | |
|---------------|---------------|
| First..... | Kedzie |
| Second..... | Canal |
| Third..... | Calumet |
| Fourth..... | Lincoln |
| Fifth..... | Lawndale |
| Incoming. | |
| First..... | Canal |
| Second..... | Yards |
| Third..... | Douglas |
| Fourth..... | Calumet |
| Fifth..... | Calumet |
| Neighborhood. | |
| First..... | Irving |
| Second..... | South Chicago |
| Third..... | Rogers Park |
| Fourth..... | Austin |
| Fifth..... | West Pullman |

The following is the statement showing the place position of the offices (wrong number) for the month of August, 1912:

| Outgoing. | |
|---------------|---------------|
| First..... | North |
| Second..... | Kedzie |
| Third..... | Lake View |
| Fourth..... | Lawndale |
| Fifth..... | Lincoln |
| Incoming. | |
| First..... | Canal |
| Second..... | Monroe |
| Third..... | Kedzie |
| Fourth..... | Hyde Park |
| Fifth..... | Calumet |
| Neighborhood. | |
| First..... | Austin |
| Second..... | West Pullman |
| Third..... | Rogers Park |
| Fourth..... | South Chicago |
| Fifth..... | Irving |

September Promotions.

Operators promoted to supervisors:
Main, M. E. Casey, Central, K. McKeon and M. McCahey; Harrison, G. Webber; Toll, G. Jorgensen and A. McDermott; Oakland, M. Karz and S. Orendorf; Wabash, M. Bergen and K. Howe; Yards, M. Smith; Lawndale, M. Stejaskal; Lincoln, K. Munster; Calumet, E. Konow; Edgewater, M. Rusch and A. Elberg; West Pullman, C. Day; Burnside, C. Wingeter.

August Promotions.

Operators promoted to supervisors:
Main, A. Ryan; Wabash, R. Michaels; Central, A. McCarthy; Lake View, J. Kelly, G. Smith and M. O'Connell; Yards, A. Loeffel, M. Sheehan and C. Littleton; Kedzie, T. Whittall and G. King; Hyde Park, C. Kilborn.
Miss M. Parle has been made night chief operator at Harrison.

August Suburban Promotions.

Aurora: Olive Eggleston, eight-hour operator, promoted to night supervisor.
Joliet: Mary Bluth, eight-hour operator, promoted to supervisor. Ella Culom, supervisor, promoted to evening chief operator. Mildred Couch, night operator, promoted to night supervisor.

July Promotions.

Operators promoted to supervisors:
Central, M. Martin; Toll, E. Grund; Calumet, C. McAleer; Yards, C. Seyferth; Oakland, H. O'Connor and P. Delmarter; Wentworth, E. Squires, A. Keenan, N. Coreoran and M. Keane; Canal, E. Sell; Hyde Park, J. Owens and A. Hastings.
Miss M. O'Hara has been made evening chief operator at Toll.
Miss J. Ritchie has been made night chief operator at Yards office.

July Suburban Promotions.

Aurora: W. Gundstrom, eight-hour operator, promoted to supervisor. Moses M. Diercks, eight-hour operator, promoted to chief operator.
Elgin: M. Schmidt, eight-hour operator, promoted to repair clerk.

Evansville: M. Rudd, night operator, promoted to supervisor.
Winneka: L. Kelly, S. T. operator, promoted to assistant chief operator.
Riverside: A. Herman, eight-hour operator at LaGrange, to assistant chief operator at Riverside. Mrs. W. Moran, assistant chief operator to chief operator. Downers Grove: Night operator to assistant chief operator.

Personals.

Miss Welter, chief operator at South Chicago, received complimentary tickets and a pleasant note with an invitation to the annual picnic of the South Works Employees' Picnic Association of the Illinois Steel Company.
The number "thirteen" did not live up to its bad reputation Tuesday, August 27th, when the West evening supervisors with their chief operators went out for a picnic in Lincoln. The day was warm enough to make the bathing enjoyable, and the girls bathed long enough to make the delicious lunch disappear rapidly. The luncheon surprise was a "Black Horner Pic" filled with very clever favors and verses for each. There were several pictures taken, then finally a race in the only car, followed by a sing for the car. It was a very tired but jolly little "thirteen" that left West office for home at ten o'clock.

Margaret Shanahan, supervisor at Central, has resigned to be married October 9th to Leo Matthews. The B operators surprised her at her home on the evening of September 17th with a miscellaneous shower. The evening was filled with music, dancing and games and greatly enjoyed by all.

May Lynch, supervisor at Central, was married September 4th to John Cavanagh. Her friends at the exchange gave her a beautiful cut glass water set.

Julia McCahey, Central supervisor, resigned to be married October 9th to Edward Burke. The B operators gave a surprise party for her at the home of Mrs. Bishop and presented her with a cut glass vase.

Lillian Neudorfer, who has been connected with the Benefit Association for about two years, was married to Fredrick Seeger, Wednesday evening, September 19th. Miss Neudorfer was highly esteemed by her companions in the office and a number of them attended the marriage, which took place in St. Paul's Lutheran Church. The beautiful church made a fine setting for the pretty wedding. Two little girls, carrying white ribbons, led the way to the altar and were followed by two bridesmaids dressed in pink crepe de chene, and carrying pink sweet peas. The maid of honor wore pink satin and carried Killarney roses. The bridegroom was of white chamois satin, and she carried a shower bouquet of lilies of the valley. A tiny girl with a basket of roses strewn the path of the bride with rose leaves. The music was a delightful feature of the wedding, including several solos rendered by the church soloist. As the wedding party came down the aisle she sang the Nuptial song from "Lohengrin." Mr. and Mrs. Seeger will be at home after the first of December at 620 Perry street, North Edgewater.

Catherine Monkley, Wabash operator, resigned August 24th, to be married to William MacBeth. She was presented with a set of silverware by the girls in the Exchange.

Mary J. Malone, who for nine years has been in the service of the Telephone Company as clerk and stenographer, was mar-



LENA SCHWARTZMAN.

Operator, Negaunee, Mich. Has not been absent for four years.



MYRTLE SCHRANDT.

Service Inspector Marquette District, Michigan. Has not been absent for four years.



AUSTIN LINE WAGON.

Left to right—John Flannigan, "Happy Steve, Charles Fitz, Frank O'Connor, Tom Glynn.

ried Monday, July 15th, to Francis McDonnell. Her home will be in Richland, Washington. Miss Malone has many friends in the Traffic Department who will miss her. She received a beautiful gift of linen from friends in the office.

Lettie Slachonai was married to Leo Karlitz, September 10th. Friends in the Wabash Exchange gave her a cutglass water set.

Elizabeth Mathys, Wabash operator, was married to Jacob Schlegel, September 25th. She received a beautiful cutglass fern dish from her friends in the office.

Robert H. Burns, of the traffic supervisor's office, Chicago, is the democratic nominee for state representative in the Nineteenth Senatorial District of Illinois. He is making an active canvass for election and is said to have good prospects of success.

The Humboldt day supervisor's report a delightful picnic at Lincoln Park, September 10th. After enjoying a picnic supper the company took a car ride to Evanston.

Miss Hoff, chief operator at Rogers Park, was married August 10th to John C. Howard. A cut glass fern dish was presented her by her friends in the office.

INDIANA DIVISION

PHIL. M. WATSON, Correspondent, Indianapolis

Anderson District.

The corn crop is so great in parts of this district that it is said that the men have had to trim some of the corn stalks to keep them from interfering with farmer lines.

Indianapolis District.

Private branch exchanges have been installed for the Archey-Atkins company and the A. Klefer Drug Company.

On September 12th and 13th the operators of the Main Exchange held two receptions, the guests being the friends of the members of the Operating Department. Music was furnished by Mrs. Cornett, a local singer, and by two colored men who were very clever with the guitar and mandolin. The Roof Garden was attractively decorated with flags and streamers and autumn flowers. Ices and cake were dispensed by the committee on entertainment. About 300 guests were entertained and all expressed themselves as having had a most enjoyable time.

On August 27th Captain Wallace Foster presented the Indianapolis employees of the company with a handsome silk flag as a prize for the largest amount of money collected for the Star Summer Mission Fund by any organization or group of individuals, from the beginning of the season until August 17th. A number of the employees assembled on the Roof Garden for the ceremonies, and when Captain Foster entered a group of young women carrying flags sang "The Star-Spangled Banner" and "America." In presenting the flag, Captain Foster made some very fitting remarks, thanking all for the interest taken in this charitable work. The flag was received by Miss Welch, chief instructor of the training school, who had been largely instrumental in raising the large amount of money that was turned over to the Summer Mission Fund. On August 30th the operators of the Main Exchange gave a dance at Broad Ripple. About sixty couples, with Mrs.



TAKING A HIGHER POSITION.
Portrait of a Former Chicago Official

McWhinney as chaperon, enjoyed the evening.

On the evening of September 13th several of the girls of the Woodruff Exchange gave a linen shower for Kate Stewart, chief operator of the Belmont office. Miss Stewart has given up her position as chief operator of the Belmont office and is expecting to be married late in September.

Mrs. Jeannette Espey has announced her engagement to William Hamant, the wedding to occur the latter part of September.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent.

Appleton District.

E. E. Wilson, of the Western Electric Company, has installed a new section to the Sturgeon Bay switchboard.

The Door County Telephone Company is making preparations to reconstruct farmer lines which connect at the Sturgeon Bay exchange.

Lillian MacDonald has accepted the position of Manager's clerk at the Sturgeon Bay exchange.

Oswald Thirune is employed at the Shawano exchange as repairman in place of F. Stanke who left the service of the company.

Connecting arrangements have been made with the Anwa Telephone Company, the connection effective as of August 9th.

Red River Telephone Company with about forty subscribers was connected on August 25th to the Shawano exchange.

An estimate covering additional cable at Green Lake, has been completed by Construction Foreman Keene and crew.

Blanche Caddigan, of Milwaukee, and A. R. Henderson were married July 25th. Mr. Henderson is Manager at Princeton and Red Granite.

Mabel Marshall, night operator at the Omro exchange, has resigned and is succeeded by Elizabeth Chalmers.

Dewitt McCarty, local foreman at Manitowoc, has been working on district estimate work the past month. Eugene Nagan is acting foreman while Mr. McCarty is absent and Howard Bassett from Oconto is taking Eugene Nagan's place.

Francis Mack, temporary operator at the Neenah-Menasha exchange, is at the Clark Hospital, where she was operated upon for appendicitis.

O. L. Melz has resigned his position as wire chief at the Neenah-Menasha exchange, effective September 1st, to engage in other business.

A new section has been added to the switchboard at Kaukauna. Elvira Lindstrom, local operator at Kaukauna, has resigned and has been appointed toll operator at Fond du Lac.

The Lake Shore Telephone Company is building one more circuit into Algoma to serve a number of new subscribers.

Suuler Company general store at Green Bay has signed contracts for two by four cordless exchange with two trunks and four stations.

H. W. Gosnell, who has been absent

from duty as a result of sickness, is much improved. He expects to go back to work at Green Bay soon.

Miss Pennifill, toll operator at Green Bay, returned to duty after a month's illness.

Miss N. Knight, of Neenah, has been promoted to the position of Chief Clerk at Green Bay. She succeeds Leonard Miller, who was transferred to the Plant Department.

Lester Crowell, formerly cashier at Oshkosh, has resigned to accept a position as bookkeeper at the Termaat-Monahan Company at Oshkosh.

Mrs. R. P. Waters has returned to work after recovering from a very serious illness.

Arrangements have been made with the Public Library at Fond du Lac for a branch library at the telephone office, and it was started the first of August. It has proved very satisfactory. The number of girls desiring books has been more than was expected and the class of books obtained has been very good. There is no doubt but what this will prove a great benefit to the employees. One of the young ladies has been appointed librarian and the books are handled in exactly the same manner as they are in the public library.

Jennie Hendry, bookkeeper at the Fond du Lac exchange for the past year, resigned August 20th to be married to Frank D. Candlish Saturday, August 31st. Mr. Candlish is employed as troubleman at the Fond du Lac Exchange.

Amelia Breitung and Myrtle Struck have been employed as clerks in the commercial department at Appleton. Due to the consolidation of the Wisconsin and Fox River Telephone Companies it became necessary to have two more clerks in this department.

Clark Brown has been employed at the Appleton exchange as collector.

Ralph J. Printup is soliciting at the Appleton exchange.

Oconto Falls has a Class 10-B Western Union office beginning September 1st. Julia Fitzsimmon of the manager's office at Oconto was married August 12th.

A heavy electric storm visited the Oconto section August 27th, doing considerable damage to the cable.

Margarie Ellis, who was operator at the connecting office at Greenleaf for the past two years, died August 11th and was buried August 14th from the Baptist church at Greenleaf.

The Royaltel Telephone Company has completed two new circuits with thirty-five new subscribers connected with the New London exchange.

Eau Claire District.

William Pitman has accepted a position as Commercial Agent at Eau Claire. Joe Barry has been promoted from installer No. 2 to position as chief installer at Eau Claire.

A. C. Borgen, who has held a position as assistant wire chief for some time, has been promoted to switchboard man at Eau Claire.

Geo. Glese has been promoted from chief installer to assistant wire chief at Eau Claire.

Cableman Martin Conley and helper Ed Conley have been kept very busy shooting cable trouble in the Eau Claire exchange for the past two months.

On account of the increasing business of the Eau Claire County Telephone Company, and the Eau Claire exchange of the Wisconsin Telephone Company, there will be installed three new additional trunk lines.

W. W. Allen, local manager at Ladysmith, resigned to accept a position as assistant postmaster at Ladysmith.

R. A. Nelson of Crandon has accepted the position of local manager at Ladysmith.

Catherine Sensenbrenner, formerly night operator at the Stanley exchange, resigned on September 5th, and moved to Oshkosh, Wis., and is succeeded by May Notman of Stanley.

A. L. Hart, service inspector, completed an inspection of the Ashland office during the month.

Bernie Lahiff is a permanent addition to Hudson Exchange force as repairman since August 1st.

The District force under the supervision of Louis Zarbock has just completed circuits to Lakeland, Minn., where six of the neighboring town's best citizens now have direct connection with Hudson.

The state construction crew, Len Hickley, foreman, is rapidly completing the new circuits to Hudson Prairie where direct connection is already had with fourteen farmers, and it is expected to connect many more in the near future.

Speaking of collections, the writer once knew a manager who acquired the habit of collecting with a screw driver. He being manager of the only plant in the town would get a large red handled screw driver which he would use for rapping at subscribers' doors and upon the appearance of the subscriber he would twirl the big screw driver and in a very pleasant voice would say, "I came after your bill, or—" but he never finished his speech because the money was always forthcoming. One day a subscriber who was possessed of a little spirit of curiosity waited for the manager to make his little cut and dried speech and as usual the pause after "or—" when the subscriber said, "or what?" The manager simply said "or, I will call again when it is more convenient."

The Home Telephone Company of Durand is rebuilding its outside plant.

Estimates covering eleven new rural subscribers at the Menomonie exchange have been approved and the work will be done by C. Wilson.

Nellie Sheridan, who has been in the employ of the Superior company since 1899, resigned her position and was married during September to Thomas Ryan. Kate Archambeau has taken Miss Sheridan's position at the Superior exchange.

Joseph Tracy, assistant wire chief, resigned his position at Superior recently to accept a position at Virginia, Minn. He is succeeded by Max Perlick.

Madison District.

Adella Amundson has resigned her position as toll clerk at the Madison Exchange and accepted a responsible position with a local concern. She will be succeeded by Miss Burnham.

A Class 10-A Western Union joint office was established on August 10th at Waupun.

The installation of an additional toll section at Madison has been started by the Western Electric Company.

The Western Electric has completed the installation of a seven section No. 9 switchboard at Ft. Atkinson.

District Plant Chief Schroeder has nine crews working throughout the district and getting the plant in order.

S. Dudgeon, chief clerk to District Plant Chief Schroeder, has resigned, and will engage in other business. He is succeeded by H. Hamilton.

The rebuilding of the central office at Baraboo has been completed and work on the outside plant has been begun.

District Commercial Agent, J. B. Brannan, reports that most of the exchanges in the district have obtained their required



OPERATING FORCE, EVANSVILLE, WIS.



ALDA SHUTTLEWORTH.

Toll Chief Operator, Terre Haute, Ind.

In eight years she has been absent only one month and then on account of illness.

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

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THE AUTOCALL COMPANY

110 Davis St. SHELBY OHIO



CENTRAL UNION FLOAT IN CENTENNIAL CELEBRATION AT COLUMBUS, O.

gain for the year 1912. It is expected that all managers will secure the necessary number by January 1st, 1913.

Jessie Miller, an employee of the Madison Exchange, died of typhoid fever at the home of her parents on August 7th. Miss Miller for a long time was toll supervisor at the Madison Exchange and about three months ago was transferred to the Commercial Department in the capacity of bookkeeper. Miss Miller was a young woman of noble character and enjoyed the esteem and respect of a large circle of friends who were greatly shocked by the news of her death.

The outside crew have started to work at the Ft. Atkinson Exchange. The switchboard and power plant are about completed, and it is expected that the cut-over can be made within the next two months from the magneto to common battery system.

The construction department has started work on a toll line from Janesville to Watertown.

Contracts are being secured at White-water covering the installation of service for some thirty subscribers on a proposed rural line out of that Exchange.

Milwaukee District.

H. H. Moll, employed as a service inspector in the Traffic Department for the past seven years, resigned on September 4th, to accept a position with a local manufacturing concern.

Minnie Hulick has been promoted to the position of pay station and private exchange chief operator to succeed Anna Bauer, who recently resigned.

A merry group of operators congregated in the rest room of the new Kibbourn office to take part in a house-warming on Friday evening, Sept. 13th. A number of games in which all participated were enjoyed, and prizes were carried off by Frieda Luedtke and Gretchen Graap. The music which was furnished by a Victrola

machine, was enjoyed while the guests were seated for lunch at tables decorated with greens and pink carnations.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Columbus District.

Letta Casey, stenographer in the district commercial manager's office, was transferred on August 1st to a similar position in the general manager's office.

Toledo District.

Albertine Blischoff, stenographer at Toledo exchange, resigned September 1st to resume her studies at Chicago, Ill.

For the convenience of subscribers and the public, eight pay stations were installed on the grounds occupied by the Elks Carnival during their Home Coming Week at Toledo, during the latter part of August.

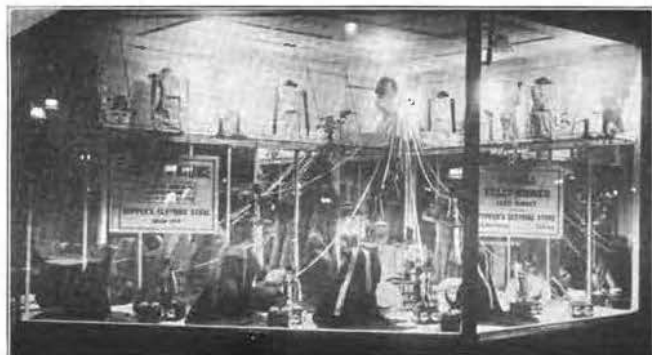
Edna Angel, night operator at Fostoria, was married on August 1st to William Starkloff, of Port Clinton, Ohio.

Rose Aldrich, supervisor at Fostoria, resigned August 31st and is succeeded by Margaret Morel.

The Plant Department recently completed the installation of four additional cord pairs on each of nine positions at Sandusky, necessary on account of the heavy maximum load.

The Plant Department recently installed new transfer jacks and made general repairs to both local and toll boards at Bowling Green. They also completed repairs to the aerial cable and cut in new can tops in place of the old style cable boxes.

O. M. Bigley, repairman at Findlay, re-



TELEPHONE DISPLAY IN HOPPER'S CLOTHING STORE WINDOW, BOWLING GREEN, OHIO.

Poles

FROM THE

Stump

TO THE

Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

National Pole Company

Escanaba, Michigan

signed to accept a position with the Citizens Telephone and Message Company of Fostoria.

C. F. Pierce, construction foreman, has started the work of stringing some additional cable in the southern part of Fostoria to furnish some needed facilities.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Bloomington District.

Hattie Richardson, collector at Kankakee, has resigned to take up home duties and is succeeded by Nellie Lebeau.

F. E. Bosong, foreman at Kankakee, has resigned and Roy Davis has been promoted from wagon foreman to foreman.

V. B. Barber, district cable repairman, in the Springfield District, was married on August 1st to Ina McCormick, of Springfield.

Boardtown plant area has been consolidated with Jacksonville area to be under the supervision of the Jacksonville plant chief.

On August 1st, the young ladies of the Jacksonville exchange with a party of friends, went on a hay ride to Gravel Springs and there spent the day in true picnic fashion. The affair was in honor of Cleo Fuson, who has resigned and left August 18th for St. Louis where she will make her home.

Carl Redding, for the past five years lineman at Peoria, has resigned to accept a position with the Peoria Railway Company. Mr. Redding is succeeded by W. T. Judy.

Work on an estimate which covers rebuilding of the Peoria-Canton line is now well under way.

Foreman J. H. Champion has charge of the estimate which covers painting of all poles in the City of Peoria. Mr. Champion pushed the work on this estimate and completed it in record time.

R. E. Boone has resigned the position of lineman at Peoria, Ill., and is superseded by R. H. Murphy.

Centerville District.

C. E. Lawrence, formerly district plant inspector, has accepted the position of wire chief at Centerville.

W. L. Edwards, formerly lineman at

Edwardsville, has been transferred to Carrollton as plant chief of the Carrollton area.

Martha Metzger, who was formerly toll operator, has taken the position of collector at the Edwardsville exchange.

Emma Parker, collector at Paris, Ill., resigned on July 25th. Bertha Driskell succeeded her.

F. E. Speckman, Commercial Agent, was transferred from Carrollton to Alton on August 19th.

W. L. Parrish, who was formerly wire chief at Edwardsville, has been transferred to the District Office force as district plant inspector.

G. A. Hobart, formerly wire chief at Centralia, has been transferred to the same position at Edwardsville.

Mrs. Sophia Lindbeck, collector at Edwardsville, resigned her position on August 3rd.

Philomena Kettness, clerk at Alton, has resumed her duties after a two weeks' lay-off on account of sickness.

The employees of the Commercial and Plant Departments at Alton were entertained by the Traffic Department on August 11th with a picnic at Yost's Grove.

From all reports it is said that the girls were royal entertainers, not only in amusements but in the way they served good things to eat.

An estimate covering additional circuits between Centralia, Nashville and Murphysboro has been completed.

An estimate covering underground construction work at Centralia has been approved and assigned to the Plant Department.

An estimate covering the setting of poles, stringing of one copper metallic circuit from Vandalia to St. Jacob, has been completed as far as Greenville.

L. R. Pettus, formerly of the Division Traffic Department at Springfield, has accepted the position of service inspector in this District.

T. H. Edwards, Manager at the Green-



PICNIC, JACKSONVILLE, ILL.

up Exchange of the Greenup Telephone Company, had the misfortune to break his leg in a runaway the first part of August. Mr. Edwards was out in the country making collections and the tongue of the buggy dropped causing the horses to take fright and run away and throwing Mr. Edwards out. He is improving very rapidly.

Nannie McMillan was married to Lena May Reddick of Decatur, the first part of August and they are residing at Alton.

Galesburg District.

Nox Dusch, formerly wire chief at LaSalle, has been promoted to plant chief, succeeding H. M. Atkins, resigned. J. M. Skovare, formerly switchboardman at LaSalle, takes the position of wire chief succeeding Mr. Dusch.

Ed Crouse, formerly on special work



SARAH ANDREWS.
Teacher of the Telephone Bible Class,
Cleveland.

for the Plant Department at Moline, has accepted the position of private branch exchange repairman at the Rock Island.

Foreman E. W. Lindsay and his men have started on new estimates that have been approved for the new toll line circuits and the extension of the cable system at Rockford.

E. L. Mitchell, district plant chief, recently purchased a fine pair of mules for use on the line order wagon at Rock Island. Mr. Mitchell has an eye for good things for the betterment of the Company's equipment for increasing the efficiency of plant work.

R. J. Schamel, district plant inspector, recently installed at Rock Island, a new toll test board for the use of the toll wire chief.

George Dusch has taken the position of switchboardman at LaSalle.

Springfield District.

Hugh Sullivan, collector at Springfield, has resigned his position on account of poor health. F. Niehaus has accepted the position made vacant.

Commercial Agent J. J. Heimberger has been assigned for duty at Springfield. Mr. Heimberger has been working at Collinsville where he made a good record in securing new business.

Equipment Foreman Morrill installed a sub-exchange at the Illinois State Fair Grounds, to handle the traffic this year. The exchange was equipped with four operators' positions.

The Commercial Department at Springfield secured contracts covering a private branch exchange from Edwards and Chapman's Laundry, last month. The contracts call for two trunks and six stations.

Contracts covering a private branch exchange for the McCoy Laundry were secured last month. The exchange will be of the cordless board type, and will be equipped for two trunks and six stations.



CLEVELAND TELEPHONE MOTORCYCLE PLANT MEN.

F. C. Resax, C. V. Stillwell and J. Arvess, suburban repairmen; L. C. Kubach, district plant chief, and F. H. Pemmirau, city foreman. Photograph by courtesy of Harley-Davidson Motor Company.

CLEVELAND DIVISION

W. ENGLEHARDT, Correspondent

Engineering Department Changes.

Under the plan of organization for the Central Group of Bell Telephone Companies, the Engineering Department of the Cleveland Telephone Company, has been moved to the new headquarters at Columbus, Ohio, and is now under the direction of Allard Smith, Engineer of the Ohio Division.

The new alignment has brought promotion to A. N. Symes and A. F. Walker, who have both been appointed exchange plant engineers of the Ohio Division.

Those of the Engineering Department who have been transferred to Columbus are T. W. Johns, Wm. Elsie, H. A. Johnson and J. G. Loranger. It has been found necessary to detain D. H. Morris and L. F. Collins in Cleveland to look after the local business.

C. O. Petch and A. M. Southard have been assigned to the Plant Department.

With Commercial Agents.

August was a good month for J. P. Willman as he secured a contract for a switchboard of the No. 4 type from the Avery Stamping Company, 5297 Lakeside avenue. The equipment will be one trunk line and six stations. He also secured a contract for the same type switchboard from the Cleveland Machinery and Manufacturing Company, 4944 Hamilton Avenue, to be equipped with one trunk line and six stations.

Good luck was also experienced by W. A. Walsh as he also secured two contracts for switchboards. One is to go in the home of H. A. Tremaine on Fairmount Boulevard. This will be a Type 2 private branch exchange which will be equipped with one trunk line and nine stations. He also secured a contract for a cordless board from The Electric Railway Improvement Company, 2070 East Sixty-first Street. The equipment will be one trunk line and six stations.

A private branch exchange which will consist of a No. 4 board, one flat trunk line, one measured trunk line, and six stations was secured by G. Vernon Shaw, from The Cleveland Motor Company, 2015 Euclid Avenue.

Charles H. Ellert also succeeded in landing a contract for a private branch exchange last month. It calls for a No. 4 board, two flat trunk lines and six stations, to be installed in the offices of The Cleveland Milling Company, 1635 Merwin Avenue.

A No. 4 board will also be installed in the offices of The Cleveland Welding and Manufacturing Company as a result of the efforts of S. J. Dennison. The switchboard will be equipped with one flat trunk line, one measured trunk line and six stations.

Personals.

Thomas Lavelle's health is improving and it will be but a short time before he is back to his duties.

Mrs. Wilcox, formerly Miss Wright, has resigned her position as private branch exchange instructor to take up her duties as housewife. Minnie Spencer has been assigned to Mrs. Wilcox's old position.

Two girls in the Plant Department are under suspicion, each one having exhibited an absorbing interest in household affairs. They have been caught in the act, and have become convinced that two early marriages will be solemnized. Martha Brown has many moments of abstraction since she came into the possession of a diamond ring. Margaret Purse is often seen smiling to herself at secret thoughts and seems to be aroused if she catches you watching the third finger of her left hand.

After visiting all the downtown department stores and finding her search in vain, Martha Williams came at last to Mabel Hillier asking her assistance. It seems she was unable to obtain an apron with buttons on the side like the other girls. Miss Hillier explained by twisting her apron to the back.

N. J. Forgue, formerly of the Commercial Department, is now in the advertising department in the position previously occupied by G. W. Cowley.

In a strenuous effort to reduce his weight Leo C. Chapman, formerly on the order table, has taken to the street, figuratively, as a commercial agent.

As protector of life and property, the telephone company again takes high place. While working in the relay room, August 25th, Ben Stearns, Main office switchboardman, saw a spyglass youngster clambering off the roof of a lodging house near by. He telephoned an alarm of fire, then ran to the street and told Patrolmen Krohn and Samson what he had seen. Later he identified a twelve-year-old boy as the one he had seen on the roof. The boy denied it at first, then broke down and confessed. The police say he had entered the building intending to ram sack the place and had set it afire accidentally with a candle. He gave his name as Balla Horvat, 1921 Lorain Avenue, and was turned over to the Juvenile Court.

Mrs. Loyola Frisole of North Office has left the service to go on training as nurse at Charity Hospital.

Next in Line

Here is our long nose plier, of interest to the switchboard and installation man, because of the extra long nose of this tool by which wires, etc., can be handled in confined and otherwise inaccessible places.



LONG NOSE PLIERS

come under Series 319 and each size and kind has a letter affixed, for instance, No. 319-I is a long needle nose tool without side cutter. No. 319-V the same, but a size larger, 6-in., etc.

This series consists of long oval nose, long flat nose, long bent nose, long nose side cutting and long nose cableman's pliers, each of which comes in several sizes.

They are made in our own shops of good material, carefully made and tempered.

Result — Excellent Quality.

Write for our catalogue which gives lists and numbers.

Insist on your dealer sending you only genuine KLEIN. If your dealer cannot furnish, write us.

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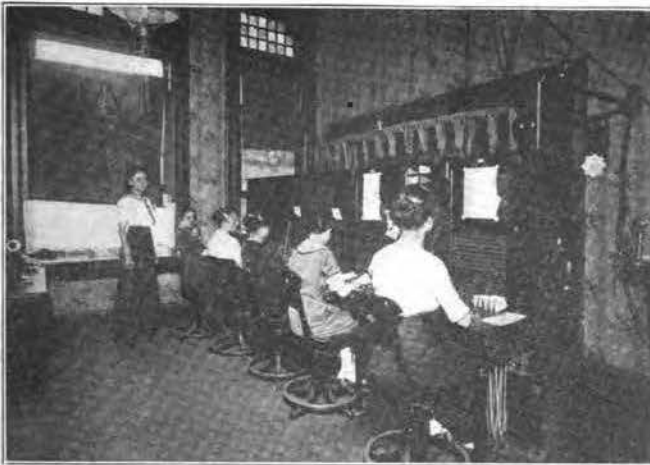
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626 SOUTH CLARK STREET
CHICAGO, U.S.A.

ADVERTISE

IN THE
BELL TELEPHONE NEWS



OPERATING ROOM, OWOSSO, MICH.

Lenna Pritchard, of North Office, is wearing a beautiful diamond. She does not say just when the happy event is to take place.

Nellie Clancy, of Doan Office, is also wearing a diamond. She insists it is just "a present."

Irene Kirsch, Main supervisor, has been promoted to assistant chief operator at North.

Frances Baker, supervisor at Main Office, has been promoted to instructor at Operators' School.

Minnie Spencer, school instructor, has been promoted to private exchange instructor.

Clara Elrons, operator at Doan Office, has been promoted to supervisor.

Emma Mosall, evening chief operator at East Office, left the service August 5th to be married.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Sold Out.

Now that the Home Telephone Company of Ann Arbor has been taken over by the Bell, the stockholders know exactly where they are at. They will get less than fifty cents on the dollar of their original investment, besides having received nothing for the use of their money for the nine years the company has been in existence. Chelsea investors are congratulating themselves on having taken the advice of the *Standard* and not having been misled last year into putting up an independent exchange with no one to run it. While the present service furnished by the Bell in this town is not what it should be, an independent exchange would only double the affliction and also have been a losing investment.—Chelsea, Mich., *Standard*.

The Chelsea *Standard* is a little ahead of time, as "taking over" proceedings are still a long way from materializing, but the above clipping is interesting as indicative of recent Michigan sentiment about "competition."

Roadway Company Notes.

A contract has been signed with the Lake Roadway Telephone Company, for connection with the exchange at Sylvania.

Connection with the Ransomville Roadway Company and the McKnight Roadway Company was made September 1st, at the Sault Ste. Marie exchange.

A contract has been signed with the Marquette Township Telephone Company for connection with the Marquette exchange.

A contract has been signed with the Lakeside Roadway Company for connection with the Sault Ste. Marie exchange, for two circuits, and connecting eighteen subscribers.

A contract has been signed with the North Mayfield Telephone Company for connection with the Lapeer exchange.

Formal.

August 16, 1912.

Michigan State Telephone Company, Detroit, Mich.

Gentlemen: In reference to the contract now in force between me and your good company, wherein I obligated myself to pay \$3.85 a month in advance from October 27th, 1911, to November 1st, 1912, in exchange for a one party metal circuit

line telephone service maintained by your company, telephone No. Grand 1945, house No. 300 Lincoln Avenue, I beg to advise that it is my intention to vacate these premises on October 1st, 1912, at which date you will please discontinue your service, make entrance, remove instrument and render final bill, in accordance with the terms of your agreement "covering the termination of the agreement at any time by the lessee."

I trust you will not take amiss my rather ample notice in the above connection, but I feel justified in so doing, as I wish to make the notification a matter of formal record in your office.

In anticipation of your usual courteous attention, I am,

Very truly yours,

(Signed)

Telephone Society of Michigan.

A semi-formal meeting of the Telephone Society of Michigan was held in the Society's club room on the evening of August 28th. Secretary Culver announced in connection with the Bob-o outing that although all the collections for the tickets were not yet in, a handsome (or at least, somewhat good-looking) balance would remain to the credit of the Society after all the expenses were paid. A cheer greeted this announcement. W. B. Smith made a short but vigorous talk on "boosting" our new members, and it is hoped that his suggestion will be taken to heart by the few lukewarm members that we have. Martin Ewald thanked the Society for electing him as governor in place of W. A. Gibson, who recently resigned. When Mr. Gibson's letter of resignation was read several members spoke in praise of the work Mr. Gibson had done for the Society, and it was moved, seconded and carried unanimously that he be made an

honorary member of the organization. George Solomonson, of the Plant Department, who takes a lively interest in the Society's affairs, made a few remarks; it is hoped that we will hear from Mr. Solomonson again. A. S. Cook, who is an excellent violin player, gave his audience a veritable treat by playing a few pieces; we could have heard more of Mr. Cook's music with considerable satisfaction. Boxes of cigars were provided by the refreshment committee. After they had been passed around they became merely cigar boxes.

Good Service Appreciated.

William Pardo of Wyandotte gave the Bell telephone girls of Wyandotte a motor car outing to Belle Isle Wednesday evening. Mr. Pardo runs the Wyandotte garage, and the trip was in recognition of the good service that he received.—Detroit Journal, August 22nd.

Detroit District.

Employees of the Commercial Department presented two gifts to Commercial Superintendent George M. Welch and Mrs. Welch on the occasion of their marriage in August. Those in his own office sent a cut glass pitcher and a dozen glasses; the gift of the department downstairs was a handsome shirt set.

Rodney Weeks has returned to Detroit from Chicago as secretary to Mr. von Schlegel, general manager of the Michigan State Telephone Company. Mr. Weeks is also engaged in the traffic department during the evening.

M. J. Alexander, of the Duplicate Bill Department, in Treasurer Burrows' office, has resigned and gone into the lumber business. We never thought he "wood."

A series of meetings of the men in the Commercial Department has been started by Commercial Manager Slack in the Detroit office after office hours each week. Mr. Slack takes up with his men at these meetings the details of their office work, advises them on current procedure, and tells them how to handle unusual cases in their contact with the public. In a later issue of the News a fuller account of these meetings may be given. They are being attended by the men with marked interest.

James M. Carroll, formerly in the Equipment Department of the Michigan State Telephone Company and now district commercial manager at Temple, Tex. (Southwestern Telephone Company), made a recent visit to Detroit with his wife and daughter, a young lady of three. Mr. Carroll took a great deal of interest in the changes which had taken place in the organization since he was here. He was welcomed heartily by all his former associates. Readers of the News will recall the story in the July number of his arranging for the delivery of a public speech over the long-distance telephone from St. Louis to Temple, Tex.—a wire-distance of 1,000 miles.

Attention, Girls! Pontiac wishes to announce to all old maids, also young maids who are desirous of getting married that Pontiac exchange is a regular Mecca for Dan Cupid. At a shower given for Miss Elnora Meldrum, evening chief operator, who is to be married September 24th, the chief operator was literally swamped with applications, our matrimonial fame having spread throughout the city. Irene Tibbals, supervisor, is also to be married in the "Golden Autumn" time.

Ethel Smith, for several years toll operator at Pontiac, surprised all of her friends by being quietly married at

MATTHEWS TELAFALT



is the only instrument made that will locate "dead shorts" and wet spots. It will not "noise up" other working pairs when used for locating "dead shorts," grounds or high resistance faults.

The patented exploring coil furnished with Matthews Telafault neutralizes all sheath currents and prevents the false locations so common with other types of instruments when they are used for finding "grounds."

The patented heat coil interrupter, which is a part of the instrument, is a distinctive feature which enables the operator to "code" the tone when he is likely to confuse it with "tone" caused by induction from adjacent power lines.

Matthews Telafault can be used as a tone test set or a "howler" as well as for locating all cable troubles except "opens."

It has been thoroughly tested by your engineering department and it is our belief that your requisitions for them will be honored.

Manufactured exclusively by

W.N. MATTHEWS and BROTHER

Manufacturers of Matthews Patented Money Saving Specialties

3128 Forest Park Boulevard St. Louis, U. S. A.

For Sale by the

WESTERN ELECTRIC CO.



BUSINESS OFFICE, OWOSSO, MICH.



WAYLAND EXCHANGE.

Above is a picture of the Wayland exchange, located about twenty-five miles south of Grand Rapids. The first exchange at Wayland was established in April, 1889, with eleven telephones. The number has since increased until 207 subscribers are now getting service. The building, formerly the residence and drug store of the present manager, Mrs. L. F. Wallbrecht, now serves as an exchange office. The fascination of the telephone business caused Mrs. Wallbrecht to give up the drug business and stick to the telephone when the exchange had grown so large that she could not successfully handle both.

Thompsonville, Mich., when she was supposed to be on a month's vacation.

Lillian Redmond, Lapeer, Mich., has accepted a position as cashier at Pontiac. W. L. Stevens, manager at Jackson, secured during August contracts covering private branch exchanges for the American Gear and Manufacturing Company, two trunks and six stations; and the Ruby Manufacturing Company, two trunks and six stations.

In a month's time Cupid has claimed five fair young ladies from the Grand office, Detroit. Mamie Harvey, all-right operator, was the first to go. She will make her home in Toledo, Ohio. B operator Queenie Keene followed closely. She resides now in Greenfield, Mich. Demure Nellie Smyth was the next. She tendered her resignation one day, giving as her reason, "to become Mrs. Arthur Stewart." She had a quiet home, wedding and will reside in Actonville, Mich. Ethel Saunders perpetrated the next surprise by announcing her marriage to Glenn Brown, of Owosso. They will reside in Detroit. B supervisor Leata Parker wound up the month by becoming the bride of Victor Collean. This was a church wedding at Christ Church, followed by a dinner and reception. Mr. and Mrs. Collean will reside in Detroit. Previous to the wedding the girls at the Grand office entertained for Miss Parker.

Mattie Cotter and Margaret Walker have been promoted to supervisors at the Grand office, Detroit, and Anna Pierce has been appointed information operator.

Florence Terwilliger, of the Grand office, Detroit, asked for leave of absence and ten days later sent the announcement of her marriage.

A new order table has been installed in the Commercial Department. It is an eight-position table, consisting of eight lines, with room for eight more, making a capacity of sixteen lines. The table takes care of all calls coming into the contract department, with the exception of those for District Commercial Manager W. D. Clark, Commercial Manager C. S. Slack, Chief Clerk C. A. Marantette and the collectors. It is far superior to the old table, as it is a multiple type and has answered all purposes so far in every respect. At the present time four positions are being used; that is, there are four men working on the table all the time. The old plug and jack machine, which was formerly used exclusively for incoming calls in this department is now being used for outgoing only.

Grand Rapids District.

On August 11th C. W. Lockwood succeeded W. A. Badger, manager of the Otsego exchange, Kalamazoo area. As of September 1st F. C. Gest succeeded M. J. Houzel as manager of the Plainwell exchange, Kalamazoo area.

During the month of August a contract was closed with the Lull Carriage Company, Kalamazoo, for a private exchange consisting of four trunks and eleven terminals. This makes as many as forty-two private exchange systems at Kalamazoo, with a total of 925 terminals.

On September 6th a meeting was held with the farmers at Fulton relative to changing 115 farmers over from the rural to the connecting company plan. The meeting was attended by E. Stacey, special agent from Grand Rapids, and Commercial manager Robb, Kalamazoo. A meeting was also held September 9th with 250 farmers at Prairieville for the same purpose.

A toll station has been opened at

Amble. Check center, Grand Rapids. Lakeview rates will be used until rate book is received.

Three sections of No. 105 switchboard have been installed at Harbor Springs, replacing the No. 3 type of board formerly in use. The old equipment has outgrown the traffic at that point. The office has been redecorated and the exchange now presents a very neat appearance.

An additional toll circuit, No. 10 from, has been constructed between East Jordan and Boyne City, affording additional facilities between these two points.

At Petoskey a 100-terminal addition has been added to the switchboards to take care of additional business. One new recording toll position has also been added, to take care of the center checking business. Re-arrangement has also been made of the commercial offices, separating the operating room entirely from the public pay station. These changes make the Petoskey quarters among the best arranged and most desirable in the Grand Rapids district.

On August 28th a private exchange contract was closed with the Kalamazoo Telegraph-Press for three trunks and ten terminals. The Telegraph-Press has recently purchased by William Thompson, owner of the Battle Creek Journal and other daily newspapers in the state.

Marquette District.

H. M. Duple has succeeded A. LeClair as toll station manager at Schaffer, effective August 1st.

Saginaw District.

On August 10th occurred the marriage of Effie Updegraff and Edwin Dewey, Farwell. Miss Updegraff was operator at the Farwell exchange.

The Saginaw commercial office secured in August a contract for another No. 1 private exchange, consisting of two trunks and five terminals.

A great deal of interest is being caused by the discovery of oil about a half mile from the Saginaw exchange. A well was sunk by the Saginaw Development Company, a new company of local capital. On September 1st oil of very fine quality was found. This necessarily has brought a great many prospectors into the field, and when one goes down the street he is liable to think he is in Sistersville, Ohio, or Beaumont, Tex., the oil feeling is running so high.

We are having a great many congratulations from the citizens of Saginaw regarding the ruling made by the Michigan Railroad Commission, wherein it refused to permit a new telephone company to be organized at Vermontville, the Saginaw citizens believing in the Railroad Commission's ruling.

The Saginaw plant department has a new motorcycle. It is to be used in caring for trouble in the East exchange, and it is surprising how much can be accomplished with this machine.

Foreman Dickinson is now stringing a new circuit from Zilwaukee to Saginaw. This new circuit will give Saginaw service to the Au Sable Electric Company at Zilwaukee.

Eliza Pobuda, who has been toll operator at the Saginaw exchange for the last year, was married on August 20th to James A. Carlton.

Lela Howey, who has been employed in Saginaw for several years, has resigned. It is said that Cupid is back of this.

The exchange at Oscoda was formally opened August 6th, Nada T. Mills, manager.

Effective August 15th the management of the West Branch exchange was transferred from G. G. French to W. J. Allen.

A toll station has been opened at Birchwood, check center, Cheboygan; manager, R. D. Rollo. Birchwood Lodge rates will be used until receipt of rate book. Listing of present Birchwood station to be changed to Birchwood Lodge.

Estimates covering a toll line to be constructed between Beaverton and Gladwin were completed during the week of August 20th.

Estimates covering construction of a toll line between Omer and Au Gres were completed during the week of August 24th.

A toll line between Rose City and Mio was started during the week ending August 24th.

An estimate covering the reconstruction of the Oscoda-Au Sable exchange, which was totally destroyed by fire in July, 1911, was completed on August 7th. Twenty-five telephones were cut into service the day the work was completed and there are as many more that can be secured as fast as installations can be made.

Cecelia Schneide, clerk, has been transferred from the commercial to the plant department, Bay City. Ruth McLaughlin has been added to the Bay City commercial force to replace Miss Schneide.

PHOENIX SILK HOSE

50¢
MEN'S

NOT almost-silk or silk-finish, but pure, bright, natural SILK, shimmer-

75¢
WOMEN'S

ing, clinging and luxurious. No matter how much you pay, you cannot obtain better quality. The style and individuality of Phoenix Silk Hose are proverbial—and as for durability, the wear of each four pair box is guaranteed for three months.

The everyday use of luxurious Phoenix Silk Hose is a practical economy and its distinguishing features appeal to all men and women who give thought to elegance in every-day as well as "best" dress.

Made from finest pure-dye thread silk without "loading" or "weighting." Seamless; reinforced toes; high spliced heels; garter tops.



Men's No. 284
50c pair—4 pair box \$2
Guaranteed three months

Women's No. 365
75c pair—4 pair box \$3
Guaranteed three months

Men's extra heavy, No. 281, 75c pair—4 pairs \$3
Women's extra heavy, No. 370, \$1 pair—4 pairs \$4

At your dealer or direct on receipt of price and style number.

PHOENIX KNITTING WORKS
THE PHOENIX MUFLER MAKERS

206 Broadway
MILWAUKEE

The Arenac Telephone Company has sold to some Omer business men the eastern part of the plant, covering Bay City of Arenac county and village of Omer. The new owners, forming the Omer Telephone Company, immediately started a canvass for additional subscribers and have added about eighty farmers to the list since August 1st.

On July 25th William Bishop of Coldwater, employed as a lineman, was killed in the performance of his work. As a member of the Bay City plant force, Mr. Bishop was a great favorite with the members of the local organization and his loss is greatly deplored both by the management and his co-workers.

H. F. Barbour, formerly general manager of the Alpena Mutual Telephone Company, has resigned his position with that company to take up the management of the recently formed Fire Alarm Company, whose headquarters are located at Alpena.

Read this appreciation from East Tawas: "Manager Michigan State Telephone Co., East Tawas, Mich.: Dear Sir: The young lady who was on duty at six o'clock Saturday evening was very courteous to us and we wish to thank her for repeating message that we wished to convey to the Western Union Telegraph office at Saginaw. Her efforts in our behalf assisted us materially in securing quick results. Again thanking you, we are, yours very truly, F. F. Eaton."

Sylvia Buckingham and Susie Daugherty have been added to the local traffic force at the West Branch exchange.

Estimates covering the rebuilding of the Cheboygan exchange are nearly completed. As soon as the Western Electric Company completes the installation of the switchboard the cut-over will take place and Cheboygan will have one of

the best equipped telephone exchanges in the State of Michigan.

Bay City weddings: H. F. Allman, collector at Bay City exchange, and Matilda Bartling, also of Bay City, and Arthur Ditzel, commercial agent at Bay City exchange, and Pearl M. Wright, also of Bay City.

Mabelle Reynolds, Ella Schank, Helen Smith and Clara Borne have recently been added to the local operating force at Bay City.

Mable Brishois has been promoted from relief to day local position. This young lady holds the record for regular attendance, which has been noted and appreciated by her superior.

All Bay City operators have completed their summer vacation and have returned and taken up their duties with renewed vigor and increased interest in their work.

Three hundred additional lines are scheduled for the Bay City exchange.

A new directory of the Bay City exchange is to be published shortly, which will be more valuable on account of the change in the type used. The last few issues of this directory have not conformed with other directories published in the state in this particular and the use of the larger type will be appreciated by the subscribers.

Frank F. Corrigan, Saginaw district switchboard-man, leaves the road, September 15th to take up the position as switchboard-man at the Flint exchange.

Edward D. Mittline accepts the position of switchboard-man, Saginaw district, September 16th.

Motorcycles now increase facilities for trouble shooting at Saginaw, Bay City, Port Huron, Flint, Owosso, Mt. Pleasant, Clare and Alma.

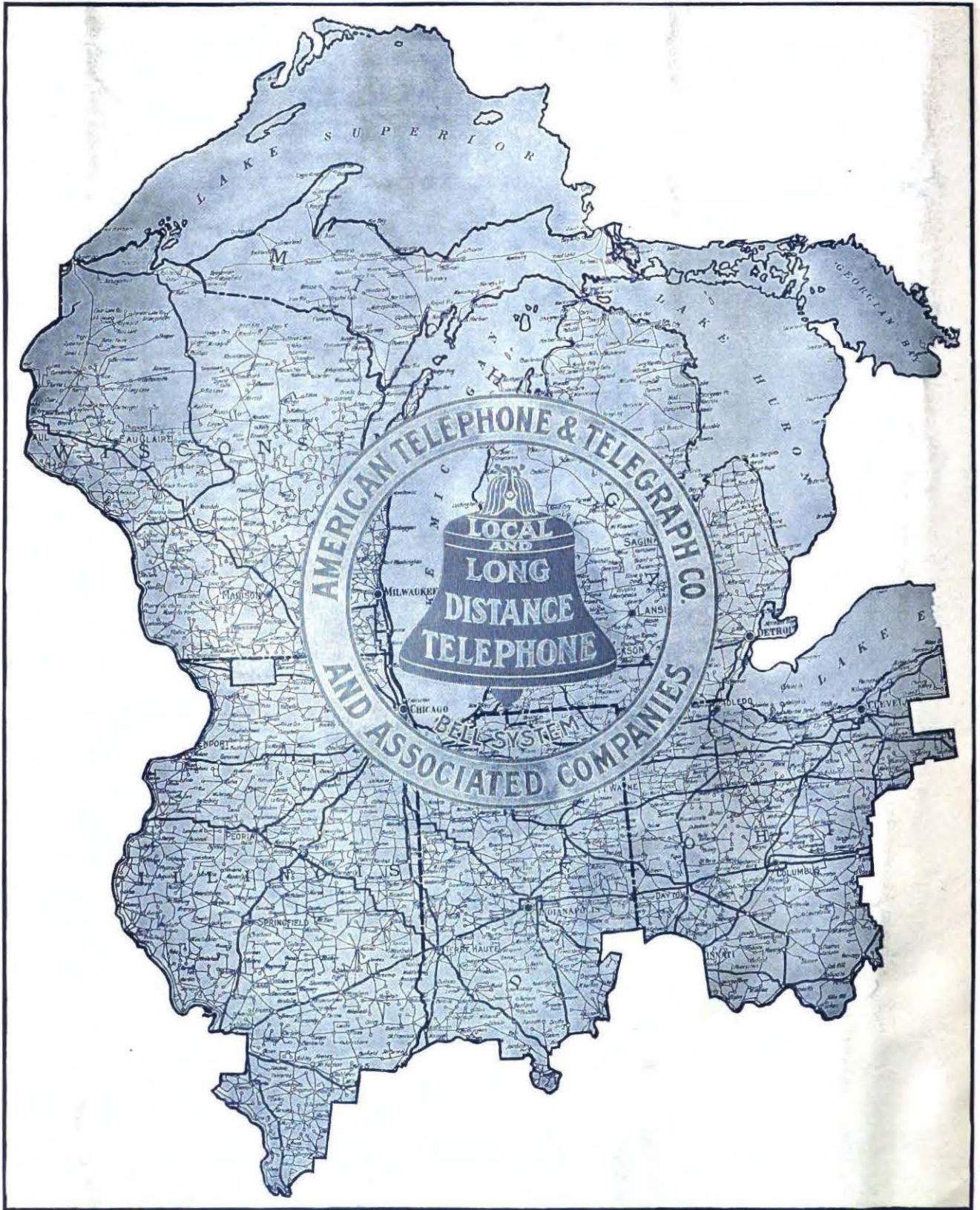
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

SEPTEMBER 1, 1912

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| Illinois | 428,169 | 218,513 | 646,682 |
| Indiana | 77,947 | 161,222 | 239,169 |
| Ohio | 157,240 | 140,174 | 297,414 |
| Michigan | 177,315 | 56,437 | 233,752 |
| Wisconsin | <u>119,752</u> | <u>82,108</u> | <u>201,860</u> |
| | 960,423 | 658,454 | 1,618,877 |



BELL TELEPHONE NEWS

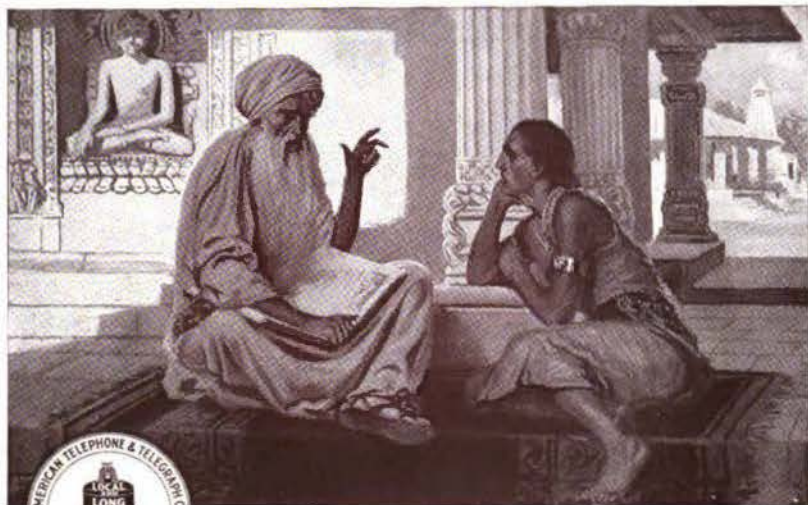
CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



NOVEMBER
1912

Volume 2

Number 4



A Proverb of Bell Service

Once upon a time there dwelt on the banks of the holy river Ganges a great sage, by name Vishnu-sarman.

When King Sudarsana appealed to the wise men to instruct his wayward sons, Vishnu-sarman undertook the task, teaching the princes by means of fables and proverbs.

Among his philosophical sayings was this:

"To one whose foot is covered with a shoe, the earth appears all carpeted with leather."

This parable of sixteen hundred years ago, which applied to walking, applies today to talking. It explains the necessity of one telephone system.

For one man to bring seven million persons together so that he could talk with whom he chose would be almost as difficult as to carpet the whole earth with leather. He would be hampered by the multitude. There would not be elbow room for anybody.

For one man to visit and talk with a comparatively small number of distant persons would be a tedious, discouraging and almost impossible task.

But with the Bell System providing Universal Service the old proverb may be changed to read:

To one who has a Bell Telephone at his lips, the whole nation is within speaking distance.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Every Bell Telephone is the Center of the System.

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

(2) It will decrease the percentage of lost calls by giving almost instantaneous connection with the particular party wanted.

(3) More than five hundred users are now enthusiastic with the results obtained from this service.

(4) It facilitates the prompt handling of long distance calls by eliminating "time lost waiting."

(5) Recommended by prominent engineers everywhere as a most valuable adjunct to the telephone.

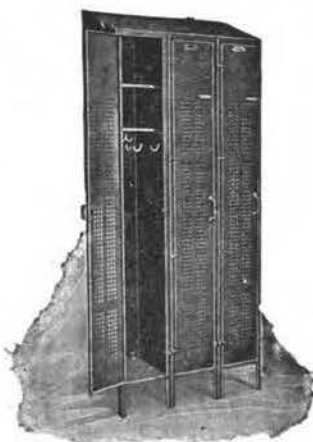
AUTOCALL

used in conjunction with the telephone is productive of a combined service of much worth to the user and of great aid to the telephone service. Were you aware of its value you would not hesitate in recommending its utilization. To be familiar with this service is of a particular advantage.

Write for full details.

THE AUTOCALL COMPANY

110 Davis St. SHELBY OHIO



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer

steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

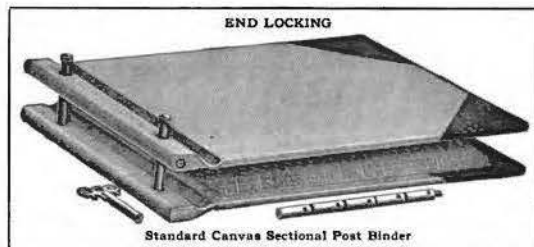
We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

We Make Standard Loose Leaf Binders Used by the Telephone Companies



THE covers are of tough binders board, bound in high grade drab canvas. The lock is simple and non-breakable. The key operates the lock from the end of top cover. Six one-inch sections and a top ball in each post. A perfectly satisfactory binder at a low price. Special rates for quantities to Telephone Companies.

Send for Catalog showing other styles
of Binders made for Telephone use

Workman Mfg. Company

1200 W. Monroe St.

Chicago, Illinois

MATTHEWS TELAFAULT



Is being ordered quite generally by the Bell Companies all over the country.

A recent order from the Missouri & Kansas Telephone Co. called for 14 to be shipped to their district plant chief at Joplin, Mo.

The Central Union Telephone Co. have recently ordered:

- 2 for Kankakee, Ills.
- 1 for Jacksonville, Ills.
- 1 for Champaign, Ills.
- 1 for Beardstown, Ills.
- 1 for Springfield, Ills.
- 1 for Sterling, Ills.
- 1 for Frankfort, Ind.
- 1 for Toledo, Ohio

The Michigan State Telephone Co. have recently ordered:

- 1 for Grand Rapids, Mich.
- 1 for Saginaw, Mich.
- 1 for Pontiac, Mich.

Matthews Telafault will find "dead shorts," wet spots, grounds, crosses, split pairs, in fact, all kinds of cable faults except "opens"

It will pay you to look into the merits of this wonderfully simple money saver.

Manufactured Exclusively by



Competition Waives Before Matthews Savers

For Sale by the
WESTERN ELECTRIC CO.



ALLARD SMITH,
OHIO.



CARLYLE KITTREDGE,
MICHIGAN.



W.R. MCGOVERN,
ILLINOIS.



B.D. WILBER,
INDIANA.



W.D. HOBBS,
WISCONSIN.

ENGINEERS IN THE FIVE STATES OF THE CENTRAL GROUP OF BELL TELEPHONE COMPANIES.

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 4

CHICAGO, ILLINOIS

NOVEMBER, 1912

DEFINES TELEPHONE AND TELEGRAPH RELATIONS

Western Union Report Clearly Shows Two Services to Be Complementary.

That telephone service and telegraph service are complementary to each other rather than competitive is clearly shown in the report of President Theodore N. Vail of the Western Union Telegraph Company, for the year ended June 30, 1912. On the subject of telephone and telegraph relations the report says:

Some confusion tending to mistaken and misleading conclusions appears to exist to some extent as to the relationship between the Western Union Telegraph Company and the American Telephone and Telegraph Company, and at the risk of repeating some things that have been said before, it is deemed desirable to succinctly state (1) the relations and (2) the differences between the properties from the telegraph standpoint in order that the stockholders and the public may have an accurate and unprejudiced understanding thereof.

I. The relations are primarily based on the complementary character of the two services and the opportunity offered for the joint use of plant and the avoidance of serious economic waste.

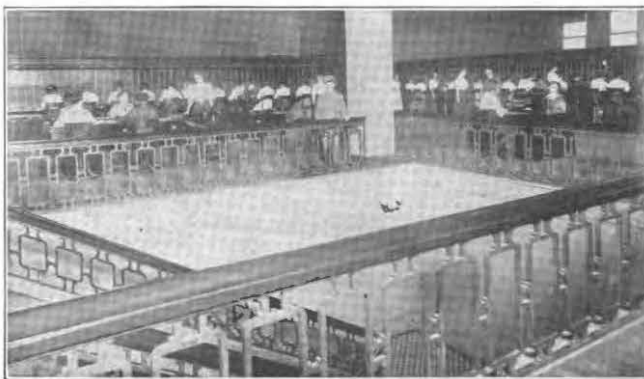
II. The differences are in the characteristics of the two services.

Both telegraph and telephone lines consist of wires strung on poles or placed in cables underground. The differentiation between the telegraph and telephone begins with the circuit. Technically a circuit, whether telegraph or telephone, is the path over which the electrical transmitting current passes, and consists of an outgoing and returning path. The telegraph uses the wire for the outgoing path and the earth for the returning path. By means of the duplex or quadruplex system two to four outgoing paths for the telegraph circuit can be made over one wire; that is, four messages can be sent over the same wire at the same time.

The path of the telephone circuit must be of wire both outgoing and returning because the electrical disturbances of the earth interfere with the delicate transmitting current of the telephone. These two wires, the outgoing and returning paths of the circuit, must also be arranged that each wire must be exposed to all disturbances in the same degree, and for talking any considerable distance either the wires must have more copper per mile or have special auxiliary appliances or both to enable speech to be transmitted. There is as yet no method of duplexing the telephone circuit, so that each telephonic conversation requires the exclusive use of two wires during the conversation.

The two wires which are necessary for one telephone circuit can be multiplexed by made into four, six or eight telegraph circuits and can be used for both telegraph and telephonic transmission at the same time.

A single telegraph circuit or wire cannot be used for telephonic purposes, but two telegraph wires by ar-



MAIN STAIRWAY AND OPERATING ROOM, CITY EXCHANGE, DETROIT.

ranging them the same as telephone wires can be used for a talking circuit.

The next differentiation between the telephone and the telegraph service is in the character of the service.

Telegraph service consists of the collection, transmission and delivery of written messages or communications for others by the operating telegraph staff. In this service the patron takes no part.

The operating staff of the telegraph consists largely of operators skilled in transmitting and reading telegraph signals who transmit and receive for others the telegraph messages, and of an auxiliary organization for the collection and delivery of messages.

Telephone service consists of making up talking circuits by which patrons are in telephonic connection with each other. The circuit is for the time being for the exclusive use of the users, during which time it can be used for no other telephonic purposes, and since the users must be personally present, this use has all the characteristics of and is in fact a personal interview.

The operating staff of the telephone consists largely of switchboard operators who make the necessary connections between the different circuits and turn them over to the users.

Full rate telegraph messages are transmitted as received and must have expedition or immediate dispatch. For this reason the plant and operating facilities must be at least equal to the average maximum demand of this class of business at any time. This class of service being confined largely to the working hours of the day results in an uneven load, which has been overcome to a considerable extent and the load spread more uniformly over the twenty-four hours by the introduction of various classes of service which do not require immediate transmission.

The capacity of a telegraph circuit is several thousand messages for the twenty-four hours, and of a telegraph wire, because of multiplex working, many times more. This makes the cost per message, due to the plant charges, relatively small. On the other hand, the cost per message for the collection, transmission and delivery is almost constant, varies little with distance and is relatively a large part of the cost per message.

Telephone service, since it requires the personal presence of the users, must be immediate, and can not be de-

ferred. This restricts the use of a telephone circuit to that part of the day when people are at their accustomed business or social places. The facilities must be equal to the maximum demand at any time, resulting in uneven load, with high peaks of service, alternated by many idle intervals even in the busy hours. The capacity of a toll circuit of any considerable distance is at the best but thirty or forty conversations in the twenty-four hours. As this circuit must consist of two wires, the cost of service per conversation due to plant costs is very large and increases rapidly with distance, while the operating cost of making the connection is relatively small and varies but little with the distance.

The telegraph plant consists of trunk and branch lines connecting the large centers of trade with each other and with the more important tributary points.

The telephone plant consists, for the greater part, of exchange plants made up of telephone circuits connecting subscribers' stations at offices and dwellings with central offices equipped with apparatus necessary to connect these circuits with each other, and for the smaller part of trunk lines connecting these exchanges with each other, and of branch lines connecting rural centers with the general system (toll or long-distance lines). The exchange plant represents in cost many times the trunk and branch line plant.

The large message cost for collection, transmission and delivery, and the relatively small message cost due to plant, makes the telegraph message expensive for short distances and relatively cheap for great distances.

The small operating cost per telephone conversation and the large cost due to plant makes the telephone cheap for short distances and relatively expensive for great distances.

These considerations show clearly the radical differences between the two services.

Independent of the personal attention necessary to a telephone conversation, which is not required in sending a telegraph message, the telegraph and telephone each has its peculiar functions and use, and except in cases of preference or convenience, one service does not take the place of the other.

No telegraph company could go into the telephone business without substantially reconstructing its telegraph plant to adapt it for toll or long-dis-

(Continued on Page Seven.)

DETROIT MERGER IS WELL UNDER WAY

Complete Description of Valuable New Plant Acquired by Michigan Company.

By David H. Dodge.

The merging of the Home Telephone Company of Michigan with the Michigan State Telephone Company, brought about primarily by public opinion and the evident inconvenience of dual telephone service, was formally applied for July 8, 1912, and approved by the Michigan State Railroad Commission a month later. A complete report was published in the September BELL TELEPHONE NEWS.

This important merger adds a number of efficient employees, modernly equipped exchanges and valuable plant to similar property and forces possessed by the one company now giving telephone service to the people of Detroit. There are other independent exchanges—namely: those in Wyandotte, Trenton, Mt. Clemens, Northville, Plymouth, Howell and South Lyon—which are likewise being taken over in the same merger, but the present story deals with the new conditions in Detroit only. Descriptions of the added equipment, etc., in the above named localities are scheduled for later issues of the BELL TELEPHONE NEWS.

The headquarters of the former Home Telephone Company are at the large CITY exchange building at the corner of Madison avenue and John R. street, Detroit. This building is one of the most beautiful fire-proof structures in the city. The foundations were laid in 1907 by C. H. Ledlie, one of the most prominent consulting engineers of the United States, and completed about a year later. Every Home subscriber within a two-mile radius was served from this building.

Three branch exchanges were also installed in Detroit by the Home Company at its inception. These were: FIELD, corner of Field and Sylvester Avenues, in the eastern part of Detroit; DELL, corner of Lafayette and Dragoon Avenues, at the western end; and OAK, at John R. street and Bethune Avenue, in the north part of Detroit. Again, in the spring of 1910, another office, POINTE, on Fisher Road, was completed and took care of the Home subscribers between Fairview and the Macomb County line, this exchange handling the territory known as Grosse Pointe Village and Grosse Pointe Farms.

Following is a list of the equipment of these exchanges:

CITY EXCHANGE.

| | |
|---------------------------------|--------|
| Lines equipped..... | 8,000 |
| Ultimate capacity of lines..... | 15,000 |
| A sections installed..... | 28 |
| B sections installed..... | 7 |
| A positions installed..... | 84 |
| B positions installed..... | 14 |

DELL EXCHANGE.

| | |
|---------------------------------|-------|
| Lines equipped..... | 800 |
| Ultimate capacity of lines..... | 9,600 |
| Sections installed..... | 7 |
| A positions installed..... | 11 |
| B positions installed..... | 9 |

OAK EXCHANGE.

| | |
|---------------------------------|-------|
| Lines equipped..... | 2,400 |
| Ultimate capacity of lines..... | 9,600 |
| Sections installed..... | 12 |
| A positions installed..... | 26 |
| B positions installed..... | 9 |

FIELD EXCHANGE.

| | |
|---------------------------------|-------|
| Lines equipped..... | 1,620 |
| Ultimate capacity of lines..... | 9,600 |
| Section installed..... | 9 |
| A positions installed..... | 17 |
| B positions installed..... | 9 |

POINTE EXCHANGE.

| | |
|---------------------------------|-------|
| Lines equipped..... | 320 |
| Ultimate capacity of lines..... | 1,000 |
| Positions installed..... | 3 |
| A positions installed..... | 3 |
| B positions installed..... | 1 |

It is thus seen that the switchboards of the Home Telephone Company in Detroit are equipped at present to handle 13,465 lines, with an ultimate capacity of 45,125 lines. (The present equipment and ultimate capacity of the Michigan State Telephone Company exchanges in Detroit total, respectively, 40,100 and 84,300 lines.)

The Home Company outside plant, all of which is practically underground between Boston boulevard and the Detroit river and between the Eastern and Western boulevards, with the exception of short distributing leads, include 2,034,808 feet of duct, carrying 37,867 miles of copper wire in lead-covered underground cables. Beyond this underground system there are 11,834 miles of wire in lead covered aerial cables. Only 1,039 miles of copper wire, bare and insulated, not in cables, are used in the entire plant.

As to poles, there have been 12,743 of them, of various sizes, erected to carry subscribers' circuits from the underground system to the subscribers' premises.

All this plant, as Superintendent C. L. Boyce of the Michigan State Telephone Company testified at the hearing before the State railroad commission when the proposed merger was first under discussion, can and will be used by the Michigan State Telephone Company to great advantage. It is plain, however, that a great deal of work must be done before a practical method of working can be put into operation. This requires study, and the commercial, traffic and plant departments of the merged companies are continually at work on this point. The end in view, of course, is the convenience of the public.

The people are naturally anxious to know just what the Michigan State Telephone Company proposes to do, now that the merger has been consummated.

While arrangements are being made, as indicated above, to use the plant of the Home Telephone Company to the best advantage, all Home subscribers will be interviewed by the commercial department, in order to discover just what new subscribers are to be added

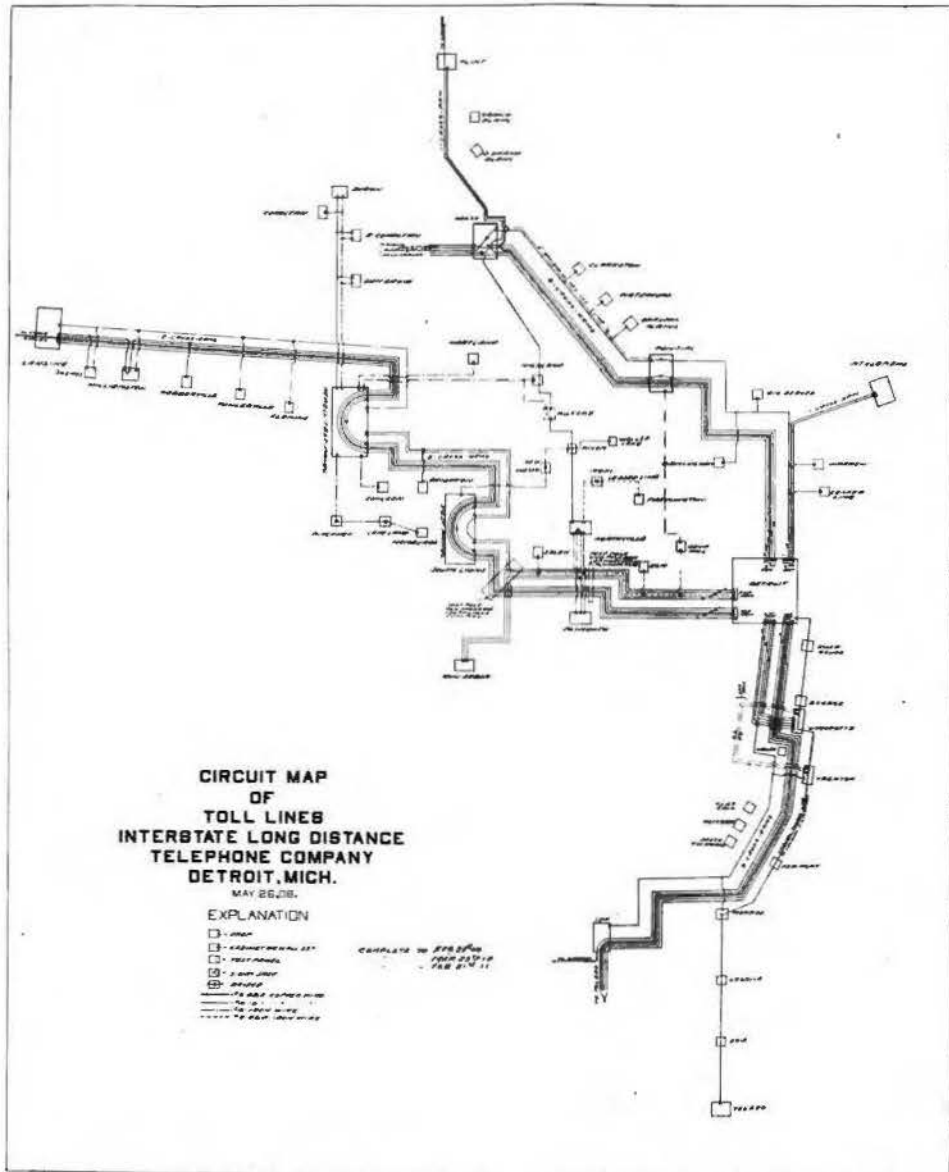
to the Bell service. These will of course be solicited to continue service. Furthermore, as soon as the outside plant can be utilized to relieve the

present congestion, or rather lack of Michigan State Telephone Company facilities, in certain parts of the city, an energetic soliciting campaign to secure

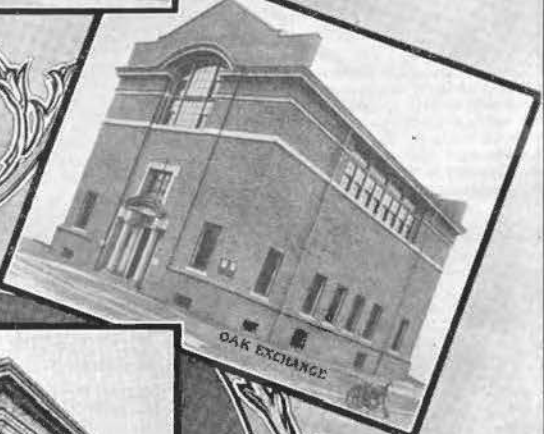
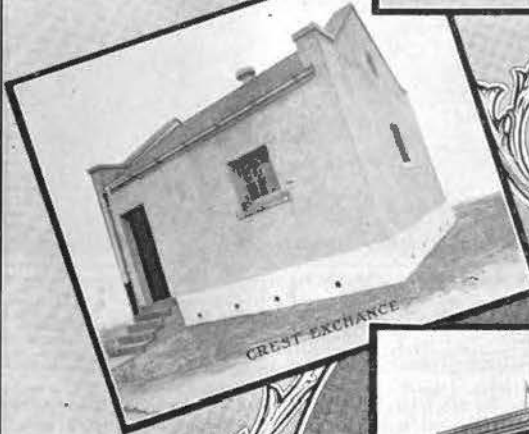
all the new subscribers possible will be put under way.

The Home Telephone Company made rapid advances in the number of its subscribers at the beginning of its career, its equipment being new and satisfactory and its employees enthusiastic. The general expression of opinion among the public here at that time undoubtedly was that there could be found "enough business" in the city to be divided among two companies, the rigid truth not then being understood that the telephone business is a natural monopoly, like the United States mail, and that to "divide" it is to spoil it for everybody concerned, especially for the public.

But this disagreeable fact soon began to dawn upon the friendliest of Home subscribers. That two telephone companies in the same community were a nuisance, no matter how many or how few subscribers either of them had, and no matter to what pitch of excellence both had arrived in the delivery of service, that to pay two telephone bills



"B" BOARD AND INFORMATION DESK, CITY EXCHANGE, HOME TELEPHONE COMPANY, DETROIT.



DETROIT EXCHANGES
HOME TELEPHONE COMPANY OF MICHIGAN

every month was something more than a nuisance, that hundreds of thousands of dollars were being pitifully thrown away on the duplication of plant, soon became self-manifest truths to the least observing.

Then, in spite of the fine service supplied by the Home Telephone Company, the Detroit public voiced its impatience in various ways. It is no more than the bare truth to say that the recent merger of the two Michigan telephone companies was effected in obedience to a loud public demand.

Now that things have been started going, Detroit telephone men of both companies are enthusiastically busy on one and only one end in their business life—that is, to provide the people of Detroit with better telephone service than any enjoyed by the other cities of the United States. Nothing stands in the way of this being accomplished. The field is clear and the opportunity of doing a great work without friction is enormous.

Michigan State Telephone men are meeting with new associates in their business—men with valuable telephone experience, with whom they can exchange opinions to the advantage of both—fine men, of the right sort, whom it is a pleasure to meet.

The commercial department has, since the formal turning over of the Home properties, been placed in charge of George R. Heywood, our former district commercial manager at Grand Rapids. A brief but interesting account of Mr. Heywood's telephone career, together with his picture, was published on Page 32 of the September issue of the BELL TELEPHONE NEWS. To this nothing needs to be added save that Mr. Heywood is to be congratulated on the opportunity of exercising in a new and larger field the executive abilities which we all know him to possess.

An Independent Farmer.

The farmer is often called the most independent representative of the American citizenship. There is a farmer residing between Saginaw and Flint, Mich., who is truly independent, although in a way which is not contemplated by the statement referred to above. To prove his independence of spirit this farmer, on September



COMMERCIAL EMPLOYEES AT THE "CITY" EXCHANGE, DETROIT.

The bottom row shows Daphne Reed, Anna T. Rommbeck, Mrs. Eleanor Parks and Mrs. Margaret Hardy. The row above: Florence Mittel, Grace Remo, Mabel Blesser and Harriet Lane. Agnes Clifford (who found the flashlight too much for her eyes and expressed regrets nicely afterwards), Mabel Dressler, Meta Reidel and Carrie Wilson complete the list of ladies in the group. At the top are Charles Searlett, James Roehm, Harold Stewart, W. T. McMahon, John Cronberger and George Holland. At the left are C. F. Beardsley, J. J. Odgers, F. L. McCumber, Wm. Betterson and R. Harrington. At the right are F. Price, F. J. Rossbach, V. Esperi, George Dressler, Ray Unger, I. M. Hadley, C. L. Sheppard and Wm. Boles.

These commercial employees work in the contract, office, executive and auditing departments.

18th, in the early part of the evening, placed an efficient and energetic charge of dynamite under a stump, touched a match to the fuse and backed away to a safe distance. From his point of vantage, the farmer watched the fuse sputter and then heard a tremendous explosion which blew the stump straight up through the Saginaw-Detroit toll lead. Conversations going over the toll circuits were rudely interrupted, and several subscribers obtained evidence of the independence of this tiller of the soil

without knowing what the evidence proved.

"Please" the Most Valuable Word in Business

"Walker, I guess we won't need you after today," said the Head of the House. "That's all."

Walker stammered and tried to ask "why," but the attitude of his boss as

he turned to sign his letters did not encourage him to become inquisitive.

The Head of the House knew that Walker was embarrassed and he guessed the reason.

"You want to know why we are letting you go, I suppose," said the man who had built up the business and watched over his fortunes for a good many years. "I'll tell you. Every man that has worked for men has had the philosophy of courtesy pounded into him. I have told you time and time again that you would have to say 'please' once in a while. You have never done it, you don't seem to have any idea of doing it, and so I'm letting you out. Furthermore, I will tell you this much, that just so long as you keep that word tied up in your throat, just so long as you going to be a mere speck in the business world. Mark my words, and let this be a lesson to you."

Ask the Head of the House what word in the English language is the most valuable to him or to any other man who would succeed in business, and he will tell you unhesitatingly that it is "please." Here is the answer one of them gave: "Stick it any place you will, and it will do good work for you. It's the best salesman I have. It has never hurt a customer's feelings. It has never driven away trade."

The telephone girl uses the bromide "Number, please." The elevator operator will tell you "What floor, please?" is the best combination of words that he knows of. The street car conductor has his "Fares, please," even though he may not use it all the time, especially during the rush hours. But when you find a conductor saying "please" to you, you are always just a little more willing to let him trample on your toes than you would otherwise be. Isn't that so?

Yes, "please" is a grand little word. It's a common courtesy, but business men stand authority for the statement that it isn't used enough.—Jonas Howard in *Michigan Tradesman*.



AUTOMOBILES OF HOME COMPANY OF MICHIGAN IN FRONT OF CITY EXCHANGE.



PLANT EMPLOYEES AT THE "CITY" EXCHANGE, DETROIT.

Reading from left to right, top row: W. Gravier, W. McLean, A. L. Tyler, Wm. Gallagher, J. Armstrong, O. Lemphagen, R. Woodward, J. Campau, C. E. Gardner (assistant plant superintendent), G. H. Smith, R. V. Huribut (Detroit plant chief), H. Johnson, B. Zimmer (stock keeper), W. C. Kirk (district plant chief), and D. Fournier (cable foreman).
Second row: P. Hayden, W. A. Benson, J. Reese, F. Hall, S. Coffey, J. P. Foley, M. Hawks, A. W. Woodward, R. Kain, F. Strand, and S. Vreeland.
Third row: R. Fleming, R. H. Stahl, R. Bradford, H. Simms, L. Brady, W. Cole, F. L. Shepherd (wire chief of "City" exchange), H. Haupt, Wm. Anderson, G. Saunders (general foreman of the Home Company), A. J. Remington, F. Sullivan, G. Garbutt, G. B. Carroll, and F. Warrington.

DEFINES TELEPHONE AND TELEGRAPH RELATIONS.

(Continued from Page Three.)

tance use, and in addition building exchange plants involving an investment many times that of its telegraph plant, and also creating or acquiring telegraph operating organization.

No telephone company could go into the telegraph business without creating an entirely independent telegraph operating organization. It is generally conceded that the cost of creating an organization to operate any plant is greater than the cost of the plant.

The joint use of a common plant for telephone and telegraph purposes, because of the complementary character of the two businesses, is, however, quite a different matter. Bearing in mind that a telephone plant is necessarily idle for a greater part of the time, particularly at night, and that a telegraph plant can not be used for telephone purposes without reconstruction, but that a telephone plant can be used for telegraph purposes, such joint use would virtually make one plant answer for both purposes, and would save to the public the investment charges, the maintenance and depreciation costs of the duplicate plant, all of which charges must be cared for in the rates.

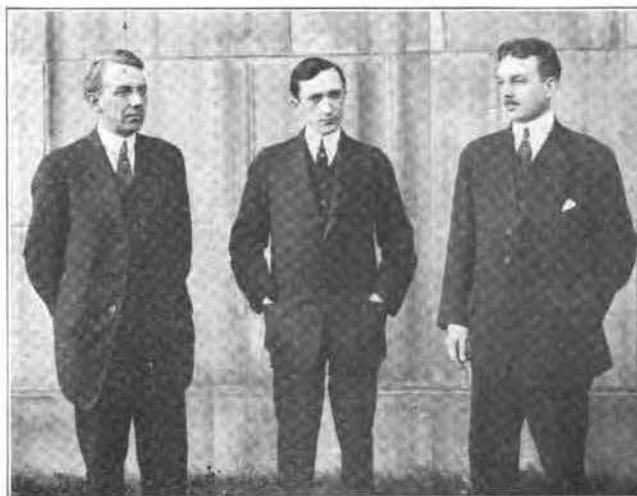
The complementary character of the two services is illustrated by the use of the telephone system for the collection and delivery of telegraph messages, particularly the all-night telegraph service, virtually making each subscriber's station a branch telegraph office.

This is further illustrated by the growing use of branch telephone toll lines for extending the telegraph service into rural districts.

The Western Union has some 25,000 offices; of these the gross revenue of over 20,000 is not sufficient to pay the expenses of the office. Eighty-five per cent. of the gross telegraph business of the country is between less than 5,000 towns and cities; that is, four-fifths of the offices of the Western Union and fully one-half of its wire mileage is maintained at a loss in an effort to give that general and comprehensive telegraph service which the business and social interests of the country require.

There are estimated to be less than about 5,750,000 rural habitations in this country. The Bell system has over 3,200,000 rural telephone stations; that is, more than half the rural habi-

tations are connected by exchange wires with central offices of rural centers and these central offices, by means be utilized without appreciable extra- of branch telephone lines, with and



J. H. FREE. CHARLES COHN. J. T. BELANGER.
Three Home Company officials transferred to the Michigan State.

J. H. Free, the superintendent of equipment of the Home Telephone Company, has been sixteen years in the telephone business. He started with the Missouri Bell Telephone Company at St. Louis—Mr. Free is a St. Louis boy. Then he joined the Kinloch Telephone Company of St. Louis, accepting later a position in the installation department of the Dean Electric Company. From there he came to the Home Telephone Company in Detroit. Mr. Free is a graduate of the Scranton Correspondence School, having taken the electrical engineering course.

Charles Cohn is the auditor of the Home Telephone Company. Mr. Cohn began his office experience in the telephone business with the Michigan State Telephone Company, leaving it for a while to join the Block Light Company of Chicago, and traveling as a commercial salesman for a couple of years. But returning to Detroit, he decided to become a telephone man again, and applied at the Home Company, then starting in, and soon attained his present position.

J. T. Belanger is the traffic manager

of the Home exchanges in Detroit. He has had a great deal of telephone experience, starting several years ago with the Michigan Telephone Company, and going later to the Detroit Telephone Company. He then became manager of the independent company at Port Huron, Mich., going next to the Cuyahoga Company at Cleveland, and to independent companies at Gallon, Mansfield, and Richland County, Ohio. For a while he traveled for the Kellogg Switchboard Supply Company in Ohio. Then, returning to telephone traffic, Mr. Belanger became general manager of the Tuscarawas County Telephone Company of New Philadelphia, Ohio. He next went to Paris, Tex., as the general manager of the Citizens Telephone Company, building a new common battery plant there, thence to Buffalo, N. Y., to be general manager of exchanges for the Federal Telephone Company, and later general manager of the Schenectady Home Telephone Company in New York State. In November, 1909, Mr. Belanger returned to Michigan to accept his present position with the Home Telephone Company.

form a part of the Bell telephone system. These branch lines extend to substantially every rural center. They are not used to nearly their capacity. The lines and the operating staff have to be maintained for one purpose. Under a joint working between the telegraph and telephone, these facilities, both plant and operating, could be utilized without appreciable extra cost for telephoning the occasional telegraph message. In this way a telegraph service could be given to practically every center of population in the country, and by means of the rural telephones made to reach nearly every habitation.

If the public desire, as they do, not only improved facilities, but additional methods of intercommunication and eventually cheaper rates, these benefits can only be obtained through a combined use of plant, and to bring about such a combination, not only the purpose, but the reasons, must be understood; and if it results in a broad combined system extending over the whole country, such a system is inherent to the object to be accomplished, and it can not be accomplished in any other way. There certainly can be no complaint so long as such a service is conducted, as it must necessarily be, under public control and regulation and on a line of policy which does not intend to offer any service or give any facilities which, as a whole, are not remunerative, and at the same time place at the disposition of the public all the advantages which can only be obtained where facilities are not wasted.

It is an axiom that the cost of operating and the cost of construction and maintenance of plant facilities must be borne by the service. If, then, plant facilities are only partially utilized, the cost of service is greater, and so must be the charges. If additional use of facilities is made, then the cost of service is less and the charges can be reduced.

If the public insist upon a duplication of plant for each kind of service, then the cost of these plants must be borne by the service, and the public must pay the cost. If you hire two carriages to carry two loads that one would carry as well, the two carriages must be paid for. No individual or corporation can be expected to nor can they be required to provide a permanent service to the public at less than cost and a fair profit. Waste of facilities and waste of duplication come out of the public either through the additional cost of service which must be maintained or through the loss of the investment made on the facilities which were unnecessary.

Telephone and Telegraph —A Logical Combination

An Editorial in The New York Times, Oct. 11, 1912

Those who found President Vail's report (on Western Union Telegraph Company) good reading must have been jolted when they found in the same newspaper a Washington telegram saying that the attorney general was considering what he should do with the suit against the combination as in restraint of trade. Gross earnings rose \$6,182,000, but net decreased \$181,386, chiefly through larger wage payments. There can be no doubt that the company served the public with more zeal and profited less. The manner in which it served the public is known to all. The telegraph and the telephone were harnessed together and the facilities were increased and cheapened. There was no secrecy about it and no intentional violation of law. Repeatedly President Vail has challenged the fullest inquiry and publicity for his policy. There are no complainants except competitors, whose protests are natural, but fall upon ears of those wedded to the belief in com-



OPERATORS' RESTAURANT IN THE "CITY" EXCHANGE, DETROIT.

At the first table on the left we observe Josephine Stackpool (chief operator), Alice Smith (timekeeper), Victoria von Walthausen (school principal), and Ethel Austin (stenographer). Anna Johnson and Sadie Collins are seen at the second table. At the third, Ethel Dumontier (supervisor), Evelyn Stafford and Florence Stanley. Mrs. Perry, the matron, stands in the doorway in front of the kitchen. At the fourth table are Pearl Rousson (information clerk), Eva Harr and May Schell. Note—Male employees of the company have been allowed to patronize this café.

petition according to the rules of the game, even as practiced previously by the protestants themselves. It is sure that dissolution of the combination will not be sought by those who have sent the millions of day and night letters at reduced rates. And it is sure that even those who have not made use of the new facilities would not profit by a separation of two plants which are economically suited for connection. Since they give a better service together, they would give a worse service if separated. Since the telegraph and telephone apart would each be only partially utilized, there would be a waste which would fall on the public in one way or another. Before the combination there was dry rot in process, which would have ended in disaster if not prevented in the manner which has brought the combination beneath the vigilant eye of the Government.

It can hardly be said that the attorney general is meddling with what is none of his business, for he is specifically charged by his official name with the duty of the enforcement of the law, but it may fairly be said that he is chargeable with knowledge of the law as amended by the light of reason as well as in its original form. There can be no doubt that under the earlier construction of the statute "all" combinations were unlawful, but now only unreasonable combinations are so. The question, therefore, is not whether the telegraph-telephone co-operation is a combination, but whether it is an unreasonable combination. It would be a triumph of unreason to divorce facilities so intimately related, and whose results are so beneficial. If the combination is a criminal conspiracy, and is competing unfairly, why not indict it and put it on trial before a jury? That requires no machinery not familiar and approved, and if the company could not justify itself it would have to abide the result. All trust haters have clamored for this procedure. The good trusts themselves ought to favor it, since the Supreme Court has supplied them with a defense if their conduct is defensible. President Vall has repeatedly challenged protection of the people for his company against attacks of a certain sort of politician, and it cannot be imagined that he should shrink from a jury any more than from the utility commissions of the various states, with all of whose commands he has complied, especially with those of this state.

SINGLE TELEPHONE SYSTEM FOR QUINCY

Central Union and Home Plants To Be Merged Into One Exchange.

As soon as the necessary work can be done, the two telephone plants now operating in Quincy, Ill., will be merged into one under Bell ownership.

The Central Union Telephone Company has acquired the property and rights of the Home Telephone Company. The arrangement also includes the consolidation of the county lines into the Central Union system. A statement issued to the people of Quincy by General Manager H. F. Hill follows:

"The necessary engineering plans to put the two properties together and furnish consolidated service have been under way for several weeks and are nearly completed. New cables have been ordered to put the Central Union wires underground, so that the poles, cables and wires can be removed in the underground district and the additional switchboard installed in the Home Exchange to take over the Central Union subscribers.

"It will require some months to unite the subscribers of the two exchanges, because of differences in the apparatus which must be adjusted and the time it will require to install cables and switchboards. The Central Union can arrange almost immediately so that the Home subscribers can get all toll and long-distance connections.

"It is the aim of the Central Union officials to make the service in Quincy as perfect as possible and the necessary expenditures for that purpose will be promptly made. Where consolidations of the kind have been made it has been generally found that the traffic has increased from each telephone, for the reason that subscribers were given a larger list of other subscribers to talk with. Patrons of the two exchanges now talk with about 3,000 subscribers in each, while when the consolidation is accomplished they may communicate with about 5,500. Not only will all of the present operat-

ing staff be required, but it will probably be necessary to employ additional assistance.

"There will be no increase in the rates now charged by the Central Union, unless later on the increased traffic makes it necessary to change them. However, the present rates will be given a fair trial over a reasonable period.

H. F. HILL,
"General Manager."

The above was printed in the Quincy newspapers and drew the most favorable editorial comment.

The people of Quincy have been tired of the double system for some time. At one time a franchise which was granted to an independent company specifically provided that the system must never be sold to the Bell company. As indicating a change in sentiment, the city council recently gave formal permission to the Home Telephone Company to dispose of its property to the Central Union.

The exchange building of the Home company will be used. The city council has given the company until September, 1913, to finish an underground system which will do away with a great deal of well-worn aerial construction.

The building which will house the exchange equipment is said to be the finest in the state used for telephone purposes.

MEET ON COMMON GROUND.

But This Causes Trouble Between Telephone and Trolley Wire Currents.

Interesting cases of trouble occur from time to time in spite of the fact that standard specifications and practices have been observed.

A rather unusual case occurred a short time ago in connection with the building of the La Salle street tunnel in Chicago, where a telephone had been installed in the contractor's shanty in the middle of La Salle street just south of Lake street. In order to get this line into service, it was necessary to drop it from the roof of a building on La Salle street near this location to the shanty. The line was brought up from the underground terminal in the basement to the roof and a No. 58-A protector installed a few feet from a point where the line left the building, and a suitable ground was made. Another protector was installed in the shanty and the ground wire for this protector was run to a water pipe that had been connected with the city water mains in the street. As there were no

lighting circuits at this location from which to secure lighting current, the tunnel contractor had tapped a trolley wire on Lake street and connected a cluster of lamps in multiple series to ground and incidentally used the same water pipe on which the telephone protector had been grounded. In a few days it became necessary to disconnect the water pipe, which was done at a point between where the two grounds were made and where the pipe made contact with the earth. As soon as the connection was broken, it allowed the 550 volts of current to back up through the lamps to the telephone protector, where it jumped the carbons and backed up to the office. The protection in the office and the one near the underground head operated beautifully, so that no damage resulted, the line fuses at the outside protectors opening up the line.

DRIVEN TO TELEPHONE.

Seemed the Only Way Woman Could Impart Information to Her Busy Husband.

A piece of news too important to wait till night, and too interesting to be committed to the telephone reached the woman about one o'clock, so she traveled five miles to her husband's office to relate it in person. She drew a chair up close to his desk and began:

"I came to tell you—"
"Whrrrrrr," cut in the telephone on his desk.

The man talked into the receiver for about five minutes, then made a few notes, after which his wife resumed:

"I came to tell you that—"
"Wait a minute," he said. "There goes that confounded wire again."

It went that time and it went again and again, only punctuated between calls by the woman's ineffectual, "I came to tell you." Finally she got up in despair.

"I think I had better wait till night to tell you," she said.

"Yes," he said, "perhaps you had. I seem pretty busy now."

Outside the office the urgency of her message overpowered all other considerations. Profiting by her recent experience she sought the nearest drug store and telephoned her news. He listened in exclamatory astonishment.

"And you waited to telephone me that?" he said. "Why on earth didn't you tell me when you were here?"
"Oh," said she, "I had a reason."



OPERATORS' REST ROOM IN THE "CITY" EXCHANGE, DETROIT.

Present—Kathleen Green, Rose Burger, Grace McLean, Molly Markuss (reading the BELL TELEPHONE NEWS), Viola Kennedy (sewing), Sadie Clark, May Hall, Gladys Lahner, Alice Smith, Grace Marquette, Evelyn Johnson, Sophie Dignan, May Carpenter, Amelia Wargood, Anna Wartig (telephoning), Ethel Austin and Marie Israel.



LONG DISTANCE ROOM OF THE HOME TELEPHONE COMPANY, DETROIT.

The toll lines of the Home Telephone Company run at present from this board to Flint and Saginaw, Mich., on the north; to Grand Rapids, Mich., on the east, and to Toledo, Ohio, on the south. They number in all twenty-eight circuits. The supervisors in the picture are Lucile Furton and Laura Randall.

Brief News Notes from Everywhere

Highland, Kan.—The Northeast Kansas Telephone Company has taken over the exchange of the Home Telephone and Electric Light Company. Two exchanges will be merged.

Frankfort, Ky.—The state railroad commission has authorized a consolidation of the Bell and independent systems at Winchester.

Knoxville, Tenn.—The Cumberland Telephone and Telegraph Company has awarded the contract for a new \$50,000 telephone building.

Owosso, Mich.—The Union Telephone Company will erect a \$10,000 exchange building.

Mammoth Springs, Ark.—The Southwestern Telegraph and Telephone Company has purchased the entire holdings of the Hynson Brothers' Telephone Company in northeast Arkansas and southwest Missouri, embracing the towns of Mammoth Springs, Ark., and Koshonong and Brandsville, Mo. The Hynson system is the oldest and largest independent in northeast Arkansas.

Atlanta, Ga.—A financial transaction of unusual magnitude and importance has been consummated in the purchase by the Robinson-Humphrey-Wardlaw Company of Atlanta of \$3,000,000 worth of five per cent. thirty-year bonds of the Southern Bell Telephone and Telegraph Company. It is the purpose of the brokers to dispose of the bonds in small lots to southern investors. Such deals are unusual in the south, as money in such amounts is usually secured from eastern centers.

Columbus, Ga.—The Southern Bell Telephone and Telegraph Company will erect a new building and put in a new exchange.

Lansing, Mich.—Stockholders of the Vermontville Telephone Company have brought suit in Eaton County against the state railroad commission asking an order compelling the commission to show cause why it should not allow the Vermontville company to construct a new line. The suit grows out of a recent decision of the commission that public convenience does not demand the proposed line. The suit will constitute a test of the Giles law, under which the commission acted.

Wilmington, Del.—Beginning October 3d the name of the Delaware and

Atlantic Telephone Company in Delaware was changed to the Diamond State Telephone Company. This is in accordance with the policy of the New York Telephone Company to separate the company into state units.

St. Louis, Mo.—W. J. Hiss has been appointed general manager of the Bell Telephone Company of Missouri with headquarters at St. Louis. He was formerly division manager of the New York Telephone Company at Buffalo. He is succeeded at Buffalo by C. A. Spaulding.

Boston, Mass.—Jasper N. Kellar has resigned as president of the New England Telephone and Telegraph Company and is succeeded by Philip L. Spaulding, vice president of the Bell Telephone Company of Pennsylvania. Mr. Kellar was in the service twenty-seven years.

Cleveland, Ohio.—The city council has passed a resolution calling on the city officials to investigate the proposition of buying and operating the two telephone plants or establishing a new municipal system in competition with them. The newly adopted constitution of Ohio permits municipalities to operate public utilities. Doubt is expressed of the city's ability to finance a third system.

San Francisco, Cal.—The first of a series of ordinances necessary to bring about the establishment of a municipal telephone system in San Francisco is reported to have been submitted by the public utilities committee of the council to the supervisors. At an initiative election held last March the people decided, by a vote of 21,174 to 10,353, in favor of the project. Subsequently the ordinances submitted at that election were held to have been illegally drawn, but in spite of this the city attorney is said to have declared that, since the people spoke in favor of the policy, the question of a bond issue must now be submitted at a referendum election. The ordinance now submitted declares that the public requires a municipal telephone system to be operated and maintained by the city and county, and directs the Board of Public Works to prepare plans and estimates.

Stockholm, Sweden.—The Swedes are thinking of laying a telephone ca-

ble from Marieholm near Stockholm to Abo, across the Finnish Bay. The Norwegians are much interested in this proposition, as they wish to communicate with Finland by telephone. It remains to be seen what the Russian authorities will say to this. The cost is estimated at one-half million Finnish marks.

New York.—The stock exchange has listed \$9,903,000 first mortgage sinking fund bonds of the Southern Bell Telephone and Telegraph Company.

Chicago.—The Central States Telephone Service Association, an organization with the declared purpose of "promoting harmony and co-operation between the various independent telephone companies in the central states, with a view of improving commercial, traffic and plant conditions, promoting standardization and uniformity of methods, and perfecting service," was organized on October 16th.

Peoria, Ill.—What promised to be a serious fire occurred recently in the switchboard room of the Interstate Independent Telephone and Telegraph Company's exchange. Fortunately the fire was extinguished before the switchboard was destroyed. By dint of great exertion, E. T. Teece, local manager, had almost entirely restored service within a few hours. H. B. Crandall, chief engineer, also hurried to the scene and aided in the work.

Trenton, N. J.—The New York Telephone Company will erect a new exchange building. Trenton now has more than 9,000 telephones.

"BULL MOOSE" STOPS SERVICE.

Real Article Carries Away 100 Feet of Telephone Wire On His Antlers.

Because a charging bull moose got away with about 250 feet of the wire of a private telephone line near Dead River, Maine, completely shutting off all communication from West Carry Pond Camps with the outside world, Rufus B. Taylor, owner and manager of the camps, threatens to sue the state of Maine. He declares that the moose are owned and protected by the state and that there is no reason why the state should not be responsible for their damage to private property. Shortly after two guides had found "trouble" on the line a giant bull moose with at least a hundred feet of the missing wire entangled about his antlers was seen to cross a tote road. Moose are protected by the state law until October 15.

RECORD BREAKING EXPECTED FOR 1913

Western Electric Company Planning For Largest Business In Its History.

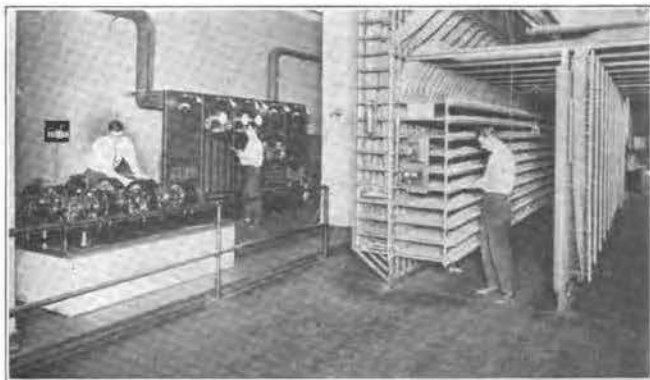
Western Electric seems determined to make a record in the continuity and regularity of its monthly increase. July was three per cent. ahead of the preceding July, August was the same percentage ahead of the same month in the preceding year and September now reports an increase of four per cent. over September of 1911.

The nine months so far reported show a gain of three per cent. over the same period a year previous, so that it now appears that the company will run close to the early estimate of a gross business for 1912 of about \$67,000,000.

Commenting on the showing an officer of the company said: "The business of the Western Electric Company has not felt any of the large expansion that the other electrical companies have had and are experiencing, but is showing a quiet and steady growth over the last year, which seems to be quite in line with all that was expected of the year by the officers of the company. The expectations of the fall are for a showing along the same lines as the year has resulted to date."

It is difficult to put one's finger on the exact reasons why the Western Electric Company has not responded to the boom which the other electric companies are enjoying. One reason, perhaps, is that the corporation last year did not suffer from the decline in activity that the other companies went through, showing a gross business of approximately \$63,000,000 for twelve months, which made 1911 the second largest year.

As compared with a month ago there are a few hundred persons less on the pay rolls, but the total number is close to 22,000. Western Electric is now beginning to lay the foundations for the 1913 campaign. It would not require a great business impetus to make it necessary for the company further to increase its facilities, and the 1913 plans will be laid with an eye to the possible banner year which many business and economic experts believe 1913 will prove to be.—Wall Street Journal.



ENGINE ROOM OF THE HOME TELEPHONE COMPANY, DETROIT.

At the left are the harmonic ringers which call subscribers on the Home party lines in the City exchange, the picture showing Howard Lockwood at work thereon. Walter Cole stands at the power board, taking a reading. On the right is seen a part of the distributing frames, together with William Bowers. The large power engines in this room are hidden by the wide rectangular column between Cole and Bowers.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

TELEPHONE BUILDING

CHICAGO, ILLINOIS

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,750 copies per month.

NOVEMBER, 1912.

ARTHUR DANA WHEELER.

The sudden death of Arthur Dana Wheeler, which occurred recently at his summer home at Lake Forest, brought grief to the hearts of a wide circle of friends.

To the officers and employees of the Chicago Telephone Company Mr. Wheeler's death brought a sense of personal bereavement. He was president of the company from 1903 to 1908 and his courteous and kindly traits of character and affable and sunny disposition endeared him to all with whom he came in contact.

In addition to the affectionate regard which he inspired his marked executive ability won for him the confidence and loyalty of those whose privilege it was to serve under him and served to establish that *esprit de corps* which always follows able and efficient leadership.

Mr. Wheeler's interest in the young men in the service was an inspiration. For these there were ever on his lips words of cheer and encouragement while a task was set and hearty commendation when the end had been attained.

We embrace this opportunity to print a tribute paid to the memory of Mr. Wheeler by his life long friend and business associate, Mr. Charles S. Hot, which appeared in the *Legal News* of September 14th:

Arthur Dana Wheeler, for nearly thirty years a member of the Chicago bar, died on Thursday evening, August 23th, at his home in Lake Forest. The cause of death was angina pectoris, and the end came almost without warning; he had felt some spasmodic pain for two days, but had no suspicion of heart trouble, and had spent Wednesday and Thursday in Milwaukee at the meeting of the American Bar Association. Returning to his home Thursday evening, he consulted a physician and was advised that, while his heart was affected, it was probably due in large part to indigestion, and was reassured as to the outcome. Passing the evening in conversation with his family and his favorite recreation of playing the violin, he retired at the usual time and about an hour later passed away during sleep.

Funeral services were held on Sunday, September 1st, at Lake Forest Presbyterian Church, conducted by Rev. John Timothy Stone, D. D., pastor of the Fourth Presbyterian Church of Chicago, of which Mr. Wheeler was a member, and by Rev. J. G. K. McClure, D. D., president of McCormick Theological Seminary; the latter also conducted the final service at the interment in Kenosha, Wis.

Mr. Wheeler was born in Kenosha March 2, 1861. Losing his father in infancy, he passed his early life in peculiar intimacy with his mother, Kate Deming Wheeler, remembered by many as a teacher and friend of rare accomplishments and beautiful character. He was educated in the public schools of

Kenosha and at Lake Forest Academy and College, and after a year spent in teaching in the West, he entered the law office of Williams and Thompson as a student in the summer of 1882. Graduating from the old Union College of Law, and admitted to the bar in 1884, he continued his service in the same office, and was admitted to membership in the firm in December, 1886, on the day of his marriage with Miss Anna Holt of Lake Forest. After the death of General John L. Thompson, the firm name was changed, in 1889, to Williams, Holt and Wheeler, and later, upon the death of Norman Williams in 1899, it became Holt, Wheeler and Sidley, all three members of the latter firm having grown up in this office and having known no other professional relations.

Mr. Wheeler was a thorough, all-around lawyer. In the earlier years he engaged successfully in jury practice and was always clear and persuasive in oral argument. Later his time was largely occupied with office counsel, in real estate, railroad and general corporation matters, and especially in connection with electrical interests, with which his firm had always been closely associated. After serving some years as a director of the Chicago Telephone Company, he was elected its president in 1903, and continued in that office until 1908, retaining, however, his firm connection and general practice. Upon his election to the chairmanship of the board of directors of the telephone company he again gave his undivided attention to the law, in which he was busily engaged down to the time of his death.

His legal ability and his unflinching integrity were combined with an unusual measure of kindness and consideration for all whom he touched, and he won not only the respect but the friendship and even affection of his professional and business associates.

In addition to his large professional activities Mr. Wheeler gave much time to religious and philanthropic work. He was a member and for many years a trustee of the Fourth Presbyterian Church, where he conducted a large Bible class for young men. He was active in the work of the Young Men's Christian Association, and was especially interested in the association training school and in the state work, of both of which he was a director. He was also an active member of the board of managers of the Presbyterian Hospital. For the last year or two he carried on a weekly Bible class at the Northwestern University Building, under the auspices of the Young Men's Christian Association, for the students of the law and other departments which center there.

In addition to his widow, Mr. Wheeler leaves a son and a daughter. His only brother, Jerome W. Wheeler, is vice president of the Capital National Bank and president of the Security Trust Company of St. Paul.

OUR FRONT COVER.

With this number we make a striking departure in the style of the front cover of the BELL TELEPHONE NEWS. Abandoning colors and modern subjects, we have brought out a decorated classical design in sepia monochrome. The subject is full of interest to telephone people from many standpoints.

It is a reproduction of the terra cotta panel in the lunette over the west door of the new Main building in Chicago, and is a companion piece to a similar design over the east door. Thus our cover serves to keep fresh in mind, our magnificent new home and our strenuous central organization, and the activities around Chicago headquarters.

Hundreds of telephone employees and thousands of our patrons will pass under this archway. Several thousands will do so every day, and to all of these this design will come to be regarded with strong sentimental attachment. We trust that in turning this cover from month to month all our thirty odd thousands readers will metaphorically pass through the doorway leading to the busy telephone life of the central group of companies and become more closely linked to the interests of the big organization.

The theme of the two noble bas-reliefs is Mercury, winged messenger of the gods, encircling the earth with wire circuits, of which one at least obviously terminates at Chicago.

The ancients in their conception of this divinity, seem almost to have forecast the telephone service of today. Mercury or Hermes, was a messenger of incredible swiftness, a guide to the souls of men, the patron of trade, commerce and gain, the god of roads and travel, and also of farmers and herdsmen. He was moreover, the god of eloquence and persuasion, himself an inventor and a patron of the sciences, especially of medicine.

Such disconnected attributes have puzzled classical students, but we venture to point out that telephone service fulfills all these conditions, except that as yet, we are not able literally to circle the globe.

The design itself was the work of Mrs. W. F. Patten, whose husband is a member of our General Engineering Department, and has charge of the planning of new buildings for the five companies. The decorative treatment of our cover also was suggested by Mrs. Patten. To have, as it were, home talent adequate to the artistic embellishment of our grand building and our magazine, is a source of satisfaction to all in the telephone family.

THIRTY YEARS OF ELECTRIC LIGHT.

It is thirty years since the electric light was introduced into New York city. On the first day 125 horsepower was used, and the number of lamps was 400. Now there are 5,000,000 lamps in use, besides 40,000 arc lights, and 400,000 horsepower in motors, all energized by plants capable of 700,000 horsepower. It was fitting that a luncheon should be given to Edison, the inventor whose brain made these wonders possible. And it was a striking coincidence that while these happenings of local interest were being chronicled, 5,000 representatives of electrical industry were assembled in convention in Chicago.

A comparison of this record with that of the telephone naturally suggests itself to the mind of the telephone men. The telephone, as an invention, is thirty-six years old. As a commercial utility it is thirty-four years old. While the figures from which the above statistics on the use of electric light and power in New York were taken did not mention the number of electric light users in the eastern metropolis, it is probable that the number of telephone users is far greater. And in the smaller cities, towns and rural districts throughout the country the telephone is in almost universal use where the electric light has never penetrated.

BLOWING AWAY MONEY.

If you had a pile of one-dollar bills on your desk you would probably weight them down so they would not blow out of the window. But do you exercise the same degree of care in preventing the loss of equally valuable property?

A case was recently reported in which an operator gave a subscriber four minutes and thirty-four seconds' use of a toll line for the price of three minutes. The amount received was forty cents and should have been sixty. The reason given was that when the parties hung up the operator could not stamp off the ticket because the electric fan which was keeping her cool had blown the ticket away.

If a toll ticket constituting the record of a call worth \$1 should be lost it would mean just the same thing as if a \$1 bill should be lost out of the cash drawer.

This is an example of carelessness which involved the possible loss of the whole value of a transaction in the company's business. More numerous are the cases of carelessness which mean the waste of only a few cents' worth of material or time, the aggregate of which reaches a staggering total.

One of the great railroad systems is asking every employee to try to save a nickel every day. Every telephone employee ought to make a similar effort—not to save specifically a nickel, but to save every penny of the company's money possible.

The company's prosperity is your own.

KEEP WELL.

The skilled workman in order to maintain his standard as such must keep well. For with impaired physical health he will soon find that he cannot do as much work nor of so good a quality as he was able to turn out when he was in perfect health.

So then it is clear that for the good worker good health means the continuance of good wages.

An eminent German nerve specialist says that the telephone sets people crazy.

Until he spoke we had the idea that it is the other way. We thought it was the people who set the telephone girls crazy—to say nothing of the manager.

But, speaking seriously, doctor, isn't John Barleycorn still on the job? Aren't there more people than ever burning the candle at both ends? And what about auto scorches, trolley cars and Motorcycle Mikes whom we are compelled to dodge for our lives every other minute of the day? Isn't it unfair, isn't it absurd to hold the innocent telephone responsible for the growth of insanity (if it is growing) when all these things are obviously more to blame?

We all have great respect and veneration for the hardy pioneers, the old settlers. Business men also have respect for the young settlers. It is those who do not settle at all who are not esteemed.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
230 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonso Burt, Vice President.
W. I. Mizer, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
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H. F. Hill, General Manager, Chicago, Ill.
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H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegel, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.



F. A. de PEYSTER

REAL DISEASE IS PUBLIC OWNERSHIP

Of the Malignant Effects of Which This Is a Good Example.

Dr. Strauch, a mental specialist of Berlin, has discovered a new disease which he calls telephone nervousness. A prominent Berlin attorney has been in continual conflict with the post office for more than a year regarding his telephone. Several times he was prosecuted on the charge of insulting the telephone girl and finally his telephone connection was cut off. The attorney immediately began proceedings for its restoration. The post office department offered as a defense that the attorney was continually insulting officials.

Dr. Strauch, who was called as an expert, testified that telephone nervousness was a serious ailment. The telephone, he said, acts on certain persons like poison. He continued: "I know a case in my personal practice of a physician who was so worked up by delays and other unpleasant occurrences that he became permanently insane. Excitable persons should never use the 'phone.'"—*Detroit Free Press.*

DIGNITY IN LOW NUMBERS.

New York Business Men Said to Attach Importance to Figures of Their Telephones.

"Such a small thing as a telephone number has some significance in the standing of a firm," remarked a New Yorker who had little else to do but talk and observe.

"How so?" asked the other.
"Take the low numbers—'Broad 1,' for instance—and, as a rule, it will be the number belonging to an old established firm, provided, of course, that firm has remained in one location. The firm now bearing the above number was in existence before telephones were in use at all, and in like manner it is possible to ascertain the old established business houses. If a firm moves, but remains in the same exchange, it has the privilege of retaining its original telephone number. Americans don't care much for age and long established anything, as a class, but there are many firms in this city that are proud of their telephone numbers in a system where the numbers run high up in the thousands."

Frederick A. de Peyster, recently appointed traffic superintendent for the Suburban Division of the Chicago Telephone Company and the Illinois Division of the General Union Telephone Company, has been in the Traffic Department of the Bell System for a number of years. He began in the long-distance service in New York City and was later with the New England Telephone and Telegraph Company. He came west about nine years ago and entered the service of the Central Union Telephone Company as assistant traffic engineer, with headquarters at Indianapolis. Upon the removal of these headquarters to Chicago he was appointed traffic superintendent for Ohio, a position he held a short time only, being recalled to Chicago as assistant to the general traffic superintendent. He continued in this capacity until he assumed his present position.

Mr. de Peyster has the reputation of being one of the most thoroughly capable telephone traffic men in the United States. He is also a bowler of considerable ability, if mentioning the two capabilities in the same paragraph is not impertinent.

Once Enemy; Now Friend.

A story comes from Indianapolis, telling how a Central Union special toll operator collected the price of a toll call and made a friend both for the service and herself. The following conversation is reported:

Special toll operator: "Is this Main 7106, Mr. Smith?"

Main 7106: "Yes."

Operator: "Miss Jones used your telephone to talk to Brazil, September 1st, and I understand there is some trouble about the settlement of the bill."

Main 7106: "No one used my telephone for long distance. No one could possibly use it without my knowledge, and if Miss Jones came in here, I would throw her out. She owes me a big bill now."

Operator: "Perhaps she used it when you were not there."

Main 7106: "No one can get in here when I am away."

Operator: "Do you know her address?"

Main 7106: "No. And you people needn't get smart and tack that bill on me. It don't belong here and I won't pay for it."

Operator secured Miss Jones' address from Brazil.

Operator: "Miss Jones lives at 223 F Street; that is near you. Would

District Collection Rating

Sept. 1, 1912.

| Position. | Total to be collected during August. | Aug. collections. | Unpaid Sep. 1st. | Per cent collected. | Stations. |
|--|--------------------------------------|-------------------|------------------|---------------------|-----------|
| 1. Wis. Tel. Co., Appleton Dist. | \$5,614 | \$5,432 | \$182 | 93.6 | 25,932 |
| 2. C. U. Tel. Co., Anderson Dist. | 26,019 | 25,500 | 519 | 96.4 | 13,118 |
| 3. C. U. Tel. Co., Columbus Dist. | 47,593 | 42,515 | 5,078 | 87.7 | 19,308 |
| 4. C. U. Tel. Co., Terre Haute Dist. | 37,744 | 33,734 | 4,010 | 89.4 | 19,163 |
| 5. C. U. Tel. Co., Dayton Dist. | 54,942 | 47,365 | 7,577 | 86.2 | 22,949 |
| 6. C. U. Tel. Co., Chillicothe Dist. | 30,048 | 25,662 | 4,386 | 85.4 | 16,620 |
| 7. C. U. Tel. Co., Toledo Dist. | 59,223 | 50,215 | 9,008 | 84.5 | 25,193 |
| 8. C. U. Tel. Co., Galesburg Dist. | 46,290 | 39,164 | 7,126 | 84.4 | 19,685 |
| 9. Wis. Tel. Co., Madison Dist. | 45,116 | 38,535 | 6,581 | 82.2 | 18,200 |
| 10. Wis. Tel. Co., Milwaukee Dist. | 165,517 | 138,656 | 26,861 | 83.7 | 54,976 |
| 11. Chicago Tel. Co., Chgo. Hts. Dist. | 3,681 | 5,506 | 1,118 | 82.4 | 2,217 |
| 12. C. U. Tel. Co., Springfield Dist. | 111,101 | 91,430 | 19,671 | 82.3 | 41,500 |
| 13. Chicago Tel. Co., Blue Island Dist. | 9,047 | 7,439 | 1,608 | 82.2 | 2,978 |
| 14. C. U. Tel. Co., Centralia Dist. | 20,642 | 17,039 | 3,603 | 81.8 | 10,731 |
| 15. Chicago Tel. Co., Chicago Dist. | 1,218,516 | 1,016,603 | 201,913 | 81.4 | 295,053 |
| 16. Chicago Tel. Co., Lagrange Dist. | 10,135 | 8,135 | 2,000 | 80.3 | 4,449 |
| 17. C. U. Tel. Co., South Bend Dist. | 21,859 | 17,454 | 4,405 | 79.8 | 10,821 |
| 18. C. U. Tel. Co., Akron Dist. | 63,607 | 50,812 | 12,795 | 79.1 | 23,269 |
| 19. Wis. Tel. Co., Eau Claire Dist. | 34,365 | 27,144 | 7,221 | 78.5 | 12,351 |
| 20. C. U. Tel. Co., Indianapolis Dist. | 84,129 | 66,029 | 18,100 | 78.5 | 27,470 |
| 21. Chicago Tel. Co., Elgin Dist. | 15,640 | 11,984 | 3,656 | 76.6 | 5,967 |
| 22. Chicago Tel. Co., Woodstock Dist. | 9,604 | 7,328 | 2,276 | 76.3 | 3,260 |
| 23. Chicago Tel. Co., Evanston Dist. | 37,028 | 28,233 | 8,795 | 76.2 | 5,983 |
| 24. Chicago Tel. Co., Hammond Dist. | 17,149 | 12,019 | 5,130 | 70.3 | 4,820 |
| 25. Chicago Tel. Co., Oak Park Dist. | 32,193 | 24,125 | 8,068 | 74.9 | 9,133 |
| 26. Chicago Tel. Co., Aurora Dist. | 18,378 | 12,233 | 6,145 | 74.7 | 6,002 |
| 27. Chicago Tel. Co., Chicago Dist. | 8,287 | 6,122 | 2,165 | 73.9 | 1,843 |
| 28. Chicago Tel. Co., Wheaton Dist. | 10,909 | 7,905 | 3,004 | 72.5 | 5,560 |
| 29. Chicago Tel. Co., Waukegan Dist. | 29,228 | 20,870 | 8,358 | 71.4 | 7,148 |
| 30. Chicago Tel. Co., Joliet Dist. | 26,233 | 18,452 | 7,781 | 70.4 | 9,155 |
| 31. Michigan State Tel. Co., Detroit Dist. | 340,398 | 234,903 | 105,495 | 69. | 92,988 |
| 32. Cleveland Tel. Co., Cleveland Dist. | 172,462 | 107,312 | 65,150 | 62.25 | 49,824 |
| 33. Michigan State Tel. Co., Marquette Dist. | 49,150 | 24,848 | 24,302 | 50.5 | 18,400 |
| 34. Mich. S. Tel. Co., Grand Rapids Dist. | 151,994 | 75,301 | 76,693 | 49.5 | 42,367 |
| 35. Mich. State Tel. Co., Saginaw Dist. | 70,377 | 33,494 | 36,883 | 47.5 | 20,490 |
| | \$3,172,336 | \$2,430,229 | \$713,770 | | 944,725 |

*Quarterly rental billing.

you object to sending there and telling her to call Long Distance? As she is beating you out of a grocery bill, she may be also trying to beat you out of a telephone bill."

Main 7106: "Yes. I will send my clerk there."

Main 7106: (thirty minutes later): "You may send that bill to me and I will pay it. Miss Jones had one of my best customers come up one evening when I was at supper and telephone for her. Say, are you married?"

Special toll operator: "What has that to do with this?"

Main 7106: "Well, I would just like to get some good man for a husband for you, if you are not. You certainly are a good business woman; you know how to go after the business to get it."

The Flying Office.

In the annals of naval and land warfare we have heard much of "flying squadrons." It remained, however, for the telephone to make it possible for railway officials to have what may be termed a "flying office." A prominent railroad official recently said: "We railroad men don't have to be tied down to our city offices any more. We can get around over the lines and see what is going on with our own eyes. Neglect our routine business? Not much! We do just as much, if not more, with modern methods."

This is all brought about by the fact that the majority of the private cars in the United States are now equipped with Western Electric telephones, which may be connected at each stopping place to the telephone line by means of a line pole. Over the telephone circuit thus established, the official transacts his routine business as well as takes care of any emergency which may arise. He dictates his memoranda and even his more lengthy letters to his secretary or stenographer, who is at headquarters. His private car is his office and without neglecting every-day matters he can make inspections or personally supervise any work, such as clearing up a large wreck, the replacing of a bridge or the clearing of a snow or land slide, while keeping his finger upon the "pulse of the road."

In the days before the telephone be-

gan to supplant the telegraph for dispatching the message work on railroads, this would not have been possible, for even if a temporary telegraph circuit had been rigged up it would have been necessary to employ experienced operators at both ends. This would have meant that a personal message between the general manager and the superintendent would have had to pass through two intervening hands, which would of course have detracted from the personal touch element. This is one of the many points wherein the telephone is vastly superior to the telegraph for use on railway systems.

Telephones in Jerusalem.

There have been many experiments, especially in the Holy Land, of a return to simple, apostolic socialism on the part of Christians. Apparently all have failed after rather short lives, except that of the interesting American colony in Jerusalem, which has continued in existence for more than thirty years, and today numbers over a hundred members.

Apparently this is a completely successful instance of community life, where all things are held in common. Yet there is not a socialist in the entire "family," as the members prefer to call themselves. Incidentally they are introducing many American ideas into the Holy Land, and their efficiency causes them to be called upon by foreigners and natives alike. They maintain the only one-price store in Jerusalem, and are notable commercial successes.

The range of the activities of this community is amusing as well as amazing, extending from the baking of a mince pie to the discovery, digging and delivery of an ancient sarcophagus or other antiquity. Their latest bit of enterprise is the beginning of a telephone system over the city of Jerusalem. For the first time in all its long history the Holy City hears the tinkle of the telephone bell—and it's a Bell telephone at that! The new court house at Jerusalem has been connected with the old serai, and the system is to be extended until, first, all official points, and then business houses and residences, are supplied with telephones.

BELMONT CUT-OVER BREAKS ALL RECORDS

Largest Number of Subscribers Ever
Transferred in One
Operation.

The largest single job of shifting telephone lines in the history of the art was accomplished by the Chicago Telephone Company at 11 p. m., Saturday, October 5th, when the lines of the "Belmont" subscribers, numbering at the time 8,268, were transferred from the Humboldt exchange building at 1575 Western Avenue to the new Belmont building, 3601 Cortland Street at the corner of Central Park Avenue, one and one-half miles away.

The unceasing growth of the city and of the telephone system necessitated the change. The northwestern district about Humboldt Park has grown so rapidly that the switchboards at the Humboldt building were full. The Chicago Telephone Company employs a competent force of electrical engineers the year round to study these problems of growth and to make plans and estimates for years ahead to meet these conditions as they arise. The result of this far-sighted policy is that congestion is never allowed to become acute, and that the construction of additional buildings and telephone lines and switchboards proceeds steadily the year round.

J. M. Humiston is the facilities engineer of the Chicago Telephone Company, and E. H. Bangs is the engineer of the Central Group of Bell Telephone Companies in charge of development studies for the ensuing twenty-year period. These officials are among the best informed prophets of the future trend of the city's development. The Belmont building is one tangible outgrowth of their studies and predictions of some years ago. It will serve the western half of the old Humboldt sec-



NEW BELMONT EXCHANGE, CHICAGO.

tion, bounded on the north by the Irving Park district, on the south by Kedzie area and on the west its province extends to the corporation line, where it joins the Austin territory. It is the thirty-third exchange building now occupied by the Telephone Company within the city limits. If they were lined up side by side they would extend a distance of half a mile along a city street. Twenty-five of the largest and best of these are owned by the Telephone Company. They are especially planned and constructed to protect the apparatus and insure the service against interruptions, and for the

comfort and convenience of the company's 10,000 employees. The company also owns three large, well-located and especially built construction headquarters buildings. The value of all this real estate is estimated at \$10,000,000.

Belmont will have all told 1,100 trunks, of which for example seventeen go to Main, eighteen to Central, thirty-two to Humboldt, six to Austin, and eight to the tandem board.

Previous to the cut-over 16,950 telephones were operated from Humboldt. In making the change 1,700 Humboldt numbers were changed to Belmont.

The New Building.

The total cost of the new Humboldt building, exclusive of switching apparatus, was \$45,000. It has a frontage of forty-eight feet and depth of ninety-five feet, and consists of a basement and two stories with a partial third story.

The construction is strictly fireproof. Metal doors are used to shut off the stair hall and prevent the possible spread of fire and smoke from floor to floor. Wire glass windows and metal frames are used on the rear elevation and the court elevation. A rear fire escape is provided. The building, therefore, is well protected from fire exposure both externally and internally and good arrangements are made for protecting the operators in case of fire and for getting them out of the building.

The front and side elevations are red tapestry brick, while the rear and court elevations are common brick. The general style of the building is simple.

The building is designed so that it may be extended the full depth of the lot, or 140 feet, and also extended to a height of five stories. This will permit of caring for two complete switchboards and also for cutting over to any future new type of switchboard in case the present board should be abandoned because of becoming obsolete.

The basement contains the heating plant, battery room, men's toilet room, gas engine and generator for reserve charging of the batteries, and the fireproof cable room into which the underground cables enter.

The first floor contains the terminal

frames for the underground and switchboard cables, and the power plant for operating the switchboard.

On the second floor there are installed eight sections of subscribers' switchboard and six sections of trunk switchboard. The present building will accommodate fifteen sections of subscribers' switchboard and fourteen sections of trunk switchboard.

The partial third floor contains the operators' toilet rooms, dining room, rest room and locker room.

In the finish of the building the minimum amount of wood is used. The basement and first floor have cement finish. The second and third floors are finished with wood floors and covered with battleship linoleum. All wooden trim is omitted around the windows.

The building is lighted throughout with tungsten electric lamps and prismatic glass reflectors. This lighting is also used for lighting the switchboard. A system of reserve gas lighting is provided in the operating room so that the board could be operated in case of failure of the electric lights. Reserve gas lighting is also used throughout the halls, so that the operators could be gotten out of the building at night in case it should be necessary at a time when the electric light had failed.

High ceilings are provided so that ample light and ventilation can be had. The first floor ceiling is fourteen feet and the second and third floors thirteen feet each.

When the telephone traffic in any part of Chicago grows so greatly as to be in excess of the capacity of the switchboard of the office operating in this territory, the first step toward relief is the installation of a second unit in the present office building. Thus, we have Central and Randolph, Main and Franklin, Edgewater and Ravenswood, etc.

As the growth proceeds it eventually becomes necessary, when the territorial boundaries of a given office are very large, to remove the second unit to a new center and make it a separate office. When the territory of the office is small, as in the congested business districts of the city, the establishment of an entirely separate office may not be expedient. The Humboldt and Belmont offices were the last two units separated.

The building of the new office in new territory is a much simpler matter than the establishment of an existing unit in new quarters. In the latter case there are always a large number of telephone lines working into the old office which must be routed into the new without interruption of service or inconvenience to subscribers. In the case of Belmont about 8,500 telephones were involved. At the same time the records on cable conductors, as well as on subscribers' stations, must be rewritten. Thus, while the building is being erected and equipped and the cable plant rearranged, the records of the Installation Department, as well as the Commercial Department, have to be practically rewritten for the plant involved, and this work has to be carried on vigorously for many weeks in advance of the cut-over.

Rearrangement of Cable Plant.

The first step in preparing for a cut-over, so far as the cable plant is concerned, is to pull in the requisite new cable. Six new 600-pair No. 22 gauge cables were pulled into the Belmont office to be used as subscribers' cables. In addition to these, other cables were necessary for looping through the office such lines as worked past it into Humboldt. For these loops four 600-pair No. 22 gauge and five 300-pair No. 19 gauge cables were brought from the vault in the street into the exchange. Now that the cut is over, the four 600-pair No. 22 gauge cables and

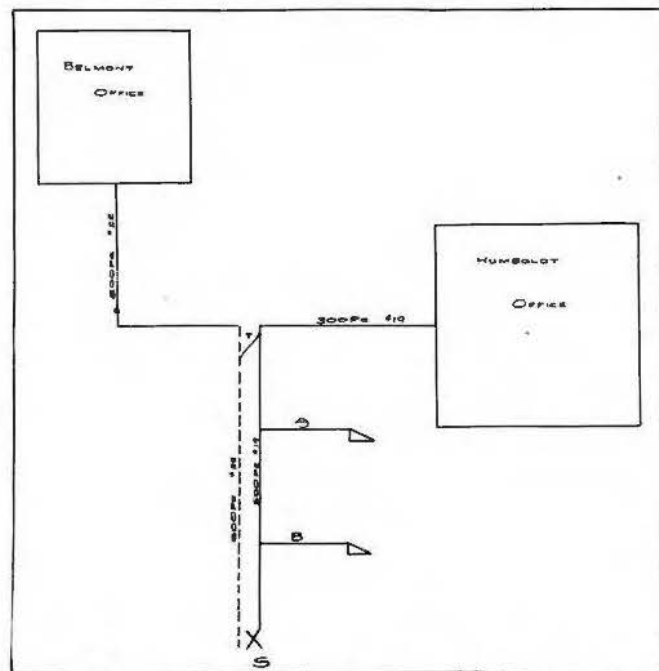


DIAGRAM SHOWING ARRANGEMENT OF CIRCUITS FOR BELMONT CUT-OVER.

one 300-pair No. 19 gauge cable will be used for subscribers' distribution and four of the 300-pair No. 19 gauge cables will be used, in connection with previously existing No. 19 gauge cables, as trunks into Humboldt.

One illustration on Page 14 shows the cable subway in the Belmont office. The underground cables are not pot-headed but spliced to 300-pair No. 22 gauge silk and cotton cables in the subway, and these 300-pair cables are fanned out on the main frame. This subway presents a very neat and accessible arrangement.

Half Taps.

After the new cables are in place it is necessary to arrange all the lines which are to work into the new office so that they will work into both exchanges or through the new into the old. In the latter case they are brought up to the new office, looped through it and thence taken back to the old board. Lines which do not loop through the new office are so connected as to work into both boards. This is done by a *half tap*, as illustrated in the diagram on Page 12.

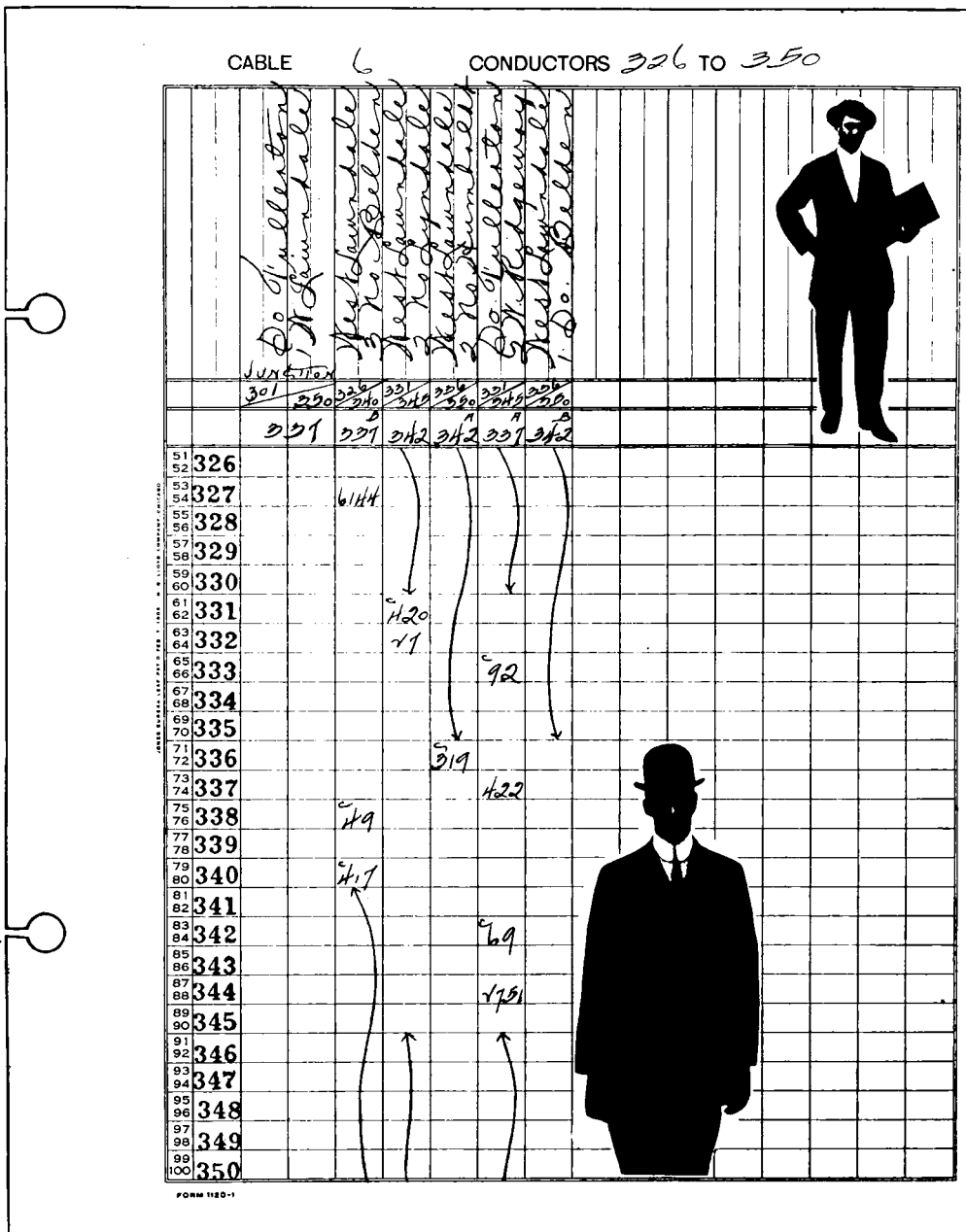
Here we have a subscribers' line from *S* working through a 300-pair No. 19 cable into the old office. A new 600-pair No. 22 cable was pulled into the new office, as shown on the drawing. Of the 600-pair, 300-pair are tapped into the 300-pair at *T*. The subscribers' line now appears on both the old and new boards. When the new exchange is to be cut into service the jumpers at *J* are cut so that the line from *S* now works up to *T* in the 300-pair cable, through the top into the new 600-pair and thence into the new board. The laterals *A, B, S* may now be transferred at any time from the 300-pair to the new 600-pair. When these transfers are complete the short piece of cable connecting the 300-pair and the 600-pair at *T* is cut off and capped up. The 300-pair cable is thus left free to be used as a trunk cable. The stub at *T* can be used for bringing a new leg out of the 600-pair. All of this interconnection gives endless opportunity for errors. By careful and repeated testing these were eliminated so that, after the cut-over, less than half a dozen lines were in trouble through faults in the cable, which was a remarkably small per cent. Cable Foreman Rader deserves honorable mention in this connection.

Rewriting of Records by Installation Department.

Scarcely less important than cable and switchboard facilities themselves are the records of these facilities. Should the record be lost, everything would be in a state of hopeless chaos for repair of existing lines, installation of new or change and removal of old ones.

In preparing for the cut-over of the Belmont office the Commercial Department sent the Installation Department lists of telephone numbers with panel and jack and class of service for all lines, corresponding to both offices. From the Humboldt cable records the cable and conductor numbers were found corresponding to that office and entered on the Commercial Department's lists. From the maps of the Belmont territory the new cable and conductor numbers were put on the list. In cases where a line was left working on the same pair of wires, physically, the change amounted merely to changing the name and number of the cable and conductors concerned. In other cases, of course, the lines work eventually on new conductors. In this shape the information had to be copied on eight lists. Seven were sent back to the Commercial Department and one retained by the Installation Department.

Next a list of Humboldt telephone numbers was made in numerical order, with the corresponding Belmont number added. This was to give the Com-



A SHEET OF CABLE RECORD ON THE BELMONT CUT-OVER.

And two of the men, Mr. Holden and Mr. Stephan, who wrestled with this important and intricate part of the work.

mercial Department data for issuing change orders. At the same time cards showing the new Belmont numbers were made out and sent to subscribers to hang over the mouthpiece of their instruments.

Daily lists of installations and removals were made and given to the equipment foreman, who corrected his lists (described above) from them.

The illustration on this page shows Division Installer Holden and Head Assignment Clerk Stephan with sample sheet of the rewritten records.

The cutting in of Belmont office made facilities for about 500 additional subscribers.

Some Interesting Figures.

The area of the new Belmont territory is 6.5 square miles. The area of the Humboldt exchange prior to the cut-over was 10.18 miles. The area of the entire city of Chicago is 170.24 square miles.

Of the total subscribers in the Belmont exchange, 6,500 have four-party nickel-first service. The number of business telephones is 1,500.

There are eighty-five women and nine men employed at the building. Miss M. Howe, formerly of Lawndale, is chief operator, and Miss A. Whittle,

formerly of West, is evening chief operator. William Larkin, formerly of Humboldt, is wire chief.

Akron District Changes.

The Akron, Ohio, district of the Central Union Telephone Company has been placed in the Ohio Division. Since July, 1911, the Akron District had been operated as a part of the Cleveland Division. P. Yensen will act for the present as district commercial manager in addition to his duties as commercial superintendent of the Cleveland Telephone Company.

Incidents in the Development of Cable Manufacturing

The first cable of which there is any record was laid at Birmingham, England, in 1837. It was composed of a number of gutta-percha covered wires encased in an iron pipe. Owing to the imperfect protection afforded by the pipe its life was very short.

During the next half century the problem of an efficient protective outside casing for the wires remained the most difficult one in cable manufacture. The period from 1837 to 1880 was largely one of experiment. Many varieties of telegraph and telephone cables were tried out during that time, but all developed that fatal defect of being non-moisture-proof when laid underground.

In 1880 a cable was finally introduced which attained some measure of success. It consisted of cotton-insulated copper wires bound together and drawn into 200-foot sections of lead pipe; the interior of the cable thus formed was then thoroughly saturated with paraffin throughout its entire length.

It was with one of this type that the Western Electric Company began its manufacture of cable in 1882, and continued with little change until 1891, when paper-insulated conductors were introduced. The substitution of paper insulation for that of wool or cotton resulted in such a remarkable improvement in transmission and such a decided reduction in cost that the paper core cable has almost completely displaced the older types.

Of the four principal manufacturing operations through which cable passes—insulating the copper wires, pairing



THE "FEED" AFTER THE BELMONT CUT-OVER.

the insulated wires, winding the wires into a cylindrical core, and sheathing the core—the insulating and sheathing processes only have undergone important changes.

The insulating operation was radically changed when the use of paper was inaugurated, a new design of insulating machine becoming necessary. The first method of applying paper insulation was to pull the wire through a die which folded a ribbon of paper lengthwise around the wire. Spirals of different colored threads were then wound around the insulated wire in

order to keep the paper binding in place, the various colors serving to distinguish the different pairs of wires. This method is still employed by foreign manufacturers in the insulation of the coarser gauges of wire.

In America, however, it was almost immediately replaced by our present method, in which the paper ribbon is wrapped spirally around the wire; the covered wire being afterward run through a bushing ("polisher") in order to bring it to the required diameter.

The first type of machine used for this purpose was necessarily slow, as the supply of paper that was wound on a comparatively small bobbin could not be revolved about the wire at a very high speed. About 1897, however, a much faster machine was developed. In this, a revolving disk carries a pad of paper tape upon its face. As the disk and the pad revolve together, the paper is unwound at the same rate of speed, regardless of the size of the pad. The design of this machine has been constantly improved, until at present the paper insulation can be wound around the wire at the rate of 2,800 turns a minute.

The lead sheathing operation was, in the beginning, a very tedious and expensive process. At that time the lead pipe was purchased in approximately 200-foot lengths. Four of these usually constituted a cable length, and were laid out straight on the floor to receive the core. In order to start the cable core through the sheath, a ball attached to a cord was fastened through the pipe by means of a hand air pump—something like a bicycle pump. To the cord was attached a rope, by means of which the cable was drawn through.

The men employed to do this kind of work had to be a combination of sailor and plumber, as they had first to pull the core into the lead sheath and then solder the joints. The plumbing work followed the "drawing-in" operation, the ends of the pipes being brought together and the joints wiped in the regular way, except that the diameter of the joints was made as small as safety would allow.

After the sections had been joined the length of sheathed cable was wound on a drum and placed in an oven. Here, by means of a vacuum, melted paraffin was forced through its entire length until the core was saturated. The finished cable was then rewound on wooden reels ready for shipment.

In 1892 this slow and laborious process was replaced through the efforts of W. R. Patterson, of the Western

Electric Company. By an ingenious invention known as the "die block" he made it possible to form a continuous lead sheath around the core as it passed through a chamber filled with plastic lead. This process, which gave the name "Patterson cable" to the product, is, with some improvements in the die blocks and presses, still employed in forming the sheath.

The change to a continuous sheath made it possible to omit the saturation of the core with paraffin, as the cable could be taken direct from an oven and passed through the presses without any danger of its taking up moisture.

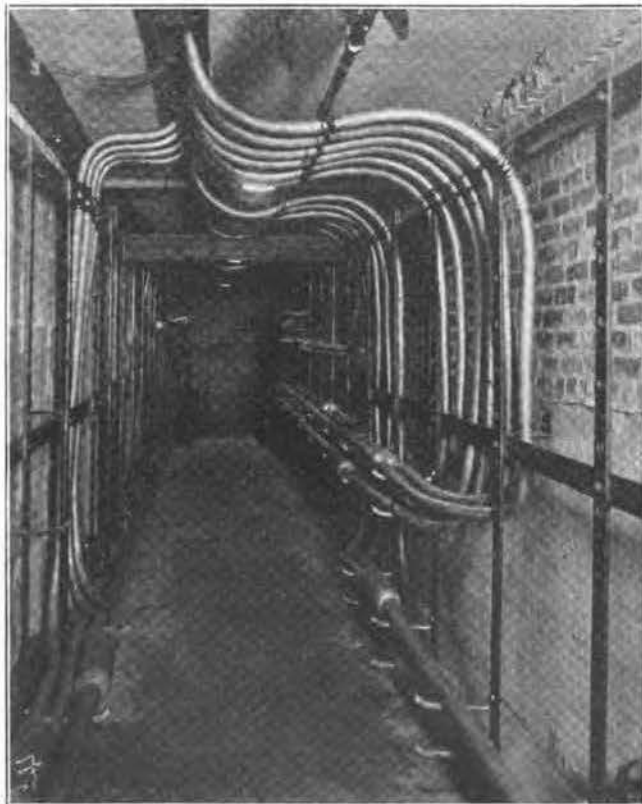
Reel Record Breakers.

This is an age of record breaking. We have record breaking buildings, each new one exceeding older ones in height; there are new ocean steamships breaking size and time records, and there have been new world's records made in athletic contests. The Western Electric Company announces that it recently broke two of its own records in submarine cable manufacture within six months of each other.

In February of this year what was then the largest reel of armored submarine cable ever manufactured was shipped from the Hawthorne works. This was a thirty-seven-pair, No. 13 gauge armored cable containing approximately eighty miles of copper conductor and forming a continuous cable 5,500 feet long. The weight of cable, reel and blocking to hold it on the flat car was thirty-eight tons. The reel heads were nine feet in diameter and nine feet apart. The cable was laid in Galveston Bay, Texas, connecting the lines of the Western Union Telegraph Company from Virginia Point to Galveston Island.

That was an achievement; but a greater one followed six months later when the Western Electric shipped to the Cumberland Telephone and Telegraph Company the largest reel of duplex armored submarine cable ever turned out at the Hawthorne works. The cable contained twenty-six pairs of No. 13 gauge copper conductor made up into a cable 4,500 feet long. To manufacture the cable there were required over 1,000 pounds of paper, 15,000 pounds of lead, 47,000 pounds of wire and 7,500 pounds of miscellaneous material. The gross weight of the reel with its blocking was fifty-six tons, or over eighteen tons more than the first one described.

The cable has been laid across the Mississippi below Vicksburg, Miss., connecting the toll lines between that city and Shreveport.



CABLE VAULT, NEW BELMONT EXCHANGE, CHICAGO.

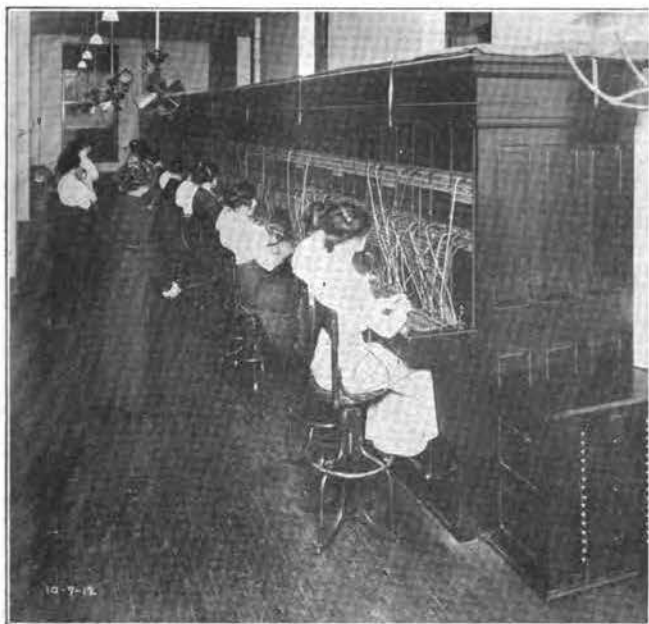
Reinforced Cement and Concrete Poles for Overhead Electric Lines

By ALFRED STILL. Reprinted from the Electrical World

There is much to be said in favor of the wood pole when the right kind of timber, properly seasoned and treated, is used; but apart from the general unsightliness of wood poles in urban districts, their life is uncertain and always comparatively short. In Switzerland the experiment has been tried of covering the ordinary wood pole with concrete mortar about one inch thick. The strength and especially the life are greatly increased thereby, as the decay which so frequently occurs at ground level will be largely, if not entirely, prevented; but it is doubtful whether the system will in the long run prove satisfactory or economical. The ideal material to use for reinforcing concrete is undoubtedly steel or iron. Longitudinal rods or bars of iron can be placed exactly where re-

designed as to harmonize with its surroundings, and undoubtedly much might be done with concrete poles in our larger cities to mitigate the unsightly and inartistic effect of overhead lines until such time as it may be found possible or expedient to put all such wires underground. By making the interior of the poles hollow connections can readily be made between overhead wires and conductors in underground conduits, without any unsightly attachment to the outside of the pole.

While referring to the advantages of the cement pole it may be added that every pole is virtually a lightning rod, an advantage which it shares with the steel pole or tower. On lines where both timber and concrete poles have been used and where many wood poles



"A" SWITCHBOARD, NEW BELMONT EXCHANGE, CHICAGO.

quired to strengthen those parts of the pole section that will be in tension, and the concrete filling up the spaces between the reinforcing rods takes the place of all bracing and stiffening members of the ordinary steel structure in an almost perfect manner. It is probably at this time generally admitted that iron embedded in cement will last almost indefinitely without suffering any deterioration. The life of a concrete pole is in fact almost unlimited, a consideration which should not be overlooked when estimating the relative costs of different kinds of supporting structures. It requires no painting and practically no attention once it is erected. If any small cracks should at any time develop, they can readily be filled with cement.

An unlimited life is not necessarily an unmixed blessing; in the case of a badly or inharmoniously designed pole it might be considered a disadvantage. On the other hand, the concrete pole, with its inexpensive requirements in the matter of molds, can easily be so

have been shattered by lightning the concrete poles have rarely been struck.

The weight of concrete poles is necessarily considerable, and unless they are made on or near the site where they will be erected the cost of transportation would generally be prohibitive. Some data given by Mr. George Gibbs in a paper read before the American Society of Civil Engineers may be of interest. The concrete poles he refers to are erected on the Meadows division of the Pennsylvania Railroad, the average spacing being 120 feet. The total (over all) lengths varied between thirty-five feet and sixty-five feet. The specification called for poles to withstand a transverse loading of 6,000 pounds applied 6.5 feet below the top. The cross-section of the poles is a square with chamfered corners, the taper being one in 120. The weight of a thirty-five foot pole without fixtures was 5,300 pounds, while that of the sixty-five foot pole was 17,300 pounds. These weights are in excess of what would ordinarily be



MEN AND WOMEN WHO PULLED THE WIRES AT BELMONT CUT-OVER.

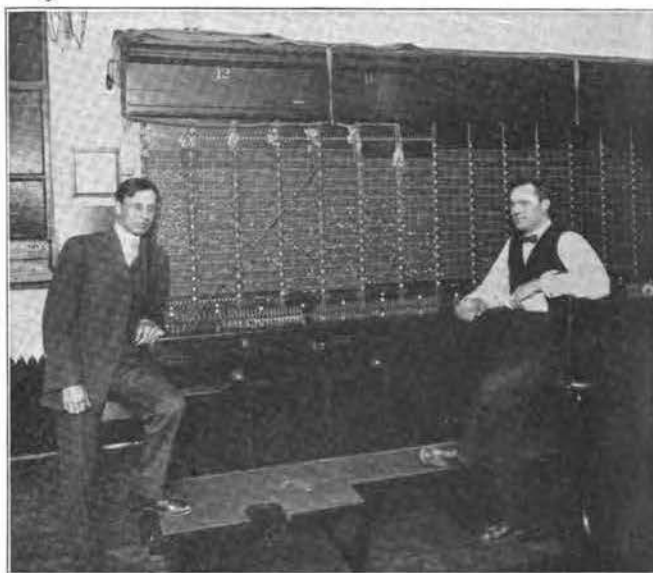
required because, the foundations being poor, the portion of the pole buried in the ground is abnormally long.

It is probable that the concrete poles of cross country transmission lines are usually made somewhat heavier than the strength requirements necessitate, because, being molded on the site, not always with the best and most convenient appliances, they are made solid throughout or through a large part of their length, whereas a hollow con-

struction would have been adopted had suitable collapsible cores been available.

Poles up to thirty-five feet in length are usually molded in a horizontal position, the forms being removed after three or four days. After a period of seasoning lasting from two to three weeks they are erected in the same manner as wood poles.

Poles longer than thirty-five feet are best molded in a vertical position; in



HOSPITAL POSITION OF THE BELMONT "B" BOARD.

A. P. Hyatt, equipment superintendent, and Ed. Breen, equipment foreman. The picture was taken just before the cut-over and shows Mr. Hyatt's method of cabling and wiring to facilitate the transfer.

fact, it is possible that this method may be found advantageous even in the case of shorter poles. The forms are set up immediately over the hole previously prepared for the pole base. They are set truly vertical and temporarily guyed, the reinforcing inside the form being held together and in position by whatever means of tying or bracing may be adopted. Sometimes iron wire is used, but more uniform results are obtained by using specially designed iron distance pieces with the required spacing between them. The concrete is raised to the top of the mold by any suitable and economic means (preferably direct from the concrete mixer by an arrangement equivalent to the ordinary grain elevator) and is dropped in. By this means the hole in the ground is entirely filled with concrete. No tamping is required, a firm hold being obtained, since the ground immediately surrounding the concrete base has not been disturbed.

The best quality of crushed stone and sand should be used, the usual proportions being: cement, one part; sand, two parts; crushed stone, three or four parts, not too large to pass through a three-quarter inch screen. When gravel is used the mixture may be one part of Portland cement to five parts of gravel, provided that the latter is graded, including sand, and with the largest pieces of a size to pass through a three-quarter inch screen.

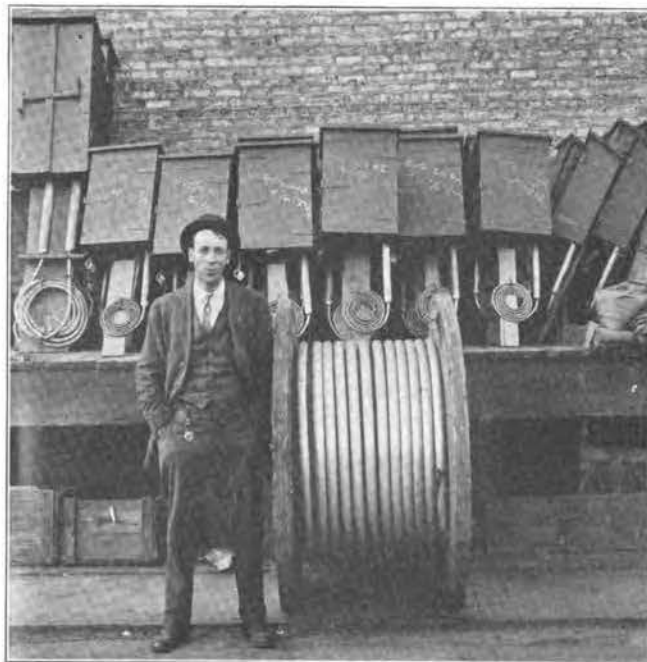
The cost of concrete poles does not compare unfavorably with that of other types of poles. The manufacturing cost of a thirty-five foot pole may be as low as \$8.50, but \$9.50 would be a safer figure to allow for estimating purposes. A forty foot pole might cost from \$15 to \$20, while for a fifty-foot pole containing about fifty cubic feet of concrete from \$25 to \$30 should be allowed; but the cost will depend much on local conditions and the method of manufacture. An increased initial expenditure on convenient and economic forms and suitable manufacturing plant will usually lead to a reduction of total cost.

When designing a concrete pole to withstand a definite maximum horizontal load applied near the top, the pole is treated as a beam fixed at one end and loaded at the other. The calculations are very simple if certain assumptions are made, these being as follows:

- (1) Every plane section remains a plane section after bending.
- (2) The tension is taken by the reinforcing rods.
- (3) The concrete adheres perfectly to the steel rods.
- (4) The modulus of elasticity of concrete is constant within the usual limits of stress.

The ultimate crushing stress of the concrete may be taken at about 2,200 pounds per square inch. The reinforcing bars should be covered with concrete to a depth of not less than one inch. The effect of keeping the reinforcing bars under tension while the concrete is poured in the mold and until it has hardened sufficiently to support the strain itself has been tried and found to improve the performance of the poles, but it is doubtful whether the extra apparatus and labor required are justifiable on economic grounds. When subjected to excessive load a concrete pole will generally yield by the crushing of the material in the base near ground level, but unless it is pulled out of its foundations, it will not fall to the ground.

The comparative rigidity of concrete poles cannot be said to be a point in their favor, as the flexibility and elasticity of wood poles and some forms of steel structures are features of undoubted advantage under certain conditions. On the other hand, the degree of deflection of concrete poles before breaking is remarkable. The elastic limit is variable, and no exact figure can be given for the elastic modulus of



FOREMAN RADER AT BELMONT CUT-OVER.

Backed by some of the material with which he made the successful cut-over possible.

cement concrete; but for a 1:2:4 mixture 3,000,000 may be taken as a good average figure for approximate calculations. For cinder concrete this coefficient may be as low as 900,000.

Some tests made on thirty-foot concrete poles gave deflections of from three inches to four inches at a point near the top of pole, when submitted to a test load equal to about double the maximum working load. Another series of tests made recently in England on some forty-four foot poles of hollow section, seventeen inches square at the base and eight inches square at the top (inside dimensions thirteen inches and four inches respectively), with loads applied 38.5 feet above ground level, gave a deflection of sixty-six inches under a horizontal load of 10,500 pounds, and the permanent set on removal of load was twenty-one inches. The pole did not fall completely until the deflection was seventy-eight inches.

As examples of concrete pole lines the transmission line of the Northern Illinois Light and Traction Company of Marseilles, Ill., and the forty-two mile, 23,000-volt line of the Empresa Luz e Força da Ribeirão Preto, Brazil, may be mentioned. The Northern Illinois company transmits three-phase energy at some 30,000 volts to 33,000 volts. Most of the poles used by it are about thirty feet high, spaced from 125 feet to 132 feet apart. The section is square, with six-inch sides at the top of the pole and nine inches at the base. The reinforcing consists of six one-half inch square steel bars through the entire length of the pole. Many of the concrete poles on this line have now been in position over four years, and they have given entire satisfaction.

In the matter of supporting distributing lines in cities it may be stated that upward of 1,000 concrete poles have been erected for this purpose in Oklahoma City during the last four years. These poles are mostly thirty-five feet high, of hexagonal section, seven inches wide at top and sixteen inches at the base. They are hollow, with walls about two and three-quarter inches thick, and they weigh 2,000 pounds each.

"Rube" Sold Via Long Distance.

The following from McClure's tells how the negotiations involving "Rube" Marquard, star pitcher of the New York Giants, who recently made a record of nineteen consecutive victories, were conducted over the long-distance telephone for the purchase of this great player.

To the private office of an Indianapolis baseball owner there came one day a long-distance telephone call. "This is John T. Brush in New York," a voice said. "I'll give you five thousand dollars for Marquard."

The Indianapolis man laughed. "Nothing doing," he answered.

"I'll give you six thousand," said the owner of the famous New York "Giants."

"You're away down at the bottom," the Indiana voice told him. "Your offer is absurd."

"Seven thousand, then. I'll give you seven thousand in cash!"

But only a mocking laugh traveled back to New York over the copper.

"I'll give you eight thousand," Mr. Brush was in action.

There was a moment's silence. Brush, in a Broadway hotel, heard snatches of a whispered conversation off in Indiana. He had been holding the wire an hour and forty minutes, and the toll of a dollar and a half a minute was still piling up; but he had forgotten it, or was indifferent. Then the Hoosier answer came back: "Too low!"

"Nine thousand!" said Brush promptly.

There was a longer pause this time. Indianapolis was wavering. But presently the owner there got back his nerve. "No, not enough."

"Ten thousand!"

"No; come again."

"I've gone the limit," said Brush; "I'll not pay another dollar!"

"Then good-bye," and the Indianapolis receiver clicked on the hook.

A few minutes later the telephone jangled sharply once more in the Indianapolis baseball office. "This is Brush in New York," a voice said. "I'll make my offer eleven thousand—and this is final. I want an answer quick—eleven thousand dollars in cash!"

A silence of ten seconds; then a cough and another silence. "I'll take you," said Indianapolis. "Done!" said Brush. "I'll mail a check in ten minutes."

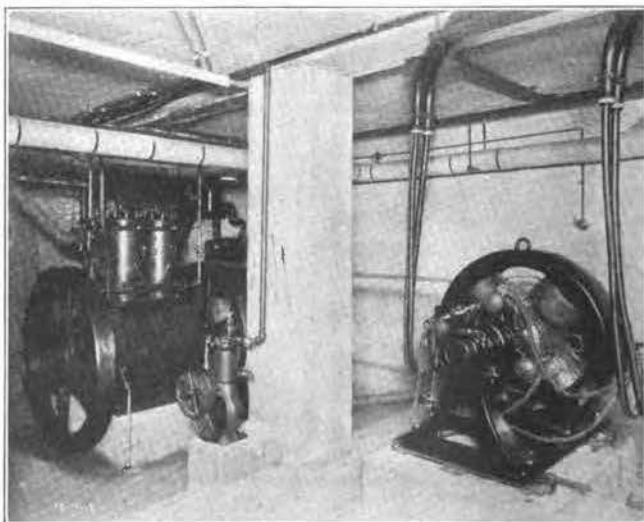
Perfectly Grammatical.

Although the little boy of a Philadelphia lawyer had talked several times through the telephone to his father he had never gone through the formalities necessary to call his parent up. The first time the little chap tried it, he took the receiver off the hook, as he had seen others do, placed his lips to the transmitter and said:

"Hello, Central! I want to speak to papa."

"Number, please?" came from Central.

"Singular," answered the lad, surprised at the question, but proud that his knowledge of the rudiments of grammar enabled him to respond.



POWER PLANT, NEW BELMONT EXCHANGE, CHICAGO.

INSTALLERS FINALLY WIN CHAMPIONSHIP

Plant Department League in Whirlwind Finish of Baseball Season.

The field day of the Chicago Plant Department Baseball League, after two postponements, was successfully pulled off on October 12th at the Giants' Park.

The best played and most exciting baseball game of the entire season's schedule was played by the Equipment and the North Installation nines, who had finished the regular season in a tie for first place. After a see-saw struggle, which brought the rival squads of rooters almost to blows, the installers won by a score of 3 to 2, making themselves the champions of the league.

When big Ed. Breen at first base for the Equipments, made an excusable miff of a poor throw, he was reminded of affairs at home by rousing cries for "Papa." Captain Eddie O'Grady of the winning team, covered third base, and all the rest of the neighborhood in fine style, accepting ten chances, and held his team together in its uphill fight.

The battery work of both teams was excellent. Hits were few and stolen bases rare. The best stick work was done by McMahon of the Equipments, whose two singles were timely. The score:

EQUIPMENT.

| | A. | B. | R. | H. | P.O. | A. | E. |
|-----------------------|----|----|----|----|------|----|----|
| D. McIntyre, 2b..... | 4 | 1 | 1 | 2 | 2 | 1 | |
| E. McMahon, c..... | 4 | 1 | 2 | 10 | 1 | 0 | |
| B. Knester, lf..... | 4 | 0 | 1 | 1 | 0 | 0 | |
| D. Danielson, p..... | 4 | 0 | 1 | 6 | 0 | 0 | |
| F. Arndt, ss..... | 4 | 1 | 1 | 12 | 1 | 1 | |
| B. Danielson, 3b..... | 4 | 0 | 1 | 1 | 1 | 0 | |
| E. Breen, 1b..... | 3 | 0 | 0 | 5 | 0 | 2 | |
| B. Byloff, rf..... | 2 | 0 | 1 | 0 | 0 | 0 | |
| S. Berg, cf..... | 4 | 0 | 1 | 2 | 0 | 1 | |
| E. Taylor, 1b..... | 2 | 0 | 0 | 1 | 0 | 0 | |
| L. Bolke..... | 1 | 0 | 0 | 0 | 0 | 0 | |
| | 33 | 2 | 9 | 24 | 5 | 4 | |

*Batted for Byloff in seventh.

**Batted for Brown in ninth.

INSTALLATION.

| | A. | B. | R. | H. | P.O. | A. | E. |
|------------------------|----|----|----|----|------|----|----|
| E. O'Grady, 3b..... | 4 | 0 | 1 | 5 | 5 | 1 | |
| O. Griffin, 2b..... | 4 | 0 | 1 | 0 | 1 | 0 | |
| C. Schuler, 1b..... | 4 | 0 | 1 | 13 | 1 | 0 | |
| N. Pierre, lf..... | 4 | 0 | 1 | 3 | 0 | 0 | |
| W. Kerwin, p..... | 3 | 1 | 1 | 0 | 3 | 0 | |
| F. Wisniewski, ss..... | 3 | 1 | 1 | 0 | 2 | 0 | |
| J. Lindholm, cf..... | 4 | 1 | 1 | 2 | 0 | 1 | |
| E. Hiller, rf..... | 4 | 0 | 0 | 0 | 0 | 0 | |
| H. Dietz, c..... | 3 | 0 | 0 | 5 | 1 | 0 | |
| | 33 | 2 | 9 | 27 | 16 | 3 | |

| Equipment— | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| Runs..... | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Hits..... | 2 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 1 |
| Installation— | | | | | | | | | |
| Runs..... | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Hits..... | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 7 |
| Three-base hit—B. Byloff. | | | | | | | | | |
| Double play—W. Kerwin. | | | | | | | | | |
| O'Grady to Schuler, D. Danielson to McIntyre to Breen. Struck out—By D. Danielson, 10; by Kerwin, 4. Wild pitch—W. Kerwin. Time—1:45. Umpire—"Gyp the Blood." | | | | | | | | | |

The field trials were cut short by darkness, after four events had been concluded. The distance throw produced some very good performers. Fast time in the sprint was out of the question on the turf course. The results:

LONG DISTANCE THROW.

E. Taylor, E. Hiller, A. Hauske, H. L. Fisher, H. Eldridge, G. C. Bailing, O. R. Benson.

Won by H. Eldridge; second, G. C. Bailing. Distance, 313 ft. 6 ins.

100-YARD DASH.

O. R. Benson, O. Shaw, C. B. Dick, W. Fimple, A. J. Anderson.

Won by O. R. Benson; second, O. Shaw. Time, 11 2/5 seconds.

CIRCLING THE BASES.

E. Herder, E. McMahon, O. R. Benson, N. Pierre, A. J. Anderson, O. Shaw, Gertes.

Won by O. Shaw; second, N. Pierre. Time, 16 seconds.



COMMERCIAL LEAGUE TROPHY.

The ceremony of presenting this cup to Manager Harry Majors of the Western Electric, took place on the night of October 10th at a small dinner at the Boston Oyster House. Mr. Shannon of Moore and Evans first presented the cup to President Carl Kempf in a speech full of compliments to the sportsmanship and high standing of the membership. The president thereupon delivered the emblem to the representative of the winners, who responded modestly and with several references to the sharp competition of the Chicago Telephone team. The party then adjourned to a box at "The Winsome Widow," where, during the intermissions they fought over the past season's games and planned to strengthen the league for next year.

The Commercial Base Ball and Athletic League of Chicago was organized in 1903 and now completes its tenth season. The Chicago Telephone Company was one of the charter members and won the cup four years ago, since which time the newly admitted Western Electric nine has won for three seasons straight, with the Chicago Telephone Company in second place each time.

CATCHERS THROWING FOR

ACCURACY.

F. Arndt, A. L. Blake, H. Eldredge, H. Dietz, D. Stanley, O. Shaw. Won by D. Stanley; second, F. Arndt. This event resulted in a tie between Stanley and Arndt, as each hit the bull's-eye once in three throws, while nobody else could hit the target. Stanley won the throw-off with a center shot.

The league deserves great credit for carrying out its full season's schedule and for the persistence with which it brought its final program to a satisfactory conclusion, in spite of bad weather and rival attractions, which would have excused less ambitious officers in cancelling the final program. The outlook is encouraging for a bigger and more enthusiastic season in 1913.

Benson's Total Highest.

In reporting the track meet between the Western Electric Company and the Chicago Telephone Company last month, we did not do justice to the work of Captain Oliver Benson. This versatile hero won first in the running broad and standing broad jumps, second in the shotput and the ninety-yard low hurdles and third in the running high jump, a total of seventeen points, the best individual showing on either side in the entire meet.

Equations.

Mathematical equation of human attributes as determined by success or failure in any line of human endeavor.

Life + Intelligence = Thought.

Self Effort + Self Reliance + Self Denial = Proficiency.

Proficiency + Industry + Loyalty = Efficiency.

Efficiency + Economy + Honesty = Success.

Ignorance + Indolence = Incompetency.

Selfishness + Disloyalty = Dishonesty.

Dishonesty + Incompetency = Failure.

—M. J. Carney.

IT'S EXIT BASEBALL AND ENTER BOWLING

Bell Telephone League at Chicago Starts with Bright Prospects.

STANDING OF THE TEAMS

October 24, 1912.

| Team. | Won. | Lost. | Pct. | Av. |
|-------------------|------|-------|------|-----|
| Commercial..... | 12 | 3 | .800 | 832 |
| Maintenance..... | 10 | 5 | .666 | 840 |
| Installation..... | 10 | 5 | .666 | 837 |
| Suburban..... | 8 | 7 | .533 | 819 |
| Traffic..... | 8 | 7 | .533 | 797 |
| Accountants..... | 8 | 7 | .533 | 789 |
| Engineers..... | 7 | 8 | .466 | 821 |
| Revenue..... | 6 | 9 | .400 | 805 |
| A. T. & T..... | 4 | 11 | .266 | 740 |
| Inspection..... | 2 | 13 | .133 | 761 |

With the first nip of the autumn air, interest revives in indoor sports. Bowling, from time immemorial, or thereabouts, has been the winter recreation of the telephone workers. This year promises to show more interest than ever in the great telephone game.

The Bell Telephone Bowling League of Chicago, including employees in the general, state, division and local offices, has been reorganized for the season, with some changes in the lineup of teams. The Accountants, Engineers and Inspection teams take the places of the Generals, Disbursements and Collections teams of last season. Officers, committee chairmen and captains for the season were chosen as follows:

Officers: William J. Maiden, president; J. H. Riddell, vice president; C. W. Bacon, secretary; M. P. Flynn, treasurer.

Committee Chairmen: Alley, A. G. Kingman; banquet, W. E. Conrad; by-laws and rules, J. H. Riddell; entertainment, M. D. Atwater; prize, H. H. Henry; schedule, A. S. R. Smith.

Team Captains: Engineers, A. G. Kingman; Maintenance, F. Heimbach; Accountants, G. L. Adkins; Installation, J. H. Riddell; Revenue, H. E. Love; Commercial, M. P. Flynn; Traffic, A. S. R. Smith; Inspection, B. Van Woert; Suburbans, W. B. Kingsbury; A. T. and T., R. J. Lillis.

The bowling started September 26th and the schedule calls for eighty-one games, three games each, Thursday night at Bensinger's alley, 29 West Randolph Street.

An intermission of two weeks, between the November 28th and December 19th games is allowed for the city bowling tournament, in which a number of telephone bowlers will doubtless enter.

Engineers Form League.

The Engineers' Bowling League, composed of employees of the General and State Engineering Departments of the Chicago Telephone Company, rolled its second series of games on the Bensinger Randolph Alleys, Thursday evening, October 17th.

The league was organized primarily for purposes of good fellowship, but incidentally will develop new material to fill the ranks of the "Big League" during the 1913-1914 season, if not this year.

A number of prizes have been arranged for and this has served to increase the spirit of friendly rivalry between the various teams and individuals.

Four teams participate in the games each Thursday evening, from 6 to 9 p. m.

The Teams.

Centrals—W. E. Thomas, Captain. Facilities—J. B. Ebert, Captain. Drafting—A. G. Winsworth, Captain. Trunks—J. J. Novak, Captain.

The Submarine Signal

There is a method of signaling in which the telephone has an important part, but which is not like ordinary telephony, either with or without wires. It is the Submarine Signal. In this system the sound of a bell is carried through the water to telephone apparatus in the station, usually a ship, which is to receive it.

Sound ordinarily comes to the ear through the air, but all sorts of bodies conduct sound, solids and liquids generally much better than air. The expression, "He has his ear to the ground," comes from the habit of hunters and savages of listening with their ears near the earth to discover the presence of game or an enemy. The submarine signal takes advantage of the transmission of sound through water.

Light signals are useless in cloudy or foggy weather, the very times when they are needed. Bells and whistles are not much better. Not only in storms or wind, but often on quiet, clear days, they are audible for only short distances. This is due to the reflection of the sound from layers of air of different densities. A mountain river which can be heard for a considerable distance across alternate strips of timber and sand at night, when the temperature and density of the air are uniform, will become inaudible soon after sunrise, when the air over the sand is hotter than over the timber. Under the surface of the water, however, it is still and there are none of those layers of unequal density, and sounds sent and received under water are much more reliable than those sent through the air.

The sending apparatus is a bell which is struck under water. On small boats the bells are struck by hand, while on land this is done pneumatically or electrically. To receive the signals ships are equipped with two special carbon transmitters. These transmitters are water-tight and are hung in tanks of sea water, the outer steel armor of the ship forming one wall of the tanks. They are placed one on each side of the vessel, near the prow and several feet below the water line. The transmitters are connected to receivers in the pilot house. When a submarine bell is sounded in the neighborhood of a vessel so equipped the sound is picked up by the transmitters and heard by an operator in the pilot house. If the source of the sound is well astern it will be heard very faintly, if at all. If on one side it will be much louder from the transmitter on that side of the ship. If directly ahead it will be distinct and equally loud from both sides. The direction of the bell can thus be found very easily.

Submarine signals can be heard for distances of fifteen miles. This system is a very useful adjunct to the wireless telegraph, as it is much cheaper to install and simpler to operate. The fact that the direction from which a signal comes can be found so easily is also very important. Dangerous points equipped with submarine bells rung automatically will thus warn vessels many miles off.

One interesting application of the submarine signal is on fishing fleets. A large schooner will go to sea with a number of small fishing boats. Often a severe storm will come up and many of the little boats will be in danger. If they have submarine bells and the schooner the receiving apparatus it can pick them up.

Many of the most important vessels on the Atlantic Ocean and the Great Lakes are equipped with submarine signal apparatus.

CHICAGO TO INVITE PIONEERS' MEETING

Telephone Association May Be Asked
To Come West Next
Year.

Tentative plans have been adopted for the second annual reunion of the Telephone Pioneers of America, which will be held at the Hotel Astor in New York, November 14th and 15th.

The first day will be given up to a general business meeting in the morning, with addresses by U. N. Bethell, Thomas A. Watson and others in the afternoon. In the evening a reception will be given the Pioneers by the New York Telephone Society.

The second day will be taken up with an automobile ride of considerable extent, with lunch and festivities at a prominent club in the suburbs, returning in time for the banquet at 7:30 p. m.

It is expected that an invitation will be given the Pioneers to hold their 1913 meeting in Chicago. Reunions will have been held in Boston and New York, and the next logical point is Chicago. A number of members from the central states will attend.

As rapidly as the work of engraving can be done each member will receive a handsome certificate of membership, a facsimile of which appears on this page. William J. Malden, of Chicago, who is corresponding secretary of the section composed of the states of Illinois, Indiana, Ohio, Michigan, Wisconsin, Iowa and Minnesota, is anxious that all persons who are eligible to membership notify him in time to get their applications in before the reunion. All persons of good character who were engaged in the telephone industry in any capacity beginning prior to twenty-one years ago and were so engaged continuously for five years are eligible. The following is a list of members in the Central West:

ILLINOIS.

Aurora—H. Welch.
Belleville—E. A. Woelk.
Belvidere—F. W. Plane.
Bloomington—Fred Beckman, T. P. Ryan.

Chicago—Miss Sue Hoffman.
Chicago—W. R. Abbott, F. A. Albert, A. P. Allen, E. H. Banger, M. L. Barton, W. E. Bell, Miss H. M. M. Binnmore, S. Bowsher, W. J. Boyd, M. J. Carney, R. Cline, F. B. Cook, W. Donaldson, E. G. Drew, G. Duffy, A. G. Francis, O. J. Freeman, T. E. Freeman, Miss E. A. Hamilton, A. D. Hawk, H. F. Hill, O. J. Holbrook, R. L. Holden, E. S. Holmes, A. P. Hyatt, Mrs. M. M. Hyatt, E. E. Judson, J. A. Kennedy, J. C. Kenny, S. J. Larned, F. E. Leonard, R. A. Leonard, H. E. Loveday, H. H. Lovell, R. C. Luepke, W. G. Luscombe, W. J. Malden, Miss A. T. Masterson, Miss H. J. Masterson, A. J. McGee, C. L. McNaughton, Mrs. C. M. Moore, C. E. Mosley, H. A. Mott, J. J. O'Connell, E. Fellette, I. T. Perrett, C. C. Prince, Miss A. E. Raymond, J. H. Riddel, A. S. Sallor, A. S. R. Smith, T. Snelling, E. F. Snyder, J. O. Stockwell, B. E. Sunny, E. Wiley, J. R. Wiley.

Decatur—B. McMillin.
Galesburg—T. S. Brown, J. W. Hobbs, Morris—W. J. Bogardus.
Pontiac—L. G. England.
Quincy—J. E. Holligan.
Springfield—O. S. Morse, C. H. Rotter, Wm. Willhite, I. P. Bach.

INDIANA.

El. Wayne—E. L. Taylor.
Indianapolis—Miss M. Cooper, M. M. Kiefer, Miss J. M. Newman, J. C. Price, J. P. Spencer.
Peru—C. H. Brownell.
Richmond—W. M. Bailey, N. H. Hut-ton, A. D. Phillips.

MICHIGAN.

Adrian—C. H. Adler.
Ann Arbor—T. J. Keech.
Battle Creek—J. H. Lyons.
Benton Harbor—W. H. Hadour.
Charlevoix—G. W. Crouter.
Detroit—J. Beamer, W. J. Berry, J. L. Blood, C. L. Boyce, W. L. Burrows, W. E. Dawson, F. M. Delano, F. A. Forbes, C. E. Gardner, G. P. Holland, P. E. Hurson, W. A. Jackson, Estelle McGraw, Margaret Woods.
Grand Rapids—S. Morris, G. P. Platt,



MEMBERSHIP CERTIFICATE, TELEPHONE PIONEERS.

T. H. Wadland, C. E. Wilde.
Marquette—E. S. Baker.
Menominee—E. B. Cottrell.
Monroe—P. M. Godfrey.
Potoskey—J. M. Clifford.
Pontiac—J. J. McQuaid.
Romeo—J. D. McLeod.
Saginaw—C. C. Failing.
OHIO.
Akron—C. McClurg.
Chillicothe—N. G. Warth.
Cincinnati—W. G. Betty, V. Elstun, R. T. McComas, N. E. Westlake.
Cleveland—N. Anderson, A. H. Kirkwood, J. P. McGahan, C. H. North, E. E. Ranney, P. Yensen.
Columbus—J. H. Cline, W. S. Hays, I. S. Hoffman, J. E. Deavey, S. G. McMeen.
Cuyahoga Falls—Laura M. Hall.
Dayton—J. Goldshot, J. R. Payton, H. E. Allen.
East Liverpool—F. Swaney.

Marletta—C. Collins.
Mt. Vernon—R. N. Littton.
Newark—J. A. Mauman.
Salem—J. K. Stitt.
Springfield—R. B. Hoover.
Steubenville—H. T. Sapp.
Toledo—A. J. Mellen.
WISCONSIN.
Eau Claire—E. P. Gray, P. J. Skolaky, L. Zarbock.
Milwaukee—T. Berry, T. Boland, J. P. Brennan, O. H. Carter, P. P. Creed, G. S. Dunning, O. R. Heyden, W. H. Hyde.
Oshkosh—A. C. Gallagher.
Racine—B. A. Oliver.
MINNESOTA.
Minneapolis—E. B. Baker, J. W. Christie, T. J. Dwyer, B. L. Freedy, M. L. Leno, H. E. Thompson, A. W. Turner, C. P. Wainman.
St. Paul—S. B. Howarth, J. Macaulay, E. C. Short.

IOWA.

Burlington—S. T. Huebner, W. T. McGraw.
Des Moines—E. A. Clark, C. E. Hall, L. W. Hatch.

PREPAYMENT PLAN O. K.

Michigan Railroad Commission Finds
Rule Requiring Advance Rental
Reasonable.

Numerous kicks have been registered with the Chamber of Commerce of Jackson, Mich., relative to the rule made by the Michigan State Telephone Company requiring patrons of the company to make payment on their telephone rentals three months in advance. The Chamber of Commerce was asked to secure information as to the rights of the company's demands.

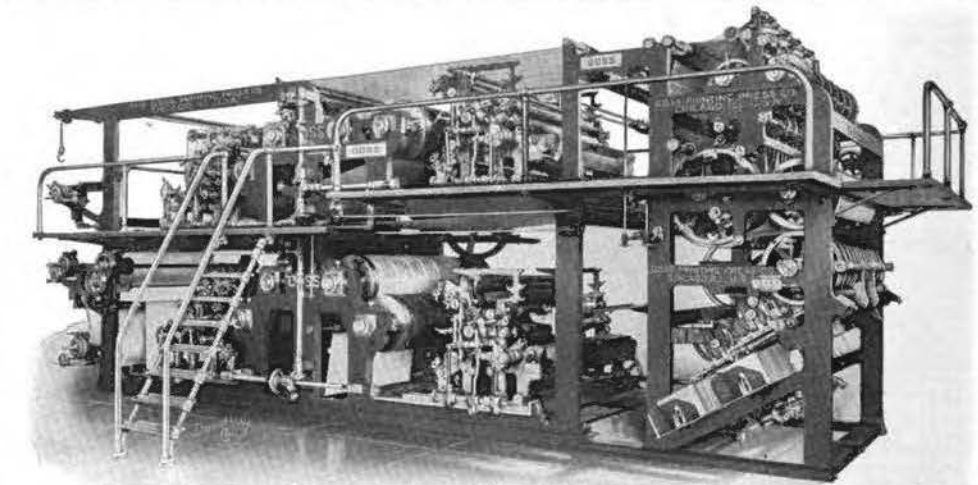
Secretary Flowers of the commerce board was visited by a number of citizens recently, and questioned regarding the order, and Mr. Flowers communicated with the Michigan Railroad Commission. The following is the reply to Secretary Flowers' inquiry:

"Mr. Norman Flowers, Jackson Chamber of Commerce, Jackson, Mich.:

"Dear Sir—Your favor of the 26th at hand. Numerous state supreme courts have held that the rule of a telephone company requiring payment for telephone rentals quarterly in advance was a reasonable regulation. This commission has recently followed these holdings in the decision of the matter of the Cass County Telephone Company. We may add, however, that parties are litigating this case in the courts, which is in effect an appeal from this commission. You will find, however, if you examine the authorities that a number of state courts have sustained the regulation as a reasonable rule. One court the writer recalls held that a six months' payment in advance was not unreasonable.

"Respectfully yours,

"MICHIGAN RAILROAD COMMISSION.
"By Lawton T. Hemans,
"Commissioner."



NEW PRESS FOR CHICAGO TELEPHONE DIRECTORY.

The above is an illustration of the new press just installed in a temporary location by the R. R. Donnelley & Sons Company, Chicago. This press is the largest press in the world with the exception of newspaper presses.

There are two complete sets of cylinders, printing from two rolls of paper 56 1/2 inches wide. The press delivers at the rate of 15,000 forty-eight page signatures per hour. One can appreciate the speed of this press when it is stated that if the product with a strip of paper would reach from New York to Denver.

While the thickness of the paper used in the Chicago Telephone Directory has been materially reduced and is now the lightest weight paper in any telephone directory in the world, the press consumes almost two carloads of paper every twenty-four hours. The paper after being printed runs into the folding part of the machine, where a flexible knife mounted in collecting cylinder makes a cross fold by means of a jaw and transferring the collection to a cylinder in which the jaw is mounted, the product is transferred to the delivery cylinder, where it is all into three sections of 48 pages each, carried down an incline table by means of trolleys, folded to page size and delivered in three separate packer boxes.

The press is driven by a direct geared motor above the floor. The motor is of 35 horsepower, 700 revolutions per minute. The height of the press is 10 feet, 2 1/2 inches; the length of the press is 26 feet, 8 inches; the weight 72 tons. After the completion of the October Directory this press will be moved to its permanent location at the Calumet works of the R. R. Donnelley & Sons Company, Calumet and Twenty-first streets. It is the intention of the printer to do all future telephone work at this new plant.

EXTRA SERVICE FOR MERCY HOSPITAL

Attempt on Colonel Roosevelt Causes
Heavy Increase in
Traffic.

The recent attempt on the life of Theodore Roosevelt caused a sudden and tremendous increase in telephone traffic over one private exchange in Chicago. This was at Mercy Hospital, where Mr. Roosevelt spent about a week following the shooting.

Almost as soon as the pistol was aimed at Mr. Roosevelt in Milwaukee on the night of October 15th the wires of the telephone and telegraph were carrying the news of the attempt on his life all over the world. This heavy use of the wires was continued until the injured man was borne away from Chicago and was safe at home in Oyster Bay.

The sudden influx of calls, not only from Chicago, but from all points of the country, which began as soon as the patient reached Mercy Hospital, would have proved a serious tax for the ordinary hospital equipment had not prompt attention been given to it by the Chicago Telephone Company. The Plant Department men made a record for rapid installation. Ten additional incoming and outgoing trunks were installed to the two-position switchboard, shown in the accompanying picture, and operators from the Private Branch Exchange Division and nearby exchanges were furnished to assist the regular operators in handling the numerous inquiries as to the condition of the sufferer. Additional terminals were also furnished for information where it could not be given out promptly at the switchboard. A direct connecting trunk was installed between the Progressive Party's headquarters, in the La Salle Hotel, and the Mercy Hospital switchboard.

L. A. Zielinski, private exchange supervisor, was in charge of the traffic work and furnishing of attendants. Those serving as operators on the regular floor were:

Miss M. Halloran, Sister Daniels as relief; Nurse Rouez as night operator; Lillian Houts, Oakland Office, as day operator; Margaret Gilligan, Wentworth Office, as evening operator; and Miss H. Finan, Calumet Office, as night operator.

Misses Weintz, McGrath and Tuttle, private exchange instructresses, acted as supervisors in charge of the work, day, evening and night.

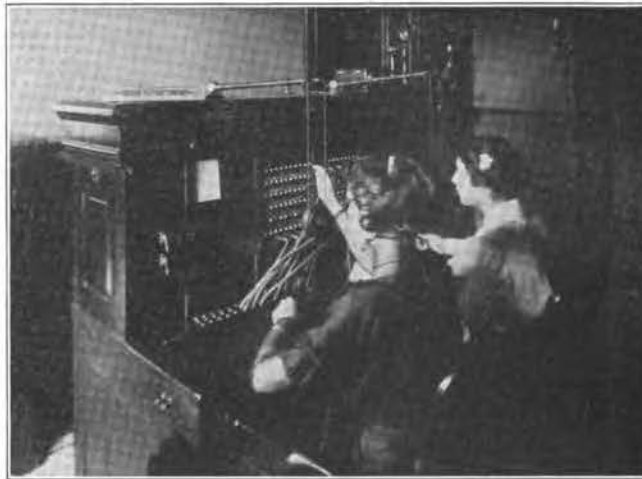
At the Calumet Exchange incoming calls kept the additional ten lines busy. Calumet 267 seemed to be on everyone's lips.

As usual, the operating force met the emergency with efficient service and the Chicago Telephone Company was highly commended for its efforts to give quick and adequate service.

Weds Ideal Operator.

Helen Lynch, a New York telephone operator, said to have been selected as a model for a telephone girl by Belasco when he staged "The Woman," and William Sandlass, a wealthy real estate man and hotel owner of Atlantic Highlands, were married recently. The marriage is the culmination of a two-year-old romance.

Sandlass, fifty years old and a millionaire, has been stopping at the Hotel Gerard, on Forty-fourth Street, for the last two years, where Miss Lynch was telephone operator.



SWITCHBOARD, MERCY HOSPITAL, CHICAGO.
Where Theodore Roosevelt was a patient for five days.

CARRIES EXTINGUISHER UP BURNING POLES

Lineman Has Strenuous Task Saving
Important Lead from
Destruction.

Edward Zwergel, the manager for the Michigan State Telephone Company at Niles, Mich., received a report at one o'clock in the morning of October 6th that the hotel in the resort known as River Bluff, three miles north of Niles, was on fire and was sure of destruction.

Mr. Zwergel realized the fact that the company has a large and important toll-line lead directly in front of this hotel, carrying circuits between Niles and Chicago, South Bend and Grand Rapids, South Bend and Kalamazoo, and Benton Harbor and Chicago, besides a large number of farm lines, the lead in all carrying five crossarms. He notified the wire chief, Carl Williams, and a lineman, Verne Zwergel, to prepare to go with him to the scene of the fire; and they started immediately in an automobile owned by Mr. Zwergel. There had been a cloudburst at Niles recently and two bridges were swept away, making it necessary for Mr. Zwergel to drive in a roundabout way for a distance of five miles in order to reach the fire, arriving there at 1:30 a. m.

The two fifty foot poles directly in front of the hotel had gotten badly burned, and to such an extent that the copper wire would have been annealed, making it necessary to replace it, had it not been for the work of the wire chief and lineman in extinguishing the fire on the poles. The flames were smothered to about half way up the poles by the use of pails of water and wet grain sacks. At the upper part of the poles, the fire was too strong for this method to be followed, and Lineman Zwergel climbed the poles with a fire extinguisher weighing 100 pounds strapped to his back, and extinguished the flames.

Every line was kept working with one exception and that was a farm line on the bottom of the pole, which was broken down. There was absolutely no interruption to the long-distance service.

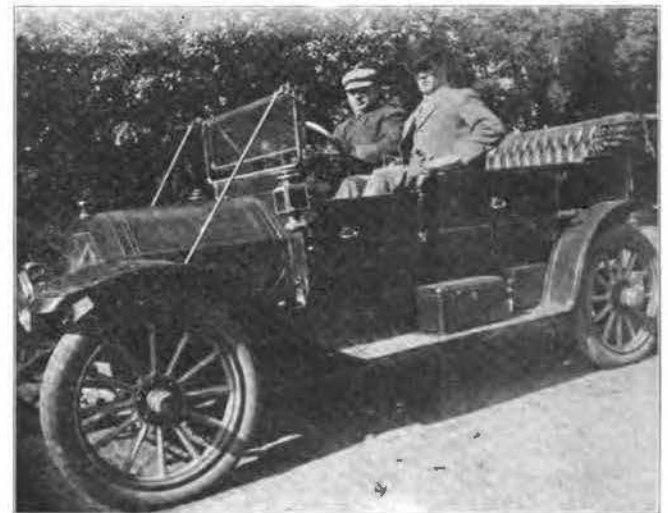
FINALLY SETTLE U. S. COMPANY'S AFFAIRS

Last Chapter in Wind-Up of Big
Independent Telephone
Exploitation.

The long legal warfare over the leases of Thomas W. Finucane's United States Independent Telephone Company has at last been settled through an agreement by which the defendants will pay over \$1,500,000, or about sixty-eight per cent. of the amount lost by investors when it went into bankruptcy in 1908 with \$2,048,172 in claims against it and no tangible assets. This money will be paid by the directors, who include Finucane himself, the promoter of the \$50,000,000 enterprise in 1905; George Eastman of Kodak fame; Hiram Sibley, Henry A. Strong, James S. Watson, the estates of Eugene Satterlee and Albert

C. Fenn, all of Rochester; William H. Page, Jr., the New York Metropolitan traction lawyer, and the estate of William F. Kolker of St. Louis. The attorneys for the investors will receive thirty-five per cent. of the amount involved, or about \$535,000. The settlement was brought about through the efforts of Court-of-Appeals Judge William E. Werner.

It was in 1905 that Thomas W. Finucane got hold of the Rochester Telephone Company—a score of subsidiary operating companies embracing Syracuse, Utica, Jamestown and many smaller places—and the Stromberg-Carlson Telephone Manufacturing plant, and merged them into a \$50,000,000 corporation called the United States Independent Telephone Company. With a great blare of trumpets this company started out in Rochester, and its investors included not only men of large wealth and many society women, but persons of slender means. Then Finucane absorbed the Mercantile Electric Company of New York City, which was generally supposed by the investors to have a franchise to lay its wires in the streets of New York City and get a share of the immense telephone business in the metropolitan district. As a matter of fact, the franchise was merely a burglar alarm permit, the Mercantile company being a concern promoted by some of the men formerly identified with the Equitable Life Assurance Society. With this burglar alarm permit the company was reorganized into the New York Independent Telephone Company, and its capital was also \$50,000,000. Then, seemingly to strengthen the first \$50,000,000 merger, the burglar alarm permit of the other \$50,000,000 company, composed of Finucane's private secretary and some of his intimate friends, was taken over and the securities unloaded on the public. A tremendous amount of water was injected and those on the inside advised all their patrons to buy at 80, as the stock was then quoted. Even servant girls and day laborers put their savings into the stock. Presently it started on its record-breaking slide to 13½. The common stock (mere voting trust certificates) started in at 55 and went dead at 3. Then the small investors woke up and finally got out an injunction against the corporation, which shortly went into bankruptcy.—New York World.



AUTOMOBILE WHICH SAVED TOLL LEAD NEAR NILES.
Manager Ed. Zwergel (driving) and Carl Williams, wire chief.

Five Bell Engineers

On the page opposite our title page we publish this month a group picture showing the five recently appointed engineers of the five states of the Central Group.

W. R. McGovern, engineer for the state of Illinois, is a native of Milwaukee and a graduate of Marquette University. He started in the telephone business in 1899 with the Erie system, which embraced the Wisconsin, Michigan, Northwestern, Southwestern and Cleveland companies. When the Construction Department of this system was abolished in 1901 he went with the Equipment Department of the Wisconsin Telephone Company at Milwaukee, running the gamut of traffic, maintenance and construction work, holding such positions as traffic inspector, equipment installer, line foreman, underground foreman, etc., finally working up to equipment engineer, construction engineer and chief engineer of the Wisconsin Telephone Company. His experience in these positions has included most of the work from making blue prints to the engineering and construction of the largest exchanges in Wisconsin, including a part of Milwaukee. When the Central Group was formed in 1911 Mr. McGovern was transferred to Chicago and appointed to the position of engineer of inventory and appraisals for the five companies. On August 1, 1912, he was appointed to the position of engineer for the state of Illinois, embracing all the property of the Chicago Telephone Company, city and suburban, and the Central Union Telephone Company in Illinois. Mr. McGovern is an associate member of the American Institute of Electrical Engineers.

Allard Smith, engineer for the state of Ohio, was born in Eau Claire, Wis., in 1876. He took the electrical engineering course at the University of Wisconsin, graduating in 1898. That year he entered the telephone business by accident. He had started for Schenectady, N. Y., to take the apprentice course in the General Electric Shops. While in Chicago he saw an advertisement of the Chicago Telephone Company asking for draughtsmen. He applied and was hired. He remained with the Chicago company fourteen years, holding successively the positions of installer, switchboard tester, inspector, equipment engineer, chief clerk to general superintendent, suburban plant engineer, superintendent of construction for suburban division, and outside plant engineer for the Chicago company and later for the five companies of the Central Group. He took his present position in Columbus July 15, 1912. Mr. Smith is a member of the

American Institute of Electrical Engineers, the City Club of Chicago, and the Edgewater Golf Club. Since moving to Columbus he has joined the Ohio Club and the Arlington Golf Club. He is a Mason and a member of the Delta Upsilon fraternity.

B. D. Wilber, engineer for the state of Indiana, is a native of Michigan. He graduated from the University of Michigan in 1899 and in July of the same year took a position with the Western Electric Company as cable tester. In 1900 he went into the service of the Central Union Telephone Company as cable tester. He was located in the Illinois Division, where he continued until 1905, when he took a place in the Engineering Department of the Central Union at Indianapolis. In January, 1911, he was appointed plant engineer for Indiana and in June, 1911, facilities engineer. He took his present position August 1, 1912. Mr. Wilber is an enthusiastic summer and winter golfer, and is a member of the Highland Golf Club of Indianapolis.

W. D. Hobbins, engineer of the Wisconsin Telephone Company, was born and reared at De Pere, Wis. He first entered the service of the Wisconsin Telephone Company at De Pere in September, 1890, as night operator and repairman, and continued in this position for three years, when he accepted a position as lineman with the Wisconsin Electric Construction Company, which was constructing a new electric light and power plant for the De Pere Electric Light and Power Company. He remained with this company for two years until November, 1895, when he re-entered the service of the Construction Department of the Wisconsin Telephone Company as lineman and was rapidly promoted to the positions of assistant construction foreman and construction foreman until the year 1908, when he was transferred to the engineering department as aerial construction engineer. At the time the reorganization of the working forces took place Mr. Hobbins was made facilities engineer for the Wisconsin division, reporting to the plant superintendent. He was appointed engineer when the operating headquarters were re-established in Milwaukee this year.

Carlyle Kittredge, engineer of the Michigan State Telephone Company, was born in Mason, Mich., in 1874. He graduated from the University of Michigan in 1897. His first telephone work began with the Central Union Telephone Company in 1899 and two years later he went back to Michigan and took service with the old Michigan Telephone Company. After a short service with this company he returned to the Central Union, going into the Engineering Department at Indianapolis, where he finally became assistant engineer on outside plant work. When

THE BELIEF IN LIMITATIONS, the conviction that we cannot rise out of our environment, that we are the victims of circumstances is responsible for untold tragic failures, and a large part of the poverty and wretchedness of mankind. Is there any science by which a man can when he thinks he can't? Is there any way by which a man can succeed while he thinks, talks and lives a failure? Until you erase "fate" and "can't" and "doubt" from your vocabulary you can not rise.

the Central Union Company adopted the functional plan of organization Mr. Kittredge was made plant engineer for Ohio. He held this position until he was transferred to Michigan as facilities engineer in 1911. This year he was appointed engineer.

Chicago Trunk Extensions in 1912.

Several months ago THE BELL TELEPHONE NEWS published a rather elaborate article by B. V. Hill, showing the extent and value of trunk cable extensions in Chicago in the year 1911. During the year 1912 the work of this nature has been rather greater than in 1911.

During the past summer 121,166 feet of 300-pair No. 19 gauge cable and 82,549 feet of 400-pair No. 22 gauge cable have been installed in the city. This is equivalent to 26,280 conductor miles of wire. The cost of these trunks alone was estimated at \$180,715, while the rearrangements of subscribers' cable, necessary for the completion of the trunk plan, cost nearly as much more.

In connection with trunk installations sixty-two 75-pair and eighteen 50-pair loading coil cases have been installed at a cost of \$72,173.

The Absorbing Final Game.

Mrs. G—, at Winnetka, Ill., was trying to get her husband at the Daily News office, Chicago, one day during the city championship series of ball games. The following conversation ensued:

Mrs. G—:—"Franklin 1."
P. B. X. Operator—"Franklin 1?"
Mrs. G—:—"Mr. G—, please."
Operator—"Two to one in favor of the Sox."

Mrs. G— got connection over again. The Winnetka operator also told the P. B. X. operator that party did not want the score.

Operator—"Franklin 1."
Mrs. G—:—"I wish to speak to Mr. G—."

Operator—"Two to one in favor of the Sox." Operator rang number again. Chicago operator also is on line trying to hold P. B. X. operator long enough to connect with right party.

Operator—"Franklin 1."
Mrs. G—:—"I want to be connected with Mr. G—."

Operator—"Two to one in favor of the Sox." (Disconnected.)

This was kept up until the eighth time, when with the united efforts of the Winnetka and Chicago operators and Mrs. G— the connection was finally established with Mr. G—.

Reduced Cable Rates.

The postmasters general of Great Britain and Canada have announced that at an early date reduced rates for cable messages will go into effect. The new rates will apply to all points in Great Britain and to those points in the United States and Canada at present within the twenty-five cent zone. They will not apply at present to continental Europe.

Petition Turned Down.

By unanimous vote the City Council of Tampa, Fla., recently rejected the proposition to establish a second telephone system in Tampa. The general sentiment of business people was against the establishment of duplication. The Board of Trade and Merchants' Association actively opposed the grant.

ONCE MORE FELIX AND FINK IMPROVE ON THEIR INSTRUCTIONS.





HINTS FOR OUR GIRLS

Keeping Well Through the Winter Months

Did you ever notice that you complain of colds and other ailments in the fall? You often attribute your ill feelings to the change in the weather.

Probably the most of these ill feelings ought to be attributed to the change you make in your way of living. In the summer you stay out of doors every moment you can spare from business; at night you have every available window open and the doors also. Suddenly there comes a cool night and you shiver, shut up the doors and, worst of all, shut your bedroom windows tight. Now it would be much better to put on more clothes than to give up the fresh air which has been so good for you in the summer. Don't shiver about the house, but put on enough clothes to be comfortable with a window open, and don't under any circumstances shut off the supply of outdoor air in your bedroom.

Hint I. Here is a very good test for you to use in discovering what the condition of the air is in your bedroom: When you get up in the morning, keep the doors and windows as they have been all night till you have dressed; then go immediately outdoors for several minutes. Come back into the closed room and see if the air is sweet and inviting. Very often you may be surprised to realize what you have been breathing all night without any apparent discomfort. The heavy sleep you have had may have been the opposite of refreshing; bad air often makes people sleepy, as you may have noticed in a large assembly when people wonder why they are so drowsy. But if you feel tired in the morning and wonder at it, when you have been so early to bed and slept so hard, just give the fresh air test to your room in the morning.

Hint II. A distinguished doctor in the city advises people to go to the open window just before retiring and take twenty deep breaths of the fresh air. It will be an air bath for your blood and will help insure restful sleep, and is a wonderful remedy for depression.

Hint III. Don't give up outdoor life. If you enjoyed strolling in the parks in the summer, put on enough wraps and take vigorous walks that will set your blood circulating. It will be to the body what the tides of the sea are to the stagnant pools on the shore. The accumulation of refuse and poisonous matter is cleansed and washed away by the incoming tide, and in a similar way the quickened circulation caused by the brisk exercise will make the fresh blood flow through the whole body, bringing the flush of health to the cheeks instead of the sallow color which is the indication of a torpid liver and poor circulation.

Hint IV. Don't be afraid of drafts. If you can avoid it, don't sit with the draft directly on the back of your neck, but do that rather than go without fresh air. Put on more clothes if necessary. At night, if you feel too much wind on your head, wear a boudoir cap.

Hint V. In summer you drank water freely because you were thirsty and because excessive heat made ex-

OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



"THE MESSAGE THROUGH THE STORM."

cessive perspiration, and nature called for the material to use in the process. Such elimination was good for you. Now that the thirst does not call for it, you drink less water. Try to drink as much as you did when you craved it, for water is the best help in keeping the body clean, inside as well as outside. If you don't like it, use it as a medicine; it is not nearly as bad as many doses which you take to repair damages which could have been avoided if you used plenty of nature's unlimited supply of air and water.

Hint VI. Treat yourself fairly. If you have frequent colds or sore throats, if you feel tired when you work, if you get cross and nervous, find out the cause and don't blame your work or the weather. It may be that more air and more water are the only things needed to make you vigorous and happy.

THE DIFFERENCE.

FOUL AIR

Overpowers the sturdiest.
Underwrites death.
Loosens your hold on life.

Annihilates health and happiness.
Reddens blood, quickens the step.
Reduces earning power.

WHILE
PURE AIR

Upholds resistance to disease.
Reddens blood, quickens the step.
Energizes body and mind.

Accentuates the worth of living.
Insures long life.
Routs pneumonia and tuberculosis.
KEEP THE WINDOWS OPEN.



POETRY IN THE DAY'S WORK.

On the October cover of the Telephone Review, published by the New York Telephone Company, is a beautiful picture, illustrating the following poem by Edith Livingstone Smith. It is called "The Message Through the Storm."

The lightning blazed, the garden, still as death.

Caught fragrance flashed on strings of slanting rain;

The blossoms smiled and held their gentle breath.

I watched them tremble through my window pane;

And then (oh wonder of the brain of man)

That captures this great force on singing wire!

I heard from miles away one voice I know.

And hearts blazed like my garden lilies' fire

Which far enchanted blooms have made to glow.

As only hearts that love and flowers can.

The picture as we have reproduced it on this page can do but scant justice to the original, for the beautiful blending of color is one of its best features. The flowers, indistinctly seen through the window, drenched in the pouring rain, give a touch of dull red which blends with the colors in the furnishings of the room and the young lady's dress.

The poem will appeal to our operators, for everyone is said to love a lover, though perhaps sometimes they do hold the line too long.

The picture and the verses may also serve to remind the operator of the part she plays in the affairs of life about her.

In the old days and in small exchanges the operator used to know the voice of almost every subscriber. She was able to accommodate this one and that one and she was appreciated and known personally by a great number of the subscribers. Now in the big exchanges of the cities, where thousands of people are served, operating has had to be so systematized that there is danger of it becoming merely mechanical. Sitting at the board and answering only in prescribed phrases, or in mere numbers, as at the B boards, the operator will have to rise to poetic imagination to realize that she is playing a big part in the lives of people whom she never sees—that she is bringing lovers together by "the message through the storm."

Most people take the telephone as a matter of course. It is to them merely a convenience and the

wonder of the brain of man That captures this great force on singing wire!

Never enters their mind. But there are people who see more than that, as this poem proves, and there are operators who feel pleasure in their work because they realize that swift and perfect service may mean life instead of death sometimes, and may bring satisfaction, and smooth out many tangles in the ordinary affairs of life.

It is so much easier to be happy and contented if we can mix a little poetry into life. You may not ever write a rhyme, but if you know you are sitting at the board every day to make life less complicated, to save from disaster, or to bring lovers together, you are doing the real work of a poet and can share in his joy, for "poets are all who love," and that means all who serve.

A TRAFFIC ACROSTIC

By E. C. LASKEY, Traffic Chief of Main, Cherry and West Exchanges, Detroit

All operators should keep themselves fully informed regarding the rules on the proper handling of the work.

Good team work results in prompt service. Slow answers are not satisfactory.

On every occasion be pleasant and polite.

Ordinary forms of politeness, as business, invites the same courtesy from the subscribers.

Do not delay answering a signal nor depend upon another operator to answer it for you.

On the Call Circuit be sure and wait your turn and give your number slowly and distinctly.

Put forth your best efforts in trying to make your service satisfactory. Endeavor to acquire accuracy and speed.

Remember that a pleasant voice when answering or reporting on a line makes the subscriber feel he is receiving attention.

An operator should be regular in attendance and report punctually. Talk directly into your transmitter in a low tone, using the rising inflection.

Observe your signals promptly and correctly, giving preference to the supervisory flashes.

Remember when dealing with the public that you are representing the company.



BELL TELEPHONE EXHIBIT AT WELFARE CONGRESS.
General view.

Welfare Exhibit of the Telephone Companies

Fifteenth International Congress on Hygiene and Demography at Washington

A distinguished company of people from all over the world met in Washington, in September, to discuss questions connected with the health and safety of men and women engaged in the various industries. This was the fifteenth congress of its kind, the last one convening in Berlin five years ago.

For the first time, the United States was honored by the congress meeting in this country, and efforts were made by our government to make it a success. President Taft opened the congress and was the honorary presiding officer. It was computed that twenty-nine foreign countries, twenty-six bureaus of the federal government, the governments of forty-four states, besides many American municipalities, universities and industrial institutions in America and other parts of the world, took part in the congress.

The American Telephone and Telegraph Company, with its associated companies, had two booths in which it exhibited pictures and models of some of the welfare features of the telephone work in all its departments.

R. W. Hicks of the American Telephone and Telegraph Company, New York, was appointed to collect the material for the telephone exhibit, and is to be congratulated on the particularly artistic arrangement of the booths. The color scheme was in soft browns and cream color. The pictures, having the sepia tint and framed in dark brown, looked very pleasing against the walls of brown burlap.

From so many companies all over the United States it was not an easy matter to decide what to show, as the wealth of material was so unlimited. Mr. Hicks' effort was to make the exhibition as comprehensive as possible and typical of all the companies.

Besides the pictures, models and safety appliances shown in the booths, an attractive booklet, called "Welfare Work in Behalf of Telephone Operators," was given out to visitors. The booklet opens with this statement:

"Over 50,000 young women are employed through the Bell system as telephone operators. The public knows the sound of their voices, but does not

know how they look, for it does not see them at their work. They make up an army of young girls exceptionally intelligent and refined, who are undoubtedly better sheltered and better cared for than any like number of industrial workers. Because they are so sheltered, the work appeals to many girls from good homes, who would shrink from a more unguarded contact with the business world. Every precaution is taken to protect these girls from undesirable companions, not by separation of the girls in different classes, but by keeping out of the employment girls whose influence would be undesirable. As a result of these various precautions, the army of telephone operators is made up of bright, competent, attractive girls, who are earnest and fine and who, as a whole, range considerably above the average young woman in business life."

One very attractive feature in the exhibit was a handsome vellum-covered volume of copies of the various magazines published by the different companies. In this collection, it is needless to say to our readers, the BELL TELEPHONE NEWS appeared to good advantage. One of the interesting exhibits was a collection of some of the faces which have been appearing recently in its pages—faces which proved, by the length of service with-

"MEN BEFORE DOLLARS."

National Conservation Congress Holds
Important Exhibition at
Indianapolis.

"Men before Dollars" is a motto heralded by word of mouth and print, but more clearly impressed upon the minds of the public by displays and exhibits of all descriptions. The National Conservation Congress recently held at Indianapolis emphasized as never before the great importance of saving and conserving human life and energy.

"Swat the fly", a BELL TELEPHONE NEWS watchword of long standing, was given especial attention by the Indiana Board of Health, as a preventive of the spread of disease, or, in other words, as a means of conserving our physical strength.

Safety appliances for machinery; the danger involved in using many of the much advertised patent medicines; pictures illustrating the danger of crossing or trespassing on railroad rights of way; the care and caution that should be taken when treading our busy thoroughfares; pictures exhibiting showing how far some of the great industries of the country had



OPERATORS ON MAIN EXCHANGE ROOF, CHICAGO.
Picture shown at National Welfare Exhibit.

out even a day's absence for years, that the telephone work is a healthful occupation.

Mrs. F. E. Dewhurst of the Chicago Telephone Company was appointed to get together the exhibit from the five states of the Central Group. She was cordially assisted by all the companies, but only a very few of the great number of pictures and exhibits from different departments could appear. The Chicago collection in itself would have made a fine exhibit. Among the interesting safety devices sent in by G. W. Cummings of the Plant Department was an anti asphyxiator, made in Chicago, which was of especial interest, eliciting correspondence in regard to its practicability and cost.

The exhibition from the telephone company was considered most attractive and instructive and at present is being displayed in Albany, N. Y., at the new State Education Building.

Explained.

"There is a young woman of humble parentage and moderate means who has a calling acquaintance with nearly all of the best families in town."

"How did she become so popular?"

"She secured a position in the central telephone office."

gone toward improving social conditions and providing comfortable quarters for their employees, and the like, all went towards bringing before the public's eyes the principles which the conservationists are advocating.

The Bell Telephone Companies many years ago began to realize the necessity and importance of providing adequate and comfortable quarters for their operating employees. They realized that during rest periods and at other leisure times the operators should be provided with rest rooms where they could fully relax, forget business for the time being, and enjoy in a social way under favorable surroundings and environments their fellow workers, thus putting their bodies and minds in a better condition for the work ahead of them. Beginning in a small way, the officials have seen fit to increase the facilities of this kind, never allowing expense to stand in the way of bettering conditions, until now the Bell Telephone Companies stand second to none in looking after the comfort of their employees.

The telephone companies' exhibit at the Conservation Congress fully brought out in picture form, together with explanatory comment, what we are doing along these lines, and the display typified what is being done by the Bell companies all over the country.



TEACHING HYGIENE TO STUDENT OPERATORS IN CHICAGO.
Photograph on exhibition at Welfare Congress.

EXCHANGE OF EXCHANGES

Traffic Office, Chicago:

Clerk: "Main 599."
 Voice: "Is this Haym. 599?"
 Clerk: "This is Main 599, whom do you wish to speak to?"
 Voice: "I was told to call Haym. 599."
 Clerk: "Please spell it."
 Voice: "H-A-Y-M."
 Clerk: "O, you want Haymarket. Please signal your operator."

Main, Chicago:

A gentleman calling Franklin got a Graceland number. He flashed the operator and said, "Say, operator, I asked for Franklin and you gave me Graceland Cemetery. If you could see me you wouldn't think I was a dead one."

A subscriber called a number and the operator, after ringing some time, said: "Your party does not answer." He responded plaintively: "O, ring dem again please, oburator. Eferybody is at home but me; I'm out."

A subscriber asked the operator to ring on his extension. In a minute he said: "Oh, operator, we never could be married with that ring. Can't you make a better one?"

Oakland Evening, Chicago:

An operator who was asked at the time of the Republican convention who was nominated, said, "Taft was nominated in the first round."

Douglas, Chicago:

Subscriber: "What is the name on 5120?"
 Operator: "Low, Jim."
 Subscriber: "Hello, there, but this isn't Jim. I want the name on 5120."

Oakland, Chicago:

Operator: "Just a moment, please, and I'll give you the busy signal."

Highland Park, Ill.:

Subscriber (Man): "Will you please tell me what Mr. Jones' number is?"
 Information operator: "219—."
 Subscriber: "I ain't no jay."

Subscriber (lady): "Did you ring my bell?"

Operator: "Excuse it please, there is no one on your line now."

Subscriber: "Well there should not be any one on my line now or any other time. I am paying for a single party line."

Akron, Ohio:

Where some of the "wrong number" calls come from:
 Operator: "Number please."
 Subscriber: "728."
 Operator (as per marking): "What ring on that line, please?"
 Subscriber: "Well, I want the Davis laundry."
 Operator: "That number is 278."
 Subscriber: "Well, all right."

Lowell, Ind.:

A subscriber, after trying repeatedly to get the milk dealer said, "Say Central, how much is milk a quart, and where do you suppose I could stop him, for I want some cream for lunch?"

Douglas, Chicago:

An admiring parishioner of a young divine in an Ohio town recently had a telephone installed in the clergyman's house. The good man was delighted with the convenience and used it immediately before going to church.

When the time came for him to announce the first hymn, he read the first lines with his usual impressiveness and concluded with:

"Let us all unite in hymn seven-o-three."

Main, Chicago:

Subscriber: "I want Mr. S— telephone."

Student: "What number, please?"

Subscriber: "I want Mr. S— number."

Student: "Have you referred to your dictionary?"

Milwaukee, Wis.:

"Will you please give me Mrs. — on Twentieth Avenue? She is a hand-painted lady."

This is what a South office information operator was asked. Without any inquiries she proceeded to find the number of the lady on that street who did hand painting and established the connection.

Hilda's New "Yob."

A Chicagoan who employs a Swedish maid overheard the following conversation the other day between her cook and the maid next door, also a Swede:

"How you are, Hilda?"
 "I well, I like my yob. We got creamed cellar, cemetery plumbing, elastic lights—and a hoosit."

"What's a 'hoosit,' Hilda?"

"Oh, a bell rings. You put a thing to your ear and say, 'Hello,' and some one says 'Hello,' and you say 'hoosit.'"

—British American.



ON TOP OF TWENTY-STORY CHICAGO HEADQUARTERS BUILDING.

OPERATORS NEARLY GET STUNG.

When Restless Swarm of Bees Attempts to Establish Hive in Switchboard Room.

Telephone service at Alton, Ill., was suspended for a few minutes about noon of October 14th. The girls are all willing to face flood and fire if need be, but they balked when a swarm of bees invaded the operating room of the Central Union exchange.

The screens are left out of the windows in the day time, and the bees, attracted by the buzz of the generator, came in through the open casements and attempted to find a new home at the back of the switchboard. The girls left even more quickly than the bees came in, but some of the men and a few very brave young ladies finally succeeded in fanning the insects out after a few minutes of quick work. Everything that would fan, from fly swatters to new fall hats was used to chase the bees out, and the windows have been kept down since in case more bees should appear.

A Beautiful Picture.

Environment has much to do with the forming of character, and next to our associates and the books we read, there is perhaps nothing that has greater influence for good in our lives, outside of nature, than beautiful pictures. It is not always possible to be out in the woods and fields, and when we can not have real nature to inspire us it is then we appreciate the opportunity of being where we can see it on canvas, as portrayed by some of our best artists.

In the heart of each individual there is an appreciation of the beautiful, and it was this keen appreciation which led a number of the Doan Central Office employees at Cleveland to ask that they be allowed to purchase a picture for their rest room with quite a sum of money accumulated by means of library fines. The traffic superintendent was so pleased with their suggestion that he authorized a duplication of the library fund, which made it possible for them to choose "The Last Sunrises" by H. Houben.

In studying the picture you feel it is the hour when all Nature will soon be at rest. The only sounds which break in upon the gentle stir of leaves and evening song of birds and insects is the occasional bleating of a lamb which has loitered behind the flock of sheep being driven homeward by their shepherd down the long lane edged with great trees. As the shadows of the surrounding woods steal across the lane, the last golden rays of the sun leave a glow over all. The artist is a Belgian and is at present making his home in Brussels. The original painting is owned in Brussels.

Subscriber Sees Point

The Grand Ledge (Mich.) collector is a self-possessed young woman who does not hesitate to use her wits if the money fails to come across in the ordinary way. "Good morning, Mr. Jones," she said the other day to a merchant in that neighborhood, "owing to our new regulations I have come today to collect for this quarterly rental." "Not much," said the merchant, "I haven't had this service yet, and there isn't a company or a person in the world that can collect a cent from me for anything before I have used it." "Oh, very well, Mr. Jones," said the collector, "if that's the case will you send up to my house five dollars worth of toilet soap? I'll pay you for it at the end of three or four years, after I have used it all up!" Mr. Jones saw the point immediately and coughed. Then he "coughed up" for the telephone bill, and the collector got a box of candy from him to boot.

Accepts the Rebuke.

A resident of an English city has made himself a marked man by insisting on saying "nought" instead of "O" when he calls a telephone number having ciphers in it. The telephone operator usually corrects him when he says "three double 'nought'" by saying "three double O." The other night he called up central and said, "Hello," and the girl replied: "Hell-nought." He accepted meekly the quiet rebuke. — Springfield Republican.



"THE LAST SUN RAYS."
 Painting in the Rest Room of the Doan Exchange, Cleveland, Ohio.



EDNA PLATE.
 Operator at Elgin, Ill. Has not been absent for five years.



TELEPHONE FLOAT IN ENGLEWOOD PARADE

The illustration above shows the float entered by the Chicago Telephone Company in the Englewood Commercial Club's parade, October 9th. Telephone instruments were equipped with toned bells, and by means of a keyboard, Nellie Murray of the Wentworth exchange, played catchy airs as the float passed in review. Other operators in the float were Florence Taylor, Kate Duffy, Lillian Farrelly, Hedwig Wolf, Edna Gehring and Katherine Dwyer. The float attracted much attention and was applauded enthusiastically.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES
GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
G. W. CUMMINGS
Correspondents

Lincoln Celebration.

The dining room at Lincoln Exchange had the appearance of a banquet hall on Tuesday, September 25th. The banquet itself was in the nature of a continuous feast. Not only all the day operators partook but the evening and night operators as well. This was as it should be, for each one of the force had contributed to the good service which won first place for the office in the months of April and June in the wrong number contest on originating calls, and this dinner was the prize, chosen by the office.

The tables were decorated with pink roses and ferns and the favors were gay caps of many styles and colors, which proved to be very becoming. The guests were Messrs. Foster, Cooper, Bradshaw, Sherwood, Campbell, Kastrup, Conway, Smith, Welch, Green, Brewer and Gibson and Miss Massberg, Miss Kohlsaat and Mrs. Dewhurst. Mr. Foster called Miss Donegan up to tell "how she had done it" and Miss Donegan and Mr. Conway both said that it was the result of no one person's work, but the fine co-operation of the entire force. It was won not only by operating but by co-operating.

The guests were very pleasantly entertained with a recitation by Miss Kluge, one of the Lincoln operators. Pictures were taken of the winning force. From the expressions of determination heard at the office, it seems probable that Lincoln intends to celebrate again soon.

Preparing for Holiday Traffic.

One can almost fancy at times that the telephone business is closely related to the fire department, since so much of it is done with a rush, yet we should not complain, for rapidly and rush is the back bone of the institution. In this lies its greatest value and will remain its best stimulant.

The Equipment Department with its royalty and organization can always be depended upon to accomplish some seemingly impossible "Marathons." On Saturday, October 24th, they were called upon to make extensive emergency arrangement of trunk lines in order to provide room for additional trunks designed to carry the extra loads that will be caused by the holiday business.

In Main Office 1,200 outgoing trunks have been rearranged. In Calumet seven B board positions, involving the rearrangement of 300 trunk lines, have been altered to meet the demands. Changes at Monroe office required the rearrangement of 350 incoming trunks, and the

Wabash situation required the installation of two multi-coin collecting long distance positions and the rearrangement of 100 trunk lines.

This may not seem at first glance to be much of an undertaking, but when it is considered that the force was already being rushed with the work of providing emergency election facilities and that the rearrangement of trunks and installation of two new coin positions, all of which was divided among four offices and had to be begun and completed inside of thirty-six hours, it is felt that the Equipment force is to be highly complimented for their gallant and efficient work.

The superintendent, Mr. Hyatt, says he will match his men against any similar force and lay odds on the results.

Eleanor Clubs' Banquet.

The Eleanor Clubs of Chicago gathered at Drill Hall, Masonic Temple, Friday evening, October 25th, for their fourth annual Banquet. The hall was complete-

ly filled with tables and was a beautiful picture when 500 marched in to the music of the Woodlawn Orchestra.

The young ladies bore the colors of their club, green and white, and the spirit of friendly rivalry was expressed in the club yells, which were given with great zest.

A number of the promoters of the club and invited guests were present and listened to the delightful program which followed the dinner. One announcement which will interest some of our young ladies was the gift of a large and beautiful camp ground on Lake Geneva. Many who enjoyed the Eleanor Camp last summer will appreciate this increase of opportunity for a delightful outing. Mrs. Dewhurst was a guest of the clubs. She will be glad to give information at any time in regard to their club homes, central club rooms and summer camp.

Banquet for R. W. Sullivan.

R. W. Sullivan, who was recently transferred from the position of division traffic chief in the Chicago Telephone Company to the office of the vice president, where he is doing special work connected with the traffic of the five states, was honored on Thursday evening, October 24th, by a banquet given him by friends in the Traffic Department.

The Crystal Room at the Hotel Sherman was chosen for the scene of festivity. Round tables seating ten were beautifully decorated with red roses and carnations. The perfectly served dinner was enjoyed in a most social way, and was followed by informal speeches, Mr. Foster acting as toastmaster. Together with many sincere expressions of appreciation of Mr. Sullivan and regret at losing him from the Traffic Department of Chicago, were many laughable sallies evoked by the toastmaster's genial humor.

Musical selections were sung by Miss Hagan and Harold Smith, accompanied by Miss Bolvin, which were appreciated and heartily enjoyed.

A social hour followed, giving an opportunity for all to visit with Mr. and Mrs. Sullivan, and the hope was often expressed that change in position would not interfere with friendships of many years.

L. R. Cantrill Dead.

Levellyn R. Cantrill, general installation foreman for the Private Branch Exchange Division of the Installation Department, Chicago, died of tuberculosis, September 22nd, on his way to Arizona.

Mr. Cantrill was born in Des Moines, Iowa, July 20th, 1882. He entered the employment of the Chicago Telephone Company, October 5th, 1905, as installer's helper. He worked in the capacity of clerk, division installer and later general installation foreman, making rapid progress on account of his extreme faithfulness and devotion to his duties. He was so earnest in following up his work that he was very loathe to give up and attempt to restore his health, and delayed until it was too late. He was widely known and had a large circle of friends, who mourn the loss of so faithful a fellow laborer in the telephone work.

New City Traffic Chief.

B. A. Cooper, formerly a general traffic supervisor, has been appointed traffic chief in the Chicago City Division, suc-



FRANK J. HAHN.

Frank J. Hahn, who has been identified with the Chicago Telephone Company for more than twenty years, died on Tuesday, October 22nd, after an illness of three months. Mr. Hahn was connected with the Plant Department as instructor. He started as a switchboard man at Canal office, afterwards serving as manager. Except for a short time when he was in business for himself, he has served the company in various positions, which he filled with conscientious faithfulness. He was a man of good judgment, methodical and loyal in his work for the company. He had a friendly spirit that will make him missed by those who worked with him.

He was a member of the Benefit Association and a member of the Telephone Pioneers of America, having recently joined that organization.

Floral tributes were sent by the Plant Department, with sympathy for Mrs. Hahn and the son and two daughters who survive him.

ceding R. W. Sullivan, who was transferred to the vice president's office.

Suburban Promotions.

The following promotions were announced in the Suburban Traffic Department during September:

Elgin: Charlotte Wylie, split time operator to supervisor.
Winnetka: Stella Koller, split time operator to assistant chief operator.
Oak Park: Hildur Olson, night operator to night supervisor.
Berwyn: Vera Bentgen, eight-hour operator to assistant chief operator.
Wheaton: Eleanor Cowden, transferred from Elgin and promoted to chief operator.



PRIZE WINNING DAY FORCE, LINCOLN EXCHANGE, CHICAGO.
Lincoln Exchange took first place in the wrong number contest.



GROUP OF OPERATORS IN PRIZE WINNING LINCOLN FORCE.

Orchestra Organizing.

Several employees of the Plant Department are considering the organizing of an orchestra to be called the "Bell Telephone Orchestra." At the present time a piano player and one violin player have been secured. Employees who are proficient in a musical line are requested to get in touch with W. H. Dunning, of the Maintenance Department, for further particulars.

Service Standing.

The Chicago Metropolitan and Neighborhood Divisions have for several years awarded monthly prizes to the offices standing highest on the Service Improvement report in their respective divisions.

Beginning September 1st, a new system of rating, based on the figures shown by the Service Inspection Summary, made up according to the ideas of the American Telephone and Telegraph Company's engineers, written up in Bulletin No. 33, was adopted.

With this new system in the City Division, Canal took first prize for September, and Lincoln second, and in the Neighborhood South Chicago stood first. The first five offices in the City Division were as follows:

CITY DIVISION.

| | |
|--------------|------------|
| First | Canal. |
| Second | Lincoln. |
| Third | Calumet. |
| Fourth | West. |
| Fifth | Edgewater. |

NEIGHBORHOOD.

| | |
|--------------|----------------|
| First | South Chicago. |
| Second | West Pullman. |

Personals.

Miss E. Kelly, of Kedzie, resigned in August and was married to E. J. Sullivan at Presentation Church, August 28th. Miss Kelly has been at Kedzie since the opening of the office and has won many friends who extend their best wishes. After the wedding breakfast, which was served at the Stratford Hotel, the happy couple departed for a trip to Niagara Falls. Upon their return to their new home in Evanston, Mr. and Mrs. Sullivan entertained the supervising force on the evening of September 25th, when the good wishes of Kedzie were again extended to them.

Dolcie Hixon has resigned as operator at the Highland Park Exchange to attend Rando College at Nashville, Tenn.

Geraldine Wolover, B operator in Main office, resigned in October to be married. The wedding took place in Los Angeles, where Miss Wolover will now reside. A beautiful cut glass fern dish was given her by her friends at the office.

Erma Schulz, of Main, was married Saturday, October 19th. Miss Schulz's friends at the B board presented her with a water set and fern dish of cut glass.

The young ladies at Main office are looking forward to the third annual informal dancing party of the Bonafide Club, which is to take place at Illinois Hall, December 6th.

Cupid appears to be taking toll from Toll Office. Several of the young ladies

who have for eight or nine years been connected with that department have recently resigned to be married.

Margaret Dewar, who was married to Charles Deverick, remained in the office some months after her marriage, until her position was filled. She has now resigned to go to house-keeping in this city.

Mary Keena, of Toll, resigned in September to be married to Joseph Owens.

Anastasia Butler, of Toll, was married August 31st to Warren Lodge of the Plant Department.

All of the young ladies were presented with beautiful cut glass wedding gifts by their friends on the day Toll force.

Mrs. Anderson, formerly supervisor at Toll, entertained the supervisors on two successive Saturdays at a luncheon at her home, October 18th and 26th. The young ladies enjoyed their visit at Mrs. Anderson's new home, where a delightful luncheon was followed by a social afternoon.

The number of recent weddings at Toll provoked the following contribution from a Toll operator:

IS MATRIMONY CONTAGIOUS?

Oh, please, fellow-workers, just listen to

While I tell of the woes of "Seventy-three."

A marrying buglet has struck in our set.

And each girl is hoping that she'll land one yet.

The first of the year found us all without beaux:

Our keen disappointment the Lord only knows.

But five have braced up and have done the "pop" act.

Are married, or will be, and that is a fact.

That's all that we know of, but that's quite enough.

Five new ones to break in is certainly tough.

So we all hope and pray, if we suffer a loss

Of another fair maid, it will sure be the Boss.

The Wabash supervisors gave a surprise supper for Lillian Kelly in the dining room of the exchange, Friday evening, October 18th. Elaborate decorations of pink roses and ribbons from the chandeliers made a becoming setting for the jolly group of young ladies who gathered about the table. Miss Kelly has been a well-loved member of the force and the congratulations were hearty and sincere.

On October 13th the assistant chief operator at Woodstock, Mrs. Dora Coon, was married in Springfield, Ill., to S. W. Taylor of Chicago. All the operators say that she just found out that the chief

was soon to leave and then tried to get ahead of her.

Woodstock chief operator, Miss O. E. Caldwell, resigns November 1st, to be married to T. B. Swale, of Woodstock.

On Thursday, Oct. 17th, the first chief operators' meeting of the Woodstock district was held at Woodstock in the operators' quarters. Only three chief operators from the district came, but they report an interesting meeting.

Mac Dub, who was married September 25th to H. G. Simmons, wishes to thank the Main chief operator, supervisors and Main 294 operators for the beautiful cut glass pieces which were presented to her when leaving the office.

Mrs. Moran, chief operator at the Riverside Exchange, was presented with a beautiful linen table cover and napkins as a wedding gift from the operating force.

Elsie Gerler, operator at La Grange, is back at work again. She has had tonsillitis.

Floyd Thompson, repairman at La Grange, has left the service and is in business for himself.

The operators of the La Grange exchange gave a surprise shower for Clara Badke, assistant chief operator, Tuesday, October 1st. The decorations were pink and white. The dainty supper was enjoyed by all. The miscellaneous presents were numerous and beautiful. After some singing and dancing the girls departed reporting a very good time. Miss Badke leaves the service November 1st, having been with the company for over six years. She will make her future home at 128 South Madison street, Hinsdale, Ill.

Elizabeth Roberts, supervisor at Elgin, left October 3rd for California to make her future home.

Emma Heicher, operator at Rogers Park exchange, resigned to be married to E. G. Gordon. A shower was given in honor of Miss Heicher, which was held at Sophia Baumer's home. The bride-to-be was presented with a beautiful cut glass water set. An enjoyable evening was spent playing all sorts of games and entering various contests.

Lillian Kelly, supervisor at Wabash, resigned to be married to Frank Flinn on October 30th. The supervisors of Wabash expressed their affection and good will in the present of a box of silverware and the Harrison supervisors in an elegant bedspread and center pieces. On Saturday evening Harrison friends gave a surprise party and miscellaneous shower at Miss Kelly's home. The supper may be said to have been served by telephone, though fortunately not by long distance, and all the guests easily made connections. In the center of the table was a real telephone standing on a bank of red carnations, and ribbons of red connected it with telephone favors at each place. Much fun was enjoyed in opening the many curious packages which were brought, and gifts of all sorts, amusing as well as useful, were left for the bride's future home.

The Kedzie day supervising force gave Alice Twobig, Austin chief operator, a theatre party at the Illinois on October 24th. Best wishes were again extended to her on her recent promotion.

Mrs. Russell Calloway, formerly Anna Michaelson of Kedzie office, entertained the supervising force October 3rd at her new home, 514 North Homan avenue.



EVENING OPERATORS, PRIZE WINNING LINCOLN FORCE.



GROUP OF OPERATORS IN PRIZE WINNING LINCOLN FORCE.

The guest of honor was Alice Twohig, senior supervisor at Kedzie, who has recently been appointed Austin chief operator.

Walter Case resigned his position as toll tester in Chicago to accept a position in California. He has been employed in Toll Department for nine years, and is known to almost every one in the suburban district. His fellow employees in the Toll Department presented him with a gold watch as a token of their esteem.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent, Milwaukee

Appleton District.

The Berlin Telephone Company (connecting) has just completed a new circuit west of Berlin with six new subscribers connected to Berlin Exchange.

Andy Lendved, repairman at De Pere, returned to his home at Welcome on account of rheumatism. Ed Burnham is employed at this office until Mr. Lendved is able to attend to duties.

Sarah Bourgoine, operator at De Pere, has resumed her duties after several weeks' illness.

The Fond du Lac Commercial Department secured contracts for three three by seven cordless private exchanges this month, which are being installed, and in addition secured a contract for one No. 4 private exchange.

Gerald Lyman, assistant wire chief at Green Bay, has been transferred to Neenah as wire chief. William Elmore succeeds Mr. Lyman.

Bernard Sampson, assistant wire chief of the Green Bay Exchange, has been transferred to Appleton. Leonard Miller succeeds Mr. Sampson.

Marion McKay has been employed as stenographer at the Green Bay Exchange.

Contract for a No. 1 private exchange has been secured with the Green Bay Gas and Electric Company for three trunks and twelve stations.

Hortonville has the honor of being the first place where babies are regularly taken care of by telephone. The other day one of the subscribers called up and asked to be connected with another line, but not to have any party ring. Upon inquiry it appeared that she had left the receiver off the hook so that when the baby asleep on the bed should wake and begin to cry she could hear him and go home to soothe him. Unfortunately the practice had to be stopped, as it interfered somewhat with party-line service. The incident also explained several mysterious trouble cases of late.

George H. Taylor, city foreman at Marinette, who has been transferred to the Appleton District as an extra foreman, has had a crew assigned to him and is engaged in repairing the Marinette-Wausaukee-Pound toll line. F. C. Desmond has been assigned as lineman, replacing Mr. Taylor.

The Harmony Telephone Company (connecting) has completed an extension of rural lines to Walsh and Porterfield and has added about twenty-six new subscribers, which gives a total of ninety-four subscribers, with a prospect of

about thirty more when lines are extended to Grover.

Josephine Hyvon has resigned her position as operator at the Neenah-Menasha Exchange. She is to be married soon.

Gerald Lyman, formerly of Green Bay, is now wire chief at the Neenah-Menasha Exchange. He succeeds O. L. Metz, who is at Shiocton.

During the recent flood at Oconto, it became necessary for the troubleshooters to swim to clear cases of trouble. On other cases rafts and boats were brought into use. The operators were brought to work with team and wagon.

Charles Anderson, assistant wire chief at Oshkosh, is recovering from an operation at Lakeside Sanitarium.

A new two position wire chiefs desk has arrived at Oshkosh and when it is installed it will be of great assistance to the wire chief.

Lester Crowell, who for the past six years has been collector at Oshkosh, has resigned to accept a position with the Permut-Monahan Company. While Mr. Crowell was with the telephone company he made many friends who regret to see him leave.

The Gillett Rural Telephone Company, a connecting company at Gillett, is building about eight miles of new line to connect up about twelve new subscribers. The Gillett Rural Telephone Company now has 119 subscribers.

The Bonduel Telephone Company, a connecting company at Bonduel, connected up about thirty new subscribers in the past few months. This makes a total of 250 subscribers.

The Antwa Telephone Company, recently connected with the Wisconsin Telephone Company, has now connected ninety-two subscribers. The company has stopped building for this season, but will again build additions next spring.

Flora Pax, chief operator at the Sturgeon Bay Exchange, resigned her position on September 15th, to attend the Green Bay Business College.

The Door County Telephone, a connecting company at Sturgeon Bay, Wis., added two new circuits to its system during the month to take care of the increasing business.

Benhard Sampson is now employed as assistant wire chief at Appleton, having been transferred from Green Bay.

Eau Claire District.

William Northrup has resigned as wire chief of the Glenwood exchange and will attend dental college at Milwaukee.

A. C. Payne has accepted a position as lineman for the West Wisconsin Telephone Company at Glenwood.

The following officers have been elected by the West Wisconsin Telephone Company at Glenwood: President, A. J. Vander Heiden; secretary, Reverend Mailing; treasurer, S. L. Baker; manager, C. P. Peterson.

Several new rural lines are being added to the Glenwood Exchange.

The T. E. Thompson Telephone Company of Colfax is busy building rural extensions.

Jessie Wyman, chief operator at Eau Claire, has resigned her position and left October 1st for the west, where she will visit her brother. She is succeeded by Rex Dutton, formerly assistant chief operator.

Inga Larson, formerly night chief operator at Eau Claire, has been promoted to assistant chief operator.

Margaret Farrell, formerly toll supervisor at Eau Claire, has been promoted to night chief operator, and is succeeded by Vera Gunderzik, formerly a toll operator at Eau Claire.

The equipment for the additional switchboard facilities at Eau Claire has been received and it is expected that the Western Electric will start the installation at once.

Madison District.

Supervisors and monitors of the Madison Exchange gave a box party at the Orpheum on Saturday evening, October 5th, in honor of their new assistant chief operator, Alma Waldorf. Mrs. William Logue, formerly Miss Blanche Robinson, former toll supervisor, acted as chaperon. Those present were the Misses Mary Kraft, Blanche Tyrrell, Lisle Smith, Achash Robinson, Leta Morrell, Dorothy Legges, Dorothy S. Kidmore, Olga Peterson and Anna Berg. A luncheon at Keeley's followed the performance.

The Western Union telegraph office at Baraboo was moved to the Telephone Building on September 1st. Miss A. M. Thomas being the Morse operator. James Goggin and crew of Minneapolis had charge of moving the Western Union wires and apparatus.

The work of remodeling the Telephone Building at Baraboo is now completed and a Western Electric Company's crew with E. E. Wilson foreman, is at work installing the new No. 10 switchboard and other central office equipment. When

completed, Baraboo will have one of the finest office buildings and most up to date telephone systems in this section of the state.

Edna Dollard, formerly night toll operator at Baraboo, has resigned to go to La Crosse, where her parents reside. Alta Cleveland succeeds her as night toll operator.

Construction Foreman P. R. Keene has completed the building of a new toll line from Baraboo to Merrimack.

Foreman Charles Robbins is overhauling and rebuilding rural lines at North Freedom.

CLEVELAND DIVISION

W. ENGLEHARDT, Correspondent

Equipment Department Changes.

G. P. Weigel, former superintendent of buildings and supplies of the Cleveland Telephone Company, has been appointed equipment superintendent with the following sub-heads: J. A. English, equipment foreman; A. Dombrosky, installation foreman; A. I. Lough, maintenance supervisor; George Haller, building supervisor.

Mr. Weigel will have charge of all drop gangs and installations of private branch exchanges and special installations in Cleveland exchanges, subscribers' stations in North and Main Office districts and all building equipment and maintenance in Cleveland exchanges.

All drop gangs and installations in the other offices will be under the supervision of J. J. McCarty, construction superintendent, who was formerly district plant chief at Dayton.

J. F. Brenkman, former plant chief of the Eddy and Doan exchanges, was appointed storekeeper.

Promotions.

Nellie Kelly, supervisor at East, to evening chief operator at Eddy.

Kittie Reddy, assistant chief operator at East, to chief operator at Doan.

Irene Kirach, supervisor at Main, to assistant chief operator at North.

Josephine Kreher, evening chief operator at Eddy, to observing department.

Rose Triner, supervisor at East, to assistant chief operator at Eddy.

F. L. Brown Resigns.

After fourteen years of service with the Cleveland Telephone Company, F. L. Brown resigned as chief commercial agent and will take up his residence in Los Angeles, Cal., on account of the ill health of his wife.

Mr. Brown's first position with the Cleveland Telephone Company was that of contract salesman. Since then he has held various positions which he filled in a very satisfactory manner. On January 1st of this year he was appointed chief commercial agent, which position will be filled by Mr. Brown's successor, J. D. Templeman, who was formerly commercial agent.

His fellow employees in the commercial department showed their appreciation and regard for Mr. Brown by presenting him with a gold watch.

Bible Class Reopens.

Upon Wednesday evening, October 2d, about thirty-five girls attended the Cleveland Telephone Bible Class, which was the beginning of its ninth year. The



TELEPHONE EXHIBIT AT APPLETON, WIS.



THE MEN WHO DID THE CHEBOYGAN, MICH., CUT-OVER.

Photo by Wheeler, Cheboygan.

The new common battery exchange at Cheboygan was cut into service October 1st. The old plant, which was operated on the grounded return and magneto basis, by the Cheboygan Telephone Company as a connecting company of the Michigan State Telephone Company, was cut over to the new system, the grounded return being done away with and common battery signaling and transmission installed. The new board is of the No. 3 type, consisting of four local and two toll positions. A material improvement in service is expected as soon as the new equipment has been placed in service. About \$50,000 was spent in the reconstruction work.

The men employed on the work recently had their pictures taken by Mr. Wheeler of that city. They appear in the picture as follows:

Top row, left to right—D. O'Brien, local troubleman; C. K. Watts, commercial agent; C. C. Ingersoll, construction foreman; C. E. Stark, commercial agent; A. L. Whitting, chief installer.

Second row—L. H. Recolly, groundman; I. Sheffer, groundman; John Sidlo, switchboard installer; A. Burton, local troubleman; C. H. Brown, stockkeeper; W. Dirke, power installer; Wm. Hunt, rackman; Charles McCallum, wire chief; H. Stockholm, installer.

Third row—Wm. Singer, lineman; Wm. Frost, cableman; R. Carrier, lineman; Ed. Kelly, lineman; L. E. Berry, clerk; C. Clune, assistant installer; Carl Johns, assistant installer; L. Sparling, installer; John Pew, helper on switchboard; E. Osgood, installer.

Lower row—Charles Smith, driver; Wm. Armistage, assistant foreman; Fred Mack, cable helper; C. E. Cavanaugh, foreman; J. H. Cavanaugh, groundman; Charles Whiteside, installer; F. Wintermuth, installer; Ben Campbell, installer; Ray White, installer. And Buster Ingersoll, mascot.

lessons and social events for the coming winter were discussed in the dining room of the Main Exchange.

With Commercial Agents.

G. V. Shaw secured a contract for a private branch exchange from the Sun-



KATHRYN O'BRIEN, Chief Operator, Broad Exchange, Cleveland.

shine Sult and Cloak Company, 2310 Superior avenue. The equipment will be a No. 4 switchboard, one trunk line and thirteen stations.

A No. 4 switchboard was also installed in the drug store of W. G. Marshall at 200 Superior avenue as a result of the efforts of Charles Ellert. The switchboard will be equipped with one flat trunk line and one measured trunk line, with six stations.

Mr. Ellert also secured a contract from the Hale Electric and Engineering Company, 1113 New England Building, for a cordless switchboard. It will be equipped with one flat trunk line and six stations.

A private branch exchange, which will consist of one flat trunk line, one measured trunk line and six stations, was secured from the Cadillac Automobile Company, 1628 Euclid avenue, by G. V. Shaw.

Personals.

The engagement of Carrie Platz, operator at South Office, to Guy Berger, has recently been announced. The wedding will take place some time in the early spring.

A picnic supper at Euclid Beach was enjoyed by the operators and supervisors of Eddy Office, Thursday evening, September 19th.

The engagement of Martha Hildebrand, operator at East, to Frank Smith, was announced the early part of September.

Misses Elsie and Rhoda Gau entertained the Bachelor Girls with a Baby Doll party at their home, 637 East One Hundred and Seventeenth street, Thursday evening, October 3rd. The guests came dressed as dolls and the evening was spent playing games. The Bachelor Girls say the party was a great success.

Ella Wagner, supervisor at North, resigned September 26th to accept a position as operator with the Goodrich Rubber Company.

Magdalene Comey, evening supervisor at North, resigned to accept a position as operator at the Union Club.

The marriage of Florence Barnes, supervisor at North, to Joseph Heiler, will take place the latter part of December. Mrs. Lyola Fristoe, assistant chief op-

erator at North, resigned August 31st to study nursing at Charity Hospital.

Marie Murray, chief operator at Doan office, resigned October 1st to stay at home.

The new sewing club recently organized by the girls of West Office, held its first meeting at the home of Cella Sinka, 1359 West Forty-eighth street, Wednesday evening, September 25th. The members of the club report that while very little sewing was accomplished, a most enjoyable time was had by all.

W. Englehardt, Cleveland correspondent for the BELL TELEPHONE NEWS, has been transferred to the contract department. W. K. Lawrence, who was formerly in the directory advertising department, will take his place.



A TRIO OF BROAD OPERATORS. Crystine Svoboda, Florence Davies and Pearl Addis.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Centralia District.

W. L. Parrish has been appointed plant chief at the Centralia, Ill., exchange, succeeding E. C. Briggs, who has been transferred.

H. H. Routson, chief clerk to District Plant Chief R. D. Wallace, has been appointed district plant inspector, succeeding W. L. Parrish, who has been transferred.

Contracts have been signed for a No. 1 private branch exchange with seven stations for the Gates-Clark Dry Goods Company, Alton.

A new traffic agreement has been signed with the Troy Telephone Company, Troy, Ill.

Bertha Driskell, collector at Paris, resigned her position on September 21st and was succeeded by Beryl Ingles. J. L. Dickerson, formerly plant chief of the Carrollton area, has been transferred to the Centralia exchange as wagon foreman.

Contracts have been signed for a No. 1 private branch exchange with seven stations with the Ford Manufacturing Company, Vandalla.

Anna Perce, collector at Cairo, has resigned and is succeeded by Minnie Gilmore.

Mr. Halbin, formerly repairman at Whitehall, Ill., has been transferred to the Centralia exchange in the same capacity.

Galesburg District.

Pearl Apitz has accepted a position as clerk in the Commercial Department at Rockford.

On Thursday evening, September 26th, about 7:30 p. m., a fire broke out in the basement of Wilson Brothers' Shoe Store, directly underneath the exchange quarters at La Salle. Owing to the fact that a concrete floor was directly over the fire the shoe store and possible the telephone equipment were saved from being badly damaged. Nine operators were at work at the switchboard at the time of the fire and bravely remained at their posts; two of the girls were overcome by the smoke and had to be taken to their homes. The girls deserve a lot of credit for their bravery and loyalty to the company and their conduct was very much appreciated.

On Sunday, September 15th, 1912, the employees of the Galesburg exchange and district officials and office force, numbering some sixty employees, enjoyed a picnic at the City Park, four miles north of the city. A large hayrack and two line-order wagons were pressed into service and hauled the happy crowd. A bounteous dinner was enjoyed by all and not one person missed any of the good things at dinner. After dinner a ball game took place between the Commercial and Plant departments. There were several very interesting features in connection with this ball game—Thomas Brown, district commercial manager, playing first base like a sixteen-year-old boy; W. L. Schell, district plant chief, at bat yelling "Put 'er over and watch me hit it!" and Manager Kelly's sensational roll for home. When asked why he did not get up and run after he stubbed his toe and fell, Kelly remarked, "I couldn't run, so I rolled in." N. P. Pangborn, commercial agent, umpired the game and much credit is to be given him for his ability to "call 'em," as his eagle eye was good on balls and strikes (?). The game resulted in a score of 5 to 4 in favor of the Commercial Department. Other games were played, including tug of war, foot races, etc., and every one present had a good time and will long remember that picnic.

Work under an estimate providing for the stringing of a No. 12 copper metallic circuit and repairing of pole line between Galesburg and Canton, assigned December 12, 1911, was completed on August 31st.

An estimate has been approved and assigned to the chief engineer, the work to be done by the Western Electric Company, for additional switchboard equipment at Rockford. The work covers three sections of No. 1, eight-panel subscribers' switchboard, 2,500 subscribers' multiple jacks, 1,770 subscribers' answering jacks, 630 multiple answering jacks. The entire equipment was scheduled for service February 28th, 1912, while the following was called for by September 1st: 600 subscribers' multiple, 350 subscribers' answering jacks and equipment position No. 20 with seventeen cord pairs. As the estimate has just been assigned, it is, of course, out of the question for the Western Electric Company to have this equipment in by September 1st, but it will be put in as rapidly as possible.

Springfield District.

Harvey E. Pruitt has been appointed a collector at Champaign, succeeding H. M. Horn, who has been appointed commercial agent at that point.

Nellie Lebeau has been appointed collector at Kankakee, Ill., succeeding H. M.



PARTY OF TRAFFIC EMPLOYEES AT TERRE HAUTE, IND.

Richardson, resigned to take up home duties.

B. D. McMillin has been appointed collector at Decatur, Ill., filling vacancy caused by the resignation of L. I. Lawrence on account of poor health.

An estimate has been approved and assigned to the plant department covering the installation of one section of E-167 board for 100 subscribers' lines and one section of E-167 toll lines at Mokena.

An estimate covering cable into the Reisch Building, Springfield, has been approved and assigned to the plant department, work to be started at once.

An estimate has been approved and assigned to the chief engineer for work to be done by the Western Electric Company covering the installation of additional equipment in the Springfield switchboard.

Additional equipment for Springfield, consisting of two A positions, multiple and answering jacks, is now complete.

James J. Nolan has been appointed collector at Peoria, Ill., taking the position made vacant by the resignation of F. C. Becker.

An estimate providing for repairs and rearranging of farmer lines at Herscher has been approved. This estimate is also designed to relieve the present overloaded condition of certain farmer-line circuits, and to provide facilities for connecting additional stations.

An estimate covering the work of dismantling the Central Union plant at Franklin, Ill., has been approved and assigned to the plant department.

J. P. Rostman, plant and traffic chief of Canton, Lewistown and Havana exchanges, has been relieved of his duties as traffic chief of Lewistown and Havana exchanges and is succeeded by A. G. Goehring, commercial manager.

Don Quigley, repairman at Lewistown, has been appointed wire chief at Canton. Mr. Quigley is succeeded by Ora Adams. Bertha Dobson, for two years night operator at Lewistown, was married on September 2nd to Robert Whitaker of Canton.

Lorena Knowles, chief operator at Kankakee, has resigned to take up home duties.

Bertha Gorman, who has been clerk to the manager at Kankakee for the past seven years, has resigned and gone to Pasadena, Cal., to live.

Violet Alberts, stenographer at the Peoria, Ill., exchange, was married September 16th to A. A. Franks. Mrs. Franks was a great favorite among her fellow employees and leaves the company with the best wishes of all for a bright and prosperous married life.

Mabel Lindsay, billing clerk, has been appointed clerk to the manager at Kankakee, succeeding Bertha Gorman.

Grace Clark has been appointed pay station attendant at Kankakee.

The Kankakee exchange building has just been newly decorated on the inside and presents a fine appearance.

A new connecting traffic agreement has been executed with the Golden Farmers' Telephone Company, Golden, Ill., and connection was established August 23rd. This gives about 500 more subscribers in that vicinity access to Bell toll lines.

A connecting traffic agreement has recently been entered into with T. J. Willis, who owns and operates an exchange at Wapella, Ill. There are 325 subscribers

connected with the Wapella switchboard, who will have access to Central Union toll lines.

INDIANA DIVISION

PHIL M. WATSON, Correspondent, Indianapolis

Indiana Bell Telephone Society.

At the regular meeting of the Indiana Bell Telephone Society at the University Club, Indianapolis, September 20th, there was an interesting discussion on "Centralized Accounting." H. J. Booth and W. W. Hiller, of Chicago, were present. Other guests were Mr. Stickney, Mr. Rudwick, Mr. Lewis, Mr. Guild, Mr. Whitham and Mr. Watson.

Indianapolis District.

The marriage of Myrtle Mullan, one of the Woodruff operators, took place in October.

The I. W. C. Club gave its first dance of the season on the evening of September 24th at the Odéon.

Sophie Leukhardt, a Woodruff operator, has been promoted to supervisor.

Ethel Brozman, one of the North supervisors, has been promoted to the position of chief operator at the Belmont office, succeeding Kate Stewart.

Mrs. Cecil Campbell, chief operator of the Prospect office, who has been taking a leave of absence on account of ill health, has given up the work for an indefinite period, and has been succeeded by Inez Johnson, formerly evening chief operator of the North office.

Muriel Johnson, one of the North office supervisors, has been promoted to the position of evening chief operator at this office, succeeding her sister, Inez Johnson.

Mrs. Jeannette Espey, one of the toll operators, who was married during the latter part of September, is at home to her friends in the country northwest of the city.

The N. E. O. Club has issued invitations to a hard times dance to be given at the Hyde Park Hall, October 15th.

Mrs. Sarah Hanks, formerly Sarah Farrington, who was one of the Claypool Hotel pay station attendants, has been visiting friends in Indianapolis.

Mrs. Hanks now resides in Orange, N. J.

A private branch exchange of one trunk and six terminals has been installed for the Public Savings Insurance Company of America.

South Bend District.

W. G. Stedman, commercial agent at South Bend, secured 131 new contracts during the month of September. This is the greatest number taken by one individual during the past two years.

H. W. Hicks, of the South Bend Commercial Department, has been transferred to Peru, Ind.

Ethel Arnold, who has been for several months with friends at Indianapolis, has returned and resumed her former position as operator at Avilla.

Terre Haute District.

The newly elected officers of the Terre Haute Bell Telephone Society are: President, "Mike" Dease; vice president, Joe Thompson. A. L. Vrydaugh was re-

elected sergeant-at-arms by acclamation. Private branch exchanges have recently been installed in Terre Haute for the Terre Haute Star, the Citizens' Gas & Fuel Company, and St. Mary's of the Woods Academy.

Clyde Kester has succeeded Walter Douglas, resigned, as collector at the Terre Haute Exchange.

F. W. Himmel has taken the night man's position at Terre Haute.

Charles Belknap has been transferred from the Terre Haute Exchange to Paris, Ill.

A ticket carrier has been installed for the Terre Haute Exchange by Foreman McCoy.

Ruth Brown, clerk to the manager at Bedford, was married on October 8th at St. John's Church, to Lee McCune. They left Bedford to live in Cincinnati, Ohio, where Mr. McCune is located as clerk in the postoffice. The employee of the Bedford Exchange presented Mrs. McCune with a handsome cut glass water set as a token of their esteem.

Mary Wathen has succeeded Miss Brown as clerk at the Bedford Exchange.

All the subscribers of the Social Home Telephone Company have been cut over to the Central Union Exchange at Oulitic, Ind.

The cutting over of the Knox County Home Telephone subscribers to the Central Union board at Vincennes was completed October 12th. As an indication that the one system is considered best, Manager Finlay states that he now has more subscribers than were formerly served by both companies.

Foreman Roy Daniels, with a large

gang, is working on the rebuilding of the outside plant at Vincennes.

On two evenings, September 23rd and 24th, the Terre Haute operators enjoyed hay rides and chicken suppers. They left the office each evening about 3 p. m. and rode two miles into the country to the Maple Leaf Club House, where the suppers were served and the evenings closed with dancing.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Organization Changes.

The following changes in the personnel of the organization of the Commercial Department of the Ohio Division, effective as of the dates shown below are announced:

Effective October 1st, J. F. Drucke-miller, district commercial manager of Columbus District, transferred to the position of district commercial manager of the Second District, succeeding N. G. Warth, resigned.

Effective October 1st, D. H. Morris, of the engineer's office, transferred to the position of district commercial manager of the Columbus District.

Effective September 16th, C. P. Bradford, special agent in the department of agent for connecting companies, Ohio Division, transferred to the position of manager at Akron, O., succeeding B. T. Calaway, reporting to P. Yensen, district commercial manager, Cleveland.

Effective September 16th, B. T. Calaway, transferred to the position of chief clerk of the commercial department, reporting to Commercial Superintendent R. R. Stevens, headquarters, Columbus.

Effective October 1st, W. R. Nutt, chief clerk to the commercial superintendent, transferred to the position of division cashier, reporting to E. A. Reed, general manager.

Effective September 1st, Messrs. T. F. Greer and J. H. Welker, directory advertising agents, of Indianapolis, Ind., transferred to the positions of commercial agent, assigned to directory advertising, reporting to T. P. Gogwin, manager of directory advertising, Telephone building, Cleveland, who in turn reports to P. Yensen, commercial superintendent, Cleveland, on Cleveland Telephone Company directory advertising, and R. R. Stevens, commercial superintendent, Columbus, on Central Union directory advertising.

Akron District.

A contract has been secured with the Chattanooga Hotel Company for a private branch exchange system of ten trunks and 260 stations in the new Hotel Ohio at Youngstown.

Mary Gorman, billing clerk at Youngstown, has resigned and is succeeded by May McCartney.

Estimates have been finished at the Youngstown exchange for the installation of about two miles and a half of cable for the Republic Iron and Steel Company and two miles for the Youngstown Sheet and Tube Company.

New overhead lighting has been installed in the operating room at Akron. This replaces the old reflector system and is a great improvement.

Bernice De Long, local operator at Akron, has been promoted to a toll position.



CENTRAL UNION BALL TEAM, SPRINGFIELD, ILL.

Heroes of a number of hard-fought games during the recent season.



ANNA LINKHART.
Anna Linkhart, formerly traffic chief at Xenia, died Tuesday, September 24th, after a short illness of brain fever and was buried Friday, September 27th, from her home. Very impressive ceremonies were held and the employees of all three departments paid their last respects.

The Kirk Company at Akron has installed a private exchange consisting of one trunk and fourteen stations.

Ethel Ammon, trouble clerk at the Akron office, has resigned to accept a position as operator with the Goodyear Tire and Rubber Company. Verna Car-gould succeeds Miss Ammon.

Mabel Stephenson has been appointed instructor and chief operator's assistant at the Akron exchange.

C. J. Johnson, switchboard man at Akron, has accepted a position in the Engineering Department at Columbus. Mr. Dieffendorfer, formerly with the Peoples Telephone Company at Akron, will fill the vacancy left by Mr. Johnson.

Miss Dutt, local supervisor at Akron, has been appointed evening chief operator.

Maud Herr has been appointed local supervisor at the Akron office. Miss Herr recently worked for the Sunset Telephone Company at Oakland, Cal.

Laura Eberly, supervisor at the Massillon office, resigned September 30th to accept a position as operator at the Massillon Rolling Mill Company.

Minnie Kestner, cashier at the Massillon office, resigned October 15th and was married to Harry Kootz, clerk in the Massillon Post Office. Mr. and Mrs. Kootz will reside in Massillon.

Ina Camp, toll clerk at Massillon, has resigned and will be succeeded by Laura Howells of the Traffic Department.

Chillicothe District.

Dora Harvey, local operator at Ironton, resigned September 30th and will make



COMMERCIAL DEPARTMENT, LANCASTER, OHIO.
Left to right—Leta Marlowe, collector; Glenna Stout, toll clerk; Genevieve Steiner, cashier.

her future home at Bakersfield, California, where she has accepted a position as operator for the Pacific Telephone and Telegraph Company. She is succeeded by Nancy Fox.

Anna McCrum, toll operator at Circleville, has resigned and leaves the telephone service to be married.

M. M. McBride has been checked in as manager at Nelsonville, succeeding O. G. Bond, resigned.

Ferne Broderick, local operator at Lancaster, has resigned her position and has gone to Chicago to accept a position. Miss Broderick's position has been filled by Ruth Evans.

Catherine O'Hara, local operator at Lancaster, has resigned her position and will leave in the near future for Cleveland, where she expects to accept a position.

Dayton District.

J. J. McCarty, former district plant chief at Dayton, but recently transferred to the Cleveland Telephone Company as superintendent of construction, was tendered a farewell reception by the Dayton Central Union Club on Saturday, September 21st, and presented with a very handsome token of the esteem in which he was held by the club members. About sixty of the members responded to the call and all expressed their regret upon losing one of their oldest and most faithful members, but were glad to see him ascend the ladder.

W. L. Andrews, resigned as secretary of the Central Union Club Wednesday, September 23rd, at the regular meeting, and left the Dayton exchange Wednesday, October 2nd, to assume his new duties with the Cleveland Telephone Company. Mr. Andrews was formerly chief clerk to Mr. McCarty while at Dayton and will be with him at Cleveland. The members of the Central Union Club presented him with a very handsome suit case as a token of their esteem and for faithful and efficient service.

The Dayton exchange building is now undergoing extensive repairs in the way of remodeling and rearrangement. The District commercial offices will in the future be located on the first floor of the exchange building with the local office. A number of changes are being made in the operators' retiring and locker rooms and the basement will be almost entirely given up to a department of archives.

The Central Union Club of Dayton gave the first of a series of dances Thursday, October 17th. Last season these dances proved to be very popular and even greater results are anticipated during the coming season. A cordial invitation is extended to all employees.

Toledo District.

Florence Hughes, toll operator at Bowling Green, Ohio, has resigned to take up other employment.

Frieda Daniels, local operator at Bowling Green, was married at Windsor, Canada, on September 2nd to John Cook of Anderson, Ind.

The operators of the Delaware, Ohio, Exchange were guests at a luncheon given by Blanche Steele at her home on September 30th. Miss Steele was formerly chief operator at the exchange.

On September 15th Sylvia Kromer, operator at Norwalk, Ohio, resigned and was married to the thirteenth to Jerome Taber, of Norwalk. Miss Kromer is the fourth operator married from the Norwalk Exchange since July 1st.

Clara Gahagan, toll operator at Norwalk, Ohio, handed in her resignation to take effect October 15th. It is rumored that she is also one of Cupid's victims. Miss Gahagan has been in the office about five years and will be greatly missed by all.

Blanche and Mary Lettich have resigned their positions as local operators at Sandusky, Ohio, owing to a change of residence. They will make their future home at Detroit, Mich.

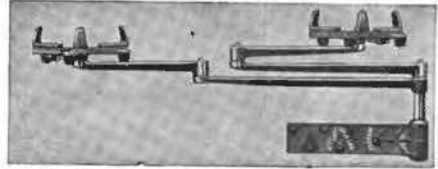
The Blue Bell Club, of the Upper Sandusky Exchange, was entertained on Thursday evening, October 3rd, by the traffic chief, Anna O'Donnell, at her home on West Hicor street. The affair was in the form of an English breakfast served upside down, and was very unique. A color scheme of blue and white, the club colors, was carried out in the dining room and the table decorations were toy telephones and miniature long-distance booths, which were given as favors. The Blue Bell Club is composed of the traffic employees at Upper Sandusky, and this is the first of a series of social affairs to be given by them during the coming season. J. E. Dunn, wire chief at Upper Sandusky, has been transferred to a similar position at Fostoria, Ohio. Harry Latson of Butler, Ind., succeeds Mr. Dunn at Upper Sandusky.

Harry Latson, wire chief at Upper Sandusky, was accidentally struck by an automobile at the company's supply house, which is located in the alley near the Dr. G. W. Cliffe veterinary barn. His right foot was painfully sprained. Mr. Latson ran out of the barn to stop a horse that had become frightened, when the machine which scared the horse struck him.

Material is arriving at Findlay, Ohio, to

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**IMPROVED
SKELLEY
BRACKET**



We make them to hold one, two or three 'phones, a convenience you should have. They last a lifetime, ever ready and on the job, first cost the total cost. Let us equip your office and residence.

AGENTS WANTED IN EVERY CITY.

We also make and repair Engraved Dies, Embossing and Forming Dies of all kinds and Metal Stampings. Give Us a Trial. Long Distance Bell 'Phone, Main 1610-J.

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Everything in the way of publicity is a ray of lime-light illuminating some object.

Send out such a ray of light by posting in your window this sign, showing your interested customer at a glance that here is a LIVE merchant that carries KLEIN TOOLS.

If you want Electrical Men's trade show the sign. We furnish it. Get next!

Mathias Klein & Sons

Canal Station, Chicago, Illinois

be used for the construction of farmer lines in the vicinity of the Findlay exchange.

The "Made in Pittsburgh" Manufacturers' Special Train, consisting of dining car, four exhibit cars and six compartment Pullman cars, sent out by the Pittsburgh Chamber of Commerce on a tour of thirty-six cities and eighteen states in the northwest, middle west and southwest sections of the United States stopped in Toledo on September 10th. Telephone men were on the ground when the train arrived and promptly connected two circuits with the switchboard on the train to furnish exchange service. An operator to operate their board while in Toledo was also furnished.

Contracts have been taken for private branch exchanges as follows:
Lima—Newton Hawisher Company Department Store, for switchboard, three trunks and ten stations.

Toledo—Toledo Sugar Company, for switchboard, one trunk and four stations.

Toledo—Charles H. Fuller Company, for switchboard, one trunk and four stations.

Toledo—Wabash Railway Freight Office—One trunk, one initial station and seven sub-stations.

O. M. Bigley, repairman at Findlay, has resigned to accept a position with the Citizens' Telephone and Message Company at Fostoria.

Claire McGuire, night operator at North Baltimore, Ohio, resigned her position to attend Otterbein College. Ruby Perry fills the vacancy caused by the resignation.

Myrtle Zimmerman, supervisor, and Mina Patterson, local operator, at the

Fostoria, Ohio, exchange, have resigned and are succeeded by Gertrude Morgan and Marie Harrison, respectively.

William Starkloff of Port Clinton writes to the BELL TELEPHONE NEWS that the announcement of his marriage to Edna Angel, printed in the October issue, is an error.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

A Nice Spread for W. L. Mankin.

Manager Mankin, of the Bell telephone office, was thirty years of age Saturday (this refers to October 5, 1912), and the young ladies employed in the office prepared a nice spread at "central" about the time the work of the day was closing, decorating the table with thirty candles and a number of gifts. Mr. Mankin is giving the patrons of this office excellent service and enjoys the confidence of the entire community.—Portland (Mich.) Review.

Telephone Man a "Hero."

E. P. Platt, of Grand Rapids, district plant chief for the Michigan State Telephone Company, played the hero at Petoskey when, after working two hours on Donald Reed, given up by others as drowned, he brought the boy back to consciousness and received the blessing of the parents, Mr. and Mrs. Will H. Reed. Mr. Platt was fully acquainted with the methods in use by life savers and to this knowledge and his untiring effort is given the credit of saving the life of the lad.



RECEPTION AT FLINT FOR MISS DUNN.

On September 19th, Katherine Dunn, who for two years presided at the Detroit position of the Flint toll board, resigned to accept a position as operator with the Durant Dort Vehicle Company.

Miss Dunn was well known to a wide circle of employees of the Michigan State Telephone Company, as well as subscribers, because of the cheerfulness and accuracy in handling Flint's Detroit business, and has gained an enviable reputation during her period of service of two years and two months. Miss Dunn has been absent but one-half day, which fact is indeed a recommendation that speaks for itself.

At the time of Miss Dunn's resignation the Flint toll operators gave to her a little reception. The evening was thoroughly enjoyed and the occasion proved excellent for a picture. Those in the picture are as follows:

Reading from left to right, top row—Mary Reddy, Faye Rowley, Bertha Merrill, Mary Glynn, Amber Herrick, Lillian Yakes.
Second row—Katherine Jeffers, Wilma Weitz, Katherine Dunn, Elizabeth Glynn, Doris Smith.

Bottom row—Rose Lang, Nell Perry, Daisy Renwick, Emma Berdnt.

Organization Changes.

The following appointments have been made by Plant Superintendent C. L. Boyce, approved by General Manager A. von Schlegel:

C. E. Gardner is appointed assistant plant superintendent of the Michigan State Telephone Company in charge of all estimate work for exchanges and the care and maintenance of all exchanges. He will report to the plant superintendent.

F. E. Hurson is appointed assistant plant superintendent of the Michigan State Telephone Company in charge of all estimate work for toll-line construction and reconstruction, and all toll-line maintenance and repairs. He will report to the plant superintendent.

W. C. Kirk is appointed district plant chief for the Detroit district.

Ray V. Huribut is appointed Detroit exchange area plant chief and will report to the Detroit district plant chief.

There will be no changes in the district organization. All present routines are to be followed as heretofore until further notice.

Detroit Traffic Meeting.

On Friday evening, September 27th, a meeting of Mr. Laney's division, the Main, Cherry and Grand offices, was held

in the rooms of the Telephone Society of Michigan. The meeting was opened with a lecture on team work, with charts, given by W. A. Spencer, district traffic chief. This proved very interesting as well as instructive, and to those who had had the privilege of hearing it before it proved doubly instructive, as these hearers were more familiar with the points explained, could follow them more closely and understand the difference between good, bad and indifferent operating. Mr. Laskey then took charge of the meeting and explained what made "a good operator," urging upon every operator the importance of being regular in attendance, punctual, accurate and quick. He explained in a very interesting manner the essentials of good service and each operator was impressed with the important part she plays in the service. After the lectures a short musical program was rendered and all adjourned to the fourth floor, where refreshments and dancing were enjoyed.

Telephone Society of Michigan.

We had the Home Telephone Company men as visitors at the meeting of September 25th (held then instead of the 19th because of the State Fair), and very glad were we to see them. About twenty-five

of them responded to our invitation. Commercial Manager C. S. Slack gave an address of welcome to the visitors, which was replied to by Messrs. Shepherd, Smith, Johnson and Remington of the Home Company. Mr. Schrickling sang a solo. Messrs. Dubois and Mason sang a duet. President Dawson recited a "Canuck" poem. The society was also entertained by Mr. Baxter, a lawyer in Detroit, and a capable "monologue artist," who gave several amusing selections. The society extends a cordial invitation to all employees of the Home Telephone Company to attend our future meetings at any time.

A slim attendance was manifest at the meeting of October 2d, following so soon on the previous one as it did. W. F. Smith offered some suggestions regarding the dances to be held the coming winter. Meetings for November are scheduled for Wednesday, the 6th, and Thursday, the 21st.

Improved Service at Petoskey.

During the last several weeks the service rendered the public by the local exchange of the Bell telephone has undergone considerable improvement, and it is anticipated that it will be even better in a short time.

Since the merging of the Bell and Swaverly exchanges the local headquarters has been working under difficulties. Now, however, the facilities have been increased to such an extent that subscribers may be given the best possible service.

To "Genial Jack" Clifford, the district and local manager, is due this great improvement. The three departments of the exchange, namely, the commercial, the manager and central office, and the department having to do with collections and all relations with the public are now entirely separate from one another, allowing those occupying each to attend to their work with concentrated effort. Especially is the result noticeable in the operators' department. A door now shuts them from all business transactions with the outer office, and they have nothing to do but answer and give calls.

The outer office has been fitted up in an attractive manner with furniture of excellent quality. Two new booths have been installed, and the general place has been greatly improved. An additional local section switchboard has been installed and the operators are equipped with devices which allow a freedom of both hands while they are talking. Two long distance switchboards have been added, and a chief operator's desk is in charge of a competent operator during the entire day and evening.

At present there are 909 subscribers and the total number of long-distance lines terminating in Petoskey is twenty-five. There are fourteen female employees and six men in the exchange.

All the old Swaverly lines have been made metallic and new Bell instruments installed in place of the old Swaverly apparatus, so that the entire system is now uniform and of standard Bell equipment.

Each day the total number of calls is recorded, and the list shows that there were 11,322 calls on one day last month. Mr. Clifford, who has seen the exchange grow from twenty-three telephones to its present number, is to be congratulated on the success of his efforts, and he, as well as his able assistants, deserve much praise for their most recent effort to give satisfaction, something they are always after.—Petoskey (Mich.) Evening News.

First Telephone in Manchester.

Thirty-two years ago Thomas J. Keach of Ann Arbor, Mich., succeeded in getting a proposition from the Telephone and Telegraph Construction Company of Detroit for a certain amount of "promises to use telephones" for which the company would extend the line from Ann Arbor to Manchester. Mr. Keach is a member of the Telephone Pioneers. Mat D. Blosser of the Enterprise was appealed to help the project along, and after some labor the following were induced to give promises and they subscribed all the way from \$10 to \$100 each and the extension was made. "Scrip" was used for the amount of the subscription which could be used to pay for the telephoning. The list comprised practically every business man or firm in the village, for our merchants were as progressive then as now:

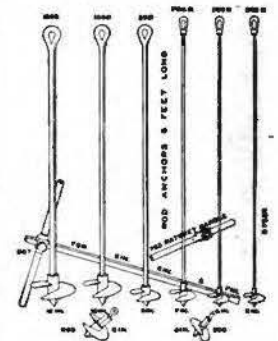
S. W. Clarkson, V. P. Cash, Mack & Schmid, J. H. Kingsley, A. C. Taylor, W. T. Hewett, J. H. Miller & Co., Wm. G. Dieterle, Fottle & Lewis, H. Kirchofer, Gilliam & Steinhil, A. E. Freeman, Conklin, E. B. Norris, J. D. Corey, A. G. Tompkins, J. L. Stone, Kensler Brothers, Wm. Burtless, Underhill & Rommel, George J. Hauser, William F. Rehmann, Bailey & Osborn, G. W. Doty, M. Dealy, Conrad Lehn, W. Kimble, C. W. Case, F. Freeman, J. A. Lynch, Eugene Underhill.—Manchester (Mich.) Enterprise.

Detroit District.

The Andersonville toll station is closed. Andersonville should still be listed in tariff and route books as "check Charleston," because the surrounding country is covered by Charleston farm lines.

L. C. Steele has returned to his former position in the state wire chief's room. This department now reports to P. E.

Matthews Guy Anchors



are saving money for The Central Group of Bell Telephone Companies. They have been used extensively by the Chicago Telephone Co. since 1904; by the Central Union Telephone Co. since 1906; by the Wisconsin Telephone Co. since 1908; and by the Michigan State Telephone Co. since 1912.

SINCE JULY 1, 1912

the Western Electric Co. has sent us orders to ship Matthews Guy Anchors to the following places:

In Central Union Territory—

- 1 to Carrollton, Ills.
- 2 to Terre Haute, Ind.
- 1 to Gas City, Ind.
- 2 to Shelbyville, Ind.
- 1 to Peru, Ind.
- 2 to Anderson, Ind.
- 3 to Washington, Ind.
- 1 to Chillicothe, O.
- 1 to Columbus, O.
- 1 to Lancaster, O.
- 1 to Zanesville, O.

In Michigan State Territory—

- 1 to Benton Harbor, Mich.

In Wisconsin Territory—

- 1 to Milwaukee, Wisc.
- 1 to Larson, Wisc.

In Chicago Telephone Territory

- 5 to Chicago, Ills.

We believe that you can save money by using these anchors. It will pay to investigate.



This Mark is Trade Means Highest Grade



MT. CLEMENS OFFICE FORCE.

From left to right—Bernice Gibson, bookkeeper; Hattie Auterson, billing clerk; Anna Earl, collector; W. A. James, district manager.

Picture taken in one corner of the operators' rest room.



TELEPHONE EXHIBIT AT THE MICHIGAN STATE FAIR.

The telephone equipment at the Michigan State Fair, installed by the Michigan State Telephone Company, was of specially high class this year, and attracted the continued attention of visitors to the grounds. The fair was open from September 16th to 21st.

To handle all the unlimited service telephones on the grounds a No. 4 lamp-signal board, of the most modern type, was installed in the main building. This board had eighty lines, in addition to twelve trunk lines connecting with the Hemlock exchange at Glendale and Second avenues. It was a two-position board, and was filled by a couple of the most expert operators from the traffic department of the Michigan State Telephone Company.

The pay stations on the grounds, nineteen in all, were, with the exception of those in the Administration building, connected direct with the Hemlock exchange. To switch the pay stations in the Administration building a thirty-line visual signal board was installed there.

For the entertainment of the public interested in telephone matters, the company established a small corps of guides and demonstrators, who explained the mysteries of connecting one subscriber with another. There were also on exhibition storage batteries, together with the mercury arc rectifier, the latest appliance for changing the alternating current into direct current. There was a vertical frame, skeletonized, showing how a switchboard is built up, and there were samples of cable, from 25-pair to 600-pair, cut away to show insulation and method of distribution. In fact, the plan of the telephone company was to show the public a small modern exchange working.

A fair education in the telephone business was thus obtained by the industrious visitor to the Michigan State Fair this year. Anything he wanted to know was courteously explained to him.

The picture shows W. L. Ward, who was placed in charge of the floor space devoted to the exhibit; Mrs. Kathryn Wilson, standing; and Rose Gareau at the board. The booth was said to be the best illuminated at the fair, and Mr. Ward was kept very busy answering the questions of the interested.

Hurson, assistant plant superintendent of toll line estimates. It is pleasing to see Mr. Steele's smile again radiate as of old.

An elegant edition of the late Noah Webster's chief work has been placed in a stand in the commercial department. It is indignantly denied by Miss Egan, Miss Quincy, Miss Courville, Miss Todd, Miss Derby and Miss Kageas, stenographers all, that this tome was installed for their benefit. The mere idea is perfectly ridiculous.

Anna Ross, Grand information operator, resigned to be married to Fred Watson, September 29th. They will reside in California.

Bernice Bitten, Grand information operator, is regaining her health after an attack of appendicitis.

Stella Bain, operator at Grand exchange, was married September 30th to Clarence Coville.

Ruth O'Malley, Grand operator, who took a leave of absence on account of poor health, has returned with health fully restored.

Edith Kearns has been promoted to evening information operator at the Grand exchange, succeeding Bernice Bitten.

The toll station at Portage Lake was reopened on June 29th, manager, Joe McGregor.

Change of managers at Reading was completed on September 13th, Ellis B. Stanley succeeding Fern Comstock.

A toll station was opened at Clark's Lake (Pleasant View) as of May 27th, T. W. Beach and Sons as engineers. This station is located on circuit No. 1,101, Jackson being the check center.

The summer toll station at Whitmore Lake has been closed, as of September 16th. There being other subscribers at this point, Whitmore Lake is now listed as a Class D station on the Ann Arbor exchange.

The Dearborn exchange has been moved into a building used exclusively by the Michigan State Telephone Company. The work was completed under the superintendence of Martin Ewald, installation foreman.

Donald Monroe, formerly of the commercial department, and since a teacher appointed by the U. S. government at Porto Rico, has returned to the Michigan State Telephone Company.

William Rideout organized two new roadway companies in one night last month. Both companies are to connect with the Monroe exchange, and total between them twenty-one subscribers.

Pearl Meacham, audit clerk at the East exchange, was married (during her vacation) to Roy Taylor of Windsor. This method of spending a vacation is likely to be heartily endorsed by East operators.

Manager W. L. Stevens at Jackson secured contract for one No. 4 private branch exchange, consisting of two trunks and eight terminals for the Michigan State Prison at Jackson.

Roy E. Crowe succeeded W. G. James as manager at Armada exchange, as of October 1st.

The toll station at Pleasant View (Clark's Lake) was discontinued as of October 1st. This point is a summer resort and is closed every year at the end of the hot weather.

Grand Rapids District.

The Petoskey exchange loses the services of Ruby Devers, night operator, who was married September 18th to George Courter (an appropriate name, if ever there was one) of Indiana, an employee of the Grand Rapids and Indiana Railroad. Mrs. Courter did not announce her marriage when it took place, not wishing to give up her post so soon and inconvenience the service, but it was made public a week later. The telephone girls gave the bride a kitchen shower. "There are vague rumors," says a local paper, "that other members of the telephone force are preparing to leave as the result of casual similarity to that which took away the night operator"—but inquiry as to this point leads to the positive report of "nothing doing."

A toll station has been opened at Tustin, W. M. Budge manager. This place has been a rural exchange, the subscribers of which will be connected with the Dighton rural exchange.

F. G. Guest has been appointed manager at Plainwell, succeeding M. J. House.

H. E. Hill has been appointed manager at Harbor Springs, succeeding J. M. Clifford.

J. R. Tomlinson has succeeded F. E. Biers as manager at Platt Junction toll station.

G. J. Rumbaugh succeeds B. Van Ankin as manager of Morley toll station. Barnhart and Trumpower have succeeded William Charon as managers at Walhalla toll station.

William A. Brower has been appointed manager of the Frankfort and Thompsonville exchanges, succeeding B. V. Pearson.

Unanimous!

Western Electric

Telephone Apparatus and Supplies

will be the choice of the telephone men who appreciate the best kind of material.

Everything from line to exchange equipment bears the stamp of perfection in design and manufacture.

You know it—there are some in your territory who ought to—tell us who they are.

You can help us make them see it.

Western Electric Company

sonville exchanges, succeeding B. V. Pearson.

The delegation of Pittsburgh business men from the Chamber of Commerce in that city while on its rounds to the big western cities of the union visited Grand Rapids September 11th. The train remained about two hours. Three minutes after it had arrived the Michigan State Telephone Company had made connections with the switchboard on the train. Commercial Manager Hess taking charge of the work. The visitors telephoned several customers in the city whom they did not have time to visit, and expressed their appreciation of the courtesies and good telephone service furnished.

The commercial manager at Grand Rapids, John D. Hess, Jr., represented the Michigan State Telephone Company on the seventh annual trade extension trip of the Wholesalers' Department of the Grand Rapids Association of Commerce. This was a four days' trip through the southwestern part of Michigan and was a splendid trip in the way of boosting Grand Rapids in that section of the state.

B. H. Segar, for five years connected with the Collection and Contract departments of Grand Rapids, has been transferred to the Lake Odessa exchange as manager. Mr. Segar started his new work October 1st and finds with a big



A GOOD NATURED GROUP OF MT. CLEMENS OPERATORS. Reading from left to right. Top row—Elizabeth Simms, first day toll operator; Martha Guette, first day local operator; Mina Kraatz, day recording operator; Irene Elsey, first relief toll operator. Seated—Clara Wales, chief operator; Susie Philbrick, fourth day local operator. This picture was taken in one corner of the operators' rest room.



MEETINGS OF THE DETROIT COMMERCIAL DEPARTMENT EMPLOYEES.

A series of evening meetings of the employees of the commercial department in Detroit has been started by Commercial Manager C. S. Slack. These meetings are held twice a month in the room of the Telephone Society of Michigan, and begin at 8 o'clock, and the men are sufficiently interested to attend in large numbers and remain until late.

The subjects taken up are, of course, those which deal with the duties of the employees as they meet the public. That is, taking contracts, writing orders, and collections. Up to date two of such gatherings have been held.

At the first, on October 2, George L. Heywood, of the general manager's office, gave the men a short talk, outlining the situation which is to be handled by them in connection with taking over the plant and subscribers of the Home Telephone Company. He stated that, owing to the lack of facilities in certain parts of Detroit and our inability at the present time to make direct use of the Home equipment, we must do everything possible to encourage the keeping of Home service until we can install that of the Michigan State Telephone Company. Mr. Slack followed with suggestions for handling present conditions so that a high degree of office efficiency may be maintained.

The second meeting occurred October 9. The discussion on this occasion was mainly on the "orders" which go from the commercial to the plant department as soon as a contract is signed by the subscribers and accepted by the company. Mr. Slack drew upon his experiences as chief commercial agent for the Wisconsin Telephone Company, and pointed out where mistakes—when they occurred—might most easily be made. Collections, delinquent subscribers, and "pick-ups" were also taken up. At this meeting W. L. Burrows, treasurer of the Michigan State Telephone Company, was present, as were also H. D. Osborn and R. C. Tucker, wire chiefs of the Main and Grand exchanges, respectively.

Before the meeting adjourned a flashlight photograph (which appears to have caught some of the men blinking) was taken of the group for the BELL TELEPHONE NEWS, which is seen above. Standing by the table is Mr. Slack. Those in the picture are: R. D. Cooper, W. McMullen, Ed. Davison, C. A. Reed, T. L. Hutchinson, Jos. Rogan, T. Finneran, E. A. Hoffman, H. D. Osborn, F. Lockwood, R. C. Tucker, Wm. Cardinal, E. M. Steiner, Ben Schmickling, W. E. Davies, C. Culver, H. Dubois, A. Cook, D. S. Burke, N. Andrus, L. C. Wright, D. H. Dodge, W. L. Burrows, J. F. Wardle, Jos. F. Bacharach, J. C. Bayne, F. E. Butcher, A. B. Featherstone and C. A. Marantelle.

collection problem and raise in rates among the farmers that he will have to keep one eye open all the time. G. A. Weed, whom Mr. Segar succeeded at Lake Odessa, built the first exchange in Lake Odessa, and eight years ago sold out to the Michigan Telephone Company, occupying the position of manager since that time.

The commercial manager recently closed a contract with the Worden Grocery Company for a cordless private exchange with two trunks and six terminals. The Worden Grocery Company recently consolidated with the Lemon and Wheeler Company and is now one of the largest wholesale groceries in western Michigan.

George Broodman, who has assisted the Grand Rapids collection department for the past five years, has gone to the University of Michigan to study medicine. Mr. Broodman graduated from the Grand

Rapids Central High School last year with honors.

R. N. VanOrman has succeeded A. V. Schad as manager at Hopkins exchange. Mr. VanOrman was born and raised in Hopkins, is a well known young man and well liked in the community. A few months ago Mr. VanOrman was married to a young lady who has had a good deal of experience in the telephone field, having been an operator in the Howard City exchange for a number of years. The Hopkins subscribers look forward to Mr. and Mrs. VanOrman's management with an anticipation of first class service and prompt and courteous treatment.

A contract has been signed with the Dighton Telephone Company of Dighton, Mich., which supersedes the rural contract with J. L. Rademacher, at Dighton. A contract has been signed with the Harlan Rural Telephone Company of Harlan, Mich., which supersedes the contract with F. A. Churchill at Harlan. Richard Farrington succeeded S. Youngs as toll station manager at Ewart on October 21st.

Marquette District.

The toll station at Williamsport has been discontinued.

A toll station has been opened at Hendrie, Murray Brothers, managers. This station takes the place of the station recently announced as having been opened at Murray Brothers' Camp.

Manager D. I. Dixon, at Menominee, recently received the following letter from R. Nevins, a Minneapolis traveling man then stopping in Menominee: "Mr. Dixon—I take the liberty of forwarding to your toll operator No. 2 this package and note. Permit me to thank you for the best service I have ever seen extended by any exchange."

The name of Pickered Lake toll station has been changed to Schweitzer's Camp.

A toll station has been opened at Greene's Siding on the D. S. S. & A. railroad fifteen miles northwest of St. Ignace. Manager, R. G. Gille.

R. O. Tobin succeeds J. H. Birkel as manager of Shingleton toll station.

A toll station has been opened at Sullivan, sixteen miles east of Houghton. Manager, H. P. Sullivan.

Equipment for the new central energy system at the Iron Mountain telephone plant has been received and is being installed. The new switchboard is in six sections and has 639 numbers.

Saginaw District.

The traffic department is nearly

through with its vacations and has come to the opinion that vacations in the summer time are the direct cause for gray hair, nervous prostrations, death and general calamity.

We are prone to believe that the stilt stip enunciation is distinct and altogether desirable. There is one subscriber in Saginaw, however, who believes that she has an improved enunciation system which she is using, or at least was using until the disadvantage of her system was explained to her. The Saginaw A operator noticed the new mode of calling and drew the attention of her supervisor to it. It was as follows: When calling—for instance, 1339-1—the subscriber would say: "A 1, and a 3, and a 9, and a 9, and a 1."

The chief operator from Cheboygan spent a few days in the Saginaw exchange, acquainting herself with workings of a common battery board. The Cheboygan property, now virtually part of the Michigan State Telephone Company, has heretofore had a magneto board. The chief operator's visit was made just previous to the cut-over, which took place September 22nd and 23rd.

The recent discovery of oil at Saginaw has caused a considerable gain in subscribers.

No. 101 private exchanges have been installed at Port Huron for the Port Huron Gas Company and the Havers Motor Car Company. Both boards are equipped for three trunks and eight stations, initial service, two trunks and five stations.

New storage batteries have been installed at Port Huron.

P. T. Slattery has been appointed manager at Mount Morris, succeeding T. A. Shaw.

The toll stations at Unionville, Tuscola County, and Sebewaling, Huron County, both belonging to Moore's Telephone System, have discontinued for the reason that the toll circuit of that company rotted down. These localities are not now reached in any other way by farm lines of this company or a connecting company.

Roadway Company Notes.

A contract has been signed with the Four Township Roadway Company for connection with the Scots exchange.

Contracts have been signed with the East Strasburg Company and the West Strasburg Company, both of Raisinville, for connection with the Monroe exchange.

A contract has been signed with the Topinabee Roadway Telephone Company for connection with the Cheboygan exchange.

Poles

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Stump

TO THE

Line

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Finest Quality

Promptest Shipments

Yards from Maine
to Washington

National Pole Company

Escanaba, Michigan

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ARE THE VERY BEST
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MICHIGAN WHITE CEDAR

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1880 Monroe, Michigan 1912



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ADVERTISE

IN THE
BELL TELEPHONE NEWS



"PREPARING FUNDAMENTAL PLANS AT BAY CITY, MICH."

Fundamental Engineer Moesta and Asst. Poston of the General Engineering Department, are seen attending to one of the important details in preparing fundamental plans.

The string of perch which "Fritz" is so proudly showing is only a quarter-hour's catch. Not so bad for "Fritz."

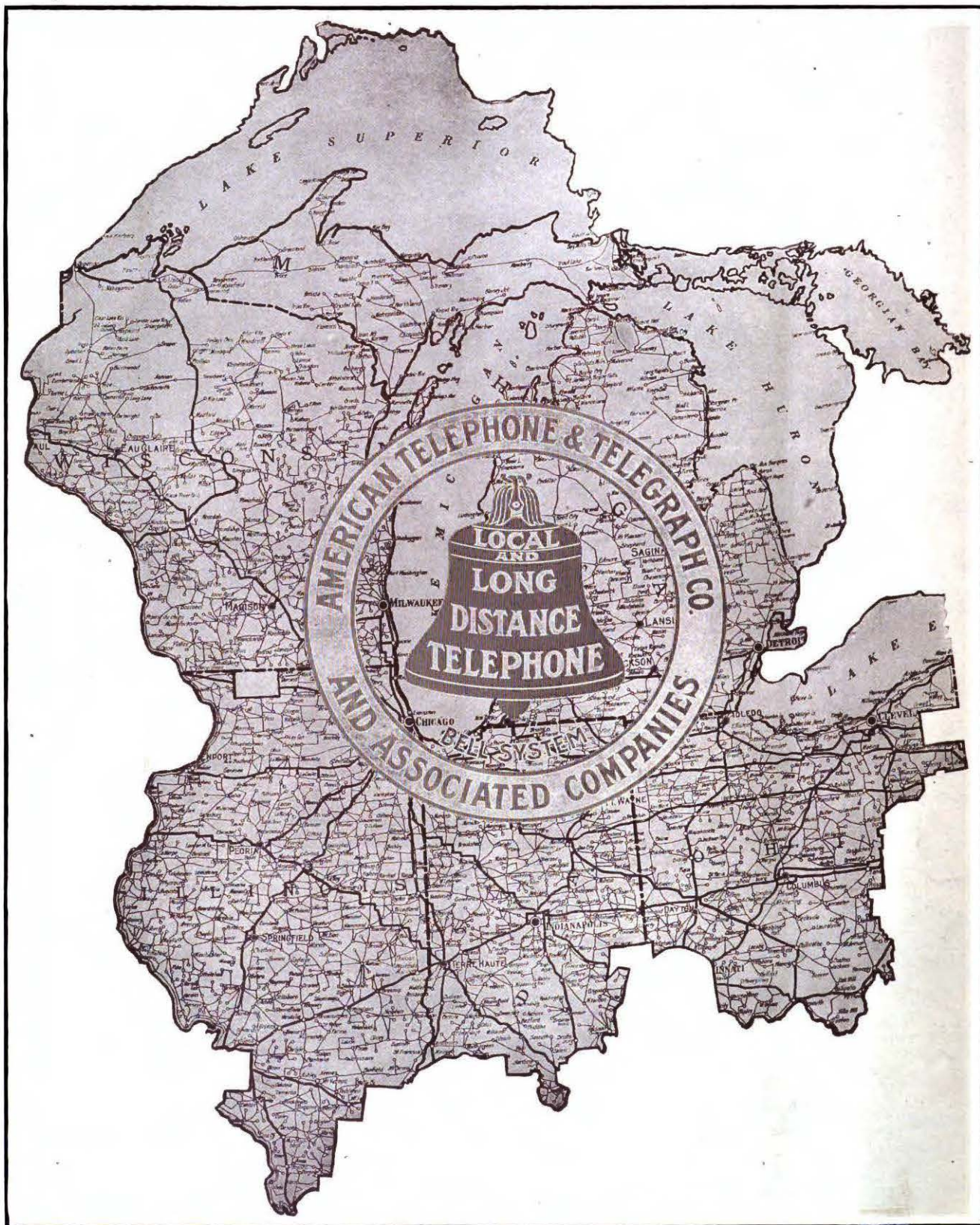
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

SEPTEMBER 1, 1912

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|------------------|
| ILLINOIS | 432,076 | 218,518 | 650,594 |
| INDIANA | 83,077 | 162,942 | 246,019 |
| OHIO | 158,109 | 140,174 | 298,283 |
| MICHIGAN | 178,079 | 55,372 | 233,451 |
| WISCONSIN | <u>120,502</u> | <u>82,452</u> | <u>202,954</u> |
| | 971,843 | 659,458 | 1,631,301 |



BELL TELEPHONE NEWS

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



DECEMBER
1912

Volume 2

Number 5



DISTRICT OFFICIALS, OHIO DIVISION, CENTRAL UNION TELEPHONE COMPANY.

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 5

CHICAGO, ILLINOIS

DECEMBER, 1912

COMPANIES TO GIVE PENSIONS TO EMPLOYEES

Insurance and Disability Benefits
Also Included in General
Plan.

A fund of \$10,000,000 for Pensions, Sick Benefits and Life Insurance will be available on January 1, 1913, for the 175,000 employees of the Bell System and associated interests, and their families and dependents, amounting altogether to more than a quarter of a million people.

This \$10,000,000 fund will be made good from year to year by annual appropriations on the part of the American Telephone and Telegraph Company and Associated Companies, and the Western Union Telegraph Company and the Western Electric Company.

The plan for the distribution of this fund has been characterized as the most liberal, comprehensive and ideal ever inaugurated. President Theodore N. Vail has provided combined benefits for superannuation, sickness, accident and death, for an industrial army more than twice as large as the standing army of the United States.

This provision is made entirely at the expense of the various companies interested, without contributions of any kind from the employees themselves. The application of these varied benefits will be strictly democratic and will be for the benefit of all employees of every rank. The plan will provide for free change of employment from one company to another, with full credit for combined terms of service.

The Bell System and associated interests provide employment for about 175,000 people; of this number 130,000 are employees of the Bell Telephone System. The total yearly pay for the whole group is about \$115,000,000, something over \$80,000,000 being paid out in wages by the Bell Telephone System alone.

The terms by which provision is made for the needs of age, illness, accidents and death, may be summarized as follows:

Pensions.

Male employees who have reached the age of sixty years and who have been twenty years or more in service, may retire on pensions. They may be retired at the option of the company when they have reached the age of fifty-five years and have been twenty-five years or more in service. The pension age of female employees is in each case five years younger than that of male employees. Any employee who has been thirty years in service, regardless of age, may be pensioned on the approval of the president of the company.

The amount of the pension is automatically based on the years of service and the amount of pay, and will be one per cent. of the average annual pay for ten years, multiplied by the number of years of service. Therefore, a man who had been thirty years in service would get thirty per cent. of the average salary which he had been receiving during his last ten years of service. No pension will be less than \$20 a month.

Accident Disability Benefits.

In the case of accidents occurring in and due to the performance of work

MIDWINTER IN NORTHERN MICHIGAN



BELL TELEPHONE LINEMEN FREQUENTLY REACH THE LINES ON SNOW-SHOES WITHOUT CLIMBING ANY POLES.

for the company, the employee will receive for total disability, full pay for thirteen weeks and half pay for the remainder of disability, up to six years.

If the disability is temporary, he will receive full pay for thirteen weeks and half pay until able to earn a livelihood, not exceeding six years.

Sickness Disability Benefits.

Employees who are disabled by sickness or accident outside of the regular course of duty after ten years or more in service, will receive full pay for thirteen weeks and half pay for thirty-nine weeks; if from five to ten years in service, full pay for thirteen weeks and half pay for thirteen weeks; if from two to five years in service, full pay for four weeks and half pay for nine weeks. In the case of employees who have not been two years in service, heads of departments will be permitted the same discretion as heretofore, in continuing pay during temporary illness.

Life Insurance.

In the case of death resulting from accident in and due to performance of

work for the company, an insurance amounting to three years' pay, will be paid to the dependents of the employee, the maximum payment being \$5,000.

In the case of death resulting from sickness or from accident outside the business, the payment will be one year's pay for employees who have been ten years or more in service, and one-half of one year's pay for employees who have been from five to ten years in service, the maximum payment being \$2,000.

If any state statutes provide for more liberal compensation than is provided under the Benefit Plan, the statutory provision will prevail. Where the employees have legal rights, as in some accident cases, they will have the option of exercising such rights or accepting the company's benefits.

The American Telephone and Telegraph Company has set aside from its surplus a fund which provides for those whom it directly employs, and also provides a reserve, upon which,

(Continued on page five.)

SUCCESSFUL HANDLING OF ELECTION RETURNS

Bell Telephone Makes Usual Record
for Promptness and
Accuracy.

Results of the recent national election were furnished to Bell Telephone subscribers all over the United States with the usual promptness, thoroughness and accuracy. Young and old were interested in the election and anxious to obtain information regarding the result at the earliest moment. In the gathering and dissemination of the election figures, the telephone took a prominent part. The arrangements by the Chicago Telephone Company to furnish the public the news were probably the most extensive and efficient of any which have been used.

National returns were distributed by telephone on the evening of November 5th from the new headquarters building of the Chicago Telephone Company, in the most systematic and satisfactory manner.

The news was collected by telegraph over composited toll lines from all political centers of the country. It was then distributed by local telephone circuits to twenty-seven Chicago city exchanges, by long-distance telephone to fifty-five towns in northern Illinois, and by telegraph to five other distributing centers in the state.

The arrangements for handling the service were in general charge of W. R. Abbott, general commercial superintendent for Illinois, and he was assisted by S. J. Larned, general traffic superintendent and Frank Redmond, general plant superintendent, in their respective departments of the work. W. E. Conrad was in charge of the telegraphic service. Traffic Superintendents H. N. Foster and F. A. de Peyster were in immediate charge of the telephonic distributing service.

The twelfth floor of the new building was entirely given over to the Election Bureau. In a large private office was the bulletin editorial staff, in charge of Clifford Arrick, manager publicity department, as editor in chief. He was assisted by A. R. Bone, A. M. Ramsay, A. G. Francis, C. G. Sharpe, and L. M. Fetherston. Just outside this room were located the instruments of the incoming telegraph circuits which brought the national returns and the incoming telephone circuits from local and state headquarters. All the data received was summarized and digested into a series of ten-minute bulletins, which were written in triplicate and carried by messengers to readers, who dictated to groups of manifolded clerks. In this manner, forty-eight copies were quickly prepared for distribution to the public.

The long, open adjoining room in the north wing of the building had been filled with over fifty desks arranged in two rows, as shown in the illustration, and every desk was equipped with a telephone on each side. At these instruments were seated the men who read the manifolded bulletins to groups of local or suburban exchanges, as listed on the cards suspended over the desks.

There were fourteen city distribut-

ing telephones, reaching twenty-seven city offices, and twenty suburban and toll circuits, reaching fifty-five towns in northern Illinois and forwarding Chicago bulletins direct as far as Danville, Kankakee and Rockford. Beyond this radius, the news was distributed by telegraph to Davenport, Peoria, Springfield, Murphysboro and Cairo, each of which centers had made provision for distribution by telephone.

Perhaps no other building in the world is so well prepared as the Telephone building to take care of an emergency telephone installation on a large scale. Although so many telephone lines were desired in one room on short notice, the house wiring system was of such ample capacity, that not a single exposed wire was necessary. Five 600-pair lead cables are installed in the vertical cable shaft which pass-

the general public had been notified to call for "Election News," if they desired information regarding the election. On calls from public pay stations or nickel telephones, the regular charge was made. The A operator receiving such a request, would pass the number over an order wire to a special B operator. The latter's position was equipped with two special groups, one red, the other white, of cords hung from a board, mounted temporarily over the top of the switchboard. Each of these two groups of cords was associated with a signal lamp of the same color. Sixty-eight such sets were made up in the shop, as shown by the illustration, requiring 4,500 six-foot steel cords, in addition to 1600 shelf cords re-wired for the occasion.

At each local exchange the bulletin from headquarters was taken down and

condenser mounted with it, as in the wiring of the standard Bell subscriber's circuit. Standard repeating coils also were mounted on the set and wired to feed battery to the transmitters, but not to the line. The subscribers, therefore, while hearing election returns, were unable to interrupt. Moreover, the cut-off relays were held up by current over six to twelve volt

group while he switched his transmitter to the alternate group and repeated the bulletin.

The heart of this elaborate bulletin system was the special connecting board on which appeared all the election circuits. For this purpose, a spare section of the A board of the Main Exchange had been reserved. Here every bulletin distributing loop was



TELEPHONE AND TELEGRAPH INFORMATION GATHERING FORCE.
Editorial Room in Background.

es at each floor through a large closet with double doors opening into the hall and exposing its entire interior. In these closets, distributing frames are mounted, each of sufficient capacity for a rural exchange. Two hundred pairs of cable conductors terminate on each of these racks and also five forty-pair cables from floor conduits. These floor conduits have openings so that

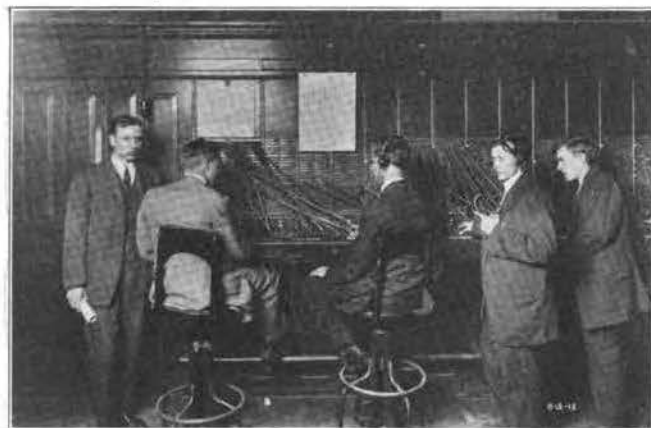
passed to a reader who gave it to the public, through a specially equipped bulletin set connected directly to these cords. In some vacant corner of each operating room was placed a temporary bulletin reading set, also made up in the Chicago Telephone shop, as were the special cords. Each of these desks carried a set of from two to eleven operator's transmitters connected by sep-



READER GIVING BULLETINS TO PUBLIC.

taps from the office battery through the cords to that no signaling by subscribers could interfere with the bulletin service. By using a low voltage for this purpose, the insertion of resistance coils was obviated. Each transmitter of the set was wired to two groups of twenty cords and gave excellent transmission. The reading set was also equipped with a set of self-restoring

terminated, and here battery was applied through cords to the local distributing telephones at the reading desks. As each distributing telephone was connected to two or three local exchanges, it was necessary to strap two or three jacks together and wire the cord circuits so that only one of them would furnish the battery to the reading transmitter, although battery



CONNECTIONS DIRECT TO DISTRIBUTING POINTS.

any desk in the building is within six feet of a telephone circuit. In consequence of this liberal allowance of conductors, it was possible to make the installation of this elaborate bulletin system, without drawing in any additional wire.

By display newspaper advertising,

arate short tubes to a common mouthpiece made of tin.

It was found by experiment, that the tin mouthpiece improved the transmission of this compound instrument almost fifty per cent. over that of a fibre or rubber funnel. Each of the transmitters had its own induction coil and



MANIFOLDING FORCE PREPARING COPIES OF BULLETINS.

switches, which were operated by a common lever and threw the compound transmitter from the red to the white group of cords. Two snap switches on the reading set controlled the signal lights before the special operator at the switchboard. In operating this system, the reader would switch on a lamp before the special B board operator, directing her to use one of the two groups of cords, exclusively, for putting up subsequent connections, while he read to the other group.

Each bulletin, being comprehensive in its information, was about one manuscript page in length and required two minutes in the reading. At the end of a bulletin the reader would announce, "Please hang up your receivers, another bulletin will be read in ten minutes," and would signal the operator to take down all the cords of the

was fed over all of them to hold up the trunk guard relays and prevent discounts. The necessary trunk circuits had been appropriated for this exclusive purpose during the evening.

For toll service a different cord circuit lay-out was necessary, as the tolling current was applied to the reading transmitter at the special connecting position in the standard manner, while the battery was cut off from the toll side of the repeating coils, and the circuits were connected through straight cords at the toll board, leaving them free of all signalling equipment. Competent wire chiefs were on duty at this special position and bulletins giving all circuit features were posted for their guidance.

Thorough provision was made for testing and supervising all this bulletin service from headquarters and also

from the field. Several spare desk sets were installed at one end of the distributing room with loops which terminated on answering jacks at the special connecting position. Circuits were established from this point to each of the twenty-seven local exchanges where bulletins were being given. These circuits terminated in answering jacks with lamps at each end. The supervisor of service therefore could order up a local line to any desired exchange. A board and could ask for and receive the same sort of bulletin service being given to the public. As these circuits had lamps at the connecting position, the equipment men at the various exchanges were able to use them in reporting direct to headquarters, any plant difficulties which arose.

A complete system of inspections of the toll bulletin service in the field was organized. Six men traveling by carefully prepared railroad schedules visited all the suburban cities during the evening, placed calls for bulletins, observed conditions and reported by telephone over a special toll loop to traffic supervisors at headquarters. Thirteen large common-battery exchanges, viz: Oak Park, Joliet, Evanston, Elgin, Aurora, Hammond, Waukegan, Gary, La Grange, Chicago Heights, Wilmette, Maywood and Hyde Park, used the compound transmitters with alternate groups of special cords, giving returns by the methods used within the city.

Other suburban common-battery offices equipped dead switchboard positions with cords without battery to prevent interruptions, and by throwing keys together, were prepared to read bulletins to a number of subscribers simultaneously. Even simpler methods prevailed in the rural places tributary to some of the distributing centers.

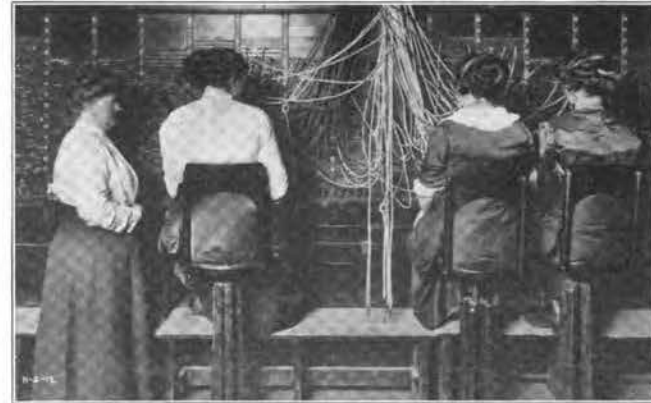
The design and installation of all this special apparatus fell to A. P. Hyatt, equipment superintendent. As the description indicates, about ninety per cent. of the preparation was shop work. Only three weeks' notice was given Mr. Hyatt to undertake this task and as the engineering required several days the actual labor of manufac-

ture and installation had to be accomplished in ten days.

The traffic officials issued complete instructions to their forces, days ahead of time, so that each responsible employee was familiar with his duties.

H. F. Hill, General Manager of the Bell System for Illinois, was the high official who was responsible for the entire bulletin service of the state, and the organization, system and discipline which were so successfully developed were due to his efforts.

More than a hundred clerks and



ARRANGEMENT OF CORDS FOR BULLETIN SERVICE.

was served in relays, partly by young women from the office of the Traffic Department.

Among the interested visitors at the Telephone Bulletin Department were Mr. Nakayama of the Imperial Service of Japan, and Mr. Sakano, Director of Communication at Osaka, guests of William P. Sidley, vice-president and general counsel of the Western Electric Company, and also Messrs. Turner and Odell of the Telephone branch of the British Post Office.

The enormous load thrust upon the operating department by the bulletin service was not allowed to interfere with or impair the general service in the slightest. Although election night is a holiday occasion and the evening traffic was unusually heavy, an ample

company. This vast number of calls exceeded by 10,000 the previous maximum single day's traffic record and marks a half-billion-a-year gait for the Chicago Telephone Company.

DISCLOSES BURGLARY.

Nitroglycerin Explosion Throws Receiver from Hook and Operator Gives Alarm to Police.

Early one morning a few weeks ago the First National Bank of Medaryville, Ind., was robbed by three men, who escaped with \$2,000 in silver. A unique telephone accident was respon-

COMPANIES TO GIVE PENSIONS TO EMPLOYEES.

(Continued from page three.)

under certain conditions, the Associated Companies may draw. This fund is supplemented by funds set aside by each company. The total appropriations will aggregate something more than \$10,000,000. The benefits, it is estimated, will cost annually about \$1,000,000 more than the present payments on this account.

The administration of the funds will be in the hands of Employees' Benefit Committees of five, to be appointed by the Board of Directors of each company. The committee of each associated company will have jurisdiction over the benefits for employees of that company.

The Employees' Benefit Committee of the American Telephone and Telegraph Company will have general jurisdiction over the plan for the entire system and specific authority as to the American Telephone and Telegraph Company's employees' benefits.

President Sunny's Statement.

In announcing the new pension, disability and insurance plan, President B. E. sunny says:

"The five Bell Telephone Companies, with headquarters in Chicago—the Chicago Telephone Company, Central Union Telephone Company, The Cleveland Telephone Company, Michigan State Telephone Company and Wisconsin Telephone Company—will adopt the Pension, Disability Benefits and Insurance Plan in behalf of their employees.

"The approximate number of employees in the five companies operating in the five states of Illinois, Wisconsin, Indiana, Michigan and Ohio is 30,000.

"The telephone companies are among the largest employers of labor, and the pay rolls are unusually large—the equivalent to fifty per cent. of the gross receipts. This is a larger distribution of the gross revenue among the employees than any other industry.

"The Pension, Disability and Insurance Plan now put out by the telephone companies is another evidence of their determination to retain the services of their employees who can give the best



SUPPER FOR THE WORKERS ON ELECTION NIGHT.



BULLETIN DEPARTMENT FROM WHICH BULLETINS WERE DISTRIBUTED TO VARIOUS EXCHANGES.

force of experienced operators was kept on duty and the regular business was handled with exceptional promptness and accuracy.

HALF BILLION A YEAR.

This Rate of Calling Reached in Chicago as Shown by Record of Recent Peg Counts.

The proportions to which Chicago's telephone business is growing is re-

sults, and to look after these employees when they are disabled, or are no longer able to work."

Big Steamer Installation.

The Steamer *Sceand-Bee*, of the Cleveland and Buffalo Transit Company, is the largest steamship on the Great Lakes and the largest side-wheel steamer in the world. Among its up-to-date features is a telephone system of 500 stations. The boat was recently launched at Detroit.

sible for the prompt discovery of the burglary.

Two charges of nitroglycerin were used. The first charge threw the receiver from the hook of the telephone in the bank's front office. The operator at Medaryville believed that some one at the bank was trying to get a connection. When no call came, she rang the bank's telephone. Still receiving no call, she listened and heard over the wire the report of the second explosion.

IMPORTANT WORK ON WASHINGTON STREET

Building of New Chicago River Bridge Brings Difficult Plant Problems.

When the Street Railway tunnel was completed under the Chicago river at Washington street, several months ago, it was possible for the city of Chicago to begin the construction of a modern jack-knife bridge across the river at Washington street. This bridge will be a great benefit to the city, particularly in taking care of a portion of the automobile traffic, which would naturally go west on Washington



FIGURE 1.—LOOKING WEST ACROSS CHICAGO RIVER.

street, across the river and out on Washington boulevard.

The steel work on the north half of the bridge itself is now practically complete. Figure No. 1 shows this portion of the bridge from the east, with the new Northwestern Railway station in the background. Figure No. 2 shows the same portion of the bridge from the west, with the Occidental Building and Occidental Annex, which have for several years given temporary quarters to the Plant and Engineering Departments of the Chicago Telephone Company, and beyond it, the Telephone Company's new twenty-story building.

In preparing the approaches to the bridge on the west side of the river the Pennsylvania Railway Company expects to sink two eight-foot caissons for the erection of foundations for the heavy steel work of the approach to the bridge. The conduit tunnel in which the Chicago Telephone Company and the Commonwealth Edison Company cross the river under Washington street lies just south of the street railway tunnel and directly in the way of the most westerly of these two caissons. This conduit is one of the most important in the city, carrying

the principal trunk lines between the loop offices and the metropolitan and suburban exchanges on the West, Northwest and Southwest sides of the city. Twelve offices are reached by these cables. In this run there are ten 300-pair No. 19 gauge cables, four 600-pair No. 22 gauge, one 400-pair No. 22 gauge and one 150-pair No. 16 gauge, the latter carrying the toll lines to Austin, Oak Park and other western suburbs.

In order to get out of the way of the work to be done by the Pennsylvania Railway Company it was necessary greatly to enlarge the vault at the west side of the river, put in several feet of conduit under the sidewalk at the south side of Washington street and then turn back north to another vault in line with the main conduit run beyond the proposed caissons. Additional pieces had then to be spliced into the cables in this run and carried around by the new path under the sidewalk. Figure No. 3 shows the west side of the vault just west of the river and shows the cables bending to the south and then again to the west under the sidewalk.

The distribution of the conductors in these various cables among the twelve offices involved made the cutting in of these new pieces of cable a rather intricate job and required the utmost care in tagging to keep the various counts straight.

Rearrangements of this kind illustrate the sort of emergencies that are always arising unforeseen in a large city plant. They are usually costly, especially as economy is always sacrificed to continuity of service, and it is possible that the public does not always realize how these things, unknown in smaller exchanges, unavoidably increase the cost of metropolitan telephone service.



FIGURE 3.—TEMPORARY SUSPENSION OF CABLE

SECOND SUCCESSFUL PIONEERS' MEETING

Over 500 Veterans in Telephone Service Attend Convention in New York.

Nothing is too good for the Pioneers!

This seemed to be the motto adopted by the New York Telephone Company and American Telephone and Telegraph Company in providing for the Second Annual Reunion of the Telephone Pioneers of America, held in New York, November 14th and 15th. The meeting was larger than the first one held a year previously in Boston when the society took form. The entertainment, also, was fully up to the utmost that might be expected from hospitable hosts backed by the resources of Gotham.

The sessions were held at the Hotel Astor. At the business session which opened the convention, the old officers were re-elected, as follows: President, Theodore N. Vail; Vice Presidents, B. E. Sunny, F. H. Bethell, W. T. Gentry and E. B. Field; Secretary and Treasurer, Henry W. Pope. It was decided to hold the 1913 convention in Chicago next October, definite arrangements to be announced later. The western delegation extended a warm invitation to the Pioneers to meet in San Francisco in 1915 at the time of the Panama-Pacific Exposition and this invitation will probably be accepted.

At the first afternoon session addresses were delivered by Thomas R. Watson, who assisted Professor Bell



FIGURE 2.—LOOKING EAST ACROSS CHICAGO RIVER.

in developing the first telephone; Emil Berliner, inventor of the Berliner transmitter; S. G. McMeen, a Chicago telephone engineer; J. J. Carty, Chief Engineer of the American Telephone and Telegraph Company; W. D. Kingsbury, of London, England; and Thomas D. Lockwood, who went into the telephone business in 1879 as the head of the first Bell patent department. These addresses were largely historical.

The entertainments provided for the visitors were an important part of the program. They included a reception and musical entertainment at the Hotel Astor given by the New York Telephone Society; an automobile ride through the city parks and to Briarcliff Lodge, on the Hudson, where a fish luncheon was served; and a banquet at the Hotel Astor, followed by an entertainment by professional performers. In addition to the professional stunts, A. S. Hibbard, former General Manager of the Chicago Telephone Company, sang some of his inimitable telephone songs and Mr. Hibbard, with Col. W. T. Gentry, of Atlanta, executed a "bear dance." Those who attended from the Central Group territory were:

Mr. and Mrs. W. R. Abbott; Mr. and Mrs. F. B. Cook; Mr. and Mrs. C. H. Brownell; Mr. and Mrs. S. G. McMeen; Mr. and Mrs. W. J. Berry and daughter; A. P. Allen, H. E. Allen, E. H. Bangs, Robert Cline, Wm. J. Malden, P. Yensen, C. L. Boyce, J. C. Weisert, A. S. R. Smith, F. E. Leonard.

Election Echoes.

That there are some people who have unlimited faith in the Bell Telephone Company's ability and willingness to furnish service was evidenced on the night of November 5th. A lady called for election news and was given a summary of the returns then available. She then stated that it would oblige her very much if her line was connected in such a way that she could hear the returns from all parts of the country as they came in.

Lady (calling for election returns): "How is the election going?"

Election Operator: "Returns indicate a Wilson victory."

Lady: "Well, if that is the case I suppose my husband will be home early."

Helpful Hints to Building Janitors

F. H. Baker, of the Chicago Plant Department, who is in charge of the janitors at the Headquarters Building, recently sent a circular letter to the force which contains some hints which would be useful to all men in similar positions anywhere. The letter follows:

TO OUR JANITORS.

The merchant earns his living by selling goods, and this is called "business." According as the quality of his goods and his ability to please his customers approach the standard of perfection, so will the ratio of his success in his business, as well as his profits increase.

We are the "merchants" of our labor, and according as we dispense it (good or bad), so will our profits in the form of wages and position be governed. We are exchanging our labor for wages with a great corporation. When we engaged with it, it was mutually understood that we were to give our best efforts; we sought the employment and accepted the scale of wages, and the only business or man-fashion way to do is to resign and seek employment elsewhere when we cannot give our best efforts, making way for others who are willing to engage and do this.

Large corporations are continually on the lookout for earnest and interested workers, and no matter how small the department, nor how apparently insignificant the position, because of the ever changing and shifting about, trying to locate the right man in the right place, as well as the growth and expansion of the company's business, the willingness to do one's level best, backed by a desire to improve and advance in position, is bound sooner or later to be rewarded. Recognition and promotion may seem slow sometimes, but this is only natural because of the large number of employees, but efficiency and worth are bound to make themselves known and to receive the recognition warranted.

Large corporations of necessity employ large numbers of workers. By experience the officials have learned of the loss entailed by negligent and careless workers, and by the same mark the saving and benefit derived from the earnest, interested and intelligent worker, and that the very life and success of the great business system over which they have supervision calls for the recognition and reward of the latter. Each of you holds the key to your future success or failure.

Your superiors may advise and help you, but you must individually carve out your own future by diligent and earnest work, backed up by a desire to advance. Your superiors are in a position to recommend advance in salary and position, but you as individuals must perform work so that it spells "First Class" in letters so big that all can see it before the recommendations can prevail or before they would be favorably acted upon if they were made. Your superiors cannot produce results without the earnest individual co-operation of the force. For men in our class of occupation we are as free from arbitrary rules and usages as it is possible for a body of men in like position to be. The writer recalls reading something like forty years ago an address by Professor Eastman, of Eastman's Business College, Poughkeepsie, N. Y., to a graduating class of young men, in which he said: "You are the architects of your own fortunes; rely upon your own strength of body and soul. Take for your watchword Honesty; and inscribe on your banner, 'Luck is a fool—Pluck is a hero.'"

This describes our position as well as anything I could say, and our study and observation of the great business men, the majority of whom have come up from small beginnings, show the value of this bit of advice.

It is stick-to-it-iveness and everlasting keeping at it with the right motive which bring success in any line of labor or business.

HEAD JANITOR.

GOOD IN COLUMBUS, TOO.

Manager Receives Letter from Subscriber Testifying that Service There is Strictly O. K.

Following is a letter received by D. H. Morris, district commercial manager at Columbus, Ohio, from a subscriber who moved to Cleveland: Central Union Telephone Co., Columbus, Ohio.

Gentlemen: I have the pleasure to enclose herewith postoffice money order for \$12.55 in full payment of the enclosed bills of my account with you to September 30th inclusive, this being for long distance messages and telegrams, the phone having been discontinued on that date.

I wish to thank you for the many courtesies extended and the prompt attention given my business in your office, while I was a resident of Columbus, and your management is to be congratulated on their ability to surround themselves with such pleasant and competent help, which always made it a pleasure to do business with your office and over your lines.

I cannot thank any individually as I do not know them, but you will do me a favor to express my gratitude to the ladies at the board who attended the calls of N. 4167 when I had it, for their politeness and attention and their desire to please, for I feel duly grateful. Wishing you every success, I remain, cordially yours, A. S. PORTER.

SOUTH CHICAGO TAKES PRIZE.

Has Best Decorated Float in Industrial Parade of Retail Merchants' Association.

From a field of more than 200, the float entered by the Chicago Telephone Company in the industrial parade of the South Chicago Retail Merchants' Association, on the night of October 30th, took first prize. A letter received by J. J. Bickel, manager at South Chicago, states that "the young ladies who put life and beauty touch to your float would easily win in any beauty contest."

The float was designed by and decorated under the supervision of the Publicity Department. The body of the float was a large automobile truck. Over the front and covering the driver's seat was a huge globe showing the oceans in white and the continents in blue flowers. Upon this globe stood a floral telephone. Ribbons led from the globe to the hands of twelve young ladies sitting in three rows of seats arranged band-wagon like in the back of the car. At each end of this tier of seats was a flat, floral blue bell. The float was admittedly the most striking feature of the parade.

A flashlight photograph of the float came out badly and a cut therefore could not be made.

Finder of Men.

The Emporia Gazette, that western journal which published the celebrated article on "What's the Matter with Kansas?" describes the telephone as

one of the wonders of the age and relates the following:

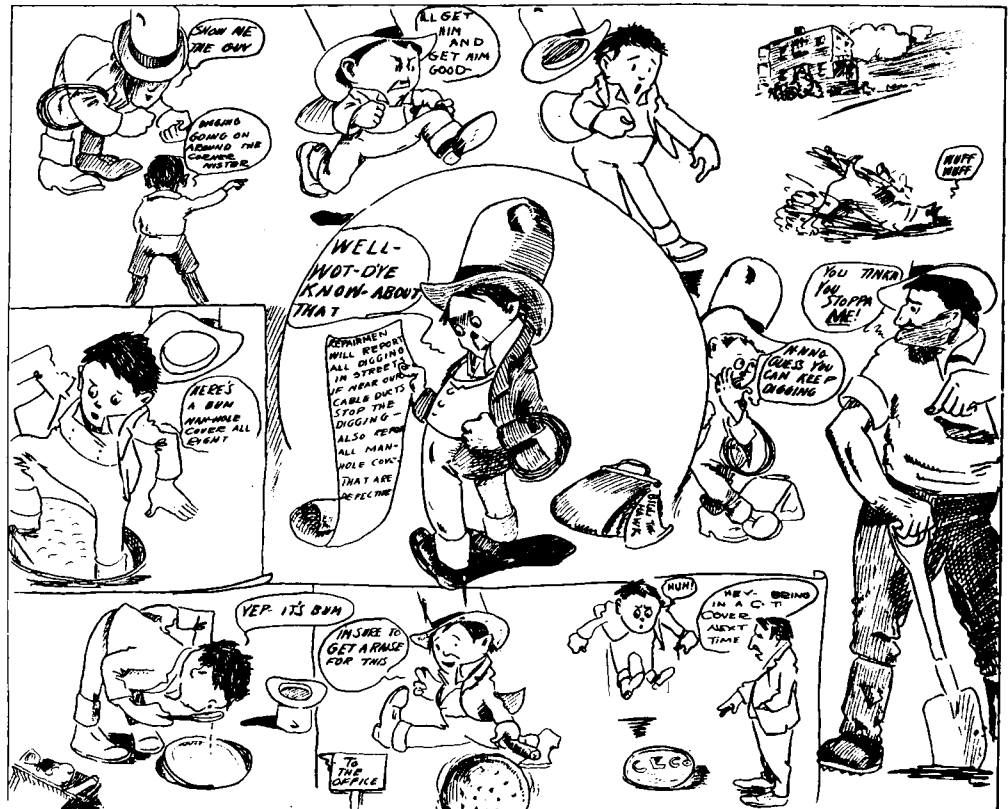
"Yesterday an Emporia man got a telegram from Governor Hiram Johnson of California. The telegram was dated at Columbus, Ohio. The Emporia man, desiring to answer it quickly, put in a telephone call for Governor Johnson. The Emporia operator was told that the telegram was dated at Columbus, Ohio, and that probably the Governor was speaking some place in Ohio. The operator also had the information that Walter F. Brown, state chairman of the Progressive committee, would know where Johnson was; but the Emporia man did not know where Brown lived, nor where his office was. In fifteen minutes Governor Johnson came to the phone. He was talking at Dayton, Ohio. The Bell had found him.

CLEAN CITY BRIGADE FORMED.

Expected That 100,000 People Will Volunteer to Help Keep Chicago Clean.

The Municipal Art League of Chicago has started a "Clean City Brigade." The object of this organization is tersely stated to be "Help Keep the City Clean."

The organization is designed to be made up of volunteers and 100,000 people are expected to join. Every member is responsible to himself and to the Art League to do everything he can at any time he can to help clean, purify or beautify the city.



SOME EFFECTS OF RECENT INSTRUCTIONS.

Instructions recently issued by the assistant maintenance superintendent requires city repairmen in Chicago to make inspections in their own districts instead of these being made by special inspectors, whose services in this connection have been dispensed with. The above is a cartoonist's conception of some of the effects of these instructions.

The portion on the extreme right illustrates what might have taken place when the last of five separate repairmen, the previous four having within one hour done the same thing, approached a location where digging was going on and cautioned the workmen to avoid, if possible, coming in contact with underground conduit in that vicinity.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

TELEPHONE BUILDING

CHICAGO, ILLINOIS

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,750 copies per month.

DECEMBER, 1912.

EMPLOYEES' BENEFIT PLAN.

The announcement by the American Telephone and Telegraph Company and Associated Companies of a Disability, Pension and Insurance Plan, effective January 1, 1913, which will confer life insurance, health insurance and service pensions upon 175,000 employees, including those of the Western Union Telegraph Company and the Western Electric Company, marks another step in the progress towards recognition, on the part of the greatest public service corporation in the world, of its obligation to substantially acknowledge faithful, intelligent and continuous service by those in its employ.

The plan is financed entirely by the Telephone and Telegraph organization, and is non-contributory so far as the direct beneficiaries are concerned, save for the fact that their best efforts must have been put forth in long and loyal service.

By "those whose eye is single," flooding the body with the light of God's sunshine, honor will be accorded the men who, with keen prescience and painstaking, earnest desire for good, have wrought and brought to fruition a scheme that will bring help and comfort not only to thousands whose names shall appear as participants in it, but to thousands more who are dependent upon them.

We congratulate the great army of workers in the telephone and telegraph industry who will share in the benefits of the Disability, Pension and Insurance Plan, and we congratulate the officers and directors through whose unselfish, thoughtful and effective labors it has been accomplished.

ELECTION RETURNS.

Many of us—who are not so old, either—remember when it was hard to tell for a day or two after election who really had been chosen President of the United States.

True, returns came in and claims were made. Rival newspapers came out the following day with screaming eagles or crowing roosters spread over their front pages, valiantly declaring—the one, from the few returns in, that its candidate had been elected, the other, hoping in results from precincts not yet heard from, that its nominee likewise surely had won the fight. Finally, about the second or third day, sweating horsemen, their mounts hidden in mud, came into the county seats, bringing from the small towns and rural districts the figures needed to tell the exact story.

The telephone has changed all this. Today, when the ballots are counted in a rural precinct, the result is telephoned to the county or township headquarters. In the cities the results in the precincts are known as fast as the votes can be counted.

The writer of these paragraphs recalls that in 1896 the election of W. J. Bryan was claimed as late as 2 p. m. of the day following the election, the claim being based on the lack of full returns from several of the doubtful states. At the election just passed, the country was fairly well convinced at 8 p. m. of election day that Wilson had won, and this was a certainty two hours later.

The methods of collecting and distributing the

news by telegraph into and from the larger centers has doubtless materially improved since the time above mentioned, but the use of the telephone in gathering the figures from the individual precincts and the small centers is to be credited with the greatest part of the improvement.

And all this is without saying anything of the satisfaction of subscribers in sitting at home on election night and hearing the election news over their own telephones.

BELL SYSTEM NOT A "TRUST."

That the Bell Telephone System is not a "trust" subject to "dissolution" and other penalties under the Sherman Anti-Trust Law, is indicated by the result of the government investigation of the American Telephone and Telegraph Company.

The *New York Herald* is authority for the statement that Attorney General Wickersham has called on the company to make certain changes in its policy and methods, which will bring it unquestionably within the law. These changes are stated to include a more friendly policy toward independent companies and greater liberality in exchanging service with them. The company is understood to have shown a willingness to meet the needs of the situation from the government's standpoint. The attorney general is said to have given special attention to the relationship of the Bell System and the Western Union Telegraph Company. The only important point of objection found was the practice which obtained for a short time of using the word "Telegram" as a code word for calling the Western Union office only, and this practice has since been wholly abandoned.

For many years the officers of the Bell System have been frankly and openly working to promote universal telephone service without duplication. The laws of many of the states provide specifically for the consolidation of telephone systems under wise regulation to protect the interests of the telephone users. It is difficult to conceive how any public benefits would be secured by breaking up into small units a system now operated as a whole in a manner which is clearly advantageous to the subscribers. If competition should result it would be a competition not welcomed by the public.

ALL TOGETHER FOR 1913.

Every reason exists for believing that the telephone industry is destined to expand tremendously the coming year.

The Western Electric Company is preparing for a record season. This year has been the second greatest in that company's history and 1913 will probably be the greatest. This growth is the exact reflection of the expansion in the telephone business.

The budgets of the five companies in the Central Group, details of which will be printed next month, provide for an expenditure of approximately \$20,000,000 in the five states for plant additions during the year. This huge sum is equal to the total value of the plant in the same territory not many years ago. The adoption of these plans means that many places where the cry has been "facilities" will have no longer any reason to complain. Rather will the company have good reason to complain if full advantage of the enlarged opportunity is not taken by those charged with the duty of turning the facilities into revenue producers.

The word should be, therefore, "Pull together" to make 1913 a banner year in the useful industry in which we are engaged.

SINGLE-LINE SERVICE.

The best telephone service, every other condition being fulfilled, can only be possible with an exclusive wire. Naturally such facilities as exclusive service demands must cost the subscriber more than any party service. The telephone company must charge more, because it furnishes more facilities for the subscriber's exclusive use.

An exclusive telephone wire is always open for the subscriber to reach the operator or be reached by an outside call. This situation changes radically when there are two residences on the same wire. It changes still more when this number is doubled. An average household, including servants, will have from three to five persons. Therefore if in either family one person wants to telephone, there are always from three to five persons in the other subscriber's household who may then be using the wire, either in outgoing or in response to incoming calls. If there are four parties on the line, which is common in the cheaper grades of service, the chance of a member of either household is diminished by more than the mathematical increase of individuals, for, as each household is added, the opportunity for incoming calls multiplies also. On a two party

line each individual's best chance of talking on the wire is, say as one to five, or nine. On a four party line it is as one to twelve or twenty, according to the size of the family. If a line has twenty persons upon it and each one calls and is called once a day, that small use may consume an hour and forty minutes of the time of the equipment, even if each call averages but five minutes. Greater use per person will rapidly increase the number of "busy" signals to each individual. These figures suggest the problem. But they do not take account of the liability of being overheard on a line that is congested or the danger of thoughtless or selfish extraordinary use of the line by some one person or family.

In telephone service the public gets what it pays for and exclusive service is necessarily most costly. As a subscriber shares his opportunity with others the cost to him is lowered accordingly as he voluntarily assumes this handicap.

WAIT A MINUTE.

Overdoing the habit of asking people to "wait a minute" is a theme taken up opportunely by *The Mountain States Monitor*, published by the Mountain States Telephone and Telegraph Company.

In many departments and offices a request for information, however slight, results in the reply, "Wait a minute." Sometimes, perhaps often, the informant knows the answer, but prefers to confirm his viewpoint before making the statement.

When a habit fastens itself on a person who has as a part of his duties the answering of telephone calls, it is a source of expense to the three agents involved—the caller, the telephone company and the person called.

Of course, not everyone who may be approached on any subject is expected to know the correct answer immediately. It is not a fault, necessarily, to ask a moment's delay before giving the desired reply. However, the habit of saying, "Wait a minute" to 80 per cent. or more of all incoming telephone calls, and of a large majority of all other requests for information, is a fault that may be easily overcome.

There should not be an ever-present fear of giving the wrong reply. Such a condition is an acknowledgement of incapacity not justified by the other work of some of these people who are frequently questioned. It is, perhaps, an undue hesitancy which practice may help to check. Whatever may be the cause, it is unfortunate. Like all employees who consider themselves open to suggestions, we should aim to be informed and to be ready to impart our information.

THE IDLY CURIOUS.

One evening recently in Rockford, Ill., a fire alarm sounded. It was at an hour when everybody was awake, but after the usual time for reducing the operating force at the telephone exchange.

Everybody was curious about the fire and soon the switchboard was twinkling with lights. The girls did the best they could, but only three were on duty and they were unable to respond to all the calls, most of them from the idly curious, which seemed to come in from every line at the same time.

Important calls cannot be distinguished from those of callers who seek merely from curiosity to learn the location of a fire. The persons who are vitally interested are handicapped.

The use of the telephone by disinterested people at such times is to be discouraged. Telephone people ought to use their influence in bringing about a reform in the constant abuses to which telephone service is subject. Here is a case where the reform can be accomplished only by education. We cannot refuse to answer calls and we cannot, as stated above, tell the important calls from the frivolous ones.

ZERO IN PROGRESS.

Two queer newspaper paragraphs appeared recently, by a strange coincidence, on the same day. A professor of the University of Virginia states that we ought to breathe through our ears, arguing that man used to do so when he was a fish. And the governor of Texas remarks that "We used to live well without automobiles, telephones and electric lights."

The similarity lies in the violent reactionary sentiment implied in each case. We are moved to observe that man is about as liable to revert to the condition of a fish as he is to do away with automobiles, telephones and electric lights. As to the governor of Texas, his statement would be entirely accurate if he eliminated the word *well*.

In time alone, all men are equal. In the use of time lies the difference. How are you using yours?

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
 230 West Washington Street
 CHICAGO

B. E. Sunny, President.
 Alonzo Burt, Vice President.
 W. J. Mizner, Secretary.
 C. E. Mosley, Treasurer.
 L. G. Richardson, General Counsel.
 B. S. Garvey, General Auditor.
 Clifford Arrick, Manager Publicity Department.
 J. G. Wray, Chief Engineer.
 H. F. Hill, General Manager, Chicago, Ill.
 E. A. Reed, General Manager, Columbus, Ohio.
 H. O. Seymour, General Manager, Milwaukee, Wis.
 A. von Schlegel, General Manager, Detroit, Mich.
 L. N. Whitney, General Manager, Indianapolis, Ind.

OFFICE MANAGEMENT

By W. MAGILL, Vice President's Office, Chicago

EDITOR'S NOTE—This article appeared originally in the *Michigan State Gazette*. Mr. Magill, at the time he wrote it, was chief clerk in one of the executive departments in Detroit. It was copied in the *Telephone and Telephone Age* at the time and reprinted in that journal a few weeks ago. It thus again came to the attention of several of our officials and is here reprinted by request.

No manager or head of a department can hope to make a satisfactory showing for his particular office or department, in these days of strenuous competition, unless the methods of himself, as well as his subordinates, be systematic.

By system it is not to be understood that every maneuver or transaction of the office must be burdened with so-called "red tape," as this latter item used excessively will prove a hindrance rather than a help in facilitating prompt and satisfactory handling of business matters.

By injecting a proper amount of system into the work, cutting out the non-essentials, the office man may not only economize in the matter of time and money for his employer, but will save in addition much wear and tear to his own physical health as well as to whatever gray matter there may be stored in his head.

The office end of the business requires regulation just as essentially as any other branch of that business; the best methods should be adopted for facilitating and improving the work, the office force should be lined up so that each individual member thereof may do his full duty, and any "deadwood" that may be permitted to exist will only serve to retard the smooth and successful operation of that office the same as a broken cog on a wheel will throw out of gear the rest of the machinery.

In adopting a system, plan something that will suit the conditions and necessities of that particular business, a system that will accomplish in the shortest and most simple manner possible the ends desired; avoid all elaboration that will tend toward a duplication of action, not only as regards the large items of the business, but also the minor details as well, as unnecessary use of either time, labor or material, means just that much waste of money.

Great care should be exercised in handling all the details of correspondence. Letters should be addressed in manner refined and courteous to all correspondents, they should be accurate in description and detail, be as concise as possible, but not so brief as to rob the communication or leave

In doubt any of the essential facts intended to be conveyed; all unnecessary information, however, which is foreign to the subject should be omitted. Make one letter cover the subject in hand, and if another subject needs attention write a separate letter.

To successfully handle the affairs of an office connected with a business of any magnitude the men in charge must be on the alert every minute, they must be energetic, tactful, faithful to their trust, courteous, punctual, and capable to perform the duties required of them.

The work of a good office man very readily shows that man's capacity for holding his position. A glance at his desk will indicate just how he does it; you will not see his papers all piled and jumbled up in a miscellaneous mass, but you will note the evidence of system; his correspondence will be neatly arranged, every subject to itself, with every letter in proper sequence; you will find on his desk only such implements as are necessary for his work, and will note the absence of gaudy pictures and bric-a-brac which might be an attraction on the mantel at home, but not serviceable on the desk of a busy man.

The good manager is invariably a hustler; he is awake not only to the duties of his particular position, but he is in touch with other things both in the business and out of his line of work; he is socially a good fellow, and commands the respect not only of his superiors but also his subordinates as well.

Some Interesting Contrasts.

At a small dinner given at the Union League Club on the night of November 5th, President Sunny of the Chicago Telephone Company had as his principal guests two distinguished representatives of the Japanese government, Riji Nakayama, Electrical Engineer to Imperial Department of Communication, Tokio, and Tetsujito Sakano, Director of Communication at Osaka. Mr. Nakayama gave some interesting information regarding the manner of conducting the telephone business in Tokio, a city of 2,000,000 inhabitants. With a population closely approaching that of Chicago, there are in service 40,000 telephones, as compared to over 300,000 in Chicago.

There are 30,000 applications on file for service and the Government, which operates the telephone service, is installing instruments at the rate of 4,000 a year. Those well down the list have the inviting prospect of waiting seven years before they will receive service, if the present rate of installation is kept up.

The only means whereby a man who is not disposed to await the leisurely pace of the regular governmental routine can get a telephone is to see if he can find some one who will sell out his service and then offer a bonus ranging anywhere from \$200 to \$500.

Mr. Nakayama stated that the rates in the Japanese metropolises are \$33 a year for each telephone and the charge is the same for both residence and business service. The wages of operators are about \$5 per month.

It is not surprising that the Japanese visitors were amazed at the telephone development in Chicago and at the fact that the Chicago Telephone Company is installing 40,000 telephones a year, or as many as there are in the entire system of the city of Tokio.

After dinner President Sunny's guests accompanied him to the telephone company's building, where news of the presidential election was being collected and distributed. They were interested observers of the manner in which the great mass of returns was handled and expressed their admiration of the work of the company's Election News Bureau.

LOVING CUP FOR BELL MAN.

Cleveland Business Athletics Show Appreciation of T. P. Cagwin's Interest in Club.

About six or seven years ago a few young business men who resided in East Cleveland, Ohio, and who cut more or less of a figure in athletics during their school days, decided they needed some kind of recreation. They were not afraid of their brains getting rusty, as they used them six days a



LOVING CUP PRESENTED TO T. P. CAGWIN.

week, but of their general physical condition they were a little doubtful. So they came to the conclusion that a little baseball on Sunday morning would give them renewed energy for the coming week. That is how the Forest Hill Baseball Club came to be organized.

T. P. Cagwin, commercial manager

of the Cleveland Telephone Company, took a very active part in helping to organize and finance the club, which, at the present time, has a membership of about forty congenial fellows. And the members, wishing to show their esteem and regard for Mr. Cagwin, held a banquet at the Hof-Brau Friday evening, November 15th, and presented him with a silver loving cup.

Does It Pay to Use the Telephone in Selling

Mr. Blank would tell you, if asked, yes. The following shows what he did in calling over the long distance 150 firms and persons.

On the ninth of last April a gentleman tendered our long-distance attendant a list of 150 firms with names of persons at those places with whom he wished to talk. As he had two typewritten copies the long-distance clerk took one and he retained the other. The clerk took her copy to the chief operator who in turn assigned them to her long-distance operators. In a short time the calls began coming in. The party calling was seated in the long-distance booth and as fast as the calls came checked them from his list. In six hours he had completed ninety-five of the calls and had reports on the rest.

In a conversation with him afterwards I learned the service was satisfactory in every way. He further stated it had saved him six days of travel with its annoyance and expense; and further added with regard to the fifty-five he did not talk with it would have been time wasted to go to their places besides the expense, and he had learned when he could reach them by telephone later. — Chelsea (Mich.) *Standard-Herald*.

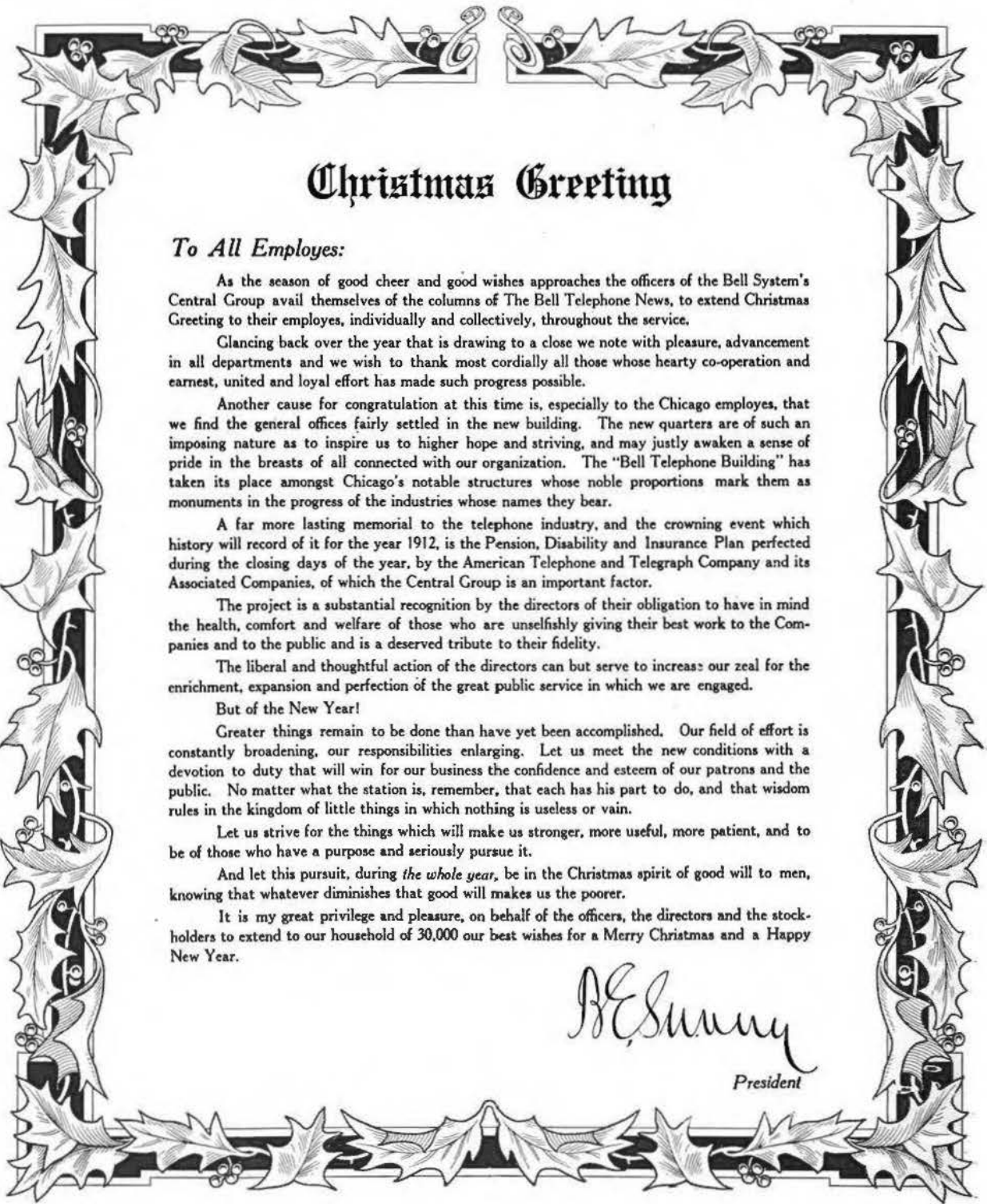
District Collection Rating

| Oct. 1, 1912. | | | | | | |
|---------------|---|---|------------------------|-----------|---------------------|-----------|
| Position. | | Total to be collected during Sept., 1912. | September collections. | Unpaid | Per cent collected. | Stations. |
| 1. | Wis. Tel. Co., Appleton Dist. | \$5,684 | \$7,664 | \$2,079 | 92.2 | 25,816 |
| 2. | Wis. Tel. Co., Madison Dist. | 37,649 | 34,880 | 2,769 | 92.2 | 15,016 |
| 3. | C. U. Tel. Co., Terre Haute Dist. | 36,842 | 33,601 | 3,041 | 91.7 | 19,166 |
| 4. | Wis. Tel. Co., Janesville Dist. | 8,837 | 7,765 | 772 | 90.9 | 8,349 |
| 5. | *Wis. Tel. Co., Milwaukee Dist. | 126,343 | 114,124 | 12,221 | 90.3 | 56,465 |
| 6. | C. U. Tel. Co., Anderson Dist. | 30,491 | 27,435 | 3,056 | 90. | 15,042 |
| 7. | C. U. Tel. Co., Chillicothe Dist. | 30,282 | 26,572 | 3,710 | 87.7 | 16,726 |
| 8. | C. U. Tel. Co., Dayton Dist. | 55,207 | 48,103 | 7,099 | 87.1 | 23,053 |
| 9. | C. U. Tel. Co., Galesburg Dist. | 47,338 | 41,236 | 6,102 | 87. | 19,864 |
| 10. | C. U. Tel. Co., Toledo Dist. | 61,024 | 52,857 | 8,167 | 86.6 | 25,224 |
| 11. | C. U. Tel. Co., Columbus Dist. | 48,732 | 44,391 | 4,341 | 84.9 | 19,920 |
| 12. | C. U. Tel. Co., Centalla Dist. | 20,592 | 17,424 | 3,168 | 84.6 | 10,715 |
| 13. | C. U. Tel. Co., Springfield Dist. | 110,490 | 93,138 | 17,352 | 84.3 | 41,622 |
| 14. | *Mich. State Tel. Co., Marquette Dist. | 33,397 | 27,991 | 5,406 | 83.8 | 13,862 |
| 15. | Chicago Tel. Co., Chicago Heights Dist. | 6,913 | 5,782 | 1,107 | 83.6 | 2,336 |
| 16. | Chicago Tel. Co., Chicago Dist. | 1,269,021 | 1,051,670 | 214,522 | 82.9 | 298,091 |
| 17. | Wis. Tel. Co., Eau Claire Dist. | 34,465 | 28,390 | 6,075 | 82.4 | 12,443 |
| 18. | Chicago Tel. Co., Blue Island Dist. | 9,107 | 7,349 | 1,743 | 80.7 | 3,906 |
| 19. | C. U. Tel. Co., Akron Dist. | 62,090 | 49,729 | 12,361 | 80.1 | 23,253 |
| 20. | Chicago Tel. Co., LaGrange Dist. | 12,798 | 10,142 | 2,656 | 79.2 | 4,089 |
| 21. | *Mich. State Tel. Co., Detroit Dist. | 326,620 | 255,711 | 70,909 | 78.2 | 93,717 |
| 22. | C. U. Tel. Co., South Bend Dist. | 24,612 | 19,161 | 5,451 | 77.9 | 13,177 |
| 23. | Chicago Tel. Co., Evanston Dist. | 37,001 | 28,602 | 8,125 | 77.3 | 9,113 |
| 24. | C. U. Tel. Co., Indianapolis Dist. | 73,093 | 56,301 | 16,792 | 77. | 27,460 |
| 25. | Chicago Tel. Co., Oak Park Dist. | 33,022 | 25,345 | 7,416 | 76.8 | 9,395 |
| 26. | Chicago Tel. Co., Elgin Dist. | 15,494 | 11,716 | 3,633 | 75.6 | 5,968 |
| 27. | Chicago Tel. Co., Woodstock Dist. | 9,800 | 7,407 | 2,357 | 75.6 | 3,263 |
| 28. | Chicago Tel. Co., Wheaton Dist. | 10,991 | 8,157 | 2,768 | 74.2 | 3,574 |
| 29. | Chicago Tel. Co., Hammond Dist. | 17,194 | 12,354 | 4,617 | 71.8 | 4,870 |
| 30. | Chicago Tel. Co., Aurora Dist. | 16,199 | 11,820 | 4,399 | 71.7 | 5,817 |
| 31. | Chicago Tel. Co., Waukegan Dist. | 29,902 | 21,360 | 8,369 | 71.4 | 7,246 |
| 32. | Chicago Tel. Co., Gary Dist. | 8,428 | 6,004 | 2,330 | 71.2 | 1,863 |
| 33. | Chicago Tel. Co., Joliet Dist. | 26,652 | 18,951 | 7,519 | 71.1 | 9,225 |
| 34. | *Mich. State Tel. Co., Saginaw Dist. | 49,952 | 35,328 | 14,624 | 70.7 | 20,384 |
| 35. | *Mich. State Tel. Co., Grand Rapids Dist. | 102,952 | 71,426 | 31,526 | 69.3 | 42,310 |
| 36. | *Cleveland Tel. Co., Cleveland Dist. | 119,281 | 82,402 | 36,879 | 69.08 | 50,199 |
| | | \$3,003,249 | \$2,452,393 | \$546,262 | 81.6 | \$55,630 |

Division Summary.

| | | | | | |
|--------------------------|-------------|-------------|-----------|-------|----------|
| Wis. Tel. Co. | \$ 267,890 | \$ 243,123 | \$ 24,767 | 90.9 | 112,207 |
| C. U. Tel. Co., Ohio | 257,335 | 221,657 | 35,678 | 86.1 | 108,176 |
| C. U. Tel. Co., Illinois | 178,470 | 151,798 | 26,672 | 85.1 | 72,204 |
| C. U. Tel. Co., Indiana | 164,833 | 136,498 | 28,340 | 82.8 | 74,847 |
| Chicago Tel. Co. | 1,502,274 | 1,226,459 | 271,471 | 81.6 | 367,976 |
| Mich. State Tel. Co. | 612,921 | 390,458 | 122,465 | 76.1 | 170,673 |
| Cleveland Tel. Co. | 119,281 | 82,402 | 36,879 | 69.08 | 50,199 |
| | \$3,003,249 | \$2,452,393 | \$546,262 | 81.6 | \$55,630 |

*Quarterly rental billing.



Christmas Greeting

To All Employees:

As the season of good cheer and good wishes approaches the officers of the Bell System's Central Group avail themselves of the columns of The Bell Telephone News, to extend Christmas Greeting to their employees, individually and collectively, throughout the service.

Glancing back over the year that is drawing to a close we note with pleasure, advancement in all departments and we wish to thank most cordially all those whose hearty co-operation and earnest, united and loyal effort has made such progress possible.

Another cause for congratulation at this time is, especially to the Chicago employees, that we find the general offices fairly settled in the new building. The new quarters are of such an imposing nature as to inspire us to higher hope and striving, and may justly awaken a sense of pride in the breasts of all connected with our organization. The "Bell Telephone Building" has taken its place amongst Chicago's notable structures whose noble proportions mark them as monuments in the progress of the industries whose names they bear.

A far more lasting memorial to the telephone industry, and the crowning event which history will record of it for the year 1912, is the Pension, Disability and Insurance Plan perfected during the closing days of the year, by the American Telephone and Telegraph Company and its Associated Companies, of which the Central Group is an important factor.

The project is a substantial recognition by the directors of their obligation to have in mind the health, comfort and welfare of those who are unselfishly giving their best work to the Companies and to the public and is a deserved tribute to their fidelity.

The liberal and thoughtful action of the directors can but serve to increase our zeal for the enrichment, expansion and perfection of the great public service in which we are engaged.

But of the New Year!

Greater things remain to be done than have yet been accomplished. Our field of effort is constantly broadening, our responsibilities enlarging. Let us meet the new conditions with a devotion to duty that will win for our business the confidence and esteem of our patrons and the public. No matter what the station is, remember, that each has his part to do, and that wisdom rules in the kingdom of little things in which nothing is useless or vain.

Let us strive for the things which will make us stronger, more useful, more patient, and to be of those who have a purpose and seriously pursue it.

And let this pursuit, during *the whole year*, be in the Christmas spirit of good will to men, knowing that whatever diminishes that good will makes us the poorer.

It is my great privilege and pleasure, on behalf of the officers, the directors and the stockholders to extend to our household of 30,000 our best wishes for a Merry Christmas and a Happy New Year.

W. E. Sawyer
President

Twelve Things Installers Should Know

By G. A. FRITZ, Wire Chief of the North and Hemlock Exchanges, Detroit.

(1) That he is often the first representative of the telephone company with whom the subscriber comes into actual contact.

(2) That the impression he leaves with the subscriber at the time of the installation of the telephone goes a long way in forming the opinion of what sort of stuff telephone men are made of.

(3) That his best mode of address should be his guide in all matters pertaining to his daily work.

(4) That his installation of the telephone should in all ways (as far as his installation maintenance rules will permit) be done to please the subscriber.

(5) That he must not dictate to the subscriber where the telephone should be located, and if asked by subscriber for his opinion as to location, should bear in mind, not how easy he can make the work for himself, but the convenience of the user as the one who is going to pay for the service, and with him come to a thorough understanding concerning the details of maintenance, etc.

(6) That he should as far as possible discourage the want of a longer than that of standard length conductor cord on desk sets, by explaining to the subscriber the shorter life of a cord over a standard length, on account of its twists and tangles, also because it may come within reach of the floor and so get stepped on.

(7) That when subscriber insists on having something out of the ordinary in connection with the telephone, the installer must under no circumstances quote prices on such work.

(8) That matters which would make necessary a change of contract must be referred by the subscriber to the commercial department, the installer giving him full information as to how to get into touch with that department.

(9) That he is a plant department employee, and as such must at all times remember his brother employee, the repairman, for then, when he installs his terminal block, protector, inside wiring, and sets and connects his instrument in a safe and correct workman-like manner (barring natural accidents) it will be quite a long time before the repairmen will have to do any additional work on it.

(10) That he should have full knowledge of all the different types of instruments so that he can make permanent repairs when it becomes necessary for him to do so, instead of bringing the instrument back to the stock room to have them made there.

(11) That he should in all cases get his final tests for clear line, transmission and ringing from his dispatcher.

(12) And last, but not least, that he should see that the new subscriber is provided with a telephone directory, repeating to him also his telephone number, and making the suggestion that it be written on the front part of the directory, where it can be readily seen.

With these things borne in mind, complaints such as: "Well, your own man told us so," or "He said he knew it was not working right but he would come back and fix it," and requests for free interior moves because the subscriber stated that the "man had put it there on his own suggestion," will be greatly lessened. It will be also a much easier task for the repairman, when he makes his first call for repairs, to change the subscriber's mind in regard to some "set" ideas, the blame for which is often laid on the installer.



**THE BELL RUNG
300,000-STRONG
AT 9³⁰ A.M. NOV. 4th 1912.**

Three Hundred Thousand Mark Passed In City of Chicago

Clock in City Division Commercial Office Shows Goal of the Year Reached at 9:30 A. M., November 4th.

By A. R. BONE, Commercial Superintendent.

On January 1st, 1912, we had in service 268,383 telephones, and the mark of 300,000 was set for us, to be reached by December 31, 1912.

The clock is still ticking, but the hands are locked, as there is no provision on its dial for registering beyond the 300,000. Each tick is indicative that progress is being made, that something has been done between ticks towards the installation of additional telephones, in the same proportion—perhaps to a slightly greater degree—as when the hands on the dial of the clock were marking time in telephones installed, to the extent of more than one hundred new stations per day. Our goal by the end of the year is now 306,000—six thousand to the good.

The above result, after about thirty-four years of effort in educating the public to use the telephone to "eliminate time, and annihilate distance" places Chicago at the top of the list in telephone development of all large cities of the world.

The Bell Company began doing business in Chicago in 1877, but during that year it was on a very small scale, the largest number of telephones in service being ten.

On March 1, 1879, a directory containing 764 names was issued, only twenty-five of which names represent-

ed telephones in residences. One hundred and twenty-five of the telephones in use at that time were in offices of dealers in or manufacturers of lumber. The packers were the next largest users, having forty-four names in the directory. Most of the railroads were represented. A number of business concerns, whose names were then, and are now, listed, are: Armour and Company, Barnhardt Brothers and Spindler, Brinks Express, J. W. Butler Paper Company, Julius Bauer and Company, Buck and Raynor, Cameron Amberg and Company, The Chicago Daily News, Chicago Evening Journal, Corn Exchange National Bank, J. A. Colby and Company, Drovers Journal, N. K. Fairbanks, Hibbard, Spencer and Bartlett, Hotel World, Inter Ocean, Montgomery Ward and Company, Franklin MacVeagh, Morrison, Plummer and Company, Sprague, Warner and Company, and others. This little directory of forty-six pages is seven and one-half by five and one-half inches, and all the names are in large black-faced type.

The October, 1912, issue of the "Chicago Telephone Company Directory" weighs about five pounds, and lists the names of more than 400,000 subscribers, which include those in Chicago and contiguous territory. In its construction—construction is a good word

to use in this connection—fifty car loads of paper, 1,600,000 pounds; thirty-five barrels of ink; twelve barrels of glue, and twenty-five bales of cotton were used. If placed end to end, this edition of the directory would reach seventy-five miles.

The belief that the telephone could be made commercially valuable was slow to take hold. Early in the nineties, however, the people began to appreciate the good points of the telephone, and the Company's business from then on has increased by leaps and bounds.

On December 31, 1900, there were in service 20,340 telephones inside the City Limits of Chicago—about one for every fifty of our population.

To-day, with its more than 300,000 stations within the City Limits, Chicago has more telephones than any city in the world, except New York City, (more in proportion to the population than New York City) about twice as many as London with her eight million people and five times as many as Paris, and more than are in service on the Continents of Asia, Africa and South America combined, nearly as many as are in service in the Dominion of Canada, more than are in service in Italy, Spain, Russia, Portugal, Greece and Turkey altogether; 67.1 of all the telephones in service in the world are in the United States—The United States, as we all know and believe, is a wonderful country!

Isn't Chicago a Wonderful City?

With such a large army of telephone users, how could she be otherwise than wonderful, progressive, alert, wide-awake, resourceful, and an example for emulation for all the cities of the earth, of the true commercial spirit so much to be desired.

The telephone apparatus first installed in Chicago was crude and cumbersome. The equipment in its one Central office 'way back in the seventies was so large that approximately twenty-five hundred exchanges would be necessary to furnish service in Chicago today, if it had not been reduced in size, as well as improved in efficiency.

To keep pace with new inventions, the Chicago plant has been reconstructed three times. There are to-day forty-five central offices, or exchanges, in the city. Sufficient copper wire is used in connecting subscribers with their respective exchanges to encircle the earth more than thirty times.

There is, perhaps, no generally used commodity which is of so much assistance to the business interests and social comforts as telephone service, yet in the minds of most people it is not given credit for what it does. It is taken for granted in about the same way as the air we breathe, or the water we drink. A delay of a few seconds in getting a telephone connection, is today considered a serious matter.

The telephone army in the City of Chicago is nearly as large as all the other forces which guard the city. The employees of the Police Department number 4,983, of the Fire Department 1,984, the members of the National Guard in Chicago 2,887, making a total of 9,818, while there are 9,500 employees in the service of the Chicago Telephone Company in the City of Chicago. Their services are necessary in completing a daily average of 1,696,589 telephone calls used by Bell telephone patrons in the City of Chicago. The efforts of these employees are not visible, as are those of our sales people in our mercantile establishments, yet the operators render service in the same relative high-class capacity, as do the best of those engaged in other pursuits in contributing to the happiness, prosperity, welfare and comfort of the general public. Often it seems because their efforts are not seen, more is expected of them than of employees in any other line of business.

The best cure for telephone impati-

ence is a visit to the operating room of a telephone exchange, where the intelligent and co-operative work of the operators, supervisors and chief operators, in responding at lightning-like speed to demands for numbers may be observed. Because everything pertaining to telephone service, except the instrument itself, is invisible, it often seems that an exacting public has gotten into a way of thinking only of the telephone, and not of the service.

Between any two of the forty-five Chicago exchanges connections are made direct. Thousands of trunk lines weave a net-work from each exchange to the others, and a call from one district to another, from one part of the city to another, is completed as quickly as a call from one telephone in a large office building to another telephone in the same building. Three hundred and six thousand telephones—one for ev-

increased to 28,000, and at that time the population of the city was 1,700,000. From that year on the growth in the number of telephones in service was very large. In 1905 the number of stations was 112,500 and the population 1,900,500. In 1910 the population was 2,185,000, the number of telephones 240,000. In December, 1911, the population was 2,225,000, the number of telephones 265,184. On November 30, 1912, the population was 2,357,500—NUMBER OF TELEPHONES IN SERVICE THREE HUNDRED AND THREE THOUSAND.

From 1890 to 1900 the Chicago Company's investment in telephone plant and equipment increased from \$1,800,000 to \$8,250,000. In 1910 its investment amounted to \$35,000,000.

The present area of Chicago is 204 square miles. In looking forward to the year 1930 it is conservatively estimated that the city's area will then

SECTION LINEMEN COME FROM AFAR

Conference of Chicago District of
American Telephone and
Telegraph Company.

A conference of all section linemen maintaining plant in the Chicago District of the American Telephone and Telegraph Company was held September 23rd and 24th, and 27th and 28th at the District Headquarters, 4701 Kedzie Avenue, Chicago. The conference was held in two sessions, half of the men attending the first session on the 23rd and 24th and the remainder the second session on the 27th and

REBUILDING WESTERN UNION TELEGRAPH

Reconstruction Process Goes On,
Reaching New Record
in 1911-1912.

The policy announced by President Vail at the time the American Telephone and Telegraph Company secured a large interest in the Western Union Telegraph Company and came into control of its affairs has been steadily carried out and the improvement in the condition of the Western Union's property and business is marked.

The United States Investor, in a re-



FIRST SECTION OF A. T. & T. PLANT CONFERENCE.



SECOND SECTION OF A. T. & T. PLANT CONFERENCE.

ery eight and a half of our population—is truly something to be proud of, and it would be impossible to conceive in how great a measure the expansion of the telephone service in Chicago has aided in the expansion and growth of the city's business in general.

During the year 1909 there were transmitted in the United States 8,793,000,000 letters by mail, 98,000,000 telegraphic messages, and 12,617,000,000 telephone messages. Statistics are not available for a later period, but these figures are given because of their enormity, to demonstrate what an important part Chicago plays in the transmission of telephone messages—619,254,985 per year.

In harking back for seventeen years, to 1895, the figures in connection with the growth of the city and its telephone development are of wonderful interest. In 1895 the population of Chicago was 1,150,000, the number of telephones in service in Chicago 10,000. By 1900 the number of telephones in service had

comprise 320 square miles, and that the population will be 4,000,000.

With such growth in the past, and the constantly increasing realization of the things the telephone stands for, such as the greater efficiency it lends to business enterprises, comforts in the home—joy to mothers, wives, sweethearts in conversing with absent ones—saving of time, elimination of worry, protection against fire or burglary, saving of life in cases of accident or sickness, and thousands of other things that might be mentioned, HOW MANY BELL TELEPHONES WILL THERE BE IN CHICAGO BY DECEMBER 31, 1930?

One System for Sioux Falls.

Business men of Sioux Falls, S. D., are agitating the question of consolidating the two telephone systems there. Negotiations are on between the Northwestern (Bell) and the New State company and it is stated that an agreement is likely to be reached.

28th. The same subjects were discussed at both sessions.

Thirty-four linemen were in attendance, but this number was augmented by line inspectors, test-board men and members of the clerical force, so that from thirty to thirty-five men, actually concerned in the line maintenance, were in conference at each session.

Primarily the conference was for the purpose of instructing the linemen in the proper application of the plant accounts involved in their work, and the discussion of special maintenance features, but it also presented the opportunity of making the linemen personally acquainted with the testboard men and the clerical force with whom they have work in common. This question of personal acquaintance between the men in the field and the men at headquarters can best be appreciated when it is known that the section linemen farthest south came 300 miles and the one farthest north traveled 500 miles to attend this conference.

cent review of Western Union affairs, shows that during the period mentioned there has been an increase of \$11,120,367, or over thirty-six per cent. In gross earnings, a development directly traceable to the beneficial effects of the interchange of messages between the two companies, while the increased popularity of the telegraph as a means of ready communication, thanks to the establishment of the telegraph letter service, has contributed not a little to the result.

The increased earnings were practically all put into the plant, as the surplus of the company at the end of the last fiscal year shows a slight decrease in spite of the larger gross. The directors at the beginning of 1912 authorized the expenditure of \$3,400,000 for repairs and maintenance and \$5,000,000 for reconstruction and depreciation reserve.

New Philadelphia Building.—The Bell Telephone Company of Pennsylvania has let the contract for a new Logan exchange building.

Exchanges Outside of Detroit Acquired in Recent Merger

By DAVID H. DODGE.

In the same merger which consolidated the Home Telephone Company of Michigan with the Michigan State Telephone Company, the latter took over also the Detroit River Telephone Company, with exchanges at Wyandotte and Trenton; the Wayne County Telephone Company, with an exchange at Plymouth; the Inter-State Telephone Company, with exchanges at Northville, Howell and South Lyon, and a switching station at Holly; and the Macomb County Telephone Company, with an exchange at Mt. Clemens.

Shortly afterwards, another merger of the Michigan State Telephone Company with the Washtenaw Home Telephone Company, which has exchanges at Ann Arbor, Ypsilanti and Dexter, was asked for, and granted by the Railroad Commission.

An account of the equipment, etc., in Detroit, affected by the Home Com-

pany merger was printed in last month's issue of the BELL TELEPHONE NEWS. It is proposed in a short article to describe the plant of the other companies mentioned in the first paragraph above, together with that of the Washtenaw Home Telephone Company, all these companies having close connection and interests.

The Macomb County Telephone Company owns its exchange building at Mt. Clemens. The plant has a capacity for 2,000 lines. At the time of the merger there were 394 subscribers getting service from the exchange. The

plant has been in charge of C. H. Rauch and Charles A. Cohn.

The Detroit River Telephone Company's exchanges are at Wyandotte and Trenton, which are about four miles from each other. The Wyandotte board has four positions, including one for a long-distance operator. The Trenton

has an ultimate capacity of 300 lines, the present subscribers numbering 453.

The Howell outside plant was built two years ago. The exchange has a four-position board, almost new. Its capacity is 500 lines, with 685 present subscribers. The manager looks after pay stations at Pinckney, Lakeland,

books there and buying all material from the same place. This company was built and managed by Chauncey H. Rauch, whose father owns a general merchandise store in Plymouth. It was uniformly successful throughout, paying dividends regularly. In 1911 a deal was made with the Inter-State Telephone Company, which purchased a controlling interest in the Plymouth Telephone Company, and it then became the Wayne County Telephone Company. Besides the exchange at Plymouth, there is a toll station at Wayne. The exchange has a three-position board, with visual signals. There are 714 subscribers and the board has capacity for 380 lines.

The largest exchange of the Washtenaw Home Telephone Company is at Ann Arbor. The switchboard here is a common battery, with lamp signals, and is in first class condition. It has eight local operators' positions, five filled in. Each operator has 160 answering jacks. By doubling these, the capacity of the board can be doubled, it being built for that purpose. The switchboard capacity is 1,500 lines, equipped with 800. The toll board capacity is fifty lines, with twelve equipped.

The cable pairs into the office number 1,960, with 645 pairs working; 250



CHAUNCEY H. RAUCH,

Manager of the Wayne County Telephone Company.

Mr. Rauch was born in Wixom, Oakland County, Mich. His first knowledge of business was obtained from his father's general merchandise store at Plymouth, over the groceries and shoe department of which he was made manager. In 1900 the people of Plymouth organized the Plymouth Telephone Company, and the young Mr. Rauch was placed in charge, although without having any previous telephone experience. He proceeded to familiarize himself with all its departments while handling the executive end, superintending personally the building of farm and toll lines. In 1911 the Inter-State Telephone Company purchased a controlling interest in the Plymouth Telephone Company, which then became the Wayne County Telephone Company. Mr. Rauch being made general manager and secretary, and also district manager for the Inter-State of the territory from Northville to Holly. Later he was made general superintendent of the Inter-State Long Distance Telephone Company.



EXCHANGE BUILDING, WASHTENAW HOME TELEPHONE COMPANY, ANN ARBOR, MICH.

board has one position. At Wyandotte the company owns a one-story brick building, originally intended for an automatic exchange, but at present used as a store house.

The Inter-State Telephone Company's principal exchange, at Northville, is

Hamburg, Fowlerville and Brighton.

The South Lyon board has two positions, and 398 subscribers, with capacity for 300 lines. It is managed on a commission basis.

Holly is a switching station of the Inter-State Telephone Company for



BUSINESS OFFICE, MACOMB COUNTY TELEPHONE COMPANY, MT. CLEMENS, MICH.

situated in the Lapham State Savings Bank building. The plant is in fine condition and follows the plan of the Home Company's specifications; it is all underground conduit, there being no open wire except that strung for drops. The board is a two-position board. The wire chief at this office looks after pay stations at Farmington, Novi and Salem. The Northville board

long-distance lines. It has a one-position board, with forty drops, twenty being in use. The subscribers are pay-station subscribers only.

At Plymouth is the office of the Wayne County Telephone Company. The original company, the Plymouth Telephone Company, was a separate corporation, transacting all of its own business from Plymouth, keeping its



CHARLES B. HALL,

Manager of the Washtenaw Home Telephone Company.

Mr. Hall has been in the telephone business since 1902. His first important executive position, to which he was appointed in a very few months, was that of chief commercial agent for the Cleveland Telephone Company, which position he held for five years. On the starting up of the Home Telephone Company of Michigan, Mr. Hall was asked to join the new company, and did so, becoming chief contract agent in Detroit. In 1908 he accepted the position of general manager of the Washtenaw Home Telephone Company, at Ann Arbor, Mich., a description of the plant and equipment of which will be found in the accompanying text. Mr. Hall was born in Aurora, Ill. He has a wide acquaintance among telephone men.

of the dead pairs are in the southeastern portion of the town, where the facilities of the Michigan State Telephone Company are at the present time most congested. The Washtenaw building was arranged for an exchange. It is a two-story brick, on a lot forty by sixty-six; one-half of the second story is the present operating room, which is well lighted and ventilated. The present equipment occupies less than one-half of that one room. The other half of the second story is divided into one-half as the rest room and one-half as stock room. There is plenty of room on the second floor for an exchange operating room, to accommodate more equipment than Ann Arbor will require for many years. The rear

half of the first floor of the building is used for distributing racks, wire chief, machines, batteries, etc., with ample room for several times what is being used. The front half of the first floor is divided into two store rooms; one is used for the telephone offices and the other is rented to a notion store.

In addition to the above, the Washtenaw underground conduits are only partially filled, and very few of the poles are loaded.

At Ypsilanti the switchboard is common-battery, lamp signal, and comes sectional. Three operators' positions are equipped; there are ten toll jacks, five equipped. Cable pairs coming into the office, 650, with 200 pairs working. The Washtenaw underground and aerial cable covers the entire city, the facilities being abundant to take care of all of Ypsilanti, although only a small portion is in use. The exchange is the entire second floor of three rooms, but only about one-quarter of the space is now used.

At Dexter the switchboard is two-position lamp signal, common battery and magneto combined, is only about a year old, and is in perfect condition. Capacity of board, 150 lines, fully equipped. Cable pairs coming into the office, 225, with seventy-one working. The exchange is the entire second floor of the same building in which the Michigan State Telephone Company office is now located. The Washtenaw distribution in Dexter covers the entire town and most of the principal roads out of Dexter for three miles.

New Development in Cash Telephone Service

By C. C. CURTIS, Plant Department School,
Chicago Telephone Company.

The "pay as you go" idea has long been an indispensable factor in our Chicago system, in both the local and long-distance branches of the service. With its introduction new problems arose, the most serious of which was to furnish a device to give the operator some kind of a signal to indicate that the required amount had been deposited by the subscriber.

In the early days local calls of this kind were limited to telephones located in public places. Ten cents was charged for each call and the coin box which was used was known as the "dime automatic." In this box, a buzzer was put into operation by depressing a button, located on the coin box, after the coin had been inserted. The box was mounted in such a way that the vibrations set up by the buzzer were repeated to the transmitter and thence to the operator's receiver. In long-distance work, where the rates depend on the length of the line and the length of the conversation, it was necessary to have an arrangement that would receive coins of more than one denomination. The Gray coin box was standard for this work prior to 1901, in which year the three-coin Baird box was adopted. The Gray box was so arranged that the coins in passing from the escutcheon to the cash box would strike a gong, the vibrations of which would be repeated to the transmitter and thence to the operator's receiver. The early Gray boxes were designed to receive five, ten, twenty-five and fifty-cent pieces; each coin striking a different gong enabled the operator to determine if the proper coin or coins had been dropped. This box was replaced by the Baird, as the signals were more distinct in the latter. The Baird box differed from the Gray in that the gongs were struck by hammers which were operated by levers, and was a three-slot box, receiving five, ten and twenty-five cent pieces only. During the time that the Baird box was the standard, the Gray box

was improved and made a three-slot box. A number of the later type were installed and were found to be satisfactory so far as the audible signals were concerned.

Neither the Gray nor the Baird box was provided with an electrically controlled mechanism and consequently the operator had no means of control-

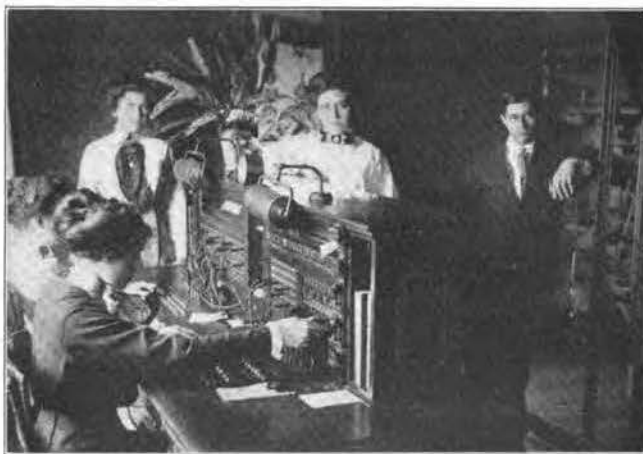
sound signal device, the only operation performed by the subscriber is the dropping of the coins at the request of the operator. The new sound device is simplified by having but two gongs. The chutes are so arranged that a nickel in passing through to the coin receiver will strike a gong once, a dime will strike the same gong twice, while



EXCHANGE OF INTERSTATE TELEPHONE COMPANY, NORTHVILLE, MICH.

ing the coins. This was an undesirable feature, and was confusing to the operator as it involved handling the call in an entirely different manner from that used in operating other lines handled on a cash payment basis. To overcome this difficulty, the No. 50-A multi-coin collector has been made the standard for our long-distance work

the quarter strikes a different toned gong. This enables the operator to determine, as before, when the required amount has been deposited by the subscriber. The escutcheon guides at the top of the box are plainly marked with raised figures, but from various causes the wrong coin is often dropped; for example, a nickel in the quarter slot



SWITCHBOARD, NORTHVILLE, MICH.

Wire Chief Floyd Shaffer and Chief operator Mary Bristol back of board.

and will replace all other coin boxes in "P. N." service.

The No. 50-A multi-coin collector complete, consists of the electrically controlled coin mechanism, the improved Gray device for giving the sound signals, a transmitter mounting, a switchhook and a terminal strip to which the various portions of the set are wired. Since it uses the Gray

or a dime in the nickel slot. It is desirable that in such cases the coin be returned without giving a signal. To care for this feature the chutes are provided with openings above the point where the coins strike the gongs, and are set at a suitable angle to allow the smaller coins to drop out through the openings. Such coins drop to deflecting shelves which lead into the chute

which faces the opening of the return cup. The transmitter is mounted directly on the housing of the box and a clearer audible signal is obtained than in the older installations where the coin box was mounted separately from the transmitter. The transmitter is wired to two heavy punchings mounted on the housing of the box which are so arranged that with the cover on they make contact with two heavy springs mounted on the iron back board of the set. One of these springs is wired to the line terminal while the other loops through the switchhook contact where the circuit is closed in the usual manner.

In long-distance service, where the rates depend entirely on the location of the point called and the length of the conversation, it frequently happens that the bill amounts to considerable. It is desirable to have the entire amount put in the box before cashing, and then to cash the entire amount with one operation of the key. This feature is cared for in the No. 50-A multi-coin collector by an arrangement known as the "hopper," which will accommodate approximately \$4 in quarters or dimes. The hopper, which is funnel shaped at the top, is mounted directly below the base of the coin chutes and receives the coins after they leave the chutes. The coins drop on a shelf in the hopper, and are held there by a thin metal strip on which the shelf normally rests.

In any electrically controlled slot it is necessary that the coin, when dropped, should close the circuit of the mechanism. A multi slot device must be so designed that any of the coins to be used will perform this operation. In passing into the hopper of the No. 50-A multi-coin collector, the coins strike a trigger arm which extends into the hopper. The trigger in turn operates a contact and closes the circuit into the mechanism. When the operator returns or deposits, the support, which is controlled by the armature, is withdrawn from the coin shelf and the coins fall either into the return chute or the deposit chute according to the direction taken by the armature. When the armature releases, the trigger is restored by its action and the circuit is again opened at the contact.

The mechanism is, in principle of operation, a polarized relay. The electro-magnetic field is set up by the current passing through two 500-ohm coils in opposite directions after the contact has been closed by the coin striking the trigger. In order that the armature may swing in either one of two different directions, both positive and negative current is wired to the operator's keys. The connections are made at the coin box in such a manner that when positive current is sent through the coils, the armature swings to the return coil, and to the deposit coil with negative current.

The No. 50-A coin collector is made in one size only, and the manner in which it is installed depends on local conditions. Where it is to replace a desk set installation where a shelf is provided, it is mounted on a backboard of suitable length and then mounted directly above the shelf. In this case a standard No. 295 type signal case is used. Where it replaces a wall set, it is mounted on a long backboard together with a No. 334-A signal case, and then mounted at the same height as a wall set. This special signal case differs from the standard type in having a black metal frame and cover to match the coin collector.

It is the present intention to use the nickel prepayment scheme in connection with these sets, and it is therefore desirable that no deviation be made from this practice. On direct exchange lines it is a comparatively easy matter to accomplish this, as it requires no



PLANT DEPARTMENT SCHOOL IN SESSION AT ELGIN, ILL.

Left to right, top row: O. E. McMahon, district plant chief; E. Schurig, installer; C. Trainor, construction foreman; W. Coulson, stockman; G. Roberts, installer; H. Haffleigh, installer; H. Peterson, installer; S. Henderson, switchboardman; F. Wilkin, Dundee wire chief; R. Mundhenke, repairman; C. Malone, Marengo wire chief; E. Heilmann, installer; Miss M. Schmidt, repair clerk; Miss G. Greve, plant clerk; L. Rothstein, district wire chief; W. Roberts, testman.

Sitting: C. Schroeder, construction foreman; G. Krumpfuss, wire chief; Bartlett; H. Michaelson, installer; G. Rausch, installer; H. Tucker, repairman; F. Jobe, construction foreman; W. Dralle, repairman; B. McMahon, installer; W. Mann, installer; F. Parker, installer; P. Hoffmeyer, repairman; J. Casson, cable splicer; L. Mann, cable splicer; R. Sonneborn, installation foreman; A. Preuss, repairman; F. Anderson, repairman.

special wiring at the sub-station. Where a large branch-exchange system furnishes "P. N." service, as they do in nearly all cases in the large department stores, the problem was found to be more complex. It was necessary that the coin dropped by the subscriber to signal the branch exchange operator should, when he was connected to the Central office, also signal the operator there. It is also necessary that the central-office operator control the coin box on such calls. To meet these requirements a special circuit was designed and installed at a number of our branch boards. Briefly, this circuit is a one-way trunk terminating on a cord. Each board is provided with enough of these trunks to handle this class of traffic. The purpose of this circuit is to give a clear line from the station to the central office, and thereby enable the central office operator to control the coin mechanism.

Local calls are handled in the same manner as from a No. 1-A coin collector. When a long-distance call is made the nickel is returned to the subscriber, and the connection made to the long-distance operator, who takes his order and requests him to hang up his receiver, saying that she will call him back. When the call is finally completed, it is through the B board. This makes it necessary to have the coin box controlled from the B board as it would be confusing, to say the least, to take down the connection and then to have the A board operator perform this operation. A circuit has therefore been installed in the B board which enables the B operator to return or deposit as the occasion may require. The subscriber, at the request of the long-distance operator, deposits the required amount; and the long-distance operator then goes in on the call circuit to the B operator and gives her instructions either to deposit or return. The circuit is so arranged that it gives the B board operator the usual lamp signal and puts either tone test or busy-back on the trunk line to indicate to the long-distance operator that the

operation has been performed as requested. This prevents beating by means of false audible signals, which was a common practice with older boxes depending on audible signals alone.

Plant School at Elgin.

A visit to the basement of the exchange at Elgin, Ill., on November 12th found an interested class of eleven installers in one corner, where Sub-Foreman Sonneborn first went over reports of recent inspections in order to show what errors had been made in the work and what methods should be used to guard against them, such as tests for the anti-side-tone circuit or other cord reversals; and then took up a portion of Lesson No. 4 of the correspondence course on repair work and discussed the principles involved in the action of the transmitter and receiver. Several drawings, including a large sectional view of the transmitter, as well as a pair of suspended generator magnets, a supply of iron filings, and other simple apparatus, were used to illustrate the various points.

At the other side of the basement Tester Roberts had a panel about four feet square on which were mounted a voltmeter, a milliammeter, a repeating coil, and the various instrument parts; all wired out to binding posts to facilitate changes in the connections. Two wall sets were mounted under the panel and used in connection with it. With this arrangement he was able conveniently to demonstrate the common-battery instrument circuit and the manner of connecting two instruments together through the repeating coil. Using the meters, he showed very clearly the path of the current through the circuit, the fall of potential through the transmitter, and the effect of a change in transmitter resistance. This led naturally to a discussion of Ohm's law, which was demonstrated on the apparatus under actual working conditions. Five common-battery repairmen were found in this class.

In another room Wire Chief Roth-

stein, with the aid of a similar panel equipped with local-battery apparatus, explained the principles, circuits, and operation of a local-battery system to a class of eight men from the magneto exchanges of the district. The work in this class is of necessity more general and comprehensive than in the others, because in these small exchanges a man is equally likely to have a line broken, an instrument out of order, or a case of switchboard trouble.

The class work is handled in much the same way as in the Chicago school. Blackboards and sample parts are used freely, and the instruction takes the form, as far as possible, of a free-for-

all discussion rather than a formal lecture. The fact that attendance is optional, and that each man in a class is there because he realizes that his progress in the work depends on the development of his knowledge and ability, lends interest and value to these discussions.

The installation and common-battery repair classes opened at seven o'clock; and the local-battery class, on account of interurban transportation schedules, a half hour later. At 9:20 the interest showed no indication of lagging, but District Plant Chief O. E. McMahon, with the morrow's work in mind, brought the session to a close.



PLANT DEPARTMENT, EDWARDSVILLE, ILL.

Left to right: Ira Dell, E. L. McCracken, C. F. Reichert, E. L. Lax, G. H. Hobert and Edgar Poole.

Traffic Engineering as Applied in the Central Group of Bell Telephone Companies

By FRED CLARKE, Michigan Division Traffic Supervisor.

From a paper read November 6, 1912, to the Telephone Society of Michigan.

It is planned in the limited space allowed to describe some of the principal elements in traffic engineering and to show its application in the Central Group of Bell Telephone Companies and more particularly to the Michigan Division.

Traffic engineering in the generally accepted sense is divided into two principal subdivisions, viz.:

- (1) Operating methods and practices.
- (2) Determination of the kind and amount of:
 - (a) Central office equipment.
 - (b) Inter-office trunks.
 - (c) Toll circuits.

I. Operating Methods and Practices.

Under the first main subdivision is included the adoption of the best operating methods to handle all classes of traffic. There are two cardinal principles involved in this choice:

- (1) Furnishing the subscriber with a uniform satisfactory service.
- (2) Selecting the method which will satisfy (1) and still be the most economical both from equipment and operating costs.

After the choice of the method has been made with the above cardinal principles in mind detail operating rules and regulations must be prepared for the instruction of the operating forces. Here again are always kept in mind two cardinal principles, viz.:

- (1) Rules and phrases which will give the subscriber a uniform satisfactory service.
- (2) The selection of rules and phrases which will satisfy (1) and be the easiest and most natural for the operator to remember.

It might be said here that the phrase which will give the subscriber the most satisfaction is usually the one which is the easiest for the operator because it avoids comment from the subscriber and keeps him informed of the progress of the connection.

On classes of traffic where it is necessary for the operators to report connections for revenue purposes it is necessary to institute methods which will tend toward accurate reporting so that patrons will be charged only for service rendered and the company will receive all revenue to which it is entitled.

One or two examples will be cited to show the application of the above principles. The phrase "Number, please," used in answering calls, at once notifies the subscriber that the operator is ready to take his order, that she wishes him to give the number he wants and at the same time does this politely.

On long distance calls for a particular person the toll operator says to the party answering the telephone at the called station, for example:

"Detroit is calling Mr. Jones."

This phrase at once notifies the party that some one at Detroit is calling Mr. Jones. No further explanations are necessary. Any other phrase such as:

"Is Mr. Jones there?"

"Is this Mr. Jones?"

and so forth, must be followed by another phrase to complete the explanation to the called station as to what is wanted. This phrase is one of the best examples of "the easiest is the best way."

The chief engineer of the American Telephone & Telegraph Co. has a large force of experts working on standardization of both local and toll operating

methods. All methods used in this group of companies conform more or less closely to standards prepared by this corps of experts. It is the function of the traffic engineer of this group of companies to keep the field forces informed of these standard practices.

II. Determination of the Kind and Amount of Equipment Required.

After the best operating methods have been determined it is then necessary to determine how much and what kind of equipment is necessary. It should be said here that the methods are in a measure dependent upon the equipment costs and limitations so that the methods cannot always be determined first but in some instances must be made to fit the equipment conditions.

(A) CENTRAL OFFICE EQUIPMENT.

In order to engineer this equipment two features must be determined.

- (1) The amount of traffic of a given

(3) Percentage of flash signals which must be answered in 10 seconds or less.

(4) Percentage of calls which must be free from operating errors.

(5) Percentage of disconnects which must be made in 10 seconds or less; and so forth.

Working on these standards the engineers determined the load an operator could carry and give service equal to or better than the standard set.

For purposes of ease in working with the figures the work required on a call of each class was expressed in terms of the work required to complete a call of the easiest class, namely, a call from a flat rate subscriber completed in the local multiple by an operator at a No. 1 relay common battery switchboard. The length of time required for this class of call was found to be 10.2 seconds with a force of average operators.

As people do not all call with regularity but call at a time convenient to each the traffic is subject to great fluctuations. Therefore, in order to prevent extra long waits for some calls and to keep the required percentage of answers below 10 seconds, it was found that operators must be allowed a certain percentage of idle time. Experiments showed that with a perfect team (7 operators or more) an operator could only be kept busy 65% of the hour, or 2,340 seconds. Thus, an operator working 2,340 seconds on a class of call requiring 10.2 seconds each can handle 230 such calls per hour.

This work required to complete a local flat rate call at a No. 1 board is called a Unit, and the work required on all other classes is spoken of in terms of such Units.

Mention has been made of a perfect team. It can be readily shown that the more operators available to answer all calls the less is the effect of the traffic fluctuations. This principle is the one which instituted the adoption of multiple answering jacks. It is therefore necessary to apply a correction factor to the standard loads when dealing with a force of less than 7 operators (a perfect team) and also when dealing with a force of operators where there are vacant positions interspersed.

In Appendices A and B are shown the list of coefficients which must be applied to all classes of calls to reduce them to Units.

The amount of central office traffic which must be handled is determined by various methods. The basis for all methods, however, is traffic records, so tabulated as to show the number of calls of each class which are handled each hour of the day. Various precautions are taken to insure accuracy in these counts, the most beneficial one being the electrically operated counter. With this counter it is exceedingly easy for the operator to record calls and also easy for the chief operator or her lieutenant to check the operators' work.

With an accurate traffic record as a basis the traffic to be handled at any future date is determined either on a calling rate per station or a calling rate per line basis. Where there is considerable party line development the calling rate per station is preferable. The method is as follows: The traffic records are consulted and the number of originating calls busy hour is divided by the number of stations. This is done each month, and the calling rate thus obtained is plotted on a sheet of cross section paper. This gives a graphical representation of the fluctuations. The same method is used for incoming calls in multi-office exchanges. Figure 1 shows such a curve for the Walnut office in Detroit.

In order then to figure the amount of equipment required at any future date the stations estimated by the commercial department for that date

| | | 5" | | | | | |
|-----------------|--|------------|---------------|------|------------|------|-------|
| | | MESSAGES | | | APRIL 1912 | | |
| | | FROM | TO | | OUT | IN | TOTAL |
| 1912 TOLL STUDY | Messages Over Ckts. From Ann Arbor To Detroit. | Algonac | Ann Arbor | 0 | 0 | 0 | 0 |
| | | Alma | " | 0 | 11 | 11 | 0 |
| | | Ann Arbor | Bay City | 12 | 18 | 30 | 9 |
| | | " | Birmingham | 8 | 10 | 18 | 6 |
| | | " | Detroit | 2099 | 2357 | 4456 | 1885 |
| | | " | Flint | 20 | 35 | 55 | 17 |
| | | " | Holly | 7 | 4 | 11 | 6 |
| | | " | Milford | 0 | 15 | 15 | 13 |
| | | " | Mount Clemens | 10 | 19 | 29 | 9 |
| | | " | Pleasant | 5 | 16 | 21 | 4 |
| | | " | Pontiac | 29 | 41 | 70 | 36 |
| | | " | Port Huron | 19 | 14 | 33 | 12 |
| | | " | Saginaw | 22 | 26 | 48 | 4 |
| | | " | A.T. & T. | 279 | 279 | 558 | 208 |
| | | " | Canada | 0 | 0 | 0 | 8 |
| TOLL STUDY | Messages Over Ckts. From Ann Arbor To Detroit. | Chelsea | Detroit | 190 | 183 | 373 | 227 |
| | | " | Pontiac | 38 | 78 | 116 | 8 |
| | | Detroit | Manchester | 35 | 22 | 57 | 30 |
| | | " | Milford | 180 | 200 | 380 | 185 |
| | | Manchester | A.T. & T. | 6 | 6 | 12 | 8 |
| | | TOTAL | | | 6253 | | 5608 |
| | | | | | | | |
| | | | | | | | |
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Detail operating instructions are compiled from these standards and distributed to the operating forces by the division traffic supervisor under the direction of the traffic superintendent. Studies are made by him to determine which standard method is most desirable and best suited for each particular condition. Local conditions are, sometimes met which are not adapted to any standard method or which make necessary a modification of some standard.

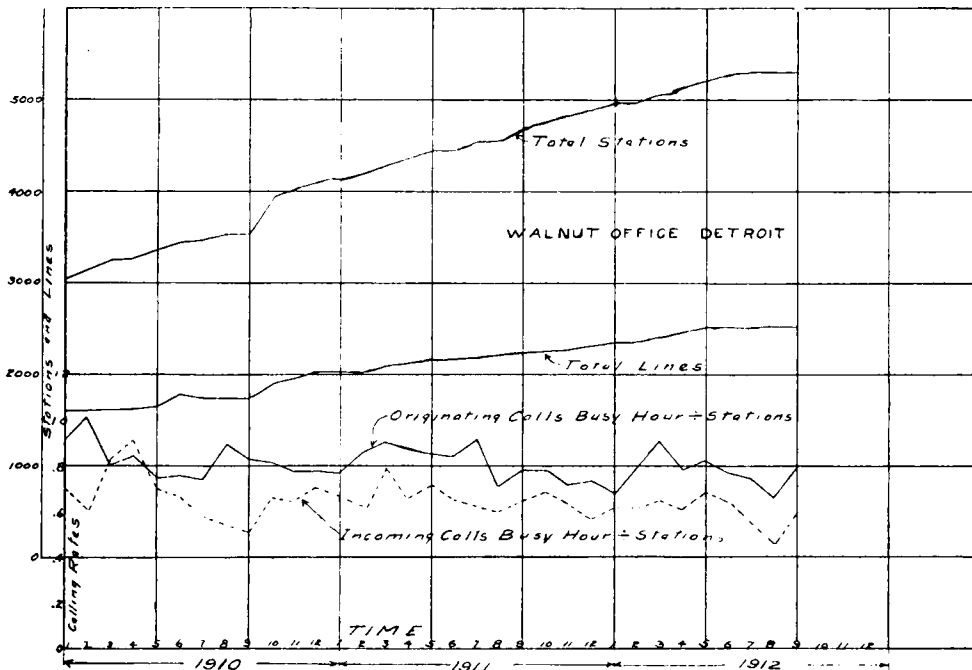
Note: A large part of the material now in the field was prepared by the general traffic superintendent under the old organization.

en kind an operator can handle, and give good service.

- (2) The amount of traffic of a given kind which will have to be handled.

For purposes of determining the amount of traffic of a given kind an operator can handle, elaborate studies were made by the engineers of the American Telephone & Telegraph Company covering a period of several years. The desired standards of service were obtained from the officials, showing such items as—

- (1) Average speed of service.
- (2) Percentage of line signals which must be answered in 10 seconds or less.



are multiplied by a calling rate selected from the above mentioned curve. In selecting this calling rate a reasonable maximum is selected so that the extreme fluctuations will mean an overload, but the ordinary traffic expected will be handled on the positions provided with no overload.

The calls thus obtained by multiplying the calling rate by the stations are multiplied by a suitable coefficient to reduce the calls to Units. This figure is then divided by 230 to reduce to the number of positions required.

In figuring toll position requirements the total monthly "out" business is used as a basis. The percentage of increase expected is obtained from the commercial department and applied to the "out" business of the present. This figure is then multiplied by a factor to reduce it to Toll Units Busy Hour, which figure when divided by 230 gives the toll positions required.

In local equipments, after the number of positions have been determined, the number of answering jacks, multiple, etc., are figured from the commercial department's line estimate. It is considered good practice to allow at least 10% margin in jack per line offices to guard against shortage due to fluctuations in party line fill, and to provide sufficient multiple to prevent using numbers listed in the current issue of the directory.

The work of determining the amount of central office equipment is performed by the division traffic supervisor. In his office are kept complete files of local and toll peg counts and also of local and toll traffic reports. These last mentioned reports are necessary in order that he may know just what the condition of the equipment is at all times. It occasionally happens that the estimate of lines or stations is incorrect, and special action is necessary to provide equipment ahead of the time the estimate indicated that it would be needed.

From these reports a curve similar to the one shown in Figure 1 is kept up for each of the large offices in the division.

When it becomes necessary to add additional equipment a recommendation is prepared showing in detail the

amount of equipment required and also showing stations, calling rates, and so forth. This recommendation, after being approved by the Division department heads, is forwarded by the general manager to the chief engineer. Here the recommendation is checked by the traffic engineer and if approved is forwarded for specification and estimate.

Additions to small magneto switchboards are not approved by the chief engineer, but specification and estimate are prepared by the division engineer.

(B) INTER-OFFICE TRUNKS.

The traffic handled between offices in multi-office exchanges requires a certain number of trunks. As it is expected to handle all local traffic on a no-delay basis it is necessary to provide sufficient inter-exchange trunks to handle this traffic at all times. The following method is used to insure this. Whenever an operator receives a "no trunk" report from a distant office she refers it to her supervisor, who in turn refers it to the chief operator. When "no trunk" reports recur on two days within a week a recommendation for an additional trunk is sent in by the traffic chief, to which is attached a record of the "no trunk" reports for the previous week. By this method the number of inter-office trunks is kept adjusted to the traffic. In order to guard against an over-supply of these trunks the number used on each peg count day is shown on the peg count.

Each year the plant department is furnished with an estimate of the number of inter-office trunks required between each office. This estimate is figured as follows:

The number of trunks required to handle a given traffic are given by the following equation:

$$\text{Trunks} = \frac{NT}{60} - \frac{1}{2} + 2\sqrt{\frac{NT}{30} \left(1 - \frac{T}{60}\right)}$$

where N = Number of calls in Busy Hour,

and T = Holding time in minutes. The holding time is determined by observations (usually about two minutes) and curves are plotted. It has been found that by using the traffic on any given traffic record the fluctua-

tions are too great to obtain accurate results. As the trunk plant is kept adjusted to the proper amount, as explained above, the present trunks are used as a basis for determining the traffic they can handle. This traffic is then multiplied by the ratio of the stations one year from today to the stations of today, and the number of trunks required at this time determined from this traffic by using the curve mentioned above. This method has been found to give very desirable results.

The work of preparing these estimates is done by the division traffic supervisor.

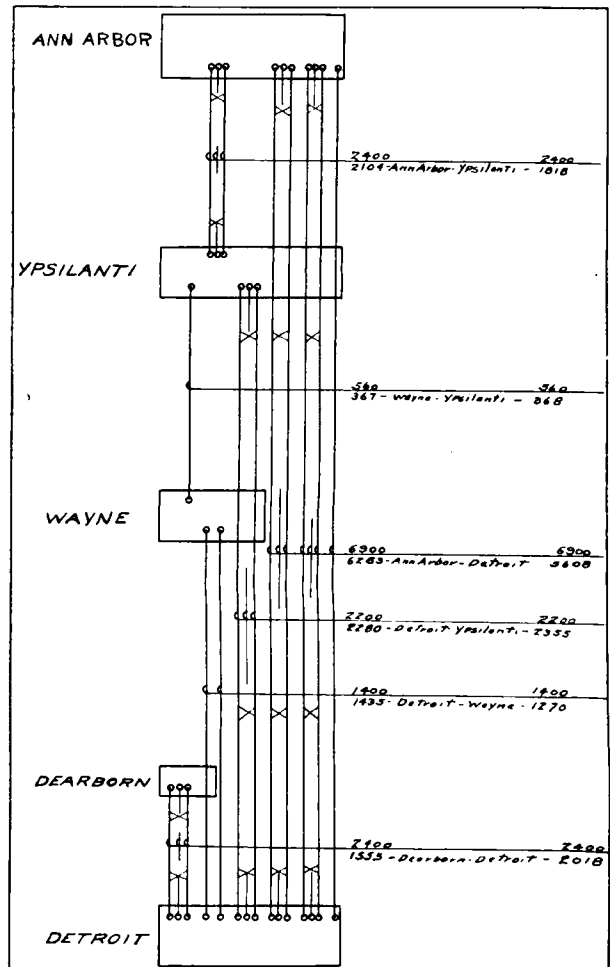
(C) TOLL CIRCUITS.

The equation cited above under inter-office trunks cannot be used in figuring toll circuits, as it is not contemplated to handle toll traffic on a "no-delay" basis.

From elaborate studies the lost circuit time—that is, the length of time a circuit is used before and after conversation takes place—has been determined for calls of various classes. The following equation is used to determine the number of toll calls which can be handled by any number of circuits:

$$CX + K\sqrt{XC(1-X)} = N,$$

where C = Calls per Busy Hour,
 X = Holding Time Expressed in Hours,
 N = Number of Circuits,
 and K = Constant.



With K as 1 the average speed of service will be 5½ minutes, with a maximum wait not exceeding 15 minutes.

From observations it was determined that in Michigan the use of a six-hour day would provide sufficient circuits. The length of day is the ratio of the total calls per day to the calls per busy hour. The observations showed this to fluctuate from 6 to 8½ hours in some cases.

It was also determined from observations that the average length of conversation in Michigan was 2.14 minutes. From the equation above and the observations a table was arranged to show the number of messages which could be handled per month. This table is shown in Appendix C.

Having determined the capacity of various groups of circuits under various conditions it is then necessary to determine the actual traffic. The method is as follows:

Two busy months are selected, usually April and July for Michigan. The auditor's check reports are obtained and a check report for each check center is prepared from these. A card is then made for each group of circuits and the traffic shown on the check reports to be routed over each group is transcribed on these cards. To do this requires a knowledge of the routing of all toll calls. When this has been completed the cards are totaled and this total is compared with the circuit capacity to see if an overload exists. When an overload is found an investigation is made to see if it can be relieved by changing the routing of certain calls. If so, the cards are corrected accordingly. If not, an additional circuit is necessary. A sample card is shown in Figure 2 and a section of the circuits between Detroit and Ann Arbor shown in Figure 3 to illustrate the methods of comparing capacities and loads. The figure on the top of the load line is the capacity and on the bottom of the load line at the left the load for April and at the right for July. This method must be followed for all circuits.

When circuit shortages are reported it is necessary to make special studies from time to time.

The work in connection with toll circuit studies is performed by the division traffic supervisor, and recommendations for additional circuits prepared by him from these studies.

Conclusion.

It might be inferred from the above that traffic engineering was an exact science. While much has been done and still more is expected to make it so, the fact still remains that there are numerous cases which cannot be decided by rule or equation but which require a knowledge of local conditions and of the limitations which must be expected when working with problems where the human element plays such an important part.

EASTERN COMPANIES MERGE.

New York Telephone Company Acquires Independent Systems in Several Important Cities.

Negotiations are practically concluded, according to press reports, for the transfer of exchanges of the Commercial Union Telephone Company in Troy Warrensburg, Lake George, Ballston Spa, Schuylerville, Greenwich and Valley Falls to the New York Telephone Company.

The New York Telephone Company has also notified the Public Service Commission that it has purchased the Schenectady Telephone Company operating at Schenectady and the Hamilton Telephone Company operating in Hamilton and vicinity.

APPENDIX A.

TABLE OF COEFFICIENTS FOR EQUATING TRAFFIC.

(These figures were taken from the A. T. & T. Co. Traffic Circular No. 28.)

| CLASS OF CALL. | Refer Also to Class | A Board. | | |
|---|---------------------|---------------|-------------|----------|
| | | Type of Relay | Board Relay | Magneto. |
| 1 Flat Rate | 16 to 18 | \$1.2, 8, 10 | \$9 | |
| 2 Mess. Rate Ticket—Ind. Line | 16 to 18 and 21 | 1.00 | 1.30 | 1.60 |
| 3 Mess. Rate Registers | 16 to 18 | 1.35 | 1.65 | 1.95 |
| COIN BOXES. | | | | |
| 4 Prepayment | 16 to 18 | 1.05 | | |
| 5 Nickel on Request | 16 to 18 | 1.20 | 1.50 | |
| AUTOMATIC PAY STATION. | | | | |
| 6 No Ticket | 16 to 18 | 1.30 | 1.60 | |
| 7 One No. Ticket—Ind. Line | 16 to 18 and 21 | 2.56 | 2.86 | 3.16 |
| 8 Two No. Ticket—Ind. Line | 16 to 18 and 21 | 2.88 | 3.18 | 3.48 |
| ATTENDED PAY STATION. (Company or Agent Attended.) | | | | |
| 9 No Ticket | 16 to 18 | 3.20 | 3.50 | 3.80 |
| 10 Registered No Ticket | 16 to 18 | 1.00 | 1.30 | 1.60 |
| 11 One No. Ticket—Ind. Line | 16 to 18 and 21 | 1.05 | | |
| 12 Two No. Ticket—Ind. Line | 16 to 18 and 21 | 1.35 | 1.65 | 1.95 |
| | | 1.97 | 2.27 | 2.57 |
| 13 Service, Non Ticketed from P. S. 7, 8, 11 and 12 | | 1.00 | 1.30 | 1.60 |
| 14 A-B Toll via C.C.—Ind. Line | 19 to 21 | 2.40 | 2.70 | 3.00 |
| 15 Incoming Ringdown | 16 | 1.00 | 1.30 | 1.60 |

Coefficients following to be added to base coefficients according to the number of calls on which modification in handling obtains.

To Be Added to Classes

| | | | |
|--|------|------|------|
| 16 Out Call Circuit Trunking. All except 14 | .50 | .50 | .50 |
| 17 Out Ringdown Trunking. All except 14 and 15 | 1.00 | 1.00 | 1.00 |
| 18 Out Trunk Switched. All except 15 | 1.00 | 1.00 | 1.00 |
| 19 A-B Toll via R.D. | .50 | .50 | .50 |
| 20 A-B Toll Sw. to R.D. | 1.00 | 1.00 | 1.00 |
| 21 Calls Orig. on Party Lines | .30 | .30 | .30 |

APPENDIX C.

Table Showing Number of Messages Per Month Which Various Sized Groups of Circuits Will Handle Based on a 6-Hour Day and a 25-Day Month.

| NO. OF CIRCUITS. | 6-Hour Day. | | 25-Day Month. | |
|------------------|-------------|-----------|---------------|--|
| | 6 Min. | 7 Min. | 8½ Min. | |
| | 103 Direct. | 103 S. W. | 101—1 S. W. | |
| | | 101 Div. | 103—25 W. | |
| 1..... | 600 | 525 | 425 | |
| 2..... | 1550 | 1350 | 1050 | |
| 3..... | 2620 | 2250 | 1800 | |
| 4..... | 3750 | 3220 | 2700 | |
| 5..... | 4920 | 4240 | 3460 | |
| 6..... | 6130 | 5280 | 4340 | |
| 7..... | 7150 | 6300 | 5220 | |
| 8..... | 8600 | 7380 | 6150 | |
| 9..... | 9850 | 8500 | 7000 | |
| 10..... | 11100 | 9550 | 7900 | |

APPENDIX B.

TABLE OF COEFFICIENTS FOR EQUATING TRAFFIC.
(Taken From A. T. & T. Traffic Circular No. 28.)

| CLASS OF CALL. | Toll Board. | | | | No. 9 Toll Boards. | | | | Magneto Toll Boards. | | | |
|---|----------------------------------|------|------|------|------------------------|------|------|------|------------------------|------|------|------|
| | Nos. 1, 2, 8 and 10 Toll Boards. | | | | Number of Switches | | | | Number of Switches | | | |
| OUT TICKETS. | Number of Switches | | | | Dir. 1 Sw. 2 Sw. 3 Sw. | | | | Dir. 1 Sw. 2 Sw. 3 Sw. | | | |
| | Dir. 1 Sw. 2 Sw. 3 Sw. | | | | | | | | | | | |
| 1a Meth. T. T. (101) and 104..... | 15.3 | 17.2 | 21.7 | 24.4 | 16.3 | 18.2 | 22.7 | 25.4 | 17.3 | 19.2 | 23.7 | 26.4 |
| 2a Meth. C.T. (102) and S.T. (103) AY..... | 6.6 | 7.9 | 10.1 | 13.1 | 7.6 | 8.9 | 11.1 | 14.1 | 8.6 | 9.9 | 12.1 | 15.1 |
| 2b Meth. C.T. (102) and S.T. (103) P.P..... | 13.5 | 15.4 | 18.1 | 21.9 | 14.5 | 16.4 | 19.1 | 22.9 | 15.5 | 17.4 | 20.1 | 23.9 |
| 3a Meth. C.C. (107) AY. (Tandem)..... | 5.75 | | | | | | | | | | | |
| 3b Meth. C.C. (107) P.P. (Tandem)..... | 12.20 | | | | | | | | | | | |
| 3c Meth. C.C. (107) AY. (To Multiple)..... | 5.18 | | | | | | | | | | | |
| 3d Meth. C.C. (107) P.P. (To Multiple)..... | 11.63 | | | | | | | | | | | |
| 4a Meth. Two No. Toll with Rec. C.G..... | 6.97 | | | | 7.27 | | | | 7.57 | | | |
| 4b Meth. Two No. Toll with Rec. R.D..... | 7.42 | | | | 7.72 | | | | 8.02 | | | |
| 4c Meth. Two No. Toll with Rec. Tand..... | 7.42 | | | | 7.72 | | | | 8.02 | | | |
| 5 Passed to Ctr. for Handling..... | 5.11 | 5.5 | 6.9 | | 5.11 | 5.5 | 6.9 | | 5.11 | 5.5 | 6.9 | |
| 6 Pay Station Local..... | 3.65 | | | | 3.65 | | | | 3.65 | | | |
| THROUGH. | | | | | | | | | | | | |
| 7elayed..... | 17.2 | 21.7 | 23.2 | 28.4 | 17.2 | 21.7 | 23.2 | 28.4 | 17.2 | 21.7 | 23.2 | 28.4 |
| 8 Through Switch..... | 3.84 | | | | 3.84 | | | | 3.84 | | | |
| 9 Delayed Through Switch..... | 11.5 | | | | 11.5 | | | | 11.5 | | | |
| INWARD. | | | | | | | | | | | | |
| 10 Meth. T.T. (101) (Tickets)..... | 15.3 | | | | 16.3 | | | | 17.3 | | | |
| 11 Meth. C.T. (102) (Tickets)*..... | 6.5 | | | | 6.8 | | | | 7.1 | | | |
| 12 Inward Ringdown (Calls)..... | 2.0 | | | | 2.3 | | | | 2.6 | | | |
| 13 Meth. 104 (Tickets)..... | 15.3 | | | | | | | | | | | |
| 14 Meth. C.C. (107) Tandem (Calls)..... | 0.95 | | | | | | | | | | | |
| 15 Meth. C.C. (107) Sw. to Mult. (Calls)..... | 0.68 | | | | | | | | | | | |
| 16 Call Back..... | 7.70 | | | | 8.7 | | | | 9.7 | | | |
| RECORDING. | | | | | | | | | | | | |
| 17 Rec. Tkts. Ringdown Meth.**..... | 5.00 | | | | 5.0 | | | | 5.0 | | | |
| 18 Rec. Tkts. C.C. from Oprs.***..... | 1.77 | | | | | | | | | | | |
| 19 Report Tkts. Ringdown Meth..... | 4.00 | | | | 4.0 | | | | 4.0 | | | |
| 20 Report Tkts. C.C. from Oprs..... | 1.77 | | | | | | | | | | | |
| 21 Directory Work..... | 2.30 | | | | 2.3 | | | | 2.3 | | | |

NOTE 1:—See the examples of "Weighting Coefficients for Toll Board Traffic" for the methods of combining coefficients.

NOTE 2:—See the "Notes on Tables of Coefficients" preceding these tables for explanation of the methods of operation comprehended.

* Includes Call Back Work.

** Includes 30% or less Directory Work.

*** Includes 50% or less Particular Party and 10% or less Directory Work.

SUBSCRIBERS PRAISE SERVICE.

Thirteen Post Cards Received By Manager at Princeton, Wis., Highly Complimenting Company.

When the new directory was distributed recently at Princeton, Wis., post cards were enclosed asking the subscribers to call the attention of the management to any irregularities in the service. Thirteen cards were received complimenting the company on the service and stating that it is very satisfactory. These cards came from the following subscribers:

John J. Carty Honored.

John J. Carty, chief engineer of the American Telephone and Telegraph Company, has again been signally honored by the Emperor of Japan, who has created him a member of the Order of the Sacred Treasure. This mark of distinction is conferred upon persons who have rendered notable service to the Japanese government. There are eight ranks in the order. Membership carries a decoration, modeled on the Sacred Looking Glass and Treasure, pendent from a ribbon of light blue color with two bands of yellow.

The investiture with the insignia of the order was conducted by Y. Numano, consul-general. Mr. Carty already wears the decoration of the Order of the Rising Sun, conferred by the late emperor. Mr. Carty's services to the Japanese Empire were in connection with the exhaustive study of telephone systems made by Japanese representatives in this country a few years ago, as a result of which American engineering methods were adopted in the plans which are now being worked out for telephone extensions and improvements in the far-off islands.

UP-TO-THE-MINUTE SYSTEM IN BIG HOTEL

Statler, in Cleveland, Installs Bell
Exchange of One Thousand
Stations.

October 25th was the opening night of Cleveland's newest big hotel, the Hotel Statler. It stands at the corner of East Twelfth Street and Euclid Avenue in Cleveland's newest business section. Near neighbors are the fine buildings of the Cleveland Athletic Club and Union Club.

When E. M. Statler signed a Cleveland Telephone Company contract for the Bell system throughout the hotel, he was thinking of his patrons. The equipment and construction are most modern and complete. A No. 4 two position switchboard, with the capacity of 1,000 stations, was installed. Every room will have its own individual connection, so that each guest will have within call, anyone of the seven million stations connected with the universal local and long-distance service of the Bell telephone system.

In the lobby of the hotel is Cleveland's most attractive pay station. The desk, which accommodates two operators, and the seven booths with their semi-enclosed doors, are of French walnut, and equipped with the latest electrical devices. With all of its many attractive features the hotel opens with the last word in completeness—namely—"Bell service."

The Telephone in Public Service

By A. E. EVANS, General Operator of Substations, Commonwealth Edison Company, Chicago.

Among the various kinds of business, which require the use of some well-organized and efficient means of ready and instant communication between widely separated individuals, the modern electric lighting and power system, as at present conducted, offers one of the best examples. It is safe to say that without some such means of communication a large central station system with dependent sub-stations could not well be operated. In railway practice where the conditions are about equally exacting, the telegraph has been used for many years, but the imperfections of this system have long been recognized; one of the chief difficulties being the necessity of employing help trained in the use of this rather difficult means of transmitting and receiving intelligence, thus limiting the field from which recruits to the operating force are drawn, and limiting likewise the number of individuals who are able to effect the intercommunication.

The modern telephone is free from these limitations, and on account of the readiness with which it can be used by all who can speak a common language, it removes one of the important limitations imposed upon those railroad systems, which have not yet adopted the telephone for use in their dispatching system.

The Commonwealth Edison Company on account of the class of labor employed, the large number of individuals who must be within reach, and the large number of simultaneous communications rendered necessary, find the telephone indispensable in the operation of its system.

The Commonwealth Edison Company operates three large generating sta-



HOTEL STATLER, CLEVELAND, OHIO.

tions. The Fisk Street Station on the south bank of the Chicago River about four blocks west of Halsted street, is of 160,000 H. P. capacity, and the Quarry Street Station immediately across the river to the south is of 112,000 H. P. capacity. The new Northwest Station on the north branch of the Chicago River across from Riverview Park will have, when completed, generating equipment of 320,

000 H. P., of which 53,000 H. P. is at present installed and in operation.

The sub-stations range in capacity from 600 H. P. to 15,000 H. P. and are supplied by from one to six high tension and transmission tie lines. These transmission and tie lines, 130 in number, have an aggregate length of 568 miles. From these stations energy is transmitted by high potential to fifty-six sub-stations in the city, and

through connecting lines as far north as Milwaukee, east to Hammond, Ind., and south to Kankakee.

The technical operation of the major part of this system is under the immediate direction of the Load Dispatcher, whose office is at 120 West Adams Street. From this little office about twenty feet square, are issued proper directions to all the generating stations and sub-stations for the correct and efficient handling of the high-tension transmission and low-tension distribution systems. These instructions are transmitted by the use of a special telephone system installed for this exclusive purpose consisting of a two-position central-energy multiple switchboard with forty outgoing lines. Most of these lines, except in the immediate down-town district and generating stations, are two-party lines, the selective signalling being effected by the old time method of code ringing. This switchboard is connected by two trunk lines to the private branch exchange board used by the Commonwealth Edison Company in transacting all of its other telephone business, both within the organization and to outside parties. Two additional trunk lines connect to the Chicago Telephone Company's exchange. Each sub-station is connected with the private switchboard, offering a duplicate means of communication between the load dispatcher and the operators in the stations and sub-stations. This duplication, while apparently very expensive, is necessitated by the large amount of telephone business which must be conducted with these stations, and which it would be undesirable to put through the load dispatcher's private system, as it would keep his wires busy and render them less available for his immediate use. It has, of course, been of great service in affording a means of communication to and from the load dispatcher's office in the event of trouble on the load dispatcher's private lines.

When this system was first installed a watch case receiver on the end of a long cord was held in the hand and a pendant transmitter was supported by a bracket over the switchboard. The use of this set proved inconvenient on account of the necessity of doing all of the talking while facing one given direction, although it was desirable to be able to face the diagram board at such time. This difficulty could have been eliminated by the use of the telephone operator's standard sets, but this would have introduced other inconveniences still more undesirable, and on this account special sets have been made up similar to those used by the repairmen. I understand that these sets are the only ones in use on private branch exchange boards on the Chicago Telephone Company's system.

The load dispatcher is a man specially trained for his duties and on account of the possibility of emergency conditions requiring more detailed attention to operating matters than one man is able to give, there are always at least two load dispatchers on duty. The two-position switchboard enables them to divide the work at such times and both to use the switchboard at the same time. By special arrangement each of these positions can be sectionalized, thus cutting the board into four parts and rendering it possible for two additional load dispatchers, who may be called upon in an emergency, to assist in giving directions. This sectionalization has proved of great advantage in cases of severe trouble where the requirements for immediate attention to a large number of operating details has been such as to be too great for two men to look after, and more than could be efficiently taken care of over two telephone instruments.

In order to eliminate, as far as possible, the possibility of confusion each



PAY STATION, HOTEL STATLER, CLEVELAND, OHIO.

person receiving an order from the load dispatcher, before proceeding with its execution, repeats back to him the order as nearly as he can recall the original language of the order, thus following the excellent example set by the Telephone Company's A operators. This order is then carried out, and its execution is then reported back to the load dispatcher. This systematic method of handling such directions has been found absolutely necessary in order to insure proper understanding between the load dispatcher and the station men. In order to effect these same operations by telegraph, it would require from four to six times as much time, which would seriously retard the work of restoring normal conditions in cases of trouble, and usually in cases of system trouble, speed in the transmission and execution of orders is highly essential.

One wall of the load dispatcher's office is occupied by a large diagram board, showing in detail the high tension line and bus switching arrangements of every station and sub-station, and by means of removable pegs indicates whether switches are open, closed or being held open to permit of construction or repair work. A large number of blue prints and diagrams, carefully kept up to date, constitute his reference library by the consultation of which he may within a few moments determine the precise location in the street of any high tension transmission line, overhead or underground circuit or low tension feeder, enabling him in the event of trouble or construction work to give directions with a minimum of delay.

Some of our transmission lines traverse outlying and thinly scattered territory where telephone stations are widely scattered, and at times extensive jobs of repair work, necessitating ready and frequent communication, are in progress at points considerable distances from permanent telephone stations. On this account a special emergency telephone service has been or-



W. R. ABBOTT.

trouble is immediately sent by automobile. The average time required for getting this instrument into service is approximately two hours, and the instrument is generally placed and in working order before its need is being seriously felt. This emergency service has been of great benefit by reducing the time required for necessary repairs, thus contributing to the better operation of the transmission system.

Eph Baxter Misses the Point.

Eph Baxter says that since telephones came into common use picking out a tender chicken at the butcher shop is a lost art with women.—Edwin A. Guest in *Detroit Free Press*.

But the woman who can't be fooled by the marketman is the woman who

NAMED FOR IMPORTANT POST.

W. R. Abbott Appointed to Executive Committee of Chicago Association of Commerce.

W. R. Abbott, general commercial superintendent of the Chicago Telephone Company, was chosen November 8th to fill a vacancy on the Executive Committee of the Chicago Association of Commerce.

This is a well deserved tribute to Mr. Abbott's executive ability and recognition of his public-spirited work on behalf of the Association.

Mr. Abbott's efforts for the advancement of the commercial and industrial welfare of Chicago have been effective and untiring, and his associates in the Telephone Company are gratified at his promotion and extend to him and to the Chicago Association of

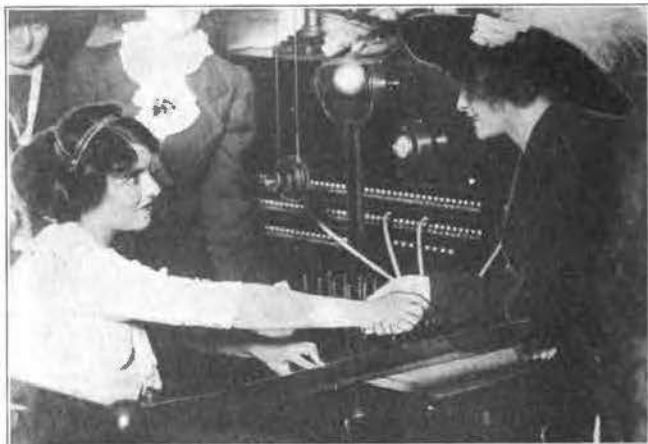
P. B. X. GIRLS SEE SHOW.

Are Entertained at Cleveland by Actress Taking Operator's Part in Popular Play.

On Monday evening, October 15th, about fifty private branch exchange operators of Cleveland, Ohio, attended the performance at the Opera House as the guests of Mary Nash, who fills the role of Wanda Kelly, heroine in William C. DeMille's dramatization of "The Woman."

Wanda Kelly, who takes the part of a telephone operator in the play, is offered a fabulous sum of money to disclose a certain telephone number. But she shows her loyalty to the patrons of the telephone and the telephone company by refusing.

After the performance Miss Nash



MARY NASH, TELEPHONE OPERATOR IN "THE WOMAN," GREETING MISS O'MALLEY, PRIVATE BRANCH EXCHANGE OPERATOR AT THE HOLLENDEN HOTEL, CLEVELAND.

Commerce their congratulations in the broadened field of effort in which his talents will be hereafter exercised.

received the operators upon the stage, to get their opinion of her conception of the part of an operator.

McMILLIN TAKES HEART.

Things in Decatur May Not Be So Bad After All, According to This.

Like all other telephone managers, J. B. McMillin, of Decatur, Ill., sometimes has trouble satisfying everybody with the service. But the following letter from the *Review*, a leading newspaper, received two days after election, cheered the manager up considerably:

My Dear Mr. McMillin:—

As I have on several occasions complained of laxity in service I feel that it is no more than just that I should hand you and your force a bouquet on the service given us election night. There was so little confusion that the service may be said to have been perfect. I want to speak particularly of the long-distance service we got. The operators were patient, polite and accommodating.

We are also indebted to your long-distance operator for an extremely good piece of service on Saturday night, October 26th, the night of the Worden wreck. Her efficiency secured for us a really excellent story. Just ordinary service would have let us down with much less detail and a much poorer narrative. Yours truly, (Signed) THE REVIEW.

By John Byrne.

LIFE'S LITTLE IRRITATIONS!

Michigan Suburbanite With Property to Sell Has His Trouble With One of Them.

The following is a "want ad" appearing recently in a Michigan newspaper: SUBURBAN HOME OF 5 ACRES; GOOD buildings; East Franklin, corner north road. Will exchange for a modern home and pay cash difference, or sell on easy payments. Inquire D. Ward, first house west of the above place, or Citizens' phone line 3, 3 rings, if you can catch the phone when it is not out of order.

A Mystery Solved.

The mystery of the deep stillness that has for some time past overspread part of Clermont County, Ohio, and the utter silence which has greeted anyone from the outside who attempted to communicate with that part of the county, has been solved. The cat came out of the bag when the Bethel Telephone Company asked the Public Service Commission for permission to sell out to the Amelia Telephone Company for \$400. Representatives of both parties attended the hearing in Columbus. Among other questions the commission asked who was in charge of the exchange.

"Well," replied the witness, "we have no regular operator. If anyone happens along and hears the bell ringing he sticks in the plug if he knows how."



PRIVATE EXCHANGE OPERATORS ON STAGE OF THEATER.

ganized by which the Chicago Telephone Company makes temporary connections to its nearest lines as close as possible to the point where work is being done. When such an emergency connection is desired notice is given to the Telephone Company, stating the desired location, and a man is at once detailed to cut the instrument in on the nearest available line. A number of these telephone instruments are kept on hand, distributed in Company Sub-Stations in various parts of the city, and the one which can be most quickly transported to the scene of the

gets good goods by means of the telephone. And she's a telephone ahead of the game all the time, at that.

Verbal Aspirations.

I'd rather be a "Would-be" if I couldn't be an "Are" For a "Wouldbe" is a "maybe" with a chance of reaching par.

I'd rather be a "Hasbeen" than a "might have been," by far, For a "might have been" has never been but a "has" was once an "are."—*Ladies' Home Journal*.

Chicago Telephone Company City Exchange

CENTRAL

Editor's Note.—An article will be run in this magazine each month dealing with the City Exchanges of the Chicago Telephone Company. The exchanges will be treated in the order of their cut-over to common battery, and the articles will be written by the wire chiefs and their assistants.

The oldest common-battery Exchange in Chicago is Central Office, and consequently this forms the first article. This article was written by J. W. Wolcott, and the facts were furnished by Mrs. A. P. Hyatt of the Traffic Department; F. H. Merriman, Central Wire Chief; F. B. Allen, Central Assistant Wire Chief, and R. S. Bouland, Central Switchboard Foreman.

The next article will be on Harrison Exchange.

The Central Exchange District is about one-half mile square, and comprises the territory bounded on the east by Lake Michigan, on the west by LaSalle street, and north and south by Illinois and Adams streets respectively. The exchange proper is at 69 West Washington Street, a stone's throw from State Street with its immense retail stores and shops—well named the "greatest market in the world."

The growth of Central, the first common-battery exchange in Chicago, is characteristic of the telephone development of the country as a whole. The office was cut into service November 2, 1898, with about 800 stations, of which ninety-one were branch exchanges, operating 452 stations. At this time, there were twenty A positions and seven B positions, but not all these were in use. The lines cut in were all extremely busy ones, and even previous to the cut-over of the board as a whole, about ten of the busiest circuits were handled on one position of the new A board. Main Office was very much overloaded and this one position, in charge of Mary Brogan, who now, as then, is at Central, helped to relieve the Main situation.

At the time of the cut-over in 1898, there were twenty-five people employed in the operating end and ten in the maintenance end. At present there are 488 people in the traffic branch, while the maintenance branch requires fifty-eight men to carry its burden.

In contrast with the twenty-seven positions of 1898, we have now 281 positions which are operated regularly. There are 189 positions of A, eighty-one of B, five hospital and six listening supervision positions. Included in these are the positions and apparatus of the original installation. We have numbers of old No. 13 line relays, the finest ever made if one lived long

enough to make the initial adjustment, but that accomplished they go on forever.

When we cut over in 1898, we felt very proud of our twelve shiny red-topped call circuit buttons and pointed with pride to the out-trunk multiple where a careful count would have shown 151 trunks working, or thirty-six less than we had incoming trunks at that time. Our call circuits have been increased ten fold and shooting the trouble in the 120 keeps us too busy to point to them with pride. By the bye, did you ever have to shoot a real mean case of call circuit trouble on a hot day in a dusty office on a busy circuit? The patient Job would have been known differently, had he been a Switchboardman! There are 1887 working trunks in our trunk multiple now all nicely labeled as to their destinations; and on the plug shelves of our B Boards, stand 1925 red jacketed soldiers (commonly called incoming trunks) to connect you on the firing line to any of our 26,268 stations. These 1925 incoming trunks are handled on eighty-one B positions, sixty-five of the positions being entirely keyless in their operation, the remainder being equipped with the No. 142 manual lock-electrical release type key.

In addition to the outgoing trunks to other offices, we have 3486 private branch exchange trunks. Marshall Field and Company have seventy-five trunks in each direction from their store where we have a twenty position common-battery board. There is a repairman there throughout the day to care for the board and for the many telephones throughout the store. We are operating 838 private branch exchanges with 15,200 stations from Central. Of these boards, 278 are of the cordless type, 548 are of the No. 30 and No. 31 types, employing a common line and supervisory signal. The remainder are full common-battery multiple boards, with the salient features of the No. 1 type, known as the No. 35 board, of which we operate ninety positions. These boards are confined to the larger retail stores, newspapers, etc. and are twelve in number.

One interesting fact in connection with the 26,268 instruments which we have is that ninety-eight per cent. of them are desk sets. This will perhaps seem incredible to some of our friends in the smaller towns where the ratio of wall to desk instruments is practically reversed. It costs more to maintain desk than wall sets, and in some cities, we believe, a higher rate is charged for a desk than for a wall set, which looks like sound business. The cords

on these desk stands are from six to thirty feet in length.

Our central office proper is divided into two units, the call numbers for stations in those units being prefixed by either the name "Central" or "Randolph." Both these units use a common main frame and the second is made necessary by the fact that the present construction of multiple jacks makes it impracticable to operate over 10,000 jack-per-station lines in one board. The main frame which is common to the Central and Randolph boards is the largest one in captivity in the "Five States" organization. It is 162 verticals, or 108 feet long, and each vertical has a capacity for 300 pairs of protectors with heat coils and carbons, or a total of 48,600 pairs. There are at present terminated on the frame thirty-three subscriber's cables with 19,350 pairs and thirty-seven trunk cables with 5200 pairs.

The growth of the storage battery plant is interesting and typical. The original installation consisted of fifteen G elements, with an 1,120 ampere hour capacity. Just three years afterward, ten additional plates were added, increasing the capacity 800 ampere hours. In 1903, the original 250 ampere charging generators were replaced with 600 ampere machines, and in October, 1906, or when the exchange was less than eight years old, the battery capacity was trebled or increased to 3360 ampere hours. That is the capacity of the Central unit battery today but the battery capacity for the office as a whole is supplemented by the Randolph unit battery, installed initially with a 3200 ampere hour capacity in January, 1908, and increased last summer to 4800 ampere hours. This gives us a total battery capacity for the office as a whole of 8160 ampere hours. To many readers through the territory, who are not familiar with the Chicago method of "floating," this will seem like a relatively small battery capacity, but the ratio of the load on the battery to its capacity is relatively small since the system load is carried practically entirely by the machines during the day time. The machine used to charge the Randolph battery is rated at 1,000 amperes, but will carry 1,250 easily.

The ringing machine equipment at Central is similar to that of the other offices in the city but all our city machines differ from those generally in use in the arrangement of interrupters. In Chicago an audible busy-back is used on trunked connections where the called party is busy. In other cities, it is the usual practice for the busy-back interrupter to supply intermittent ground to the rings of the busy-back jacks only, but here a tone, also interrupted, is superimposed on the busy-back leads so that not only does the A operator

Definitions

Hell:

Three telephone systems in a town.

Purgatory:

Two telephone systems.

Paradise:

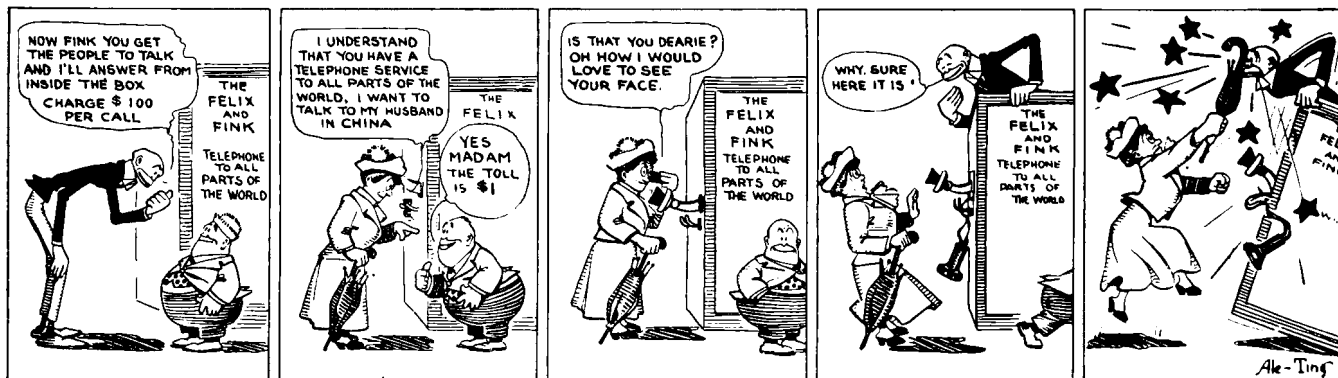
One good telephone system.

ELBERT HUBBARD

receive the flash back but the subscriber gets the "tone back." This is undoubtedly a better scheme than the flash back alone as it relieves the operator from reporting the busy to the subscriber. On these same machines are the interrupters for nickel first or "tick-tick" telephones. As the name suggests, these interrupters produce a ticking sound on nickel-first lines until the operator answers. Then there are the message register machines, generating thirty-six volts, the current being used for the operation of message registers on measured-service lines. The current for coin collecting purposes is drawn direct from the Edison mains as Central is in the "direct current" district. Incidentally we have 7,000 message registers at Central, one being used in connection with each measured-service line. These registers are enclosed in locked glass cases and are opened only by the Traffic Department.

The test desk has eight positions and directly beside it is the subscribers and trunk card file, which has a

FELIX AND FINK ESTABLISH UNIVERSAL SERVICE.



capacity of 50,000 cards. Two men devote all their time to testing trouble after which it is referred to two other testmen who handle the repairs. There is one testman who handles and tests orders. We average about 1,800 orders a month. Four men run the main and intermediate frame jumpers. There are five day switchboardmen, three evening men and five night men. Seven janitors devote their time to keeping our house in order and we have twenty-six men clearing trouble outside.

In as old an office as Central, there are sure to have been many stories of great human interest. In '99 when the fire burned down through the shaft into the operating room, the firemen came in and hung tarpaulins over the board and over the operators. When the show was over and the tents were taken down, all the operators were still there and that's the way it always will be at Central.

During the Iroquois Theater fire in 1904, the battery discharge jumped 200 amperes in fifteen minutes. After that the ammeter was "off scale" so we don't know what the actual increase was. With hundreds of people dead and dying, and with the news of the holocaust spreading over the city, relatives, friends and the merely curious jumped to the telephone for news. The board was alive with lamps and operators answered to meet the curses of madmen or mayhap the wail of a despairing mother or daughter. Trunks were at a premium. Such a traffic condition was never known before, and those of us who worked through it know how terrible a thing such a fire is and know it because of intimate contact with thousands of sufferers in the height of their frenzy.

We have the "perennial pests," the Western Electric men, with us now and they are putting in a little additional equipment to the extent of \$150,000. When they are through, perhaps we will beat our record of a 935 ampere discharge which we had a day or so before last Christmas.

One day last June our operators handled 464,448 calls, and it was merely a medium day at that, so you'll have to agree that we have a mighty fine lot of girls who say "Number please" to you when you call up in our district.

The Important Detail.

There is a little rhyme which has come down through the ages. It reads:

"Little drops of water,
Little grains of sand;
Make the mighty ocean,
And the pleasant land."

In speaking of transmitters recently, a Western Electric Company man, familiar with the manufacture of that all-important factor of telephony, suggested that the verse might well be changed a bit to read:

"Big and little details
Made with wondrous skill,
Help to make transmitters
Send your speech at will."

During the past decade, the public has come to accept the telephone as an every day sort of thing, good for talking to some one else miles away; but owing to the familiarity which such continued speaking acquaintance has bred, has probably never given a thought to the delicate workmanship necessary to turn out a transmitter which will really talk well.

The transmitter, which is found on the great majority of telephones, is made up of fifty-nine details or parts, not including over fifty thousand granules of carbon, which are encased in a closed cup and form what might be termed the "dynamo" of the instrument. Each detail of the transmitter is made as carefully as the most delicate part of an expensive watch. The average person, rarely

dealing with dimensions less than one-eighth of an inch, will scarcely realize what it means to manufacture very small parts whose dimensions must not vary more than one-thousandth of an inch either way. The outside of the transmitter is compact appearing and strongly built. This is necessary on account of the fact that it is the housing for the "details made with wondrous skill."

Through the medium of these delicately manufactured Western Electric instruments, it is now possible to transmit speech from New York to Denver, a distance of 2,050 miles. Less carefully made transmitters would fail utterly in such a project. In a short time the line will be extended to San Francisco, when, if the hopes

pushed from the top by the all-conquering Maintennances, winners of last year's trophy. In consideration of the fact that the Commercial team finished last in that memorable fight it is perhaps too much to ask that first position be held throughout this contest.

Good scores are being made, sixty-one men having averages of 150 or higher, reaching to 181.

Musicians Wanted.

The suggestion has been made that a telephone employees' orchestra be organized in Chicago. William J. Malden, 236 West Washington street, has undertaken the task of bringing the men together and he asks that all

NO CHILD'S PLAY.

Was installing Telephone in Those Days in Opinion of Lady Subscriber.

L. H. Meyer, the "Lilliputian" manager at Gary, Ind., tells the following anecdote on himself:

"About ten years ago, when I was an installer at the West Pullman Exchange, I was sent out to install an instrument in one of the most pretentious mansions in West Pullman, and was duly announced by the maid to



the lady of the house as a man with a telephone to install. The lady of the house evidently was very particular as to who should install the telephone and, after a very scrutinizing survey of my countenance and physique, she replied: 'Just leave the 'phone here in the hall, little boy, and ask your boss to send a man around to do the work.'

Orthographical Mayhem.

Extract from application for employment: "I have had about five years' experience as a clerk and am considered rapid and erratic at figures."

Another extract: "Have had several months' experience in general office work. Am an A-1 mathematician. * * * Can operate an adding machine and am very rapid and accurate at figures, being able to multiply two figures by two figures with great speed in my head."

Detroit, July 13, 1911.

Dear Sirs:

these guy wires that interfere with the opening of my gate on account because I cant open my Gate so that it would lay against my fence every time I have a team bring in the gate gets all broke & splintered It takes almost a good part of the day fixing it. every time, when I have to open it.

Will you please have it altered
Very Respectfully

New Building at Steubenville.

Of special interest to Bell people in eastern Ohio is the completion of the new exchange building at Steubenville, Ohio. This exchange is in the territory of the Central District and Printing Telegraph Company or Pittsburgh Bell. The new building is two stories in height and cost \$35,000. The switchboard capacity is 4,900 lines. The cut-over was completed May 25th. The total new investment in outside and inside plant and building is \$92,000.

The Telephone Directory

WHAT is there seeming duller than this book,
This stolid volume of prosaic print?
And yet it is a glass through which we look
On wonderland and marvels without stint.
Of distance and of time and circumstance,
It is a key which will unlock the gate
A wand that makes the wires articulate
With hum of trade and whisper of romance!

Somehow there is enchantment in each page—

The whirr of wheels, the murmurs of the mart,
The myriad mighty voices of the age,
The throbbing of the great world's restless heart
Such are the sounds this volume seems to store
For him who feels the magic of its thrall,
Who views the vistas it unrolls before
His eyes that scarce can comprehend them all!

Here is the guide to all the vast extent

The wires have bound together; this will show
The way to help when need is imminent,
When terror threatens or when life burns low;
This brings the lover to his heart's desire
That he may speak to her o'er hill and lea,
This is the secret of the singing wire—
To all the "world without" this is the key!

—The Telephone Review.

of the telephone engineers, who are engaged in the work, are realized, the dream of trans-continental telephone communication will have come true.

BOWLING SEASON IS NOW IN FULL SWING

Maintenance Team, Winners Last Season, Forge Ahead in Close Race.

STANDING OF THE TEAMS.

| Team. | Won. | Lost. | Percent. |
|--------------------|------|-------|----------|
| Maintenance | 21 | 6 | .774 |
| Commercial | 19 | 8 | .704 |
| Suburban | 15 | 12 | .556 |
| Installation | 14 | 13 | .519 |
| Engineer | 14 | 13 | .519 |
| Revenue | 14 | 13 | .519 |
| Traffic | 13 | 14 | .481 |
| Accountants | 11 | 16 | .407 |
| A. T. & T. | 9 | 18 | .333 |
| Inspection | 5 | 22 | .185 |

The Commercial team in the Bell Bowling League of Chicago, which for a few weeks held first place has been

employees who play on musical instruments communicate with him.

Mr. Vail's Portrait.

There are available for distribution a number of fine half-tone prints of a portrait of Theodore N. Vail, President of the American Telephone and Telegraph Company. These prints are suitable for framing. Any employee wishing a copy apply by letter to Clifford Arrick, Manager Publicity Department, Chicago.

Rockefeller's Unique Exchange.

John D. Rockefeller is having a unique telephone system installed in his million-dollar mansion at Pocantico Hills, N. Y., and when it is ready for operation he will be his own "hello boy." The system is inter-communicating and will have thirty-three extensions. Mr. Rockefeller has simply to push a button to get into communication with the room he desires. While he is talking the other lines are cut off, so he is assured of absolute secrecy.

New Idea in Advertising.
"Shoes repaired by Telephone."
"Rupert the shoemaker."



Aunt Jane Tells of Her Visit to the Exchange

By NORA JONES, Chief Operator, Woodruff Exchange, Indianapolis.

Well now, Mary Ann, I'll tell you that of all the visits I ever visited while I was in the city, the funniest was at a place they called the Exchange.

Now, I don't know why they called it that because I didn't see anything exchanged, but maybe I didn't notice the part.

First thing after I introduced myself to the man down stairs, I told him as how I wanted to visit the shop or factory, or whatever place it was where the "Hello" girls stayed, and he kind a smiled (tickled-like, I suppose he was glad cause they was a goin' to have company) and he said, "Right this way." An' then he took me into a little room, where the door-keeper said was "a goin' up." An' I supposed he meant the price, and I asked him how much it was a goin' to cost me, an' he looked pleasant (everybody was awful pleasant up there) and said it wouldn't cost me anything. I was surprised, 'cause everything is so high.

I had a mighty funny feeling while I was in that little room, but no one else seemed to have any, only looked as tho' they was a waitin' for something, so I pretended I was a waitin' for something, too.

Pretty soon the young man what paid me so many smiles, said, "This way, madam." Now, I was always used to being just called Jane down here on the farm, but I suppose you have to get used to them extra frills when you live in the city.

Well, as I was a goin' to say, he took me thro' the same door, but into a different room, then through more rooms an' halls an' things, an' then he pushed open a door (tho' I could a opened it myself as well as not if I'd known which one to open) and said "Step in."

Well, the first thing I can remember as seein' first after steppin' in, was a long row of girls sittin' on chairs with their faces all turned to the wall.

Law! I lowed as how they must a bin awfully naughty to be a sittin' like that, but the polite young man said, "No, that is their regular position for work."

They had funny things over their heads, which hung down over one ear, and queer little cups in front of their faces. Now I didn't know what these was for, an' I hated to bother the polite young man so much, seein' as how he had been so nice, so I just waited.

Law me! They just all talked at once, with such sweet voices. An' I thought as what an' awful shame it was, there wasn't no one to hear the polite things they said, but had to keep sayin' them over an' over to themselves.

They talked about trunks an' jacks an' plugs; but I didn't see any trunks, nor any donkey, nor any consarned old plug, but then I low as how they must a bin down in the stable with all the other things exchanged. Maybe

OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST

THE SPIRIT OF CHRISTMAS



SISTINE MADONNA.
Painting by Raphael.

they are horse traders up there, but then I didn't see that part of the works.

The young man then introduced me to a lady, who he said was the telephone girls' mother. My! she must have an awfully big family—an' mostly all girls, too.

She took me into a little room, hospital room, she called it. I thought it was a bed room. There wasn't no one in the beds. I guess I'd be in bed most of the time if I lived up there.

Then she took me into the rest room, but there wasn't but two or three girls in there. I guess they have to take turns 'cause they never stop talking in that big room I was in.

After a while she took me down to the dining room, where two or three girls was eatin' their dinner. She asked me to stay for dinner, but I

thanked her an' said as how I'd have to be goin', 'cause I low'd with such a big family they wouldn't care for company.

Well, I guess that is about all there is to tell, only when you use the 'phone next time, be good to the girls, 'cause you know they can't see, only hear, an' are settin' up with their faces all turned to the wall, puttin' out them lights an' talkin' to themselves.

Wouldn't Deceive Him.

With earnest eyes he pierced the room
He took a careful peek
And said: "I rather like this room.
How much is it a week?"

The hotel man, a slave to truth,
Replied in kindly tone:
"That is no room: that is the booth
You use to telephone."

—Washington Herald.



THE HEART OF CHRISTMAS.

If a vote were taken as to which holiday is the favorite probably Christmas would lead by a big majority. Certainly it would, if we granted the franchise to the children.

It is not strange that the good old Santa Claus and the witchery of candle-light Christmas trees and mysteriously filled stockings appeal to the child heart. But it makes an appeal to the heart of all of us as no national holiday can.

Thanksgiving and Fourth of July are American days but Christmas has no national limit. It is the holiday which has the universal element in it, for it appeals to the heart of humanity. Gathering around this festival is the thought of the little child and reverence for sacred motherhood. Looking into the sweet face of the Madonna and the adorable Christ child our hearts grow tender and we feel more deeply the tie which binds us to each other.

Christmas sets the springs of love and sympathy free to flow out in currents of good will. There is a well of human sympathy in every heart but it is too often concealed. At Christmas the streams of sparkling good will go forth to those we love. The spirit of the beautiful festival seems to get hold of us and sentiment finds freedom to express itself in unselfish spontaneous giving.

Of late we have heard a great deal said about the danger of going to extremes in making presents. A crusade for a sane Christmas has begun. In New York, a band of working girls has pledged itself to wear a badge bearing the letters, S. P. U. G. These letters stand for the "Society for the Prevention of Useless Giving." This is a step in the right direction if it corrects the extravagance and exchange of useless gifts at Christmas. But the spirit of Christmas, the expression of loving thought is too sweet a thing to lose. We can deny ourselves a little for the sake of the joy of making some small expression of our good will.

In our Exchanges the spirit of Christmas gets many lovely expressions. It is safe to say that there are no more generous girls than the girls who work for their living. One beautiful expression of the right kind of giving is in packing and sending of baskets of good things to poor families who have appealed to the sympathy of our telephone operators. Last year hundreds of such baskets were filled by the girls at different exchanges and many hundreds of children had a Merry Christmas because the telephone girls remembered them. This year plans are already being made to make this offering more generous than ever. Let us join the army of S. P. U. G.'s, let us do away with useless giving, but keep the heart tender every day of the year with the spirit of Christmas.

A cartoon in one of the daily papers represents the heart of the universe, bound with snow and ice, but melting fast in the annual thaw. Let us keep the warmth of the Christmas feeling throughout all the year, so that no one day but all days will have the spirit of good will.

WHAT IS LIFE?

Telephone Girl Gives Best Answer to World-Old Question.

The old question has been asked once more and we publish the answers which were given by three women who were interviewed by a representative of the *Indianapolis Star*. The answers to these questions were submitted to the Rev. F. S. C. Wicks, pastor of the Unitarian Church, for his verdict as to which answer was the truest.

The three who were interviewed were Mrs. Charles Anthony, a woman of great wealth; Dr. Amelia R. Keller, a student and social worker, and a girl who works for her living, Edna Haviland, a Bell telephone operator in Indianapolis.

We quote the following from the *Star* which will be of interest to all our operators:

THE BUTTERFLY SAYS:

Life is one long, sweet dream. It is one's duty to be pretty, to be charming.

It is one's ambition to be happy. It is one's pleasure to flit here and there, to meet people, to see the world, to be anything but stupid.—Mrs. Charles H. Anthony.

THE THINKER SAYS:

Life is Universal Love. It is one's duty to look out for others.

It is one's ambition to overcome the inequalities of the human classes. It is one's pleasure—but of this I can not choose.—Dr. Amelia R. Keller.

THE WORKER SAYS

Life is opportunity. It is one's duty to make good. It is one's ambition to be of service. It is one's pleasure to be busy, to live right, to be at peace with the world and one's conscience.—Edna Haviland.

Rev. Wicks, after taking some time to study the replies, announced his decision that Miss Haviland had sounded the true chord. He said:

"The Nobility Chord in every human breast waits only the evoking hand to yield its music. That chord, in me, sounds with great resonance when struck by the sentiments of Miss Edna Haviland, representing the Working Girl as a class and expressing the Philosophy of Life. To greet life as an opportunity is noble; to find one's duty in making good is noble; to be of service is a noble ambition; and pleasure is ennobled when one finds it in being busy, living rightly and trying to be at peace with the world and one's conscience."

Miss Haviland, says the *Star*, is an operator at the Main Exchange of the Central Union Telephone Company, and at the age of nineteen, her position at the switchboard represents practically the whole of her experience.

She is dependent entirely upon her earnings for her existence, and the hours when she is not at the switchboard are largely consumed in fine needlework, which she does to add to her income.

Miss Haviland was picked out by Mrs. Adaline McWhinney, superintendent of the telephone company's rest room and known widely as "the mother of all telephone girls," as the best type of working girl to be found in the ranks, and one well fitted to voice the philosophy of that great human class to which she belongs.

Miss Haviland's initial statement, "Life is opportunity," is a brave assertion, for she, in her short life, has not known what opportunity means in the sense that the business world



EDNA HAVILAND.

knows it. But she made the assertion confidently, and as quickly as the echo of the question. It was an answer that came from her heart, and was meant in its fullest significance.

She expressed the highest ideals of all humanity as simply and unpretentiously as if they were the commonplace thoughts of her working mates.

Miss Haviland is not a militant type, nor has her life been devoted largely to study. Thus her judgment of life has been formed wholly upon her association with other girls of her class, at her work and in her home.

She was called from the switchboard to answer the question propounded at the busiest hour of the day. She had no warning and no time in which to prepare a reply, although the other types to which the question was offered had both ample warning and time to "think out" their answers. She was embarrassed at the unprecedented experience of being suddenly confronted by an inquisitive newspaper man, but was not confused.

"Life, to me, means opportunity," said Miss Haviland, when the brief formula of the questions had been answered. "It is a privilege and an obligation. It entails the development of one's self to one's fullest ability and the expression of all that is in the individual that is for the good of self and the good of all others."

"In order to do full justice to others one must first develop all the potential strength that one has—and the use of that strength for the benefit of all is the only justification for its existence."

"Life is work and work is pleasure. It is the duty of every girl to make good, to make use of all that is in her that is worth while."

"If she is a working girl, she must make good at her switchboard, at her typewriter or at whatever sort of work she happens to earn her living."

"If she is a home girl, she must make good in the home."

"To be of service appeals to me as the highest of all ambitions that a girl can have. To make every atom of one's energy of service to one's self, of service to others, or of service to the world, is the highest ideal toward which a girl can struggle."

"A working girl's pleasure, to be complete, must be in her work. To me, the work is all pleasure. It is a pleasure to be busy, to live right, to be at peace with the world and with one's conscience. And if one does live right it is not hard to be at peace."

"It is true that every girl may find pleasure in some way socially, much of it in her church, her Christian Endeavor and in her mission societies—but that can occupy only a small part of her time and must, therefore, be secondary to the pleasure of her work."

"I believe that marriage is the natural destiny of every woman and that every woman looks forward to marriage, whether she be of the working class or of the leisure class."

"But when a girl marries, the obligation to make good centers upon her home. Perhaps she may have to work, but she must make good first at home or her life is a failure."

CO-OPERATION

By MARGARET COOPER, Chief Toll Operator, Indianapolis. Read at Traffic Conference, November 1st.

Co-operation, as defined by Webster, means "to act or work together"; it means a united effort for victory. Co-operation is, above all, a principle—a rule for right living. Unselfishness is the fundamental idea of its gospel. The truth, that in unity lies strength, that none may live for himself alone, that by his efforts to raise the standard of his surroundings the individual receives his truest benefit, these are the greatest lessons which co-operation teaches.

In the telephone business efforts are constantly being directed in every branch of our service to the improve-

ment of every unit to the highest possible degree. Now some one may ask: "Why is co-operation necessary?" It is necessary in order to secure the greatest amount of revenue from the plant. Then we hear the question: "How can this be done?" It can be done by each employee in every department familiarizing herself with the instructions pertaining to her individual duties and endeavoring to the best of her ability to carry out those instructions at all times in spirit and in letter. Your efforts and success depend upon the amount of faith and hope you put into your work. Do not

anticipate trouble. Don't cross bridges before you reach them. Avoid anxiety; proceed fearlessly; do not become frightened and give up if you do not arrive at your destination as quickly as you think you should. All conquerors of the best kind are slow, and to him or her who works faithfully and in the right spirit, will be given the reward in due time.

An operator's value to the company depends upon her ability to cope with a trying situation. As in a game of cards, so in our work we must handle what is dealt to us and the glory consists not so much in winning, as in playing a poor hand well. Ascertain what you have to do and do it with all your might. If you can not do all you wish, you can at least do your best. You may say: "While I am doing my best, the operator at the other end is doing her worst." Such may not be the case. The girl whom you think is doing her worst may be an inexperienced operator. Here is your opportunity to follow the spirit of our instructions. Do all you can to assist her; co-operate with her; be patient, and if the wrong name, number, or routing has been given and you know the correct one, do not refuse to give her every assistance in your power; do it pleasantly. Use your imagination. See with your mind's eye all that is taking place in any transaction on the wire. This is a vital element in every branch of our service. Proceed with as few words as possible, bearing in mind that you are working for the good of the company as a whole. If a call has been delayed, do not further delay it when given a "Wh" by reciting the details to a supervisor or chief operator, but accept the "Wh." CO-OPERATE and if after the conversation has been completed you think it necessary to do so, call a supervisor. I have known super-



THE CHRISTMAS SPIRIT IN ACTION.
Christmas Baskets Ready to be Carried by Telephone Girls to the Poor of Indianapolis.

visors and chief operators to keep a subscriber waiting and hold up a circuit after an operator had given a "Wh," refusing to accept the same or put up the connection until they had reported. Meet the situation by ideal means which will be found in our Toll Bulletin. By a careful study of the Bulletin, putting into practice the instructions contained therein, co-operating, and working together, I believe we will have the ideal means.

If for no other reason than that of your own general welfare, it is essential that you co-operate. Each time you lose your temper and try to have

your way, regardless of everything else, you are doing that which will react on yourself. Co-operation does not merely suggest and encourage self-help; it develops a continually increasing capacity for it. It places within the reach of the individual a means of using every resource within himself, with a minimum amount of waste. Guard against the numbing influence of habit and routine. Let our minds be elastic and alert, capable of applying the principles of co-operation to ever-changing conditions.

Remember the highest success is not living-making, money-making, nor fame-making, but character-making. Therefore, let each one of us make it our sole purpose and aim to do better and better each day. The operator whose reputation is one of co-operation, will find that there are constantly opening up to her greater opportunities. The ultimate source of our wages is the value of what we produce. Let us all strive to be producers.

INDIANAPOLIS GIRLS IN "VETERANS" SOCIETY

Operators With Service Record of Five Years Receive Hand-some Pins.

In response to personal invitations from the traffic superintendent, over 300 employees of the Indianapolis Traffic Department attended a meeting and reception on the Roof Garden at the Main Office Building, on Friday, November 1st. In order that all of the operating employees could witness and take part in the proceedings, meetings were called at 2:00 p. m. and 7:30 p. m.

The traffic superintendent, J. L. Wayne, opened the meeting with a few words of welcome, and explained the object of the occasion, after which he presented each employee having been continuously in the service of the company for five years or over with a gold pin, which had been carefully designed as suitable for the purpose, explaining that such employees would be known as Veterans of the Department.

These pins are quite unique, being in the form of a "V," which stands for Veteran, and the Roman numeral, indicating "Five." The space within the letter "V" forms a keystone which is faced in blue, bearing the letters "C. U." in gold. The "V" is faced with white, with the words "Efficiency" on one side and "Loyalty" on the other, in gold letters, carrying out in design and color a fit emblem for the Veterans and company.

After the presentation Miss Newnam responded, thanking Mr. Wayne and the company for the honor be-

stowed upon them as Veterans, saying she was proud to be a Veteran, and was most grateful to the company for showing their appreciation of efforts made heretofore, and urged greater exertions, both in efficiency and loyalty, in the future. There were forty-two who received this badge of honor.

A number of papers read by several of the veterans, concluded the program. A paper on "Loyalty" was read by Miss Stephens. Following this, Mrs. Sturgeon read a paper on "Efficiency." W. M. Kendrick then read a paper, the subject of which was,

Busch, Nora
Clifford, Julia
Cloud, Eva
Coatney, Grace
Cooper, Margaret
Dugan, Anna
Eck, Isabelle
Edkins, Anna
Faut, Bertha
Gardner, Mrs. S. J.
Glick, Lena
Gropp, Leona
Headley, Mae
Hinze, Jennie
Hull, Ollie
Johnson, Inez
Jones, Nora
Leukhardt, Hazel
Mack, Lucy
Maley, Anna
Montieth, Dora
Mourse, Lola
Newnam, Jennie M.
Pommerening, Lena
Rooney, Margaret
Starry, Lola
Shen, Margaret
Stephens, Octavia
Stricker, Carrie
Sturgeon, Nettie
Tarp, Della
Taylor, Pinky
Timmerman, Nellie
Volmer, Kathryn
Welch, Anna



THE CHRISTMAS SPIRIT IN ACTION.
Helping Santa Claus in Rest Room at Indianapolis.

"Why We Are Veterans." An original story by Mrs. Jones on "Aunt Jane's Visit to the Telephone Exchange" was then read; after which Guy Green, district traffic chief, gave a splendid address on "Loyalty and Efficiency to Each Other." Following Mr. Green, Miss Cooper read a paper on "Co-operation." Mrs. McWhinney then read a paper on "Conservation," and

A Boost for the Chief Operator.
Presiding over the nerve-center of a community is no insignificant job! The performance of a duty, however important, day in and day out, is likely to make one look on it, after a while, as only a part of a routine. The writer has had occasion to realize that a chief operator has a great responsibility and an important position in



THE CHRISTMAS SPIRIT IN ACTION.
Operators' Baskets of Good Things for the Poor Leaving Main and Toll, Chicago.

this was followed by Miss Welch on "Concentration." The last on the program was an address by Mr. Wayne, in which he gave many helpful suggestions, among them being, "The Value of Concentration" and "The Power of Imagination as a Help in Modulation and Expression in Operating."

After the business part of the meeting a social hour was heartily enjoyed by all. Halloween favors were distributed, and baskets of rosy-cheeked apples were passed. The list of Veterans is as follows:

Brethauer, Amelia
Broder, Mary
Jenkins, Clara
Keefe, Hattie
Kettler, Mary

her community, but that very often she does not look at it in that way.

The various municipal organizations for a city's welfare, such as the police, fire or school departments, all perform unusual and heroic duties at times, and no city can afford to be without them. There is nothing spectacular about a chief operator's job, and it is a difficult task to obtain immediate results; yet ability, patience, and persistence combined bring lasting results.

There is not much to stir the heroic imagination in a well-administered operating-room. Operators are answering lights regularly and without de-

lay; supervisors in charge of their sections keep a careful survey of the work those in their charge are turning out; information is answering inquiries with dispatch and over all the chief operator is keeping a watchful eye. Surely a peaceful scene to the on-looker!

Suddenly an "emergency" call comes in; a doctor must be secured at once, for baby has fallen on the stove; soon another "emergency" call for the fire department — and one-half of the alarms are given by telephone nowadays. The toll operator receives an order for a connection from some business man to consummate a deal of large proportions; later a very urgent request is received that an effort be made to locate a man traveling through New England, and only a vague address is given. Isn't it a responsible position for a woman to control in this way, the inner life of a community? Doesn't it require patience and tact to develop a force of young women capable of coping with the kaleidoscopic conditions on a moment's notice? The importance of this situation is emphasized when important calls are improperly handled.

The chief operator deserves much greater credit and praise than she has received, and this article is intended to express appreciation of the good work she is doing. As a body, no finer type of women can be found in the business life of America today, than our chief operators.—Telephone Topics.

What Makes a Good Workman.

It is a law of nature that we should work.

Idle men soon drift into bad habits and as a rule end their days in prison or in an insane asylum.

The busy man is contented and happy for the reason that he finds no time to be otherwise.

There are some who regard work as a hardship and a curse, whereas it is a man's greatest blessing.

Ability to work is man's capital. Of course with this there must be the will or the desire to work. Then add one more word, "interest," and we have the three things that go to make a good workman.

By ability or power to work we mean physical health and strength. This is why we say that a person's ability to work is really his capital. Then add to ability, or let us say, good health, the desire to work, interest in our work, and a fair amount of skill, and we have what is called to-day the efficient workman.

But bear in mind that the basis of the good workman is health. It is good health that provides us with the needed mental and physical energy to do our work and to do that work in the best possible way.

This needed energy is provided, or manufactured, in the human body by the food we eat, the air we breathe and the rest we take. It can be wasted by bad habits such as *intemperance, keeping late hours (which means loss of sleep), breathing bad air and eating unwholesome food.*

As the capitalist takes care of his money, so the worker should take care of his health. *Good health is the workman's capital.*

To Those Who Telephone.

Remember that when you are talking over the 'phone the party to whom you are talking cannot see you; therefore, have a care to make your voice "look pleasant."

Honey catches more flies than vinegar, and you cannot do business with a man when you are "scrubbing" him with pepper sauce and a rattan brush.—Dr. W. C. Abbot.



VETERAN'S PIN.

EXCHANGE OF EXCHANGES

Edgewater, Chicago.

A subscriber having received the busy signal for some time asked for the manager's office. When he heard the supervisor's voice he said, "Say, why does that operator always kick the nickel back, it's good?"

Supervisor—"Manager's office, did you put your nickel in?"

Subscriber—"Yes, just as you snapped the snapper, the nickel dropped."

A subscriber asked for the manager's office and said, "I went to the country two months ago and had my bell turned off. I'm back now, so please turn it on again."

Operator—"Number, please?"
Subscriber—"Gif me your manager."

Supervisor—"Manager's office."
Subscriber—"Hello, Miss Manager, I haf so much troubles here. All the time I haf to wait ten, six, two minutes for dis operator to answer. She all da time makes so much foolishness."

Supervisor—"What trouble are you having, please?"

Subscriber—"Now, don't interrupt me, please; let me talk. Dats de trouble mit you people, you always talk und don't let me say nodings. I got odder tings to do besides koffeklatchen. Every three days I must complain und den you gif me fine service for one day und den it is viddar monkey doddle business. I pay heavy expenses for my telephone und dere is no reason why I should not receive expensive service. It gifs me a headache mit dis phoning nonsense. Hello, Miss Manager, are you listening? Vell, why don't you say something. Now, please be goot to me und don't bodder me any more."

And without waiting for a reply from the supervisor, he slammed the receiver up.

Oakland, Chicago.

One evening one of the operators heard a plaintive little voice say, "Please won't you give me heaven? My little doggie is dead."

Bay City, Mich.—

A new operator received a call for the attorney general at Lansing. She filed the ticket with Lansing as the "Eternal General," and the Lansing operator referred the matter to the district traffic chief, who seemed to her to be the proper recipient of this message.

A collector called recently on a party-line subscriber who habitually disputes items on toll bills and is always sure that the other party on the line must have done the long-distance talking. The collector, referring to a Saginaw call in the bill, stated that the call was to "804-L Saginaw." The lady immediately spoke up and said she knew no one in Saginaw by the name of Ada Forell, and that it must have been the other party on the line, as they were always talking.

West, Chicago.

A subscriber's bell rang and when the operator said, "Number, please," the subscriber said, "Number, please," the subscriber said, "My bell rang." The operator used her phrase, "I'm sorry we rang your bell by mistake." The subscriber then said, "Operator, if you are going to ring my bell by mistake, don't ring it so hard and then I will know it is a mistake."

A student answered a call signal from her teacher and heard the call

for police, and she immediately hung up her receiver. The student disconnected and referred the case to the supervisor. The student was asked where the call came from and she handed the supervisor the answering cord she had used and replied, "From here."

Akron, Ohio:

The way they call numbers here:
Operator: "Number, please?"
Subscriber: "Two, five, nothing, five."
Operator: "Two five, oh, five?"
Subscriber: "Yes, Mam."

THE OPERATOR A LIFE GUARD.

The telephone is the cement of the business and social world and humanity each year becomes more and more dependent upon it. The time when a journey in the saddle or by stage coach was necessary to secure aid in cases of sickness or other emergencies is past, and the work of hours is cut down to seconds by the use of the long-distance and local telephone system.



THE CHRISTMAS SPIRIT IN ACTION.
Operators Delivering Christmas Baskets in Indianapolis.

Too much credit can not be given the telephone operator for her tireless efforts answering the thousands of calls that come in over the wire, and when we stop to consider the immense amount of business now transacted by telephone, we begin to realize our helplessness before this most wonderful aid to mankind was invented.

The operator as she sits before her board must constantly be on the alert. To her every flash must necessarily mean an emergency call. The importance of efficient telephone service is shown by the following:

An operator at Doan Office, Cleveland, in answering a flash, heard a faint voice say, "Oh, operator, this is Doan . . . L; please call my husband at Main 000 and tell him I'm dreadfully sick." As nothing more was heard, the operator receiving the call gave this information to her supervisor and an effort was made to get Main 000. It was found that the "L" party in her distress had given the wrong number to Doan Office, and as they feared the woman was in serious condition, the "J" party on that circuit was called and asked to go to the house of the "L" party, which she promised to do. Upon a second attempt the husband was located, and told what had happened. During this time the "J" party had called at the home of her neighbor and found her lying unconscious on the floor. A physician was immediately summoned and the woman soon restored to consciousness. The physician expressed the opinion, however, that as the case was one of phtomaine poisoning it was fortunate quick action had been taken. The husband soon

came and both he and his wife expressed their gratitude for the efficient service rendered by the telephone company.

This is only one of many emergencies where the telephone comes to the rescue and where the intelligent action of the operator relieves a dangerous situation.

Phonographic Adjunct.

The phonograph has been temporarily installed as an adjunct to the telephone service of Berlin. When the line gets out of order, the phonograph automatically calls out to would-be talkers "The line is not working." The operators may also switch on the phonograph to ask persons what numbers they want. It is said for the new instrument that it is so nearly inaudible that the work of the exchange can be carried on with less noise and wear and tear.

Telephone Girl Saves Town.

But for the timely discovery made by Bernice Griffin, a telephone operator at Hebron, Ind., early in the morning of November 7th, the town might have been destroyed by fire. Miss Griffin discovered the blaze in a hardware



ANNA WELCH.

Anna Welch is the chief instructor of the Indianapolis Training School. Miss Welch was employed by the company in 1903 as local operator. Some time later she took up toll operating and filled the position of toll operator until 1907, at which time she was promoted to the position of assistant instructor in the Training School. In 1909 she was given charge of the Training School and has held this position up to the present time. Miss Welch has worked untiringly in the school, and has accomplished very excellent results in this work.

Pretty Tough.

SUBSCRIBER: "I want to complain of the other parties on my line. They use the telephone half an hour and more at a time and we get no use out of it at all."

COMMERCIAL DEPARTMENT CLERK: "That's too bad. What do they talk about?"

SUBSCRIBER: "Why, that's the worst of it."

CLERK: "Bad talk, eh?"

SUBSCRIBER: "Bad? They talk in German, and we can't understand a word they say. I don't see why we should pay any rent for the telephone. What do we get out of it? We can't use it ourselves, and we can't understand those who do!"

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES
GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
G. W. CUMMINGS
Correspondents

Good Words for Hyde Park.

Chicago, November 6, 1912.
Mr. H. F. Hill, General Manager, Chicago Telephone Company, Chicago, Ill.
My Dear Mr. Hill:

During the past six or seven days, owing to the serious illness and death of my wife, the telephone at my residence, Hyde Park 918, has been made use of to an unusual extent, and the operators who have given attention to our signals have been so prompt and attentive and considerate that I wish to take this opportunity to express in behalf of myself and family my sincere appreciation and gratitude. Not knowing the operators by name or who it is that has given us such faithful service, I am unable to communicate with them direct, but through you wish to thank them.

Yours truly,
(Signed) G. B. SIMPSON.

An Evening at the Art Institute.

Plans are being made for a delightful evening at the Chicago Art Institute. The Traffic department of the Chicago Telephone Company has engaged Fullerton Hall (in the Art Institute) for Sunday evening, December 8th, and invites all the employees of the company to visit the

American Artists' exhibition which is being shown in the galleries and also to an exhibition of the great pictures of the Madonna which will be shown by stereopticon in Fullerton Hall, accompanied by appropriate Christmas music. All of the galleries will be open. The recent changes and improvements in the beautiful building are worth seeing and the special exhibition of our American artists is very attractive.

The young ladies of the exchanges are particularly invited to come and bring their friends. Lorado Taft and Mrs. John Sherwood and others will show some of the special features in the collection. The hours will be from 7 to 10 p. m. The pictures with the music in Fullerton Hall will be shown at 7:30.

Bouquet for Waukegan.

C. T. Ford, district manager of the Chicago Telephone Company, recently received the following letter from the Commandant of the Great Lakes Naval Training Station near Waukegan:

"My Dear Mr. Ford:
"I wish to express not only in my own behalf, but in behalf of this whole station, appreciation of the generally courteous, polite and efficient service on the part of the operators in the Waukegan telephone exchange. I have never failed to receive prompt attention and considerate treatment from them."

"In this twentieth century, when everybody is bustling, and when the conduct of official business depends so much upon the telephone, it is a matter of great importance that time should not be lost:

and intelligence, promptness and politeness should characterize those who are involved in the transaction of important work. This is particularly the case in the military service, where we place great stress upon subordination and good manners."

Toll Weddings on Thanksgiving.

Mabel Teague, toll operator, who has been with the company in Chicago and at Jefferson Park for a number of years, was married Thanksgiving eve to Fred Wilson. She was pleasantly remembered by her many toll friends.

Catherine McArdle, toll supervisor, was married to Mathew Merrick on Thanksgiving day.

Ethel Watkins, toll supervisor, was married Thanksgiving eve to A. L. Simpson of the general commercial superintendent's department. Miss Watkins and Miss McArdle have been on the toll force for eight years and have made many friends among those with whom they have been in daily contact. They were given beautiful cut glass water sets and a farewell luncheon at the office before they left, a large wedding cake being a conspicuous feature.

Cupid has not been frightened by even Toll's poetry, as the above announcements show. Last month's contribution has called forth this original response which will prove that loyalty is the keynote of Toll office.

To the author of "Is Matrimony Contagious?"

So you think a new boss would please all the girls.

That then they could primp and wear bangs and curls?

Well, may be that's so, and may be it's not.

But just make a change and then who's you got

prompt program. Chorus singing, solos, quartettes and duets, recitations and the most amusing minstrel number made this program a great success and reflected great credit on the young ladies who took part.

Lillian Kelly and Frank Flynn were married at Visitation Church at 6 o'clock on the afternoon of October 30th. The best man was Edward McClaughlin and the bride was her sister, Norine Kelly, of the traffic department. The bride wore a gown of white crepe meteor and carried a shower bouquet of white roses and lilies of the valley. The bridesmaid wore a gown of pale blue crepe meteor and carried a large bouquet of pink rose buds. The operators and supervisors presented the bride with a box of silver.

On Thanksgiving day Della Rawson, main operator, was married to Mr. Nelson. A cut glass water set was presented to her by her friends in Main office.

Suburban Promotions.

October, 1912.

Doris Triggs, Elgin, operator to supervisor.

Victoria Shima, Evanston, supervisor to assistant chief operator.

Mary May, Wilmette, assistant chief operator to chief operator.

Anna Heinzen, Wilmette, operator to assistant chief operator.

Julia Malon, Elmhurst, operator to assistant chief operator.

Anna Swanson, Berwyn, operator to assistant chief operator.

Olga Ciechanowsky, Waukegan, operator to assistant chief operator.

Lucy Sohmers, Wheaton, operator to assistant chief operator.

Clara Mory, Glen Ellyn, operator to chief operator.

Bessie Diebold, West Chicago, transferred from Glen Ellyn and promoted to chief operator.

"Beldenite" Rubber Insulated Telephone Wires

We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue CHICAGO

contract from the Electric Package Agency, 502 Bolivar Road. The equipment will be a No. 4 board, three trunk lines and six stations.

A private branch exchange, which will consist of a No. 4 switchboard and three trunk lines with ten stations, was secured by W. Englehardt from the Theurer Norton Company, 3136 West Sixty-third Street.

A cordless board will be installed in the office of the O. S. Hubbell Printing Company in the Plain Dealer Building as a result of the efforts of Charles Eliert. The switchboard will be equipped with two trunk lines and six stations.

L. F. Barkhauer secured a contract from Davis and Farley, 714 Hippodrome Building, for a No. 4 switchboard, two trunk lines and six stations.

Through the efforts of W. A. Walsh a contract was secured for a cordless board, one trunk line and six stations.

Personals.

When Kathryn O'Brien resigned November 1st as evening chief operator at Broad office, to return to her home in Pittsburgh, the Broad operators presented her with a silver chateleine bag. Agnes Johnson, formerly a Main operator, has been promoted to the position made vacant by the resignation of Miss O'Brien.

Dorothy Urban entertained fifteen of the Broad operators at her home, 7117 Dercan Avenue, October 15th, when a delightful time was had playing games and enjoying the musical selections given.

Grace Hiller, supervisor at East, resigned October 31st to accept a position as private branch exchange operator with The Standard Oil Company.

The marriage of Lula Carrington, supervisor at Eddy office, to Melvin Wenne, took place November 12th.

About 500 invitations have been sent out by the Bachelor Girls, announcing a dance which is to take place the evening of January 23rd at Conklin's Dancing School, East Sixty-ninth and Euclid Avenue. Refreshments will be served and an unusually fine time is expected.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Akron District.

Fred Price, formerly manager at Mansfield, has been appointed chief clerk at the Akron office.

E. J. Fisher has accepted a position as chief collector at the Akron exchange. Mr. Fisher recently worked for the Central Union Telephone Company at Toledo.

The Youngstown commercial department has established a downtown office for the convenience of its subscribers. The office is located in the Stambaugh building, in connection with the new Western Union quarters.

Jerry Cave has been appointed plant chief at Youngstown, succeeding Mr. Holmes, who has been transferred to the state construction department.

Lela Joy is chief operator at Elyria, succeeding Miss Leidtke, who has come to the Conneaut Telephone Company, at Conneaut, as chief operator.

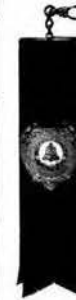
Ten additional toll switching trunks have been installed at Akron to handle the increasing business.

Annie Warjon, stenographer in the district plant chief's office at Akron, has resigned to accept a similar position in the auditing department of the B. F. Goodrich Company. Grace Cox succeeds Miss Warjon.

O. W. Uplinger, formerly manager's chief clerk at Akron, has resigned and taken a position as chief clerk in the Western Union office. Mr. Price has been appointed to succeed Mr. Uplinger.

Miss Judson has accepted a position as cashier's assistant at Akron.

Are You a Loyal Employee?
Then Show Your Colors!



**BELL
TELEPHONE
WATCH FOBs
and BUTTONS**

**GOLD PLATED
SILK RIBBON**

This Fob only **\$1.25**

**AGENTS WANTED
Write for Terms**

Every employee of the Bell Companies should have a fob or button—Shows the loyal spirit.

Be proud of your Company, and your Company will be proud of you.

**GOLD PLATED
LAPEL BUTTON**

Seventy-five Cents

PRICE LIST

Fob, as per cut - - \$1.25
Fob, with Leather Strap, 1.00
Buttons, for Lapel - - .75

(Sent prepaid—neatly packed on receipt of price—use care in remitting)

The buttons can be made into attractive hatpins (a tip to the girls)

THE MERCHANTS SUPPLY CO.
Dept. F. 1120 Prospect St., Cleveland, O.

Toledo District.

Iva Daniels, operator for three years at Bowling Green, has resigned and is succeeded by Hazel Barrett of West Liberty, Ohio.

Lynah Barrett of West Liberty, Ohio, has accepted a position as toll operator at Bowling Green.

Muriel Jaynes, toll operator at Defiance, resigned and is succeeded by Carrie Heimlicher.

On Tuesday evening, October 23th, the Findlay operators in Miss Snyder's division were entertained at the home of Mary Lathshaw. The diversions of the evening were contests which were won by the hostesses and a pleasant evening was enjoyed by all.

Emily Greenland, formerly a toll operator of Indianapolis, Ind., has accepted a position at the Lima Exchange.

Hattie Keuthan, collector at Lima, resigned and was married on October 12th, to Harry Brice, of Dayton.

Maude Evans, traffic chief at Lima exchange, entertained the clerks of the plant and commercial departments at a 6 o'clock dinner on October 24th.

M. B. Colt, president of the National Supply Company, during the month of



NORTH EVENING SUPERVISORY FORCE.

Now, you must work, 'tis true I'll admit.
For to hold down your job you must always be fit.
But a woman who knows you, and treats all the same,
(Whether lowly in station or lofty in name),
Is the one who'll improve you, and make you all strong;
So here's to "our Hattie," may she stay with us long.

—By "Express."

Personals.

On October 15th, the North evening supervisors with their chief operator surprised Mrs. William Grunert, formerly Lillian Wilke, with a miscellaneous shower, and also surprised her with a beautiful cut glass water set which was presented to her by her operators and the supervising force.

The afternoon was enjoyed by all, several pictures were taken and it was a jolly crowd that started to report at North office that evening.

Anna Finn, Wabash operator, resigned to be married to Elmer Schriber. She was presented with a cut glass bowl by the girls at the exchange.

On the evening of October 7th the Austin supervisors and clerks gave a luncheon in honor of Miss K. Faehke, who was recently transferred to Lawndale office as chief operator.

On November 17th the Austin day supervisors gave a theater party at the Cort and saw "Fine Feathers." They invited as their guest Miss K. Faehke of Lawndale office, their former chief operator.

Miss Mollie Tate, Wabash supervisor, who resigned to be married to James Hogan, Thanksgiving eve, was presented with a cut glass water set from the girls at Wabash and a cut glass vase from the girls at Harrison. A supper party was given in her honor Friday, November 15th, when all the supervisors enjoyed the im-

Service Standing.

Following is the place position of the offices for the month of October, 1912:

First Calumet
Second Edgewater
Third Oakland
Fourth Central
Fifth Irving

Neighborhood Exchanges.

First South Chicago
Second Irving
Oakland tied with Edgewater in September.

By an oversight Oakland's name did not appear in the last issue. The tie that binds was once more forgotten and Oakland should have shared the honor with Edgewater for fifth place.

CLEVELAND DIVISION

W. K. LAURENCE, Correspondent

With Commercial Agents.

October was a banner month for N. J. Forgue, as he secured the following four contracts for private branch exchanges:

The Crowell Sherman Company, 1951 East Fifty-fifth Street, a cordless board, two trunk lines and six stations. The Ohio Chemical Company, 1177 Marquette Avenue, a No. 4 switchboard, one trunk line and six stations.

The Rickersberg Brass Company, Perkins Avenue and East Thirty-seventh Street, a No. 4 switchboard, one trunk line and eight stations.

Schweger and Company, 6501 Euclid Avenue, a No. 4 switchboard, two trunk lines and seven stations.

G. V. Shaw secured a contract from the Charles Brumt Company, 1829 Central Avenue, for a cordless board, one trunk line and six stations. He also secured a

MATTHEWS TELAFAULT



Is being ordered quite generally by the Bell Companies all over the country.

A recent order from the Missouri & Kansas Telephone Co. called for 14 to be shipped to their district plant chief at Joplin, Mo.

The Central Union Telephone Co. have recently ordered:

- 2 for Kankakee, Ills.
- 1 for Jacksonville, Ills.
- 1 for Champaign, Ills.
- 1 for Beardstown, Ills.
- 1 for Springfield, Ills.
- 1 for Sterling, Ills.
- 1 for Frankfort, Ind.
- 1 for Toledo, Ohio

The Michigan State Telephone Co. have recently ordered:

- 1 for Grand Rapids, Mich.
- 1 for Saginaw, Mich.
- 1 for Pontiac, Mich.

Matthews Telfault will find "dead shorts," wet spots, grounds, crosses, split pairs, in fact, all kinds of cable faults except "opens"

It will pay you to look into the merits of this wonderfully simple money saver.

Manufactured Exclusively by



Competition Waives Before Matthews Saver

For Sale by the
WESTERN ELECTRIC CO.

October presented the employees of the traffic department at Lima with two bushels of very choice apples.

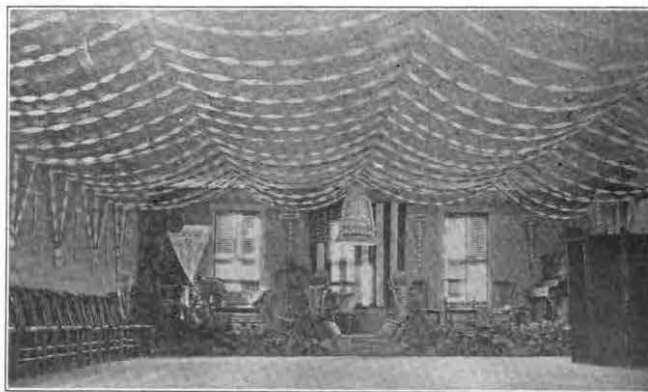
On October 23d, the plant department of Lima Exchange, completed the installation of a No. 4 private branch exchange with three trunk lines and eleven stations for the Newson Hawisher Company.

On the evening of October 2d, Margaret Simpson entertained the operators of the Norwalk Exchange at a kitchen shower in honor of Clara Gahagan, one of the Norwalk operators, soon to become a bride. At 8 o'clock a four-course dinner was served with small boys acting as colored waiters, and all enjoyed a jolly time.

On October 15th there was another surprise given for Clara Gahagan of the Norwalk Exchange, when with the intention of greeting the fortunate young man, she answered a call to the door and found her friends of the traffic and commercial departments. During the evening refreshments were served and the hostess was presented with a cut glass celery dish. The evening was enjoyed by all and the guests departed showering upon the bride-to-be their best wishes.

F. R. Eckley, traffic chief at Toledo, was married on October 8th, to Mary May, of Columbus, Ohio. Mr. and Mrs. Eckley were at home at 1037 West Woodruff Avenue, Toledo, after a motor trip through the Adirondack Mountains.

The Blue Bell Club of the Upper Sandusky, Ohio, traffic department was en-



HALL DECORATED FOR TELEPHONE GIRLS' DANCE AT DE PERE, WIS.

tertained Thursday evening, October 30th, at a Halloween party by Frances Clark. The house was artistically decorated in autumn leaves and pumpkin faces; during the evening various Halloween games were played and Hattie Steinbaugh as a fortune teller was very entertaining. Dainty refreshments were served by the hostess and miniature pumpkin faces were given as favors.

E. S. Fisher, collector at Toledo, has been transferred to Akron Exchange where he takes the position of chief collector. L. E. Kelch succeeds Mr. Fisher at Toledo.

Toledo Exchange is now distributing a new exchange directory.

H. C. Hauke, Western Electric installer, is now installing 100 answering jacks and 200 multiple jacks at the Fostoria Exchange.

A. L. Jerew, construction foreman, and a force of linemen have arrived at Fostoria to re-route a part of the Fostoria-Tiffin toll line and string one No. 12 copper circuit from Fostoria to Tiffin and a No. 12 copper circuit from Fostoria to Bascom and one from Fostoria to New Reigel, Ohio.

Ethel Sparks, night operator for the Le Moyne Telephone Company, a connecting company operating at Woodville, Ohio, received a call on the night of October 11th, that a burglar was breaking into the home of a subscriber. Her quick work in notifying people living nearby resulted in the capture of the burglar.

A contract has been taken for thirty additional stations to the private branch exchange of the Hotel Norval, Lima.

Contracts have been taken for private branch exchanges as follows: Sandusky—Third National Exchange Bank, for switchboard, one trunk and five stations.

Toledo—City Brewing Company, for switchboard, two trunks and four stations.

Anna Hottinger, who has been in the employ of the Local Telephone Company, of Bellevue, Ohio, for nine years, as chief operator of the Local Company's Plymouth Exchange, resigned November 1st to be married. Miss Hottinger has been a very capable and efficient employee and with other duties has had charge of collections, holding the record for getting in the money, frequently closing the month without one cent of unpaid accounts.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent, Milwaukee

A. T. & T. Wedding.

On November 23rd, Catherine Johnson, assistant chief operator at the Tomah office of the American Telephone and Telegraph Company, surprised her friends by slipping away on an early morning train and, going to Winona, where she was married to Elmer Earl Caldwell, who is also employed in the Tomah office.

Although they got away without being suspected, they were not so fortunate on their return home that same afternoon for the telephone force had "gotten wise" and were at the depot to meet them with a generous supply of rice and old shoes. A reception was given at the home of the bride November 25th and they were presented with silver by the plant and traffic departments.

Appleton District.

On the evening of October 9th a fire broke out in a large barn at Casco, which burned the Green Bay-Sturgeon Bay toll lead in two. The fire destroyed one pole and about two spans of wire. A construction crew happened to be a few miles from there and they hurried to

oldest solicitors, was transferred to the Oshkosh exchange.

The Misses Leona and Ethel Huntington, operators at the Green Bay exchange, have returned from the West, where they visited along the coast for the past two months. They resumed their duties November 1st.

Six hundred additional multiple and electrical peg count registers have been installed at the Green Bay exchange by the Western Electric Company under the supervision of E. Ingstrom, chief installer.

Foreman Whaley and crew finished the T. D. R. work on the New London-Oconto toll lead last month.

The De Pere operators gave a party at Forester Hall on the night of October 16th. The young ladies showed originality and good taste in decorating the hall, and those present greatly admired the work. The ceiling was covered with alternate blue and white ribbons, the colors of the company, and the side walls were covered with Wisconsin Telephone Company pennants. The rostrum was prettily arranged as a cozy corner, and jack lanterns were set upon stands and tables. A profusion of var-colored autumn leaves was also in evidence. The piece de resistance was a huge blue and white Wisconsin Telephone Company bell suspended from the ceiling in front of the rostrum. The effect when the lights were turned on was very pretty and when turned off and the jack lanterns illuminated, the crowd was compelled to admire. Refreshments were served during the evening.

Following is a letter received by Manager A. J. Schultz at Green Bay from the agent of the Northwestern Railroad at that point: "Dear Sir: About 8:45 last night I made request to your long-distance operator for a call to our ticket agent at Oshkosh, and another to Neenah, and another to Appleton. I stated to her that they were very urgent and for your information I got the three calls desired within ten or fifteen minutes. The information I desired was for use of our freight traffic manager. The courtesy shown me by this operator was such that I desire through you to thank her very much for her kindness, and wish that you would say to her that I appreciate very much the excellent service she gave me. Yours very truly, J. A. Hagan, Agent."

Eau Claire District.

The Downsville Telephone Company has purchased a building and moved into the new quarters.

All estimates for new rural lines at the Menominee exchange have been completed and 100 new rural subscribers have been added during 1912.

Nellie Byrnes has resigned her position as clerk and bookkeeper in Superior. Flossie Patterson has taken the position. Construction Foreman W. Burke and crew just completed two rural lines out of Stanley, adding nineteen more subscribers to the Stanley list.

On the evening of October 30th the operators of Eau Claire exchange very pleasantly surprised Anna Skar by giving



GROUP OF KENOSHA OPERATORS.

her a silver shower. After four years of service as local operator at Eau Claire Miss Skar tendered her resignation to be married. Alice Galligan has been employed as local operator at Eau Claire to succeed Miss Skar.

Milwaukee District.

Mabel Parker, local supervisor at Racine, entertained the supervisors and clerks at a Halloween party at her home, 1133 Center Street. The house was prettily decorated with autumn leaves, jack-o'-lanterns, pumpkins and a magic kettle in which those present found their future. At a late hour a Halloween supper was served. Those present were Mollie Heinrich, chief operator; Freda Miller, assistant chief operator; Lillian Johnson, Berntha Lowe, Mabel Smith, Helen Petersen, local supervisors; Ruth Mohr, clerk; Emma Petersen, hospital clerk; Mamie Wagner, Genevieve Beaugrand and Rosetta Bowman.

Madison District.

During the past month connecting contract was secured from the Muscoda Telephone Company, with headquarters at Avoca, Wisconsin.

The south wing of the new State Capital

An additional No. 12 copper toll circuit is now being constructed between Sturgeon Bay and Ephraim. Foreman S. Palmer and crew are doing the work.

Lewis La Chapelle, one of Green Bay's

tol at Madison is about completed and work covering the installation of some seventy odd telephones will commence in the near future.

Grace Monks of the local office in Madison has been promoted to the position of assistant toll clerk.

Work covering the installation of four new local and toll positions at the Madison exchange is about completed. This work is being done by the Western Electric Company, under the supervision of Foreman Lonergan.

Mary Kaline has been appointed book-keeper at the Madison exchange, to succeed Minnie Crump, resigned.

INDIANA DIVISION

D. H. WHITHAM, Correspondent, Indianapolis

Anderson District.

Jack Reichart, formerly district plant chief, was married to Amelia Kalberer of Lafayette, Ind., October 30th. Mr. Reichart is now in the electrical manufacturing business in Lafayette.

Maude Hugel, chief operator at Anderson, was married October 7th to Arthur W. Patti of Anderson. Mary Schies, supervisor, succeeds Miss Hugel as chief operator and Roxie Lloyd succeeds Miss Schies as supervisor.

Cecelia Oefelein, a toll operator at Shelbyville, entertained the operators at a Halloween party Saturday, October 26th.

The semi-monthly meeting of the "Kee-Nee" club of Shelbyville met on October 29th with Lena Krebs. This is a club composed of Central Union operators and has been in existence for more than a year, and up to the present time it has been impossible for an outsider to find out the meaning of the name they have selected. And yet they say a woman can't keep a secret?

Laura McNaught, clerk at Greensburg, has resigned on account of ill health. She was in the company's employ for more than five years. Nelle Rigby, chief operator, succeeds Miss McNaught and Lou Kerchival succeeds Miss Rigby.

A new rectifier is being installed at the Shelbyville exchange. Joe Cunningham, lineman, has been transferred from the Shelbyville exchange to the Greensburg exchange, taking the place of Luther Hart, resigned.

Indianapolis District.

Dennie Davis, local operator, was married to Earl Kuhns on November 1st.

Margaret Schmidt, local supervisor, was married to Eugene Lane on October 31st. Only the immediate family and most intimate friends were present. She was the recipient of many beautiful gifts, among which was a set of solid silver spoons, bearing the inscription of "C. U. T." from the Traffic employees of the Main Office.

Louise Coull, who has been abroad for the past two months to visit her old home in Scotland, has returned to take up her work as supervisor at the North Office.

Hazel Mockford, one of the North operators, who has been ill for two months, has returned to the office. The employees of the Woodruff Office and their friends enjoyed a Halloween party and dance at the home of Ruth Broughton. The house was prettily decorated in keeping with the season.

Friends of Clara Uhl were greatly surprised at the announcement of her marriage. Miss Uhl is a local operator at the Woodruff Office.

Edna Harkins, a supervisor of the Prospect Office, entertained the Entertainers club. This club is composed of about eighteen of the Prospect operators. The decorations were carried out in black and yellow, and the refreshments were pumpkin pie, apples and cider. The evening was spent in dancing and singing, and was heartily enjoyed by all.

A large number of the North Office operators were entertained at a Halloween party at the home of Carrie Stricker.

The Nordyke and Marmon Company's retail branch at Meridian and New York streets has installed a private branch exchange with five stations.

Terre Haute District.

Effective November 1st, C. L. Sawyer was appointed district traffic chief of the Third Indiana District, vice J. P. Hays, transferred to Second Indiana District.

L. C. Wells has taken the position of collector at the Terre Haute exchange vacated by Clyde Kester, who was compelled to give up work on account of ill health.

Arthur L. Leazenby, formerly commercial agent in the Contract Department at Terre Haute, has resigned and expects to leave for Southern California some time during the month of November.

The following item was published by one of the Terre Haute newspapers during the "Made in Terre Haute" Industrial and Corn Show just recently held in this city.

"The Bell Telephone Company is holding open house all week and the plant in the big building on Ohio street has

swarmed with interested visitors. The public is instructed how keen-eyed electrical engineers keep the plant and apparatus going; how six thousand instruments are busy day and night; how thirty-five or forty thousand calls are handled every day. Visitors are ushered through the switchboard room and dynamo rooms. The idea is one Manager Allen's and will go far to create a better understanding of the gigantic work the telephone companies accomplish."

The telephone building was properly decorated on the outside with suitable signs calling attention to the fact that 47,632 Bell telephone calls were "Made in Terre Haute" every day and that the public was invited to come in and inspect the exchange and see for themselves how Bell service is made. The interior of the building was decorated with palms and other suitable decorations affording a very pleasing appearance. Enormous crowds of patrons were shown through the exchange during the entire week and the interest manifested was especially pleasing. Almost all of them were surprised by the magnitude of the exchange and the methods of making use of it. It was a common thing for visitors to remark upon leaving the operating room that hereafter they would have a better understanding of the telephone and answer immediately because they had seen for themselves the conditions under which the service was furnished. The exchange was especially pleased on account of the number of prominent visitors who visited the exchange. Special efforts were made to explain thoroughly the toll operating to these patrons and in almost all cases the interest expressed was of great interest and, it is believed, from statements made that there will be more satisfaction on part of patrons in using the long-distance service. It is believed that the open house was a success from the fact that some of the most complaining and apparently unreasonable customers have grown especially friendly to the operators after becoming familiar with their work. One of these patrons who was particularly inconsiderate to the long-distance operators whenever handling messages, was so impressed with the treatment afforded him that he immediately purchased a large quantity of high grade chocolates and had them delivered to the toll room to be distributed among the operators. This is only one of the many instances of similar nature that occurred during the war for peace.

Mae LaMotte of Newton, Ill., has taken a position as toll operator at Terre Haute.

Thursday evening, November 7th, Terre Haute operators gave a fancy dress dance in the girls' retiring rooms. The rooms were decorated in palms and a program of dances was indulged in until a late hour. Punch and wafters were served throughout the evening.

C. L. Sawyer, district traffic chief, held an operators' meeting at Terre Haute on Tuesday, November 13th. J. Lloyd Wayne III of Indianapolis was present and gave a talk. He also presented to the operators who had been in service five years, a veteran's pin, which was a pleasant surprise and very much appreciated by the following young ladies: Alda Shuttleworth, Myrtle Staudacher, Anita Benson, Grace Smith, Nelle Smythe, Mattie Harms. Papers on loyalty, efficiency and relation between operator and subscriber were prepared and read at the meeting by members of the operating force. The meeting closed with a social hour, in which singing and dancing were indulged in. Mr. Wayne sang several songs and S. L. Sawyer rendered several selections on the piano.

Bel White, clerk in manager's office at Crawfordsville for last three years, resigned October 24th to be married to Art Miller, lineman in the Construction Department.

The Commercial Department of the Crawfordsville Exchange was transferred from the old Bell office on Main Street to the new home of the company on Water Street November 1st. The change was so much appreciated that admiration for the new quarters was expressed by all, and when thoroughly settled, this department promises to stand in the front row in the handling of all branches of the commercial part of the business.

W. T. Miller, formerly manager of the Natural Gas Company, has taken the position of chief clerk to manager at Crawfordsville.

Beale Ballor succeeds Beas White, resigned, as clerk in manager's office at Crawfordsville.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Centralia District.

Mrs. J. L. Dickerson resigned her position as clerk to the manager at Carrollton on October 5th and has moved to Centralia, her husband being wagon foreman at the Centralia exchange.

Vera Osborn, formerly chief operator at Carrollton, has accepted the position of clerk to Manager Jarboe on account of the resignation of Mrs. Dickerson.

Manager Schmutte at Centralia has as-

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

(2) It will decrease the percentage of lost calls by giving almost instantaneous connection with the particular party wanted.

(3) More than five hundred users are now enthusiastic with the results obtained from this service.

(4) It facilitates the prompt handling of long distance calls by eliminating "time lost waiting."

(5) Recommended by prominent engineers everywhere as a most valuable adjunct to the telephone.

AUTOCALL

used in conjunction with the telephone is productive of a combined service of much worth to the user and of great aid to the telephone service. Were you aware of its value you would not hesitate in recommending its utilization. To be familiar with this service is of a particular advantage.

Write for full details.

THE AUTOCALL COMPANY

110 Davis St. SHELBY OHIO

A Christmas Suggestion NEEDED



by every
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Easily carried in the pocket. In great demand by electricians. An absolute necessity for linemen. Case of genuine leather, durable and compact.

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in constant use. Each one of superior quality. They are: Klein's 7-inch side-cutting pliers; 4½-inch nickel-plated tweezers; 5-inch nickel-plated scissors; double bladed knife, screw driver and wire scraper combined; 3-inch half round mill file; "Champion" screw driver and 2-foot boxwood rule.



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TOLL TRAFFIC CONFERENCE AT ROCKFORD, ILL.

The above photograph was taken at a recent Traffic meeting held at Rockford, Illinois, District Traffic Chief Barlow presiding. There were no papers read, the time being occupied in discussing Traffic Bulletin No. 4 (Toll Operating) or the "Blue Book," as it is quite often called. Similar meetings have been held in the other districts throughout the state.

Reading left to right, top row: Emma McCarthy, Oregon; F. L. Eby, Rockford; Alice Williamson, Lanark; Nelle Irvine, Elgin.
 Middle row: Ida Kennedy, Rochelle; F. L. Owen, Dubuque, Ia.; Sadae Alderman, Belvidere; Harriett Conklin, Seneca; Minnie Flagg, Sterling; Olivia Kennedy, Rochelle; Mary Wagner, De Kalb; Lillian Lence, Dixon; Austin Seguin, Galesburg; Bessie Ryan, Beloit, Wis.
 Bottom row: Ida Munthe, Rockford; J. H. Barlow, Galesburg; Anna Fitzgerald, Freeport; Grace Travis, Janesville, Wis.; Mary Moyes, Dubuque, Ia.; Cleo Desmond, Galena; Katherine McGrath, Rockford; H. L. Ham, Chicago; Ruth Peterson, Rockford.

cured a contract covering nineteen additional stations for the Hotel Langenfeld. The Hotel Langenfeld just recently completed the addition of twenty rooms, and these stations are to be installed in this new addition.

F. E. Speckman, commercial agent at Alton, Ill., has resigned.
 C. S. Fish has accepted the position of wire chief at the Centralla exchange.
 C. E. Lawrence has been appointed chief clerk to District Plant Chief R. D. Wallace.

An estimate covering the stringing of an additional circuit between Mt. Vernon and Benton has been started in charge of Foreman White.

Material has arrived for the installation of a new wire test panel at Mt. Vernon. Work on an estimate covering underground work at Centralla was to be started about November 18th.

An estimate covering additional facilities at Mt. Vernon has been approved and assigned to the plant department.

Reports from exchanges and connecting companies are that the election bulletins furnished by the Bell Company were handled in a very satisfactory way and praise for the efficient service is being heard on all sides.

Word has been received from C. M. Willis, formerly sub-license agent in this district, that he is now located in St.

Catherines, Canada, and that he would be pleased to hear from any of his friends. Mr. Willis has charge of the Canadian territory of the Prent-O-Lite Company, of Indianapolis, which has recently completed a large factory at St. Catharines.

Galesburg District.

E. F. Riddle of the engineer's office, Chicago, with two assistants, were in Galesburg a few weeks ago making a development study. After finishing plans here they left for Galena.

Ester Hall has accepted a position as collector with Manager F. W. Atkins' commercial force at LaSalle.

Helen Gee resigned her position as collector at Rockford exchange on account of ill health. Elizabeth Norman takes the position.

Neil Wilcox, lineman at Galesburg, and Eva Fralley were married on October 30th. Miss Fralley is one of Galesburg's most charming young ladies and all employees extend to Mr. and Mrs. Wilcox heartiest congratulations. After spending their honeymoon in Chicago and various points, they returned to Galesburg, where they will make their home.

The estimate at Rockford has been completed and covers the stringing of one No. 12 copper metallic circuit from the junction of the Chicago Telephone Company to Rockford. This circuit has been connected with the present Rockford-Freepoint circuit so as to provide a through Chicago-Freepoint circuit.

A No. 4 private branch exchange system with three trunk lines, fourteen stations and four extensions is being installed for the Chicago, Rock Island and Pacific Railroad Company in their division headquarters at Thirty-first Street, Rock Island.

A Traffic Agreement has been entered into with the Reynolds Independent Telephone Association, Reynolds, Ill., and connection was established on October 25th.

A. Moline the exchange estimate has been assigned to the plant department covering the work of placing underground an aerial cable, new pole lines and all wire work in connection with rebuilding the outside plant. The poles and cable have been ordered and it is the intention of the plant department to endeavor to carry on the work under this estimate throughout the winter, so that in the early spring all outside work will be in readiness for the installation of all possible subscribers.

J. C. Mercheson has accepted a position as commercial agent at Galesburg exchange.

Fred A. Norris, wire chief of the Monmouth Telephone Company, Monmouth, Ill., was married November 7th to Nellie Bryant, chief operator at the same exchange.

Springfield District.

Harry Alexander, repairman at Monmouth, has resigned and is succeeded by Harry Seary.

A new private branch exchange, consisting of one trunk and five stations, has

been installed in the City National Bank of Kankakee.

A No. 4 private branch exchange, consisting of two trunks and thirty-one stations, has been completed at the Bradley Manufacturing Works, Kankakee.

A. M. Thomas, lineman at Kankakee, has resigned to accept a position with the Utah Gas and Electric Company. He is succeeded by George Thompson.

Dana Tewksbury, of the repair department at Kankakee, has accepted a position with the Big Four Railway Company. He is succeeded by Leonard Rice, formerly in employ of the independent company.

Bertha Gorman, clerk to the manager at Kankakee, has resigned her position and will spend the winter in Los Angeles. Ruth Cotton, formerly pay station attendant, succeeds Miss Gorman, and Grace Clark has been appointed pay station attendant.

F. H. Ashby, commercial agent at Kankakee, has resigned to accept a position with the Bradley Manufacturing Company. H. M. Frey has been appointed to fill the vacancy created by resignation of Mr. Ashby.

Central Union poles throughout the city of Kankakee are being painted the standard color—green.

H. E. Thayer, repairman at the Grant Park exchange, has resigned and will be succeeded by Martin Luck, of Chicago Heights.

Considerable work is being done in the way of redecorating and refitting the exchange building at Kankakee. Numerous improvements will be appreciated by all.

Estimates for the reconstruction of the Herscher exchange and farmer lines and also for additional switchboard equipments for Grant Park, Herscher and Mokena exchanges have been approved and most of the material is on the ground.

Foreman Ramsey and a crew of men have just completed stringing new cable at Manteno.

Katherine Baker, night chief operator at Champaign exchange, has resigned on account of ill health. Miss Baker is succeeded by L. Werner.

Thelma Gordon, toll operator at Champaign exchange, has resigned on account of ill health and is succeeded by Inez Fisher. Miss Fisher is succeeded by E. Richardson.

Anna Donley, local operator at Champaign, has resigned to accept a position as private branch exchange operator for the Illinois Traction system. Miss Donley is succeeded by Nan Bonebrake.

New standard steel lockers have been installed for the operators at the Champaign exchange.

Fire in a burning building at 909 West Main Street, Urbana, destroyed 200-pair cables Thursday morning, October 24th. Practically the entire city of Urbana was without telephone service until Friday afternoon, October 25th.

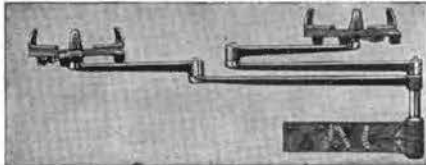
Rose Scoons has been appointed stenographer at the Peoria exchange, succeeding Miss Alberta.

C. S. Sandhagen, collector at Peoria, has resigned to accept a position with Foreman J. H. Champion.

Frank Noy of the plant department at Peoria, has resigned to go into business

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for himself in Peoria. He is succeeded by Louis Hendrickson.

Cletus Kenelly, formerly traffic chief at Peoria, has been transferred to the district traffic chief's office at Springfield.

Helen Nolan, chief operator at Peoria exchange, has been appointed traffic chief.

Ruth Flanagan, who has been local operator at the Peoria Bluffs exchange, has been transferred to the Main exchange, to act in the capacity of chief operator, succeeding Miss Stanley.

Edna Ufford has been appointed chief operator at the Bluffs exchange, succeeding Miss Flanagan.

Mary Plover has been appointed assistant toll chief operator at Peoria.

The regular meeting of the Bell Telephone Society was held in Springfield at the St. Nicholas hotel on October 24th. The members were given a rare treat by having present at this meeting M. J. Carney of Chicago, whose topic was "The Requisites of Success and the Causes of Failure." Mr. Carney's talk was thoroughly enjoyed by all present and the papers' committee is to be congratulated upon having secured the presence of this telephone pioneer. It is sincerely hoped that Mr. Carney may be present again in the near future.

A private branch exchange of two sections was inaugurated at the State Fair Grounds at Springfield, and the company received many compliments on the service. The subscribers claiming it was the best service ever rendered at the fair.

Harriet Darrow of the plant chief's office, Springfield, has resigned and is succeeded by Jessie Righter.

Margaret Darrow, ticket clerk at Springfield, has resigned. Ruby Winkelnake succeeds Miss Davis.

C. E. Vaughn of the plant department, Springfield, who has been confined to bed some in Centralia for some time with typhoid fever, is improving.

Minnie Jacobs, local operator at Springfield exchange, has resigned her position to be married.

Mamie Keefe, information operator at Springfield, has resigned to accept a position with the Peter Vredenburg Lumber Company.

Lillie Hall, formerly toll supervisor at the Springfield exchange, has been appointed assistant chief toll operator.

A linen shower was given at the home of Augusta Scharafin November 4th in honor of Marguerite Klenzler, local operator at Springfield, who is to marry John Scharafin.

A linen shower was given at the home of Minnie Yeck October 21st in honor of Marie Kaiser, local operator at Springfield, who resigned October 1st, and who was married to Edward Pefner of Decatur in the near future.

Edna Goodrich has been appointed ticket examiner at the Decatur exchange. This is a position recently authorized.

Byron McMillin has taken the position of collector at Decatur, succeeding Louis I. Lawrence, who resigned to accept a position with H. Bachrach's Clothing Company.

Throop Hard, collector at Decatur exchange, has resigned to accept a position with H. L. Schell Field & Co. Mr. Hard is succeeded by W. G. Bundy.

Gladys Zahl, formerly local operator at Mokena exchange, and Clarence Mortell, repairing plant at Mokena, were married at Mokena on October 30th.

J. Sidenstricker, wire chief at Jacksonville, has been transferred to Decatur. Mr. Sidenstricker is succeeded by W. L. Taylor of Duluth, Minn.

A new No. 105 switchboard has been installed at Alexander. This now puts the Alexander plant in first class condition, as the entire system was recently rebuilt.

Material has arrived for the two estimates which have been approved for the rebuilding of the Herscher exchange. The estimate has been assigned to the plant department covering repairing and rearranging farmer lines, also covering rebuilding and cabling the entire town.

Don Marshall, collector at the Springfield exchange, resigned October 1st on account of leaving the city. Mr. Marshall is succeeded by Edward B. Moore.

Leslie E. Robertson has been appointed collector at the Springfield exchange, succeeding Francis Niehaus, resigned.

The many friends of Stanley Jones will regret to learn of his death on Wednesday, October 23rd. The deceased was formerly of the engineering department, Springfield, and resigned upon removal of the office to Chicago.

Fred Adams, service inspector in the Springfield district, and Pauline Slekmak of Bloomington were married at Springfield on October 15th.

E. H. Wildman of the plant department, Springfield, who has been ill at St. John's Hospital for some weeks, is reported to be improving.

M. T. Winters has been appointed repairman at Chatham, succeeding W. O. Canham, resigned.

The operators at Quincy entertained about seventy-five couples at a Halloween dancing party in the ball room and parlors of the new Knights of Columbus building. Refreshments were served during

the evening. The feature of the evening was a spot-light dance, the spot light furnishing the only illumination in the hall during the operation. The decorations consisted of colored incandescent lights. Everyone reported a jolly good time.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Telephone Society of Michigan.

A non-political paper entitled "Municipal Ownership" was read at the meeting of this society on October 7th by F. A. Forbes, special agent in Detroit of the American Telephone and Telegraph Company. It was listened to throughout with great interest by a more than usually large audience, and its many points fully appreciated as they fell from the reader's lips. At the conclusion of the paper the society took up some questions on plant, traffic and commercial work, which had been awaiting discussion. For instance, this question: "How are calls for a 'no-toll' station handled, and how is the line distinguished at the A position?" was answered as follows by District Traffic Chief W. A. Spencer:

"A line is designated as a 'no-toll' line by a special opal on the answering lamp at the A board. When an A operator receives a call for long distance from one of the lines marked with such a special opal she connects the subscriber to 'long



OTSEGO EXCHANGE.

'distance' over a special group of trunks, i. e., a group of trunks different from the regular calls to long distance from other subscribers' lines. The special group of trunks is answered by the 'long distance' chief operator, who politely informs the subscriber that he is not allowed to complete long distance calls from that telephone. It should be noted that it is impossible to make one station on a party line 'no-toll' without making the other stations 'no-toll' also."

An inquiry as to the new trunks to go in the Cherry exchange was answered by George Burnham, Main exchange wire chief, in the following interesting manner:

"With the delivery of the August directory, all party lines in the Main exchange were transferred to the Cherry exchange. The Main B, or trunking positions, will later be rearranged and keyless trunks installed. It will then not be necessary for the trunk operator to ring the subscribers, because they will be rung automatically as soon as the trunk connection is put up. This will greatly improve the service and will overcome some of the difficulties experienced with the present system. The Main exchange is practically a business exchange, being situated in the heart of the business district. A large percentage of the subscribers are wholesale and jobbing firms. The business hours are therefore short and the traffic correspondingly heavy. With the new trunk the difficulty of the called subscriber not answering will be overcome, because the subscriber will be rung automatically as soon as the trunk is put up by both operators. Again, it sometimes happens that the calling operator does not understand the trunk number assigned her by the trunk operator, or takes the wrong trunk, and in such case the trunk operator puts up the trunk and rings the wrong subscriber; when he answers his telephone he is told he has been called by mistake. This difficulty will also be overcome with the new trunk, because the subscriber will not be rung off unless the connection is complete at the calling end. The new ringing trunks will be installed in the Cherry exchange. With

these it will be only necessary for the operator to set the proper button and the subscriber's bell will ring at intervals until he answers or the connection is taken down. This will overcome the most annoying difficulties encountered in the present trunking system and will go a long way to improve the service in our exchanges."

A short speech was made by W. A. Gibson, a former telephone man. Mr. Gibson is an honorary member, having been so elected on his resignation as a governor of the society.

Secretary Culver announced that two pictures of the Detroit operating room in 1884 were presented to the Society by Emma Landon, an operator of those days of yore, and it was moved and seconded that a letter of thanks be sent to Miss Landon. The pictures are reproduced elsewhere in this issue of the BELL TELEPHONE NEWS.

Election News in Michigan.

The Michigan papers were unanimous in praise of the work at all of the exchanges of the Michigan State Telephone Company, which gave out in this state returns of the recent election, and it would be invidious to single out any special clipping of that kind. It can be said that all those employees in charge of the election returns work appreciate the good words of the newspaper men.

Roadway Company Notes.

A contract has been signed with the Riggsville Roadway Telephone Company. This company will receive exchange service at Cheboygan.

A contract has been signed with the Stevenson Roadway Telephone Company of South Arin. This company will receive exchange service at East Jordan.

The Topinabee Roadway Company was connected with the Topinabee toll station October 1st. As Topinabee is only a toll station these instruments will be carried on the Bay City exchange.

Detroit District.

Contract for a private branch exchange of one trunk, five regular terminals and thirteen factory terminals has been obtained from the Weis Manufacturing Company. The contract was taken by J. S. Blood, manager of the Monroe exchange.

Margaret Woods, who used to be chief operator of the Main and Cherry exchanges, and who is now the Detroit district traveling supervisor, walked into the Main building some days ago to see the district commercial manager. A new clerk, who knew her not, and who supposed her to be one of the public come to see about her telephone, pointed out the counter by the front door as the proper place to make this inquiry, and would fain have escorted her thither. [Later: The new clerk is now resting easily and able to sit up.]

On October 22nd A. M. Parent, traffic chief in Detroit, gave a dance for his operators from the East, West, Hickory, Walnut and Cedar exchanges. A feature of the dance was a prize wheel. Mr. Parent offered a two-pound box of candy to the chief operator getting the largest number of operators to compete for the prize. Miss Middleton of the East exchange won this candy. As many as seventy-seven couples entered. The judges were Messrs. Laskey, Spencer, Spaid, Murray and Gillette, and the critics of dancing, but expert as they were, they found themselves up against a hard proposition to pick out the five best dancers among the many excellent contestants. Finally, after many consultations, they decided upon Miss Looby, Walnut exchange, for first prize; Miss Brown, East exchange, second prize; Miss Lindbloom, West exchange, third prize; Miss Schler, East exchange, fourth prize, and Miss Blackett, Hickory exchange, fifth prize. After the prize waits, refreshments were served in the big room. The music was furnished by Rath's Orchestra. Among the guests were Mr. and Mrs. M. Ewald, Mr. and Mrs. W. F. Smith, Mr. and Mrs. C. Laskey and Mr. and Mrs. Roy Taylor.

New No. 4 private branch exchanges have been installed at Jackson for the Ruby Manufacturing Company, the Mail Stamping Company and the American Gear and Manufacturing Company. Installation was by H. Jilison. The boards are giving splendid results.

The new No. 4 switchboard for the Commonwealth Power Company is the largest in Jackson. It has ten trunks, eighty house lines and fifteen cord circuits.

Work is in progress on the new Jackson batteries.

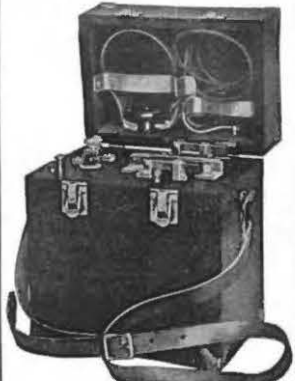
Harvey Sanwald has succeeded Mr. Davis as stock man at Jackson, the latter having been promoted to the position of local installer.

Anna Watson, toll supervisor at Jackson, resigned November 1st to take a position with the Imperial Automobile Company.

Nora Gilbert, toll operator at Jackson, has been appointed private exchange operator for the American Gear and Manufacturing Company.

Edna Brandau, toll operator at Jackson, resigned to be married to Russell Smith, operator at the Brooklyn ex-

MATTHEWS TELAFALT



SINCE October 10, 1912, the date that our November advertisement was prepared, the Central Group Companies have ordered fifteen Matthews Telafalts through the Western Electric Company to be shipped as follows:

Central Union Telephone Co.

- 1 to Zanesville, Ohio
- 1 to Columbus, Ohio
- 1 to Vincennes, Ind.
- 1 to Peoria, Ill.

Michigan State Telephone Co.

- 6 to Detroit, Mich.
- 2 to Jackson, Mich.
- 1 to Hillsdale, Mich.
- 1 to Saginaw, Mich.

Wisconsin Telephone Co.

- 1 to Madison, Wis.

Matthews Telafalt will find "dead shorts," wet spots, grounds, crosses, split pairs, in fact, all kinds of cable faults except "opens." It will pay you to look into the merits of this wonderfully simple money saver.

Manufactured Exclusively By



"Matthews Does While Others Buzz"

For Sale By The
WESTERN ELECTRIC CO.

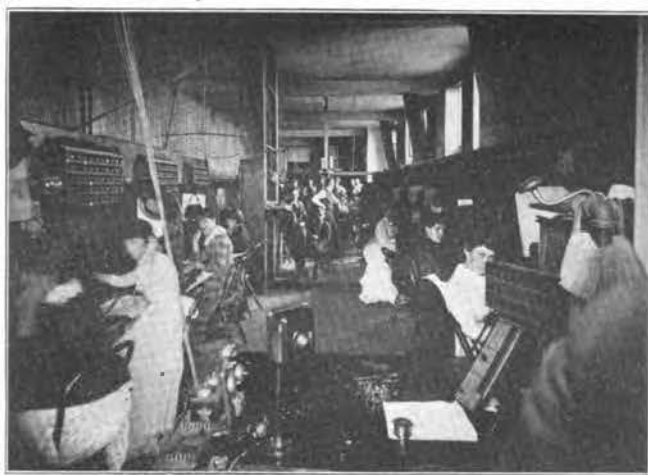
change. Brooklyn is an exchange of the Brooklyn Switchboard Association, connecting with the Michigan State Telephone Company.

Estella Freer, formerly bookkeeper at Jackson, has taken a position as clerk in the traffic department, succeeding Bessie Wesley.

Members of the Telephone Society and

Manager Ripley of Grand Haven has promised prompt installation.

William J. Bolger has joined the collection department in the Grand Rapids office. Mr. Bolger was born in Grand Rapids and has spent all of his life in Michigan, and the greater part of it in Grand Rapids. Immediately previous to his acceptance of a position with this



DETROIT OPERATING ROOM FROM 1886 TO 1884.

Gilliland System in use. Picture by courtesy of Telephone Society of Michigan.

employees generally regret the transfer of A. R. Maynard from the sales department of the Western Electric Company in Detroit to Chicago. Members of the Society will recall with pleasure Mr. Maynard's amusing prize presentation speeches at the first outing.

George Meister has succeeded W. L. Avery as manager at Wolf Lake toll station.

The Blue Bell Club of Mt. Clemens enjoyed its second dinner on October 29th at the home of Mabel Duckwitz, information operator. The dinner was given from the proceeds of the first annual party given last November. After doing full justice to the chicken and fish, the girls finished the evening with cards and music.

The second annual party of the Blue Bell Club of Mt. Clemens was scheduled for November 30th at the Chamber of Commerce Hall. Elaborate preparations were made for the event. One of the features was a huge electrical wheel twenty-four feet in circumference, illuminated by 325 electric lights. Other features were the spot light, rainbow and moonlight dances.

Certrude Knight, for several years connected with the Pontiac exchange as billing clerk, and for the past six months as bookkeeper, has resigned her position to accept one with M. D. Robertson of this city.

Anita Houle, long-distance operator at Pontiac, resigned her position to accept one with the Oakland Motor Car Company.

The Jolly Club of the Michigan State in Pontiac has been enjoyably entertained several times during the past month, and expects to be in reality a very jolly club during the winter months.

Adeline P. Himman, of the Wilkes-Barre, Penn., exchange, has accepted a position at Pontiac as toll operator.

F. Meakes has succeeded George C. Holtz as manager at Dearborn exchange, effective October 30th.

Grand Rapids District.

A private branch exchange of sixty terminals was connected October 22nd at the New Dwan Hotel and Bath House at Benton Harbor, which was thrown open to the public on that date. The hotel is one of the most modern in Western Michigan and has in connection luxurious mineral baths.

The Grand Rapids exchange began the delivery of the October, 1912, directory on November 6th. The work of delivery this time was under the personal supervision of Chief-commercial-agent Saunders, and the books were practically all delivered in three days.

As stated last month, weekly co-operation meetings of the commercial manager, plant chief and traffic chief at Grand Rapids have been continued with great benefit, and a hearty spirit of co-operation is being shown by the three departments.

Commercial-agent Pierce of the Grand Rapids commercial department spent several days last month looking for new business at the Grand Haven exchange. A number of contracts were secured, and

company he was connected with the Grand Rapids post-office.

E. H. Lemire succeeded R. J. Barnes as manager at White Cloud October 17th. Mr. Lemire has arranged to take care of the business in connection with his drug store, and the switchboard has been moved to the new location.

On election night, November 5th, the Grand Rapids district, in conjunction with the Western Union Telegraph Company, furnished election bulletins to all of Western Michigan. For a good many years it has been the Michigan State Telephone Company's practice to furnish these election returns, which service has



DETROIT EXCHANGE IN 1884.

First multiple system. On sixth floor of Newberry, now Equity Building. Manager E. F. Phillips, seated, and Chief Operator J. D. Burleigh at wire chief's desk. Picture by courtesy of the Telephone Society of Michigan.

been very much appreciated by its subscribers, especially in the smaller communities. Service was furnished Grand Rapids city subscribers by special election operators. Special sets were also provided in equipping the various toll circuits and in a large number of instances special telephone sets were installed at clubs, theaters, etc. The service was very satisfactory and the company received a great many compliments for its enterprise and the reliability of the service.

On November 1st the telephone operators at the Kalamazoo exchange were

guests of the Majestic Theatre management, at the evening performance. About fifty operators attended the show, and all appreciated the courtesy very much.

It took a telephone operator to win the prize offered by the Suffrage Association to the person selling the most tickets for the Elite theater November 3rd. The first prize of \$2 was won by Florence Westlake, an operator in the Kalamazoo exchange.

Rae Blackman, who has been assistant chief operator at the St. Joseph exchange for the past year, has resigned to accept a position at the South Bend exchange. Mrs. Minnie Brownlow, formerly night operator at St. Joseph, has been promoted to the position of assistant chief operator.

O. W. Slocum has succeeded W. L. Mankin as manager at the Portland exchange, effective October 30th. The Eaton Rapids exchange was transferred from a commission to a salary basis, H. L. Norton succeeding G. D. Rushton as manager, the change being effective November 4th.

George D. Rushton, manager at Eaton Rapids, died October 18th. Death was caused by typhoid fever. He was forty-four years old and had been with the company in Eaton Rapids twenty years. He was highly respected in the community.

Manager Huntley, of Benton Harbor, received the following letter from James H. Pound, of the Elks Club, on November 13th: "Dear Sir: As chairman of the Entertainment Committee of B. P. O. E. No. 544 I wish to express thanks for the good service your company rendered on Tuesday night, November 5th, in delivery of election returns. I assure you it was truly appreciated."

A toll station has been opened at Oshtemo.

Marquette District.

The Fairport and Isabella toll stations of the Manistique Telephone Company have been opened. These toll stations are "check Escanaba."

The toll station at Fibre has been reopened by A. E. Dodd as manager. C. C. Brown has opened toll stations at Midway Camp and Cold Springs, both in Alger County. He has closed the toll station at Dimeling.

Saginaw District.

Eula Grace Kerlin is the new manager at Corunna, succeeding Sarah Marshall. A toll station has been opened at Mio, O. C. Frick, manager.

One hundred and twenty couples danced at the ninth annual Halloween party given by the Michigan State Telephone Company operators in Masonic temple at Port Huron. This dance is always a favorite with the young people at Port Huron, and the organizers can count on

Poles

FROM THE

Stump

TO THE

Line

Largest Stocks

Finest Quality

Promptest Shipments

Yards from Maine
to Washington

National Pole Company

Escanaba, Michigan

BULL DOG CARBON PAPERS AND RIBBONS

ARE THE VERY BEST
The purchasing department can give you the
results of the most exhaustive test ever made
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W. CARY LEWIS & CO.

39 W. Adams Street
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Oldest Cedar Pole Firm in Business
Producers for 32 Years

MICHIGAN WHITE CEDAR

W. C. STERLING & SON CO.
1880 Monroe, Michigan 1912



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626 SOUTH CLARK STREET
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IN THE
BELL TELEPHONE NEWS

Bell Telephones

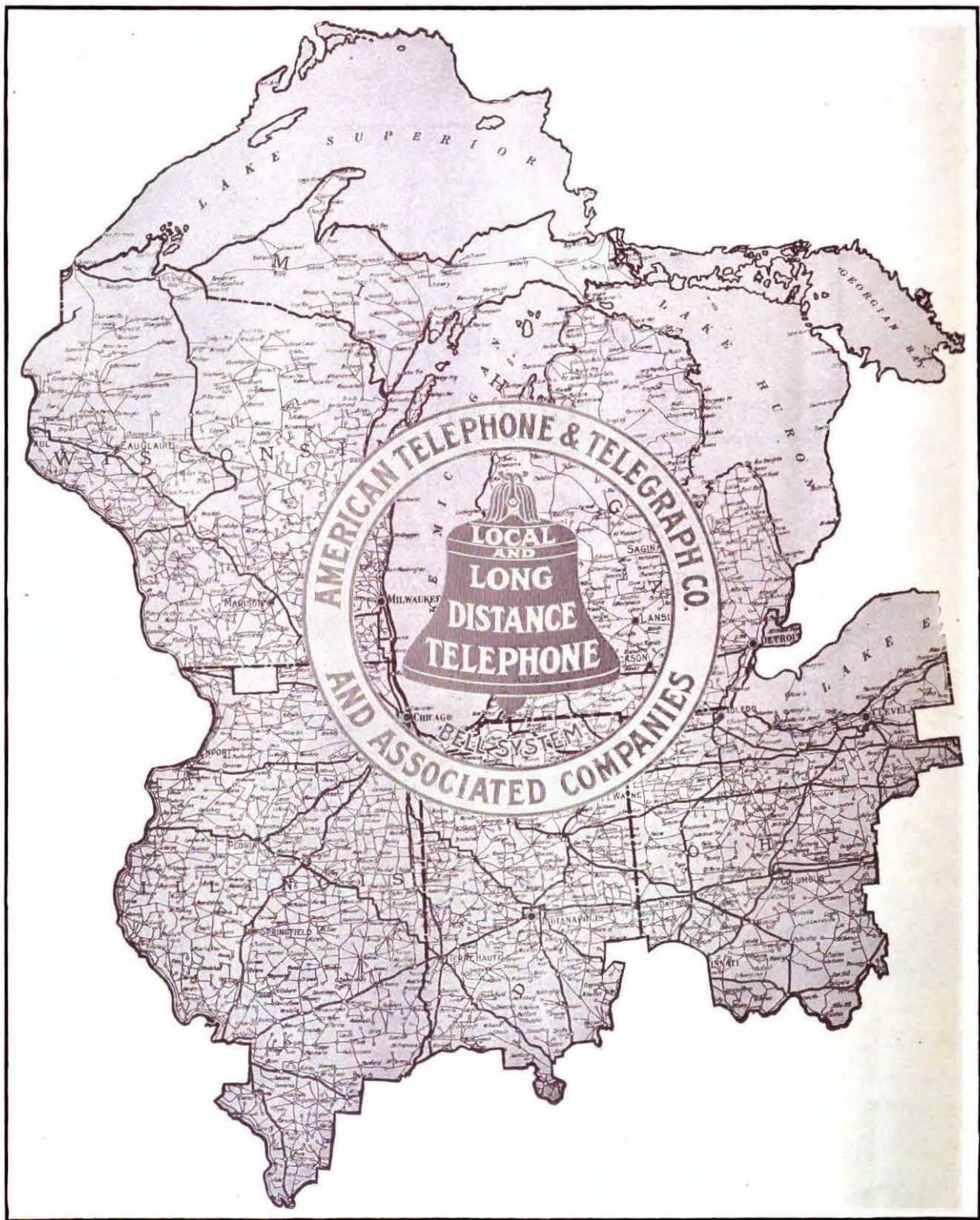
AND CONNECTIONS

In the Territory of the

Central Group of Companies

NOVEMBER 1, 1912

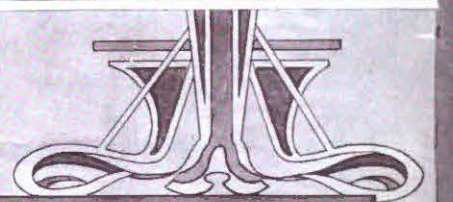
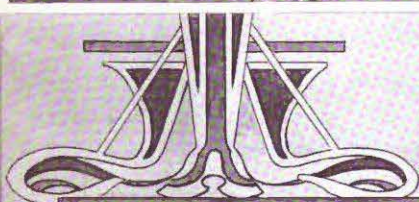
| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 438,817 | 219,052 | 657,869 |
| INDIANA | 83,050 | 162,958 | 246,008 |
| OHIO | 160,080 | 140,174 | 300,254 |
| MICHIGAN | 178,124 | 56,155 | 234,279 |
| WISCONSIN | <u>121,499</u> | <u>103,301</u> | <u>224,800</u> |
| | 981,570 | 681,640 | 1,663,210 |



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BELL TELEPHONE NEWS

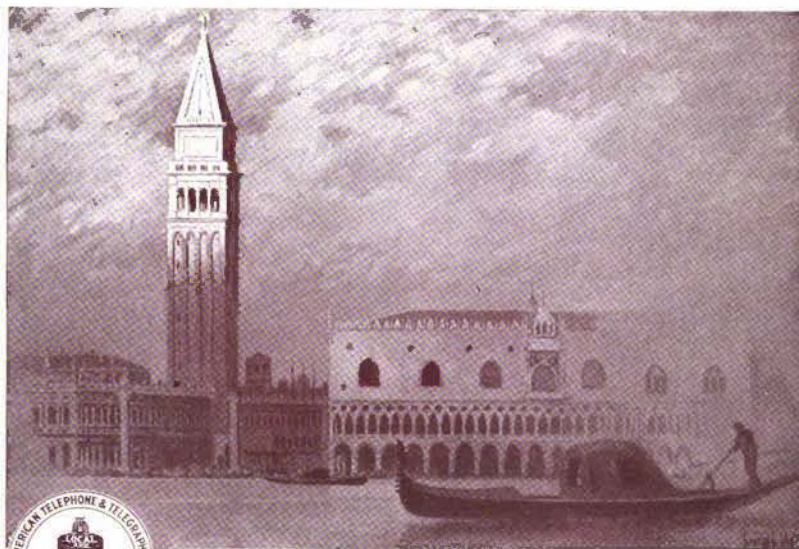
CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



Volume 2

JANUARY
1913

Number 6



Seven Million Watch-Towers in the Bell System

The original campanili were the watch-towers of old Venice, guarding the little republic from invasion by hostile fleets.

Later, bells were mounted in these same towers to give warning of attack and celebrate victories.

Judged by modern telephone standards, such a system of communication seems crude and inadequate.

In the civilization of to-day, a more perfect intercommunication is

essential to national safety, convenience and progress.

The Bell System binds together a nation of nearly one hundred million people, by "highways of speech" extending into every nook and corner of this great country.

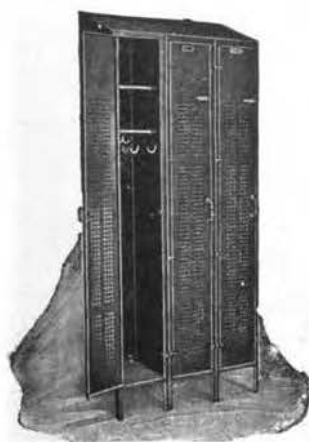
Seven million Bell telephone stations are the watch-towers which exchange, daily, twenty-five million messages for the happiness, prosperity and progress of all the people.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service



DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer

steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.

A Good Resolution For You, Mr. Manager!

"Resolved, That I will do my best to help make 1913 a record breaker.

Resolved, That I will tell all the telephone men in my territory that

***Western Electric* Telephone Apparatus and Supplies**

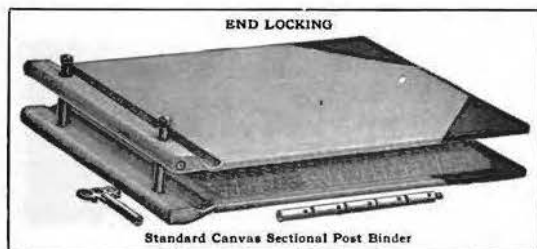
are the most reliable and efficient that money can buy.

Resolved, That by so doing I will make my territory a model for others for uniformity of equipment and for excellence of service."

Here's a good resolution which will mean a prosperous New Year for both you and us.

Western Electric Company

We Make Standard Loose Leaf Binders Used by the Telephone Companies



Standard Canvas Sectional Post Binder

THE covers are of tough binders board, bound in high grade drab canvas. The lock is simple and non-breakable. The key operates the lock from the end of top cover. Six one-inch sections and a top ball in each post. A perfectly satisfactory binder at a low price. Special rates for quantities to Telephone Companies.

Send for Catalog showing other styles of Binders made for Telephone use

Workman Mfg. Company

1200 W. Monroe St.

Chicago, Illinois

TELEPHONE WIRE

We Guarantee

Greatest Efficiency

Longest Life

Most Satisfactory Service

Lowest Cost of Up-keep

In the Use of our wire.

Write for FREE SAMPLE Make Test and Comparison



Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



DEPARTMENT HEADS, THE CLEVELAND TELEPHONE COMPANY.

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 6

CHICAGO, ILLINOIS

JANUARY, 1913

OFFICIALS GATHER AT ANNUAL LUNCHEON

Holiday Spirit Pervades Meeting
of Chicago Officers and Department Heads.

President B. E. Sunny gave his annual luncheon December 24th to the officers and department heads of the Chicago Telephone company. The luncheon was served in the East room of the Hotel La Salle, which was decorated for the occasion with holiday greens and Chicago Telephone pennants in festoons.

There were seventy-five guests and after a flashlight had been taken an hour was spent discussing the courses of a generous menu. When the cigars were reached, Vice President Alonzo Burt took charge of the ceremonies as toastmaster. In his usual happy manner Mr. Burt spoke of the pleasure the officials had enjoyed attending previous luncheons given by Mr. Sunny and voiced the satisfaction of all present in being permitted again, at the end of another year, to meet and talk a little more shop under such pleasant auspices. He presented as the first speaker President Sunny.

Mr. Sunny congratulated the officials in all departments on the good showing made during the past year. He said that he had proposed the preparation of a list of those who had made particularly good records or performed particularly commendable services. He abandoned the plan because he found that the list would include everybody. The President recalled that he had set a mark of 300,000 stations to be reached by the Chicago Telephone Company by the last day of 1912. The mark had been reached so far ahead of time that this year he would fix no goal, nor would he make a prediction. Mr. Sunny referred to the recent illness of President Vail, of the American Telephone and Telegraph Company, and suggested that a telegram be sent, wishing him a merry Christmas and speedy recovery. Mr. Burt appointed S. J. Larned chairman of a committee to dispatch this message, facsimile of which appears on the next page.

L. G. Richardson, General Counsel of the five companies, followed Mr. Sunny. His remarks bore on the great event which Christmas day commemorates and he urged his hearers to emulate the Prince of Peace, and to give earnest and practical heed to the application of the Golden Rule to their daily lives.

A. S. Hibbard, former General Manager of the Chicago company, and who was spending the holidays here, made one of his inimitable talks. He said he feared he might be likened to the boy that joined the Sunday School two weeks before the picnic, as he had sneaked into Chicago in time for the annual luncheon last year and again this year. Nevertheless, his talk was warmly applauded.

Why Is a Publicity Manager?

Clifford Arrick, Manager Publicity Department, was introduced by Chairman Burt as the man who is organizing the publicity work of the five companies on a systematic basis and making substantial improvements over the



ADVERTISING DESIGN USED IN NEW YEAR'S DAY EDITIONS OF CHICAGO NEWSPAPERS.

manner in which publicity had previously been handled. Mr. Arrick in his talk showed how each employee might be and should be a publicity agent, engaged in promoting public approval of the company and its service. "The publicity manager," he said, "is just the fellow whose job it is to turn on the spot light, to use the proper shade at the proper time, and to turn the light off when the principal actor or action moves off the stage."

Mrs. F. E. Dewhurst, who has been referred to as "the mother of the telephone operators," spoke a few words for her girls, and H. H. Henry, the always good natured head of the Purchasing Department, spoke a few more about various things other than his department. Verne Ray, Maintenance Superintendent, thanked the officers and his associate department heads for the broad-gauge co-operation given the Maintenance Department by the other departments during the year.

Forty Thousand This Year.

Although Mr. Sunny had not fixed any mark for the Chicago Commercial Department to aim for this year, Mr. Burt had suggested that it ought to be 350,000. A. R. Bone, Commercial Superintendent, who gave one of the

interesting responses of the afternoon, said he thought the company would at least reach 345,000. Mr. Bone paid a high compliment to his predecessor, A. M. Ramsay, declaring Mr. Ramsay to be entitled to two-thirds of the credit that belonged to the head of the Commercial Department, as he had been that head for eight months of the year. "It was the fine quality of service we had to sell which made it possible for us to do so much," added Mr. Bone, in acknowledgement of the Commercial Department's debt to the other departments.

H. F. Hill, General Manager, read the officials some figures, which he said were highly "confidential." "We are handling in Chicago at present," he said, "approximately 1,750,000 calls per day, which amounts to 560,000,000 per year. The average number of miles per call would be roughly estimated at 4.75. The total calls per year, therefore, cover a distance of 2,660,000,000 miles. If it would be necessary for the public to travel this distance at two cents a mile, it would amount to \$53,200,000."

"On the supposition that a man walks, on an average, six miles per

(Continued on Page Four.)

PENSION AND INSURANCE PLAN NOW IN EFFECT

President Vail Sends New Year's
Congratulation To 200,000
Employees.

President Theodore N. Vail, of the American Telephone and Telegraph Company, sent the following congratulatory telegram for transmission to the 200,000 employees to be benefited by the pension and disability plan inaugurated by the company on January 1, 1913.

"To employees of the Western Union Telegraph Company, Western Electric Company and Bell Telephone System."

"The new plan of benefits for disability due to accidents or sickness, of insurance and of pensions, goes into effect with the new year. Nearly 200,000 men and women who are now giving their best years to the telephone and telegraph service of the country will henceforth be assured of assistance in the exigencies of life, for which all are not able to provide and will also be assured of a provision for their declining years."

"It is but natural that every employee should desire to assume the normal responsibilities of life and to surround himself and those dependent upon him with the things that make life complete and enjoyable. Unforeseen happenings may make these responsibilities heavy burdens and whatever may be set aside for the day of misfortune must in the beginning be small and accumulated slowly, a realization that obligations must be met in times of misfortune, as well as in times of prosperity, has made the need of something beside merely an old age pension appear absolutely vital. Employees buy and employees sell service. Perfect service is only to be found when fidelity and loyalty are reciprocal in employer and employee. It is this relationship that brings satisfaction and success to both."

"The intent and purpose of the employer in establishing a plan of benefits is to give tangible expression to the reciprocity which means faithful and loyal service on the part of the employee, with protection from all the ordinary misfortunes to which he is liable; reciprocity which means mutual regard for one another's interest and welfare. This is justice, and without justice and sympathetic interest we cannot hope to do a thoroughly good piece of work."

"The American Telephone and Telegraph Company, which centralizes the associated companies into one system, with one policy for universal service, has considered the interests of all workers and has made a comprehensive plan possible. It is the administrative clearing house and the underwriter of the necessary reserve fund upon which a general plan must depend. One illustrative instance of the exercise of these functions has been the unifying of the various interests so that any employee may aspire to work anywhere in the country with uninterrupted benefits and any company can obtain any man it needs without prejudice to his welfare."

"In behalf of the management of the American Telephone and Tele-

graph Company, the Western Union Telegraph and the Western Electric Companies, let me say that we have a personal interest in our public service, a personal interest in our employees

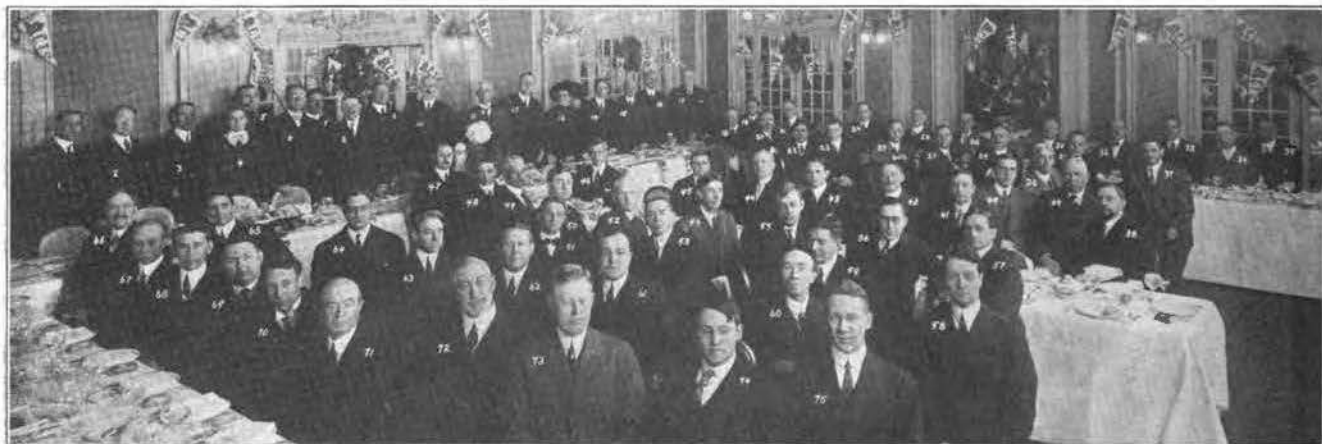
E. H. Bangs, the last speaker, gave some humorous reminiscences of telephone engineering in his early days, contrasting the former hit-and-miss methods with present day exactitude

Fire at Morgan Park.

On Christmas day about ten in the morning a fire broke out in the building in which Morgan Park Exchange, near Chicago, is located. It started in

struck to their positions upon being advised that there was no danger.

The fire department is a volunteer one, and if there had been a delay of five minutes more the blaze would



OFFICIALS OF CHICAGO TELEPHONE COMPANY AT PRESIDENT SUNNY'S ANNUAL LUNCHEON.

- | | | | | |
|--------------------------|-----------------------|----------------------|---------------------|-----------------------|
| 1. A. R. Bone. | 16. W. R. Abbott. | 31. W. W. Miller. | 46. H. Dakin. | 61. J. C. Weisert. |
| 2. Frank Redmund. | 17. M. J. Carney. | 32. W. E. Conrad. | 47. J. S. Ford. | 62. A. P. Allen. |
| 3. J. G. Wray. | 18. W. F. Patten. | 33. J. W. Bradshaw. | 48. M. H. Riley. | 63. R. S. Peirce. |
| 4. Miss C. Kohlstaet. | 19. H. J. Booth. | 34. E. A. Fritz. | 49. A. G. Francis. | 64. F. A. de Peyster. |
| 5. B. S. Garvey. | 20. A. M. Ramsay. | 35. M. D. Atwater. | 50. T. R. Keyes. | 65. C. Boone. |
| 6. L. G. Richardson. | 21. Verne Ray. | 36. W. J. Boyd. | 51. Herman Thomas. | 66. W. G. Luscombe. |
| 7. S. J. Larned. | 22. R. C. Luepke. | 37. U. F. Cleveland. | 52. T. V. Field. | 67. J. Niven. |
| 8. B. E. Sunny. | 23. W. Dakin. | 38. A. B. Crunden. | 53. H. N. Foster. | 68. R. Cline. |
| 9. Clifford Arrick. | 24. J. M. Humiston. | 39. W. J. Malden. | 54. A. S. R. Smith. | 69. M. McGregor. |
| 10. Alonso Burt. | 25. A. T. Irwin. | 40. H. F. Hill, Jr. | 55. L. C. Jones. | 70. D. C. Holloway. |
| 11. A. S. Hibbard. | 26. E. H. Bangs. | 41. A. P. Hyatt. | 56. B. Cooper. | 71. George Duffy. |
| 12. H. F. Hill. | 27. G. M. Hubbard. | 42. J. J. Kelley. | 57. R. W. Sullivan. | 72. W. G. E. Peirce. |
| 13. Mrs. F. E. Dewhurst. | 28. H. H. Henry. | 43. H. M. Webber. | 58. E. P. Vette. | 73. F. E. Chandler. |
| 14. W. I. Mizner. | 29. S. A. Rhodes. | 44. J. J. O'Connell. | 59. H. H. Hamlen. | 74. R. M. Bennett. |
| 15. W. E. Bell. | 30. C. L. McNaughton. | 45. J. L. Proctor. | 60. D. A. Bond. | 75. C. G. Sharpe. |

and a personal interest in our common country.

"It is our hope that what we have already accomplished has helped the men and women of the Bell System to become happier and better American citizens and it is our New Year's wish that what has been planned for the future will contribute to their constantly increasing happiness and betterment."

In telephone engineering forecasts.

The luncheon closed with the singing of "America," led by Mr. Hibbard.

In addition to the spirit of Christmas good will which pervaded the meeting, there was a spirit of energetic determination to make next year a really great one in the company's affairs. The get-together gathering, tautologically expressed, started everybody off on the right foot for 1913.

a vacant flat within fifty feet of the office. The chief operator called Traffic Chief Bickel immediately, and he had her remove records and the operators coats and hats in case it became necessary to leave the building. He also called the plant employees, Mr. Kendrick and Mr. Kenney. They were on the ground within five minutes. The smoke invaded the operating room, but the operators

have been beyond control. The cause of the fire cannot be determined.

The operators on duty at the time, and who deserve praise for their calmness and presence of mind were: Miss Rosenquest, chief operator; Miss Peterson, Miss Rump, Miss Corey, Miss Hoagland. They showed the utmost coolness and calls were answered as if nothing exciting was going on.

OFFICIALS GATHER AT ANNUAL LUNCHEON.

(Concluded from Page Three.) day, and that a pair of \$4 shoes would last four months, the shoes necessary to cover this distance would cost \$15,833,332. Walking three and one-half miles per hour, it would take \$6,758 years of continuous walking to cover the distance, or an express train, traveling sixty miles per hour, would take 5,060 years and ten months. In fact, the total distance is equal to about thirty times the distance between the sun and the earth, the sun being 92,000,000 miles from the earth; and it would also equal 106,640 times the distance around the world.

"On the 560,000,000 calls, if personal visits were made as substitutes, and street car fares out and back paid, this would mean \$56,000,000 a year in local street car fares."

H. N. Foster, traffic superintendent, informed the officials that the traffic of that day and evening (Christmas Eve) would total 2,000,000 calls. Mr. Foster had escorted a Chicago newspaper reporter through the Main exchange that morning between ten and eleven o'clock. On being assured that this was the busy hour of the day, the reporter, who was watching the board said, "I do not see much." "Unconsciously," said Mr. Foster, "that man paid us the highest possible compliment. Our forces were handling a tremendous volume of traffic in such an easy way that the reporter could not see anything out of the ordinary."

Form C. U. 240-6-12-11-2002

OFFICIAL TELEGRAM.

| Time filed | M. | Time received | M. | Check |
|--------------------|----|---------------|----|-------|
| December 24, 1913. | | | | |

To Mr. Theodore N. Vail,

President of The American Telephone and Telegraph Company,
15 Day Street, New York.

The officers and employees of the Chicago Telephone Company assembled at President Sunny's annual luncheon today, extend to you the season's greetings, a Merry Christmas and a Happy New Year, and wish you a speedy and complete restoration to health.

Committee,

S. J. Larned, Chairman.

The Transmission of Intelligence by Electricity

Address by U. N. BETHELL, Senior Vice President American Telephone and Telegraph Company, and President New York Telephone Company, to the Telephone Pioneers of America, at New York, November 15, 1912.

Mr. Chairman and Fellow Pioneers:

In St. Paul's Cathedral, near the last resting place of Sir Christopher Wren, the architect of that magnificent structure, there is a simple tablet bearing the injunction that if you demand Sir Christopher's monument, look about you. Today, if you demand the monument of the Telephone Pioneers of America, look about you.

Behold a highly developed and well organized system of communication touching human activity at every point; an essential factor in the social and industrial life of the Nation; cities, towns, villages and hamlets, though widely separated, farms, factories and firesides everywhere intimately bound together by countless avenues of speech. Through the magic of this wonderful system the hours of the day are multiplied and the work of the world is immeasurably accelerated. The incessant exchange of information and ideas which this system makes possible, puts individuals and localities on common ground, sweeps away sectional prejudices, advances civilization.

While the telephone, together with other methods of communication—the railway, the mail and the telegraph—have been the means by which the occupation and civilization of this great country have been accomplished, the telephone has provided a facility peculiar to itself, in that, over areas great and small it has made it possible, by spoken word, to bring together—mind to mind—the vast majority of the American people. This service of the spoken word not only affords a means of communication between distant points, but attains as nothing else has done or can do, the actual presence of one mind, one personality, with another—a practical annihilation of distance. Can we wonder that such a service, full of promise always and to which nothing now known can be compared, has been the means of developing a great national enterprise, spreading from sea to sea, and engaging the energies and commanding the devotion of a loyal army nearly 135,000 strong.

As we all know, here in the land of its birth the telephone has attained its greatest degree of usefulness. Here the broadest and best foundations were laid and here the grandest superstructure has been erected.

That America leads in the appreciation and use of the telephone is evidenced by the fact that here in our country there are more than two-thirds of all the telephones in the world. In America, too, the telephone carries nearly sixty per cent of all communications by mail, telegraph and telephone combined, while for the rest of the world the telephone can be credited with less than twenty-five per cent of the total.

In the progress of the art, also, as well as in the efficiency of the service, America leads and has always led all other countries. Here nearly every one of the important plans and appliances for exchange or long line work has been invented and developed. The scope of the service is indicated by the fact that while in the United States there are about 25,000 telegraph offices, 60,000 railway stations and 65,000 postoffices, the telephone reaches approximately 70,000



U. N. BETHELL

communities. By the end of this year, 1912, the total of Bell telephones scattered throughout our country will approach, and perhaps reach, the phenomenal figure of seven and a half millions.

In the operation of the Bell system, a peculiar relation to the public exists, in that, Bell representatives—Bell operators—are making direct verbal reply to the requests of Bell patrons more than twenty-five million times each day. No other service, for intimacy with its patrons, can be compared to this, but in spite of its extent and the necessary intricacy of its details, the telephone operator of America is each year, I believe, more and more appreciated for her courtesy, patience and efficiency. Today, courtesy to the public and to one another on the part of all is generally recognized in the Bell system as a *sine qua non* of success, and while perfection has not been attained, there is a cloud of witnesses to show that the general belief on the part of the public is that the nearly 135,000 Bell employees, men and women, are striving earnestly and conscientiously to render throughout the country, a dependable, a courteous and an increasingly valuable service.

Moreover, this great army, working in the spirit of fairness to each other and fairness to all, has not only carried on the telephone service of the country, but has developed within itself such ideas of mutual helpfulness and such a broad recognition of responsibilities as have made possible continued welfare work of the highest order, and finally, such carefully worked out plans for accident and sick benefits, for life insurance and pensions as will, in a multitude of cases, furnish substantial and practical relief and assistance as a just and honest due for faithful service. Through united effort this great army has made a remarkable record in social progress and achievement.

While everywhere throughout the world the telephone has attracted to its service men of high ideals and marked ability, and in numerous

places splendid results have been obtained, yet, because of their unique achievement, the whole world unites in awarding the place of honor to the Telephone Pioneers of America.

One can scarcely conceive, however, of a well rounded, comprehensive and ideal system for the electrical transmission of intelligence without bringing within the scope of his vision both the telephone and the telegraph. The binding together of these two great agencies that they may work harmoniously, hand in hand, in the public interest, is well under way and the resulting benefits are almost universally recognized and commended. For years, in a clumsy and ineffective way efforts were made to bring the telephone and the telegraph into complementary relations, but the results were meagre and unsatisfactory. Today, however, swift progress is being made toward complete and cordial co-operation. Wireless telegraphy, too, is taking her place as a helpful handmaid.

On Tuesday of last week the people of this nation chose a president. About 15,000,000 votes were cast, at thousands of polling places scattered from the forests of Maine to the Golden Gate, and by ten o'clock that night the net result of all this widely distributed voting was known on every city street corner and at almost every cross-road in the country. A wonderful work in which both telegraph and telephone had an honorable part.

Last spring a mighty ship, the giant of her day, sailed on her maiden voyage. Steaming swiftly, on a starlight night, she crashed into a mountain of ice which sent her to the bottom with 1,000 souls. Intelligence of the disaster transmitted by wireless saved many lives and much suffering. And then the eyes of the civilized world, as well as its heart throbs, were concentrated on the ship of rescue. There were sorrow for the afflicted and an eager longing for definite news of those who were lost. The telephone, the telegraph and the cable enabled the peoples of many lands and many climes to stand together in sympathetic union, to share a common grief and to join in praising a marvelous display of heroism.

And so every event of world-wide human interest—through the operations of these combined agencies—presents a vision of the brotherhood of man.

A very distinguished German, addressing the Society of Electrical Engineers in Berlin, recently said:

It is the telegraph and telephone which have enabled us to solve the principal problems of communication, the conquest of space and time, in a manner so perfect that the very imagination could scarce surpass it. The security and rapidity of the electrical transmission of news has attained a development hitherto unknown and hardly dreamed of, and since all civilization rests upon the intercourse of individuals, and this intercourse depends on an exchange as rapid as possible of ideas and experience, we instantly recognize here the civilizing influence of electricity.

To appreciate fully what the Electrical Transmission of Intelligence means as a factor in social and industrial progress, we must look back to a time when it did not exist. Let us confine ourselves to our own country and to the period covered by its life as an independent nation. Let us put on our seven-league boots and starting about the time when our forefathers broke away from the mother country, come bounding down the years, stopping at only half a dozen points or less to glance about us.

When Lord Cornwallis surrendered his sword to Washington at Yorktown, in 1781, a ship was dispatched to carry the news to England. The

ship—so history tells us—compared with other ships of its day, was a swift ship. The news was bad news—and bad news, we all know, travels as fast as it is possible for news to travel. And yet thirty-seven days elapsed before the evil tidings reached Lord North in Downing Street and caused him wildly to walk the floor crying: "My God, it is all over—all over!"

A third of a century later, in 1814, at the close of the War of 1812, a treaty of peace was concluded at Ghent, but the means of communication between distant points were still so limited that two weeks later the bloody battle of New Orleans was fought—and the news of Jackson's victory and that of the conclusion of peace reached Washington, some two or three weeks later, at about the same moment.

Throughout the next thirty years intelligence continued to be transmitted between distant points only by the hand of man. During this long period of sixty years or more our country had grown to immense proportions, particularly by the acquisition in 1803 of the Louisiana territory—then a wilderness, now a mighty empire. Statesmen here and in England strongly felt that so vast a country could not be governed or held together, and yet in 1843, some bold and courageous spirits seriously proposed the acquisition of the far-away Oregon territory. This proposal aroused strenuous opposition, particularly in the United States Senate. Senators asked what interest could we have in a country so remote, so far away that its representatives would consume their entire time in going to and from the National seat of Government? What interest could we have in a country to communicate with which it was difficult and dangerous and almost impossible? And then, in the very next year, 1844, there came across the electric wires those thrilling words: "What hath God wrought?"

There was the dawn of a new era, and those now historic words are linked forever with the name of that benefactor of his race who gave to the world the telegraph—Samuel F. B. Morse.

Let us hurry on. Another third of a century is spanned and we stop to look about. In passing we may have observed that during the early part of this period disconnected telegraph lines were built here and there and that at length they were gathered together to form a connected system and that cables were laid from continent to continent.

The world was moving along quite merrily in an era of progress and development unlike anything that had gone before—the era of the electrical transmission of intelligence—but we stand now upon the threshold of greater things, for our third-of-a-century leap has brought us to 1875.

A young Scotchman of rare ability and pleasing personality had been working diligently to ameliorate the condition of the deaf. In the course of his work he invented an instrument which was carried to Philadelphia to be exhibited at the Centennial Exposition. He himself has told you in his simple and fascinating way the wonderful story! At length, you know, when this little instrument was being examined by certain learned men—by certain great men—one of them, amazed and astonished, exclaimed: "My God, it talks!"

Who can name the day when mankind will forget to honor him who gave to the world this priceless boon—the telephone—forget to honor the name of Alexander Graham Bell.

One more stride of thirty years, or thereabouts, brings us to the end of our journey. And what a fascinating

and marvelous period has this last stride covered. All along the way we have seen swift changes in the art, rapid growth, tearing out old, putting in new, transforming, expanding, developing, improving—training and educating men and women, training and educating ourselves, not only in the technique of our profession, but in business ethics and in our duties to the public we serve, and to one another.

But here and now I shall speak only of one important work which stands out pre-eminently as the milestone which marks the end of the journey we have made—the relation which is being brought about between the two great agencies—the telephone and the telegraph. These two are, and always have been, alike in this one respect: that intelligence is transmitted by them electrically over wires. The telegraph did not at first welcome the telephone. For a time there was jealousy and fear. A great telegraph company embarked upon a venture to protect itself from and to hurt what it thought was an adversary. But before long it was found that the two did not interfere, and quarreling was stopped, but they, nevertheless, went their separate ways, not realizing how helpful each could be to the other. In the course of time, however, one who was familiar with the problems of both, who knew both at first hand by actual and long extended experience—a man sagacious, broad-minded and courageous—saw the waste of facilities, the neglected opportunities of increasing the usefulness of both by harmonious co-operation and mutual helpfulness. He set about to accomplish the realization of a dream and now, after his manner, is leading us to its accomplishment.

We stand now on the threshold of an era, as we did when we stopped to note the beginnings of the telephone and as when, further back, we stopped to note the beginnings of the telegraph. And what commanding figure do we behold? An active and alert leader in a great undertaking—one whose name will ever be associated with those of Morse and Bell—the President of this Association—Theodore N. Vail.

Glancing back over the years that have passed since the advent of the telephone, we see numerous and radical changes in types of apparatus and lines, in operating methods, and in the practices that have pertained in all branches of the industry. In the matter of physical development and improvement, consummate skill and ingenuity on the part of engineers and operating officials have solved many perplexing problems as they have arisen and continuous progress has been the result. Formidable commercial problems have always been present. In our large cities perhaps nothing has had so profound an effect on growth and expansion as the development of the message rate principle. In such cities, under flat rates, a point was early reached when growth was retarded, facilities overloaded, and the efficiency of the entire system seriously impaired. The adoption of the message as the unit of measure with charges graduated to the requirements of all classes of users afforded relief to the public, made an improved service possible, and introduced a degree of equity not previously found in any plan of rates. The solution of the whole complex problem—the working out of a complete and comprehensive plan—required the highest degree of business skill and cannot be credited to any individual, for it was the work of many minds and the result of wide experience in many quarters. The original idea, however, as applied at a very early day in Buffalo, was one of

the many valuable contributions made to the development of the industry along broad lines by Mr. Edward J. Hall.

There has been no absence at any time of financial problems of considerable magnitude. To raise from time to time as needed the enormous sum of more than \$700,000,000 has been no simple task. To receive, safely keep and disburse the vast sums that have passed through our treasuries has been a work of gigantic proportions, done skilfully and with a wonderful degree of accuracy and integrity. To formulate and follow a system of accounts that would afford reliable and trustworthy sailing charts for those charged with the responsibility of management and at the same time give to the public and the constituted authorities the information they should have has been a continuous and, at times, difficult problem.

In dealing with public authorities, to avoid the enactment, through prejudice and lack of correct information, of hard-and-fast laws that might hobble a rapidly growing and ever-changing industry, to secure fair and reasonable ordinances and other legislative enactments, diplomacy of no mean order has been required. To avoid unnecessary litigation and dangerous pitfalls of many sorts, to sail the difficult course that leads to great size and a universal service and yet involves no infraction of the law, has called for the guidance of the best legal counselors.

In the annals of the Bell System there is material for a thousand romantic tales of individual loyalty and fidelity to duty on the part of linemen, wiremen and others, and of bravery and heroism on the part of operators.

So, as we look about us and as we look back over the past, we see that no one man and no set of men has solved all the problems or accomplished all that has been done. All the stars differ in glory, so we may differ in the value of our respective contributions to the general result, but of the general result, it is safe to say, as was said of the victory at Santiago: There is glory enough for all.

And we must not forget those who, after loyally contributing of their best to the work, in which you and I are still engaged, are no longer with us. Their lives, in many cases, were marked by an unselfish devotion to duty and an adherence to high ideals and noble aims throughout long years of strenuous toil. We honor them all—and each of us no doubt treasures in his heart the recollection of splendid attributes possessed by some particular comrade whom we will not see here again. One of the charming characteristics of this industry is that we, who are in it and of it, are as members of one big family.

To secure greater uniformity in operating methods throughout the country, a more effective general administration, and greater ease in financing the twenty or thirty operating divisions of the Bell Companies which once existed have been concentrated into Grand Divisions, with administrative headquarters located in eight or ten of our principal cities from each of which information and instructions are passed to the executives in the divisions, or districts, within the general area administered from such city.

We are now better able than ever before to discuss plans, consider measures and determine from the combined experiences of all what is best for the several branches of the service. Besides obtaining uniformity in practice, there has been provided a more ready means of developing ideas and suggestions for future improvements. Greater than ever before is the opportunity for individual initiative. The time never was and



AUG. PAULSON.

never will be when the stability and the progress of this vast enterprise has depended, or will depend, on the strength, the energy and the intellectual ability of any individual or small group of individuals. The virility and vigor of the organization as a whole has depended, and will continue to depend, on the virility and vigor existing throughout the mass and permeating all its parts. A great and successful leader among us is he who inspires and encourages, and who rightly uses the spirit which wells up to his hands from the myriad of springs whose sources are found among his loyal followers. Moreover, as has been demonstrated time and again, especially in recent years, every soldier in this Bell army carries in his knapsack a marshal's baton.

Some of us find comfort in looking to the years that are behind us, while others find their chief delight in looking to the future. I congratulate you all—to those looking to the past, because of the high and honorable nature of the work with which you have been identified—to those looking to the future, because of what lies before you in its further development. The character of the work you know full well. It has made, and is making, the world a more cheerful and better place to live in. The transmission of intelligence by electricity is an active and effective agent in the advancement of civilization throughout the world.

To emphasize this fact, and, in conclusion, I shall read a brief extract from a speech made by Secretary Knox in Tokio last September upon the eve of his departure from Japan. Mr. Knox said:

There is today a decided impulse toward social co-ordination that must become a real cosmic force. Through the marvelous modern development in the means of communication each nation promptly feels the influence of the public opinion of all nations. As nations understand each other better and the world draws closer together in the recognition of a common humanity and conscience, of common needs and purposes, there is carried into the international field the insistent demand for greater unity in enforcing everywhere the principle of a high morality and, by restraints mutually applied and observed, all the human ameliorations without which both national and international life would soon fall into anarchy and decadence.

Bridget's Troubles.

"What does this mean, Bridget?" exclaimed the lady of the house, returning from shopping. "The telephone's been taken out."
"Sure, ma'am, the girl over the way came over and said her missus would like to use it for a little while, and I sint it over to her; but I had a terrible job gettin' it unscrewed from the wall, ma'am."—London Telegraph.

LIVE WISCONSIN COMPANY.

Connecting Organization Actively
Pushing Extensions and Improvements.

A co-partnership telephone company was organized in 1895 under the name of the Sheboygan-Manitowoc County Telephone Company. These people operated a toll line between Elkhart, Keil and Manitowoc.

On January 31, 1898 they incorporated and assumed the name of the Eastern Wisconsin Telephone Company, and started the development of Sheboygan, Manitowoc and Calumet counties as an independent telephone company until July 23, 1904, when a connecting contract was made with the Wisconsin Telephone Company.

They now operate 250 miles of toll line, ten exchanges and have from 1,300 to 1,400 subscribers, including the rural development.

The management is at present engaged in active operations, including the rebuilding of some of their exchanges and the development of extensions, which when completed will give a substantial improvement in conditions and add a number of new subscribers.

The officers are Aug. Paulson, of Keil, President; John F. Kramer, Elkhart, Vice President, and W. F. Pinnow, Chilton, Secretary, Treasurer and General Manager.

Mr. Pinnow and Mr. Kramer devote their entire time to the telephone business, while Mr. Paulson, who also heads the Chilton Canning Company, lends his counsel in matters requiring the careful consideration of a true executive.

RECORDS SMASHED BY INSTALLATION TEAM

Bell Bowlers Post Score of More
Than Thousand Pins in
Tournev.

STANDING OF THE TEAMS JANUARY 2, 1913.

| Team. | Won. | Lost. | Per cent. |
|--------------------|------|-------|-----------|
| Commercial | 26 | 10 | .722 |
| Maintenance | 23 | 13 | .639 |
| Installation | 22 | 14 | .611 |
| Revenue | 22 | 14 | .611 |
| Engineers | 19 | 17 | .523 |
| Suburban | 18 | 18 | .500 |
| Traffic | 16 | 20 | .444 |
| Accountants | 12 | 24 | .333 |
| A. T. & T. | 12 | 24 | .333 |
| Inspection | 10 | 26 | .278 |

All records for bowling in competition in the Bell Bowling League of Chicago were broken on the night of December 19th when the Installation team rolled 1010 in the second try against the A. T. & T. stalwarts. This is the highest mark set since the league started last season. The total for the three games, 2790, is also the highest three games rolled so far this year. The performance excited great enthusiasm among the bowlers.

The middle of the season finds every team in the race and good averages being maintained.

Although the rejuvenated Commercial team slipped from first to second place momentarily, the first place was won again on January 2nd. The Commercial rollers declare that their flag is nailed to the mast and they breathe defiance to all comers.

Cable on Halsted Street Lift Bridge

One of Chicago's rather unique features is the lift bridge across the South branch of the river at South Halsted Street, near West Twenty-fourth Street. The height of the structure to the top of the towers is a little over 200 feet. The length of the movable span is 121 feet. This movable portion of the bridge is attached to steel cables, which run over pulleys at the top and to the four large counter weights. The counter weights at the North end of the bridge are attached to the South end of the free span and vice versa. When the river channel is to be cleared the whole span is lifted up to a height sufficient to allow a ship to pass beneath it. The lift works so smoothly that one on

small and its masts like toothpicks. Unfortunately, no, probably it is fortunate on the whole, the city does not commonly permit persons to remain on the bridge when it is raised.

A story is told of a police officer who, when off duty one afternoon, came by as the bridge was about to be raised and decided to go up on it. This was before the present electric hoisting apparatus had been installed and steam power was used. When the bridge-tender tried to lower the bridge it failed to work and our officer was left marooned, 130 feet in the air. He succeeded in climbing from the span of the bridge to one of the corner towers. From here he might have descended by an iron ladder but the 217 foot climb down was too much for his nerves and he refused to come down. Food was sent up to him for three days. Persuasion and entreaty were of no use, he would not climb down. Finally a bridge crew went up, fas-

tile out of his way and he was in a hurry, so he climbed the ladder on the north end of the bridge, crossed the river, 217 feet high on a fourteen-inch plank, and climbed down the ladder at the south end. There is a steel cable on each side of the fourteen-inch plank and these cables make fairly good railings when the bridge is at rest and they help one's nerves.

It has just been necessary to put a 400-pair cable across the river at Halsted street and the most feasible method of crossing was by going over the bridge. The cable was taken up the structure at the northeast corner, around the tower, across near the fourteen-inch plank and down on the southeast corner. As a matter of fact the whole of this cable was not taken up on the north side. From the north side cable was taken up and across to the southeast corner. There a second piece was taken up to meet the first and the two spliced together.

the tower. Clancy was once a sailor and has good nerves for height.

On the whole this was a difficult job and the men who did it deserve credit for their good work.

Death of C. P. Wainman.

Charles P. Wainman, Vice-President of the Northwestern Telephone Exchange Company and one of the pioneers of the telephone industry, died suddenly at his hunting lodge at Fergus Falls, Minn., October 29th.

Mr. Wainman was electrician for the Cleveland Telephone Company in 1877 and 1878. He invented and installed the first switchboard used there. He left Cleveland in 1887 to go to Minneapolis as superintendent of the Northwestern company, of which he later became general manager and then vice president.



LIFT BRIDGE OVER CHICAGO RIVER AT HALSTED STREET.



CORNER TOWER OF LIFT BRIDGE AT HALSTED STREET.

the bridge scarcely realizes the motion. It looks rather as if the rest of the city were softly dropping away from him. The floor of the bridge rises to a height of about 180 feet. There is nothing approaching this altitude in the neighborhood and the raised bridge makes a fine observatory. Two miles and a quarter to the Northeast the Telephone Company's new building looms up white, the most prominent structure west of State Street. The smoky condition of the atmosphere prevented obtaining photographs of it. A boat passing under the bridge looks

tened him in some sort of chair and swung him over the side of the bridge. When he saw the distance below him he shouted to be taken back but this time the others were as deaf as he had been and he was lowered to the ground. As a concession to his feelings he was transferred to a distant part of the city where the bridge story was not known.

A short time ago the bridge was held up for several hours. An elderly man carrying a dinner pail came to the river and looked at the helpless bridge. He said he would not go a

Two men fed the cable up the space between the two parts of the corner member of the bridge. Up at about the level of the raised span Foreman Merkley guided the cable. The second photograph shows him standing on a small platform. On the balcony around the tower house are Line Foreman Jenenga and two other men who are working on the cable. Fifteen feet over Foreman Merkley's head, out of sight behind the tower, is Patrick Clancy in a swinging chair suspended from the top of the structure, helping to get the cable around the corner of

New Telephone Publication.

The Chesapeake and Potomac Telephone Company will issue a semi-monthly paper for employees beginning in January. The paper will be called *The Transmitter*. It will be under the supervision of John E. Boisseau, Publicity Manager, and the Editor will be T. T. Cook, formerly Associate Editor of *The Telephone News*, published by the Bell Telephone Company of Pennsylvania and Associated Companies.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

TELEPHONE BUILDING

CHICAGO, ILLINOIS

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,900 copies per month.

JANUARY, 1913.

A MILLION!

Ring Out, Blue Bells,
As cheerily as of yore,
Ring out until we have
A million more!

Regular telephone stations operated by the five Bell companies of the Central group numbered on December 1, 1912, just 989,959. Reference to the inside back cover of the issue of *The News* will show just where these stations are located. Reference to the same page of the past three issues will also show that this column of the table has been growing at the rate of 10,000 per month.

Therefore, in all probability, there will be ONE MILLION REGULAR BELL STATIONS in the system of the five companies with headquarters at Chicago, before these lines are read. And this is not counting the more than 700,000 stations of connecting companies in the same territory.

This is more than the combined total of telephones in Great Britain, France, Italy, Spain, Portugal, Greece and the Balkan States. It is almost equal to the total in the German Empire and is not exceeded by any other territory in the world operated from one center.

But this one-million point is not a goal. It is only a milestone. It would be beyond the range of human vision to discern the real goal. We have a million. A few years hence we will have two millions. None can foretell the extent of this development or what proportions it will ultimately reach.

COLONEL GOETHALS.

Just now, as the great Panama Canal nears completion, popular interest centers around the man who did the job. The President of the United States, senators, congressmen and other important personages are urging that adequate recognition be given to Colonel George W. Goethals, U. S. A., for his work in directing the vast operations.

If we may judge from the tenor of Colonel Goethals' public utterances, he is not asking for any reward nor does he expect any. His reward is the consciousness of having accomplished a great task successfully and rendered a great service to his fellow beings. In an address delivered last June to the students of West Point Military Academy, Colonel Goethals said:

We have a right to our own views and opinions, and in most cases which arise we have opportunity to express them. When the decision is against us, instead of shirking, giving lukewarm support, or attempting to show that our opinions are the correct ones, loyalty demands that we give the best that is in us toward the accomplishment of the end desired by those in authority. If your training here has not fixed this truth firmly and ineradicably in your minds, it has failed lamentably in its purpose. * * *

In the final test of actual experience it is upon the man himself that success depends. No system of training will carry an unfaithful man to success.

The world of today is above all else a practical world, and it demands results. What it is looking for is men who can and will do things.

It is reported of Lord Kitchener that, when during the South African campaign a subordinate officer reported to him a failure to obey orders, and gave reasons, Kitchener said to him:

"Your reasons for not doing it are the best I ever heard. Now go and do it."

That is what the world demands today—not men who are fearful of an undertaking, who advance reasons for not doing it, or express doubts about its accomplishment, but men who have the courage of their convictions and will find ways to carry it through successfully.

We are inclined to expect praise or reward for doing nothing more than our duty, when as a matter of fact we are entitled to neither, since we have done only that which is required of us.

The remarks of Colonel Goethals might be taken as too severe for ordinary practice; a thing entirely pardonable in a military officer, but he expresses a great truth. The man who works because he loves to work will accomplish results where the man who works for reward will fail.

GETTING THE MONEY.

In these days of high costs, when everything is going up except telephone net receipts, it behooves the thrifty manager to get the money for the service his exchange is giving, and get it promptly.

Operation, construction, maintenance require the outlay of large sums of money. Through these expenditures the companies acquire their earning power. But without regard to the amount spent or the amount earned the net results are represented by the amount collected. Suspense accounts are poor assets. Rebate applications pay neither salaries nor dividends.

We don't blame you, Mr. Manager, for disliking collections. Certainly they are the bughbears of the business. They are the dead horses. There is nothing about them to excite our enthusiasm. It is something fine to work a customer up to the point where he gladly and eagerly puts his fist to a contract for service. It is stimulating. It is positively inspiring. But going to that man six months later and persuading him to pay for the service now instead of next month is a dull and prosy proceeding. There isn't a particle of romance in it.

But it must be done.

And the manager who keeps his customers in the humor to pay their bills is exercising managerial ability of as high a grade as the man who gets the business. Obviously, the man who gets the business and then collects the money, all and promptly, is the real man on the job.

There is nothing new in these observations. We are prompted to them by looking over the table of collection ratings by districts and divisions, now being published each month in the *BELL TELEPHONE NEWS*. We might publish them by exchanges, but it would use up too much space and the little exchanges would always be at the top anyway. The district gives us a fair unit on which to base a monthly competition. There are large exchanges and small exchanges in almost every district. The managers all know each other. They are, in a sense, working side by side to bring up their district averages. Those exchanges which are each a district by themselves are all large. They can compete with each other. The race is on. Even if the relative places are not changed—if no district gains any advantage the time can be speeded up—every district may boost its percentage. It is a game worth while.

A CHANCE TO MIX.

By the consolidation of duplicate systems in a half dozen cities and towns recently, several hundred people have become new members of the Bell family.

This suggests the old story of the college presidents who were camping in the mountains of South Carolina. One evening they gathered around the fireplace in an old mountaineer's cabin for a conference. Before the discussion began, the old man said: "I reckon you'uns know a lot that we'uns don't know nothin' about."

The college presidents allowed that that "might" be true. The old man then remarked: "Perhaps we'uns know a lot that you'uns know nothin' about."

The educators allowed that that "was" true.

"Well, then," the old mountaineer observed, "this mixin' will learn us all a bit of knowledge."

The *BELL TELEPHONE NEWS* should be the fireplace around which all the Bell workers, no matter where they are, should gather and do some "mixin'."

THE FAMILY DOCTOR.

How well we remember the old wood-cut picture in the reader which showed the farmer boy, half smothered in woolen muffler and cap, just dismounted from his steaming pony, at the door of the doctor's house, while the doctor, in nightcap and holding aloft a kerosene lamp is peering out, none too cordially at his midnight visitor. The picture epitomized the hardships of the medical service upon the physician, the patient and both of their families a third of a century ago.

We have now the testimony of the *Medical Review of Reviews* that the telephone has so changed the conditions of living in America that such a scene would now be rare if not unheard of. In addition to its services as a civilizer the telephone has become one of the important agencies in the promotion of health and the saving of life. It is a graceful act on the part of the *Review* to make this acknowledgement so unreservedly.

THE TELEPHONE SILENCER.

A man has just invented a system whereby eavesdropping on telephone lines will be absolutely eliminated, so it is reported. With the use of this device nobody but the two parties conversing will be able to hear a word that is said.

The man who has perfected this invention has intruded upon a sacred and inalienable right of the American people. Under the constitution the citizen of this country is entitled to life, liberty and pursuit of happiness. To these three should be added a fourth—the right to listen to conversations over party-line telephones. Why do a great many curious citizens install telephones and pay for them? Why, indeed!

Does not the inventor know that in districts with party lines nearly all of the excitement in life comes from overhearing telephone conversations? When Mrs. Smith and Mrs. Jones are talking and passing a choice bit of scandal, is it not the inalienable right of Mrs. Brown to quietly lift off her receiver and listen? Certainly it is. That is why she has a telephone.

The telephone eavesdropper is an institution in this country, and it would be a distinct hardship to deprive this listener of an ear full of gossip any time he or she sees fit to cut in on a conversation. Telephones are not for private conversation. Anybody can see that. When a man uses a telephone he uses it because he wants the world to hear what he has to say to the person at the other end of the wire. The new telephone silencer will be unpopular with a great many persons.—*Grand Rapids Press*.

THE LEAVEN OF COMMON SENSE.

Any who may think that such things as installations at subscribers' premises are cut and dried transactions covered by set rules which work by magic should read the "Twelve Things Installers Should Know," by G. A. Fritz, a Detroit wire chief. The article appeared in the December *News*.

The gist of Mr. Fritz's article is that installers should use common sense and tact in performing their work. Without wavering from their rules and instructions they should make every effort to please the subscribers, to the end that future requests for free moves may be avoided.

Rules cannot be made to cover everything. Common sense must often be our guide. It is interesting to find the common-sense side of telephone installation treated in such a succinct and comprehensive manner.

These are the days when the plant men are ready to agree that an ounce of prevention is worth a month of line patrol.

In some places they ask, "Have you a telephone?" In Chicago they ask "What is your telephone number?" Do you "get" the difference?

Plan your work, but don't stop there. Work your plan.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
212 West Washington Street
CHICAGO

S. E. Sunny, President.
Alonso Burt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
E. S. Garvey, General Counsel.
E. S. Garvey, General Auditor.
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E. A. Reed, General Manager, Columbus, Ohio.
H. C. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegel, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.

SOUTHWESTERN GROUP ORGANIZATION FORMED

Four States Included in Bell Unit
with Headquarters in
St. Louis.

Organization of the Southwestern group in the Bell system was completed last month when the Southwestern Telegraph and Telephone Company, with a capital stock of \$40,000, took over the properties of the Bell Telephone Company of Missouri, the Missouri and Kansas Telephone Company, and the Southwestern Telegraph and Telephone Company, operating in Texas and Arkansas.

Headquarters will be in St. Louis. The following directors have been elected: James Campbell, John A. Holmes, Frank H. Hamilton, R. McK. Jones, E. D. Nims, Henry W. Peters, H. J. Pettengill and F. O. Watts, St. Louis; U. N. Bethell, Theodore N. Vail and C. H. Wilson, New York; C. S. Gleed, Topeka; A. C. Jones, Kansas City; Royal A. Ferriss, Dallas; David McKinstry, Oklahoma City.

Heman J. Pettengill is president of the new company.

Sense on Collections.

J. J. Kelly, manager at Ludington, Mich., in a recent interview with a reporter of the Ludington Daily News concerning collections, made the following interesting remarks on the subject of general accounting:

"The Michigan State Telephone Company is doing everything within its power to furnish top notch service to its patrons and is spending a lot of money in perfecting its plant and equipment with that end in view. Copper wire is about as costly as gold nuggets and most everything else that goes to make up a telephone plant is in accordance, so it is very necessary that the telephone company receive pay for every bit of its product. By product, I mean service. Lost accounts mean higher cost of production with any institution, no matter whether it is telephone service, gas, electricity, lumber or even salt that you sprinkle on your potatoes, and higher cost of production can mean but one thing and that is higher cost to the consumer. When you look at the matter from this standpoint, which is the standpoint from which it should be looked at, I am sure you will agree with me that it is distinctly the duty of every individual telephone subscriber, as a matter of self interest and self protection, to lend his hearty co-opera-

tion to the telephone company in any movement that tends to keep down the cost of production. When they have become accustomed to keep down the cost of production it will be just as easy for them to keep up ahead as to keep up behind as they have been doing."

FIRE THREATENS RIVERSIDE EXCHANGE

Good Work of Operator in Emergency—Last Subscriber Asks "Time Please."

At about six o'clock in the morning on January 1st, the pumping station and water tower belonging to the village of Riverside, Ill., and located about twenty-five feet from the Riverside exchange caught fire. The engines supplying the water pressure were located in the burning building and were put out of commission shortly after the start of the fire, leaving the fire department helpless. As a result, the building was totally destroyed in a very short time.

Miss J. Lange, the LaGrange chief operator, who resides at Riverside, was notified by the Riverside night operator. She immediately came to the Riverside office, accompanied by her sister, who is a Riverside day operator. These two young ladies remained at the board and gave the Riverside fire department very valuable assistance in summoning the fire departments from the surrounding towns.

At 6:45 a. m. the heat from the burning pumping station became so intense that the windows in the exchange building on the side towards the fire were broken. Showers of hot bricks, slate and burning timbers were falling on and around the telephone building and in addition there seemed to be likelihood of the entire brick tower falling over on it. It was, therefore, necessary to abandon the exchange.

Fire Marshal Smith, in entering the telephone building to warn those inside to leave, was struck on the helmet by a hot brick falling from the top of the tower. The heavy fire helmet prevented him from being seriously hurt. It was, however, impossible by that time to enter or leave the exchange building by the door and the two operators on duty were, therefore, taken out through the window on the northeast side of the building.

At about 7:45 the heat had subsided sufficiently to allow the operators to enter the exchange again and the service was restored at that time.

The fire left the town of Riverside entirely without water and this resulted in an extremely heavy traffic. A full force of the best operators available was summoned, and although all of the positions at the switchboard were occupied and the chief operator's desk used as a recording position, facilities were entirely inadequate to handle the business.

The officers of the village, however, were in and around the exchange during the extreme rush of business and appreciated that a very unusual demand was being made on the service. They were, moreover, very much pleased with the assistance that was given them by the operators early in the morning.

The exchange building at Riverside is leased from the village of Riverside and heat has been supplied from the pumping station. The destruction of the pumping station, of course, cut off the heat supply and it was neces-

sary to have a stove set up in the office and a supply of coal delivered.

One very amusing thing happened during the time that the fire was at its height. The exchange had been abandoned but District Manager Patchen re-entered the building through the window to get some records that had been overlooked. The electric light service had been cut off by the fire and the only light in the building was furnished by one gas jet. As Mr. Patchen groped his way across the room through the smoke he heard a drop buzzing very vigorously on the board and thinking it might be an emergency call he found a set and answered it. A woman's voice, very irritable at the long delay in answering, said "Will you please give me the correct time?"

Advice for Small Communities.

The Bancroft, Mich., Commercial publishes the following editorial, under the heading, "To Telephone Users":

"If the people who use the telephone would look up the numbers before calling Central and then call by number they would find that the service would be greatly improved, and Central would not be so cranky at times. Central does not know everybody's number, so she stops answering others to look up numbers for you, and in the run of a day she spends a great deal of time looking up numbers for you while some one else is waiting for her to answer them.

"Each telephone is entitled to a directory, so it is not necessary to call by name only for such new ones that are not in the directory. If every one who uses the telephone would kindly do this they would not find so much occasion to grumble at the service given, and the operator would show her appreciation of the same by giving you more prompt service in a more agreeable manner. Try this for a few weeks and see what the results are."

Outside of the little word "cranky," which we trust is not quite justifiable in referring to any operator giving

Bell service, the above remarks are decidedly to the point. They would do a lot of good if repeated in communities of similar size to Bancroft, Mich. This place is served by the Shiawassee Mutual Telephone Company, connecting with the Michigan State Telephone Company, and having 140 subscribers. The population of Bancroft is 543.

PENSION COMMITTEE APPOINTED.

Five Officials Named in Central Group to Administer Fund for Employees' Benefit.

A committee consisting of Alonso Burt, Chairman; W. I. Mizner, Secretary; E. S. Garvey, C. E. Mosley and M. J. Carney has been appointed to administer the pension insurance and disability fund for employees of the Chicago, Wisconsin, Central Union, Cleveland and Michigan State Telephone Companies. Further details of the operation of the plan, which went into effect January 1st, will be published in the February issue of the BELL TELEPHONE NEWS.

Merger at Keokuk.

Announcement is made that a merger has been concluded at Keokuk, Ia., by which the Iowa (Bell) Telephone Company has taken over the plant of the Mississippi Valley Telephone Company and all subscribers will be served from the same exchange.

MR. VAIL'S PORTRAIT

There are available for distribution a number of fine half-tone prints of a portrait of Theodore N. Vail, President of the American Telephone and Telegraph Company. These prints are suitable for framing. Any employee wishing a copy apply by letter to Clifford Arrick, Manager Publicity Department Chicago.

District and Division Collection Rating

NOVEMBER 1, 1912.

| Position. | Total to be collected during Oct., 1912. | October collections. | Unpaid Nov. 1st. | Per cent collected. | Standard. |
|--|--|----------------------|------------------|---------------------|-----------|
| 1. Wis. Tel. Co., Appleton Dist..... | \$2,424 | \$6,045 | \$2,379 | 96.2 | 25,667 |
| 2. C. U. Tel. Co., Columbus Dist..... | 75,739 | 71,672 | 4,067 | 94.6 | 20,148 |
| 3. C. U. Tel. Co., Terre Haute Dist..... | 51,501 | 47,899 | 3,602 | 92.8 | 19,152 |
| 4. C. U. Tel. Co., Chillicothe Dist..... | 48,268 | 44,213 | 4,055 | 91.5 | 16,714 |
| 5. Wis. Tel. Co., Madison Dist..... | 35,255 | 32,107 | 3,148 | 91.1 | 14,774 |
| 6. C. U. Tel. Co., Dayton Dist..... | 69,192 | 62,483 | 6,709 | 90.3 | 23,120 |
| 7. C. U. Tel. Co., Toledo Dist..... | 78,354 | 70,600 | 8,294 | 89.4 | 25,491 |
| 8. C. U. Tel. Co., Galesburg Dist..... | 64,903 | 47,634 | 17,269 | 86.5 | 20,071 |
| 9. C. U. Tel. Co., Centralia Dist..... | 23,150 | 24,182 | 3,968 | 85.9 | 10,739 |
| 10. C. U. Tel. Co., Anderson Dist..... | 76,700 | 65,227 | 11,473 | 85.5 | 27,772 |
| 11. Chicago Tel. Co., Chicago Heights Dist..... | 7,049 | 5,945 | 1,104 | 84.3 | 3,232 |
| 12. C. U. Tel. Co., Springfield Dist..... | 133,210 | 111,996 | 21,214 | 84.1 | 41,845 |
| 13. Wis. Tel. Co., Janesville Dist..... | 10,675 | 8,943 | 1,732 | 83.8 | 3,954 |
| 14. Chicago Tel. Co., Chicago Dist..... | 1,310,517 | 1,092,918 | 217,737 | 83.4 | 303,819 |
| 15. Chicago Tel. Co., Blue Island Dist..... | 9,392 | 7,751 | 1,639 | 82.6 | 3,072 |
| 16. Wis. Tel. Co., Milwaukee Dist..... | 360,413 | 295,675 | 64,838 | 82. | 56,146 |
| 17. Wis. Tel. Co., Eau Claire Dist..... | 35,151 | 28,664 | 6,487 | 81.5 | 12,346 |
| 18. C. U. Tel. Co., Akron Dist..... | 90,349 | 72,434 | 17,915 | 80. | 23,432 |
| 19. Chicago Tel. Co., Elgin Dist..... | 15,913 | 12,467 | 3,169 | 78.8 | 5,985 |
| 20. Chicago Tel. Co., La Grange Dist..... | 12,994 | 10,180 | 2,827 | 78.4 | 4,106 |
| 21. C. U. Tel. Co., Indianapolis Dist..... | 133,549 | 104,329 | 29,220 | 78.1 | 27,701 |
| 22. Chicago Tel. Co., Woodstock Dist..... | 10,049 | 7,722 | 2,295 | 76.8 | 2,456 |
| 23. Chicago Tel. Co., Oak Park Dist..... | 33,590 | 25,777 | 7,548 | 76.7 | 9,418 |
| 24. Chicago Tel. Co., Evanston Dist..... | 38,585 | 29,338 | 9,047 | 76. | 9,242 |
| 25. Mich. State Tel. Co., Detroit Dist..... | 447,465 | 335,603 | 111,852 | 75. | 94,075 |
| 26. Chicago Tel. Co., Gary Dist..... | 8,917 | 6,593 | 2,219 | 73.9 | 1,933 |
| 27. Chicago Tel. Co., Hammond Dist..... | 18,421 | 13,514 | 4,698 | 73.4 | 5,220 |
| 28. Cleveland Tel. Co., Cleveland Dist..... | 445,437 | 326,687 | 119,750 | 73.1 | 51,371 |
| 29. Chicago Tel. Co., Joliet Dist..... | 27,311 | 19,698 | 7,383 | 72.1 | 9,267 |
| 30. Chicago Tel. Co., Aurora Dist..... | 12,827 | 12,372 | 4,744 | 71.8 | 3,936 |
| 31. Chicago Tel. Co., Waukegan Dist..... | 29,192 | 20,952 | 7,973 | 71.8 | 7,283 |
| 32. Chicago Tel. Co., Wheaton Dist..... | 11,289 | 8,023 | 3,173 | 71.7 | 3,600 |
| 33. Mich. State Tel. Co., Marquette Dist..... | 88,604 | 49,809 | 38,795 | 56.2 | 13,636 |
| 34. Mich. State Tel. Co., Saginaw Dist..... | 122,887 | 67,596 | 55,393 | 54.9 | 20,327 |
| 35. Mich. State Tel. Co., Grand Rapids Dist..... | 238,018 | 127,431 | 110,587 | 53.6 | 42,002 |
| Total..... | \$4,236,580 | \$3,332,461 | \$904,119 | 78.7 | 964,944 |
| C. U. Tel. Co., Ohio Division..... | \$361,902 | \$320,860 | \$41,042 | 88.7 | 108,906 |
| C. U. Tel. Co., Illinois Division..... | 216,263 | 183,812 | 32,451 | 85. | 72,655 |
| Wisconsin Tel. Co..... | 503,918 | 425,334 | 78,584 | 84.4 | 112,916 |
| C. U. Tel. Co., Indiana Division..... | 261,750 | 217,595 | 44,495 | 83. | 74,526 |
| Chicago Tel. Co..... | 1,550,336 | 1,279,144 | 271,192 | 82.5 | 374,877 |
| Cleveland Tel. Co..... | 445,437 | 325,687 | 119,750 | 73.1 | 51,371 |
| Michigan State Tel. Co..... | 896,974 | 580,369 | 316,605 | 64.7 | 170,092 |
| Total..... | \$4,236,580 | \$3,332,461 | \$904,119 | 78.7 | 964,944 |

A Moose Hunt in New Brunswick

UP THE WAPSKE TO THE HEADWATERS OF THE MIRAMACHI.
By M. D. ATWATER, Publicity Department, Chicago

"Whoa back! I knowed I'd think to fergit sumpin'," muttered the sleepy teamster as he climbed down from the tote wagon and tramped back for the lunch.

Mr. A. L. Brown of Deerland had taken me to New Brunswick hunting, and this halt occurred just after our early start by lantern light for the woods. The first snow was falling. We were bundled in our mackinaws, and seated on a bale of hay. There was only a box of canned goods and a single bag of duffie at our feet, for the trail was long and mtry.

The black horses wore big red tassels and tinkling bells to distinguish them from moose to the least experienced eye.

The "portage road," as they say up there, was the worst tote road I have ever seen, and there were twenty-two miles of its crooks and turns and bumps and fords and sloughs. The riding was painful, but walking or wading was next to impossible. We were continually whipped in the face and showered with snow by overhanging branches. We soon overtook a tote team and a few despondent lumberjacks moving into the woods, and thenceforth had the consolation misery loves.

Reaching the dinner-hole early, we watched the woe-begone lumber men sit disconsolately, like a row of corbels, on a wet log, while the foreman gathered the birch bark and dry wood, made the fire and the tea and set out the lunch, keeping up an incessant run of cheerful talk all the while.

Thirteen at Table.

There were thirteen of us at that first meal in the woods. Two of the lumbermen had guns, one a powerful army rifle, which aroused our misgivings for the efficiency of our little deer guns, the other a wire-bound single barrel shotgun, with the lock wrapped in a greasy red handkerchief, no doubt loaded with buck-shot. This artillery was carried muzzle forward over the shoulder by a stooping old man of the woods as if it were his dearest treasure.

Further along the trail we passed the camp of some gold prospectors. We had already seen their shaft in a steep hillside. The natives are skeptical about their success. Then we passed the cabins of a foreman who had brought his family into the woods. A baby face occupied every pane of glass in the shanty. This, however, is characteristic of New Brunswick.

Our general destination was the top of the water-shed ridge which trends northwest and southeast, dividing the waters of the St. John on the west from the numerous streams which run eastward to the sea. We were traveling up the Wapske, a beautiful turbulent stream, which enters the Tobique near Reed's Island. Presently we forded its tributaries, Beaver Brook and Oven Rock, and crawled up the side of the height of land to Lindsay Brook. Here the lumbermen went their way and four miles further we found the land falling away to the southward. Just here we hit a chuck hole which balanced me upside down with my shoulder on the side board, and if Brown hadn't grabbed my waving legs in mid air, my neck might easily have been broken. A little further on, the accursed trail ended at Ridge Brook Cabin, Charlie Wright's home camp.

The clearing was on a little knoll facing east into a hollow, high ground

to the north, lower to the south, a brook trickling along the west edge and beyond that, a high hardwood ridge. The two cabins side by side were about 16x20 feet in size, of peeled spruce logs with tarred paper roofs and plenty of windows. A narrow platform of hewed logs ran across the entire front. On the platform beside the split stove-wood were two pairs of moose antlers. One was a magnificent set, fifty-six inches in spread, with twenty-four points and perfectly matched brow antlers with several points. There were also two fine pairs of buck's antlers.



THE CAMP IN THE WILDERNESS.

Quite a crowd turned out to greet us. There was Charlie himself and Rob Torrence, the other guide, Herb the cook, and Charlie's father, a noble looking, big man of 78, a thorough woodsman and still possessed of remarkable endurance. Soon appeared from the woods the New York sportsmen, James S. Barron and Dr. T. L. Benet, to whom we were to find ourselves much indebted.

The horses were placed in a small log stable or "hovel" as they say, and a little later we were seated on the long benches at the oil-cloth covered table in the cook camp eating supper—nine of us that evening.

The doorways to the cabins were low, so that my head received many dents and scratches. The floors were sawed lumber. There was a good stove in each camp. There were plenty of kerosene lamps. The supply of canned goods was ample and the cooking utensils were numerous and clean. There was even a tub and a wooden wash board. In the sleeping camp there was a partial partition of sawed boards dividing the bunks into two alcoves and separating them from the main room. The bunks were made of poles and shingled with balsam—fir they call it—and were two-story, a la Pullman.

These camps were almost too luxurious for plain woodsmen. Real perseverance must have been required to haul those boards from Plaster Rock through that wilderness. There was a bear trap on the floor, numerous cartridges stuck in the chinks, tobacco tags tacked on the logs, a few magazine illustrations nailed up, and a number of the broad flat fungi torn from trees, put up over windows and doors, with names, dates and records of other hunters.

Mr. Barron was a real dyed-in-the-wool city sportsman. He had hunted in many places for seventeen successive seasons, and had killed nine moose. The grand head we had seen was his best, and in fact the best ever taken out of Charlie's camp. Barron had two handsome rifles, a 7 M.M. Mauser and a big Jeff*, and the best kind of equipment that Abercrombie and Fitch could provide. He and the Doctor had toted in numerous prepared and condensed foods, which were interesting to experiment with, and sometimes palatable.

Through some misunderstanding, Charlie was short of blankets and these gentlemen very kindly left us their sleeping bags. They also gave me several bits of advice, which I am often inclined to seek and to follow over-zealously. The Doctor told me that the woods were intensely cold and that I should need to wear

ing rubbers! I had only shoe packs and they were very new and smooth, and my limited supply of socks would not permit of using up a pair every day outside.

Before daylight our new friends left with the cook and the tote team, and their handsome moose and deer heads.

Dressed for Business.

Following instructions, I put on all my clothes, that is to say, two suits of heavy ribbed underwear, three pairs of heavy ribbed yarn socks, those "store" shoe packs, a flannel shirt, a heavy sweater, and a heavy mackinaw suit. I was swathed like a mummy and prepared to sit on a log all day and wait for a moose, or, if need be, to walk as fast as half a mile an hour. The only light-weight part of my equipment that first day was my gun, a six-pound Savage 303 featherweight, the daintiest little weapon ever carried into those woods.

My guide, Rob, was tall and thin and lightly dressed. His only burden was a little axe. Guides in New Brunswick are not allowed to carry guns—a good rule!

He wore a new pair of rubbers, whose welts and corrugated bottoms made sharp impressions in the snow. At every step my shoe packs slipped an inch on the level and all the way back on an up grade. In the first forty rods it developed that Rob's natural gait was about three miles per hour. I was reeking with sweat and hung my sweater on a stump. Pity I hadn't hung eight or nine more garments there!

Brown's parting advice had been to get meat, for the supply was low. Anything would do, buck, doe or fawn. There are no restrictions in New Brunswick as to size or sex of deer. So we "took out" up an old skidding trail toward an open hardwood ridge. The tracks were scarce that morning. My much-derided theory is that even the moose and deer are somewhat taken aback by the first snowfall each year and hide in the thickets temporarily till they see what's up with their world. I was blowing hard when we reached the top of the ridge. The view was inspiring. In all directions were similar hardwood ridges with soft-wood swamps between. The guide pointed out several as being easily identified, but they all looked alike to me and later I observed that each one in turn was quite likely to be designated as "the black mountain." This similarity is so confusing that we were lost for an hour or so at a time, almost every day we were out. There is no satisfactory map of this region, though a survey has just been completed and prints are promised by the government for next year.

Off to the southward was the "big dead-water," a placid surface two miles long and a hundred yards average width, fed by our little Ridge brook and similar streams. It is on this pond that most of the early fall water hunting is done. The old lumberman's dam at the foot of this reservoir is eight feet high. They say that two feet more would back the water over the ridge into Lindsay Brook, the Wapske, the Tobique and the St. John.

As it is, this pool is the beginning of the southwest branch of the Miramachi, which flows first south and then north-eastward, is joined by the Northwest Branch and empties into Miramachi Bay on the Atlantic Ocean at Chatham. It drains all the east central part of the province. Its system parallels on the south, the valley of the Restigouche, most famous of all eastern salmon streams. Every foot of the latter river is owned by millionaire sportsmen. The Nepis-

*It is astonishing what weapons men carry into the woods for moose hunting. One Englishman had a .450 Rigby, which is a double-barreled English rifle of thirteen pounds weight, striking a blow of two and a half tons, designed for elephant hunting. The load is cordite and a hollow, pointed, soft-nose bullet. This man didn't get any moose. On the other hand, the game warden, who was conceded to be the best woodsman of them all, carried a .45-70, which is the ammunition that was called "archaic" in 1898. The guides favor the .33 Winchester ammunition and rifle. Guides generally favor Winchester action and are prejudiced against bolt guns. They speak well of the .35 Remington automatic and the 7 M. M. Mauser loads. Strange to say, they don't like the Canadian-made Ross rifle, which is much admired here. The .333 Jeffries or "big Jeff," price \$135, is a beautiful weapon, weighing nine pounds, nicely balanced, with a long, tapering barrel and Mauser action. It strikes a blow of 42,000 foot pounds and ranks above the world's army rifles in power. It is properly a grizzly bear gun. My notion is that, taking everything into consideration, including sentiment, our 1906 Springfield 30-caliber army cartridge should be a Yankee's first choice for a high-power hunting ammunition. Either Winchester or Mauser may be had to carry it. The Ross rifle might well be chosen for Canadian wilderness hunting, as it should be possible to get ammunition for this gun wherever the mounted police are found. The little Jeff, the 6.5 M. M. and 7 M. M. Mausers and Mannlichers are all admirable moose guns.

guit, which lies between, is pretty well taken up, too, but at certain spots one may obtain permission to fish at \$10 per day, nothing whatever included, just permission. For some years I expect to take my salmon out of a can. However, salmon may be caught in the Miramachi and the Tobique for nothing.

Looking out over the ridges that morning, we raised the question, Suppose one should be entirely lost, what would be his best policy? Evidently, to head west, for if he could penetrate twenty miles or so of swamp, he would be sure to strike some clearing along the Tobique, while in any other direction one might journey nearly one hundred miles before getting out of the wilderness. However, we had an easily recognized barrier in the two brooks running to opposite points of the compass.

In an hour we struck fresh deer tracks, which Rob followed at a pace that kept me slipping stumbling and perspiring. Within a mile or so he started the deer, which sprang from behind some dead stuff and vanished down a brook in a jump-and-a-half. Poor work!

We back-tracked a ways and picked up some moose signs which meandered about toward all points of the compass. Apparently there were two moose, a cow and a calf. With nothing better to do, we traced them along, for a New Brunswick guide loves moose tracks for company, on any occasion. The hoof prints are as wide as cattle tracks, but longer and sharper in front. Sharp toes, dew claws close together, clean stepping and steps close to a median line, indicate a cow. "Hookings" of bushes and trees, detours around narrow passes between trees, dragging toes, worn toes, steps spread from median line, with peculiarities in droppings, indicate a bull. These tracks gradually straightened out and took us back in a bee line nearly the way we had come, Rob setting a swift pace. The animals must have been startled, for they headed for a big swamp, and we had to give them up.

Then the heat and weariness took good hold on me and I realized that I had twisted an ankle. Our homeward journey seemed long and painful, and I had to call a halt at some of the steep ascents, and violate the rules of the game by lighting up the old briar.

The First Moose.

As we reached the clearing Rob gave a startled exclamation, for on the platform stood the big black head and spreading antlers of a freshly slain moose! Brown, Charlie and the old man were beaming with joy.

"Got him the first hour."
"The tracks Barron saw last night."
"Not over a mile from camp."
"About forty-five inch spread and ten inch web. Twenty points."
"There were four of 'em, and this was the best."

"Downed him first shot."
"Plenty of meat now."
"We got back at 11 o'clock."
"Let's hurry and eat and go back for the meat and hide."

Lunch was nearly ready, but I had to have a hot bath in the little folding tub and an alcohol rub before I was ready for it. I must have lost ten pounds that morning, a regular prize fighter's workout.

Charlie and Rob "skinned out" the moose that afternoon, while Brown retold the story, and they lugged home one hind quarter taking turns, and a pack basket full of hide, tenderloin and sirloin.

So the first wild moose I saw was dead and headless, and we were not without moose meat for a single meal on the trip.

Brown's little Winchester thirty-two special had been effective, al-

though it had not force enough to shoot more than halfway through the big breast. The bull had staggered to his feet after the first shot, but two more behind the shoulder had finished him quickly and mercifully. The distance was less than a hundred yards and the bull was walking off when Brown fired first. The shots may have started our two moose.

The old man had set his steel trap in a boneyard near the cabin, and just at supper time we heard it snap, followed by a long succession of the most agonizing screams. We carried it in, clog, chain and fur, and found

sweater, pants remorselessly "staged" at the knees and baseball stockings, we made an early start. As we slipped along a hillside, a breaking branch behind us caught our ears. Creeping back in the snow, we were treated to the sight of a handsome young buck feeding daintily on a little balsam, all unconscious of danger. The wind was toward us, and though he raised his head between mouthfuls and stared in our direction, he may not have recognized two gray things on all fours, as enemies. The distance was not over ten rods. He was nearly black and had two or

down on two cows feeding. They soon grew uneasy and started. Rob tried to detain them with a call through his hands, but got unexpected results. The moose in sight didn't stop, but a cow out of sight down the hill bawled in reply.

We sneaked in that direction, and soon saw a cow and a young bull. Rob claimed to have glimpsed another and larger bull, but I didn't. So that day we saw two deer and at least four moose all within easy range.

Brown had begun his unremitting partridge hunt and had bagged several with his little 22.

On Sunday New Brunswick laws forbid hunting under penalties of revoking both guiding and hunting licenses. The people of that region are certainly models. They don't drink, swear, gamble or hunt on Sunday. Not a pack of cards was allowed in Cox's lumber camp!

Seymour Trafton, the game warden, showed up that day. He had tramped in from the village to bring Charlie a knapsack full of bacon and butter. This was fairly obliging of him, and he took out some post cards for us besides.

He staid for lunch, but was eager to get away, as he had located the tracks of three bears, and bear skins are worth forty dollars apiece. He expected to take his blankets, gun and grub and follow them in the snow for a week, if necessary. Forty miles a day was his regular stint, and sleeping out in winter had no terrors for him.

Brown took a few pictures that day, and my ankle got a rest, but the cook camp worked overtime, while we hugged the bunk-house stove. Sometimes the green birch with its curling parchment bark did not heat up much, but as they say in the Adirondacks, "It makes a quick fire and you save the wood."

The First Deer.

On Monday, I fired my first shot. We had been mildly rebuked by Brown and Charlie for letting that young buck go. So as we were following moose tracks through a swamp, we started a big deer and decided to have him. He stopped in a little bush out of curiosity, and it was easy to drop him with a broken back and finish him a second later with a ball through the heart. The 303 Savage may be light for moose, but it is heavy for deer.

The horns were big enough, but ugly and flat in the beam and almost webbed at the points. They might be mistaken for antelope horns. It was a funny year for horns up there anyway.

We skinned him out and found him very plump and fat. We hung him up and took his head along.

After lunch we again took up some fresh moose tracks. It was getting to be a habit, but this time it led us into a situation that would give almost any sportsman heart disease.

As we crept along a ridge beside a fallen spruce, just beyond a big birch we each saw something big and black and tried to nudge each other. I wanted Rob to see what I saw and he wanted to show me his discovery. Each of us was looking at a fair sized bull. It promised to be the decisive moment, and I threw off my safety catch.

Just then there was a rustling and a deer came bounding toward us up the hill. The two moose looked up idly at the deer, then went on feeding. The deer stopped at our spruce and nibbled away within fifty feet of us. He was a handsome brown buck, short legged and fat, with a beautiful whitish neck and exactly ten points on his red horns. Count them? I could have hit him with a snow ball!



SOME OF THE CARTRIDGES USED BY MOOSE HUNTERS.

he had caught a beautiful sable. Trapping is terribly cruel. The little beast's foreleg was crushed. It seemed to look about almost hopefully with its bright, beady eyes, for relief. The fur must not be damaged or pierced. We beat him on the head with a little stick, while he spit and kicked and bled at the nose. Then we put the stick on his neck and stood on it for ten minutes till his little sides ceased to heave, there under the lamp light on the cabin floor. His fur is worth perhaps ten dollars raw. They turned it inside out over a stretcher and hung it over the stove. They had an ermine there already and prospects for winter trapping looked promising to Rob.

As we turned in that night at 8, well fed and content, we recalled Big Smith's appropriate remark, "Wall, sir, we ain't skunked, now." This ended the first day's hunting—and it was a Friday!

Wiser Next Day.

Next day, with my clothing reduced to two thicknesses, undershirt and

three points on each horn. We crept away again and left him to grow bigger on his prickly diet, for somebody else's meat another season.

That certainly is a great deer country. Before noon, as I sat down to tie a shoe lace, a blackish doe came slipping by. She wasn't feeding and she wasn't startled. She was just enjoying a brisk walk in a straight line, from nowhere to nowhere else, and wasn't interested in men folk. Rob's chops rather quivered, for doe meat is highly esteemed by the natives, but bucks are plenty good enough for any one and can be better spared.

At lunch we "biled the kittle" and had tea with our cold meat and biscuits and butter. This is the best part of the hunting to my mind, and in a country full of big birches and little dry standing spruces it is no trick at all. Many of the finest birches had been stripped, however, possibly for canoes or roofing.

After lunch we ran into fresh moose tracks, which within a mile led us over a ridge, where we could look

Such a situation! Three standing shots in sight at once and all good trophies. But reason and common sense forbade action. Neither moose looked to us as good as Brown's, and we had one deer to our credit and on our backs already. It was only the third day of my hunting, and ten days more were to follow. We decided reluctantly to leave ourselves something to hunt for. In ten minutes or so, the deer saw us, and couldn't believe his big eyes. He looked and stared and moved his head. Then his distended nostrils caught our scent and he bounded clear of the brush.

But a buck is a game sport all right. This one stopped, stamped and whistled till his moose friends gave attention, before he galloped away. Even at that time, all three would have been easy picking. The moose finally turned and trotted out of sight, leisurely, one at a time. They may not have seen us at all. Ah, well, those were three handsome creatures. I trust that the buck, especially, may live to transmit his beauty to numerous progeny, for he was the only deer I saw in those woods whose head was perfect and graceful.

Our story that night was a thriller, but our self-control didn't win anybody's approbation. "Waitin' for a bigger head than ours, be you?" said Charlie. "You'll be lucky to get any now. Me and Mr. Brown was out scoutin' for you, but to-morrow we'll let you do your own huntin', while we make a trip to the lumber camp for taters."

Now Brown had been scouting for a deer, as we knew, for we had crossed his and its tracks, and his guide was merely covering up their disappointment that we got the first one. However, coming back with their sack of supplies next day, they had better luck. A buck had snorted ahead of them and they had given it up. Charlie was kneeling in the snow to adjust a pack strap, when from that position he was able to make out a deer's shoulder at least a hundred and fifty yards away, under some low branches. When they were satisfied that it was unmistakably deer, Brown put a bullet to the spot and they skidded him a mile down the mountain side and left him hanging by the tote road. He was a big one, 300 pounds probably, but had the ugliest, misshapen little spike horns ever seen, a regular deformity.

Now, wasn't that luck! and all over a loosened pack strap—my strap, too, by the way.

Rob and I saw nothing that day, though we listened to the most prolonged whistling from a deer in a thicket that I ever heard. Out of breath, as I usually was with the guide's speed and my slippery moccasins, that lavish expenditure of breath by the deer always made me sore. When I say we saw nothing, partridges must be excepted. We always saw partridges, big, fat ones, usually on the ground and within a few feet of us. Sometimes one would flutter up into a tree. The old drummers would drag their wings in the snow, leaving a clear record of their vanity.

On Wednesday we saw a cow and a young bull in the morning and two more in the afternoon. This second cow saw us quickly and turned to go, but Rob gave a call and she stopped and turned back around to get another look. The younger one was now staring at us, but wise old mother gave a harsh scolding bellow, as if to say, "Come on, you brat," and the two of them galloped away.

Moose a Proud Animal.

A moose is an enormous animal, at least as large as a big black steer, and with a hump on his shoulder. It is astonishing how quickly and noiselessly they can slip away in the forest,

putting the trees behind them so that after they start one rarely sees a flick of hide. They are too proud to run until they are out of sight. They have no waving flag of a tail, and they do not jump high like a deer, but their speed is probably fully as great. They do not whistle or stamp before they go either. After a few jumps they may subside into a trot, as their tracks indicate—I didn't see it done—and no doubt they can trot all



A DAY'S KILL.

day, and they may not revisit the same neighborhood for years.

They do not seem to make or follow runways as deer do. They lie down in the snow any time or place and chew the cud. When the bed of a bull is found, the marks of his big horns may be seen where he has tried to rest his head on the ground. When they feed, their slobber drops, bright pink, on the snow. They have no front upper teeth, but a hard gum against which the lower incisors cut fairly thick branches. The side teeth are big pointed molars—saw molars or pulp molars, one might say, well fitted for chewing browse.

Moose live to be very old, in fact it is said they do not reach full maturity until they are eleven years old, and probably survive till 30. The little spring calves grow remarkably fast and are nearly full size by December.

It seems astonishing that the bulls shed their enormous horns every winter and grow them again every summer. While the moose horns are growing they are covered with a velvety skin and are very tender. This is the period when the cow and her two calves are found in the densest swamps and brushy thickets. The bulls try to kill the little calves, but while their horns are sensitive, they cannot enter the thick growths.

In the winter, six or seven moose will "yard" together in a swamp. Bulls usually herd and yard together and cows and yearlings yard together.

Strange that the bulls are good friends most of the year and then fight during September.

The note of the cow in calling the bull is of three parts, first a short roar, then a prolonged, not unmusical tone, and finally a higher pitched gentle whine. The last tone is so difficult to imitate that the guides are inclined to discount the efficacy of calling. The bull responds to the calling by a series of grunts.

To sit in a canoe with a heavy gun in the pleasant September twilight, while a guide calls a bull to the water's edge and then shoves you up within short range, is not the highest

type of sport, and yet that is how the best heads are usually obtained, and at that only about one hunter in three gets a moose, and of course in the mild weather the meat is wasted.

We had set ourselves the more difficult task of tracking down a bull on the mountain side when he is alert to danger, and his ears on guard for the least crackling twig or rustling leaf, and his big flaring nostrils keenly sensitive to catch the scent of malodorous man in his sweet forest. Moreover, we proposed to haul out the frozen meat on a sled, to cut down the cost of living this winter at Reed's Island.

Brown got more partridges Wednesday. He "kep her a-comin'," as the lumberman said, bringing in a few every day till the front of the cabin was well decorated with them. But the moose question was getting serious with me. We had seen ten, but only two that were possibly worth shooting.

Thursday morning we took up some big tracks, which Charlie had seen near camp the night before. We scrambled and waded and struggled through marsh and thicket and finally came to the edge of the dead-water and had to "fall" a tree for a foot log. Then more thickets and muck, and stumbling and sweating and tracking and peering through the shadowy places, for perhaps four miles.

Rob was going too fast for me in the miry, slippery, tangled footing. When making a desperate effort to

and had christened it "Barron Camp."

On the way over we saw two cows, each with a grown calf. One young bull stood till we were within six or seven rods, my closest approach of the trip.

Hunters always forget something, when they don't make check lists. This time it was the flour. Charlie finally found a tin box full of it, which had been left two years before and had been visited by mice. He made a sifter by punching nail holes in a tin can, and in the evening he was able to make very good biscuits out of it, baking them in a big tin reflector in front of the blazing fire.

Bull Bagged at Last.

After lunch Rob and I started down the abandoned and overgrown logging road to the southward. The conditions were ideal, a fairly clear trail, bordered with undergrowth, with open woods on each side. Soon we heard a cow bawl and by a slight change in our course we came upon her and her two grown-up calves. Further along we saw another cow and a calf. Then unexpectedly, we came upon the bull, almost ahead of us, not more than a rod to the left of the trail and perhaps a hundred yards distant. He had just walked out from behind a clump of trees and was raising his head to scent us. His left side was toward me. Rob jumped to the right. I aimed quickly for his heart and fired. He stood there unmoved. Remembering Barron's advice, I put three more balls in the same place as rapidly as



THE "DEER HOGS" RETURN.

travel quietly, one feels a strong impulse to kick off his clumsy shoes and tip-toe barefoot in the snowy woods. If anybody asks what are the sensations of a big-game hunter, those are mine.

We came on this moose suddenly in the swamp, but he had heard me step on a twig and was on the move. Rob said "bull," and without asking how big, I fired ahead of a scraggly hind leg disappearing behind some bushes. It was a hasty and wasted shot, and though we followed, we saw no blood in the galloping tracks, but Rob seemed to be encouraged that I had made the attempt.

That afternoon we carried home the rest of my deer, which had frozen solid, and made a fairly comfortable yoke.

Next morning, Charlie, Rob and I packed seven miles southeast to a broken-down lumber shanty, which had been abandoned some ten years before. Most of the roof had fallen in, but Mr. Barron and the Doctor and the guides had made one corner habitable and had enclosed the other sides with shakes and slabs in wigwam fashion, leaving a great hole in the roof. They had carried stones to make a fire place and boughs for beds

aimed shots could be fired. It seemed like a battle to me just then, and I was swinging the lever and firing with all the fierce joy of a soldier. The bull staggered around face toward us and then walked into the path and stood tall on.

"He's pretty sick," exclaimed Rob, running in front of me and waving his ax. "Now's your chance."

I was stopping to refill the magazine, while he jumped around in his anxiety. Rob joshed me afterwards by saying that at this critical moment I threw on my safety and couldn't pull the trigger. That was just about the sanest thing I ever did in my life. If I had had handcuffs I'd have put them on and if I could have put leg irons on Rob, that would have been better yet. We were looking at the situation from different standpoints. He thought I was a poor shot and that the gun was too light and that the moose would soon recover and escape. I felt perfectly sure that the animal was dying on his feet. However, when the coast was clear and the magazine full I fired twice more, hitting the hip and ranging forward. The beast took a few jumps, during which I grazed his ribs with another bullet, and settled down to die. I went up



THE HOBBY CLUB OF NEW YORK ON AN OUTING.

Members entertained recently by Theodore N. Vail at his Vermont farm, Speedwell. From left to right: Upper row—Albert Gallatin, John C. Tomlinson, William K. Bixby, Alvin W. Krech, George A. Plympton, Henry H. Harper and Prof. William P. Trent. Lower row—J. C. Tomlinson, Jr., Dr. Bashford L. Dean, Darwin P. Kingsley, Theodore N. Vail, William M. Schnitzer and John D. Crimmins. Henry H. Vail in the foreground.

close and took careful aim, for I had only two cartridges left. The dust and hair flew as the merciful bullet pierced his tough hide, and with a sigh and a spasmodic wave of the big black hoofs, the great head dropped in the snow.

He was a very big moose ("that's what they all say"), as big as any the guides had ever seen, but his head was not remarkably fine. It measured exactly the same spread as Brown's, but had less points. His muzzle is a handsome light brown, whereas Brown's moose-head is shaggy black.

Charlie came running from camp and helped to skin out the head. I shall always regret that we did not skin the body, for Rob and I disagreed entirely about the damage done by those first four shots. When we opened him up to get out some tenderloin, we found a bullet hole through the meat and one through the stomach, as well as those in the hip and the heart. In fact, that moose was pretty thoroughly shot to pieces.

I brought a little of the sirloin and tenderloin back to Chicago, wrapped in a poncho in my trunk. We hung the hind quarters up on limbs of trees—it took all three of us to hang up a quarter—and blazed a trail and later sent word to the lumbermen, who will come on snowshoes with toboggans, when the snow is deeper, and get that sweet meat to vary their bacon-and-beans diet.

So after all we "wa'n't skunked" and the mouse-flavored biscuits and marmalade and fried venison tasted pretty good at our supper by the blazing fire.

Now all this happened on Friday, November twenty-third! That night the full moon shone in through the smoke-hole, but I pulled my hat over my eyes, crept into my blankets, and was soon asleep. Then I was awakened

by a crunching sound. I slipped to a cranny and looked out, expecting to be able to tell you that I had seen two or three moose walking right past our camp, but what I really saw, when my eyes got accustomed to the shadows, was a porcupine gnawing on a log.

I yelled and whooped at him till Charlie and Rob sat up in amazement, but the steady gnawing continued. Then I chased out into the snow in my stocking feet and drove him away with sticks of wood. No! I didn't kick him! The old woodsman says it is bad luck to kill a porcupine, the only meat an unarmed man can secure if lost in the woods. But the younger men abominate them, for their destructiveness to camps and supplies is a great nuisance.

Next morning we found another sable in a trap placed near the entrails of a deer. This trap had been set with a spring pole and no doubt the poor little beast had hung suspended and screaming with its broken leg for hours. We killed it like the other, by beating and choking. It was lucky that we got our moose when we did, for that morning there was a noisy crust on the snow, making still-hunting difficult. This was the only poor hunting day of the entire trip, for otherwise the weather conditions were ideal throughout our stay. It snowed a little almost every night, covering up the old tracks and making the woods quiet.

We carried the moose head and our packs around by a dam and a dead-water in the Beaver Brook that runs into our Ridge Brook deadwater to help make the Miramachi. Here we tried to get a trout for lunch, using a bent safety pin baited with moose meat, but couldn't get a rise. We also discovered a single discarded moose horn. Thence homeward our

course lay through the woods, and "breaking brush" with a pack or a pair of antlers to lug is not a pleasant job.

The moose-wood or witch-hopple undergrowth revenged its namesake by tangling our feet. I carried my pack by a head strap only, which the New Brunswick guides do not approve, as it restricts the view. The method had the great advantage, however, of allowing the pack to be shed with a shake of the head, in case of a fall or a chance for a shot.

We ate a cold lunch in the woods and speculated as to our course, with much consultation of compasses. We couldn't have been over five miles from camp, and as it developed only one mile from the trail. It is a little country. In an hour or so we worried our way through to the beaten path, which was a good thing, for the added weight of the packs was telling on us. We started a couple of deer, but hardly saw them. One of them must have had a big head, for his horns fairly rang against the trees.

Brown met us on the trail with his inevitable partridge gun. He was fully as well pleased with my final success as I was. He gave me the laugh because my trophy was no better than his, in spite of our exertions.

He had a story of his own to tell, for the evening before, favored by the wind, he had walked up within eight paces of an old cow that was lying down chewing her cud, without alarming her. He thought he could have gone closer and actually have touched her, but that would have been foolhardy, with nothing but a 22 between him and her big hoofs. So he walked around in a half circle till she saw him and sprang to her feet in astonishment. Now, you couldn't do all that with a deer. Moose are either less wary or more self-confident. Per-

haps the cows know they are immune. Sunday morning Brown took pictures, while Charlie imparted to me weighty words of wisdom on the subject of careful and accurate shooting. Just then an ermine stuck his head out of the woodpile. Charlie grabbed the 22 and missed it clean, at a distance of five feet. Thus ended the morning lesson!

In the afternoon we went down to the big deadwater to take a canoe ride, and Charlie brought his fishing pole along in hope of a trout. We passed the almost human remains of a bear, one of three shot in the fall by a New York sportsman. There had been an old she-bear with two cubs across the deadwater from him. As he laid the big one low, one cub climbed a tree and the other ran away. He shot the first one and the second returned and stood facing him with its forepaws on its dead mother's side. He fired carefully and the young one slipped into its mother's arms and died with its nose up under hers. There is something entirely too human about black bears, and they are not very good to eat anyhow.

The ice was too much for the canoe and Charlie had forgotten the bait, so we came back to find that in our absence Rob had made doughnuts. I put in the rest of the day darning socks over a tin can. Monday it snowed and blew enough for an excuse, and I staid in to rest and made two long benches for the cabin. Brown went deer hunting, Charlie went out to the settlement after the sled, and toward evening I took a walk up the hill to a clump of spruce to see if the deer were stirring, but not a track did I find. On his way out, Charlie met a fourteen-point buck in the trail. Brown didn't see anything. Next day Rob and I visited the lumber workings and had lunch. One boy was

laid up with a badly chopped leg. All told, we saw three such victims on our trip. It is the tail end of the lumbering up there and the spruce logs they were cutting wouldn't make better than thirty-five or forty foot telephone poles. The "cookee" had a Mauser army rifle, the "dingie" proved to be the old man with the shot gun, and plenty of game was hanging in the shed. A camp is only allowed two bull moose in a season, but there is no restriction as to deer.

One of the moose had charged them when they thought him dead, and they had had to run for it and leave their gun behind. He soon collapsed, however. The probability of moose charging, nevertheless, is not considered very great.

The lumberjacks were mostly young boys, in their teens, about thirty in the crew. Their English-made axes seemed very clumsy and thick, but that was said to be necessary on account of the spruce knots.

On the way back we could have shot a doe and a fawn. The doe ran away swiftly and quietly, but the fawn jumped high in the air in an apparently playful exhibition.

Rob couldn't restrain himself from following some moose tracks, and we came on a cow and a yearling. The youngster saw us first and stared. The mother came over to see what was so interesting, took one look at

ter. He claimed that it was the only whole deer ever hung up on Ridge Brook cabin.

But late that afternoon the nefarious weasel that Charlie had missed carried off a dead squirrel from a stump in front of the camp, before the old man's very eyes, an occurrence which temporarily marred his triumphant day.

Wednesday, our last day, and the cards the night before had foretold a mistake! One deer had seemed plenty to me, but since Brown had brought in two, we must have another to hang beside it. We figured that the weather would drive them to the swamps. I was carrying my Winchester, which I had not fired as yet on the trip. It is a handsome little gun, but is sighted too fine for snap shooting. We followed the fresh track of a deer through a swamp and presently Rob jumped it and gave up the chase. I had a different notion, which proved to be correct, for as I lagged behind and studied the steep hillside, I spied it slipping along back on our right. It did not want to leave the swamp. At first I could not see any horns, and lowered my gun. As it disappeared, I caught a glimpse of its horns, which were fair. I ran back to where there was a better opening and fired at a little patch of hide behind a log. There was no opportunity for a second shot. That buck's jumps measured fifteen feet regularly,



ETHEL KENNEDY.

Hersey, from the settlement, walked ahead and had a standing shot at a big buck, but maybe he had buck fever, for he didn't shoot.

Our Thanksgiving dinner was necessarily a lunch of cold meat and biscuit, with the final "biling of the kettle."

After we passed the dinner hole, however, Hersey had another chance, and we heard his big gun roar. The buck, though shot through the heart, plunged down a hill a hundred yards and dived under a log before he died. Deer are surely more game than moose.

So we reached the Tobique ford at dusk with four deer and parts of two moose on the sled, the biggest single load of game ever hauled out of those woods. It was a long twenty-two miles of bad going, but Mr. Wright at seventy-eight walked practically every step of the way! Including this jaunt, I had tramped a total of 120 miles on the snowy hillside, a fine outing in itself. My waist measure had decreased three inches.

Would the sled float at the ford? "Wall, she'll sort o' sink and float," said the old man. We didn't risk it, but transferred our game and duffle to a wagon.

And thus ended the hunt which started on the thirteenth, lasted thirteen days, and began with thirteen at table, and of which the lucky days were the two Fridays, the latter of which was the twenty-third! And I saw exactly twenty-three moose! We did not see a single caribou (reindeer), nor even a track on their favorite barrens. Several were shot, up Riley Brook way, however, about forty miles to the north.

Still hunters for moose and deer may well wait till the last two weeks of the season after the snow has fallen, and then go to New Brunswick, for it is a veritable happy hunting ground. And take plenty of socks, for as Rob says, "Lots depends on how a man dresses his feet, an' furthermore, a man should allus strip his feet when he comes in, and hang his footin's to dry over the stove. Rubbers with heels is best, and I never wear shoes or laced boots if I can get larin'ans."

GIRL STICKS UNTIL DRIVEN FROM BOARD

Night Operator at Royal Oak, Mich.,
Sends Fire Alarm to Ten
at a Time.

Michigan again comes to the front with a story of a plucky Bell telephone girl. This time it is Ethel Kennedy, at Royal Oak, Oakland County, who stuck to her board on Sunday night, November 24th, until smoke absolutely drove her off, trying to notify as many persons as she could "bunch" with her ten cords at a time that there was a big fire in the block where the telephone office was located.

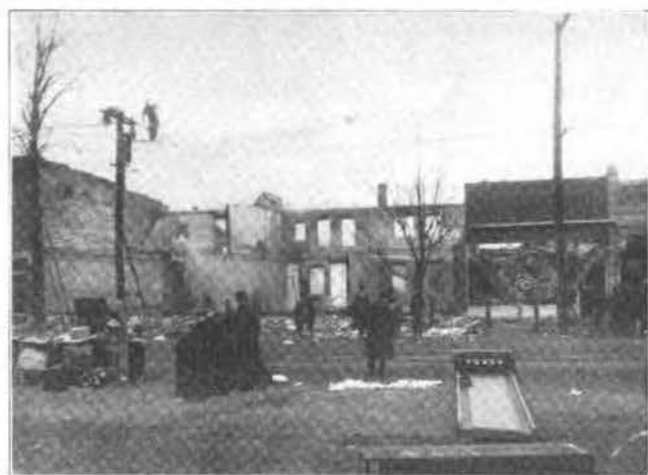
It is stated that a bakery with an over-heated oven in the back of the ground floor of the building in which the telephone office was situated on the floor above, which caught fire this Sunday night, was the cause of the trouble. It burned for some time before any one knew anything about it. Miss Kennedy, the night operator, was the first to be notified—the notification consisting of the glass windows downstairs in the rear of the building being suddenly beaten in by the flames and the room filling with smoke. It was half past eight o'clock. Jumping from her chair to investigate, she found herself driven back, but instead of leaving through the doorway she returned to the switchboard and called Birmingham for J. M. Kelley, who is Manager for both exchanges. She then called William C. Kirk, Detroit District Plant Chief, who lives at Royal Oak where he has a farm. One of Mr. Kelley's men, Lineman Mudge, was also in Royal Oak at the time and was promptly on the ground.

Miss Kennedy started putting up her cords in a room filled with smoke, saying in one sharp incisive sentence to ten subscribers at one time that help was needed on the ground, then, without waiting to know how many had received the message, notifying ten more. She says that she doesn't believe many of them actually got the message. But she stayed to give it, and, after all, that's the point!

Mr. Kirk was working in his barn when he got his call, with his father-in-law, a former fireman. Both grabbed lanterns and hurried over in their "farm clothes." The exchange cable burned through but several men saved the pole. Mr. Kirk called up Martin Ewald, installation foreman in Detroit, over the dispatcher's wire of the Detroit United Railways, and the latter collected his crew with so much energy that he got them into Royal Oak before 10:30. Toll service in fact suffered no more than about an hour's interruption.

The switchboard was burned to ash, and nothing was left of the office except some charred splinters, but a new board was quickly installed in the electrical supplies office of Harry Smith, who offered the space with courteous promptness. The new switchboard was part of some equipment intended for the exchange at Milan. This board was expressed to Detroit, there met by an auto truck, hurried to Royal Oak, and quickly installed in a temporary office by Mr. Ewald. It is a No. 105 board with two operating positions, equipped for 250 lines, the old board being a No. 3. There are about 250 subscribers at Royal Oak. Local service was restored Tuesday morning.

About \$30,000 damage was done to Royal Oak property by the fire. The photograph, by R. Alger of Royal Oak, was taken early Monday morning. The new office was expected to be ready about the first of the year.



ROYAL OAK, MICH., AFTER THE FIRE.

This picture shows the scene of the Royal Oak fire early on Monday morning. A cableman is completing the splice to the new office, which is in the next block, to the picture's right. This work started the night before, by lantern light. The desk in the foreground is not a remnant of the furniture of the telephone office, for not a stick of this furniture was overlooked by the flames. But everybody at Royal Oak is cheerful, and rebuilding was well under way in a few hours.

us and fled, followed by her offspring, who seemed to believe that mother knew best.

This was the great day of the old man's declining years. He had led Brown out to a chosen spot, where deer tracks were plenty, and with unerring aim Brown had shot a handsome young buck, whose belly was streaked with white. Mr. Wright insisted on taking it back to camp whole, so they made hazel withes and dragged it in the snow till they were tired. After lunch they went back with a rope and a pack strap, and harnessing themselves like a team of horses, they brought home their meat in triumph. We saw the story in the snow as we came along, and the buck hung suspended over the front of the cabin. Perhaps that is the last game the old gentleman will ever fetch into camp, and certainly the village will hear the story over and over this win-

and not a drop of blood. It was a clear miss, probably high, though I had kept the peculiarity of the sights in mind.

We "biled the kettle" and after lunch we found tracks innumerable and great areas trampled as if in fight, and we finally found where six deer had crossed the pond on the ice, first carefully testing it by short ventures from shore.

This finished our hunting, with a moose, two deer and sixteen part-ridges for Brown and a moose and a deer for me. And we had been in the woods just thirteen days!

Next morning, the moon and stars were still shining when we broke camp. The woods sled with its trailing poles was piled high with duffle and game, and the guides took turns driving, while the rest of us tramped behind.

A young hunter named Lawrence

LARGE CROWDS VISIT ILLINOIS EXCHANGES

Very Successful Visiting Days at Rockford, Galesburg, Wheaton and Chicago Heights

Visiting Days, held at two Central Union exchanges in Illinois and two Chicago Telephone suburban offices during December, awakened a public interest in the telephone system that became more apparent with each succeeding day. In nearly all exchanges where these visiting days were given the last day's attendance was nearly equal to that of the preceding two days.

These visiting days—based on the hypothesis that the public, knowing little about the telephone business, will benefit by a closer acquaintance with the Central Office equipment and operating methods—have been found by experience, to reduce the number of unreasonable complaints and to bring closer accord between telephone users and the operating company.

At Wheaton, Rockford, Chicago Heights and Galesburg, where the receptions were held last month, each department assumed its share of the work. All publicity matter—newspaper advertising, window cards, invitations, signs—was prepared under direction of Clifford Arrick, Manager of Publicity at Chicago. Commercial Managers attended to the placing of publicity matter and the general details connected with the reception and entertainment of visitors. The Plant Department assumed responsibility for explanation of apparatus and equipment in the exchange.

To the Traffic Department was given the task of explaining the operators' work at the switchboard, courteously pointing out the errors to which the subscriber is liable, and finally, of serving refreshments and presenting



VISITORS AT THE GALESBURG EXCHANGE ASSEMBLED IN THE COMMERCIAL OFFICES READY FOR TRIP OF INSPECTION UNDER GUIDANCE OF EXPERTS.

visitors with flower souvenirs of the visit.

To avoid the confusion likely to result from the passage of hundreds of visitors through an exchange in a few hours, organization of the work was necessary. At Rockford, where 1,600 people visited the exchange in about five hours, there was no confusion or congestion. Each visitor heard the

clear, brief explanations of each piece of apparatus—none was permitted to leave without full explanation of any question that arose during his progress through the exchange.

Assembling in the commercial offices, guests were gathered into groups of from five to ten persons, then were conducted to basement quarters for explanation of battery rooms and cables. Two or more experts were ready in the apparatus room to explain distributing frames, apparatus and the wire chief's desk. From thence the visitors were led to the operating room where operators were at work. Special apparatus allowed a demonstrator to show the several steps in making a connection, while at the same time commenting upon the errors to which the subscriber is liable.

The original hypothesis, as stated above—that the public is little acquainted with central equipment or operating methods—was clearly proven by the visitors at these reception days.

A college professor—instructor in physics—explained that while he had taught the fundamentals of telephony for years, yet he was astonished at the modern equipment and apparatus in our local exchange.

A chief of the fire department, who, it is supposed, has a fairly accurate conception of the telephone switchboard, happened in at the exchange for a "few minutes look," but he remained throughout the afternoon and brought his family to the exchange again in the evening.

Visitors who often called at the exchanges apparently out of pure curiosity, warmly thanked the Manager for the opportunity to visit the exchange, after they had remained in the building for an hour or more.

Although visiting days were held at a time when the public mind was largely intent on the purchase of Christmas presents, yet in each case it was found that the total attendance approximated ten per cent. of the pop-

ulation. When it is realized that each visitor probably discussed his visit with two or more friends, the real effect of the visiting day receptions can be estimated.

Under instructions from W. R. Abbott, General Commercial Superintendent for Illinois, the visiting day campaign will be continued in that state at numerous exchanges during 1913.

TWO SYSTEMS TO BE ONE IN LEXINGTON, KY.

Important Beginning Made Toward Single Telephone for Blue Grass State.

An important beginning has been made in the work of eliminating useless duplication of telephone service in Kentucky. By the terms of a law passed last year, the regulation of the telephone business in Kentucky is placed in the hands of the State Railroad Commission. Application has just been made to this commission to sanction a sale by the Cumberland (Bell) Telephone and Telegraph Company to the Fayette Home Telephone Company of its property in Lexington. The Home company expects to handle the local traffic and the Cumberland company the long-distance traffic of Lexington, if the sale is permitted, after the two plants are combined.

The Cumberland company has 1,475 subscribers in Lexington and 57 in Midway. The Home company has 4,075 subscribers in Lexington, 550 in Versailles and 165 in Midway.

Attached to the application was the formal consent of the Lexington City Council and Lexington Commercial Club.



A PLEASING FEATURE OF THE GALESBURG RECEPTION WAS THE LUNCHEON SERVED BY OPERATORS IN THE REST ROOM.

ILLINOIS BUSINESS MEN VISIT WESTERN

Twelve Counties Represented in
Party Which Inspects Big
Works at Hawthorne.

Business men and newspaper representatives from twelve counties and twenty cities and towns of Northern Illinois went through the Hawthorne factories of the Western Electric Company on December 4th. The visit was under auspices of the Committee on Relations with Illinois Commercial Organizations of the Chicago Association of Commerce. E. C. Ferguson is chairman, and the other committeemen are B. C. Hamilton, W. Rufus Abbott, W. W. Baird, J. C. Blair, M. B. Hilly, F. A. Mitchell, J. W. Morrisson, N. B. Parsons, Nicholas Roberts, W. G. Schroeder and Blaine S. Smith. The guests were members of business organizations.

The trip through the factories was arranged by the Chicago Telephone Company. The visitors were taken in groups of five, each with a special guide, through all departments, the trip taking up the whole afternoon.

In a letter of thanks written by Chairman E. C. Ferguson to the Chicago Telephone Company, Mr. Ferguson said:

"The Chicago Association of Commerce, and especially the Committee on Relations with other Illinois Organizations, desire to thank you for your assistance, through your Mr. W. R. Abbott, in bringing about an opportunity for our committee to visit, with its guests, the Western Electric Works.

"It was a revelation to them, and I think will help to make the telephone business in Northern Illinois a little easier for you."

Telephone Helps People to Keep Well

From The Medical Review of Reviews

With the development of modern transportation it was said that the oceans no longer separated America from Europe and Asia, but served to connect them. In a similar way it may be said that telephones have helped to bring physicians and patients together.

The telephone has been a mighty factor in improving the health and welfare of the community. Health bureaus have been able to accomplish their work more rapidly and effectively by use of the telephone. Ambulance service has been developed to a high state of efficiency through the accessibility of telephones in all parts of the community. Rapidity of service, with promptness in telephoning, have served to save many lives that otherwise might have been lost.

The private practitioner, it is true, has suffered a marked decrease in his emergency calls through the recognition of the value of ambulance service and the ease with which one may be summoned by telephone. In fact, the doctor's telephone is frequently used to call the ambulance. Only a few years ago the nearest physician was called for minor conditions at all hours of the night. Today the telephone saves many a long and needless journey. Frequently, because of the knowledge and appreciation that a physician may be quickly summoned

by telephone in case of real necessity, the doctor is not called at all, as some transitory condition has disappeared before morning.

In contrast to this small loss is the gain through telephone visits in lieu of office calls. Such telephone visits may be regarded as office visits on the ground that if telephones did not exist it would be necessary for the patient to seek advice at the office.

Undoubtedly the telephone has enabled patients to cling to their family physician after moving from his original sphere of influence, whereas if there were no telephones such loyalty would have been impossible. Professor Bell and others who have followed him in developing the telephone system added greatly to the comfort, happiness, progress and welfare of society, in all of which the physician has enjoyed his share.

FINDER OF POCKET BOOKS.

Telephone Plays Unique Role in
Little Financial Drama of Dis-
mayed Actor.

The Oliver Twist Company, playing an engagement at English's Opera House, Indianapolis, one night recently, had been in Columbus, Ohio, the night before. One of the members of the company had the misfortune to leave his purse containing all the money he had under his pillow at the boarding house in Columbus. He called a Bell pay station and placed a call for the owner of the boarding house, explaining his dilemma to the attendant. He did not know the name of the party to whom he wished to talk, nor did he know the name of the street on which the house was located; however, it was located near the terminal station and next door to a garage. The call was placed, and needless to say, satisfactorily completed to the intense relief of the patron. The purse was located and returned to the owner.

Buy's Auto By Telephone.

Ordering a \$4,500 automobile is some task for some persons but for others it's a mere incident. This is emphasized when one thinks of ordering a car of that value via telephone without looking into the details himself.

That's what Joe Slomer, superintendent of the Cyclone Fence Company, did—he ordered a new touring car over the telephone and has not seen the car at all, his order being based on his previous knowledge of the car and a thought in the past that he would like to have one of that make some time.

Here's how it happened:

Press Arthur, president of the Cyclone Company, was in Indianapolis for the purpose of ordering a new roadster for himself. He called Mr. Slomer at the Waukegan office via long distance.

"Hello, Joe, are you going to get a new car this year?" asked Press.

"Been thinking of it," said Joe.

"You better order one they've got on the floor above—it's a beaut. I've ordered a new roadster."

"Does it look good?" asked Joe.

"Great. Better jump on a train and come down," said Press.

"Never mind about that. Just order it for me," said Joe, and they each hung up the receiver and Mr. Arthur placed the order for Mr. Slomer's car as well as his own.—*Waukegan Sun.*

YULETIDE GREETINGS BY LONG DISTANCE

Milwaukee Preacher and Choir Boys
in Messages to Mother in
Minnesota.

No man in Milwaukee, perhaps, had a more thoroughly happy and enjoyable Christmas evening than the Reverend Gustave Stearns, pastor of the Lutheran Church of the Ascension, and no mother in all Minnesota, probably, had a happier five minutes of the great holiday evening than Mrs. H. K. Stearns, the pastor's mother, who for that period sat at the telephone in her home in Northfield, listening to her son's seasonable wishes and to the hymns sung by the boys' choir of the Sunday school of Ascension Church.

It was a novel Christmas greeting that made the giver joyful and sent pleasure through the heart of the surprised and happy mother.

Mrs. Stearns had no inkling of the pleasure that was to be hers Tuesday evening. She was rather grieved that her son could not be with her for a Christmas family reunion, but was contenting herself and was wondering just what her boy was doing when the telephone rang and she was summoned to hear his Christmas greeting. Then, before she could insist on continuing the conversation, the boys' choir began to sing, rendering two verses of "Silent Night," in voices that reached Mrs. Stearns clearly and distinctly, she said, and carried with them a rapture of surprised pleasure. Then came a repetition of Christmas wishes and fond "Good-byes."

Prior to the chat with his mother, the Reverend Stearns played the same unexpected game on his sister, Mrs. C. W. Anderson, of Wild Rose, Wis., where his daughter, Mabel, is a holiday guest. Mrs. Anderson heard and repaid the happy wishes of her brother and then listened to the choir sing "Silent Night" and "Adeste Fideles," both of which the listener said she heard distinctly all the way from the parsonage.—*Milwaukee Sentinel.*

MOTHER WEDDING GUEST BY TELEPHONE

Unable to Travel and Son Arranges
for Attendance by
Wire.

That his mother, an invalid, might hear the wedding service which united the lives of Arthur Zell of Rochester, N. Y., and Aurelia Mayer of Newark, Ohio, Mr. Zell caused to be installed at the Mayer home in Newark a Bell long-distance telephone.

When the service was read, the bridal couple and the officiating minister talked into the transmitter of a portable telephone, while in a pay station booth at Waynesville, Warren county, more than 100 miles away, Mr. Zell's invalid mother sat with a receiver pressed closely to her ear listening to the sacred vows taken by the young couple.

Mr. Zell's mother was unable to travel to Newark to attend the service, and the young man was disap-

pointed. He conceived the idea of connecting Newark and Waynesville with a long-distance telephone wire which would all but bring his mother into the room where the ceremony was to be performed.

He consulted Manager Wallace of the Central Union Telephone Company and the necessary arrangements were soon completed. Manager Wallace personally supervised the installation of the portable instrument in the Mayer home and arranged that a good clear line was obtained through to Waynesville. The mother had no difficulty in hearing the service.

S. J. LARNED PRESENTS CUP.

Assistant General Manager Speeds
Parting Chairman of Association
of Commerce Committee.

S. J. Larned, Assistant General Manager of the Chicago Telephone Company, made the presentation speech on the occasion of the retirement of Edward E. Gore, chairman of the ways and means committee of the Chicago Association of Commerce.

The souvenir was a beautiful silver loving cup and in presenting it Mr. Larned said:

"I have been asked to speak a word for the members of this committee who have attempted to keep you in sight during the past year. A year ago you assumed the leadership of the ways and means committee, following a series of men who were pre-eminent, even in the Association of Commerce. Those of us who have followed your leadership can testify that you have not slackened the pace that they have set.

"Next year the ways and means committee will confront the same old problem. Last year the cry was, 'Where can we find a man who can measure up to Adams?' The year before it was, 'Where can we find another Mann?' Next year it will be, 'Where on earth can we find another Gore?' (Applause.)

"It is a pity, perhaps, that we are so firmly wedded to the one-term principle. Perhaps, Mr. Gore, you may bring your conscience to accept a non-consecutive term some time. However, that will not solve the problem of the next year's ways and means committee. Inasmuch as custom has decreed that we must 'tie a can' to you at this meeting, we want it to be an ornamental and honorable can and one which will always remind you of the admiration, respect and affection of this committee which has served the year under your leadership. We beg you to accept this token."

Western Union Changes.

At a meeting of directors of the Western Union Telegraph Company in New York December 11th, a number of changes were authorized, to become effective January 1, 1913. Among them were the following:

Belvidere Brooks, General Manager, becomes a Vice-President, in charge of commercial and public relations.

Theodore P. Cook, General Superintendent at Chicago, becomes General Manager of the Western Division with headquarters at Chicago.

Merger in St. Joseph.

Exchanges of the two companies operating in St. Joseph, Mo., are to be merged within six months after January 1st. The Missouri and Kansas Telephone Company will absorb the Home Telephone Company, the Public Utilities Commission having given consent. The arrangement meets with general approval in St. Joseph.

Message Register Installation Proves Advantageous

By F. M. LITTLE
Main Office Switchboardman, Chicago

Previous to the adoption of the present method of counting messages on measured service lines, a system of specially prepared tally sheets was used. This consisted of a sheet or sheets placed in front of each operator, on which appeared the telephone numbers of lines whose answering jacks fell in her position, below each number a space being reserved for tally marks. For each completed call from any line, the operator must needs place in the proper space a significant pencil mark. These sheets resembled, when partially full, the score sheet of some child's game.

It will be seen that the preparation of the sheets alone was something of a task. Numerous other disadvantages of this system could be mentioned, such as the need for keeping operators' pencils sharpened, keeping pencil points out of jacks, or extricating them when relaxed vigilance on the part of the supervisors or switchboard man had allowed them to get in.

The chart method then, is cumbersome and expensive. Since the adoption of the electrical system the work of auditing has been greatly simplified and reduced in expense. The maintenance cost of the registers is low, there being reported less than two cases per week in an installation of 4,000 registers at Main Office.

A glance at the accompanying cut will show the simplicity of the circuit details. A key is added to each pair of cords, through which thirty-six-volt current is connected to the sleeve of the answering cord. A single jumper is run from the 500-ohm winding of a register to the sleeve of the line at the answering jack block, the other side of the winding being grounded.

The twenty-four volt battery normally on the sleeve of the cord is divided, when the answering cord is inserted in the answering jack, between the cut off relay and the message register, the low resistance of the former allowing enough current to pass to operate it, but the high resistance of the register preventing its drawing enough current to operate.

When the supervisory lamp on the connecting cord goes out, signifying to the operator that the called party has answered, she has merely to operate the register key on that cord circuit, which connects thirty-six volts D. C. to the sleeve of the answering cord, as before stated. Additional current flows now, through the cut off relay and the register, the increase through the latter being sufficient to pull it up. When the armature has drawn fully up, the low resistance (forty-ohm) winding of the register is closed in parallel with the 500-ohm winding. Then when the operator releases her key the register does not release its armature, because the ordinary sleeve battery is sufficient to hold it up when passing through the low winding.

A position register is supplied to each position equipped for this class of service, being wired between the source of the thirty-six-volt current and the common tie on the register keys. It is low resistance and does not receive enough current to operate until the line register has pulled up and locked, allowing enough current to pass through its forty-ohm winding to energize the position register. When this has operated, it closes a contact through which is looped the circuit of the message register pilot lamp, which now lights, indicating to the operator

that the call has been counted. The low winding on the line register serves to hold the armature up until the connection is taken down, thus preventing a call being counted more than once.

Telephone in Small Town Public School

In trying to extend the telephone service in Rantoul, Ill., the editor of the Rantoul Press noted that there was no telephone in the public school building. Upon inquiry it was found that nearly all school buildings in surrounding towns and some in the country have telephones. The paper accordingly addressed a letter to the superintendent of schools at Saybrook, which, with the answers to the several questions, follow:

Prof. L. F. Fulwiler,

Saybrook, Ill.

Dear Sir: We observe that you have a telephone in the school building at

them when it does not interfere with our school work, and it never does.

5th. In case a mother should send her child, who was not well, would she not be likely to call up the teacher and tell her under certain conditions to do certain things?

Answer. That is often done and avoids many misunderstandings.

6th. Do not students use the telephone for trivial reasons and cause you trouble?

Answer. We give it out that the 'phone is strictly a business 'phone and not for visiting, and require pupils to get permission to use it. They do not attempt to misuse it.

In the above questions we have only asked about the objectionable things.

We will be pleased to have you mention some of the benefits of a telephone in the public school, as you have found in your own experience.

Answer. It is a great help in looking up truants, in keeping in touch with parents, in keeping in touch with the school board. It saves a fourth of my time and much energy. I do not

AUDIENCE GATHERED FOR FAMOUS PREACHER

Telephone Utilized To Get His Admirers Together For Impromptu Address.

The fact that they could be reached promptly by telephone was responsible for a rare and unexpected privilege enjoyed recently by several hundred leading Chicago people.

Pastor Charles T. Russell, of the Brooklyn Tabernacle, of international fame, was on his way from an appointment at Grand Rapids, Mich., to another in Springfield, Ill. His train was derailed and delayed six hours causing him to miss his Chicago connection and involving him in a six-hour delay at Chicago. Some of his Chicago admirers, realizing the possibility of a public address, became busy about 4 p. m., secured Recital Hall in the Auditorium Building and began calling up an audience for him by telephone. Four hours later Dr. Russell faced an audience which almost filled that splendid hall—a telephone audience exclusively.

FIRST TELEPHONED TELEGRAMS

P. T. Barnum, the Showman, and Bridgeport, Conn., Said to Be Pioneers.

The first woman telephone operator was Mrs. Marjorie M. Grey, who entered the service at the Bridgeport, Conn., telephone office March 24, 1879. Writing her reminiscences in the Telephone Bulletin, Mrs. Grey cites what was probably the first attempt at delivering telegrams by telephone.

"The most impatient and nervous subscribers we had were 'Sharp Rifles' and P. T. Barnum. They had all their telegraph messages telephoned and as they were nearly all in cipher it was very important that I should not make a mistake."

The subscribers referred to by Mrs. Grey were the company manufacturing Sharp's rifles and Phineas T. Barnum, the noted showman, who maintained winter quarters for his circus at Bridgeport. Mr. Barnum is credited with many novelties and innovations in American life, but it would appear now that he was a pioneer among time savers, for the system of delivering telegrams by telephone has grown to be one of the recognized conveniences and economies of correspondence by wire.

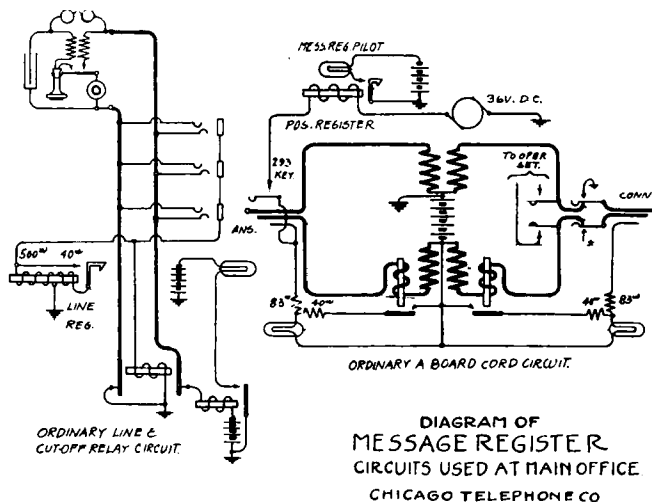
Answer Wanted.

Special Agent F. J. Ellis, on one of his trips out of Detroit, took with him a railroad guide which fills up spaces not given over to time tables or advertisements with jests and stories. Mr. Ellis complains bitterly of starting the following:

HOW PAT TURNED THE JOKE.

Pat was busy on a Hull road working with his coat off. There were two Englishmen laboring on the same road, so they decided to have a joke with the Irishman. They painted a donkey's head on the back of Pat's coat, and watched to see him put it on. Pat, of course, saw the donkey's head on his coat, and, turning to the Englishmen, said:

—and being left in the car without finding anyone who could supply the rest of it, which the printer had inadvertently dropped. It was certainly exasperating.



Saybrook, and being in the telephone business, we are interested to know how it works and would like to ask you some questions about the matter if you will be kind enough to answer.

1st. In what part of the building is the telephone installed and how do you have calls answered?

Answer. Installed in the principal's office. Calls answered by the office boy. Pupils and teachers are never called from class, but allowed to answer calls at intermissions.

2d. Does it disturb the school in any way, and, if so, how?

Answer. Not in the least.

3d. In case of storm about the time school is to dismiss, do not parents and patrons of the school call up and ask you to have their children wait until they come after them or give other instructions regarding them and cause you a great deal of trouble and inconvenience.

Answer. Not any trouble, but of great service to patrons and pupils.

4th. Do not some of your patrons from the country, of which we are told there are a considerable number, call up and ask you to tell their son to bring out some repair that they may need very badly, or some like errand and which would save them a trip to town, but would also cause you trouble and perhaps disturb the school?

Answer. Patrons do use it as a convenience, but we are glad to serve

see how we could get along without it. Properly protected it is no trouble and is of the greatest service.

Yours truly,

L. F. FULWILER,
Superintendent Schools,
Saybrook, Ill.

The Optimistic View.

Not long ago the spirit of retrenchment seized the Maintenance Department at Chicago, and it became necessary to decrease the force. Among those called into the office was one who was told that it would be necessary to discontinue his position, and that he would be given two weeks' vacation with pay, and that that would terminate his services with the company.

"Well," he said "this reminds me of the German shoemaker who accidentally left the gas escaping in his shop one night. The next morning he came in, struck a match and—Boom!—an explosion blew him out of the door onto the sidewalk. 'Ach Gott,' he said, 'I am not hurt much but I got out just in time.'"

Why Operators Go Filberts.

"Mr. Jenkins in?"
Private Exchange Operator—"No, sir."

"Well, when he comes in will you please whistle this waltz movement to him? Listen."—New York Mail.

The Great Calumet and Hecla Mining Company and Its Telephone System

By F. E. REIFF, District Manager, Houghton, Mich.

Almost everyone knows that Northern Michigan produces copper but few realize the magnitude of this industry. Long before gold was discovered in California copper was known to exist in Michigan. Mining began in 1844 and has continued almost without interruption to the present time.

The copper district extends along what is known as the Copper range, a line of rough, rocky hills, which begin on the shores of Lake Superior at the northern extremity of Keweenaw peninsula, and run in a south-westerly direction through Keweenaw, Houghton, Ontonagon and Gogebic counties to the Wisconsin boundary of Northern Michigan.

But Houghton county is by far the most important producer of the four counties. Its 88,000 people are almost directly dependent upon the production of copper. This in fact can be said of almost the entire population of Keweenaw and Ontonagon also.

Of course, in a territory of this size several different companies can operate. And they do; the good, bad and indifferent. The majority, however, are in the first rank. The largest and most important of these mining companies is the Calumet and Hecla, which owns and operates fifteen different properties as follows: the Calumet and Hecla mines proper, in and about Calumet, Mich., the Tamarack and Osceola Consolidated, the St. Louis, Centennial, Ahmeek, Allouez, Seneca, Gratiot, Laurium, Frontenac, Manitou, La Salle, Isle Royale and Superior. These properties extend from the southern part of Keweenaw county south along the Copper range for twenty miles.

Active operations on some of these properties began as early as 1866. In 1871 the present Calumet and Hecla Mining Company was formed and has grown until it is now the largest single producer of copper in the world. From the very first the company was known to be a progressive corporation that adopted the most up-to-date methods of the times. Aside from the fact that it possesses the best copper producing properties in Michigan, its success can mostly be attributed to this policy of adopting up-to-date methods.

Nowadays the use of electricity by any concern is a barometer of the "up-to-dateness" of that concern. In this connection we might say the Calumet and Hecla Mining Company was a pioneer in the use of electricity in the mining industry. Almost from the beginning electricity was being used wherever the perfection of the use of this form of energy was such as to warrant its adoption, always keeping in view, of course, safety and economy.

Because of the nature of the mining business and the growth of the properties of the Calumet and Hecla Company, these properties are somewhat scattered. The mines must be located where copper bearing rock is found. The stamp mills must be located where an abundant supply of water is at hand, enormous quantities being used for washing the crushed rock from the raw copper. The smelters must be located where shipping facilities are good, because at the smelters the raw copper is put into shape and shipped to the market.

In these two essentials the Copper Country is especially fortunate, being surrounded on the three sides by Lake Superior, and divided at its most important point by the Portage Lakes and Canals. These afford abundant

water for the stamp mills and excellent shipping points for the smelters.

For good and sufficient reasons, then, the fifteen different properties, the stamp mills, and the smelters, are scattered over a wide territory. How to manage and operate efficiently all these separate parts has been a problem. The men in the mines, in the machine shops, in the smelters, stamp mills, and along the railroad which

ten and one-half miles away. Twelve trunk lines connect the private branch exchange with the Calumet office of the Michigan State Telephone Company. One trunk line connects with the Houghton office of the telephone company, ten miles away. This single line to Houghton is used simply to eliminate trunking from the Calumet exchange to the Houghton exchange on very important messages.

The underground telephone farthest from the surface is 6,600 feet down—quite unusual as telephones operate! Other telephones are located at 1,000, 2,000, 3,000 and 4,000 feet levels below the surface.

Power to operate this system is furnished from the Calumet exchange, which is located directly across the



CALUMET AND HECLA OPERATING FORCE.
Mable Blight, Chief Operator. Lottie Blight,
Regina Cardinal. Emma Canton. Minnie Vivian.

connects the mines and mills, not to speak of the men in the saw mills, water works, power stations and coal docks, and even in the general office itself, must be in constant touch with the general manager and engineers of the great concern. It has been the aim of General Manager James MacNaughton and Electrical Engineer Frederick H. Bosson, to provide a system whereby this is possible, so that each part of the great industry could be made to respond at a moment's notice. Here enters the telephone.

Sit in the office of the manager and you will say: "Certainly here are the throttle, the brakes and the steering gear of the whole machine." New work started, policies discussed, orders given, questions settled at the mere tinkle of the telephone bell.

Could all this be done without the telephone, one wonders. Possibly, but certainly not with such dispatch. What an army of messengers would be needed, and how they must dash about until one shudders at the bedlam and noise! But all this has not been accomplished in a day. At first a single private telephone line answered, and all were satisfied. As the properties grew in size and number new systems were adopted, until now the Calumet and Hecla Mining Company has one of the best private telephone systems in use anywhere.

The equipment is standard Western Electric, No. 4 private branch exchange, of three operative positions, and of 250-line capacity, 175 of which are already in use, connecting 221 stations. Two hundred and twenty and one-quarter miles of circuits are used to connect these different stations—practically one mile of circuit per station. At present the most distant telephone is nine and one-half miles from the exchange proper, other lines being located from one-quarter to seven miles from the central station. A new station will soon be added, which will be located at the Point Mills smelters,

street from the Calumet and Hecla office.

The switchboard itself is located in a room where ample space is provided for the distributing frames. The whole installation reminds one of an up-to-date exchange for a small city. The traffic on this private branch exchange is continuous and for that reason a night operator is necessary the same as in an exchange serving the public.

Five operators, including the chief, are provided to take care of upwards of 3,000 calls per day. During the busier hours three operators, including the chief operator, handle the traffic. From 5:30 a. m. to 7 p. m. two operators are on duty, and from then on until 7 a. m. one operator is able to do the work with a shift at 10 p. m.

Through the courtesy of the Calumet and Hecla management we have been able to secure a photograph of the switchboard and operating force.

Tug Dispatching by Telephone.

It may not be known generally that the large railroads centering in New York have a system of tugboat dispatching very similar to train dispatching, says the *Telephone Review*. Every time a tugboat completes an assignment the captain goes to the nearest telephone and reports to headquarters. On the other hand, when orders are to be given to the commander of any of the tugboats they are telephoned from headquarters to the local stations on piers along the water front, and a signal, flags by day and colored lights by night, is at once displayed indicating that there is a message. When the tug comes within hailing distance the message is then delivered by megaphone, and the tug goes on its way. Without the telephone it would be impossible to handle the enormous freight traffic in and around New York as economically and expeditiously as it is done at present.

OBITUARY.

JAMES CLARENCE KENNY, Manager of the pole department of the Western Electric Company at Chicago, and well known to many Chicago Telephone Company and Central Union Telephone Company officials through his long tenure as Purchasing Agent of these companies, died December 23d at his home in Chicago.

Mr. Kenny was born in Peoria, Ill., June 3, 1856. His parents died when he was four years old. At the age of fourteen he entered the service of the Western Union Telegraph Company. He continued with the Western Union until 1882 when he became Purchasing Agent of the old Central, Midland and Western Telephone Companies, afterwards consolidated into the Central Union Telephone Company. In 1894 he became Purchasing Agent of the Chicago Telephone Company also, continuing until 1905, when he went with the Western Electric Company as Purchasing Agent and Manager of the pole department. In 1910 and 1911 he was Purchasing Agent of the Subway Construction Company. In 1911 he resumed his position as Manager of the pole department with the Western Electric.

Mr. Kenny was very widely known and esteemed in the Bell organization. He was a member of the Telephone Pioneers of America, a member and director of the Hamilton Club of Chicago and a director of the Turbo Engineering Company. He leaves a widow who was Miss Katherine May Mead before her marriage to Mr. Kenny, November 18, 1878; four sons, James, Albert, Paul and Myron, and a brother, Thomas Kenny, all living in Chicago.

FRANK PIERCE ROSS, former Manager of the old Columbus Telephone Company, now the Central Union Telephone Company, and for many years Assistant Manager of the Western Union Telegraph Company in Columbus, Ohio, under his brother, Charles W. Ross, as District Superintendent, died December 16th at Grant Hospital of acute nephritis and heart trouble. He was taken seriously ill a week before his death.

After being graduated from the Central High School at the age of nineteen he went to New York, where later he had charge of the cables of the Western Union Telegraph Company. Three years later he returned to Columbus as assistant local manager of the company.

Mr. Ross was one of the group of six who founded the Columbus Telephone Company, the first in Columbus, and which afterward became the nucleus of the present Central Union Telephone Company. He was Manager of the old Columbus Company and was retained in the same capacity by the Central Union after the merger. He remained as local Manager for the latter company until eight years ago, when he resigned on account of poor health and went to California. He was on the Pacific Coast a year and then returned to Columbus, where he had since lived in retirement.

CHARLES BOURSEUL, whom many Frenchmen claim to have been the inventor of the telephone, died in Paris, December 21st, aged eighty-three. In 1854, while connected with the newly established telegraph department of France he published in *L'Illustration* a crude suggestion as to the possibility of transmitting sounds by electricity. Bourseul was discouraged by his friends from continuing his experiments and left it to Professor Bell to develop a working telephone twenty-two years later.

Chicago Telephone Company's City Exchanges

II.—HARRISON

By O. R. BENSON, Harrison Tradesman

Just preceding the opening of the Chicago World's Fair in 1892, the Chicago Telephone Company found it necessary to relieve the overloaded main office of a portion of the traffic which it was known would be much increased during the "Fair" period. Therefore the company installed a temporary exchange—a ring-down system similar to main office at that time—at 138 East Harrison street just opposite the Harrison Street Police Station, from which station, coupled with the name of the street, the office derived its name, Harrison. After the Fair it was found impossible to dispense with the temporary office, so it was established as a permanent exchange; its highest achievement as a ring-down exchange being 700 lines.

During the year 1898 the Telephone Company began changing the system of operation from ring-down or local battery, to common battery; and as the location at 138 East Harrison street did not meet with the requirements of the probable expansion of the future it was decided to move the office to some more favorable place. The sixth and seventh floors of the Manhattan Building, 431 South Dearborn street, were leased for this purpose, and the present Harrison Common Battery Office installed. The cut-over from the old to the new office was made gradually, taking about two years to complete it. The first line was cut over December 4, 1898. During the cut, in order to keep from ringing the wrong exchange number from another office, the former office was called "Old Harrison" and the latter "New Harrison," and as soon as lines were cut over, the multiple numbers in the old exchange were pegged; this scheme giving a double check on wrong rings. The district assigned to the new office extended from Twelfth street on the south to Adams street on the north, and from the lake west to Jefferson street, an area of about one and one-fourth square miles. Since that time, however, this territory has been repeatedly changed as the rapid development of the telephone business has necessitated more exchanges, until at the present time the boundary lines are Adams street on the north, LaSalle street to Jackson boulevard to Federal street to Twelfth street on the west, Twelfth street on the south, and the lake on the east. This territory comprises only about one-half a square mile, much less area than the original district, but it is many times more densely populated, the Congress Hotel alone having more actual stations than the entire district at the time of the cut-over. Ever since the new office has been installed it has had a continuously rapid growth, until the Wabash cut-over, December 1, 1911, its highest number of stations reaching approximately 22,000. These lines are divided into classes as follows: Flat-rate, measured service, single-party nickel, two-party nickel, and private-branch-exchange switchboards. Of the latter class the leaders are the Congress Hotel—a seven position board with 983 stations; the Blackstone Hotel—a six position board with 502 stations; the Great Northern Hotel—a two position board with 441 stations, and the Auditorium Hotel—a two position board with 364 stations. These boards are similar in design to the Harrison Office A board; their batteries are charged from the Harrison office machine by a special charging

lead as in case of the No. 35 type board, or over their trunk lines for the C-16 boards.

The Harrison office battery consists of eleven cells, which ordinarily are charged in the daytime, the average pressure being about twenty-three volts. The charging sets consists of two Western Electric machines, each consisting of an electric motor and generator which has an output of 600 amperes at thirty volts. One machine acts as an emergency for the other and replaces it only in case of a breakdown of the regular machine. This plan differs from that of the exchanges which have the gas engine as an emergency motor, as in this case the emergency machine can be used not only in case of a breakdown of the regular machine, but also in case of failure of the Commonwealth

not required for supplying nickel current, as this is obtained directly from the Commonwealth Edison power station. The reason for this is that direct current is necessary for nickel operation, and the outlying offices are furnished only with alternating current by the Commonwealth Company. The machine switches, resistance coils and fuses are conveniently located on the power board which is not over fifteen feet from any machine, the storage battery or cut-out cabinet. From the storage battery, leads are run to the central point and fanned out to the A and B board positions, relays, bays and miscellaneous office equipment; all leads, of course, being properly fused.

The A board at present consists of 101 working and 13 dead positions, as compared with 20 positions in 1898. The B board has 48 positions, all in actual operation, while in 1898 there were only six. This shows a rapid increase in the telephone business at Harrison office, which is characteristic of the city.

where the line is tested and if found in trouble is sent on as quickly as possible.

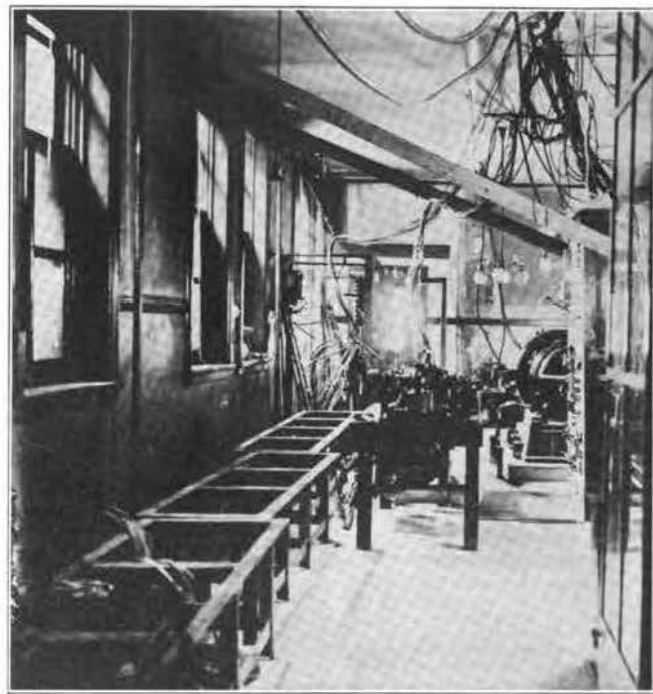
The test desk consists of a five position board at which three men are stationed, one for testing trouble, another for directing the outside repair men, and the third for testing with the installers. This method of caring for the subscribers' trouble is very efficient, and ordinarily but few lines will be found out of order at the close of the day. Occasionally a line is found out of order inside the office. The card is then given to the switchboard man who has a test desk at the eastern end of the B board, where he does his testing, thus saving time for himself, as well as the man on the main test desk. Some of the equipment 14 C relays and old keyless trunk circuits for instance—with which the inside men have to deal has been in service a long time, showing that the work of maintaining the apparatus has been of an excellent order. At present three switchboard men handle the office during the day period, two in the evening, and also two at night.

The main frame, which is the connecting link between the inside apparatus and the subscribers' lines, is approximately ninety feet long and contains ten racks. The frame carries about 18,000 pairs of jumpers, and is at present taken care of by one man.

Harrison office now has only about 17,000 stations due to the fact that about 6,000 stations have been cut over to Wabash office. The company's plan is ultimately to cut over Harrison office to Wabash, which operation the engineers estimate will require about two years, when Harrison office will not exist as a main office, but will be the second unit of Wabash exchange.

LOOKS CHAOTIC; IS ORDERLY.

Rapid Progress Made on Ticklish Job of "Raising the Lid" at Lake View.



PROGRESS ON JOB OF "RAISING THE LID" AT LAKEVIEW.

Edison feeder circuit; this advantage of the gas engine emergency motor, however, is overcome in Harrison by having two separate feeder circuits from the Commonwealth Edison stations, one from the Dearborn street and one from the Plymouth Court station. These machines do not send out electrical power directly to the subscribers' lines, as a few people may suppose, but are connected in multiple to the storage battery, which plan insures a more steady voltage and scarcely any noise on the line.

Outside of the two charging machines, Harrison office is equipped with two ringing machines from which the generator, "busy back," "tone test," "flashing busy back" and "ticker" battery are obtained. The motor of the regular machine receives current from the Commonwealth Edison Company's leads, while that of the emergency is connected to the storage battery.

Harrison office differs from the outlying exchanges in that a machine is

The operation of the switchboard requires about 350 employees, all of whom are women, except the manager, who reigns supreme in the traffic department. These are divided into a day shift of about 215 people, an evening shift of about 120, and a night shift of about 25. In the maintenance department at Harrison, however, men only are employed, the total number in the office and outside district being about thirty; all of whom are in hearty co-operation with and under the supervision of the wire chief.

The object of the maintenance department is to maintain the subscribers' lines and the office equipment in as nearly perfect working condition as possible. The routine in Harrison, as well as the rest of the city, is as follows: A subscriber finding his line out of order reports it to a clerk of the repair department, who enters the trouble on a card corresponding to the subscriber's number, then passes it to the test desk about eight feet away,

The accompanying picture is not of a ship in distress, it is simply an interior view of a portion of Lake View Exchange in Chicago under progress of reconstruction and enlargement.

The installation of the new Wellington Board in this office, mentioned in a previous issue, made it necessary to enlarge the building, increase the battery and machine capacity, install coin-collecting and message-register generators, together with the test and ringing generators which are to be equipped with what some call "all modern inconveniences."

What this change and addition means can be easily understood when one stops to consider that in order to make the building addition it was necessary to move everything, including the floor of the wire chief's quarters, except the main and intermediate distributing frames, and all of this had to be done without interruption or inconvenience to the subscribers.

Owing to the fact that the rear parts of the building had no basement, it was necessary to excavate, hence the old conduit formerly imbedded in the floors had to be abandoned and the temporary wires used in making the changes were necessarily left suspended from the ceiling, where they will hang until the new equipment now being installed is cut into service.

This entire change was made, literally playing checkers with working apparatus, and not a single case of trouble was caused thereby, either during the move or since.

This is not quoted or shown as an argument for this character of work as a standard class of power installation, but it does definitely demonstrate the possibility of doing it when necessary.

The Tandem Trunk Board

By T. B. LAMBERT, Illinois Engineering Department.

The large geographical area covered by the Chicago Telephone Company has developed many peculiar problems of traffic, and among them was one worthy of special notice, that required a slight departure from the so-called standard methods for a satisfactory and efficient solution.

In the years of 1907 and 1908 the extension of the city limits brought several suburban exchanges under metropolitan management and eliminated the toll method of handling calls between the added exchanges themselves as well as between them and the several city offices.

Naturally the toll charges existing between these offices had a restraining influence on the traffic, and the establishment of city free-rate or five-cent calls had the effect of gradually changing the character of the traffic; and with that evolution came the necessity of giving the same character of service that had been given between the older city exchanges.

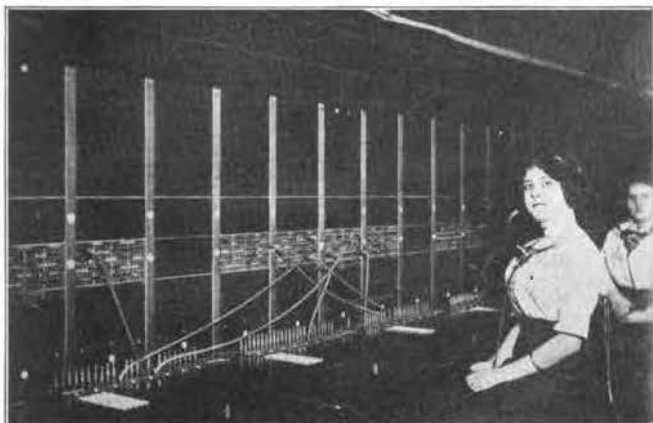
The adoption of a specially sensitive relay designed to operate on .0014 amperes has rendered positive trunk signaling possible over long distances, the limits now being raised to eighty miles, instead of but seven and one-half miles, as with the old style equipment.

The tandem board is substantially a combination of A and B boards, the tandem operator receiving a signal from the originating office, putting up the connection on a trunk to the completing office, where the completing operator makes the final connection, all instructions being given by means of call circuits, so that at no time are either the B or tandem operators in communication with the subscriber.

These circuits have been so designed that when connections are completed all equipment that tends to decrease transmission is as far as possible cut out of service.

With former equipment the subscriber was compelled to talk through one B and two A boards. The tandem board eliminates one A board, and as practically all trunks on this board are loaded, transmission is thus doubly improved.

This style of board is not strictly new, and we mention its installation



TANDEM TRUNK BOARD AT CHICAGO.

The traffic between any two outlying districts not contiguous is in general comparatively light as compared with the traffic between them and the metropolitan exchanges. The subscriber fails to know or understand just why he should be compelled to repeat his calls in some cases and not in others, and in order to give him standard service, trunks and call circuits are desirable, and it is decidedly inefficient to maintain trunks and call circuits between offices having a light intercommunicating traffic.

To meet this difficulty in the standardization of the calling system for subscribers a new sixteen-position board called the Tandem Trunk Board, with specially designed circuits, was installed and put into service. The board was placed in the Main Office on account of its central location, and controls 272 incoming and 357 outgoing trunks, with the necessary call circuits, apportioned among the several offices according to the respective loads, and is admirably serving the purpose for which it was originally intended, besides furnishing a ready outlet for overloaded trunk conditions between all offices.

The tandem board thus serves as a sort of trunk clearing house and, while not parallel with, is somewhat analogous to the railway scheme of a belt line, a kind of universal path for interchange of traffic between all lines.

and operation to record the benefits accruing to the Chicago service by its adoption.

How Editor Got Even.

There are people in the city who regard the newspaper offices as free information bureaus, intended especially for the benefit of the vast army of people who want to know "how is the score?" During the recent world series, the man who desired to call up a newspaper office on legitimate business often found it impossible to secure a line. An editor had an experience that is worth recording.

He was trying to get a "central," but though he stood at the telephone for twenty minutes, the youths that wanted the score were put on so fast that he could not ask his number. He began to feel slightly exasperated.

At last he took off the receiver to make a last attempt, but when he spoke, someone asked, "How is the game?"

He was too annoyed to be civil, so he inquired, "What game?" "The big game," said the man at the other end.

"What big game?" "The big baseball game?" "What big baseball game?"

"This was too much for the fan. 'Oh, h—,' he remarked, and slammed up his telephone. — *Detroit Saturday Night*.



LONGEST OHIO RIVER SPAN.

This shows the stub pole on the Ohio side with Toll Repairman H. C. Field and Lineman Frank Schroth dead-ending the wire after it had been pulled up to the proper height. The black spot near the top of the pole is a hole made by a woodpecker.

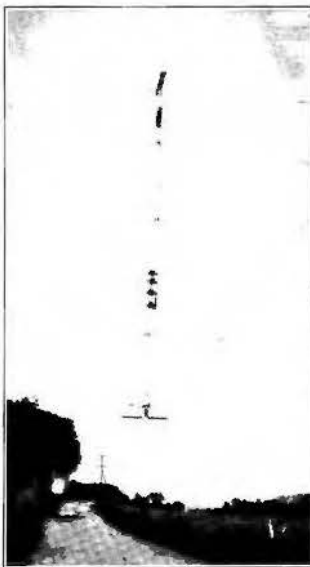
Cordial.

The manager at Gardiner, Ill., recently received the following letter from a subscriber, accompanying a payment:

Dear Sir:

I now sit down to write you a few lines to let you know I am well and hope you are the same.

I sent you your money today \$7.40. I could not before but I sent them now. Please send me a receipt that it is paid. Good Bye



LONGEST OHIO RIVER SPAN.

This shows Repairman C. B. Andrews on the mast pole on the Ohio side, sighting the wires with field glasses, in order to get the sag in the wires equal. Mr. Andrews shows indistinctly in the picture near the top of the pole.

LONGEST SPAN OVER OHIO.

Line From Boudes Ferry, Ohio, to Augusta, Ky., Measures Total of 3,472 Feet.

The three pictures on this page show the arrangement of a toll line from Ripley, Ohio, to Augusta, Ky., crossing the Ohio River on lofty mast poles. The span is the longest stretch of wire crossing the river. By triangulation the distance between mast poles is 2,743 feet and between stub poles 3,472 feet.



LONGEST OHIO RIVER SPAN.

This shows the mast pole on the Kentucky side of the river. It is 117 feet high. Repairman C. B. Andrews is sitting on the cross arm. Toll Repairman H. C. Field is sitting on top of the pole and Lineman Frank Schroth is standing on the crossarm. The picture was taken just before starting across the river with a new wire after the wire had been taken over the mast pole and dead-ended on the stub pole.

ONE EXCHANGE AT DELAWARE.

Central Union Sells Out to Citizen's Telephone Company and Closes Bell Office.

At midnight, December 7th, the Central Union exchange at Delaware, Ohio, passed out of existence. On that date the business of the company in Delaware was taken over by the Citizens' Telephone Company. Subscribers of both exchanges will now be able to reach all other subscribers in both Delaware and the surrounding county, thus affording a unified instead of a divided service.

The sale followed the action of the Public Service Commission, which granted official permission to the Citizens' Company to acquire the Bell property. There is general satisfaction among business men and subscribers generally.

Telephone Pioneers of America.

The office of the Secretary of the Telephone Pioneers of America, Henry W. Pope, has been moved to larger quarters, 30 Church street, New York, where the secretary will be glad to receive any pioneers visiting New York.

The group pictures of the members in attendance at the Second Annual Meeting at the Hotel Astor are now ready and can be had direct from the secretary of the association or from the photographer. The price of these photographs is \$1.53.

Long-Distance Telephone Service Worth All It Costs

By DAVID H. DODGE, Commercial Department, Michigan State Telephone Company

Hesitation on the part of the general public at using the long-distance telephone lines, in spite of the efforts of telephone companies to popularize such use, may be made gradually to disappear by means of a more energetic campaign to show the public how cheap long-distance telephony really is.

Two things are to be noted. First, that the sense of unfamiliarity or awe at talking over wires extending beyond the community where people live and do their ordinary telephoning is not as great as a rather vague but still existent idea that when they pay for a long-distance call they pay more than the operation is worth. Second, that the majority of persons know only the cost of those telephone calls which are to them necessary at some critical time; they have no idea of the comparatively small cost of talking to other places near or not so near their own neighborhood, where they may nevertheless have important business or social relations.

Both of these obstacles to the greater use of telephone toll lines may be handled so that they shall disappear in time.

For the first—the less important, even if it were based on truth, which it is not—the remedy should be easy. The public has of late years become more familiar with the methods of handling telephone calls. Exchanges have been thrown open to them, and they have been invited to see for themselves how great the unseen work done is, compared with those notions which are plain to the view. A few words of explanation concerning the actual but not (to them) obvious costs of handling a telephone call beyond a certain fixed radius should therefore be accepted in good faith. Any business man knows, moreover, that an article must be placed within the financial reach of those who are expected to buy it, and that profits are estimated on that basis and are automatically "reasonable." The desire of telephone companies to please the public whom they serve can hardly be more manifest than it is at the present day, and to any subscriber who wishes to know more of the handling of the long-distance call as much information as he asks for should be given him.

The second matter involves some expense, but this varies with the density of the population, and need never be very great. It consists of soliciting by advertising.

Just as a department store specifies in its advertisements the precise cost of each of a long list of articles which are for sale, and just as it tickets these articles plainly in the store, so may a telephone company hope to secure more business for its toll lines if the really small cost of talking from one place to another is forced more actively on the attention of the public. One reason why toll business has not been as great as it ought to have been is because the telephone companies have been content to wait until it came in "over the counter," rather than go out and get it.

An examination of one of the pamphlets of the last United States Census Report, "Population of Cities," shows that the average number of incorporated cities, towns and villages to a state is fifty—meaning fifty most important places in a state. Assuming every state to be bounded by four other states, and assuming also that a telephone subscriber has the majority—or the most important—of his business and social interests confined

to these 250 places, then to print a list of such places in the local newspaper from time to time, and always to have them in the telephone directory, with the toll charges printed in large figures so as to attract attention, is a healthy canvassing for such toll business as will not come in of its own accord. A list of practically all incorporated places in the average state would be about eight times as long as the above; the longer list might be published in the newspapers less frequently. At all events, the mere seeing of the price of telephoning from one town to another, not necessarily adjacent ones, nor even very near, often tells for the first time to a subscriber who has interests in both how cheaply the thing may be done—cheaply in comparison with the benefits received. He knows already, no doubt, that if he does not get the person

writing the letter, of the employee handling the stationery, copying the letter, filling the copy, reading and stamping the letter, and the cost of the stationery itself, are all taken into consideration.

This fact, though emphasized in more than one business magazine, is still a matter of surprise and skepticism to the majority of people, and remains so until it is studied mathematically. (These are the kind of studies, by the way, by means of which the railroads are saving hundreds of thousands of dollars yearly.) To use frequently the long-distance call instead of amassing a pile of often useless copies of correspondence which might be replaced with an intelligent memorandum or two, is obviously cheaper procedure in the long run. Of course many letters must be written and copied, and answers to them carefully kept, but nothing like as many as now clutter up many a business office, occupy valuable room and are handled by successive strings of often inefficient and indifferent clerks. Let this point be brought out for the benefit of the public more often and more clearly. State it and restate it, in advertising matter of any kind, until it is driven home.



F. H. RUNKEL

INCREASE OF 3800 PER CENT. IN SIXTEEN YEARS

Growth of Portage Telephone Company, Prosperous Connecting Concern in Wisconsin.

The Portage Telephone Company, of Portage, Wis., was organized in 1896 with twenty-five subscribers. In 1904 the company had grown to 325 subscribers. The plant was then entirely rebuilt. In that year a new brick office building was erected and a common battery switchboard installed. This board was of 600 lines capacity and flanked by a magneto toll board of 150 lines. All wires are underground in the fire limits of Portage.

The company now has 1,000 subscribers and is in very prosperous condition. Officers are as follows: W. H. Roehm, President; F. H. Schulze, Vice President; F. H. Runkel, Secretary, Treasurer and General Manager.

Over the Party Line.

"Hello, Helen."
"Hello, that you, Jane?"
"Yes, heard the news?"
"No, what?"
"Guess."
"I can't."
"Go on, give a guess."
"Who's it about?"
"Guess that. Somebody you know well."
"Jim?"
"No. Guess again."
"Sam?"
"Oh, no. I couldn't believe it when I heard it. But go on, guess what's going to happen."
"Some one going to get married?"
"No."
"Divorced, then?"
"Not exactly. But you haven't guessed yet who it is."
"So I haven't. Dear me. Is it about Marie?"
"No. Wait a minute, some horrid person is listening on this line."
"Yes, I know it. I'll bet it's that old cat across the street."
"If it is she won't hear much."
"That's right, I won't. I haven't heard a sane word from you two yet. Just get off the line and let me have a chance. I want to pull off a guessing contest of my own."—Edgar Guest in *Detroit Free Press*.



OPERATING ROOM, PORTAGE TELEPHONE COMPANY.

called for he does not have to pay anything, but this fact should be told him again and again. It is the sort of point that appeals to the public in general, and is good "solicitor's talk."

Toll tariffs are often, but by no means always, published in the telephone directories; those towns where such lists are so advertised and open to the curiosity of the public will be found to do the most toll business—other things being equal—but the rule should be found to work both ways, or rather, all ways from any center. This kind of advertising would naturally be intensified around about holidays, in order that a greater percentage of social calls might prevail, social calls being usually of longer duration.

Another point. In A there live subscribers whose long-distance calls are confined for the most part to B, C, D, etc., towns near by, these calls being generally of a business nature and the kind of business which is to these subscribers only the most urgent. It never occurs to them to patronize the toll lines for their ordinary business matters, preferring instead to write letters. Yet it has been proved that the cost of a so-called two-cent letter is in hundreds of cases nearer thirty-five cents, when the time and wages of the employee dictating the letter and signing it, of the employee dictated to and

In short, what backwardness of the public there is at using the long-distance telephone lines comes less, in the opinion of the writer, from a feeling of awe or nervous repulsion than from the mistaken fear that long-distance calls are an extravagance. The local use of the telephone was once thought to be an extravagance, but we have changed all that, and we can do the same with the long-distance use of it.

Indoor Baseball.

Teams representing the Auditing and Engineering Departments at Chicago crossed bats at Grant Park Saturday, December 7th, in a hotly contested game of indoor baseball. The Auditors won 12 to 6. Dillon, pitching for the Auditors, retired twenty-three batters by the air route. Hard hitting by the Auditors was another feature. Dimmer and Dillon hit homers.

A league of teams has been formed. Three are from the Plant Department, one from the Commercial, one from the Auditing, and one from the Collection. The league has secured Douglas Hall, California and Ogden Avenues, for the games. Manager P. W. Hart of the Auditing team is already claiming the pennant. Great rivalry exists and the fans can expect some interesting games.

HIBBARD'S MANNIKIN DUMFOUNDS DINERS

Association of Commerce Hears
Wonderful Improvement on
Ventriloquism.

That the telephone will put the regular stage ventriloquist entirely out of business was freely predicted after the "Gridiron Dinner" of the Glee Club of the Chicago Association of Commerce, which took place at the Blackstone Hotel December 2nd.

The cause of this remarkable prediction was the exploit of A. S. Hibbard, former General Manager of the Chicago Telephone Company, who furnished fun for the diners by means of a marvelous little fellow whom he designated "a figure of speech." Out of the mouth of the mannikin Mr. Hibbard produced topical songs and jollies without end. The figure did its talking and singing through the agency of a telephone in another room, the sound being magnified by a loud-speaking receiver in the chest of the "beautiful boy."

As a ventriloquist attempts by his art to imitate a man, so the telephone ventriloquist imitates a real ventriloquist and improves on the original.

Mr. Hibbard is a great favorite with his fellows in the association and he is always heartily welcomed on his visits from New York, where he now has headquarters with the A. T. & T. Company. At the dinner just referred to Levy Mayer, one of the speakers, closed with this chivalrous reference to his one-time relations with Mr. Hibbard: "When Mr. Hibbard left Chicago I lost one of the best examples of American manhood and truth. Tonight I welcome him back."

Brief News Notes from Everywhere.

Paris, Ky.—The Cumberland Telephone and Telegraph Company will install a central-energy system and make other extensive improvements.

Danville, Ky.—The East Tennessee Telephone Company is planning the installation of central-energy systems in Danville and several other Kentucky cities.

Philadelphia, Pa.—Ford Huntington, treasurer of the Bell Telephone Company of Pennsylvania, has been elected vice president of the company in charge of all financial and accounting matters.

Topeka, Kan.—The Public Utilities Commission of Kansas has held, in the case of the Oskaloosa Home Telephone Company, that the violation of a rule of that concern against the use of profane and indecent language over the telephone was sufficient cause for the removal of the instruments from the homes of the offenders. It holds further, that when the former subscribers can satisfy the company that the offense will not be repeated, the company shall reinstate the service.

Birmingham, Ala.—Out of an appropriation of over \$400,000 for bettering physical equipment, the Southern Bell Telephone and Telegraph Company has put into service switchboard additions amounting to \$25,000.

Philadelphia, Pa.—The Bell Telephone Company of Pennsylvania has absorbed the Northeast Independent Telephone Company, of Northeast, Pa.; the Broken Straw and Stillwater Telephone and Telegraph Company, of Northville and the Sheffield Telephone Company, of Sheffield. The three sys-

tems have toll lines of several hundred miles and serve more than 1,000 subscribers.

Dallas, Tex.—According to President H. J. Pettengill, of the Southwestern Telegraph and Telephone Company, that company will spend \$4,500,000 in Texas alone this year in plant improvements and extensions. During the past year the company added 21,000 subscribers in the state.

DETROIT OPERATORS IN TWO TRAFFIC MEETINGS

Girls Get Many Valuable Pointers
in Two Days Session with
Chiefs.

W. A. Spencer, Traffic Chief for the Detroit District, has been holding a series of meetings for his operators during the past three years, which have found great favor among the girls. On the evenings of December 5th and 6th two such meetings were held, at which the Michigan correspondent of BELL TELEPHONE NEWS was invited to be present, an invitation which was accepted with alacrity.

The first meeting, one of toll operators, took place in the café. About sixty operators were present, all from the toll office. Mr. Spencer began his talk with instructions that the tickets should show hereafter, in addition to the regular information, the time at which a number has to be looked up in a directory, because the interval which this requires is sometimes added to the line operator's work, and she is wrongly blamed for delay in her work of putting the call through. The releasing of toll lines more promptly was also discussed and urged. It was then drawn to the operators' attention that not enough detail was sometimes obtained by the operator at the distant station; for instance, on the report of the called party being away from the city, instead of the operator saying, "can he be found?" getting a possible "yes," and then reporting to the calling subscriber, "We can complete your call tomorrow if you wish," she would sometimes "let it go" on the first report. Holding the Detroit subscriber's line too long was next taken up; this should be for five, not to exceed ten, minutes. The too-hasty operator was then criticized for not waiting to get all of the number so as to get accurate information on her ticket, and in this connection Claude Murry, toll traffic chief, read a list of mistakes which he had secured from a recent list of calls made up in the A. T. & T. office. Mr. Spencer stated that he was not satisfied with the current report on "cancelled business"; he told the operators that this was higher than during the same time last year; he thought it was due to not enough time and care being spent by the recording operators; such a condition demanded immediate improvement, of course. Nevertheless he would say that as a whole, the toll traffic was really better than before, and that in spite of its being unusually heavy for this time of the year (for during the month of November it was as heavy as in August or October, the busiest toll months). This was partly due to the plant department having improved the lines, but the speaker said he wished to give the operators credit for a great deal of the good toll service rendered to the public of late. Margaret Kopp, chief toll operator, and Cora Robinson, toll service observer, also spoke briefly. After a word of caution from Mr. Spencer to a few girls who had gotten into the bad habit of failing to show

up on time with regularity, the meeting dispersed.

It again concentrated in the operators' rest room, where a short entertainment was given. The Schwohl sisters, Barbara of the Main, and Anna of the Cherry, exchanges, played and sang at the piano together. Marie Demming, a service observer at the Grand exchange, gave two amusing recitations, and Gladys Kingston, toll record clerk, sang to her own accompaniment. Then there was dancing, followed by ice cream.

A meeting of local supervisors and operators of the Main, Cherry and Grand exchanges was held on the following evening in the room of the Telephone Society of Michigan. This was a big gathering, every chair being occupied, "and then some"; over 200 girls were present. Mr. Spencer began by reminding the operators of a recent novelty of separate peg counts being taken in the evening hours; this was done, he explained, in order that the busiest positions might be placed together at one end of the board and enable them to secure better team work on high evening loads. He next spoke of the plan to centralize the information department, a course which was expected to lighten the work, to some extent, of the supervisors. He also told them that the automatic ringing and the keyless trunks were to come soon, at which they cheered.

Mr. Spencer at this point made one of his well-known charts on the blackboard, to illustrate how apparently slight and immaterial delays in answering calls accumulate rapidly and lead to markedly slow service. He made this manifest for both local calls and those on calling circuits, and explained how it was possible to get all such latter mentioned calls in properly by exercising a little judgment and not "crowding" the B operator. He also spoke of "slow answers," but said that they were not so bad as errors. Mr. Spencer then made way for Mr. Laskey, traffic chief of the Main, Cherry and Grand exchanges. Mr. Laskey commented on the singular coincidence between the times of unusual late attendance and the days succeeding pay day; he did not believe that there ought to be that coincidence.

The necessity of taking good care of their telephone sets was impressed upon the operators, for "good tools are required for good workmanship," said Mr. Laskey, and the excellent service can not be given through dusty transmitters and receivers. The sets should always be properly adjusted to enable the operator to talk directly into the transmitter, using the rising inflection and a low tone of voice. A number should not be repeated too fast to a subscriber, remarked the speaker, and told an anecdote of how he himself had been frequently called up at unearthly hours by a man with a German accent who wanted "one, naught, five, one." The operator would give him "Walnut 51," which was Mr. Laskey's residence number. The operators were next cautioned about the necessity of avoiding mistakes in trunking calls where duplicate trunk numbers were concerned; these mistakes need not occur if the operators would memorize the various colors of the designation strips—this coloring of the strips being added to the names of them to help prevent such mistakes. The average time for answering calls was then gone into. Mr. Laskey said it should be 4.3 seconds at the Main board and four seconds at the Cherry and Grand boards; answers taking over ten seconds should not exceed five per cent of the whole. The average time for disconnecting should be three seconds, and disconnects taking over eight seconds should not exceed three per cent of the whole. The operators were also told to be careful of

the number plates in front of them—not to hit them with the plugs, and to report all injuries to them to the supervisor.

When Mr. Laskey concluded his remarks a short entertainment was given by some of the girls. Barbara Schwohl, of the Main exchange, gave a piano solo; Florence Fry, of the Cherry, sang, accompanied by Leona Kunze, also of the Cherry; Viola Wilson, Main, recited; Isabella Pennefather, Main, sang; two recitations were given by Ethel McCabe, Main; and Leta Merrifield, Grand, played the piano. As before, an adjournment was then taken to the café where gargantuan quantities of ice cream were consumed and showers of macaroons disappeared simultaneously. To raise the temperature, lowered by this ice cream, to normal, Rath's orchestra played in the operators' rest room and couples danced vigorously thereto.

The excellence of Detroit's telephone service—which, by the way, Detroit subscribers always boast of in other cities, though some of them may occasionally complain of it at home—is due in great measure, without a shadow of doubt, to these operators' meetings, at which the girls' work is continually keyed up to a higher pitch of excellence. Reforms are of course not instituted in their entirety after a single meeting, but each little improvement, added from time to time, "makes just a little bit more," until things are done exactly the right way.

Mr. Hume's Promotion.

Leland Hume, formerly General Manager of the Cumberland Telephone and Telegraph Company, has been elected Vice President and General Manager of the Southern Bell Telephone and Telegraph Company and Cumberland Company. W. T. Gentry of Atlanta is President of both companies.

Christmas Gloves for Operators.

The following letter received by the chief operator of the Lake Exchange, Milwaukee, was much appreciated by the two young ladies referred to, and also by the management as an evidence that satisfactory service was being rendered:

Head Operator, Lake Exchange, City.
December 24, 1912.

Dear Madam:

I beg to hand you herewith two orders for gloves for the operators who look after the telephone Lake 599.

Wishing you all a Merry Christmas and a Happy New Year, and thanking you for the constant and courteous and excellent service furnished through your exchange, I am, yours very truly,

GEORGE H. RUSSELL.

Cuts in The News

Practically all of the half-tone plates printed in the BELL TELEPHONE NEWS are the property of THE NEWS and are available at any time to managers who wish to loan them to local newspapers for reproduction. Requests should be made through the regular channels. The date of issue and page of THE NEWS should be mentioned.



OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



HAPPY NEW YEAR.

Again the great time piece marks another year on the dial and with a look backward and a look forward we hesitate a moment before we hurry on again with the quick procession of passing days.

To all the girls who read the BELL TELEPHONE NEWS, a Happy New Year. May you continue to be the kindly Central who never for one moment in the year fails to respond to the millions of calls for service. May the joy of a life of usefulness be yours, and may the relays come often enough so that work and play may follow each other in a happy succession. More and more the public is recognizing the value of intelligent service. Set an ideal that will eclipse the record for 1912 and which will make the coming year prove the exception to the unlucky reputation of the number 13.

Some of our thoughts as we look back may be regretful and these will tinge the prospect of the future. Some sad day in 1912 has brought a heart break from the loss of a dear one. The new year before us may stretch out at a long and lonely road. To those who stand in the shadow dreading the road before them, we reach out a sympathetic hand and assure you that those who mourn shall be comforted. Comfort is a word that means more than being petted and made "comfy"—that new word that gives only a little bit of the significance of the original word. The last syllable of the word means strength, the same root from which we get fortitude and fort. Comfort means to be strengthened, fortified. To those who hesitate before the lonely year, who feel weak because they must go without accustomed help, we say, be sure that you will be comforted, strengthened by the way; and 1913 may have in store for you joys that you can not foresee.

HINTS FOR OUR GIRLS.

No "preachment" on the New Year would be complete if it did not have some advice for the future. Here is a very practical suggestion, and one that may be received more kindly at this time than at any other.

Keep an Account Book.

Emerson said keep a diary. That is good advice, too, though the day when people had time to sit down and record the things they did and the thoughts they had, seems to have passed away. To be sure we have line-a-day books, a combination of diary and account books in one, and these are especially convenient for recalling what one has done on the same day the year before or even four or five years ago.

But an account book can be very simply kept and in itself serves almost as a diary. If you look back over a year or two of accounts, the items recall many events and the dates for them. That big sum of \$20 recalls a lovely trip you took and what the ticket cost. That \$1 stands for a jolly ride you had when you saw the city from the sight-seeing automobile. That \$15 was for a doctor bill, and recalls days not so pleasant.

Then on the other side those items of receipts are interesting. That date when the receipts increased a little,

how well it recalls your pleasure at the commendation which came with the increase. And how convenient to know the date when you got money back on the account where you had been loaning to a friend.

And if the accounts do not balance at the end of the month, you can see what must be cut off in expenses next month, or why it is necessary to add to your income.

Take a Receipt.

In connection with hints on keeping accounts, a word of advice on taking a receipt when you pay a bill may be useful. Your account book, if you kept one, might show that you had paid the bill, but it would not have the proof of the person's signature and that is quite essential in business.

Possibly you insist on a receipt if you are dealing with a business man, but you say you do not like to ask for one from a friend. One young lady who had felt this way in regard to the friend with whom she was boarding, found to her sorrow that when for her own convenience she wished to move, the attitude of her friend changed and she had a bill brought in for fifty dollars for back board which caused her much trouble and recourse to legal advice before it could be adjusted. Friends may change, but figures do not lie, that is, if you have the friend's signature at-

tached. And even if your friends do not change, they may forget, and you, too, may forget. For your friend's sake, as well as your own, be business like and take a receipt, and give one when you pay bills.

Avoid Loan Offices.

On the frail shoulders of a little operator hung the burden of a sick father, a feeble mother and a brother who instead of taking his share of the load, was himself the worse burden of all. Her wages were quite adequate for her own support as she was a competent operator, but one disaster after another came and to tide the family over, the young girl began to borrow at loan offices. It looked easy to pay back by the month and she did not realize that the interest was shamefully exorbitant. She borrowed \$75 to be paid back in monthly payments of \$8.85 a month. This would be paying \$31.20 for the use of \$75 a year. She did not realize that seven per cent is the highest legal rate allowed and would amount to \$5.25 interest. It was not strange that she could not keep up with the monthly payments, and another loan place was visited and another \$75 borrowed with the same exorbitant interest. And so she went on from bad to worse until at last, sick with over-work and worry, her wages were held up by the loan agents who could show no mercy. For-

tunately they can be obliged to settle for seven per cent if the law gets after them and the girl, who out of the goodness of her heart had swamped herself in debts she could never pay, was through friendly aid helped out of her trouble.

Such a story needs no comments. It emphasizes the necessity of a hint like this.

Don't Buy on the Installment Plan.

It is true that there are times when it seems impossible to get along till money enough is saved to pay for a necessary garment or a piece of furniture. It is well, however, before you get into the habit of buying at installment places to consider the fact that if you buy on time you pay big interest for the loan. It is only right that a person who accommodates you should be paid for it. Perhaps you say you are willing to pay for the privilege of having a suit or coat at once. But to do this you have to have a guarantor and there is always a possibility that illness or misfortune of some kind may unexpectedly prevent the monthly payment and then the mortification of a garnishee may confront you.

In New York some of the supervisors have a very nice club which is solving for them the problem of how to have a large sum of money at one time. Ten girls combine in a business club, and on pay day each one puts five dollars into the club fund. Then each girl in turn has \$50 ready for use, either to spend or to put at interest. It has worked well for a number of years and is considered a splendid way to save money. Of course, the sum need not be as large, if girls cannot set aside so much each month.

To sum up then, stop long enough at the beginning of the year to decide on a business method for financing your affairs. A little forethought may save many a heart break, and may lubricate the machinery so that the days will move smoothly on their way in 1913.

MICHIGAN MAN HAS REMEDY.

Let Manager Employ HIS Stenographers and Mr. C. Cupid Will Let Exchange Alone.

Petoskey telephone operators will not be running away and getting married at the six-month-clip they seem to have adopted if the suggestion that a business man in Grand Rapids gave to the local manager is taken.

The manager isn't anxious to adopt the plan because—well, read the letter:

"Dear Sir: I recently noticed in the Grand Rapids newspapers that you're shy of telephone operators because six girls quit in a month to get married. If that is the case, I should be glad to lend my services in helping you solve the problem.

"My wife picked out every one of the twelve stenographers I employ. As man to man, I'm here to tell you that you can have all or any of them. Each is guaranteed unmarriageable."

The manager will not tell who sent him the letter.



NEW YEAR'S BELLS.

Christmas Spirit in the Exchanges.

The spirit of Christmas thoughtfulness finds no lovelier expression than in our telephone exchanges. For years many poor families have had reason to bless the "telephone girls."

This year the Chicago Telephone Company's automobiles were busy in the morning of the day before Christmas carrying out the heavily laden baskets from the different offices. At Main Office seventy-five baskets were waiting, provided by both Main and Toll exchanges. Belmont, not yet six months old, sent out ten baskets. Humboldt, having won first place, generously contributed the twenty-five dollars, together with a donation of twenty dollars more, which filled a splendid lot of baskets.

The picture shows a group from Humboldt office starting out to deliver their Christmas cheer. Austin also made up a generous lot of baskets.

In all the offices and departments the Red Cross stamps were on sale and with most gratifying results. Yards exchange alone sold 900, Hyde Park 725 and all the offices showed a commendable interest. The Suburban Department distributed 5,500 among their various exchanges and returned only 200. It is probable that the telephone employees added about \$160 to the Tuberculosis Institute fund.

It is pleasant to add that a number of the offices were generously remembered by appreciative subscribers, both chief operators and operators receiving boxes of candy and other tokens of the regard in which their good services are held. These were often accompanied with notes expressing satisfaction with the telephone service.

Christmas in Indianapolis.

Several weeks ago the employees of the Central Union Telephone Company leased the Illinois Theater at Indianapolis for a day and evening and sold tickets to their friends, realizing from this, and a few donations, \$200 for their charity fund.

Meetings were held which the operators from all the exchanges attended. It was decided to send out Christmas cheer in the shape of Christmas dinners. Edna Haviland of the main office was appointed chairman of the great working committee to search out the needy families. She was assisted by Mattie Lewis and Flora Reiss of the North office; Anna Mueller and Bessie Kennedy of the Prospect office; Elsie Weidman and Winifred Williams of the Woodruff office; Bessie Robertson, Alma Plaskett and Laura Keppel of the Belmont office, and Clara Skinner of the Irvington office.

A room in the main building was given over to the operators in which to store their supplies, all of which



HUMBOLDT GIRLS READY TO DISTRIBUTE CHRISTMAS BASKETS.

were bought in wholesale quantities and consisted of all the essentials for a good dinner, and, indeed, the supplies lasted longer than one day.

Two days before Christmas the fun began. The committee named, assisted by a large working corps, had the time of their lives in packing the baskets ready for distribution.

L. J. McMaster, District Plant Chief, had agreed to loan one of the Company's trucks in which to distribute the baskets. In order to permit as many of the committee and other operators to assist in personally distributing the baskets, J. W. Stickney, Commercial Superintendent, kindly loaned his private automobile to some of the girls. The management of the McFarland Six also lent one of

their machines, under the control of Mr. Swan, to the girls. The truck was also the carriage for many of them. The distribution was under the supervision of Pansy Holder.

The girls reported that the scenes in many places where baskets were received were touching in the extreme.

Business Girls' Club Room.

The Central Eleanor Club, established by the association which operates the Eleanor Clubs of Chicago, moved into its new and spacious quarters in the Powers Building, northeast corner of Monroe Street and Wabash Avenue, on January 1, 1913. This downtown club is designed for young women who wish to have a pleasant place to spend their time between the hours of work.

The club's large and brightly lighted reading room with its comfortable chairs, writing desks, piano, books and magazines, is a delightful place for the leisure hours of the business girl. Adjoining is a room furnished with couches, where one may have rest and quiet and in connection with this is a dressing room.

During the week the rooms are open all day until half-past nine, and on Sundays from two o'clock until the same hour in the evening. There will always be one of the secretaries of the association in charge to welcome the young women who care to come. Many may find the parlor an attractive place in which to receive calls from young men, or for meeting friends before an evening entertainment. On Sunday afternoons there will be musical programs given and refreshments served to which club members and their friends are always welcome.

The Eleanor Association of Chicago has long recognized the need for a downtown club of this character, where the advantages of a club's social life may be shared by young business women. It cordially invites any business girls who can furnish references to apply for an active membership, the cost of which is one dollar a year.

Applications may be made at the Eleanor Association, Room 1003 Powers Building, 37 South Wabash Avenue.

In the Asylum.

A telephone repair man was sent to an insane asylum for some repairs. When he had finished his work, he began talking to one of the guards, who asked him if he would like to visit some of the cells. The repair man



OPERATORS STARTING OUT WITH CHRISTMAS BASKETS IN INDIANAPOLIS.



BASKETS READY TO START FROM MAIN AND TOLL, CHICAGO.

A few of the girls who had accompanied the distributing party were those whose homes are not in the city, and they had been quite homesick this holiday time, but declared that the scenes witnessed, and being privileged to aid those so unfortunate as to need aid, reconciled them to remain away from their homes and to be happy, too. So the beautiful Christmas spirit of giving in this way worked good in more ways than one. There were seventy-two baskets delivered.

said he would. So the guard opened the door of the first cell. He saw a man sitting on a three legged stool gazing vacantly at the wall. "His is an unhappy story," said the guard. "He was in love with a girl, but she married another man and he lost his reason from grief." They closed the door softly and went to the next cell. This cell was thickly padded and the man was stark staring mad. "Who is this?" asked the repair man. "This," said the guard, "is the man who married that girl."

WABASH EXCHANGE HAS ITS FIRST BIRTHDAY

Beautiful Celebration Planned and Carried Out by Traffic Forces.

Seldom, if ever, has a one-year-old child enjoyed such a birthday celebration as did Wabash exchange, Chicago, on its first birthday.

Tuesday, December 3rd, the supervisors of the office joined with Miss Goggin and Miss Richford in preparing a day of festivity which was perfect in its planning and most successful in execution. When one gives a birthday party for an exchange it requires more thought than it does for the youngsters in our homes. There are no holidays for a telephone force as a whole, even if it is a year old; busy boards must never be left vacant. So the whole family could not meet at the same time to celebrate the infant's first anniversary. But before the day and evening were over, every operator, day, evening and night had partaken of the birthday feast and joined in the delightful festivities.

The pretty dining room and rest room had been made more beautiful with festoons of smilax and yellow chrysanthemums and on the tables were chrysanthemums, bonbon favors and ferns, with narcissus at each plate. Dainty place cards were there also, upon which little telephone girls were painted in water color, each card with a different face and all painted by the resourceful Miss Richford whose love for her force must have inspired her brush.

A large pie profusely decorated with yellow nowers and ferns had a prominent place and the one big candle burning at the center, gave the proper touch for the one-year child. From a large wreath above it hung streamers with Harrison and Wabash inscribed upon them, which appropriately indicated the loyalty of the offspring for the mother office. This loyalty was further emphasized in the after dinner congratulations of Mr. Foster, Mr. Cooper and Mr. Welch who paid compliments to Miss Stoll and Mrs. Pirallo as well as to Miss Goggin and Miss Richford for the splendid year's work at Wabash.

After the one o'clock luncheon given to guests of the exchange, the wonderful pie was opened. Miss Goggin's previous announcement that it contained something which might send a message over the world, had not prepared the company for the surprise, when two beautiful carrier pigeons calmly flew out of the pie and circling over the company alighted on one of the chandeliers where they awaited further orders. The primitive method of sending messages in the light of Wabash's up-to-date methods did not appeal even to the romantic young ladies present who prefer to telephone their messages, and the doves were allowed to bill and coo together in peace, having lost their original job by the ruthless advance of electric discovery. Their excessive modesty would not allow them both to appear in the picture, much to the regret of the young ladies.

The Talking Machine Company, 137 North Wabash Avenue, very kindly loaned a fine Victrola which added much pleasure to the occasion and was in almost continuous use during the day and evening.

One feature of the birthday party must not be omitted and that was the present which Wabash received from



FIRST ANNIVERSARY CELEBRATION AT WABASH.

the operators. By a nickel contribution from each of the force, a sufficient sum was donated to buy a beautiful and perfectly equipped work box with a plate on the top inscribed "A Stitch in Time Saves Nine." The usefulness of the present has already been often attested and as it stands on the table it constantly recalls the first birthday and encourages the spirit of loyalty which is one reason for the success of this new office.

The following letter in response to an invitation sent to Mr. Vermilyea was appreciated by both Harrison and Wabash forces:

Detroit, Mich., Nov. 29, 1912.
To the Wabash Force, Chicago Telephone Company, Chicago, Ill.

Dear Girls—It is with sincere regret that I find it necessary to decline your kind invitation to the birthday party.

In view of the reports that have reached me of the progress made by the infant, the quality of service given in this the first year, it seems to me fitting that the anniversary be celebrated. Successful service must result to an office manned by a force of girls such as I know you to be.

I congratulate you upon your growth and success and wish to see it continue.
Sincerely yours,
E. J. VERMILYEA.

ANOTHER BAD RESULT

Of that Pesticiferous Institution, the Dual Telephone in One City.

Little four-year-old Ned Swain, of Lockport, was making a noise with his feet under the breakfast table, when his mother said, "Ned, telephone your feet to make less noise."

He replied, "I can't, my head has the Chicago and my feet the Interstate."

TWO MILLION CALLS ON DAY BEFORE CHRISTMAS

Chicago Telephone Company Handles Record-Breaking Traffic Without Strain.

The peak of Christmas traffic in telephone service which is always anticipated by the Traffic Department and provided for in advance, reached last year the high water mark in the record breaking figures of 2,000,000 calls on December 24th. Were we to draw a diagram, the line of traffic would appear more like a plateau than a peak. The high altitude attained early in the month was maintained to the end. The peg count taken December 6th, registered 1,807,090 calls, and this traffic continued during the month to keep up till the day before Christmas, when the 2,000,000 point was reached. It is a matter of congratulation that while this record breaking traffic was required, the situation had been anticipated and so carefully provided for that throughout the offices there was no unusual excitement or strain, and operating was as smoothly handled as at any time in the year.

A reporter standing in one of the busy downtown offices on the day before Christmas when it is probable the highest point of service was reached, seemed disappointed as he said, "I do not see much." Probably no greater compliment could have

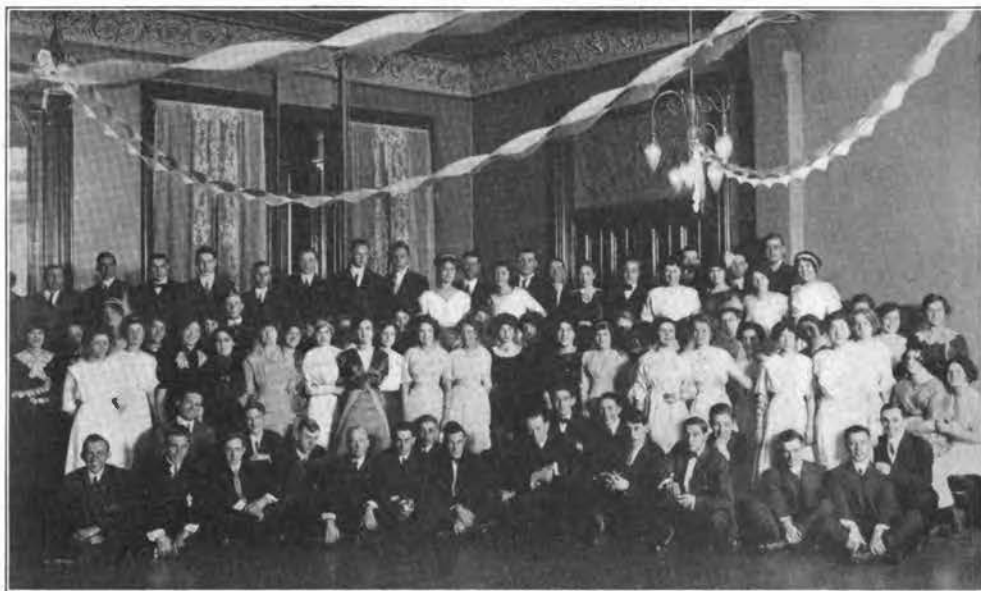
been paid to the management of the traffic department and to the operating force itself.

With this enormous amount of business it is significant that so few complaints were recorded. In fact, these were fewer in actual number than during the ordinary traffic—a very conclusive proof that the service was good.

To the young ladies who handled this great number of calls, much credit is due. Never before has Chicago made such great demands on the girls, and never have those demands been more successfully met. The steady strain of business during the entire month kept the large force busy every moment, but the cheerful, efficient response of the operating force never for a moment failed.

Chicago proved once more that she leads the world in making use of the telephone and that her demands can be met adequately.

Another reason for the satisfactory service last year may be found in the spirit of co-operation which fortunately is growing more and more universal. Private exchanges and subscribers are finding out that to get the best results there must be courtesy and co-operation. In addition to this the crusade for early preparations for Christmas has doubtless had an effect, and it was felt not only in the stores but in the telephone service as well. Instead of the old mad rush on the day before Christmas, there was steady, heavy business all through the month, and the telephone which is in a way the recorder of all the activities in the city registered this distribution of service, and through this happy change was able to give more satisfactory service than ever.



CENTRAL UNION EMPLOYEES' DANCE AT ROCK ISLAND, ILL.

About sixty couples attended one of the prettiest parties given this season at the New Harper Hotel by the girls of the Rock Island, Moline and East Moline Exchanges of the Central Union Telephone Company. The hall was very appropriately decorated with streamers of blue and white running from all corners of the hall and terminating in the center, where an immense blue bell was suspended. Frappe was served all during the evening, and a flashlight picture was taken, immediately after which the Traffic Chief, L. L. McManis, was called to the center of the hall and presented with a beautiful fountain pen as a token of appreciation for his many kindnesses and the great interest which he has always shown toward the girls. Manager Beverlin made the presentation speech in a very clever manner. The committee which labored so hard to make the party a success was composed of Luella Condon, Moline, and Beesie Porter and Ina Hingstman of Rock Island.

STICK TO POSTS DURING FIRE.

Operators Stand on Boxes in Water While Rochester Grocery Is Put Out of Business.

Fire and smoke damaged Gabriel & Green's grocery at Rochester, Mich., to the extent of \$1,500, putting them temporarily out of business. The fire started in Charles Eldred's apartments on the second floor, and he lost nearly everything by fire and water. The telephone office on the same floor was filled with smoke and water. Misses Fox and Cole, the operators, stood at their posts with water ankle deep on the floor, but the girls got boxes and kept at work. The building was damaged \$100.—*Detroit Free Press.*

A New Insect in Michigan.

Yes, they have 'em! We know from sad experience. Once a telephone gets buggy there's no telling what'll happen. The *Tribune* 'phone got a bug tangled up in itself only a few days ago and made all kinds of trouble. For instance, a lady called up to give us an item regarding some Thanksgiving visitors. The initials of the host were "S. J.," but the bug in the 'phone made it sound "Esther," and the man in the *Tribune* office so wrote the item. To make sure, he repeated through the 'phone, "Esther," etc., and that confounded bug made it sound like "S. J." to the lady at the other end of the wire. "Yes, S. J.," she said. "All right, I have it, Esther," said the *Tribune* man, and rang off. Two days later the lady again called up to tell us about the mistake that had been made, and this time the bug must have been off duty, for the initials came as plain as could be, "S. J." Yes, our 'phone has a bug, and we hope to goodness it isn't catching! It's had enough to have a 'phone with bugs, let alone having one ourselves.—*Chelsea (Mich.) Tribune.*

La Salle Girls Remembered.

As an appreciation of good service and courtesies accorded to subscribers

during 1912, a number of Christmas presents were received by the Central Union operators at La Salle, Ill.

"It is a fact," said the *Daily Post*, "that the local exchange has given better service to its patrons during the year 1912 than has been the case for many years previous." This was the source of the satisfaction felt by

the subscribers which prompted the gifts.

Mayor T. F. Doyle had ordered a two-pound box of candy for each of the telephone girls, but, because of the many other gifts already received by them the girls asked the mayor to make the presentation of the candy on New Year's day.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST Correspondent
G. W. CUMMINGS

Compliments.

The Commonwealth Edison Company, Franklin 1540, called and said they were unusually busy one evening, and thanked us for the excellent service we gave them. Operator Miss E. Otto answers the lines.

To the Chicago Telephone Company: On December 1st I am moving away from Chicago. I would like to have you take out the telephone and send a collector to take the money out of the box on Saturday, November 30th. I want also to thank all the young ladies on this exchange (Drexel 222) for their unfailing courtesy and kind attention to my many needs. With gratitude for all courtesies extended, sincerely
ALICE CORY ELWOOD.

Bonafide Club.

The long anticipated informal dancing party of the Bonafide Club was given on Friday evening, December 6th, Illinois Hall, with its recent improvements, proved to be a fine place for the party and the floor was filled with a happy company of dancers who enjoyed to the full the fine floor and the music provided by Mahlum & Rogers' Orchestra. Misses Lucille McFadden, Frances McManis, Mae Tuttle, Kathryn Kelly, Dode Walsh, Anna Johnson, Mary Moran, May Tonhy, Mamie Whalen, Jeanette Dworsky, who were managers of the party, were congratulated for making it a splendid success. Everyone seemed happy. All the girls looked pretty and only one "wall flower" was seen and she was so charmed by the moving picture before her that she

was not conscious of her unfortunate position.

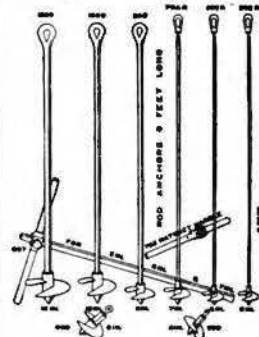
Sunday Evening at Art Institute.

The invitation of the Traffic Department to spend the evening at the Art Institute Sunday, December 8th, met with a very enthusiastic response and the six or seven hundred who were there thoroughly enjoyed it.

The first part of the evening was spent in Fullerton Hall, where some of the great pictures of the Nativity were shown on the screen by Mrs. John B. Sherwood, who gave a short lecture on the pictures. Mrs. Sherwood, with her enthusiasm in art and her love to be of service, has become a resource for the telephone operators as well as to many other people in this city.

The Christmas musical numbers which accompanied the pictures were a delightful feature of the program. Miss Dunlap kindly gave her services and sang "Holy Night" and "Mary's Manger Song" with exquisite feeling. Margaret Tyler charmed everyone by her violin numbers. The male quartet, consisting of Mr. Sullivan, Mr. Smith, Mr. Sainsbury, and Mr. Rozelle, was so good that it was suggested that we ought to keep it for a permanent Blue Bell quartet. Solos by Miss Haggan and Mr. Sullivan were also greatly enjoyed. Miss Haggan singing "He Shall Feed His Flock" and Mr. Sullivan, Dene's "Sleep, Little Baby of Mine."

After the program the galleries were visited and the exhibition of American artists viewed with the help of Lorado Taft, Mrs. Sherwood and Miss Vanderpool. A Monday newspaper spoke of it as unusually large attendance at the Art Institute on its open Sunday evening. One thousand and fifty were registered that night, and we may congratulate ourselves upon bringing, by our invitation, more than half that number from our telephone company. The Art Institute is open every

MATTHEWS
Guy Anchors

The No. 603R, No. 704R,
No. 800, No. 1000 and
1200 Matthews Guy
Anchors

are on the approved list of the

American Telephone and Telegraph Co.

The Chicago Telephone Co.

The Central Union Tel. Co.

The Wisconsin Telephone Co.

The Michigan State Telephone Co.

The Cleveland Telephone Co.

have all used quantities of Matthews Guy Anchors. The first three named have used thousands of them in the past five years.

WHY?

Because they hold the strains for which they are designed. Because they can be screwed down without any digging, therefore there is no guess work about their proper installation; no moving parts to adjust or that might be carelessly buried unadjusted. Because it is the most satisfactory anchor to use in quick sand and dry sand where digging is so expensive. Because it makes the task of the Right-of-way man much easier, as property owners don't object to it because it does not disturb their lawns.

Manufactured Exclusively By



"Matthews Does While Others Buzz"

For Sale By The
WESTERN ELECTRIC CO.



BROHR GOTTHARD FRISK.

Brohr Gotthard Frisk. Born in Chicago July 5, 1885. Attended west side grammar school and Crane Manual Training School. Entered the service of the Chicago Telephone Company February 8, 1906, as a draftsman and served faithfully until on August 1, 1912, he was transferred to the Construction Engineers Department. This work necessitated his traveling considerably. While in Indianapolis he was stricken with a cold and on October 26th was forced to take to his bed and continued to get worse until the following Saturday pneumonia developed and he died at 8:30 a. m., Monday, November 4th. His mother, father and brother were with him at the time of his death. The body was brought home to Chicago on Tuesday and burial followed from his home in Chicago the following Friday. He was one of those rare, sterling natures made up of kindness, firmness and a quiet but determined aggressiveness. He was loved and will be missed by hundreds of friends in the company.

Sunday night and free to all. We hope our evening will remind many that this beautiful place is thus made accessible to all who are too busy to visit it on Wednesday afternoon.

December Promotions.

The following operators were promoted to supervisors in the various exchanges on December 1, 1912.

Main—M. O'Connell.
Wabash—L. Deleahanty, E. Linnemyer.
Monroe—L. McGrath, M. O'Neil.
Belmont—F. Iverson, M. McNeerney.
Lawndale—S. Golden.
Kedzie—E. Rix, M. Craig, M. Wilmot.
Oakland—N. Kearns, M. E. Roberts.
Wentworth—M. A. Dunn, A. Mueller.
D. Ryan, M. Scully, C. Lucy.

November Promotions.

The following operators were promoted to supervisors in the various exchanges on November 1, 1912:

Main—M. Schmidt.
Central—M. Mitchell, M. Creighton, A. Hogan, A. Corrigan, F. LeRoy, E. Swanson, M. Cavanaugh.
Wabash—J. Hamer, K. McWilliams.
Oakland—M. Clancy, E. Thomas, E. Hamilton.
Wentworth—J. Farrelly.
Hyde Park—G. Trautman, O. Barnum.
Douglas—K. Ward, M. Hickey.
Yards—J. Ever.
Monroe—J. Burke.
Lawndale—D. Ahrendt.
Canal—J. O'Brien, R. Schmek.

Irving—P. Hickey.
Humboldt—K. Tamillo.
Lake View—J. Kehoe, R. Magee, C. Paul, C. Wojtkiewicz.
Edgewater—L. Wasmuth, C. Dolan.
North—C. Fredrickson.

Suburban Promotions.

November, 1912.

Freda Gumz, Aurora, operator to supervisor.
Catherine Murphy, Evanston, operator to supervisor.
Ada Deathe, Lowell, operator to assistant chief operator.
Rebecca Bockhop, LaGrange, operator to assistant chief operator.
Francis Murphy, Franklin Park, operator to chief operator.
Minnie Vincent, Libertyville, transferred from Lake Forest and promoted to chief operator.

Service Standing.

Following is the place position of the offices for the month of November, 1912:
First Humboldt
Second Belmont
Third Canal
Fourth Douglas
Fifth Oakland
Humboldt and Belmont tied for first place.

Neighborhood Exchanges.

First West Pullman
Second Irving

Personals.

Pearl Smith, Yorkville, operator, was married December 18th to Fred Ohse of Yorkville. They will be at home after February 1st.
Grace Beecher, Yorkville, operator, and Howard Kellogg were married December 17th. They will live in Aurora.
One of the November brides of Main Office was Lillie Vahl, married to Edward Scherman November 23d. A reception was held at the bride's home, where she received many beautiful gifts. She has the heartiest congratulations of her many friends.
Mabel McKittrick, toll operator, who has been with the company several years, resigned December 14th. She was married December 26th to J. M. Rylands, traveling agent for the Rock Island Railroad with headquarters at El Reno, Okla., at which place they will make their home.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Ohio Bell Telephone Society.

At the annual meeting of the Ohio Bell Telephone Society these officers were elected: President, Norman Anderson; Secretary, J. W. Cherry; Program Committee, D. H. Morris, K. D. Schaffer, T. M. McKelley. At the December meeting W. D. McKinney spoke on "Organization Efficiency." Mr. McKinney is now Business Counselor and was Manager of the Pearl Street exchange in Boston in 1878. His talk was supplemented by many interesting reminiscences of the early days.

Akron Division.

Zela Loomis, cashier at Akron, has resigned and is succeeded by her sister, Ella Loomis.

Western Electric men are at work on additional A board equipment at Youngstown. A new section will be added in order to take care of increasing business.

Three additional Cleveland-Akron circuits have been completed and are now in use between these points.

Mrs. C. E. Andow, local supervisor at Akron, has resigned to assume home duties.

Mrs. Maud Hurr, local operator at

ELECTROSE
INSULATION

INSULATORS from 1,000 to 1,000,000 VOLTS

ELECTROSE
MANUFACTURING COMPANY
60-72 WASHINGTON ST. BROOKLYN, N.Y.
65-76 FRONT ST.

ALSO FOR SALE BY
THE WESTERN ELECTRIC COMPANY
NEW YORK AND BRANCHES

Akron has been appointed local supervisor.
Additional auto pay stations are being placed in various localities at Akron.

Columbus District.

Bowling has "caught on" at Columbus. A six-team league has been organized as follows: Commercial, Plant, Traffic, Contract, Engineers, Maintenance. All teams roll every Friday night, and a large attendance, including many ladies, gather to cheer their respective teams. Standing of teams on December 6th was as follows:

| Team | W. | L. | Pct. |
|-------------|----|----|------|
| Maintenance | 12 | 3 | .800 |
| Plant | 11 | 4 | .733 |
| Commercial | 10 | 5 | .666 |
| Contract | 6 | 9 | .400 |
| Engineers | 5 | 10 | .333 |
| Traffic | 1 | 14 | .066 |

Recently G. I. Schultz, captain of the Contract team, turned in two 200 scores. No one could understand the reason for this good bowling. The mystery, however, was cleared up, the following morning when cigars were passed around on the arrival of a baby girl.

"Cap" Lime of the contract department, who has been doing special work, dropped in for a few days recently, and, in order to keep his hand in, turned in a couple of private exchange contracts.

Messrs. Lime, Parrett and Binder, of the contract department, have been temporarily transferred to Lima.

On December 10th the Columbus Exchange passed the twenty-thousand mark, the sign in the window showing 20,017.

Toledo Division.

Nellie Watkins, teller at Toledo, has resigned on account of moving to Cleveland. Elizabeth Keenan succeeds to the position of teller.

Contracts have been taken for private branch exchanges as follows: Toledo: Toledo Casket Company, one trunk and six stations; defiance: Tick Mitten Company, one trunk and twelve stations.

Maud Reed, cashier at the Bowling Green Exchange, has resigned to accept a similar position with the Northwestern Natural Gas Company. Bertha Norris, formerly collector, succeeds to the position of cashier and Leora Hevener takes the position of collector.

Two barns belonging to John Barz and Edward Knodie at North Baltimore, Ohio, were totally destroyed by fire on December 2d; the fire also destroyed sixty feet of Bell fifty-pair cable and cable-box located in the first alley west of Main Street putting out of service 107 subscribers.

The Oil Belt Telephone Company is rebuilding the toll line lead between Bowling Green and Portage.

Poles, wire and other material is being received at Upper Sandusky, Ohio, for use in rebuilding and re-routing the Marion-Upper Sandusky toll line.

Work has been started on the new Fremont-Tiffin toll line.

CLEVELAND DIVISION

W. K. LAWRENCE, Correspondent

Two Bell Men Honored.

In the Chamber of Commerce Club Rooms, Tuesday evening, December 17th, the members of the Electrical League of Cleveland, Jovian Chapter, elected T. P. Cagwin, Commercial Manager, of the Cleveland Telephone Company, President, and R. G. Fate, Chief Clerk to Mr. Cagwin, Secretary and Treasurer.

Personals.

Friends of S. C. Moule, chief clerk to P. Yensen, Commercial Superintendent, are pleased to learn that he is fast recovering from his recent operation.

Carrie Louise Dietz of the commercial contract department, was married to Lynn Niece, Wednesday evening, December 4th.

When you want a Lock
you want the best.

**EAGLE
LOCK
CO.**

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories

TERRYVILLE, CONN.

Warehouses

NEW YORK

CHICAGO

PHILADELPHIA

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

ELECTRICAL HARDWARE

PLAIN and GALVANIZED



Pole Staps

Breases, Back and Cross Arm

Break Irons

Bolts, Arm, Eye and Thru

Cable Racks and Hooks

Guy Rods and Clamps

Hub Guards

Pole Staps and Brackets

Pole Balconies

Pothood Supports

Patented Ground Rods

Reinforcing Straps

Strain Plates, Etc.

board, two trunk lines and six stations. The Kelly Company, 755 Central Avenue, a No. 4 switchboard, two trunk lines and eight stations. Dr. Russell H. Birge, 624 Osborn Building, a No. 2 switchboard, one trunk line and seven stations.

A cordless switchboard, two trunk lines and six stations will be installed in the office of the Smeed Box Company, 1875 Scranton Road, as a result of the efforts of W. Englehardt.

Through the efforts of L. F. Barkauer a contract was secured for a No. 4 switchboard, three trunk lines and ten stations from the P. J. Probeck Co., 2339 East Fourth Street.

W. A. Walsh secured a contract for a private branch exchange from the Willard Storage Battery Company, Marquette & Lakeside Avenue, N. E. The equipment will consist of a No. 4 switchboard, one trunk line and thirteen stations.

A contract for a private branch exchange, which will consist of a cordless switchboard, one trunk line and six stations was secured by Charles Elmer, of the Weideman Fries Company, 600 Huron Road.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent, Milwaukee

Appleton District.

Tom Garland, toll test board man at the Appleton exchange, has been appointed wire chief at the Neenah exchange. He is succeeded by G. R. Lyman.

H. Othow of Oshkosh has accepted a position as installer and inspector at the Appleton exchange, succeeding Harold Fisher.

John Miller, local troubleman at the Appleton exchange, fell and hurt his knee, as a result of which he was laid up for a short time.

Mary De Jonghe, chief operator at the De Pere exchange, is ill with inflammatory rheumatism.

Rosalie Calaway, assistant chief operator at the De Pere exchange, was surprised by a number of her friends Sunday evening, November 24th, the occasion being her twenty-second birthday. All the toll lines on the Fond du Lac toll board are being rearranged so that the toll business can be handled by in and out operators.

S. O. Carlin was made wire chief at Fond du Lac on November 7th, being transferred from the Eau Claire District.

Rose Libal, toll clerk at the Green Bay exchange, resigned her position and has gone to California for her health. Edna Roehl succeeds Miss Libal.

A class 10-B Western Union office has been opened at the Kaukauna exchange.

The Manitowish and Northern Telephone Company has strung an additional circuit with ten new subscribers to receive exchange service from the Manitowish Exchange.

Mary Martell, assistant chief operator at the Marinette exchange, resigned her position November 15th to be married. Helen Sharkey, formerly toll operator, succeeds Miss Martell as assistant chief operator.

Mary Growhusky, sub-operator at Marinette, succeeds Violet Bennett, who was promoted to toll operator.

Clara Moerer, toll operator at the Neenah-Menasha exchange, has been transferred to the A. A. office at Menasha, where she will learn telegraphy. Pearl Remmel will take her place.

Nellie Larson has again resumed her position as chief operator at the Neenah-Menasha exchange after two months' vacation spent in Rochester, N. Y.

An envelope containing \$18 and the following note was sent to the operators at the Neenah-Menasha exchange. "Just a small token of Thanksgiving remembrance to the girls in telephone office

with the good wishes of myself and daughter."—S. A. Cook.

A complete kitchen outfit had been installed in the operators' retiring room at the Neenah-Menasha exchange.

A two by four cordless private exchange was installed in the new Ansapach Department Store, East Wisconsin Avenue and Commercial Street, Neenah, during November.

The Fox River-New London office was cut over to the Wisconsin Telephone Exchange on Saturday, November 18th, at 4 p. m. The cut-over went along smoothly and the service at this time is satisfactory.

O. R. Kientz, Manager at Algoma, was transferred to Omro as Manager, succeeding S. Buzzell.

Foreman C. Engles and crew are repairing farmer lines in the vicinity of Omro.

The development of the Winnebago County Telephone Company, connecting with the Oshkosh exchange, has reached the point where it has been found necessary to engage a regular lineman.

The Western Electric Company is installing four new positions to the switchboard at Oshkosh.

One and one-half miles of underground conduit is being placed on the Lawson property near Green Lake. This work is being handled by the Milwaukee office.

The Red River Telephone Company has built out a short distance south of Shawano and connected up six new subscribers. This makes a total of forty-four farmer subscribers this company has connected to the Shawano exchange.

The Bondel Telephone Company intends to build a number of miles of new line this spring.

The Gillett Rural Telephone Company has just completed about six miles of new line and connected up eleven new subscribers.

Louise Saaler, chief operator at the Sturgeon Bay exchange, was married to Herman Taube on November 20th.

L. Hatchelder, formerly toll operator at the Sturgeon Bay exchange, has been promoted to chief operator.

Eau Claire District.

Lynn Hinz, collector and commercial agent for the past nine years at the Eau Claire exchange, has resigned his position to engage in other work. He is succeeded by Bert Couture.

W. A. Johnson and crew have completed the repair estimate on outside plant at Ashland.

Nettie Williams, toll operator at the La Crosse exchange, who has been in the employ for nine years, has resigned on account of illness.

A. E. Gibbons, lineman at the La Crosse exchange, has been transferred to Washburn, where he has accepted a position as manager, to succeed O. M. Angvik.

Alice Haag is the new Morse operator at Ashland, relieving Nell Nelson, who accepted a position in Minneapolis.

The Hudson Exchange force has just completed rural-line extensions on Hudson Prairie, Wis., and Lakeland, Minn., connecting ten new farms.

Elizabeth Lahiff has accepted a position as manager's clerk at Hudson.

Sid Henderson, Morse operator at Merrill, resigned on account of sickness. Harry Erdman succeeded Mr. Henderson.

A meeting of the Blue Bell Club of Merrill was held at the residence of Miss Ruth House. A spread was laid for nine.

Miss Brecke has resigned as toll operator at Chippewa Falls to engage in other business. Helen Ranscher is promoted to fill her place and Anna Strahan is added to the operating force.

The operating force at Chippewa Falls received ten pounds of candy for the good service rendered by them the night of election, November 5th.

L. M. Barkley, repairman at Stevens Point, resigned to accept a position with the Wood County Telephone Company at Nekeosha as Manager. He is succeeded by J. H. Hamley.

The installation of an additional toll position and 100 additional local line signals and jacks at Stevens Point was completed by John McKivitt on November 19th.

Contracts covering two private branch exchanges were secured during the past month at the Stevens Point exchange. The exchanges will be of the cordless board type.

The Milladore Telephone Company, a connecting company at Milladore, opened its exchange on October 15th with ninety subscribers connected.

Odella Bushman, chief operator at the Stanley exchange, resigned October 29th, and is succeeded by Emma Pfirmer, formerly toll operator.

A new three-position magneto board is being installed at the Stanley exchange and was expected to be ready for service about January 1st.

J. E. Bonell, manager at Eau Claire, has secured a contract for one trunk, six station No. 2 private branch exchange for the offices of Drs. Lyman, Dergs & Curless. The installation was completed by Clare Cubertson, wire chief, during the month of December.

J. E. Bonell has secured a contract for the Silver Mine Roadway Telephone Company, recently organized, southwest of the city of Eau Claire.

M. Hornhold, Western Electric foreman, and crew have about completed the installation of an additional section and a complete equipment of electric peg counters at Eau Claire. This will increase the switchboard facilities to 2,000 multiple.

Oscar Peterson, city foreman at Eau Claire, has been transferred to Menomonie. He is succeeded by William Snyder, formerly toll line repairman.

William Kurtz, lineman at Eau Claire, has been promoted to toll line repairman and is succeeded by John G. Ranous, formerly repairman at Menomonie.

A very successful cut-over from the old switchboard to the new one was made Friday evening, December 20th, at the Stanley exchange. The work was done by A. Winkelman, Eugene Schulties, and Manager R. A. Erbe.

Martin Scapple, repairman at Menomonie, has resigned and is succeeded by A. E. Johnson, formerly foreman under District Plant Chief E. P. Gray.

John G. Ranous, repairman at Menomonie, has been transferred to Eau Claire and is succeeded by Oscar Peterson of Eau Claire.

Florence Belair, operator at Menomonie, has resigned to take a position with the Western Union Telegraph Company.

The Eau Galle Telephone Company, a connecting company of Eau Galle, is making extensive improvements in its outside plant. Twelve miles of new cedar poles have been set and new wire will be added as soon as possible.

Madison District.

R. W. Daggett, who for the past three years has been Manager of the Madison exchange, has resigned to become a partner in a furniture business at Madison.

Mr. Daggett had been with the Wisconsin Telephone Company for the past eleven years, starting as a clerk, then cashier, then collector, and in 1905 he was appointed District Contract Agent of the Madison District. In 1909 he was appointed Manager of the Madison exchange. Mr. Daggett will be succeeded by James P. Brabany, who for the past three years has been District Commercial Agent of the Madison District.

The work of covering the installation of about eighty old rural subscribers at the Beaver Dam exchange has been completed.

Maeta Gilloth, toll operator at the Baraboo exchange, has resigned to accept a position as private exchange operator at the Vincennes Hotel, Chicago.

The work of reconstructing the outside plant at the Baraboo exchange is well under way and the new exchange will be cut over about February 1st. Foreman J. S. Danly has charge of the construction work.

Mabelle Murphy, formerly operator at the Baraboo exchange, has resigned to move to Milwaukee with her parents.

Foreman H. J. Beck and crew have just completed an estimate of several new rural lines at the Baraboo exchange.

The Western Electric Company has recently completed the installation of a storage battery for a mercury arc rectifier charging apparatus at the Lancaster exchange. This exchange for several years was operated on dry cells but owing to the increase in business it was necessary to install the new equipment.

The Western Electric Company has completed the installation of electric meters in the Madison exchange. The installation of auxiliary answering jacks has also been completed and they are working satisfactorily. The new section of toll board was completed about December 20th.

District Plant Chief H. Schroeder reports that all the D. R. and T. R. D. estimates have been completed in the Madison District.

Milwaukee District.

E. A. Douglas, Commercial Agent at Milwaukee, became a benedict when he married Grace Kersey, an employee of the Auditing Department, on Wednesday evening, November 27. Mr. Douglas was presented with a Morris chair by the members of the Commercial Department. J. H. Keating, formerly a collector at Janesville, has been appointed Manager of the Mayville Exchange to succeed L. E. Wahl, who was transferred to Milwaukee on November 6th.

Nellie Shaft, clerk at Main office, resigned her position on December 1st. Miss Shaft had been in the employ of the Wisconsin Company for 6 years, having held the positions of operator, hospital operator and clerk. On December 11th Miss Shaft was married to Otto Cheska. After the wedding ceremony Mr. and Mrs. Cheska left for Seattle, Wash., where they will make their future home. The Main office operators presented Miss Shaft with a beautiful silver fruit dish, and all sent with her their best wishes for a bright and happy future.

INDIANA DIVISION

D. H. WHITHAM, Correspondent, Indianapolis

Anderson District.

A fire in a building adjoining the Shelbyville exchange caused quite a little excitement and commotion among the night operators. They were very much frightened, as it looked as though the rear end of the building was burning. However, they were assured of their safety and stuck close to their duty and the service was not interrupted.

The North Vernon exchange and toll stations have been added to the Shelbyville exchange area, where their accounts will be handled.

Fay Barnes, Central Union toll operator, and John Schalk, Independent wire chief, both of Greensburg, were married at Indianapolis, Ind., December 8th. "Another consolidation of the Independents and the Bell passed on favorably."

The following Central Union employees formed a shopping party to Indianapolis December 18th: Mayme Barker, Helen Barker, Eunice Long, Marie Hoppner, Hazel Thralla, and Lucie Ruggles. The trip was one grand success, everybody claiming to have had the best time of their lives and all came home "broke."

Indianapolis District.

Miss Monteth and Mrs. Busch, supervisors of the third division of the Main Office, entertained the girls of their division on December 5th with a delightful luncheon, in recognition of the good work which they have been doing for the past two months. Among the invited guests were Miss Brethauer, Miss Hohenfeld, Miss Dugan, Mrs. McWhinney, and Mrs. Brown.

The operators of the Prospect Office distributed Thanksgiving dinners among several poor families.

Elizabeth Kennedy, one of the Prospect supervisors, entertained a number of the girls from the office at her home Wednesday evening, December 4th.

Nellie Jensen entertained the Arbitration Club at her home Monday evening, December 2d.

Hazel Mattillo has been promoted to the position of "new number clerk," succeeding Emma Woelfert.

The N. E. O. Club of the North Office gave a Shirtwaist Dance November 15th at the Hyde Park Hall.

A surprise birthday party was given for Hazel Mockford, by Irene Thomas, December 1st, at which a number of the girls from the North Office were entertained.

Pauline Stanley entertained a number of the girls from the North Office Friday evening, November 29th.

The I. W. C. Club gave the third dance

YOU'RE WASTING TIME

If You Haven't Started Using

FRANKEL'S TEST CLIPS

No peeling the wires. Permanent, positive connection every time and no damaged wires to repair.



FRANKEL DISPLAY FIXTURE COMPANY, Hudson and Vesey Streets, NEW YORK CITY

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

Matthews Telafault



The Central Group Companies

have purchased Matthews
Telafaults up to Dec. 14, 1912,
as follows:

Central Union Telephone Co.

- 1 to Zanesville, Ohio.
- 1 to Toledo, Ohio.
- 1 to Columbus, Ohio.
- 1 to Vincennes, Ind.
- 1 to Rockford, Ills.
- 1 to Frankfort, Ind.
- 1 to Springfield, Ills.
- 1 to Sterling, Ills.
- 1 to Peoria, Ills.
- 2 to Kankakee, Ills.
- 1 to Jacksonville, Ills.
- 1 to Champaign, Ills.
- 1 to Beardstown, Ills.

Michigan State Telephone Co.

- †8 to Detroit, Mich.
- †3 to Saginaw, Mich.
- 2 to Jackson, Mich.
- 1 to Pontiac, Mich.
- 1 to Hillsdale, Mich.
- 1 to Grand Rapids, Mich.
- *1 to Bay City, Mich.

Wisconsin Telephone Co.

- 1 to Madison, Wis.

*—Ordered since Dec. 1, 1912.
†—2 for Detroit and 1 for Saginaw
ordered Dec. 13, 1912.

Matthews Telafault will find your
"dead shorts," wet spots, grounds,
crosses and split pairs. It will pay
you to look into the merits of this
money saver.

Manufactured Exclusively By



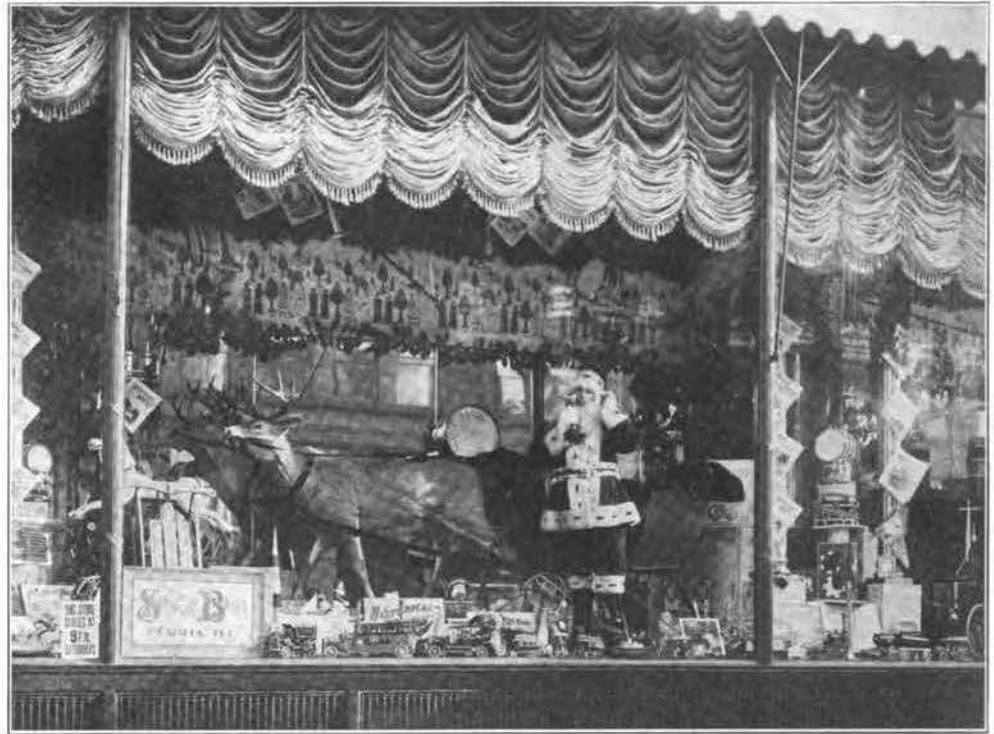
"Matthews Does While Others Buzz"

For Sale By The
Western Electric Co.

of the season at the Odeon Hall on De-
cember 6th.
A shower was given for Frieda Gwinn,
a supervisor of the Woodruff Office, who
was a Thanksgiving bride. Miss Gwinn
was succeeded by Elsie Weidman, who
was promoted from the training class.
The Indiana Fuel and Supply Company,
in the Traction Terminal Building, has
installed a private branch exchange of
three trunks and eight stations.

sixty feet of fifty-pair cable. District
Cableman Ary was in Cairo, where he
was notified. He arrived in Mt. Vernon
at 11:30 and all telephones were work-
ing by three o'clock Sunday afternoon.
An estimate has been approved and as-
signed to the Plant Department for pole
line and cable work at Centalla, being
mainly cable extensions and new termi-
nals on existing cable.
C. R. Day of Elwood, Ind., was checked

ent. The hall was very prettily decorated
in cedar and the Central Union colors of
blue and white. Many compliments were
received. The girls intended going home
at twelve o'clock but everything being
such a grand success the Traffic Chief
was persuaded to continue the dance for
one hour longer. Everyone went home
proclaiming the "Hello Girls" good enter-
tainers and promised to attend the com-
ing affairs.



CHRISTMAS WINDOW DISPLAY AT THE SCHIPPER & BLOCK DEPARTMENT STORE, PEORIA, ILL.

One of the chief events of the holiday season that is looked forward to by the children is the coming of Santa Claus to the Schipper & Block department store at Peoria, Ill.
It has been the custom for several years past for Santa Claus to arrive from the "North" each year by a special train. He arrived in Peoria on his special train over the Rock Island Road at 2:45 p. m., December 6th, and made his stay in Peoria until after Christmas. He was met at the train by a brass band and thousands of children that escorted him to the big store of Schipper & Block. He was seen in the morning after 10:30 and in the afternoon in the window of this big department store, as is shown by the above picture, where he received telephone messages from thousands of children who called him on the telephone to tell him of their wants on Christmas day.
A special wire was installed by the Central Union Telephone Company, known as the "Santa Claus Telephone." Santa Claus is in the act of answering a call from one of the children in the picture.

Terre Haute District.

The Construction Department has al-
most completed rebuilding the pole line
and stringing a new copper circuit from
Crawfordsville to Lebanon.
Aretha Carroll, for the past four years
local operator at Crawfordsville, resigned
December 1st to become the bride of Mr.
Martin.
Ella White, toll operator at Crawfords-
ville, has been transferred to the Com-
mercial Department, succeeding Miss
Long.
Dell Foreman, chief operator at Craw-
fordsville, has been holding a series of
operators' meetings from which a great
amount of benefit has been derived.
The following resolution was passed by
the Bell Telephone Society of Terre Haute
at its last regular meeting:
RESOLVED: That the Bell Tele-
phone Society of Terre Haute, Ind.,
expresses its hearty appreciation of the
liberal plan providing for insur-
ance against disability, accident and
death, and old age pension, adopted
by the A. T. & T. Company and its
associated companies.
We believe the plan ought and will
develop more loyalty and better serv-
ice among the employees.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Centalla District.

Liddle Henderson has accepted the po-
sition of stenographer in the office of Dis-
trict Plant Chief Wallace.
About 100 subscribers were put out of
service at Mt. Vernon, Ill., on Saturday
night, November 20th, by a fire which
burned a building and destroyed about

in as Manager of the Centalla, Ill., Ex-
change on November 15th, G. A.
Schmutte, the former manager, being
transferred to Cairo, Ill. Mr. Day has
been in the service of this company for
the last eight years, serving in the En-
gineering Department and in the contract
department of the Indianapolis Exchange.
He was formerly manager at Elwood. R.
B. Clark, manager at Cairo, resigned.
J. T. Detchon, who was formerly owner
of the Greenup and Toledo exchanges, has
sold the Toledo exchange to O. A. Logue
of Toledo and the Greenup exchange to
Stout and Turman, Martinsville.

A stately Christmas tree, well laden
with gifts, was the principal feature of a
Christmas celebration at the Paris Ex-
change. The tree was in the rest room.
The branches were illuminated by a string
of electric bulbs. Strands of bright col-
ored tinsel strung from the boughs caught
and reflected the rays of light. The
whole made a beautiful picture. Around
the base of the tree and displayed among
the branches were the array of presents.
These were on the mutual order. The
young ladies made presents one to the
other. Several of the business men of
the city, realizing the faithful devotion
to duty, contributed to the general store
with liberal presents of fruits, nuts and
other reminders to tell that their services
were appreciated.

Leola Calvert, who has held the po-
sition of night operator at the Effingham
Exchange of the Kavanaugh Telephone
Company for the last seven years, has
resigned to take a position with the Ob-
long Telephone Company of that place.
Grace Hartman is filling the vacancy.

The first annual dance of the Traffic
Department of the Central Union Tele-
phone Company at Concordia Hall, Alton,
on the night of November 25th, was well
attended. About 125 couples were pres-

Galesburg District.

Arthur East has accepted a position as
Commercial Agent under Manager F. W.
Kelly at Galesburg.
Edna Stansbury, toll operator at Gales-
burg, has resumed her duties after sev-
eral weeks' absence on account of the se-
rious illness of her mother.
Harlow Castle and Marietta Goodstill,
formerly plant and traffic employees of
the Galesburg exchange, were married
Thanksgiving Day. All employees wish
them many happy days to come.
A new private branch exchange con-
sisting of six trunks and seventeen sta-
tions has been installed in the Division
Office of the Chicago, Rock Island and
Pacific at Thirty-first street, Rock Island.
R. J. Schandel, District Plant Inspec-
tor, had the misfortune to injure his arm
severely in an accident while driving and
counting pole contacts.
F. W. Atkins, Manager at La Salle, Ill.,
Exchange, was the host of ninety-five
employees at a turkey dinner given Wed-
nesday evening, November 25th, 1912.
After the supper in the K. of P. Hall,
they had a dance. Everyone reports a
fine time and called "Dad" a royal good
fellow.
R. J. Lampman, formerly of the Michi-
gan State Telephone Company, has ac-
cepted the position of private branch ex-
change repairman at Moline, Ill.
A new private branch exchange board
is being installed in the Marquette Ce-
ment Company at Oakley to replace
switchboard which is worn out.
L. C. Williamson, formerly wire chief
at Rockford, has been on a vacation for
three months and is now back to work
as private branch exchange repairman.
Oliver De Farates, formerly of Jack-
sonville, Ill., has accepted position of ca-
ble helper at Moline.
Charles R. Dunn, formerly of the De
Kalb County Telephone Company, has ac-

cepted a position as lineman at the Galesburg Exchange.

Adelbert S. Purkapple, formerly of the Interstate Telephone Company, has accepted a position as repairman at Sterling.

Galesburg District feels rather proud of its gain in stations for November, which was 260, and we hope to do better. All employees should feel very proud of such a showing.

Springfield District.

Lula Ellen Constant, local operator at Springfield, Ill., was married to Melvin Rentschler at her home in Dawson, Ill., on November 6th.

Harriet Darab, formerly clerk in the Plant Chief's office at Springfield, Ill., has taken a position as local operator at Springfield, Ill.

Bess Morganstern, local operator at Springfield, Ill., has accepted the position of private branch exchange operator at the St. Nicholas Hotel.

Mamie Scurry, formerly clerk in the Manager's office at Springfield, Ill., has accepted a position in the Traffic Department.

Donald Marshall, formerly collector at the Springfield, Ill., exchange, has been transferred to Gilman, Ill., where he will act as Commercial Agent.

Teresa Crowley, central office pay station attendant at Springfield, is acting as clerk in the bookkeeping department temporarily. Miss Crowley is succeeded by Mae Worl Velle.

John Heimberger, formerly commercial agent at the Springfield, Ill., Exchange, has been appointed Chief Clerk to the Manager at Decatur. Mr. Heimberger is succeeded by A. R. Hinckle.

C. E. Vaughn of the Plant Department, who has been suffering with typhoid fever at his home in Centralia, Ill., is improving.

L. I. Andrews of the Traffic Department, who has been confined to St. John's Hospital for some time, is much improved, though not yet able to leave the hospital.

Henrietta Hesse, local supervisor at Springfield, resigned on account of the illness of her mother. Miss Hesse is succeeded by Gertrude Newberry, assistant local supervisor.

Ethel Adams, toll operator at Springfield, resigned and is succeeded by Ruby Rockwell.

Ethel Eggleston, toll operator, has been appointed toll supervisor at Springfield. Helen Gaffigan, toll operator, has been appointed toll supervisor at Springfield.

Minnie Jacobs, resigned her position at Springfield and was married to Henry Groesch on October 30th.

Mildred Dilling and Katherine Jacobs, local operators, have been transferred to the toll board at Springfield.

Mamie Flunigan, formerly employed by the Illinois Watch Company, has taken a position as toll operator at Springfield.

Nellie Shipp, night operator at Virden, Ill., has resigned to accept a similar position at Mangum, Okla.

The operating school in the Springfield office taught by Elizabeth May, toll chief operator, has proved itself of great value. It has now four students to be used as substitutes on the toll board.

Edward F. Hall has been appointed Chief Collector at Peoria, Ill. Mr. Hall succeeds O. S. Sandhagen, who resigned to accept a position with the Plant Department.

An estimate covering the outside cable work at Central has been approved and assigned to the Plant Department.

An estimate covering the repairing and overhauling of the Watska-Chenoa toll line, together with phantom circuit from Chenoa to Forrest and a No. 12 copper circuit from Gilman to Watska, has been approved and assigned to the Plant Department.

An estimate covering the change in toll route at Champaign, together with aerial cable work overhead involved in order to re-route the toll circuits on the Champaign-Danville line, has been approved and assigned to the Plant Department.

An estimate has been approved and assigned to the Plant Department for the work of rebuilding the Champaign-Decatur toll line, together with the necessary changes in routes. Under this estimate there will be provided the new phantom circuit from Decatur to Cerro Gordo required by the Traffic Department's recommendation for additional toll circuits in 1912.

An estimate has been approved and assigned to the Plant Department to cover repairs to the Bloomington-Peoria toll line, including changes in route at Morton and East Peoria to clear up tree conditions.

An estimate has been approved and assigned to the Plant Department covering toll line work at Bloomington, Ill., in connection with the A. T. & T. Company work of changing toll operating there. This involves changes in present Central Union toll routes and in route at Morton toll cable to do away with present use of twenty-two-gauge underground cable.

Alta Underwood, formerly contract and directory clerk at Peoria, Ill., resigned to accept a position as stenographer with the Peoria Herald Transcript. She is succeeded by Una Maye White.

The "Made-in-Peoria" show was held



E. J. HOLIHAN.

at the Coliseum the week beginning November 4th. Nearly a hundred exhibits were made by the various Peoria industries. The Central Union Telephone Company installed a private branch exchange with sub-stations located in various parts of the Coliseum. Very efficient service was rendered the exhibitors and they were much pleased with the results.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Engineering Department Changes.

The outside exchange plant engineering of the state has been divided into two districts instead of three as heretofore. S. H. Williams will be in charge of the Detroit and Saginaw Districts, and F. R. Temple in charge of the Grand Rapids and Marquette Districts. J. A. Trefzer, formerly chief draftsman, has been promoted to the position of inspector and reports to Mr. Williams. J. E. Diem is now in charge of the Drafting Department.

The above changes were made necessary on account of the departure of H. C. Cappelock, who has been transferred to the engineer's office of the Illinois Division.

Bouquet for Upper Peninsula.

A letter recently received by K. S. Baker, District Commercial Manager at Marquette:

"My Dear Mr. Baker: If a fellow has a good word, even for a heartless corporation, pass it along. I called up long distance this evening and asked the operator to give me Mr. Silning, either at Marquette or Gladstone. You know the distance between the booth and the waiting room here. I hadn't got to the writing desk when I was called back to talk to Mr. Silning. That's some service. Yours truly,

A. E. STAALBAUER.

Telephone Society of Michigan.

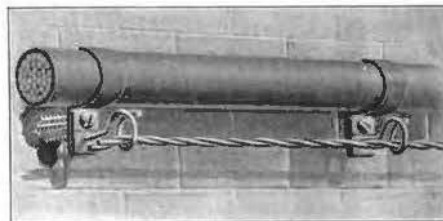
Instead of the regular meeting of this Society on the third Thursday of the month, which would have fallen on November 21st, an informal gathering on the evening of Monday the 18th was held in order to emphasize the value of enthusiasm to those members who had not bought tickets for the dance on the approaching Wednesday, or who had not sold any to others. The meeting was an entertaining one, at all events. Mr. Voss sang, and short talks were given by the following members: Messrs. Slack, W. F. Smith, Davison, Glass, Ewald, Hager, Vermilyea, Yoe, Hall and Burnham. A delicate blue haze soon filled the room, which was caused by the smoke arising from the combustion of the choicest of Havana's products exported to us in sandalwood boxes. Excellent cider and toothsome doughnuts—which, together with the Havana products, were furnished by the entertainment committee—were the last features of a pleasant evening.

The dance—that is, THE dance—took place duly on the following Wednesday at Strasburg's Academy. The entertainment committee states that the number of tickets sold for this—the Society's third venture of the kind—is less than for previous dances. This may be so, but it may be stated with confidence that no previous dance ever gave more pleasure.

"LONG SAUT" Combination Cable Clamps and Bridle Rings

The "LONG SAUT" Cable Clamp used in combination with machine thread Bridle Rings and Diamond Expansion Shields or Screw Anchors has solved the problem of the most economical and efficient method of fastening both lead covered cables and parallel runs of bridle wires in that form of telephone construction known as

"Interior Block Distribution"



Method of attaching lead cable and parallel run of bridle wire with "LONG SAUT" Cable Clamp. Both are securely fastened with one attachment.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 West Street

New York

"Beldente" Rubber Insulated Telephone Wires

We make all kinds of Telephone Cords—Silk, Cotton, Beldentel, Silkenamel and Cotenamel Magnet and Resistance Wires—Coil Windings—Cord Tips and Terminals.

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2318 South Western Avenue

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Engravers
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Your transportation problem—you want unprejudiced advice first; then service.

Who will best advise and serve you?

A manufacturer, who has only one kind of a truck built in one or two sizes? Or the International Motor Company, which manufactures trucks of value proved by years of use; with various designs and distribution of load and a full line of sizes with every kind of body built in their own plant?

Capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½, and 10 tons

You cannot afford to settle your transportation problem without consulting this organization.

We have data on the transportation problems of about every line of business. Our Engineering Department will be glad to send you, on request, special information in regard to your own particular needs.

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Anywhere an ordinary Bolt or Screw is unsafe. Fixtures should be fastened with SEBCO ANCHORS. The only permanent and economical method of fastening electrical fixtures to walls, ceilings, floors, etc.



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A quick, easy, absolutely dependable means of fastening heavy objects—twice as cheap and ten times more efficient than "working in" with lead.

Star Expansion Bolt Co.

147-149 Cedar Street, New York

Everybody had a rattling good time, and the attendance was far from slim. There were twenty-four numbers, the music for which was played by Rath's orchestra. During the evening vocal solos were given by the chief operator of the Walnut exchange, Leoria B. Stevens, and by Marjorie Shaw, one of the guests of the society. These musical interludes were loudly applauded by the dancers. For this dance M. C. Glass, of the Traffic Department, holds the salesmen's record; he sold fifty-six tickets. A word may also be said of the tickets of admission and of the program, which were gotten up in an artistic manner by the printer and were commented on by several persons.

For the regular meeting of December 4th the feature of interest was a paper on traffic engineering, read by Fred Clarke, Traffic Engineer of the Michigan division, and was illustrated by three charts. This paper was published in the December issue of the BELL TELEPHONE NEWS, but was new to the society when read as a paper. It was heard with great interest, and Mr. Clarke had to answer some questions afterwards from men of other departments, which he did with cheerfulness.

It was announced that the managers of the Detroit Arena at 500 East Warren Avenue had invited the members of the Telephone Society to a skating party on December 9th. This invitation was heartily accepted.

Short talks were given by Messrs. Sloum, Kittredge, Keyes, Spencer, Hager

was sent out on Monday morning, December 2d, to add the extension. He there learned that the subscriber had canceled the order, complaining that the "company was too slow."

The new No. 2 wire chief's desk ordered for Jackson exchange has arrived. It is a fine board and is equipped up to the standard. It is now awaiting its installation.

James Foley, a brother to David Foley, city foreman, has been employed by the company as a lineman.

W. J. Stevens, manager at Jackson, has secured a contract for a private branch exchange system from the Imperial Auto Company, consisting of one switchboard and fifteen terminals, two trunk lines and three loud ringing bells. This gives twenty-four switchboards to Jackson.

Ethel Hazzard, Pearl Wintemute and Harriet Walters, operators at the Grand office, are wearing new sparkles. They are all very reticent about their meaning, claiming they are only gifts. They will not admit Birthdays and Christmas (at the time of writing) is not yet here, so what are we to judge?

Gertrude McGill, information operator, Grand office, resigned Monday, November 11, 1912, to be married to George Treseott of the Detroit Free Press. The supervisors and information operators presented Miss McGill with a chest of silver as their farewell gift. A miscellaneous shower and a kitchen shower were given in honor of the bride-to-be, and she received many useful and beautiful gifts.



ARRANGEMENT OF SPACE IN ENGINEER'S OFFICE, DETROIT.

Engineer Carlyle Kittredge, whose desk is in the left background corner, has a large staff of employees reporting to him in this office, including district line engineers, equipment engineers, line inspectors, draughtsmen and clerks.

and Hall. The last named made a suggestion which found general favor. He said he considered it would be a good thing if the members of the Society were to get together at a dinner some evening at one of the big hotel restaurants. This suggestion was referred to the entertainment committee, who will act upon it at a future date.

The man who sweeps the floor of the Society room is reported to have picked up a piece of paper containing the following lines. There was a signature attached, which looked as if it might be "Bill Kennedy," but the paper being torn at the edges, this wasn't quite clear. The lines:

Ev'rybody's usin' it, usin' it, usin' it;
Ev'rybody's usin' it. Usin' it—usin' what?
See that young man phoning to his Nell!

Every word she says he hears so well—
By his pleased expression you can tell
It's a Bell, it's a Bell, it's a Bell—
Oh!

Ev'rybody's usin' it, usin' it, usin' it;
Ev'rybody's choosin' it—no one would be losin' it!

Other styles dictionaries may list 'em;
If they vanish no one will have missed 'em;

There's but one Bell Universal System—
And ev'rybody's usin' it now!!

Detroit District.

A brilliant diamond ring is seen gleaming on the fourth finger of the left hand of Elizabeth Quiney, stenographer in the Commercial Department. To explain the rays diverging therefrom an "announcement party" was given in November by Flossie Egan, another stenographer in the same department, for Miss Quiney. When the festivities were at their height a messenger boy arrived on the scene bearing a telegram signed "Dan Cupid" and giving the news to the assembled guests.

They must be going in for intensive living in the territory covered by the West exchange. On Saturday, November 20th, a subscriber getting service from that office ordered an extension on her telephone. The order went through the regular channels to the plant department so swiftly and smoothly that an installer

A quilting bee was another evening's entertainment, and everyone had such a thoroughly good time and the work was so well done that Gertrude declares this example will be followed with all her quilts.

O. A. Wells has been appointed Manager at Pontiac, succeeding J. J. Morrison.

Grand Rapids District.

On November 23d E. J. Hollihan was transferred from the Manistee to the Petoskey area. Mr. Hollihan entered the service of the Michigan State Telephone Company on June 16, 1899, as an installer at Jackson, Mich. He was later appointed manager at Holly. He also served as manager at Owosso and Lansing. He resigned in November, 1911, to engage in business at Detroit, but returned the following May, to be appointed manager at the Manistee exchange. It can be seen from the above that Mr. Hollihan has had a varied and long experience in the telephone business. The Petoskey area is one of the most important in the Grand Rapids district, comprising the following exchanges: Petoskey, Mackinac City, Pellston, Harbor Springs, Charlevoix, Boyne City, East Jordan, and Manistee, besides a number of important connecting companies.

On November 23d, J. M. Clifford, for twelve years manager of the Petoskey Exchange area, was transferred to Manistee. Mr. Clifford has been in the employ of the Michigan State Telephone Company and its predecessors, for the past twenty-four years. Manistee is one of the most important areas in the Grand Rapids district. The Manistee exchange has approximately 1,200 stations, and a fine common-battery plant is installed in a building which the company owns.

The Grand Rapids exchange has been installing joint Western Union-Bell Telephone signs the past few weeks.

Manager Ed. L. Berry, of Port Huron, was a caller at the Grand Rapids office a few days ago. As Mr. Berry started his career as manager from the commercial agents' department at Grand Rapids but a few months ago, the boys were all glad to have the chance to talk to him. His rapid promotion from the Charlevoix to the Port Huron Exchange has been watched with interest by the Grand Rapids commercial agents, and it has been

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

(2) It will decrease the percentage of lost calls by giving almost instantaneous connection with the particular party wanted.

(3) More than five hundred users are now enthusiastic with the results obtained from this service.

(4) It facilitates the prompt handling of long distance calls by eliminating "time lost waiting."

(5) Recommended by prominent engineers everywhere as a most valuable adjunct to the telephone.

AUTOCALL

used in conjunction with the telephone is productive of a combined service of much worth to the user and of great aid to the telephone service. Were you aware of its value you would not hesitate in recommending its utilization. To be familiar with this service is of a particular advantage.

Write for full details.

THE AUTOCALL COMPANY

110 Davis St. SHELBY OHIO



"DUPLICATE BILLS" SECTION OF THE DETROIT COMMERCIAL DEPARTMENT.

Carpenters have been at work on this part of the treasurer's office in the Detroit main building for several weeks past, the present arrangement insuring speedier disposition of the payment of bills on which subscribers had inquiries to make.

quietly passed out that there are several embryo managers in this department.

A conference of area managers of the Grand Rapids district was held at the Livingston Hotel on November 6th, when the commercial, traffic and plant district heads, each in turn, took up the matters of greatest importance in connection with his department. A great deal of stress was put on the matter of collections, and, judging from the spirit of co-operation shown by the managers present, there will be a big boost in the collections this quarter without the loss of any subscribers. The Grand Rapids plant chief, E. P. Platt, called special attention to the matter of reviving persons who have received electric shocks, and told of some very interesting personal experiences in reviving both persons who had received electric shocks, and persons given up as drowned. Keen interest was manifested in his talk, especially as Mr. Platt had recently demonstrated his theory by saving a child given up for drowned—a short account of which was published in BELL TELEPHONE NEWS for November, 1912.

One of the prettiest and most enjoyable balls of last season was that given at the New Burdick by the operators of the Grand Rapids Exchange. The second annual ball will be held at the same place January 22d. There are sixty-seven of these young ladies, and, to quote from one of the Grand Rapids newspapers they "are as clever, bright and attractive a company of young women as one could find anywhere in the country." Arrangements for the ball are in charge of the following committee: Drusella Arms, Clarice Boken, Bessie Hughey and Bessie Parke.

S. M. Bradford has succeeded H. E. Lampman as manager at Holland. Toll stations have been discontinued as follows: Portage, now "Class D" on Kalamazoo; Marlborough, Travis, Dowling, Comfort, Williamsville, now "Class D" on Van Buren.

As Olive Tubbs has succeeded Hattie B. Dean as manager at Freecott.

Ida Shook has succeeded A. H. Nehmeyer as manager at Sturgis.

Marquette District.

A contract has been signed with the Pickford Telephone Company, superseding contract with the St. Mary's Telephone Company.

The toll station at Heath has been closed.

The toll station at North Felch Junction has been closed.

The toll station at County Road Camp was discontinued December 24th.

A contract has been signed with the Munising, Marquette & Southeastern Railway Company, the same having been changed from the Marquette and Southeastern Railroad Company.

The Munising, Marquette and Southeastern Railway Company opened a toll station at Buckroe, on the Big Bay circuit, December 3d.

C. C. Brown, Connecting Company at Chatham, has opened a toll station at Midway Vencer, three-fourths of a mile east of Midway Camp and five miles west of Coalwood. This is in Alger county.

Saginaw District.

Free service was discontinued throughout Gratiot county on November 15th. Gratiot county contains the towns of Alma, St. Louis, Ithaca, Wheeler, Elwell and Breckenridge. Free service between these points had been an important factor in the service for ten years in that locality because of competition. Since November 15th, many unimportant and useless calls have ceased and the circuits have thus been relieved of congestion which has for some time prevented good, prompt service. Together with the continued increase in revenue accruing from this source, the abandonment of free serv-

ice in Gratiot county appears to have been a beneficial step to all parties concerned, and is appreciated by most of the business men in the several towns. On account of the rates at the various exchanges in Gratiot county being extremely low, both telephone companies evidently came to the conclusion that the net revenue was not sufficient to warrant additional circuits otherwise necessary to handle the traffic properly between exchanges. This traffic had been growing very rapidly during the past year or two.

Electrical peg count registers have recently been installed at Bay City and Flint. The Monitor registers are located on the chief operator's desk and the peg count register at the end of the board. They are actuated by buttons placed along with the call circuit buttons. In addition to this work at Bay City, 300 much needed answering jacks and multiple jacks have been added to the equipment.

Midland has been cramped for switchboard facilities for some time. The suspense is relieved by installing one additional section of No. 23 board.

Carsonville, which was in much the same predicament as Midland, has had similar relief by an added position of No. 3 board.

New toll circuit equipment is as follows: Bay City to Standish, two circuits; Prescott to Whittemore, one circuit. These three circuits are in the Bay City area.

We regret very much to announce the resignation of Manager Hulda Boesenecker at Frankenmuth. She has acted in that capacity for a number of years, and has been a most loyal employee. She was succeeded on December 1st by her sister, who, we feel sure, will step right into the old shoes. It's all in the family anyway, and bound to be right.

Two other changes in organization have been made. Manager T. E. Williams of Fenton goes to West Branch in the same capacity. Mr. Williams is succeeded by Cyrus Battie, formerly of the Plant Department at Port Huron.

October toll business in the Saginaw district surpassed all previous records. The figures of last May were at least equaled in almost every exchange. The Saginaw exchange ran 900 good "Outs" ahead of the previous month.

We wish to report the annual crusade of District Commercial Manager H. J. Mason. Mr. Mason wishes to have this crusade designated as a "Hunting Trip."

The place was Indian Lake; the object was deer; but—the catch was a bad cold. Both of these have been successfully domesticated and acclimated to the Saginaw Valley. Still, he goes every year.

Ray Aldrich of the plant department at Saginaw succeeded Rex Hampton as manager at St. Louis.

A connecting company contract has been signed with Edward Nickerson, of Lum, Lapeer county. This contract supersedes the contract heretofore in force with Merton Haines.

The toll station at Linwood Park has been discontinued, as of December 24, 1912, this being a "season" station only.

Roadway Company Notes.

A contract has been signed with the Custer Telephone Company to receive exchange service from the switchboard at Scottville.

A contract has been signed with the North Town Line Lake Roadway Company to receive service at the Big Rapids Exchange.

A contract has been signed with the County Line Roadway Company for connection at East Tawas.

The Stevenson Roadway Company was connected for service to the East Jordan exchange November 7th, with ten subscribers.

Contracts have been signed with the Clover Leaf Roadway Company, with eighteen stations, and the Shunk Roadway Company, with five stations, for connection with the Sault Ste. Marie exchange.

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TO THE

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Largest Stocks
Finest Quality
Promptest Shipments

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Producers for 32 Years

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W. C. STERLING & SON CO.
1880 Monroe, Michigan 1912



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BLANK BOOKS
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ADVERTISE
IN THE
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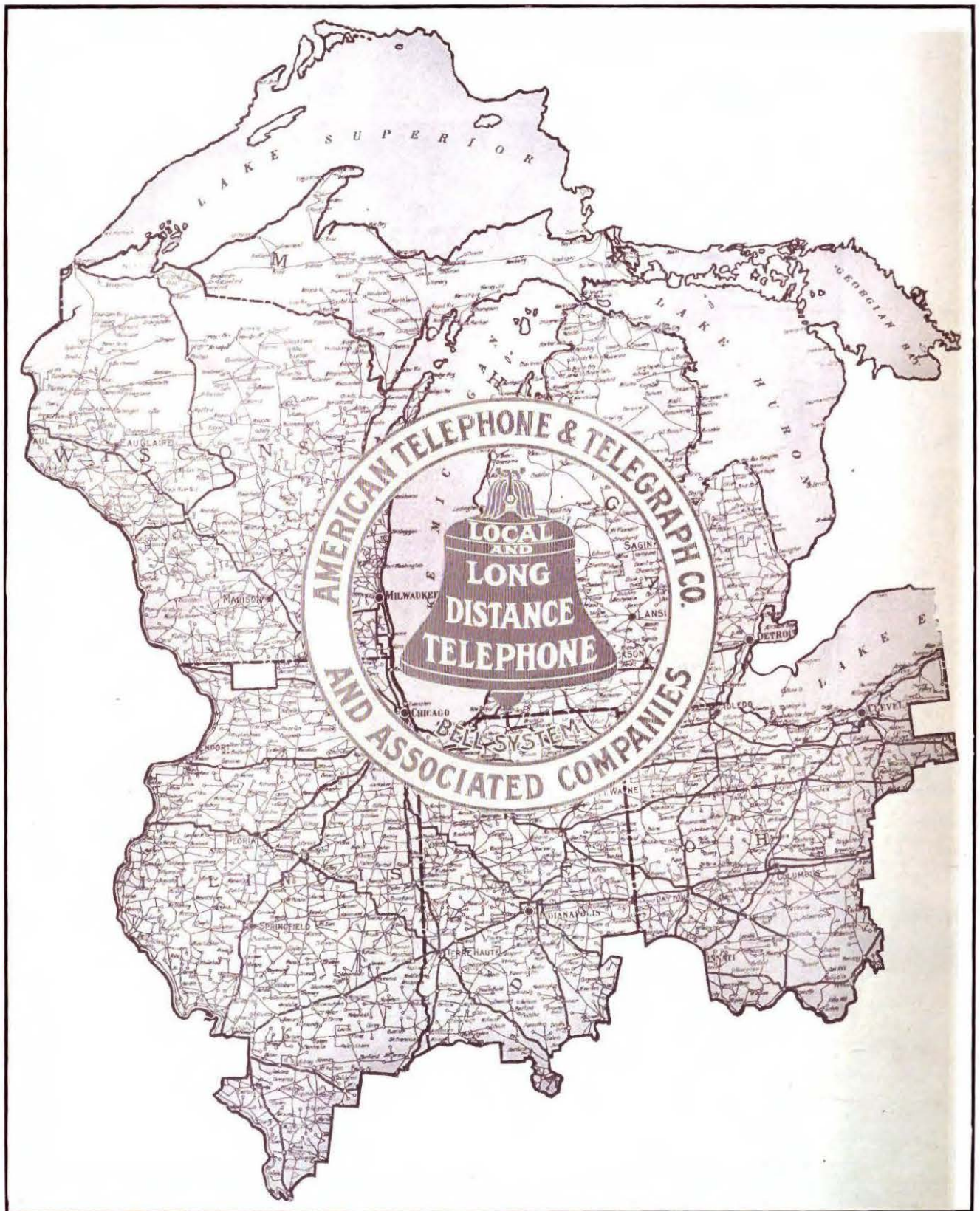
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

DECEMBER 1, 1912

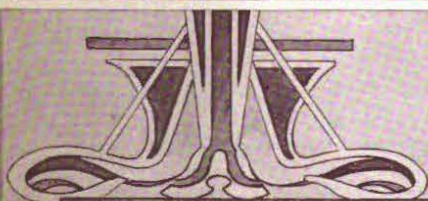
| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 444,018 | 219,779 | 663,797 |
| INDIANA | 82,912 | 169,679 | 252,591 |
| OHIO | 161,346 | 161,927 | 323,273 |
| MICHIGAN | 179,135 | 56,129 | 235,264 |
| WISCONSIN | <u>122,548</u> | <u>103,840</u> | <u>226,388</u> |
| | 989,959 | 711,354 | 1,701,313 |



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BELL TELEPHONE NEWS

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



Volume 2

FEBRUARY
1913

Number 7



Always on Guard

No matter where a ship may be along the American coast; no matter how dark, or cold, or stormy the night, the coast guard is on watch, patrolling the nearest beach or rocky cliffs.

This man, always on guard, could, by his own unsupported efforts, do little to save life, or to guide ships away from perilous points.

As a unit in an efficient system and able, at a moment's notice, to command the service of his nearby station, he becomes a power to whom all ship owners and passengers are indebted.

In the same way, the Bell Telephone in your home and office is always on guard.

By itself, it is only an ingenious instrument; but as a vital unit in the Bell System, which links together seven million other telephones in all parts of this country, that single telephone instrument becomes a power to help you at any moment of any hour, day or night.

It costs unwearying effort and millions of dollars to keep the Bell System always on guard, but this is the only kind of service that can adequately take care of the social and commercial needs of all the people of a Nation.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

Every Bell Telephone is the Center of the System.

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 7

CHICAGO, ILLINOIS

FEBRUARY, 1913

PUBLIC CONTROL, NOT DISSOLUTION, SOUGHT

Attorney General Transfers Investigation of Bell System to Commerce Commission.

Government regulation of the American Telephone and Telegraph Company is recommended by Attorney General Wickersham in a letter to the interstate commerce commission January 20th, asking that body to investigate the affairs of the Bell System.

The Attorney General declares regulation by the federal body and not the compulsory competitive provisions of the Sherman anti-trust law will, in a large measure, solve the problem. Mr. Wickersham also states that the commission's investigation will be far-reaching in effect, and out of it will probably grow the outline of a government policy with respect to the telephone and telegraph.

This move terminates the investigation by the Department of Justice of the charges of unfair treatment and the employment of methods unfair to competition made against the Bell System.

Commissioner Lane of the interstate commerce commission formally announced that "in response to information submitted to it by the Attorney General recently, the interstate commerce commission will make an investigation into the operations, rates and practices of the various telephone companies."

It must be determined, according to officials, whether in the interest and convenience of the public, a telephone or telegraph monopoly under rigid regulation should be tolerated by the federal government; or whether the government should take over utilities; or finally whether competition should be enforced under the Sherman anti-trust law and the monopoly prohibited.

Pointing to the complaints which have been lodged with the government against the American Telephone and Telegraph company, generally known as the Bell telephone system, the Attorney General says in his communication to the commission:

"Many of these questions, it seems to me, cannot be appropriately dealt with by the law department of the government, but should be made the subject of regulation after a careful investigation of the whole subject by your honorable body. The powers vested in you by statute appear to me to be ample to enable you to make a comprehensive and thorough investigation of the matter.

"It may be that as a result of such investigation you will conclude that additional legislation should be suggested to Congress.

"Quite a number of the states have enacted laws vesting in public utilities commissions or similar bodies jurisdiction which has been executed in some instances with respect to the interchange of business and facilities between telegraph and telephone lines. State regulation, however, cannot be a



THEODORE N. VAIL.

President of the American Telephone and Telegraph Company, who was the author of the plan to establish a Pension, Insurance and Disability Fund for employees of the Bell Telephone System.

satisfactory method of ultimate solution of the questions arising out of telephone operation.

"The value of a telephone service depends largely upon a facility of connecting every individual telephone user with any point upon any telephone line in the United States, but this should be attained under conditions which secure to the public the maximum of convenience upon the most reasonable terms consistent with a fair return upon the investment and under suitable supervision and control by your honorable body."

Dealing with the powers of the commission, Mr. Wickersham points out that the interstate commerce act makes telephone, telegraph and cable companies, engaged in interstate or foreign business, common carriers; requires that all their rates shall be just and reasonable, and prohibits the granting of undue or unreasonable preference to any one.

That section of the act requiring

common carriers to file with the commission, and keep open to public inspection schedules of rates, fares and charges, the Attorney General adds, probably is not broad enough to extend to telephone and telegraph companies. He holds, however, that the act confers upon the commission ample power of investigation on its own initiative, and he points to the section of the law specifically authorizing the commission to fix just and reasonable rates and to prohibit unjust and discriminatory practices by telephone and telegraph companies.

"Under the provisions of the statute referred to," continues the Attorney General, "the commission is, therefore, fully empowered to make the most thorough investigation into the rates and practices of the telephone companies to determine what are reasonable maximum rates to be charged for communication from one state to another, and the practice to be observed

(Continued on Page Two.)

TO TALK FROM OCEAN TO OCEAN BY 1915

American Telephone and Telegraph Company Rapidly Building Lines Westward.

The dream of telephone engineers since the first long-distance message came to the waiting ear is about to be realized. The two oceans washing the shores of the United States are about to be connected for regular telephonic communication.

On January 17th, N. C. Kingsbury, Vice President of the American Telephone and Telegraph Company, in charge of long-distance lines and publicity, made the announcement in San Francisco that by the time the Panama-Pacific Exposition opens in the far western city in 1915, the wires of the Bell System will be ready for New York to talk to the Pacific Coast. Mr. Kingsbury added that he hoped to have two circuits working before the close of this year, one over a northerly line from Omaha to Julesburg, Cheyenne and San Francisco and the other by way of Omaha, Denver and Salt Lake City to Los Angeles.

The lines from New York to Denver, which go by way of Chicago, have been giving service already about two years. They are constructed of No. 8 copper wire "loaded" and "phantomed." That is, they are equipped with loading coils, the invention of Professor Michael I. Pupin, of Columbia University, and are so arranged that the through connections are over phantom circuits. The work of building lines to be similarly equipped is being pushed on the two routes westward.

The distance from New York to San Francisco is about 3,360 miles. The distance to Denver from the Atlantic coast is about 2,000 miles. To bring San Francisco into range with the east is therefore a sheer jump of more than 1,300 miles.

When the visitor to the Panama-Pacific Exposition in 1915 calls his home city on the Atlantic border it will be the triumph of infinite skill and patience on the part of the Bell engineers. The load coil and phantom circuits have made the undertaking possible. To make it practical will require the most painstaking insulation of the wires and the most careful adjustment of the apparatus.

Another important piece of work which it has been necessary to carry on in parallel with the work dealing with the wire plant, was the development of a satisfactory cord circuit to be used with these very efficient loaded lines. Very successful results in this direction have been obtained and a cord circuit has been devised on which the transmission losses are almost negligible. With the new cord circuits the loss on the New York-Denver circuit by the two terminal cords at New York and Denver and the two intermediate cords at Morrell Park (Chicago) and Omaha is equal to the resistance of only 0.3 miles of cable.

GAIN OF 103,000 IN REGULAR STATIONS

Five Companies of Central Group
Made Good Progress During
Year 1912.

As predicted in our last issue, regular telephones in the Bell system in the territory of the Central Group of companies passed the million mark before the close of 1912. At the close of business, December 31st, the number was just 1,000,457. On the same date the number of stations of companies connecting with the Bell system in the same territory, and receiving Bell long-distance service was 714,740. The stations are distributed among the companies as follows:

| | Reg- ular. | Con- nected. | Total. |
|----------------------------------|---------------|-----------------|---------|
| Chicago Telephone Company | 383,706 | 5,388 | 389,294 |
| Wisconsin Telephone Company | 123,630 | 104,359 | 227,989 |
| Central Union Telephone Company | 260,496 | 547,843 | 808,389 |
| Cleveland Telephone Company | 52,709 | ..... | 52,709 |
| Michigan State Telephone Company | 179,916 | 56,900 | 236,816 |

Of the Chicago Telephone Company's regular stations, 308,177 were in the city and 75,529 in the suburban division, 8,484 being in Indiana.

The Central Union Telephone Company's stations were divided as follows:

| | Regular. | Connected. |
|----------|----------|------------|
| Illinois | 75,334 | 216,937 |
| Indiana | 74,998 | 186,978 |
| Ohio | 110,164 | 163,978 |

The five companies had, on December 31, 1911, 896,940 regular telephones in service. The gain for 1912 was therefore 103,517. This gain was distributed among the companies as follows:

| | |
|----------------------------------|--------|
| Chicago Telephone Company | 48,054 |
| Wisconsin Telephone Company | 16,435 |
| Central Union Telephone Company | 21,910 |
| The Cleveland Telephone Company | 5,687 |
| Michigan State Telephone Company | 11,437 |

TELEPHONE INDUSTRY'S YEAR.

Boston Stock Exchange Firm Gives
Review of Results Accomplished
by A. T. & T. Company.

For a number of years the Boston Stock Exchange firm of J. W. Bowen and Company has prepared for the *Boston Transcript* a review of the American Telephone and Telegraph Company, giving a concise survey of results accomplished, with price movements of shares and other matters of interest. The 1912 summary follows:

Nineteen hundred and twelve, in contrast with the previous year, was uneventful. It has been a year of rearrangement of territory and solidification. This work speaks eloquently in earnings statements but contains little news matter. The one salient feature of the year has been the sale of bonds by the subsidiary companies. No less than seven companies have issued bonds approximating in total, \$70,105,000. This is offset to some extent by the reduction in the Cumberland Telephone and Telegraph Company stock by the par amount of \$8,600,000. The prompt appreciation of these large bond issues by important investment interests shows that there is a fashion in securities as in clothes, because for many years past smaller issues of absolutely good bonds of the subsidiaries, netting from five per cent. to six per cent., attracted but little investment attention. The rehabilitation of the Western Union Telegraph

Company has made important progress and the stock of this company offers one of the best investment prospects in the entire Bell system.

The issued capital stock September 30th was \$334,606,900, an increase of \$13,659,191 since January 1st. The collateral trust 4s of 1929 are unchanged in amount, namely, \$78,000,000. The convertible 4s of 1936 have been reduced \$2,973,000 since January 1st, and only \$17,253,000 are now outstanding. The gross earnings of the American Telephone and Telegraph Company for the first three quarters of 1912 were \$31,273,860, an increase of \$3,975,866, or 14½ per cent. Net earnings were \$27,773,194, an increase of \$3,148,405. Dividends called for \$19,320,830, an increase of \$3,034,922. After deduction of interest charges and dividends the surplus was \$4,275,758, an increase of \$144,301, which certainly is a satisfactory result.

The first eight months operations of the Bell system showed gross earnings of \$129,615,075, an increase of \$12,108,231, or 10.3 per cent. Net was \$37,379,838, an increase of \$3,436,333; at the same time maintenance and depreciation expenditures showed an increase of \$5,237,897. The company's affairs certainly have been ably and profitably administered in 1912. Total stations of the Bell system December 1st, including 2,360,000 connected stations, were about 7,300,000, an increase of 667,375 since January 1st, which is at the rate of 11 per cent. per annum. The stock sold as high as 149½ in March and as low as 137½, the latter in December, present price being around 141. The collateral trust 4s of 1929 have sold from 91¼ to 89. The convertible 4s have ranged from 116¼ to 108¼, being now 110. The regular eight per cent. dividend rate has been maintained.

TAYLER DECISION STANDS.

Exclusive Contracts of Independent
Long-Distance Lines Held Invalid
by Court of Appeals.

A final chapter in litigation which a few years ago was considered of great importance to the telephone interests of Ohio, was written by the United States Circuit Court of Appeals, January 10th, when an opinion was rendered which definitely disposed of the validity of exclusive contracts for long-distance telephone service between the United States Independent Telephone Company and various independent local companies. The court upheld Judge Tayler, of the United States Court at Cleveland, in denying an injunction asked against the Central Union Telephone Company and the American Telephone and Telegraph Company. The Court of Appeals held that the enforcement of such exclusive contracts by the United States Company would be in effect creating the kind of monopoly which it had been the original effort of the independents to oppose.

LIMITS SOCIAL TALKS.

Shelbyville Manager Thinks Five
Minutes Is Long Enough to Tie
Up Wires for Mere "Gassing."

Following numerous complaints of business men of Shelbyville, Ind., that they were unable to obtain desired telephone connections, Manager B. B. Early of the Central Union Telephone Company made a quiet investigation, finding that for the most part the delays were caused by the carrying on of lengthy social conversations by women or young people. He has given orders that in such cases service be shut off after the expiration of five minutes' conversation.—*Indianapolis Star*.

EMPLOYEES' HEALTH DEPARTMENT FORMED

Physician to Head Organization to
Study Sanitary and Pre-
ventive Measures.

Dr. Alvah H. Doty, formerly health officer of the port of New York, has been appointed Medical Director of the Employees' Benefit Fund Committee of the American Telephone and Telegraph Company, the Western Union Telegraph Company and the Western Electric Company, in connection with the administration of the new pension and sick benefit plan for employees of these corporations.

There will be established gradually by the companies a system of medical supervision and preventive sanitation, designed to preserve the health of the telephone and telegraph army.

This undertaking on so large a scale—the companies have nearly 200,000 workers—inaugurates a new era in the relations of employer and employee.

Theodore N. Vail, President of the American Telephone and Western Union Companies, in announcing Dr. Doty's appointment, said:

"It is intended that the medical department shall have wide range in its activities. In addition to the usual functions of such a department it will devise and carry out various methods of health protection known as 'preventive measures.'"

"So far as practicable we shall seek the early detection of diseases, particularly those that are communicable, notably tuberculosis, and arrange for the patient's prompt removal, care and treatment. This offers not only a far better chance for the patient's recovery but also protects other employees."

"Preventive measures also will include sanitary conditions in offices and workshops, such as proper lighting, good air, pure water, safe plumbing and the discontinuance of articles in general use which are believed to be agents of infection."

"By various plain and practical methods employees will be instructed in hygiene and sanitation, and we hope that the information thus gained will extend to the home and to the public generally."

"Modern sanitarians know that the public health is best maintained by prevention rather than by treatment of disease after it develops. The measures we plan are of inestimable value, not merely in the interest of our companies, but also in public education on sanitation subjects, for our employees are everywhere in the United States, even in the smallest towns."—*Chicago Inter Ocean*.

PUBLIC CONTROL, NOT DISSOLUTION SOUGHT.

(Continued from Page One.)

in all of the dealings of the telephone companies with the public and with other companies.

"No comprehensive investigation into the organization, management and conduct of telephone companies has, so far as I am aware, ever been had by governmental agency. The investigation of this department has dealt only with certain suggested violations of the Sherman anti-trust act, but the whole problem of the relation of the government to the transmission of intelligence by telephone and telegraph is one of such far-reaching importance and so affects the welfare of the entire community that it appears to me to be a subject which should be thoroughly

studied from the standpoint of the public, in order that a governmental policy with respect to the telephone and telegraph business may be intelligently formulated and adopted.

"The interstate commerce commission is clothed with the powers above referred to, and the subject is one affecting such general public interests that I venture to suggest that you undertake this work. If these suggestions commend themselves to your honorable body, I beg to add that all of the information which has been collected in this department bearing upon the subject will be cheerfully put at your disposal."

Calling the commission's attention to the immensity of the subject, Mr. Wickersham said:

"There are said to be some 20,000 independent telephone companies, representing investments aggregating many millions of dollars, which together operate somewhat more than 4,000,000 telephones. No one of these companies represents capital or business comparable in size with that of the American company or any of its principal subsidiary companies."

"The American Telephone and Telegraph company, either directly or through subsidiary companies whose stock it owns, operates what is known generally as the Bell Telephone System, which reaches upwards of 70,000 places, distributed among practically all the states of the Union, having some 4,500,000 telephones in use and operating the principal long-distance lines between the states."

"It has an invested capital of a book value of nearly \$600,000,000. It also is the owner of a large block of stock of the Western Union Telegraph Company, through which it practically controls the operations of the telegraph and cable lines of that corporation."

Outlining complaints of independents against the American company, the Attorney General says they charge that the Bell company has not contented itself with the normal extension of its system but has purchased competing lines in such manner and in such circumstances as would destroy competition; that it has refused to make connections between local lines not owned or controlled by it and its own long-distance lines, and has terminated contracts and arrangements for the interchange of business between lines it has acquired and lines of independents.

Complaint also is made, the Attorney General adds, that in cases where American companies have assumed to make connections with independents, they have done so in such manner as, in effect, to prevent a satisfactory exchange of facilities of communication, "thereby intending to discourage the patrons of the independent companies and drive them to the American companies."

Further, according to the Attorney General, it is charged that the American company has discriminated between the lines of the Western Union Telegraph Company, in which it owns an interest, and those of the Postal Telegraph Company.

In places where there is no competition, the local and long-distance rates of the American companies are alleged to be unduly high, said the Attorney General.

Loans to Telegraph Employees.

The plan of loaning money without interest to worthy employees of the Western Union Telegraph Company has been a great success, according to the last annual report of President Vail. It has had the effect of breaking up usurious practices. The total of loans outstanding at the time of the report was \$19,313 and thus far the company has lost only \$200 as uncollectable.

Complete Details of Plan for Employees' Pensions, Disability Benefits and Insurance

As Adopted Officially by the Five Bell Telephone Companies of the Central Group.

A plan for the payment of pensions and accident and sickness disability benefits to employees, and of life insurance to their beneficiaries at time of death, has been adopted and became effective on January 1, 1913.

In the following pages the word "Company" shall mean any of the following:

Chicago Telephone Company,
Wisconsin Telephone Company,
Central Union Telephone Company,
The Cleveland Telephone Company,
Michigan State Telephone Company.
Other Companies may be included at a later date.

The plan for employees' benefits described in the following pages provides sickness benefits for only such employees as have been in the service two years or more.

In the cases of sickness of employees who have been in the service less than two years, the practice or such practice as may be established from time to time by the Company will be followed.

SUMMARY OF BENEFIT PLAN (AND ILLUSTRATIONS).

A brief summary of benefits to which employees may become entitled is given below. The full details and qualifying provisions are given in sections headed "Plan for Employees' Pensions, Disability Benefits and Insurance."

1. Pensions.

Retirement on pension is provided for employees coming under the classes listed below. Employees coming under Class A may be retired on pension either at their own request or at discretion of Committee. Employees coming under Classes B and C may be retired on pension only upon approval of President or Vice President.

Class A.

For employees whose term of employment has been 20 years or more and who have reached the age of 60 (males 55).

One per cent. of annual average pay during 10 years, for each year of service.

Class B.

For employees whose term of employment has been 20 years or more and who have reached the age of 55 (males 50).

One per cent. of annual average pay during 10 years, for each year of service.

Class C.

For employees whose term of employment has been 30 years or more. One per cent. of annual average pay for 10 years, for each year of service.

Example.

An employee whose term of employment at time of retirement has been thirty years and whose average pay for 10 years has been \$1,500 a year, will receive an annual pension equal to 30 per cent. of \$1,500, or \$450, payable in monthly amounts of \$37.50.

Note: The minimum pension will be \$20 a month.

2. Accident Disability Benefits.

Full pay for 13 weeks; half pay for remainder of absence, not exceeding six years in all.

3. Sickness Disability Benefits.

For employees whose term of employment has been 10 years or more.

Full pay 13 weeks; half pay 39 weeks, after first seven days' absence.

For employees whose term of employment has been 5 years or more, but less than 10 years.

Full pay 13 weeks; half pay 13 weeks, after first seven days' absence.

For employees whose term of employment has been 2 years or more, but less than 5 years.

Full pay 4 weeks; half pay 9 weeks, after first seven days' absence.

4. Life Insurance.

Payment to beneficiary or beneficiaries as follows:

For employees whose term of employment has been 10 years or more. One year's pay, not to exceed \$2,000.

For employees whose term of employment has been five years or more, but less than ten years.

Six months' pay, not to exceed \$2,000.

For employees whose death is caused by accident occurring in and due to performance of work for the company.

Three years' pay, not to exceed \$5,000.

PROCEDURE.

Applications for benefits under the "Plan" shall follow the approved instructions of the Company by which the employee in question is employed. In default of such instructions applicants should promptly communicate with the Secretary of the Employees' Benefit Fund Committee.

EMPLOYEE'S RECORD OF SERVICE, FORM S. N. 300.

Each employee of the Company on January 1, 1913, and thereafter at time of entering employ of Company, shall be given a pamphlet containing the details of the plan; he shall fill in required information on Form S. N. 300 (inserted at end of pamphlet), and hand to immediate superior for transmission to Committee along regular lines of organization.

INFORMATION REGARDING PLAN.

Communications with reference to this plan may be addressed to Secretary of Employees' Benefit Fund Committee.

PLAN FOR EMPLOYEES' PENSIONS, DISABILITY BENEFITS AND INSURANCE.

1. Object.

The Company undertakes in accordance with these Regulations, to establish, maintain and administer a Fund to be known as the "Employees' Benefit Fund" for the payment of definite amounts to its employees when they are disabled by accident or sickness or when they are retired from service, or, in the event of death, to their dependent relatives.

2. Definitions.

(1) In these Regulations the word "Company" means Company or Companies named on the first page or its or their successors.

(2) "President" and "Board of Directors" or "Board" shall mean the President and Board of Directors respectively of the Company.

(3) The word "Committee" shall mean the persons appointed by the Board to administer the Employees' Benefit Fund in accordance with approved Regulations.

(4) The word "Employees" shall mean those persons who receive a regular and stated compensation from the Company other than a pension or retainer.

(5) The word "Fund" shall mean the "Employees' Benefit Fund" as set forth in the first paragraph of these Regulations.

(6) The expression "Terms of Employment" shall mean continuous em-

ployment in the service not only of this Company but also one or more Associated or Allied Companies with which agreements have been or shall be made by the American Telephone and Telegraph Company for interchange of benefit obligations or in the service of any Bell Company predecessor of any of the above companies.

3. Fund.

(1) The Company has made an appropriation for the establishment of the Fund and agrees to make further appropriations as provided in Section 11.

(2) The Company shall be the custodian of the Fund which shall draw interest at the rate of 4 per cent. per annum on the average balance payment semi-annually.

(3) The Company guarantees the disbursement of the Fund in accordance with these Regulations.

4. Committee.

(1) There shall be a Committee of five (5) appointed by the Board to serve during its pleasure, which Committee shall be charged with the administration of the plan and the Fund hereby established. This Committee shall be called The Employees' Benefit Fund Committee and shall be empowered to employ a Secretary and such other assistants as may be required in the administration of the Fund.

(2) It shall also be empowered to draw from the Company out of the Fund for disbursement according to these Regulations.

(3) It shall adopt such By-Laws and Rules of procedure as it may find necessary, subject to the provision of Section 10 and the approval of the President.

(4) An audit of the receipts and disbursements of the Fund shall be made at the end of each fiscal year and a report of such audit shall be published to the employees.

(5) The expenses of this Committee in administering the Fund shall be borne by the Company.

5. Pensions.

(1) On and after January 1, 1913:

(a) All male employees who have reached the age of sixty years and whose term of employment has been twenty or more years, and all female employees who have reached the age of fifty-five years and whose term of employment has been twenty or more years, may at their own request, or at the discretion of the Committee, be retired from active service and become eligible to pensions.

(b) Any employee whose term of employment has been thirty years or more, or any male employee who has reached the age of fifty-five and whose term of employment has been twenty-five or more years, or any female employee who has reached the age of fifty years and whose term of employment has been twenty-five or more years may, on the approval of the President or designated Vice President, be retired from active service and granted a pension allowance.

(2) The annual pension allowance for each employee retired with a pension on account of age or length of service, shall be as follows:

For each year of active service one per centum (1%) of the average annual pay during the ten years next preceding retirement, provided, however, that the Committee may at its dis-

cretion, base such pension upon the average annual pay of the ten consecutive years of service during which the retired employee was paid the highest rate of wages. The minimum pension shall be Twenty Dollars (\$20) per month.

(3) Pensions shall continue from date of retirement to death of pensioner and the Committee may in its discretion continue pensions to dependents until end of third calendar month following death.

(4) As to service of employees previous to January 1, 1913, the judgment of the Committee based on the intent of all these provisions shall be final as to what constitutes continuous service and as to the term of employment and rates of pay of individuals.

(5) The acceptance of a pension shall not debar any retired employee from engaging in any business, which in the judgment of the Committee is not prejudicial to the interests of the Company.

(6) The Committee shall furnish quarterly to the President of the Company a list of all employees qualified to receive pensions.

(7) The Committee, on January 1, 1913, or as soon thereafter as possible, shall notify all employees who are then qualified for pensions of that qualification and thereafter shall notify employees as they become qualified.

6. Accident Disability Benefits.

(1) All employees of the Company on January 1, 1913, and thereafter shall be qualified to receive payments under these Regulations on account of physical inability to work by reason of accidental injury during employment while in the performance of work for the Company. Such payments are hereafter referred to in these Regulations as Accident Disability Benefits.

(2) Payments while disabled by accident received during employment occurring in and due to the performance of work for the Company shall be:

(a) Total disability—full pay for 13 weeks and half pay for remainder of disability, not exceeding 6 years in all.

(b) Partial or temporary disability—full pay for 13 weeks and half pay until able to earn a livelihood, not exceeding 6 years in all.

(3) A relapse within one year shall be considered a part of the disability in computing the time of disability.

(4) In ascertaining the period during which benefits shall be paid, successive periods of disability from accident shall be counted together if from the same accident and separately if from different accidents.

(5) Payments of benefits on account of disablement by accident shall be made only upon the disablement being shown to have resulted solely from accident during and in direct and proper connection with the performance of duties in the service of the Company to which they are assigned or which they are directed to perform by proper authority or in voluntarily protecting the Company's property or interest and there must be a clear and well established history of the cause and circumstances of injury accidentally inflicted and they must be sufficient to produce the alleged injury and there must be satisfactory evidence that it renders the employee unable to perform his duty in the service of the Company.

(6) If injury is of a permanent character, benefits will cease when the

employee shall be declared by the Committee to be able to earn a livelihood in an employment suited to his capacity.

(7) In lieu of all other benefits herein provided, special benefits to be paid to employees for injuries received while in the performance of work for the Company resulting in permanent loss of a bodily member may be awarded by the Committee not exceeding in any case the payment hereafter authorized to be paid in case of death from accidental injury except by specific ad-

to 10 years—full pay 13 weeks; half pay 13 weeks.

(c) If term of employment is 2 to 5 years—full pay 4 weeks; half pay 9 weeks.

(3) Benefits begin after seven days' absence on account of sickness.

(4) A relapse within one year shall be considered a part of the disability in computing term of disability.

(5) Successive disabilities from the same sickness or injury shall be counted together as one period in computing the period during which the employee

wages, as hereinafter defined.

(c) The maximum payment in any case to be Two Thousand Dollars (\$2,000).

9. General Provisions.

(1) Neither the action of the Board of Directors, in establishing a system of benefits, nor any action hereafter taken by the Committee shall be construed as giving to any officer, agent or employee of the Company a right to be retained in its service, or any right or claim to any pension allowance, if

preceding disability from accident.

(7) Benefits shall not be payable for both accident and sickness at the same time to the same person.

(8) In case of any grave injury or chronic sickness where the employee desires to accept a lump sum in full of all obligations of the Company arising from the benefit, the Committee shall have authority to make full and final settlement with such employee on such terms as may be agreed upon in writing.

(9) Disabled employees wishing to



MEETING OF DIVISION OFFICIALS, WISCONSIN TELEPHONE COMPANY, HELD AT MILWAUKEE, JANUARY 16TH AND 17TH.

From left to right: Top row—H. O. Seymour, General Manager; L. Killam, Plant Superintendent; G. C. French, District Commercial Manager; Thomas Berry, District Plant Chief; L. G. Barnes, Right-of-Way Agent; Henry Schroeder, District Plant Chief; William Hobbins, Engineer. Second row—C. L. Miller, District Manager; F. M. McNairy, Commercial Superintendent; H. J. Bendinger, Chief Commercial Agent; M. B. Dougherty, Chief Clerk; T. C. Whelan, Division Traffic Supervisor. Bottom row—James Hobbins, District Plant Chief; A. L. Hart, Service Inspector; J. P. Brennan, Supervisor of Lines and Equipment; J. V. Young, District Traffic Chief; D. R. Burr, Special Agent; W. H. Hyde, Chief Clerk; T. N. Moore, Special Agent; Joseph F. Krizek, Local Attorney; A. F. McKivitt, District Traffic Chief; F. J. Mayer, District Manager; J. Patmythes, District Traffic Inspector; William Schroeder, Plant Accountant; J. T. Quinlan, District Manager; F. H. Lincoln, Traffic Superintendent; E. P. Gray, District Plant Chief; O. B. Koepke, Division Auditor of Receipts; P. J. Skolsky, District Manager.

ditional authority from the Board.

(8) In the case of accidental injury to an employee occurring in and due to the performance of work for the Company, provision will be made by the Committee for necessary surgical treatment or when it is impossible for it to provide such treatment, the Committee will pay to or in behalf of the employee for such necessary treatment as may be approved by the Committee, but no employee shall have authority to contract any bills against the Company or the Committee and nothing herein shall be held to mean or imply that the Committee will be responsible for such bills as an employee may contract or his surgeon may charge. Bills for surgical treatment must be made out against the employee and must be itemized before they will be considered by the Committee. The decision as to whether in any case surgical treatment is or was necessary and as to what shall constitute surgical treatment shall rest with the Committee.

7. Sickness Disability Benefits.

(1) All employees of the Company on January 1, 1913, or thereafter, shall, after a term of employment of 2 years, be qualified to receive payments under these Regulations on account of physical inability to work by reason of sickness or accidental injury during employment while not in the performance of work for the Company. Such payments shall be hereafter referred to as Sickness Disability Benefits. Such payments shall continue only during disability if less than the periods hereinafter mentioned.

(2) Sickness Disability Benefits shall be as follows:

(a) If term of employment is 10 years or more—full pay 13 weeks; half pay 39 weeks.

(b) If term of employment is 5

shall be entitled to his rate.

(6) Disability from accident, including such as may arise from acts or things having no proper relation to the performance of duty or from individual physical condition or tendency or from causes beyond the control of the Company, such as riots, conflagrations, lightning, cyclones, hurricanes, storms, floods, earthquakes, or any acts of God, shall be classed as sickness and if of a permanent character, benefits shall cease when the employee shall be declared by the Committee to be able to earn a livelihood in any employment suited to his capacity.

8. Life Insurance.

(1) All employees of the Company on January 1, 1913, or thereafter shall be entitled to insurance against death by accident occurring in and due to the performance of work for the Company. This insurance shall be paid to the employees' beneficiaries as hereinafter provided, and shall equal three years' average wages as hereinafter defined, but in no case shall it exceed Five Thousand Dollars (\$5,000).

(2) All employees of the Company on January 1, 1913, or thereafter shall, after a term of employment of 5 years, be entitled to insurance against death by sickness, sickness as hereinafter defined, including accidents occurring while not in the performance of work for the Company. The amount of the insurance payable to beneficiaries, as hereinafter provided, shall be:

(a) For employees whose term of employment with the Company has been 5 to 10 years, 6 months' average wages as hereinafter defined.

(b) For employees whose term of employment with the Company has been 10 years or more, 1 year's average

discharged from its service, and the Company expressly reserves its right and privilege to discharge at any time any officer, agent or employee when the interest of the company in its judgment may so require, without liability for any claim for benefits or other allowance other than salary or wages due and unpaid.

(2) Assignment of benefits, insurance or pensions will not be permitted or recognized, except as herein expressly provided.

(3) Benefits may be suspended or terminated by the Committee in all cases of gross misconduct.

(4) Leave of absence or temporary lay-off on account of reduction of force is not to be considered as a break in the continuity of service, but when such absence exceeds six consecutive months, shall be deducted in computing length of active service.

(5) Employees who shall be absent from duty on account of sickness or injury must at once notify the Committee through the head of the Department in which they are employed, and they shall not be entitled to benefits for time previous to such notice, unless delay shall be shown to have been unavoidable and satisfactory evidence of disability is furnished.

(6) An employee after receiving the payments herein provided for sickness disability, shall be entitled to payments for disability from accident occurring thereafter in the Company's service, but he shall be entitled to no payment for disability from sickness thereafter until he shall have been continuously engaged in the performance of duty for a period of thirteen weeks. If an employee who has recovered from disability from accident shall continue or become disabled from sickness the time for which benefits are payable shall not be affected by the

leave home shall obtain from the Committee written approval of absence for a specified time, report to it immediately upon return and furnish it satisfactory proof of disability while absent, otherwise no benefits shall be paid for such absent period.

(10) All claims for disability benefits, to be valid, must be made within sixty days from the time when such benefits accrued.

(11) It shall be the duty of disabled employees, when their condition and location do not prevent, to call on the Committee or the Committee's representative as soon as practicable after disablement occurs, and at such time thereafter as the Committee may deem necessary.

(12) Disabled employees shall not be entitled to benefits, if they shall decline to permit the Committee to make or have made by a physician from time to time such examination as it may deem necessary to ascertain their condition, or shall fail to give proper information respecting it, or shall prevent the necessary examination by absenting themselves from home without arranging with the Committee or giving satisfactory reasons for not doing so, and furnishing the necessary evidence, or shall fail to comply with notice to meet the Committee at their offices or elsewhere, when their condition and location permit of their so doing.

(13) Disabled employees must take proper care of themselves and have proper treatment. Benefits will be discontinued to employees who refuse or neglect to follow the recommendations of the Committee.

(14) Employees shall not be entitled to receive disability benefits for time in which any wages are paid them by the Company. In computing accident disability benefits the time of dis-

ability shall be taken as commencing upon the first day upon which, because of disability, a full day's wages is not paid and shall not include any subsequent day for which a half day's wages or more are paid.

(15) Benefits on account of continued disability will be paid monthly, and on account of disability for short periods when the amounts are ascertained.

(16) Benefits payable to an employee unable to execute a proper receipt may be paid to a relative or other proper person, selected by the Committee, to use for the benefit of the employee and the receipt of such person shall be a sufficient discharge.

(17) Disability benefits remaining unpaid at the death of an employee shall be payable to the person or persons entitled to receive the death benefit, and in like proportion.

(18) If an employee dies during disability from accident or sickness, the death benefit which may be payable shall not be subject to deduction of previous payments of disability benefits.

(19) Payment of benefit on account of death of an employee shall be made in the following order; provided, however, that upon written application of an employee, and good cause shown, the Committee may authorize a change in such order of payment, but no persons other than the beneficiaries herein designated shall receive payment on account of such benefit:

First: To the wife (or husband) of the employee.

Second: If there be no wife (or husband) of such employee living at the employee's death, then to such child or children of the employee, and such issue of any deceased child, as were dependent upon the earnings of such deceased employee for their support at the time of his or her death, in equal shares, such issue of said deceased child, if any, to take equally among them the share said deceased child would have taken if living.

Third: If there be no children of the employee or issue of such children living at the employee's death, then among such relatives, if any, of the deceased employee as were dependent upon his earnings for their support at the time of his or her death, and in such proportion as the Committee may decide.

Fourth: If there be no such relative dependent as aforesaid living at such employee's death, the benefit shall lapse, and the amount thereof shall remain as part of the Employees' Benefit Fund, but so much thereof as may be required to defray the reasonable medical and hospital expenses of the deceased employee, together with the necessary expenses, not exceeding, however, One Hundred Dollars (\$100), of his burial, shall be paid from the Employees' Benefit Fund. In case notice in writing of the existence of such wife, husband, child, issue of a child, or dependent relative shall not be served on the Committee within twelve months after such employee's death, it shall be treated as conclusive that there are no such persons in existence.

(20) Claims for death benefits will be payable within thirty days after the required evidence of their validity is furnished.

(21) All claims for death benefits, to be valid, must be made within one year from the date of the alleged death on which the claim is based.

(22) A part of a death benefit not exceeding Two Hundred Dollars (\$200) may be paid before the final settlement, to meet funeral or other urgent expenses incident to the death and preceding disability of an employee, to be deducted from the total amount upon final payment. If any of the persons to whom the death benefit is payable are incompetent to give au-

thority for such payments or cannot be found, or are in a foreign country, or for other reasons cannot be conveniently communicated with, or there are no such persons living, the Committee may make such payments, as a part of the death benefit, as in its judgment may be reasonable, for the proper burial of the deceased employee and the payment of expenses necessary incident to his death and disability immediately preceding.

(23) Death resulting from infection of a cut, abrasion, scratch, puncture, or other wound not immediately disabling and not reported at the time of the occurrence causing the injury, or from sunstroke or frostbite, shall not be classed as due to accident.

(24) "Average Wages" as used in these Regulations shall mean the wages of the employee computed at his standard rate of pay for full time at the date of death, injury or the beginning of the disability on which a claim is based.

(25) Benefits and other claims upon the Fund shall be paid out in conformity with the financial methods of the Company, and on orders or bills prepared by the Committee or such other persons as may be designated by the Committee.

(26) At the discretion of the Committee, benefits may not be payable for disability or death directly or indirectly due to intoxication or to the use of alcoholic liquors as a beverage or to the use of stimulants or narcotics or to unlawful acts or immoralities or to fighting, unless in self-defense against unprovoked assaults, or to other encounter, such as wrestling or scuffling or to injury received in any brawl or in any liquor saloon, gambling house or other disreputable resort or to self-injury, wilfully inflicted, or from venereal disease.

(27) Death benefits will not be payable in case of death due directly or indirectly to unlawful acts, or at the hands of justice.

(28) In case of injury to or death of an employee entitling him or his representatives or beneficiaries to benefits under these Regulations, he or they may elect to accept such benefits or to prosecute such claims as he or they may have at law against the Company.

(29) Such claim otherwise than hereunder be presented or suit brought against the Company, or against any other Corporation, which may be at the time associated therewith in administration of the Employees' Benefit Fund, in accordance with the terms set forth in Section 10, for damages on account of injury or death of an employee, such employee or his beneficiaries shall not be entitled to any payment from the Employees' Benefit Fund on account of such injury or death, unless such claim shall be withdrawn or such suit shall be discontinued before trial thereof or decision rendered therein.

(30) Any compromise of such claim or suit, or any verdict, judgment or decision rendered in favor of either plaintiff or defendant in such suit, shall preclude any claim upon the Employees' Benefit Fund for benefits on account of such injury or death.

(31) The acceptance of any benefits from the Employees' Benefit Fund by an employee or his beneficiary or beneficiaries, on account of injury or death, shall operate as a release and satisfaction of all claims against the Company for damages arising from or growing out of such injury or death, and further, in the event of the death of an employee no part of the death benefit or unpaid disability shall be due or payable unless and until good and sufficient release shall be delivered to the Committee, of all claims against the Employees' Benefit Fund as well as against the Company, arising from or growing out of the death of the employee, said release having been duly

executed by all who might legally assert such claims.

(32) In case any employee or his beneficiaries shall be entitled under the laws of any State to any compensation, pension or other benefit greater than that herein provided, the amount paid to the employee shall be that prescribed by statute. The Committee are authorized to pay the amount of such liability in the manner prescribed by law instead of in accordance with the provisions contained herein. In case the statutory liability is less than the Company's liability hereunder, the Committee may make the payments required by law and shall pay to such employee or to those persons entitled to take hereunder the excess of the amount payable hereunder above the amount so paid in accordance with law. In case any statutory payment has to be made or any judgment is recovered by an employee or his beneficiaries against the Company on account of the legal liability above described or any liability for damages on account of accident or death, or on account of any liability hereunder, the amount of the statutory payment or judgment shall be chargeable to the Fund.

(33) Questions of fact arising in the administration of these Regulations shall be determined conclusively for all parties by the Committee.

10. Interchange of Benefit Obligations.

(1) Agreements have been or may be made between the American Telephone and Telegraph Company and its Associated and Allied Companies, for an interchange of the benefit obligations to which such Companies may be subject under plans for employees' pensions, disability benefits and insurance similar to that herein adopted. The general provisions of such agreements will be:

- That the benefit plan herein established shall be maintained by all Companies in conformity with that of the American Telephone and Telegraph Company.
- That yearly appropriations shall be made to keep the fund intact, as per the fifth clause of Section 11.
- That an employee's term of employment, as hereinbefore defined, shall include employment not only in this Company but also in any Company with which reciprocal agreements under this plan shall have been made by the American Telephone and Telegraph Company.
- That in case of consolidation with another Company having a similar employees' benefit plan, the benefit funds may likewise be consolidated.

11. Obligation of the Company.

The obligation of the Company is limited:

First: To safeguarding the sum already appropriated.

Second: To crediting said sum 4 per cent. per annum of the unexpended balance of the Fund.

Third: To the appointment of a Committee to administer the Fund according to these Regulations.

Fourth: To making payments out of the Fund upon the order of the Committee.

Fifth: To adding to the Fund at the end of each fiscal year such amount as will restore it to the original amount, provided that such addition shall in no year exceed 2 per cent. of the Company's pay-roll.

12. Order of Application of Fund.

If in any year the estimates of the Committee indicate that the Fund may

not be sufficient to make the payments provided by these Regulations they shall report to the Board the estimated shortage and if the Board fails to make an extra appropriation to cover the shortage, then the employees shall be informed as to the facts and the available funds shall be applied:

First: To the payment of Pensions already granted.

Second: To the payment of Pensions to be granted during the year in accordance with the Regulations.

Third: To the payment of Accident Life Insurance.

Fourth: To the payment of Accident Disability Benefits.

Fifth: To the payment of other Life Insurance.

Sixth: To the payment of Sickness Disability Benefits.

13. Change in Regulations.

The Committee, subject to the provisions of Section 10 and with the consent of the President, may from time to time make such changes in these Regulations as in their judgment will more effectually carry out the purpose expressed therein, but such changes shall not without his consent affect the rights of any employee to any benefit, insurance or pension to which he may have previously become entitled hereunder.

UNIQUE TOLL PLANT RECORD IN WISCONSIN

Every Mile of Wire in the State
in Order at One Time
January 18th.

The words, "no trouble," may not appear very interesting to the casual observer, but to the plant men they mean considerable.

A. E. Johnson, Division Toll Wire Chief of the Wisconsin Telephone Company, at Milwaukee, relates a recent occurrence when they meant very much indeed.

"When the morning wire reports began to come in to the Division Toll Wire Chief on Saturday morning, January 18th," writes Mr. Johnson, "the morning test by Toll Wire Chief Herbert Sweers showed no trouble in the Milwaukee District. Toll Troublemaker Lade suggested it might be because it was pay day, but when Janesville Madison and Eau Claire Districts reported all O. K., the Milwaukee Long Distance Wire Chiefs began to sit up and take notice. The suspense was terrible; all in but Appleton District, and no trouble. The Toll Operator then announced that Appleton was on the four circuit and 'Herb' grabbed it like a newsboy would a doughnut at a picnic. When the clear, business-like voice of the Toll Wire Chief, Mr. Hemmway, announced that it was 15 above and O. K. at Appleton there was a sigh of relief.

"This should be considered a pretty good record when it is remembered we have 45,000 miles of toll wire and 6,899 miles of phantom circuit in the state of Wisconsin, and January is rather a bad month.

"There is reason to believe that the toll circuits are in very favorable condition."

Three Small Exchanges Sold.

The Central Union exchanges at Jerry City, Bloomdale and Cygnet, Ohio, have been sold to the Oil Belt Telephone Company. The Oil Belt Company previously operated exchanges at Portage and Cygnet with headquarters at Portage. The three exchanges will continue to receive Bell long-distance service.

The Work of The Supply Department

By H. H. HENRY, Supply Agent, Chicago

An attorney called upon to address a class in "Commercial Law" announced as his subject "What becomes of a man's money when he dies" and was very promptly and unexpectedly answered by a voice from the rear, "The lawyers get it." Undoubtedly if the question was asked of the average telephone employee, "What becomes of your requisitions after they are made out and approved," the answer would be, "The Western Electric gets them," and further than that little could be said. It has been thought that some information on the subject might be interesting and possibly instructive, and help to clear up numerous questions which are asked from time to time regarding delays in securing material, or in getting the bills to close out our estimates or expense accounts, or, again, in securing the proper credit for material returned. There are also questions regarding apparently inadequate stocks to fill current demand resulting in a liberal sprinkling on our delivery tickets of B. O.'s, otherwise known as back orders, and signifying that the supply or stock of the items in question has been exhausted and that you must wait until it is replenished before the balance of your order can be filled. Then we hear the ever-present question concerning the use of second-hand or displaced material which nobody really wants, yet regarding which, all are agreed that it would be highly extravagant and wasteful to throw away as junk.

The first step in the preparation for furnishing the material and supplies for the coming year has been taken, i. e., plans for new plant and work of maintaining that which is now in service, have been agreed upon and all available information concerning the material needed has been secured. The Western Electric, in turn, has made its schedules for the manufacture of what is known as "W. E. Material" and is now busy obtaining propositions and making contracts to cover our requirements of what are known as "Outside Purchases."

If we could accurately foresee and plan the year's work, and stick to the plan, the Supply Department's work would be materially lessened, but serving as we do a somewhat scattered and changing community, which in spite of "fundamental engineering," "traffic studies," and "department estimates," usually persists in growing faster, or slower, or in a different direction, or makes demands entirely foreign to our wishes or expectations, care must be used to buy, or provide for material in sufficient quantities to secure a satisfactory price and ample supply when wanted, without assuming too large an obligation which would result in heavy overstocks, should the unexpected happen.

In planning for these new stocks, probably the best guide to the Western Electric storekeeper, in addition to our budget, is the record of previous years and in numerous instances they begin building up or replenishing their stocks, on the assumption that month by month demands will run a given per cent. in excess of same month in previous years, but this again is only a guess, which often proves contrary to fact.

The Western Electric supply houses base their running investment in stocks, upon the deliveries from that stock in the same period, the aim being to keep their stocks as near the minimum as is possible to render satisfactory service. For example, if the deliveries from Chicago house amount

to \$400,000 in a given month, it has been determined that a running stock of \$800,000 should be ample to care for all needs promptly. This you will note represents a maximum amount equivalent to two months' demand. In this connection they are undoubtedly setting a good example.



H. H. HENRY,
Supply Agent, Chicago.

With careful supervision of our demands as indicated in our requisitions we should not deplete the W. E. stocks established to meet the demands of the entire territory, by drawing out more material than needed, not only leaving the "cupboard bare" for the man who is watching his supplies carefully, but also building up an unwarranted investment in our own stocks, later to be returned not used, as excess, often to be carried for considerable time without being disposed of, which means additional expense in interest, insurance and handling. Excess stocks carried by Divisions, invariably cause depleted stocks at the Western Electric and later surplus stocks, which are costly.

The Western Electric only places in stock material which is manufactured in accordance with standard specifications, or concerning which it has received special instructions from proper authority in accordance with conditions of the "Supplies Contract."

The Western Electric Company can control the amounts of new material going into the stocks, but is entirely helpless when it comes to the returned goods from the whole field. Some of this is new and is at once available for application on orders from other parts of the territory, some material is returned on account of change in practice and can be used again after conversion to another type, or a certain amount of repairs; some is obsolete and must be disposed of to the highest bidder, often at a junk price for the metal contained therein.

material is still serviceable and of high efficiency or it would not be approved for substitution. This suggestion should not be considered a criticism, for I know many are entirely consistent in their efforts to draw out this stock, but as a matter of emphasis, because it is certainly an opportunity to increase our earnings by decreasing our expenditures.

Now, with the material on hand, or scheduled, how are we to get it? The answer is the same, whether the material desired is cable or terminal boxes, pencils or printed forms, desks or chairs, soap or mops—"Make a requisition for it."

Study conditions, carefully estimate your requirements and base on your knowledge of time required for deliveries (for it differs widely according to commodity), anticipate your needs and send requisitions promptly. It is surprising how many telegrams are received, "Ship by express today, requisition 1610 being mailed"; or within two or three days after receipt of requisition a telegram, "When may we expect delivery on requisition 677, holding up work." We try to give material ordered by wire preference over all other shipments, but in so doing the regular deliveries of material ordered in proper manner are often delayed and become emergency also. The telegrams for special service should be limited to real emergencies, otherwise, like the indiscriminate use of "Rush" tickets, they defeat the purpose for which intended.

Upon receipt, the requisitions are sorted and distributed to the various editors, who code them according to source of supply, that is, from warehouse stock, from factory at Hawthorne or New York, from the Telephone Companies' C stocks, or to be purchased and shipped direct from outside suppliers. The editor is the man who must interpret the requisition, and if description is not complete he must send it back to Supply Agent's office for further information, because experience has taught him that it is not safe to guess at what is desired.

A few cases of incorrect description which have occurred may serve to illustrate.

Requisition calls for cable boxes No. A-104379. Before this item can be edited it will be necessary to know what finish, oak or mahogany.

Requisition calls for generator or motor-brushes, size given, but no serial numbers of machines are shown. The correct brushes cannot be furnished without this information.

Requisition shows Tungsten lamps, 110 volts. Before order can be entered it is necessary to show what wattage is wanted (25, 40 or 60).

Requisition calls for one stop watch. The editor takes a chance and forwards the watch commonly used in part of the territory, only to find that a split-second Guinand watch is necessary and the one furnished must be returned.

These little errors of omission contribute to the delays which we are inclined to charge to the other fellow, and, by careful and complete description on all requisitions, trouble, delay and correspondence can be saved.

When edited, the order tickets are written, also the various shipping tickets and the requisition go to file, never again to be disturbed, unless some question comes up.

The current routines for handling the receipts and bills and credits, whether from Western Electric or outside supplier, are familiar to all, and if followed carefully and promptly, the final chapter, which is the payment of the bill, is soon a matter of history.

It may be interesting to know that the Supply Agent's office is not estab-

One of the greatest problems confronting the Western Electric storekeeper and our own Class C Inspector, is the working off to the best advantage of this old material. If the attention of our field forces can be aroused to the real importance and value of this stock, to the fact that the responsibility of utilizing this old material is theirs, to the possibility of showing on requisitions, for example, "Repaired 85-F sets may be substituted," instead of the notation, "Do not Substitute," which appears so often, if rather than attempting to satisfy ourselves with the belief of excessive maintenance costs, or general inferior appearance, we can be induced to look at the situation from a personal standpoint and decide the question after saying to one's self, "If it was my own, what would I do?"—I believe that much more can be accomplished without detriment to appearance, service, or popularity with our subscribers. Bear in mind the

lished for the purpose of holding on to supplies, or to block orders for any material authorized for use, but on the contrary, it should be and our aim is to make it of real assistance, a sort of a clearing house between the Western Electric and Telephone Companies. In our Western Electric office, we have a stock maintenance desk which secures estimates of requirements, authorizes for stocks, supervises changing of printed forms; a service desk which follows your telegraphic and written inquiries for orders, and files claims for discrepancies; a credit desk which, with the aid of an inspector, passes on all returned goods and arranges for credits, and last of all price clerks who audit the correctness of all bills and credits before they become a record on the books of either company, and in this way reduce our claims to a minimum. In our main office we have a purchase clerk, who looks after the buying of the material which is expected under the terms of the Western Electric Supply Contract.

I need say little of the volume of business handled, because we all know and are proud of the fact that there is none larger. Knowing this, we also realize the importance of the little economies, where savings of a few cents per unit, multiplied by the vast quantities used, will make a substantial showing.

A well balanced stock, a carefully edited requisition, forwarded in advance of actual need, a proper purchase at the lowest market price, a reasonable, prompt and regular delivery, a correct listing and packing of returned goods, together with accurate bills and credits rendered without delay, spells EFFICIENCY for the Supply Department, the Utopia, which we are seeking to attain.

13th a Hoodoo? Not for West Construction Division

The Chicago Traffic Department had agreed with the Engineers that it would be a good thing to transfer another half square mile or so of West Office territory to Kedzie Office and that it would be very nice to have this transfer made at the time the November directories were being delivered.

Of course when such things are agreed upon it is not for the Plant Department to question why. They are merely expected to carry out the agreement, so when the neatly drawn plans were received they proceeded to get busy with the trifling details of arranging for such a cut-over.

The territory involved (Madison Street to Flournoy Street, California Avenue to Sacramento Boulevard) was of a mixed business and residential character and boasted of over 400 stations.

The preliminary work involved the installation and connecting of over half a mile of 600-pair cable and cutting over the various legs of the lateral cables, some thirty in all. All of this work was completed in good time and the plant officials reported they were waiting for information as to the exact date the directories would be delivered, so that arrangements could be made for the final cut-over, which involved tagging 1,530 pairs of conductors and having approximately twenty-six splices open on the night of the cut.

It was finally decided that the directories would be delivered on November 14th, which meant that the final work had to be done by the Plant Department on the night of the 13th. And they did it, without a single case of trouble on the outside, handling 1,553 jumpers, omitting not a single station from the jumper list, as the list had been kept up to date by daily

correction sheets; re-wrote all card records and all cable records and cared for the 400 odd "C" orders which were issued on stations, and the best part of the whole thing was, there was not a complaint of any nature received.

So far as the 13th is concerned the Construction Department men are not superstitious, even though it rained hard during the greater part of the night.

chased a round trip ticket with berth both ways, and then with hotel expenses included would have found it cheaper. But Miss Tucker had no time for the trip, as she had to appear with the company at Hannibal the next night, and for her it was cheaper, quicker and more convenient to telephone. And when she paid the bill, she laughed and said: "Is that all they soaked me? Well, I wouldn't have

total was probably something like \$5,000,000. The court sat more than seventy days.

The award was received with consternation by speculators, and on the Stock Exchange there was a decline of 31 points in the price of National Telephone deferred stock, which closed at 107. At one time last year the stock touched 161½, owing to speculation by those who expected that the Post Office would pay the full amount of the company's claims.

At present it looks as if the deferred stock would receive little more than actual par value. If this estimate proves correct, it will mean that the company's reserve fund of \$23,229,720 will, as far as the shareholders are concerned, be almost wiped out or will have served merely to offset the depreciation in the value of the company's property as decided by the arbitration court, the deferred stockholders having received six per cent. dividends before the system was transferred to the government.

HERE IS A RECORD!

Wisconsin Newspaper Man Saves Thirty Days' Work by Using Bell Toll Service.

P. J. Skolsky, District Commercial Manager and District Traffic Chief at Eau Claire, Wis., and J. E. Bonell, Local Manager at the Eau Claire Exchange, were much gratified when they received the following letter, written from Milwaukee by C. A. Booth, Secretary, Treasurer and Circulation Manager of the *Evening Wisconsin* Company, after a visit to Eau Claire:

Milwaukee, January 15, 1913.
F. M. McEniry, Commercial Manager,
Wisconsin Telephone Company,
Milwaukee, Wis.

My dear Mr. McEniry:

It might be interesting for you to know the success of the experiment I tried on Monday, the 13th, talking to our customers over the telephone from Eau Claire.

Commencing at 8:56 a. m. I talked to ninety-seven (97) people in four hours and fifty-five minutes. I actually talked to one hundred, the last three coming in after six o'clock in the evening, as the result of calls put in later in the day. I called about twenty people who were out of town or were in Eau Claire, and I had the chance to see fourteen of them personally. The actual talking time to each customer, averaged for the number of hours put in, was 1 every minute and 27 and 4/10 seconds. The elapsed time between calls was 1 minute and 35 seconds.

I accomplished in the four hours and fifty-five minutes' talk, what would have taken me at least thirty days at a very large expense of railroad fare and team trips. The average talk cost about thirty-seven cents and a fraction.

I am pleased to state that I had the fullest co-operation from Mr. Skolsky, and from Mr. Bonell, and the young lady in the operating room.

Very truly yours,
(Signed) C. A. Booth.

Did He Get a Job?

The manager at Akron, Ohio, recently received the following application for employment:

Dear Frinde:

As I set down to drop you a few line to see if you people are doin any hiron now I would like to get a gob of helph four you people for the secon. will thar be any show to get on befor long. If you people can yuse me I wood cindly wood like to have you drop me a letter and let me now for I wan to go to work for sum company and I think you people are the best compny to work for. I hear you people are good people to work for, please anser my letter and let me now if you can do me any good.
Lockwood, Ohio, R. F. D. No. 1.



FIRE AT TEKONSHA, MICH.
Old location of Tekonsha Telephone Company's Exchange marked below.
New location above.

About 1:30 a. m. of December 19, 1912, the building at Tekonsha, Mich., leased by the Tekonsha Telephone Company, a connecting company of the Michigan State Telephone Company, was discovered to be on fire. The alarm was turned in by Claude Lawrence, residing in the same building. Mr. Lawrence received a quick reply from Theodore Van Orman, who gave the general alarm to the people and remained at the switchboard to the very last. Wire Chief Charles Anderson arrived promptly. He succeeded in calling Jackson, and asked the fire department for assistance. Mr. Anderson had just finished giving his message to the people when he was driven out by the flames. Fire started in the chimney of the building and had made much headway before being discovered. The entire building, which was occupied by E. J. Sinclair's drug store, the telephone office, and living rooms above, was destroyed, together with two adjoining buildings.

All telephone apparatus and records were entirely destroyed, and, as the warehouse was in the basement, that was burned also. New equipment, switchboard, cable, etc., were ordered by long-distance telephone from Chicago and was shipped by express. The fifth day after the fire the full exchange was in operation. Manager E. J. Sinclair was in Denver, Colo. He received a telegram soon after the fire was discovered, and arrived next day at 11:30 p. m. Much credit is due Secretary R. C. Smith of Homer, who arrived on the ground promptly and looked after the restoration of service, etc.

ACTRESS'S BIG BILL.

Pays \$24.50 for One Call Without Blinking Eye and Says It Was Worth the Price.

If Sophia Tucker, leading lady in the "Louisiana Lou" company spends as much time and money everywhere in telephone calls as she did during her stay of about twenty-four hours in Quincy, Ill., she is likely to run out of pin money before the show concludes its Kansas City engagement, engagement, after which it is to be withdrawn and the company disbanded, said the *Quincy Herald* in a recent issue.

When Miss Tucker settled her bill at the Hotel Newcomb among other items was one for telephone service, \$26.50. This amount was charged for two calls and Miss Tucker paid it without protest. One call was for \$2, the other for \$24.50. The night before she spent 50½ minutes at the instrument in a conversation that occupied exactly forty-nine minutes, so a *Herald* reporter learned at the hotel. This was the longest single call from the Quincy central office to any city, in the memory of the manager, Mr. Halligan, who has been there eleven years. It is the longest call in point of time and not distance.

Another person having such an important matter to discuss and so much to say on the subject would have pur-

been surprised if it had been more. And sweeping the change carelessly from the counter into her handbag, she turned away, with "Good-bye,—good luck," and a wave of her gloved hand.

BRITISH GOVERNMENT'S AWARD.

National Telephone Company Allowed \$62,000,000 for System—Had Asked \$104,000,000.

Sitting as a court of arbitration in London, England, the Railway and Canal Commission decided that the government should pay the National Telephone Company \$62,576,320 for the system, of which the Post Office Department took control on January 1, 1912. This is the largest amount ever awarded in an English court.

At the time of the transfer of the telephone system it comprised 561,356 stations, and the company asked an award of \$104,623,500, of which about \$85,000,000 was for the plant. It has been a case of large figures from the first. Preparation of the inventory before the matter reached the court occupied 600 men nearly eighteen months, and cost about \$1,250,000. Sir Charles Cripps' speech for the company made a record, lasting twelve days, during which he spoke half a million words. Twelve days before the case ended it was calculated that the cost had reached \$3,500,000, so that the

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,900 copies per month.

FEBRUARY, 1913.

YOUR DUTY AS A CITIZEN.

President-elect Woodrow Wilson in an address delivered before the Commercial Club of the city of Chicago voiced some rather radical views regarding present day business methods. His words make for pause and strengthen the belief that a point has been reached in our life as a nation where the thinking men must take up more actively the burden of assisting in the direction of national business administration. Mr. Wilson does, however, correctly interpret the signs of the times in urging upon his fellow citizens the importance of thoughtful consideration, by every man, of things that affect the public welfare.

As individuals we must take a keener, deeper interest in public affairs and, realizing that not only the well-being of present generations but that the destinies of millions of posterity also are involved, we must think broadly, unselfishly, presciently. Commercialism must give place to humanitarianism, greed to disinterestedness, selfishness to beneficence.

Young men in particular should awaken to conditions as they exist. They should enter actively into the life of the communities in which they live. They should assume without hesitation the responsibilities that rest upon every citizen of the Republic.

By an overwhelming majority the people called upon the Democratic party, in November last, to take charge of the executive and legislative branches of the government. The decks were cleared and free rein given and the party was commanded to work out the country's salvation, and its own.

So complete a change in the personnel and principles of those who are now to administer our affairs of state, will, without doubt, result in the presentation of many new, unique and, withal, impractical economic schemes and suggestions.

This situation makes it imperative that the young men of the country and the young women, too—give careful, thoughtful, studious consideration to public matters. If you are not informed on the subject of political economy—inform yourselves. If you have paid no heed to banking or to currency legislation, give heed now. If you have taken no thought of regulated monopoly in public service, of the fields in which competition should be fostered and those from which it should be excluded—take thought at once. The Labor Union, the Trust, the Referendum, the Recall, the position of the Courts, these, and all public questions, that provoke earnest discussion and divide opinion around you, should be met and mastered. Acquire information from every source; take counsel—not direction—from the experienced; then melt all down in your own God-given crucible, your brain, and when the gold, as you see it, appears—clean, pure—seize it and hold it. It is your gold!

When you have attained this mastery of the principles and practices of business—think! Think for yourselves! Be not a prey to the demagogue, the doctrinaire, the idealist, the professional politician, the self-seeker, the corruptionist. Realize that you are a part of the governing, law-making body poli-

tic and that the problem of the country's welfare is your problem. Then devote yourself earnestly to its solution.

Remember, however, that your conclusions may not pass current at sight, that all cannot see alike at the same instant. So, if you cannot immediately convince your neighbors, be neither dismayed nor discouraged. Strive rather to reach a common ground with the good men of your community, your ward, your precinct, and, taking and holding each small gain, as does the tug-of-war team, pull on, steadily, unswervingly, for the line of right thinking and good government. This is the true referendum and it should be kept free from the blight of fanaticism or political jugglery.

Through harmonization of differences in his own political unit, the man who fights for his carefully conceived conclusions and those of his friends and neighbors, refusing tame subservience to a party yoke, withholding his support from wrong, does good to those around him and serves his country well.

When the principles for which you have striven have been promulgated, see that the candidates for office are truly representative, then fight for them and support them unflinchingly. This can be accomplished. There are more good people than bad in your community. There are more intelligent people than dolts. Stir these for the right. Get together and pull together.

But of all things, beware—not of the political manipulators, not of the corruptionists, not of the crooks—but beware of the unthinking multitude, the tame and spiritless, the careless, indifferent throng made up of the debt-harried, the despondent, the money-grubs, the spenders, the dawdlers, the triflers whose time is taken up with the non-essentials of society and clubdom—all of these, and more,—who turn slyly hither and yon with every eddy current. Be not swept away in this mass—rather strive to break it, to open up the mental jam, to stem the senseless, rudderless drift and bring orderly, intelligent action into and through it.

MR. SUNNY EXPRESSES CONFIDENCE.

B. E. Sunny, President of the Chicago Telephone Company, when asked for his views on President-elect Wilson's Commercial Club speech, said:

I have great confidence in Governor Wilson and I do not feel the misgivings that I heard a few men express after his banquet speech. He confesses, with engaging frankness, that he is not a business man, and I take him at his word. I shall wait quite cheerfully for the modifications that time will bring about in his ideas.

I have no doubt that a year from now he will speak quite differently about banks and monopolies. He has expressed a determination to gather about him men of courage and honesty who have a special knowledge, the lack of which he realizes in himself.

He will come to see that some lines of business are necessarily monopolistic, while others are rightly competitive. I have no doubt that his opinion of the banking situation will be tempered with time.

Money madness is no longer fashionable. Business men have undergone a change within the last decade or two. They desire the good opinion of good citizens. They want to be good citizens themselves.

I see no menace in Governor Wilson's speech. Of course, business men do not enjoy the constant din of disapproval to which they have been subjected. But as for action detrimental to large enterprises—well, it is difficult to see what more can be done—nearly everything has been done already.

NEWS CORRESPONDENCE COURSE.

Plant employees of the Central Group will be interested in the announcement in this issue of the BELL TELEPHONE NEWS of the establishment of what is practically a correspondence course in which it is proposed to deal with problems arising in connection with installation, repair, testing, etc.

G. W. Cummings, of Chicago, who is already widely known to plant men in Illinois and Indiana, will be in direct charge of the preparation of the correspondence leaflets when the course opens. Mr. Cummings enjoys a high reputation among plant men and engineers for his grasp of the subjects on which he writes, and his correspondence courses for Chicago plant employees have been a distinct success.

We bespeak for the leaflets the careful attention of our plant men and feel confident that within a short time their value will be demonstrated to every one who studies them with care and a determination to improve his knowledge of his work.

The leaflets will reach the plant departments of the various divisions, districts and exchanges through the regular channels, with instructions covering their use.

It is not intended at this time to attempt the establishment of an elaborate course covering these subjects in full detail. It is hoped that these tentative leaflets will be of material assistance to our force, and both in individual study and district meetings will be found of sufficient interest to warrant the companies in broadening the course to include both a wider range of subjects and more detail in their treatment.

Plant men are invited to address the Editor of the BELL TELEPHONE NEWS regarding anything in the leaflets which may not be perfectly clear to them, or for any additional information desired about any of the subjects. If the inquiries are of sufficient general interest to warrant special answers being prepared these will be published in THE NEWS. If the matter is of local or minor importance only, the inquiry will either be answered direct or referred to the proper division or district authority. Suggestions are desired at all times looking toward the increased usefulness of the course.

MR. WICKERSHAM'S REPORT.

The action of Attorney-General Wickersham in referring the inquiry into the telephone and telegraph situation throughout the country to the Interstate Commerce Commission has met with general approval. The Department of Justice has been carrying on an investigation for months with a view of ascertaining whether or not the American Telephone and Telegraph Company is conducting its business in violation of the Sherman anti-trust law. The action of Mr. Wickersham would indicate that there has been no such violation and that all that is necessary, in his opinion, is proper regulation and control of the telephone and telegraph business of the country in the interests of the public.

Such regulation has been courted by President Vail. In this connection it is interesting to review in part his statement made in the annual report to the stockholders of the American Telephone and Telegraph Company for the year 1910:

Public control or regulation of public service corporations by permanent commissions, has come and come to stay. Control or regulation exercised through such a body has many advantages over that exercised through regular legislative bodies or committees. The permanent commission will be a quasi-judicial body. It should be made up of members whose duty it will be, and who will have the desire, the time and the opportunity, to familiarize themselves with the questions coming before them. It should act only after thorough investigation and be governed by the equities of each case. It would in time establish a course of practice and precedent for the guidance of all concerned.

Experience also has demonstrated that this "supervision" should stop at "control" and "regulation" and not "manage," "operate" nor dictate what the management or operation should be beyond the requirements of the greatest efficiency and economy.

Management or operation requires intimate knowledge and experience which can only be gained by continuous, active and practical participation in actual working, while control or regulation can be intelligently exercised, after judicial hearing, by those who have not the knowledge or experience to operate.

State control or regulation should be of such character as to encourage the highest possible standard in plant, the utmost extension of facilities, the highest efficiency in service, rigid economy in operation, and to that end should allow rates that will warrant the highest wages for the best service, some reward for high efficiency in administration, and such certainty of return on investment as will induce investors not only to retain their securities, but to supply at all times all the capital needed to meet the demands of the public.

Such "control" and "regulation" can and should stop all abuses of capitalization, of extortion or of overcharges, of unreasonable division of profits.

If there is to be state control and regulation, there should also be state protection—protection to a corporation striving to serve the whole community (some part of whose service must necessarily be unprofitable), from aggressive competition which covers only that part which is profitable.

Governmental control should protect the in-

vestor as well as the public. It should ensure to the public good service and fair rates. It should also ensure fair returns to the investor. A public utility giving good service at fair rates should not be subject to competition at unfair rates.

It is not that all competition should be suppressed, but that all competition should be regulated and controlled. That competition should be suppressed which arises out of the promotion of unnecessary duplication, which gives no additional facilities or service, which is in no sense either extension or improvement, which without initiative or enterprise tries to take advantage of the initiative and enterprise of others by sharing the profitable without assuming any of the burden of the unprofitable parts or which has only the selfishly speculative object of forcing a consolidation or purchase.

State control and regulation, to be effective at all, should be of such a character that the results from the operation of any one enterprise would not warrant the expenditure or investment necessary for mere duplication and straight competition. In other words, the profits should not be so large as to warrant duplication of capitalization in the competition for the same business.

State control of public utilities should not prevent progress, should be sufficiently unrestricted to encourage the introduction and demonstration of the value of any new or novel enterprise, and should allow sufficient reward for the initiative, enterprise, risk and imagination of the adventurers behind such enterprises. It should discriminate between the useful adventurers or promoters, pioneers in fact, and those pirates or sharks who, on the strength of other successes, extravagantly capitalize undeveloped ideas, and exchange the worthless securities for the savings of deluded and credulous investors. Corporate control and restriction should always exist to a sufficient degree to prevent such speculative promoting, and such stock-jobbing schemes.

State control or regulation, to be effective, should when exercised be accepted and acquiesced in by the public. If all the decisions not in exact accord with the desire or contention of the public are condemned, if it is expected and required that all decisions be against the utilities controlled, if politics and political effect are to govern decisions, if decisions go for nothing with, and are not respected by the public, failure and disappointment are bound to follow, self-respecting men will refuse to act, the standard of appointments will fall and state control and regulation will become a disgrace, and the evils which it was intended to correct will multiply.

If any company gives good service, meets all the reasonable demands of the public, does not earn more than sufficient to provide for the maintenance of its plant up to the latest standard and for reconstruction of plant when worn out or obsolete, pays only fair dividends to its shareholders—if a company is only doing this its rates and charges to the public cannot be unreasonable.

Effective, aggressive competition, and regulation and control are inconsistent with each other, and cannot be had at the same time.

Control or regulation, to be effective, means publicity; it means semi-public discussion and consideration before action; it means deliberation, non-discrimination; it means everything which is the opposite of and inconsistent with effective competition.

Competition—aggressive, effective competition—means strife, industrial warfare; it means contention; it oftentimes means taking advantage of or resorting to any means that the conscience of the contestants or the degree of the enforcement of the laws will permit. To make competition effective great and uncontrolled latitude of action is necessary; action must be prompt and secret.

Aggressive competition means duplication of plant and investment. The ultimate object of such competition is the possession of the field wholly or partially; therefore it means either ultimate combination on such basis and with such prices as will cover past losses, or it means loss of return on investment, and eventual loss of capital. However it results, all costs of aggressive, uncontrolled competition are eventually borne, directly or indirectly, by the public.

Competition which is not aggressive, presupposes co-operative action, understandings, agree-

ments, which result in general uniformity or harmony of action, which, in fact, is not competition, but is combination, unstable but for the time effective.

By reason of the character of the telephone business, in order to round out a universal, interdependent, intercommunicating system it has been necessary at times for the American Telephone and Telegraph Company to take over so-called competing companies, while in quite a few cases the Bell exchange has been sold to the Independent Company, but in almost all cases, the consent of the municipality in which the absorption has taken place was first obtained through the co-operation of the absorbed company and with the approval of the public. This will be generally borne out by the record.

The decision of the Attorney General to turn the inquiry over to the commerce commission seems to be gratifying to all those in authority in the American Telephone and Telegraph Company and its associated companies, and no doubt all information that can add the commission in its work will be as freely and as unreservedly given as it has been to the agents of the Department of Justice.

In discussing the relations between the Department of Justice and the American Telephone and Telegraph Company under the Sherman law, President Vail gave out in New York recently the following interview:

We do not think we have anything to fear from the Attorney General's office. To be sure, his office has been investigating the telephone and telegraph situation; but the Attorney General cannot think we are entirely bad, for since the investigation began we have with his expressed approval put together Bell and opposition services in several large places where local authorities and the public have expressed their desire for such action.

At Detroit, for instance, the opposition was merged after approval by and at the desire of all local and state authorities, and with the acquiescence of the Attorney General, and the same thing has been done in other places of almost equal importance. I believe that the Attorney General has found that the public does not want two systems, and we hope that fuller appreciation of that fact will lead him to leave the question entirely with state and interstate commerce, where the matter belongs, and where it is bound to go, anyway.

Last year the Interstate Commerce Commission assumed jurisdiction by express authority of Congress over the telephone and telegraph companies so far as interstate business is concerned. That body, together with the state commissions, should be able to arrange matters satisfactorily to the company and to the public.

DIRECTORY ERRORS.

Not the least among the many interesting details of the telephone business is the remarkable growth and importance of the telephone directory. Less than twenty years ago the directory was regarded with a considerable degree of indifference, and errors and faulty construction were taken more or less as a matter of course.

Today the directory has become of the greatest importance not only to the telephone company itself but also to the public in general. It has advanced beyond its original function—a list of telephone subscribers for the guidance of telephone users—and has assumed the position of a first-class index of the business and social world.

The telephone being an indispensable adjunct to the office and the home, and all forms of public activity depending largely upon its use, it is not strange that the public has abandoned its former indifferent attitude, and now demands—vigorously and consistently—that the telephone directory shall be correct in its information and perfect and convenient in its makeup.

The company, on its part, not only acknowledges the correctness of the public attitude, but also insists that the directory shall be free from error so that it can properly perform that function in the company's business for which it is maintained.

Errors in the directory cause trouble and loss of time at the switchboard, overloading of "information" and dissatisfaction on the part of the subscriber, to say nothing of a possible financial and time loss. The makeup of the directory in all its features has been the subject of the most careful consideration and study by all those concerned in producing telephone directories. Every mechanical device, leading to rapidity or perfection in production, has been adopted, and every effort has been made to insure the correctness of the compilation and to establish safeguards against clerical errors and undue loss of time. All these efforts are of

little avail, however, if the original information upon which the compilation depends is not absolutely correct.

SPLENDID TOLL EARNINGS.

The General Officers of this group of companies are much gratified with the good showing of toll business done in this territory during 1912. The figures are as follows:

| | Toll revenue | Per cent. increase | 1911. | 1912. | Per cent. increase over 1911. |
|-----------|--------------|--------------------|-------------|-------|-------------------------------|
| Chicago | \$1,308,679 | 14.96 | \$1,488,419 | 13.73 | |
| Cleveland | 80,600 | 20.49 | 95,494 | 18.48 | |
| C. Union | 1,486,220 | 5.08 | 1,705,557 | 14.76 | |
| Wisconsin | 753,577 | 3.09 | 847,839 | 12.51 | |
| Michigan | 874,311 | 2.28 | 1,022,319 | 16.93 | |
| | \$4,503,387 | | \$5,159,628 | | |

Increase \$656,241, or 14.5 per cent.

It is believed that with the additions to the toll system made during the latter part of 1912, and the work now in progress and contemplated for 1913, the total gross toll business of the group for this year should reach \$6,000,000.

The proportion of additional business for each company, to enable the group to reach this figure, will be as follows:

| | |
|-----------------------|-----------|
| Chicago Company | \$240,000 |
| Wisconsin Company | 140,000 |
| Central Union Company | 280,000 |
| Cleveland Company | 15,000 |
| Michigan Company | 170,000 |

Let everybody boost for these figures, and almost everyone can contribute something towards the goal. The operator who handles toll calls promptly, thus satisfying the customer and clearing the circuit for other business, is doing her part. The troubleman, who clears troubles promptly, is doing his part, and so on through the organization, nearly everyone being able to do something towards "ringing the bell."

TURNING IN "PROSPECTS."

On another page we reproduce two signs which have been posted in the Milwaukee offices of the Wisconsin Telephone Company. These signs call upon employees to help the company gain 4,000 stations net during 1913. They are urged to turn in "prospects" to the Commercial Department.

While many employees are successful in getting subscribers through personal suggestion or solicitation it is probably more effective to turn the prospective subscriber over to the Commercial Department and permit the contract to be taken by a regular commercial agent. The latter knows all about the conditions of the contract and can tell the subscriber exactly what he wants to know as to time of installation, etc. He is usually able, also, to present the features of the service in a more convincing way. The Milwaukee office has the right idea. Let every employee be on the lookout for prospects but do not spoil the prospects after they are discovered.

CHRISTMAS PICTURES.

Christmas might be objected to as being an old subject in a February publication. Anticipating that we held the last issue of the BELL TELEPHONE NEWS open a little longer than usual in order that as much as possible of the "Christmas doings" might be chronicled while the Christmas season was still fresh in everybody's mind.

There were a few pictures and stories which did not reach us, however, in spite of this allowance of time and these are printed in this number. Our apology is that Christmas is always a pleasant subject and that it would be better, also, if the Christmas spirit of charity and good will, as shown in the pictures, might be carried on through the new year.

BENJAMIN FRANKLIN.

On January 17th was celebrated the 207th birthday of Benjamin Franklin. The celebration was not universal and the vast majority paid no attention to the anniversary.

Franklin's name is linked with the most critical era in American history. But to telephone people, as to other electrical people, his is a peculiarly interesting character. A feature of his scientific work was his devotion to experiment. He was not satisfied with what others had to say but sought the truth for himself. For this reason his ideas concerning electricity were received with respect.

H. H. Henry's article, which appears elsewhere in this issue, contains information of interest touching the Supply Department, and may be read with profit as well as pleasure by all.

How Can The Exchange Manager Get New Business at Small Exchanges

By GEORGE C. FRENCH, District Commercial Manager at Milwaukee
Paper Read Before Wisconsin District Managers' Meeting at Milwaukee, January 16, 1913.

The subject assigned to me, "How Can the Exchange Manager Get New Business at Small Exchanges," may be summed up generally by saying, "To Go After It, Keep After It, and Never Let Up Until the Contract Is Secured and the Service Is Installed."

While this is simple, the great difficulty comes from the fact that the average exchange manager who has been selected, usually on account of his knowledge of line work, has had no experience in the commercial department of the business, and is unacquainted with the best methods to be followed in awakening the public interest to a point where they appreciate the necessity of having service and signing contracts.

Soliciting is a business in itself and requires, to be successful, that those who are engaged in the work have a good working knowledge of the business, be quick readers of human nature, be tactful, persistent, and resourceful. It is exceedingly helpful to the solicitor, or any one else who comes in contact with the public, to have a good education and be well read on a variety of subjects.

We have secured, from various sources, a series of objections which are common to all lines of business, and the arguments employed by the most successful salesmen to offset them. These were run off on the neostyle and a complete set supplied each of our managers, with instructions to read them and become familiar with them.

One of our more experienced commercial men visited each exchange and spent a week with each manager in an actual canvass and discussed with the manager the various points developed from the interviews with the prospective subscribers. This demonstration of the work brought forcibly to the mind of the manager the necessity of a careful study of the instructions which had been sent to him and also wherein he was deficient.

The first essential is a thorough knowledge of the rate book. Instead of the manager carrying it in his pocket, or leaving it at the office, he should commit it to memory. Not necessarily word for word, but so thoroughly that no matter what question might come up he would have the answer.

Next to this is a complete and thorough knowledge of all equipment in use (including joint and second entries). There are not many joint or second entries outside of Milwaukee in the Milwaukee District.

Each manager or commercial agent should carry around a good supply of ammunition in the shape of good, common-sense reasons why every one should have a telephone. He should also make a mental record or pencil memorandum of the little things that are constantly happening in the community where he is manager, for it is these local occurrences that can be referred to and recalled to the minds of prospective subscribers that arouses the greatest interest.

Relate the experiences of others who have telephones and could not be induced to part with them on account of the excellent purposes they have served.

The manager or commercial agent should have a knowledge of the commercial work so thorough and complete that the prospective subscriber would, in a short while, find himself at a standstill by having exhausted all of his objections and will sign up

rather than continue the discussion.

Quoting rates by the day and not by the year, or even by the month, is an excellent plan. When you remind a man that he can have a telephone in his home or in his place of business, or in both, by smoking one cigar or perhaps two less each day, or curtailing a little in some other way without endangering his good health, he will be quite willing to admit the force of this or any similar suggestion and become a subscriber.

As we are all human, we are more

I venture the opinion that none of these can be found in the Milwaukee District. Self-confidence on the part of a manager or commercial agent is the foundation of all effective work, and this only comes from education in and knowledge of the work, whether it be plant, traffic or commercial.

In the commercial work this can be accomplished only by keeping in close touch with the people, not only with those who are not, but also with those who are subscribers.

One who has never had a telephone must be convinced that it is the best accessory to business or social affairs. One who has had service for a while has often been convinced by the telephone that through it more sales have been made, profits have been increased by its peculiar advantage of getting business at less cost than otherwise. Bank accounts have grown to the ex-

after business hours and on Sundays, inquiring about freight or express, as he was the manager of the freight department in a railroad office. As soon as he was told that he could have a silent listing, he signed a contract and stated that he would have been a subscriber before had he known of this rule.

Still another manager would relate that after he had acquired the secret of closing up the deal, that he closed thirteen new contracts in one day and became superstitious that something was likely to happen on account of the unlucky number. He was advised to try and did actually secure the fourteenth contract during the evening.

Another manager points with pride to the fact that he changed an extraordinarily large number of party-line subscribers to individual line, as well as securing a large number of new subscribers, due to a close study of the commercial work.

It is only just to refer to another manager who did not think there were any more people in his town eligible for telephone service, but who found, after a careful study and systematic house to house canvass, that prospects were secured and finally closed up the list of town subscribers, which had been increased by about twenty-five or thirty in a few months; and on making an energetic canvass in the surrounding districts, secured forty-five rural subscribers in one week. This number will naturally increase of itself, as farmers are not willing to be outdone by other farmers.

All of the above goes to prove that the greater effort put forth the greater will be the results secured.

As all are aware, the manager is required to send us daily post card reports, showing the work done in the commercial branch of the business. From these reports a weekly total is secured showing the installs and disconnections, and a total for the week at each exchange is run off on the type-writer and sent to the manager of each exchange, together with the returns for the three previous weeks, the idea being that the statement would show at a glance what was being accomplished at his exchange for the week, as compared with other exchanges in our district. These weekly reports are sent out from my office to the managers, together with some comment showing how the work was progressing as a whole, and speaking generally of those who are doing exceedingly well, or the reverse. In writing these letters an effort was made to stimulate a greater enthusiasm on the part of the managers, in order to secure a greater amount of business. Periodical and graphic reports were sent them which indicated at a glance how their work was comparing with that of other managers.

During the earlier portion of the past year the letters commented on the fact that certain exchanges had secured a certain percentage of their gain, and how they stood with relation to the percentage of business secured to the total to be made during the year. These statements did not seem to awaken any particular interest and it was concluded that some more forcible way of bringing about a realization of the necessity of greater activity was needed. A short reflection convinced us that in order to make ourselves understood, it would be necessary to employ such a conveyance for our thought as would enable the manager to comprehend it immediately.

As practically all managers in the smaller towns are acquainted with horses, and know in a general way something about a horse race, it was thought that a race track would perhaps be readily understood. We then

We Have About 1300 Employees



in the
MILWAUKEE EXCHANGE

THREE New Contracts a piece during this year
will give us the 4000 increase we
desire for 1913.

THIS is my Company which is doing things
for me, so I am going to secure at
least "My Three"

PLACARD HUNG IN MILWAUKEE EXCHANGES.

or less open to flattery, and it is often a good plan to resort to this by complimenting a prospective subscriber on his beautiful home, or, if at his store, his well arranged and fresh looking stock of goods. Remind him that so large an assortment as he appears to carry represents an investment that cannot be allowed to remain idle, but must of necessity be turned over frequently in order to make room for newer styles, later patterns, etc. Never fail to remind him of what others are doing in the same town by studying out and applying their telephones to the manifold purposes they can be made to serve. Convince him beyond question that if he expects his business to grow, he must provide the indispensable factor or stimulant, the Telephone. Remind him that the business world has no record of a single failure attributable to the telephone, but on the other hand, is filled with successes due to its use.

In order to impart enthusiasm, it is necessary to feel it one's self. It is not a good plan to solicit a man on the street, especially when he appears to be going somewhere in a hurry. Get him somewhere, either at his place of business or home, where you can get his whole attention and compel him to listen by making your talk interesting, and by showing him that he will be benefited a thousand times more than the telephone company by becoming a subscriber. It is distressing to meet people (who are good prospects) in either the business or residential districts of a small town who do not know our manager by name and have never met him at all.

tent of making it apparent to the business man that present quarters are too limited, more space must be secured, larger orders for stock placed, meaning to the progressive man the necessity for more and more telephones.

By this plan of frequently calling on subscribers and non subscribers, new prospects can be secured every day, these to be persistently followed up and by this means of making new prospects and closing up old ones, a constant and regular gain of subscribers will go on continuously.

I believe that if each manager in the Milwaukee District was afforded an opportunity to relate his individual experiences of the past year, they would probably be as follows:

One would say that previous to twelve months ago there was not a receiving line in his office, but on having it explained that it would only be necessary to secure a contract for a receiving line from one of the retail meat markets and use this as a leverage on the others that they would all subscribe for receiving lines, and in his office during the last year five BRs (business receiving lines) have been installed in retail markets and grocery stores.

In still another office five have been installed during the year.

Another manager distinguished himself by securing four BRs in a single day.

Another would explain that a friend of his who had wanted service at his residence for several years had never signed up for the reason that the public would be calling him at his home

undertook to draw a picture representing a race track and have the complete circuit of the track represent 100 per cent., or the total estimated gain. Under this scheme the quarter-mile post would represent twenty-five per cent. of the gain, the half-mile post fifty per cent., and the three-quarter-mile post seventy-five per cent. In order to be consistent we had the exchanges represented by horses, and indicated on a pennant, which each horse carried, the name of the exchange. As stated previously, we determined what percentage of the annual gain had been secured up to a certain date, and by using a rubber stamp representing the hours, we could so locate the horse as to show the approximate distance or percentage of the total gain he had secured by his position on the track.

The first picture of this character was made up by our engineer, whose phenomenal attainments in electrical and technical matters is only to be compared with his abnormal deficiency concerning the appearance of a horse in action. We have here a blue print showing our engineer's idea of a horse, and I submit that the alleged horses depicted resemble rather petrified deer than they do horses. However, the print was saved from ignominious failure by the letter which accompanied it to the manager, since it was explained to him that the object on the blue print was intended to be a horse, and that he constructively was displaying the greatest activity. It is also of interest to add that on receipt of the pictures, and thereafter, a noticeable increase in the business was observed.

The work of soliciting is so closely associated with that of the traffic and plant branches of the business that it is difficult to be successful unless the two branches named are working in close sympathy and accord with the commercial department. Tardy installations, poor maintenance, or inefficient operating will do more to retard the development of the business than the best efforts of the most experienced solicitors can overcome.

The public without service is well acquainted with the other portion of the public which is supplied with service, and in the majority of cases have occasion to use, and do use, the service of others. In this manner they become familiar with the local plant and traffic conditions, and if either are inefficient and the results are unsatisfactory, the prospective subscriber hesitates or declines to subscribe until he knows that the service is efficient.

It is, therefore, important to bring to the attention of all employees at all exchanges the fact that their individual effort and co-operation is essential to the success of the business as a whole. This fact we have been endeavoring to bring to the attention of the traffic and plant departments, to the end that all employees at all exchanges, in all departments, will co-operate with the commercial department in endeavoring to interest their friends, neighbors, and acquaintances in subscribing for service.

In Milwaukee much success is due to the co-operation of those in all departments, and it is believed that throughout this district a similar interest exists and an effort is made by each department to help the other.

While we all desire to see our exchanges reach a high percentage of saturation, it is also important to keep in mind that subscribers for better classes of service will not only receive a more satisfactory service, but, where the majority of the people take cheaper classes, the prospective subscriber will assume that since the majority of his neighbors have the cheaper grade, it will adequately meet with his needs, and therefore, there is small hope or opportunity of securing a contract for

a good class. The reverse is equally true, and it is, therefore, of importance that the solicitor (be he the manager or anyone else), be not content to secure a contract for any class of service, but, having reached the point of convincing the prospective subscriber that he needs some class, spend a little more time in explaining the merits of the better class of service, and in exhausting every effort to secure a better contract.

It is sometimes thought that enough attention is not being given to the advantages of securing individual lines in place of party lines. Of equal importance is the matter of securing contracts for additional equipment or apparatus. While individually the revenue is small, collectively it plays an important part in our revenue. An extension bell at \$1.80 a year is a

house canvasses before the date fixed by the prospect, he will continue calling on him before the date set.

The other inquiry slips, which indicate that the subscriber has no interest or cannot afford the service, should be filed in an envelope giving the name of the street. It will be found, after about the second week of the canvass, that the slips placed in the call back file will begin to increase and develop into live prospects, which will enable him to secure contracts.

It is thought that many managers are too easily discouraged by being told by a prospective subscriber that he will not take service. This statement can be discounted, as we all know from actual experience, that some new business is being secured each day or week with people who have heretofore stated that they would

not, know his business and the extent of it, know his financial situation, and know about his family, as well as any failings which he may have and which you can take advantage of, the canvass is half over before it is begun.

But your canvass must be serious, and here many a manager makes his mistake. While it is a good thing to know everybody in town, and know them well, you should not allow this intimacy to detract one iota from the seriousness and importance of your canvass. Your arguments must be convincing and show the need of service; they must be built up one after another and driven home with such force that your prospect is made to feel that there is no fun in the situation; that you mean every word you say, and have his interests at heart. If, on the other hand, the opportunity of a canvass presents itself, and you allow ninety per cent. of your canvass to consist of frivolous talk, jokes back and forth, etc., which do not pertain to the subject, the half-heartedness of your disposition and the levity which you display have a material effect on your prospect, and lose you the contract. Let managers in small exchanges build up as large an acquaintance as possible, but be cautious to inject a full measure of seriousness in their interviews.

To stop after interviewing a prospect once or twice is dead wrong; goods have never been sold on this principle, nor have sales or friends been lost by repeated calls. In the business world today are commercial men who make it a point never to fail in calling on certain prospective buyers, as they make their rounds, though no order is secured.


Determination and persistency are two of the primary requisites for success in canvassing. These are especially essential in small exchanges and should be cultivated by the manager as much as possible, because he is too often inclined to be easy with his prospect.

Fifteen to twenty, or more, calls on a prospect should not be considered too many and will be the only means of landing the "hard ones."

Some effective work has been done by solicitors in the residential sections of small cities, where the wife wanted a telephone but did not quite know how her husband would view the matter. In these cases the solicitor took the wife's signature to the contract with the understanding that should the husband object he is to be notified accordingly. In the majority of cases no objection is made, because the contract was already signed; this not only produced another subscriber, but avoided the necessity of calling again for a final answer and the signature to the contract if they decided to subscribe.

It is oftentimes helpful to the manager to reflect carefully on the reasons why he was not successful in closing a contract with a certain subscriber. If he will mentally review what was said by the prospective subscriber and himself he will recall that at a certain point in the conversation he said the wrong thing, and by re-arranging the interview from that point by substituting a different argument from the one he did use he will be able to determine that the reason for not securing the contract was due to the fact that he permitted the conversation to take the wrong turn. Having in mind the reason for his past failure, he will endeavor, on the next canvass, to adopt a different method and will be surprised in many cases at his success.

Many managers attribute their failure to get business to the public, while as a matter of fact, their own shortcomings, due to their unfamiliarity with the best methods, are the actual causes of the failure. Soliciting, to be successful, cannot be operated on the



BOOST YOUR OWN BUSINESS

and

Help Us Secure 4000 New Subscribers During 1913

TURN YOUR PROSPECTS IN NOW

PLACARD HUNG IN MILWAUKEE EXCHANGES.
More than 1,700 contracts were taken in Milwaukee last year as the result of "Prospects" furnished by employees.

small matter, but several thousand of them will go a long way towards paying our fixed charges, especially at small exchanges. Joint and second entries also bring a good return and should be solicited.

In the opening paragraph it was stated that the way to get business was to go after it. It is important, however, to have a well conceived plan worked out as to how the prospective subscriber is to be approached. Practically all managers are acquainted with the people in their exchanges and have a general knowledge of their habits and peculiarities. If they have not, no difficulty will be experienced in securing any knowledge needed.

A complete house to house canvass should be made, and inquiry slips retained showing the name and address of the subscriber, the day, month and year on which the call was made, and a summary of the statement made by the prospective subscriber as to why he would not subscribe for service at the time of the visit. These slips should be carefully scrutinized, and where the prospective subscriber states that "he will not take service now," "call later," or "some other time," these slips should be placed in a date file for a call back two weeks later. If the subscriber intimates in any way a future date when he will take service, care should be taken to file the slip under that date, and the manager should see that the appointment is punctually kept. It should be understood that should the prospective subscriber set a date so far ahead as to render it probable that he, the manager, will make one or more house to

not take service. The fact that some who had previously declined to subscribe have done so, demonstrates conclusively that the prospective subscriber does not know what he will do ultimately.

The best results are secured by seeing all prospective subscribers frequently. While this may not appear to be justified in the mind of the manager, it is, nevertheless, a fact that if he merely delegates himself to the more promising prospects as soon as he has closed contracts with them he will be confronted with the least promising variety, and that in order to continue his gain he must educate them to the point of subscribing.

Therefore, if some missionary work is being done all the time by the manager he is building up a large list of good prospects, who will mature into subscribers.

It is thought that the failure of some managers to secure business may be attributed to the fact that they are lacking in conversational ability, that their solicitation is limited to the inquiry as to whether the prospective subscriber desires service, and upon being answered in the negative, make a brief, limited, and unconvincing argument and proceed, much discouraged, to the next house. This is to be expected unless the manager has prepared himself by reading up the objections which he will have to meet and learning the arguments which will have to be used to offset these objections. A manager who is familiar with these conditions has a ready reply to all objections and lands the business.

If you are acquainted with a pros-

"hit or miss" basis, but must be carefully worked out. Each defeat should be studied, and a new line of attack planned.

To summarize, a knowledge of the business and a familiarity with the objections to be overcome, a tactful persistence, and an unshakable confidence in the necessity for everyone having service, together with enthusiasm, must inevitably bring satisfactory results.

This principle is by no means confined to the smaller exchanges.

In several of our exchanges where we have been successful in securing quite a number of contracts, arrangements have been made with the daily papers to publish a list of the new subscribers giving their telephone numbers, names and addresses. We justified the fact that this was news on the theory that as there is quite an interval between our directories at times, all of those who had service would be interested in knowing the names and numbers of the new subscribers. The article suggested that the list be clipped from the paper and attached to the telephone directory. This stimulated the business somewhat, and we believe it to be a good plan.

In Milwaukee all employees are supplied with a block of forms which we know as prospect slips, which are filled out by any employee who knows of anyone who is likely to subscribe for service, or change to a higher rate.

It is interesting to state that from December 1, 1911, to December 1, 1912, 1,702 contracts were secured from prospects sent in by employees.

For several years past we have followed the practice of printing cards which are distributed throughout the Grand office building and in the retiring rooms and wire chief's rooms at all of the branch offices. These cards are designed to call attention to the advantage secured by the company from prospects turned in by employees, and a large part of our success has been due to their splendid co-operation. An effort is made to have all employees realize that they are a part of the company and that their own success is contingent upon the success of the company.

POLES, LINES, PHANTOMS MOVED WITHOUT TROUBLE

Excellent Work of Chicago Line
Gang on Delicate Job of
Transferring.

Several of the important long-distance lines entering Chicago, come in from the south on two heavy pole routes along the east and west sides of Kedzie Avenue, to the Morrell Park Office at Kedzie Avenue and Forty-seventh Street. These two pole lines carry telephone circuits to New York and Philadelphia and a number of important telegraph loops.

During the past summer the property along the east side of Kedzie Avenue, between Fifty-first and Fifth-fifth Streets, was subdivided. It was found that the poles on that side of the street were in the space laid out for the sidewalk and it was necessary to move them to the curb line. Twenty-six old poles were replaced by thirty-eight new and higher ones. The line carried seventy-one wires, a considerable number of which were phantom.

The transfer of these wires from the old poles to the new was accomplished with only seven cases of trouble, three momentary swings and two cases in which four wires were in trouble for several minutes.

The first of the accompanying photographs was taken looking north on Kedzie Avenue, from Fifty-fifth Street. On the pole in the right of the foreground are a number of transpositions for phantom circuits. The second picture shows the gang which did the work.

Such excellent work certainly deserves commendation.

Visiting Day Echoes.

During the recent reception at Chicago Heights, when a plant man pushed back a main frame ladder to clear a passage for visitors from the Manager's office, one lady in the party which he was conducting said: "Oh!

desk—a combined consultation and operating chamber. The symptoms are here noted and the case diagnosed. Many cases are practically cleared before sending a repairman at all. If a receiver has been left off somewhere, we get them to hang it up again and this clears the line." A lady was heard to remark—"Yes, and I suppose this is the man that called me out of the bath tub this morning, to say 'Never mind the ring, madam, we are just testing the line.'"

Out of the total number of visitors at the recent three-day reception at Wheaton, ninety-seven per cent. of the gentler sex were heard to remark—"Isn't it cute," when shown the miniature line lamp in action on the specimen panel, illustrating the skeleton circuit of the telephone. Of the other three per cent. one was sophisticated, being the manager's wife, one was bashful and the other was interested in her sweetheart.

What is a "Drop"?

Is "a drop" the same thing as "a pair of drops?" When twisted pair is used for the purpose is a run of it "a pair of drops?" When Locke aerial conduit is used do the drops begin at the cable box, or where they drop off

higher grade of service. The commercial forces who are working on the regrading, tell some interesting and amusing stories of their experiences with subscribers.

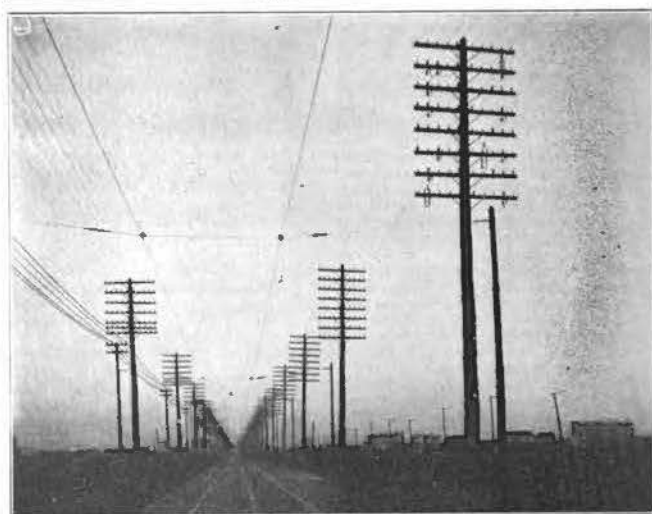
Commercial Agent Raymond Platt had been attempting, without success, to convince a prominent criminal lawyer that the four-party telephone service in his house was not the kind it should be for a man of his responsibilities. Platt was about ready to give up the job when luck (if such an occurrence may be so designated) intervened in his behalf.

The lawyer has some friends who are accustomed (without meaning any harm) to indulge in an occasional sitting of ten-cent ante (whatever that is). One night, while engaged in this engrossing but illegal amusement, the whole party was "pinched" and hustled to the lock-up. They called for their friend the lawyer. The telephone line was "busy." They called again and a third time and it was still busy. Then they called another lawyer.

The distinguished criminal advocate estimated, when he heard of the difficulty next day, that he probably lost \$250 in fees. The next time Mr. Platt called on him he signed a contract for an individual telephone line.



LINE GANG WHICH ACCOMPLISHED IMPORTANT CHICAGO LINE MOVE.



LOOKING NORTH ON KEDZIE AVENUE AT A POINT SOUTH OF FIFTY-FOURTH STREET, CHICAGO.

the last pole? Do drops terminate on house brackets? Is a "leading-in wire" part of a drop, or the same as a drop? If a single drop wire is tied to a house bracket and then led in through a tube in the wall to an arrester, does wire, brackets, glass, tube and arrester all come under the head of drop wiring? If not, where does the drop leave off and what is the name of the rest of it?

Why is interior block-wiring always strung outside, and what does an interior block look like on the exterior?

For the best exposition of these conundrums in technical nomenclature by an employee we will give a year's subscription to the BELL TELEPHONE NEWS.

The same offer is made for the worst answer. Please state which competition you wish to enter.

Lawyer Loses Fees.

Realizing that in a city with the heavy telephone traffic of Chicago, a four-party line is not suitable for the needs of a busy business man, the Chicago Telephone Company is making an effort to change such subscribers to a

MERGER IN MARQUETTE.

Michigan State Telephone Company
Takes Over Property of Independent in Upper Peninsula.

The Michigan State Telephone Company effected, in November last, with the permission of the State Railroad Commission, a merger with the Marquette County Telephone Company.

This, the largest independent telephone company in the Upper Peninsula, was organized in 1895. It built up business in Marquette County with exchanges at Marquette, Ishpeming, Negaunee, Republic, Champion and Michigamme. Later an exchange was added at Gwin. The principal stockholders of the company were leading men in the Marquette Iron Range. The subscribers at the time of the merger numbered 1,305.

A fire at Negaunee in the spring of 1912 totally destroyed a portion of the plant of that exchange, and it was rebuilt.

The price paid for the property was \$85,000.

New Southern Publication.

Announcement is made that the Southern Bell Telephone and Telegraph Company and Cumberland Telephone and Telegraph Company will begin the publication of the Southern Telephone News, a monthly paper for employees. The Cumberland Telephone Journal, heretofore issued by the Cumberland Company will be discontinued.

do we have to climb that ladder? I don't believe I care to go up there."

In explaining the test desk to a physician, technical terms could be understood more readily. The explanation given was thus: "This is the test desk; when a telephone is reported out of order (sick) it is sent to the hospital board, and report made and the sick line is sent to this test

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
212 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonso Burt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
E. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. G. Wray, Chief Engineer.
H. H. Henry, Supply Agent.
H. F. Hill, General Manager, Chicago, Ill.
E. A. Reed, General Manager, Columbus, Ohio.
H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegell, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.

Gleanings From The 1913 Budget

Very extensive additions and improvements to the plant of the Bell Telephone Companies of the Central Group are planned for this year. The General Managers and Engineers have been working for several months on the budgets for the year for the five companies, and the amounts to be allowed in each division have been tentatively approved by the general officers.

In general, it may be said that the improvements this year will keep pace with any previous year. It will also be good news to many managers that many of the recommendations for rebuilding and extending exchanges, which have not heretofore received approval, are on the list for action this year.

As rapidly as definite action is taken on the more important estimates, it is expected that announcements and outlines of the proposed work will be published in the BELL TELEPHONE NEWS.

The list of improvements and additions below is taken from the provisional estimates and all of these jobs will probably be finished or started this year. The list, however, is subject to future revision.

REAL ESTATE.

Ground for new buildings will be purchased, buildings constructed, or additions to buildings constructed at the following exchanges:

| | |
|--------------------|------------------|
| Chicago, Ill. | Cleveland, Ohio. |
| Hammond, Ind. | Hillsboro, Ohio. |
| Mishawaka, Ind. | Dayton, Ohio. |
| Peru, Ind. | Findlay, Ohio. |
| Champaign, Ill. | Eau Claire, Wis. |
| Peoria, Ill. | Madison, Wis. |
| Rock Island, Ill. | Racine, Wis. |
| Berwyn, Ill. | Youngstown, O. |
| Indianapolis, Ind. | Columbus, Ohio. |
| New Castle, Ind. | Toledo, Ohio. |
| Canton, Ill. | Sandusky, Ohio. |
| Decatur, Ill. | Green Bay, Wis. |
| Sterling, Ill. | Milwaukee, Wis. |
| Monroe, Mich. | |

CENTRAL OFFICE EQUIPMENT.

Estimates for new central office equipment to exceed in value \$5,000 will probably be approved for the following exchanges:

| | |
|---------------|--------------|
| Chicago. | Berwyn. |
| Dundee. | Evanston. |
| Harvey. | Joliet. |
| Libertyville. | Oak Park. |
| Canton. | Bloomington. |
| Decatur. | Galesburg. |
| Jacksonville. | Moline. |
| Paris. | Peoria. |
| Quincy. | Rockford. |
| Rock Island. | Springfield. |

Indiana.
Fort Wayne.
Mishawaka.
New Castle.
Peru.
South Bend.
Terre Haute.
Crawfordsville.

Ohio.
Canton.
Chillicothe.
Columbus.
Dayton.
Toledo.

Michigan.
Ann Arbor.
Flint.
Jackson.
Lansing.
Mt. Clemens.
Port Huron.
Sault Ste. Marie.

Wisconsin.
Appleton.
Green Bay.
Milwaukee.
Superior.
Berlin.
Madison.
Racine.

Amounts have been allowed for extensions to outside plant or rebuilding plant in almost every exchange in the five states, while ample allowance will be made for the necessary expense of connecting up subscribers' telephones. Very extensive work on the toll lines is also contemplated, and the mileage of toll circuits will be vastly increased during the year.

Leaflets in News Correspondence Course

To All Plant Employees:

In the experience of every man who is ambitious to make the most out of his life there comes a time when he feels the need of comparing notes with others in the same line of work, of rounding out and classifying his knowledge of the subject in a systematic way. Without realizing it, he has come to the line which divides the workman from the student; and if he steps over that line a broader view of life opens out to him. He begins to see the reasons for many things which he has been doing blindly and merely because he has been told to do them. He can link up one fact with another, and from the experience of himself and others, learn to apply the principles which will guide him hereafter in the solution of the problems with which he may be confronted. By reason of his increased knowledge he has become an intelligent unit in the organization instead of a mere machine, following well-established, demonstrable precepts with confidence and assurance because he understands *why* they are the most effective methods whereby desired results are to be obtained.

The secret of mental growth is the ability to discover, grasp and apply fundamental principles. The mind can be unduly burdened with a mass of miscellaneous information, much of which, it will be found when sifted, rests upon one or two basic principles. The application of those principles will save an enormous amount of brain power that will be wasted, otherwise, in fruitless and unnecessary effort to grasp and use a multitude of non-essentials. This suggestion should not discourage the collection, orderly arrangement and retention of details; it simply points out the true value of systematic, scientific thinking, which is the basis for a broad mental development.

An effective way of broadening our mental horizon is through personal contact with other men. Division, district, or exchange meetings held for this purpose have for years been a feature of the work in the Central

Group. These meetings have ranged all the way from informal, rainy day gatherings to the Plant Department School in Chicago, where a man is detailed to regular class work for a week at a time and have always been helpful to those taking part in them.

Telephone development after passing the earlier experimental stage, reached a point, not many years ago, where it became apparent that of the many different practices followed, as means to desired ends, some were more effective and economical than others. It was found, furthermore, that when a man was transferred from one district or company to another, where different methods prevailed, a period of readjustment, more or less gradual, followed, during which the newcomer was either trying to reform his new district or was unlearning the old methods and learning the new.

The Engineers began exhaustive studies to find out which really were the best ways of doing things, as demonstrated by the actual experience of all the associated companies. The present specifications are the result of these studies. They are by no means final, our work is entirely too much alive to stand still for even a short time; they represent, however, a consensus of practical opinion as to what methods have produced the best results, so far.

The specifications have been, and are intended to be, largely discussed in our local meetings, in order to promote familiarity with the principles therein laid down. They are not intended to be text books on telephone practice or to answer all the countless detail questions that arise in doing the work, but rather to outline the general principles which in the light of experience should be followed, in order to produce the best results. There is a wide field to be covered by interpretation and explanation. Interpretation, because—no matter how clearly it may be written—two men, reading the same sentence, will often get widely different ideas as to just what is meant; the application to specific cases often leaves room for a valid difference of opinion. Explanation: the specifications are designed to tell us what to do and how to do it, without going into details. The reasons for the adoption of the prescribed methods, and the connecting links which bind our telephone knowledge into a systematic, connected whole, form a study almost limitless in extent.

Outside of the Chicago School, the first systematic effort to cover this field was made by the Wisconsin Telephone Company early in 1908 by starting a series of correspondence courses. These courses covered the entire state, embracing questions on the various points involved in Plant, Traffic and Commercial work. The students were expected to find the answers in the specifications and in other instructions issued from various sources. This required the careful study of instructions, and marking the papers straightened out many of the inevitable differences of interpretation that had arisen.

In the fall of 1911 the Chicago School, in response to a demand for instruction beyond the limits of the class room, went a step further and started correspondence instruction, similar to that of the International and other schools, sending out pamphlets discussing the various phases of the Plant work. Each pamphlet was accompanied by a set of questions based upon it. The answers to the questions after being filled in by the student were returned to the school, where they were graded and sent back with a written statement giving the criticisms on each answer which had not been marked correct.

Since the realignment of the various companies which now form the Central

Group, the problem of devising some systematic means by which we can make available to each Plant man, who is in a position to profit by it, the results of the experience of others in the same line of work, has been carefully considered. Without covering so broad a field as the Wisconsin courses or going into the details of the Chicago instruction, it is planned to issue, in connection with the BELL TELEPHONE NEWS, sets of leaflet lessons covering installation, repair, testing and possibly other lines of work. For the present at least, no questions will be sent out, the leaflets being issued simply as a matter of information. They are intended to form a basis both for individual study and for discussion in district meetings. To what extent this modest beginning may develop will depend very largely on the interest with which it is taken up by the force throughout the Group. Criticisms and suggestions will be welcomed, and all are asked to co-operate in an effort to make this new departure as helpful as possible. The columns of THE NEWS are open to questions and discussions along this line, with the usual provision that—if desired—names will not be given.

The leaflets are not to be regarded as official bulletins or circular letters, nor as directing changes in our practice. In a territory as diversified as that covered by the Central Group it is inevitable that differences in building construction and other local conditions necessitate certain different practices in applying the specified methods. Where there are sound reasons for these differences the practice should not be disturbed. If, therefore, any student of these leaflets finds that the practice as outlined in them differs from that followed in his district, he should not take the leaflets as authority for a change, but refer to his superior for instructions. His superior should then, unless he has definite authority for the local practice, refer the difference to headquarters.

The first leaflets on each of the subjects mentioned above are being prepared, and will be sent out as soon as possible to the men engaged in that work.

Telegraphic Money Rates Cut.

The Western Union Telegraph Company has announced another reduction in telegraph charges. This cut affects the rates for transfer of money by telegraph throughout the United States and Canada. Beginning March 1st a rate reduction averaging thirty per cent. will be made in this class of service.

In connection with the reduction the company makes the following announcement:

"The business of transferring by telegraph has tripled in the past ten years. This has been due principally to three causes—the urgent necessities of American business, the extension of the telegraph company's facilities and the enlarged system of bank agencies in connection with telegraph transfer.

"The number of places in the United States and Canada to which money may be transferred by Western Union telegraph for payment is now over 14,000."

Chicago Men Promoted.

C. T. Shanahan, formerly of the General Bookkeeping Department at Chicago, has been appointed Chief Traveling Auditor of the Southwestern Telegraph and Telephone Company with headquarters at St. Louis, Mo. H. K. Richardson, formerly General Clerk of the Chief Traveling Auditor in Chicago, went with Mr. Shanahan as Chief Clerk.

Chicago Telephone Company's City Exchanges

III.—CALUMET

By A. J. VERMILYEA, Wire Chief

Calumet, the third exchange to be cut over to common battery in Chicago, is located at 2211-15 Wabash Avenue, having been moved to this location from 92 East Twenty-second Street in 1893. At that time the exchange was equipped with the best local-battery self-restoring drop system in this country. This exchange was cut over to common battery December 27, 1899, its boundaries at that time being Twelfth Street on the north, Halsted Street on the west, Thirty-fifth Street on the south and Lake Michigan on the east. The territory south of Twenty-ninth Street was cut into Douglas Exchange in 1903, and the territory east of Halsted Street and west of Wallace Street and the Chicago River, was cut into Yards and Canal Exchange a short time afterwards, leaving the exchange with its present boundaries, Twelfth Street on the north, Chicago River and Wallace Street on the west, Twenty-ninth Street on the south and the lake on the east. Up until December, 1905, the Exchange was known as South Exchange.

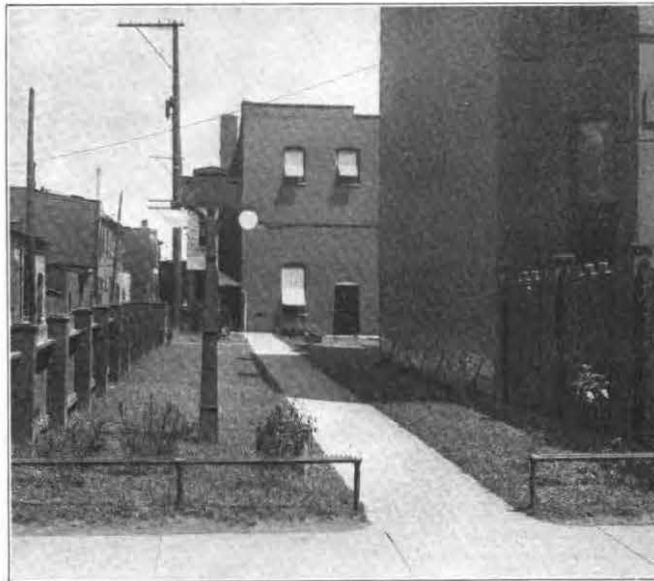
The building now occupied was formerly a one-story livery barn; a second story, which is now used as the operators' rest room, dining room and kitchen, was added over the north thirty-five feet of the building in 1902. There is no basement and the hard wood floor is laid over a good cement floor which was put in by the former occupants. The heating plant and coal bunkers are under the sidewalks in the alleys on one side and end of the building.

The exchange is located in one of the coming business districts of the city. Formerly, along the Lake Front, was one of the most fashionable districts of Chicago, known as the Calumet District. West of this district and extending from Twelfth Street to Twenty-eighth Street is the heart of the great automobile industry of Chicago. The rest of the district is rather poor at present, but it is rapidly giving way to large buildings for commercial purposes.

When Calumet was cut over to common battery in 1899, there were twenty-one positions of A board and six positions of B board in operation. Each A position was equipped with twelve pairs of cords and served sixty lines. The B positions were equipped with ringing and listening keys and twelve pairs of cords. Positions A-20 and A-21 were used before the cut-over as a switchboard for the "Four Hundred" of Calumet District exclusively, and were known as the "Blue Board." The board at the time of the cut-over was equipped with 2,100 multiple, about 125 incoming trunks and 150 outgoing trunks. The Traffic Department had a force of forty people and the Maintenance Department a force of ten.

At present there are 140 people employed by the Traffic Department and fifteen by the Maintenance Department. There are thirty-eight positions of A board and sixteen positions of B board and the Western Electric Company is installing six positions of A board and four positions of B board. The company is also increasing the multiple from 5,500 to 6,000. At present the exchange has about 8,139 stations, of which 3,549 are operated from 160 private branch exchanges, 2,123 are single-line stations, 1,517 are two-party stations and 950 are four-party stations.

The power plant consists of two ten-horse-power 220-volt direct current motors and two generators with a rated output of 250 amperes at thirty volts. There are also two ringing machines belted to a 1½-horse-power and a two-horse-power Roth motor respectively. There is one emergency battery motor, one seven-horse-power Otto gas engine and two twenty-one-ampere, thirty-six-volt generators direct connected, one to a battery-driven motor and one to a Commonwealth Edison driven motor, used to operate message registers, of which there are 1,300 in service, and 200 more being installed. The storage battery plant consists of eleven G ele-



ENTRANCE TO CALUMET EXCHANGE.

ments with a 3,300 ampere-hour capacity.

In 1899, very little cable was in use and many heavy aerial routes had to be maintained. Today every part of the territory is reached by either underground or aerial cable and there are not a dozen spans of ten wires or more in the district.

Although we are the eighteenth in size of the Chicago exchanges, we are one of the busiest and best paying among them.

Terre Haute Bell Telephone Society.

On February 29, 1912, about thirty employees of the Plant Department at Terre Haute met in the terminal room of the exchange and organized what was known as "The Trouble Club." At this time it was decided to hold meetings every two weeks, and W. A. Shaw was elected Chairman and Z. W. Leach, Secretary. The purpose of the club was to demonstrate and discuss matters in connection with the work of the Plant Department.

After a few months it became evident that the work of the club was restricted, so on May 9, 1912, a committee was appointed to draft suitable by-laws to cover the situation. The committee was instructed to incorporate the following ideas in the by-laws: Change in name of club to "The Terre Haute Bell Telephone Society." Any male employee of the Central Union, A. T. & T. Co., and Western

Union, in Terre Haute to be eligible to membership; creating dues of twenty-five cents per quarter in order that the society could be self-sustaining; changing title of officers from Chairman and Secretary to President, Vice President, Secretary, Treasurer, Sergeant at Arms, and House Committee.

At the meeting held May 29, 1912, the following officers were elected: President, A. Vanell; Vice President, E. B. Hindall; Secretary, H. K. Ross; Treasurer, H. S. Post; Sergeant at Arms, W. A. L. Vrydag; House Committee, W. A. Shaw, Harry Brotherton, F. W. Rolen, John Smith and D. E. Lund. On June 4th, 1912, the by-laws as presented by the committee were accepted.

On October 1, 1912, the following officers were elected: President, M. J.

October 29th, 1912, Oyster supper.

The society has frequently received favorable mention in the local press and has shown its up-to-date methods by endorsing any action taken for the good of the community. The membership of the society at present is thirty-seven and expectations are that this will be increased before the present term expires.

Penalties Against Delinquent Subscribers Held to Be Reasonable

A telephone company is justified in requiring an added sum from subscribers who do not pay promptly and a charge for reconnecting a subscriber who has allowed his service to be cut off for nonpayment is reasonable.

These points are so decided by the Wisconsin Railroad Commission in a ruling recently made in the case of the appeal of the Platteville, Rewey and Ellenboro Telephone Company. The commission said:

"The application relates to a penalty to be levied against patrons who do not pay their bills by the middle of the month and to a rule providing that the utility may disconnect patrons who do not pay within the month and make a charge of \$1.50 for reconnecting."

"The purpose of these rules and regulations is evident. The only question is as to the reasonableness of the penalties themselves. The utility asks that where bills are not paid by the 15th of the month, the charge be increased twenty-five cents. The net rate for telephone service, provided payment is made promptly, is not increased in any measure by this regulation. Some form of penalty for failure to pay bills promptly undoubtedly constitutes a reasonable regulation for a telephone utility, but it has been the opinion of the Commission that where application was made for authority to put into effect such a penalty that somewhat less than twenty-five cents per month would be sufficient. The penalty must protect the company without being an unreasonable burden upon such users as may find themselves temporarily unable to meet their bills promptly. Ordinarily a penalty of fifteen cents per month for failure to pay promptly has been found sufficient, and we believe it will prove so in this case."

"The proposed regulation providing for discontinuing service if payment is not made within a month is a means of protecting a utility against patrons who are careless in making payments or who deliberately refuse to make payments, and such a regulation as this does not seem to be unreasonable. Where a patron allows his bills to run until it becomes necessary to disconnect him from the lines of the utility, it is only reasonable that he and not the utility should bear the expense of reconnection in case he again desires to have service, and \$1.50 does not seem to be unreasonable for this charge."

Ettelbrick's Clever "Ad."

Henry Ettelbrick, of Springfield, Ill., is a cobbler. He is not, however, one of the old type. He believes in modern methods. He recently sent a postal card to all the telephone subscribers, which read like this:

Dear Sir or Madam:

The Central Union Telephone Company have just recently issued a new directory, and in it we find your name. We also have the Bell phone, which enables you to call up the best Shoe Repair Shop in Springfield, and have them call for your shoes, and fix them as good as new, and return them to you promptly. Our prices are down to date, and our ability ahead of date, so you can't make a mistake in trading at our shop. Our phone number is 1889; our shop is on the S. W. Cor. of Fourth and Monroe Streets. Give us a trial or telephone us for prices.

HENRY ETTELBRICK.
The Progressive Shoe Maker.

Hazards to Telephone Service

By B. V. HILL, Chicago Plant Department

When the telephone was young it had its troubles and service suffered numerous interruptions. It was naturally expected that, as the art grew older, it would be perfected and fewer annoyances to telephone users would occur. This has proved to be the case, but it has been brought about by better construction and more vigilant maintenance and not by reason of fewer difficulties encountered. In small exchanges, especially in rural districts, both office and line equipment are rather simple and not at all subject to many of the ills from which metropolitan service suffers. If, in spite of this, the city service is superior, it means skill in construction and infinite pains in maintenance.

Every one appreciates the danger from electrical storms in summer and from snow and sleet storms in winter. With the placing of nearly all city lines, except some short lines in block distribution, underground and the installation of modern lightning protection, danger from these violent disturbances has been largely eliminated. At the same time, however, other hazards have been introduced.

The use of electric railways, having overhead trolley with grounded return, brings to all metal structures which may be buried in the earth the liability to corrosion by electrolysis. In these railway systems the rails and auxiliary copper cables form the return path for the current used in operating cars. The rails and copper return feeders are usually laid in or upon concrete or crushed stone, but wet concrete is a very good conductor so that the return circuits are not insulated from the earth and the current will naturally divide among all possible paths back to the power-house. While the rails and return copper feeders will, of course, carry the greater portion of the current, the earth and any metal structures buried in it will all take a share. Where this current leaves conducting metals they are corroded by chemical action. A very minute hole in the armor of a telephone cable will cause its failure if water gets in. If it chances to be a large unit subscribers' cable hundreds of lines may be out of service, or if it is a trunk, one office district may be cut off from another until the repair can be made. These earth currents are so persistent and so insidious that only perpetual watching and very considerable expense protects a city cable plant from very serious injury by them. A certain amount of trouble of a similar kind is caused by poorly insulated electric light installations, especially in basements where telephone cables are near damp walls. A leak so small as to be inappreciable to the lighting service may be very disastrous to a telephone cable.

In every city more or less work is constantly in progress in the streets. Water pipes, sewers, gas pipes, electric light conduits are put in, repaired or removed. Very often a pick or a spud will go too deep and pierce the cable sheath. If the workman knows what he has done and is honest enough to report it, or if a number of lines are immediately put out of service so that the damage is found at once, it is easily repaired. Many times, however, no immediate harm is done to the service and the hole is not found until several months afterward when moisture has penetrated the insulation. By that time the street has been paved and the cable has become damp for some distance on both sides of the original hole so that the interruption to service and the expense of repair are much more

serious than when the fault is found at once.

It may be of interest to add here that moisture does not make its way into the paper insulation of a cable nearly so fast as would be imagined. There have been a number of instances where a cable has lain in the conduit for from four to ten years with a hole as large as a twenty-five cent piece in the sheath until an unusually heavy rain has flooded the ducts and the cable failed entirely.

Rats and squirrels frequently gnaw holes in the lead armor of cables. Probably a rat is sometimes caught in a duct alongside a cable and makes a hole to liberate himself. Otherwise it is hard to see why these animals should risk ruining a fine set of teeth on anything so flavorless as lead cable armor. It has been suggested that a rat expects to find water, having at some time found water in a lead pipe or that he has in some way acquired an appetite for the particular brand of paper with which copper wires are insulated. Whatever may be the situation of the rat, there appears to be no more excuse for squirrels chewing lead cable armor than for boys smoking grape vines or corn silk.

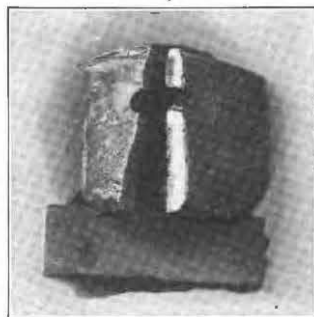
There have been found certain cable boring insects, said to be a miniature form of the beetle *Dermestes Vulpinus* belonging to the family *Dermestidae*. This borer was first found to attack

damp, misty weather of late winter and early spring moisture collects on the faces of panels of terminal boxes, dust settles in the water and more water in the dust till a crust forms causing grounds, crosses and short circuits along the lines appearing in the box. This trouble appears also in very humid weather in summer, though more rarely than in winter. Silk and cotton cable forms in offices, on distributing racks in large buildings and on the panels of some types of house terminals, collect moisture and cause trouble. This happens most often in summer when the temperature and hu-



WORK OF BORING INSECTS.

Dark substance in lower corner is lead.



WORK OF BORING INSECTS.

Hole in telephone pole containing larva.

telephone cable sheath in Australia about ten years ago; later it was found in Southern California. It has also been seen in the *Hoof Room* in one of the packing houses at the Union Stock Yards in Chicago. The *Hoof Room* is the room where hoofs are stored preparatory to the manufacture of glue and the like. The photographs show a larva of this species found in a telephone pole and a bit of lead through which the parent bored to enter the pole to deposit the egg as well as spot in the pole where the larva was found. The hole might be taken for a nail hole, but that the irregular surface of the wall has the appearance of something having bored round and round in a sort of a spiral. Some years ago this beetle was found to have damaged fuses in Portsmouth, Va. The old No. 7 fuse used at the time had a hole in one side to allow for the expansion of the air in case the fuse operated, instead of the saw cuts now made in the fibre casing of the fuse. These insects had apparently entered the casing through this hole, had cut up the asbestos packing around the fuse and opened the lead fuse strip itself.

Moisture is the persistent enemy of good insulation. Pure water is a very poor conductor of electricity, but pure water is found only in scientific laboratories and ordinary water is so full of dissolved salts of various kinds that it is all too good a conductor. In the

midity are both very high and the atmosphere heavily laden with moisture. In many of these cases no trouble would be noticed if it were not for the delicate adjustment of switchboard apparatus on the complicated circuits necessary in city telephone service. Very often, too, telegraph circuits will find weak spots in insulation which would not have been noticed on telephone lines. These telegraph loops are often stock exchange and brokers' lines, and it is very necessary that such loops should be always in order. No way has yet been found to avoid entirely the effects of moisture in terminal boxes and cable forms and only prompt maintenance work prevents interruption of service.

Hard rubber is one of the best insulators and does not condense water on its surface like glass or porcelain



CRUSTED FUSE WIRE.

Photographed under microscope magnified about thirty times.

nor absorb it like wood, cloth fiber or paper. The rubber, however, has a trouble of its own. The surface of hard rubber oxidizes when exposed to the action of light and heat. For this reason it is necessary to keep fine measuring instruments, having hard rubber faces, covered as much as possible. This oxidation sometimes occurs on the surface of the rubber parts of blocks on the distributing frames. This is an elusive sort of trouble and often difficult to locate. When once found the remedy is to change the block. A similar trouble is found on the electrose binding post strips in aerial-underground junction boxes.

A very puzzling and annoying trouble developed several years ago in the small fuses in switchboard cord circuits. On very hot, humid days these fuses would fail at a very high rate

with no apparent cause, since the percentage of failure was as high on idle as on working circuits. An examination of the broken fuses showed that the breaking was evidently due to corrosion. The photograph shows one of these fuses highly magnified. The crust on the corroded surface indicates the action which has taken place. The diameter of the wire being so small, chemical action at the surface takes place very rapidly just as pulverized salt or sugar dissolve in water much more rapidly than lumps of them. Shellacking the fuses did not appreciably lessen the breaking. It has been found, however, that snellac is not impervious to air and moisture. The best prevention so far found for this trouble on fuses is to dry the room with fans if the breaking begins.

A situation causing considerable difficulty and annoyance in the maintenance of an aerial route, due entirely to its location without reference, however, to its proximity to the city, is found in Hegewisch, in the extreme southern part of the City of Chicago, where there is a chemical works manufacturing, among other things, sulphuric acid. The sulphurous acid used in the manufacturing of sulphuric acid escapes more or less into the atmosphere and corrodes iron and copper in the neighborhood very rapidly. Ordinarily rubber or weather-proof insulation affords no protection and the life of equipment in the immediate neighborhood of this plant is only about three years. Lead being insoluble in sulphuric acid will not suffer in this neighborhood so that lead covered cable, suspended from steel messenger, the messenger painted with a non-corrosive, tough and transparent covering, has been erected and is apparently resisting the action of the acid fumes.

The foregoing shows a few of the enemies of good telephone service which have arisen largely out of the delicacy and complexity of city circuits. The crowding of a large number of similar pieces of equipment into a small space, the placing of distributing frames and fuse panels in rooms where several persons are working and where, with the best of ventilation, the air is always humid, and the frequent necessity of using space in basements for building terminals, cause conditions which would not be serious at all in the country, to become greatly aggravated in the city. There is, too, the personal element. Whether city people need to hurry constantly or not, they usually do it and any little delay or irregularity of service annoys them greatly. Service which is considered excellent on many rural lines would not be accepted for a day in the larger cities any more than a single delivery of twenty-four hour old mail. Possibly if the users of the telephone realize the continual dangers besetting good service they will appreciate more the character of the work being done in maintaining so high a standard as we have.

Saved from Angry Ram.

A queer story comes from Hastings, Mich. While engaged in repairing some shoes in his home in Hope township, Frank Hore roused the anger of a ram, which made a furious charge through a window, smashing the glass and part of the window frame.

Horn was unaware of the presence of the ram until he heard the crash of glass and saw the head of the infuriated animal.

Unable to reach his prey through the window, the ram withdrew his head and began to batter the door. Knowing that the door could not stand the strain, Horn rushed to the telephone and summoned the neighbors to his rescue. Half a dozen men responded and after considerable risk succeeded in lassoing the animal.—*Eu Claire (Wis.) Leader.*

INVENTOR OF BLAKE TRANSMITTER IS DEAD

Francis Blake Was One of the
Brainy Men in the Early
Telephone Field.

FRANCIS BLAKE, inventor of the Blake telephone transmitter, died January 19th at his home in Weston, Mass.

He was born in Needham, Mass., December 25, 1850, and received a high school education at Brookline, Mass. For thirteen years he served in the United States coast survey, the latter two years of which time he was engaged in field work. He devoted his spare time to experimental physics and while in this research work in 1878 he invented his transmitter.

The invention proved one of the most important in the development of telephony throughout the world. Since 1887 he has invented many other devices.

Prior to the time of Blake's invention (or until a very short time before), the telephone was as Professor Bell had designed it, merely a receiver which was used both for speaking and listening. Theodore N. Vail had just become General Manager of the struggling Bell Telephone Company when the Western Union Telegraph Company, at that time contesting for the telephone field, threw the Bell organization into confusion by launching the Edison transmitter. *The History of the Telephone*, by Herbert N. Casson, describes what followed:

"It was beyond all argument superior to the telephones then in use and the lessees of the Bell telephones clamored with one voice for 'a transmitter as good as Edison's.' This, of course, could not be had in a moment, and the five months that followed were the darkest days in the childhood of the telephone. . . . Fortunately there came a letter from a young Bostonian named Francis Blake, with the good news that he had invented a transmitter as satisfactory as Edison's, and that he would prefer to sell it for stock instead of cash. If ever a man came as an angel of light that man was Francis Blake. The possession of his transmitter instantly put the Bell company on an even footing with the Western Union in the matter of apparatus. It encouraged the few capitalists who had invested money and it stirred others to come forward. In four months the company had twenty-two thousand telephones in use."

The Blake was the standard transmitter in use for a number of years and a few are still in use and giving satisfactory service.

OBITUARY.

JAMES WHITING JOHNSON, several years the manager of the Western department of the General Electric Company in Chicago, died January 14th, of pneumonia in his residence, 5047 Washington Avenue, after an illness of ten days.

Mr. Johnson was born in Waverly, N. Y., December 3, 1862. He began his business career with the Bell Telephone Company of Illinois, and was the cashier of that company until 1885. In 1888 he became connected with the Thomson-Houston Electric Company as the manager of the isolated lighting department. He was subsequently made manager of the lighting department. In 1897 he again entered the service of the General Electric Company as manager of the power and

mining department, and was subsequently promoted to the position of assistant manager of the Chicago office.

In 1908 he was made the manager for the district covered by the Chicago office, embracing thirteen of the Western states.

He was a member of the Union League Club, the Mid-Day Club and the Homewood Country Club. He was also a member of the American Institute of Electrical Engineers.

Mr. Johnson leaves, besides his widow, a daughter, Mrs. Gorham Thurber, of New York.

PHILIP GRAHAM, organizer of the Citizens' Telephone Company, of Grand Rapids, Mich., died January 11th at his home in Grand Rapids. He was the proprietor of a large grocery business.

A GLIMPSE OF UTOPIA

An Editorial in The Daily News, of Springfield, Ohio, January 10, 1913.

"It is but natural that every employee should desire to assume the normal responsibilities of life, and to surround himself and those dependent upon him with things that make life complete and enjoyable. Unforeseen happenings may make these responsibilities heavy burdens, and whatever may be put aside for the day of misfortune must in the beginning be small and accumulated slowly."

These are not the words of an idealist, hoping against hope that some hazy day in the future some miracle may be wrought to make heaven seem nearer. They are not the idle fulminations of a chronic faultfinder. They are not the empty pronouncement of the politician.

These sentences are the prelude to a business announcement by one of the great public service corporations of the country. They carry to the public the intention of this company, the Bell Telephone and Western Union Telegraph companies, that an old age system of pensions was to go into effect the first of the present year.

Not a dream, but an actual reality, the vision of the distressed worker realized. Man, from the first ages of the world, has been harassed by the anticipation of misfortune in old age. He has been incapable of doing the best there is in him, because of the growing fear as years advance, that he may be cut off from sustenance and that there may be none to care for him in the hour of trouble. This company is not the first of the nationally operating corporations to put such a system into effect, but it is yet so new a thing that the Bell Company will be recorded as among the pioneers for higher welfare considerations of their employees. It will mean much to the 200,000 or more men and women who are engaged in the enormous industry of communication. It will mean that they can look forward to old age with some degree of satisfaction, hailing the day as one of greater peace with the world and with no fear of want to make their last days their most miserable days.

The action of the Bell Company gives emphasis to the trend of the time. When employers come to recognize some measure of the responsibility they bear to those who toil in the ranks, there is evidenced that transformation of world-thought for which the social workers and the true Christian leaders had been hoping and praying. It is fresh evidence that there is a new spirit working among men—a spirit which shall change the world's work and play, and which shall change the hearts of men. Let no man sneer that these things are done "because they pay." They do

pay, and they pay big in loyalty and faithfulness on the part of employees, but it is just as easy to ascribe an honest and an enlightened motive to the directing minds of the corporations which have shown evidence of humanity. Let us write it down as a tangible expression of brotherhood and not vex ourselves with uncharitable speculations.

In connection with the pension system, it would be unfair if discussion were left off before mention had been made of Theodore N. Vail, the head of the Bell system and the man whose statement gave formal notice of the new plan. Mr. Vail, one of the pioneers of latter day material development, has shown himself to be a man of breadth and benevolent character. More than this, he is one of the few old men in the great business organization of the country who has kept young and who has kept pace with the trend of modern thought. For a man of corporation affiliations and a strong-minded man who has long passed the character-forming period, Mr. Vail has shown a progressiveness that is little short of marvelous.

May the Bell system old-age pension become one of the permanent welfare institutions of the country, may its employees as they retire, full of years from the service, derive from it the benefit that its founders have reason for anticipating.

NEW BOND ISSUE OF SIXTY-SEVEN MILLIONS

Offered to Stockholders of American
Telephone and Telegraph Com-
pany at Par.

Directors of American Telephone and Telegraph Company have authorized an issue of \$67,000,000 4½ per cent. convertible bonds dated March 1, 1913, and running for twenty years.

The new bonds will be converted into stock at \$120 per share on and after March 1, 1915. They will be offered to stockholders in the proportion of twenty per cent. of their holdings.

Directors of American Telephone and Telegraph have decided to proceed with their plans for 1913 and 1914 financing. While this anticipated by a few months the earlier estimates of the time when the company would announce its financial program the general method adopted is in accord with the preliminary intimations of the management and also in accord with the expectations of the financial community.

In an official circular to shareholders President Theodore N. Vail says in part:

"To provide for construction and other corporate requirements directors recommend to shareholders that they authorize an issue of twenty year 4½ per cent. convertible bonds, to be offered to stockholders for subscription at par and interest, in the proportion of twenty per cent. of their holdings of stock; the bonds to be of \$100, \$500 and \$1,000 denominations, dated March 1, 1913, and due March 1, 1933, with the right to the holder to convert them at par into stock at \$120 per share after March 1, 1915, and up to March 1, 1925.

"The right to subscribe will expire at the close of business on Monday, February 17, 1913.

"The surplus earnings of the company for the year 1912 (December estimated) after the payment of 8 per cent. dividends on the stock, were ap-

proximately \$6,000,000, showing a large margin over interest (which will be about \$3,000,000) on the proposed issue of bonds. It is expected, however that the earnings from the proceeds of the proposed bonds will more than meet the additional interest charges, so that the surplus earnings stated above will not be drawn on for the purpose."

It is expected that the "rights" attaching to the new convertibles will have a market worth of somewhere between \$1.50 and \$2.50 per share.

OPERATOR AIDS IN RECAPTURING CONVICT

His Objection To Paying For Long-
Distance Call Leads To
Arrest.

Strict adherence to instructions and devotion to duty on the part of Gertrude Adolph, an operator at the Chicago Telephone Company's exchange at Beecher, Ill., resulted directly in the capture of Stephen Ayers, a convict escaped from the penitentiary at Joliet.

Ayers was one of three "trusties" who succeeded in getting out of the prison yard on Saturday, January 11th in a visitor's automobile. Two days later the fugitive put up at a hotel in Beecher. He put in a call for Chicago for a man named Johnson. Miss Adolph had to make inquiries at a number of Chicago addresses before Johnson was finally located. After Ayers talked he called the operator again and requested that the charges be reversed. Miss Adolph called the Chicago party who refused to accept the charges. She reported this to Ayers, who told her that he would not pay them.

Miss Adolph called the hotel proprietor and explained the case to him. The hotel man, on taking a good look at Ayers, decided to call the police as the man's description tallied with that of one of the missing convicts. The town marshal arrested Ayers and found him wearing the prison garb underneath his automobile coat.

Miss Adolph did not suspect that the man for whom she was putting through the call was an escaped convict nor did she overhear the conversation with Chicago as was reported. But her commendable zeal and promptness in looking after the welfare of her employer resulted in the capture.

Here's the Answer.

In the January BELL TELEPHONE News was printed a little item regarding the disappointment felt by Special Agent F. J. Ellis, of Detroit, when he failed to find the concluding sentence of time-table story he was reading in the train recently. The story, as far as it went in the time-table read:

HOW PAT TURNED THE JOKE.

Pat was busy on a Hull road working with his coat off. There were two Englishmen laboring on the same road, so they decided to have a joke with the Irishman. They painted a donkey's head on the back of Pat's coat, and watched to see him put it on. Pat, of course, saw the donkey's head on his coat, and, turning to the Englishmen, said:

"In less than a week Mr. Ellis received a letter from A. E. Silver, of Tulsa, Okla., who is a reader of the News. Mr. Silver supplied the missing paragraph as follows:

"Which one of you men wiped your face on my coat?"

Which all goes to show that the BELL TELEPHONE News is widely read, even unto the antipodes.

TELEPHONE "HITCHED UP" WITH TELEGRAPH

To Provide Press Dispatch Service
During Severe Snowstorm
Troubles.

Demoralization of train schedules, trolley and elevated railroad service as well as telegraph service followed the storm which swept Chicago and the eastern part of the United States January 7th.

The Chicago Inter Ocean harnessed long-distance telephone wires to its telegraph instruments in order to receive New York and eastern news. At six o'clock in the evening telegraph wires out of Chicago for New York were disabled, and service was impossible.

Because of the fact that the snow was extremely wet and caused cross circuits, only here and there was there an unobstructed line out of the city in that direction. The telephone companies were not affected so severely, and were able to handle their business.

Western Union wires were connected with the American Telephone and Telegraph Company's lines into New York, and connected with the Inter Ocean office. In this way the telephone wires were used both for telephone messages and telegraph dispatches.

Many messages filed from eastern points for Chicago were relayed as far south as Atlanta, Ga., and thence to Chicago over telephone wires.

The Ubiquitous and Omnipresent Telephone in America

What strikes and frightens the backward European as much as anything in the United States is the efficiency and fearful universality of the telephone. Just as I think of the big cities as agglomerations pierced everywhere by elevator-shafts full of movement, so I think of them as being threaded, under pavements and over roofs and between floors and ceilings and between walls, by millions upon millions of live filaments that unite all the privacies of the organism—and destroy them in order to make one immense publicity! I do not mean that in Europe there are no hotels with the dreadful curse of an active telephone in every room. But I do mean that the European telephone is a toy, and a somewhat clumsy one, compared with the inexorable seriousness of the American telephone. Many otherwise highly civilized Europeans are as timid in addressing a telephone as they would be in addressing a royal sovereign. The average European middle-class householder still speaks of his telephone, if he has one, in the same falsely casual tone as the corresponding American is liable to speak of his motor-car. It is naught—a negligible trifle—but somehow it comes into the conversation.

"How odd!" you exclaim. And you are right. It is we Europeans who are wrong, through no particular fault of our own.

The American is ruthlessly logical about the telephone. The only occasion on which I was in really serious danger of being taken for a madman in the United States was when, in a Chicago hotel, I permanently removed the receiver from the telephone in a room designed (doubtless ironically) for slumber. The whole hotel was appalled. Half Chicago shuddered. In response to the prayer of a deputation

from the management I restored the receiver. On the horrified face of the deputation I could read the unspoken query: "Is it conceivable that you have been in this country a month without understanding that the United States is primarily nothing but a vast congeries of telephone-cabins?" Yes, I yielded and admired! And I surmise that on my next visit I shall find a telephone on every table of every restaurant that respects itself.

It is the efficiency of the telephone that makes it irresistible to a great people whose passion is to "get results"—the instance with which the communication is given, and the clear loudness of the telephone's voice in reply to yours; phenomena utterly unknown in Europe. Were I to inhabit the United States, I too should become a victim of the telephone habit, as it is practiced in its most advanced form in those suburban communities to which I have already incidentally referred at the end of the previous chapter. There a woman takes to the telephone as women in more decadent lands take to morphia. You can see her at morn at her bedroom window, pouring confidences into her telephone, thus combining the joy of an innocent vice with the healthy freshness of breeze and sunshine. It has happened to me to sit in a drawing-room where people gathered round the telephone as Europeans gather round a fire, and to hear immediately after the ejaculation of a number into the telephone a sharp ring from outside through the open window, and then to hear in answer to the question, "What are you going to wear tonight?" two absolutely simultaneous replies, one loudly from the telephone across the room, and the other faintlier from a charming human voice across the garden: "I don't know. What are you?" Such may be the pleasing secondary scientific effect of telephoning to the lady next door on a warm afternoon.

Now it is obvious that behind the apparently simple exterior aspects of any telephone system there must be an intricate and marvelous secret organization. In Europe my curiosity would probably never have been excited by the thought of that organization—at home one accepts everything as of course—but in the United States, partly because the telephone is so much more wonderful and terrible there, and partly because in a foreign land one is apt to have strange caprices, I allowed myself to become the prey of a desire to see the arcanum concealed at the other end of all the wires; and thus, one day, under the high protection of a demigod of the electrical world, I paid a visit to a telephone exchange in New York, and saw therein what nine hundred and ninety-nine out of every thousand of the most ardent telephone-users seldom think about and will never see.

A murmuring sound, as of an infinity of scholars in a prim school conning their lessons, and a long row of young women seated in a dim radiance on a long row of precisely similar stools, before a long apparatus of holes and pegs and pieces of elastic cord, all extremely intact; that was the first broad impression. One saw at once that none of these young women had a single moment to spare; they were all involved in the tremendous machine, part of it, keeping pace with it and in it, and not daring to take their eyes off it for an instant, lest they should sin against it. What they were droning about it was impossible to guess, for if one stationed oneself close to any particular rapt young woman, she seemed to utter no sound, but simply and without ceasing to peg and unpeg holes at random among the thousands of holes before her, apparently in obedience to the signalling of faint, tiny lights that in thousands

continually expired and were rekindled. (It was so that these tiny lights should be distinguishable that the illumination of the secret and finely appointed chamber was kept dim). Throughout the whole length of the apparatus the colored elastic cords to which the pegs were attached kept crossing one another in fantastic patterns.

We who had entered were ignored. We might have been ghosts, invisible and inaudible. Even the supervisors, less-young women set in authority, did not turn to glance at us as they moved restlessly peering behind the stools. And yet somehow I could hear the delicate shoulders of all the young women saying, without speech, "Here come these tyrants and taskmasters again, who have invented this exercise which nearly but not quite cracks our little brains for us! They know exactly how much they can get out of us, and they get it. They are cleverer than we and more powerful than we; and we have to submit to their discipline. But"—and afar off I could hear: "What are you going to wear tonight?" "Will you dine with me to-night?" "I want two seats." "Very well, thanks, and how is Mrs. —?" "When can I see you, tomorrow?" "I'll take your offer for those bonds." And I could see the interiors of innumerable offices and drawing-rooms. But of course I could hear and see nothing really except the intent drone and quick gesturing of those completely absorbed young creatures in the dim radiance, on stools precisely similar.

I understood why the telephone service was so efficient. I understood not merely from the demeanor of the long row of young women, but from everything else I had seen in the exact and diabolically ingenious ordering of the whole establishment.

We were silent for a time, as though we had entered a church. We were, perhaps unconsciously, abashed by the intensity of the absorption of these neat young women. After a while one of the guides, one of the inscrutable beings who had helped to invent and construct the astounding organism, began in a low voice on the forlorn hope of making me comprehend the mechanism of a telephone-call and its response. And I began on the forlorn hope of persuading him by intelligent acting that I did comprehend. We each made a little progress. I could not tell him that, though I genuinely and humbly admired his particular variety of genius, what interested me in the affair was not the mechanics, but the human equation. As a professional reader of faces, I glanced as well as I could sideways at those bent girls' faces to see if they were happy. An absurd inquiry. Do I look happy when I'm at work, I wonder! Did they then look reasonably content? Well, I came to the conclusion that they looked like most other faces—neither one thing nor the other. Still, in a great establishment, I would sooner search for sociological information in the faces of the employed than in the managerial rules.

"What do they earn?" I asked, when we emerged from the tense-atmosphere pressure of that intense absorption. (Of course I knew that no young women could possibly, for any length of time, be as intensely absorbed as these appeared to be. But the illusion was there, and it was effective).

I learned that even the lowest beginner earned five dollars a week. It was just the sum I was paying for a pair of clean sheets every night at a grand hotel. And that the salary rose to six, seven, eight, eleven and even fourteen dollars for supervisors, who, however, had to stand on their feet seven and a half hours a day, as shop-girls do for ten hours a day; and that in general the girls had thirty minutes for lunch, and a day off every week, and that the

company supplied them gratuitously with tea, coffee, sugar, couches, newspapers, arm chairs, and fresh air, of which last fifty fresh cubic feet were pumped in for every operator every minute.

"Naturally," I was told, "the discipline is strict. There are test wires. . . . We can check the 'time elements.' . . . We keep a record of every call. They'll take a dollar a week less in an outside place—for instance, a hotel. . . . Their average stay here is thirty months."

And I was told the number of exchanges there were in New York, exactly like the one I was seeing.

A dollar a week less in a hotel! How feminine! And how masculine! And how wise for one sort of young woman, and how foolish for another! . . . Imagine quitting that convent with its guaranteed fresh air, and its couches and sugar and so on, for the rough hazards and promiscuities of a hotel! On the other hand, imagine not quitting it!

Said the demigod of the electrical world, condescendingly: "All this telephone business is done on a mere few hundred horse-power. Come away, and I'll show you electricity in bulk."

And I went away with him, thoughtful. In spite of the inhuman perfection of its functioning, that exchange was a very human place indeed. It brilliantly solved some problems, it raised others. Excessively difficult to find any fault whatever in it! A marvelous service, achieved under strictly hygienic conditions—and young women must make their way through the world! And yet—yes, a very human place indeed!—From YOUR UNITED STATES, by Arnold Bennett, Copyright 1912, by Harper and Brothers.

Bell Telephone Bowling League

STANDING OF THE TEAMS
JANUARY 23, 1913.

| Team. | Won. | Lost. | Per cent. |
|--------------|------|-------|-----------|
| Commercial | 31 | 14 | .689 |
| Maintenance | 29 | 16 | .644 |
| Installation | 28 | 17 | .622 |
| Engineers | 27 | 18 | .600 |
| Revenue | 25 | 20 | .558 |
| Suburban | 21 | 24 | .467 |
| Traffic | 20 | 25 | .444 |
| A. T. & T. | 16 | 29 | .356 |
| Accountants | 15 | 30 | .333 |
| Inspection | 13 | 32 | .289 |

The Commercial braves in the strenuous fight for honors in the Bell Telephone Bowling League of Chicago still hold first place (January 23rd) to the dismay of all dopesters.

Welch, of the Installations, and Fry, of the Maintenances, are even for first individual place, each with an average of 182. But Welch holds his with forty-five games played while Fry has rolled only twelve. Johnson, of the Engineers, is third with 180. Carey, Driscoll and Atwood follow with 179.

Telephone Masher a Parrot.

Receiving a call a few days ago from Room No. 647, occupied by Mr. and Mrs. Charles F. Bailey of New Orleans, the house telephone operator at the Waldorf-Astoria Hotel in New York, heard herself called "sweety," and then "Oh, you sassy suffragette."

She was indignant. She called the chief operator to listen and then they called the house detective. They all heard "Hello, baby," and "Hello, cuty." The girl remonstrated and from the voice at the other end came language which caused them all to gasp. The detective rushed to the room. Perched upon the fallen telephone instrument he found a huge Brazilian parrot, the property of the Baileys. After dislodging the bird and hanging up the receiver the detective fled pursued by a torrent of abuse from the bird.

The Iron Mountain, Mich., Cut-Over

By H. E. HARRINGTON, Equipment Supervisor,
Michigan State Telephone Company.

On December 11, 1912, at 9:30 p. m., the hopes and efforts of James F. Martin, manager of the Iron Mountain exchange, were realized when that exchange graduated from the magneto class to the common-battery class. In fact, Mr. Martin remarked to several persons that it was the happiest day of his life.

The old exchange consisted of four sections of No. 3 (Michigan type) magneto switchboard as shown in the first picture. This switchboard, two sections of which are said to have been in service for seventeen years, was equipped at time of the cut-over for 460 subscribers' lines. This picture (Figure 1) was taken 2½ minutes after the cut-over to the new switchboard, which is shown in Figure 2. The new switchboard is of the No. 9 relay type and consists of four positions of common-battery subscribers' switchboard, one rural-subscribers' position, and one toll operator's position. The new switchboard is equipped for 600 common-battery subscribers' lines, 20 magneto rural subscribers' lines, and 20 toll lines.

Figures 2, 3 and 4, in the order named, show the method employed in making the cut-over.

Figures 2 and 3 were taken just previous to the cut-over. Figure 3 showing the operation of stripping the heat coils from the old main frame and thus cutting off the old switchboard. Figure 2 shows the subscribers' multiple and toll multiple of the two middle sections plugged up with small wooden plugs, having a piece of twine attached to each. These wooden plugs served the purpose of opening each cut-off jack, thus cutting off the signals on the new board, and allowing the two switchboards to be connected together by the placing of heat coils on the new main frame. After the heat coils were pulled on the old main frame, the remaining step was merely to pull the wooden plugs on the new switchboard by the strings attached to them (which are bunched together) upon a signal given from the old terminal room, indicating the removal of the heat coils above mentioned. By this means the cut-over was accomplished almost momentarily, the process occupying not over two seconds' time.

Figure 4 shows the operators at the new board immediately after the cut-over. The last picture shows these operators of the Iron Mountain exchange, when off duty. Their names are as follows, reading from left to right: Standing, Vendela Swanson, Carrie Antonina and Alzana Poupard; seated, Dora Peters, Mable Langren, Julia Regetts, Verna Eslick and Esther Danielson.

In Figure 3, above referred to, K. S. Baker stands immediately in the foreground. He is the only official in Michigan who can boast of holding two jobs, being the District Commercial Manager and the District Traffic Chief combined, for the Marquette district of the Michigan division. Mr. Sullivan, District Plant Chief, is the man at Mr. Baker's right hand. Mr. Baker's left hand is resting on the shoulder of James F. Martin, Manager of the Iron Mountain exchange. Next to Mr. Sullivan, and leaning against the main frame and having the "sunny Jun" expression, is D. I. Dixon, Manager at Menominee; Mr. Dixon was, by the way, the only guest invited to the doings. Al. Francis, construction foreman in charge of the rebuilding of the outside plant, is seated facing Mr. Martin, with a much crimped blue

print of the cable lay-out between them. In the rear, reading from left to right, are Equipment Supervisor H. E. Harrington and Installers P. E. Herr, A. G. Whiting, F. Dykstra, K. Clune, George Campbell and R. P. White.

Other employees who assisted in the cut-over and the changing of the substation sets are Installers D. J. O'Leary, H. Stockholm, E. Osgood and F. Wintermuth; Cablemen William McDonald and James Campbell, and Rackman O. R. DuBois.

The new switchboard was installed by R. F. Miller, installer for the Western Electric Company.

phone receiver as if they were rooting for the home team. These are, perhaps the same people who think that he who has not the remotest knowledge of English can grasp it without difficulty if only it is shouted at him loudly enough. The theory that prompts vociferousness in the one case is as false as that which prompts it in the other.

If a person does not understand English, no amount of shouting will make him understand it. If he understands a little English, he can best make out what another is saying to him when the other is calm. If he understands English very well, he will appreciate

strongly reinforced with clear enunciation. If it is working properly, the person at the other end can hear most distinctly when the tone employed is that used in ordinary conversation among decent people. — *Christian Science Monitor.*

CATARACT DRENCHES MILWAUKEE REPAIRMEN

Cable Men Work Under Great Difficulties at Recent Midnight Blaze.

Fire broke out at 297 Third Street, Milwaukee, on the night of January 12th about 11:45. At twelve o'clock Wm. Walker, city cable foreman, was called out to take care of the cable which is in the rear of this building. The cable leaves the underground and comes up on the pole with a 200-pair cable box placed on this pole. The back of the cable box is right up against the back of the building.

The temperature that evening was nearly zero and the water soon froze over the box and cable, making them one mass of ice. The cablemen had an opportunity during a lull in the fire to knock off the ice with hatchets, hammers, blow torches, etc., and by having several crews working at it at the same time they managed to open the box and place a cableman's tent over the box and platform, cut off the ends of the burnt portions of the cable, turn back the ends and place rubber cloths.

Afterwards the firemen, from the fire escape on the side of the building, renewed efforts to put out the fire and the men under the tent had to work as if under Niagara Falls; but they succeeded in getting all the fuses out, so the cables multiplied with the burnt part were working at 5 a. m. As these multiples contain three large private branch exchanges, every effort was made to get them working before their day's work began.

The aerial cable inclined a little from the point where the fire burned it, so water, entering the cable, followed it down fifty-two feet, which had to be replaced. The day being very cold, the potheads appeared safe, as they showed no moisture, but the next day was warmer and when the ice began to melt it showed that both potheads had to be replaced. But at that, service to all lines was restored by 10 p. m. on January 13th.

P. and L. E. Dispatching.

The Pittsburgh and Lake Erie Railroad sometime ago installed a telephone train dispatching system on its lines, and is now preparing to supplement this, in part, with a selectively operated "message wire," to be used for transacting only commercial affairs. No train movement orders will be handled over this line.

The Western Electric Company, which furnished the apparatus used on the train dispatching circuits, will also supply that to be used on the message wire, which will extend from McKee's Rocks to Woodlawn, Pa., a distance of approximately seventeen miles. A full metallic line built of No. 12 B. & S. copper wire will be used, along which fifteen way stations will be equipped with No. 101-B selector sets, containing the standard Western Electric No. 50-type selector.

This telephone line will terminate in the road's private branch exchange and the calls will be handled just the same as on a party telephone line, the switchboard operator calling each station without signaling the others.

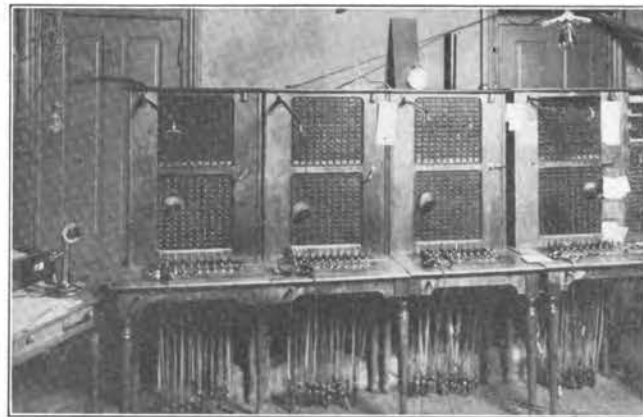


FIGURE 1.—IRON MOUNTAIN CUT-OVER.
The old board as used for many years.

Speak Gently Over the Telephone.

It is one of the most amusing of human idiosyncrasies to imagine that the louder one shouts into the transmitter

whatever is said to him all the more if it is not said in the key at which one usually hails a boat 300 yards off shore on a windy day.

It is the same way with the tele-

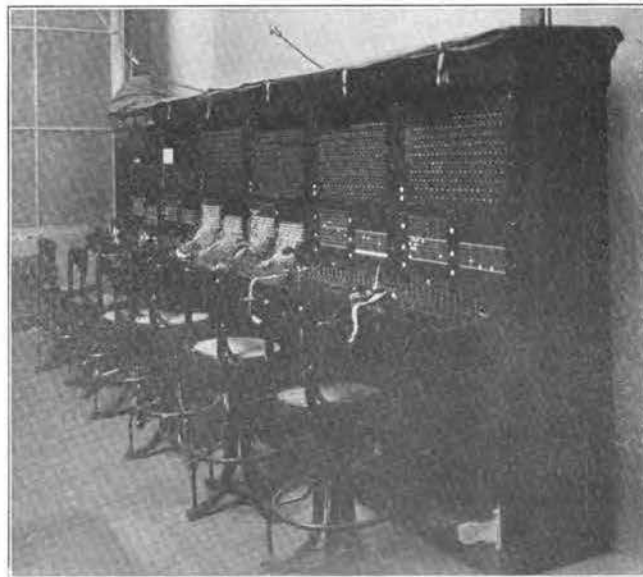


FIGURE 2.—IRON MOUNTAIN CUT-OVER.
New switchboard ready for cut-over.

of a telephone the more perfectly and comfortably does the sound reach the person at the other end. Great numbers of people who in the ordinary affairs of life are tranquil and soft-toned, will habitually yell into a tele-

phone. If it is entirely out of order there is no more sense in yelling at the top of one's voice into the transmitter than there would be in hallooing at the moon. If it is not working well, this can be best overcome by patience

EAT WHAT YOU LIKE, SAYS DR. HUTCHINSON

Eminent Specialist Gives Sound and Popular Advice to Telephone Society.

Dr. Woods Hutchinson, the eminent physician, author and lecturer, recently delivered a talk to the Philadelphia Telephone Society. "Health and Horsepower" was the subject of Dr. Hutchinson's address. He believes in eating what one pleases as the following extracts from his address will show:

"The human body is an engine," he said, "and like all other engines its first requisite in generating energy is proper and heat-producing fuel. Put poor fuel or too little of it under an engine and it will fail to produce. This is equally true of the body and its fuel called food." Leading thus to the vital question of diet, he went on to expound the theory that "the food that tastes good, and smells good, and appeals to the normal appetite is for the most part the healthful and energy-producing food." "Good food must taste good," continued the speaker. "It must have substance, and it must produce that comfortable sense of distention to the interior."

"There is a great deal more danger of the average man under-eating than over-eating, and a good rule to follow is that a little too much of good food is just enough. The human stomach is geared for a continuous performance."

"In our first crude and childish experiments upon digestion," continued Dr. Hutchinson, "the first and most obvious test of the digestibility of a food applied was the length of time which it took to leave the stomach. With naive simplicity we took it for granted that food could only leave the stomach by way of absorption into the blood-vessels, and that the whole process of digestion was carried out in that much-enduring organ. But the stomach is little more than a place of deposit for the food, where it may be sufficiently churned and partially dis-

There is no necessary connection between the ultimate digestibility of a food and the length of time it remains in the stomach. The old tables of digestibility, which still encumber some of our text-books, were arranged chiefly upon the ease and swiftness with which particular food substances can

whether muscular or mental. As a matter of fact, I have seen more cases of dyspepsia cured by the use of breakfast bacon than by any kind of drug or restricted diet.

"An adult alimentary canal which cannot digest bacon or ham is not to be regarded as healthy, and instead of

that they are deficient in proper food value, and whoever lives on them will be dyspeptic just as long as he does so."

Dr. Hutchinson took strong issue with the vegetarian, characterizing vegetarianism as "a religious cult, and not a dietetic or hygienic school." "With vegetarianism as a creed," he said, "we have as scientific men no more quarrels than with any other creed. But when it parades in the guise of science we firmly but respectfully protest. Its contention that human life can be maintained in fair health and vigor upon a chiefly vegetable diet is absolutely unchallenged by us. There is no doubt about it. Indeed, nearly one-half of the human race has been compelled from sheer necessity to prove that thesis in its actual experience, but we find absolutely no jot of evidence in support of a contention that there is any advantage or superiority in a vegetable diet as such, no more than there is any inherent superiority in a pure animal diet as such."

"If any individual prefers to restrict himself to a purely vegetable diet, including milk, butter, cheese and eggs, he is perfectly at liberty to do so, but that he will gain any advantage whatever from his abstinence from meat we are utterly unable to confirm. Whoever may be right, the extremist is absolutely sure to be wrong, and the pure vegetarian and the pure 'animalian,' if such a one exist, alike occupy positions which are in the eyes of science irrational and untenable. There is no valid or necessary ground except individual idiosyncrasies, so far as we have been able to discover, for the exclusion of any known article of food, whether vegetable or animal, from our diet list in health."

In discussing the value of bread as



FIGURE 3.—IRON MOUNTAIN CUT-OVER.
Ready to pull the heat coils.

be acidulated and passed on out of the stomach. Eggs, milk, sweetbreads and rice came first on the list, for they are either liquefied in the process of mastication by the saliva or so nearly so that a comparatively short stay in the stomach is sufficient to allow them to be acidulated and passed on for the serious process of digestion in the small intestine. Next came oysters, soups and the lighter meats; then beefsteak and bread, and fat and fried meats; and last of all pure fats. Naturally, pork comes last in this series because it contains large quantities of fat, and that fat is distributed among its fibers. And yet pork, although it is one of the slowest is also one of the

humoring a weak digestion it should be braced up and, under skilled supervision, educated to take what is given it and make no fuss. A healthy stomach, fit to cope with the emergencies of



FIGURE 5.—IRON MOUNTAIN CUT-OVER.
Operators of Iron Mountain Exchange.



FIGURE 4.—IRON MOUNTAIN CUT-OVER.
New Board and Operators after cut-over.

solved in water, with the assistance of weak acid and pepsin before being passed on into the real digestive organ of the body, the small intestine.

surest foods that we have to give off all its energy to the body. Its very slowness of digestion is what gives it splendid staying powers for hard work,

life, must be able to digest not only that which is digestible but also much that is difficult of digestion, and that is the standard that should be aimed at in dietetic therapeutics. Besides, a large bulk of indigestible residue is absolutely necessary to stimulate the lower bowel to proper action. We need 'hay' just as horses do. Pork, ham and bacon is easily our second most valuable food, and has laid the literal foundation of our Western civilization. What would an army, an exploring party, a railroad gang, a lumber camp or a harvest field be without bacon?

"Most of the restricted 'hygienic' diets on which our patients put themselves are chiefly notable for the fact

a food, Dr. Hutchinson expressed the conviction that the finer grade of wheat produced the most nutritious bread. "Nature is not a fool," he said. "Man, so far as he is natural, attains to considerable degree of instinctive wisdom. It is to the biologist a most significant fact that the unvarying and constant struggle of rising humanity in the realms of diet have been first toward the securing of meat and second toward the acquisition of white bread—and as much of it as possible. The fiercest wars have been waged for the possession of the broad, level, alluvial plains upon which wheat could be grown, and nobody but a mountaineer or a very far northerner would eat either rye, barley, oats or maize when he

could possibly get wheat. And now comes science with a full and triumphant vindication of the rightness of humanity's instinct in this regard, and a demonstration that white bread, and the whitest of the white, is the best and most healthful food which the sun has ever grown from the soil."

The importance of the necessity for proper rest was next taken up and dealt with at considerable length. "Sleep is a positive not a negative process. Go to sleep when you are tired, get up when you wake feeling rested," was Dr. Hutchinson's philosophy. "Obviously no hard-and-fast rule as to the number of hours of sleep required can be laid down," said the speaker. "Just as individuals differ in the color of their hair and eyes, the vigor of their appetite, their tendency to be fat or lean, so they differ in the rapidity of their recuperation during sleep. As has been often said, a few vigorous, energetic individuals seem able to recuperate with such rapidity that as little as four hours' sleep suffices them. To mention a few notable instances, Frederick the Great, Napoleon and his conqueror, the Duke of Wellington, John Wesley, and, in recent years, Edison, the inventor, were able to refresh themselves completely within this time. On the other hand, anemic and nervous individuals may recuperate with such extreme slowness that they require ten, twelve or thirteen hours of sleep properly to redress the balance. At a rough working average, it may be stated that the majority of vigorous adults require an average of about nine hours. The proverbs are as usual at sea, and have about the usual amount of influence over actual practice. 'Seven hours for a man, eight for a woman and nine for a fool' has been their dictum for centuries, but the average human being cheerfully plunks himself into the 'fool' class, much to his benefit."

Modern Improvements Too Much for Scotchman

In one of the big copper mines of Northern Michigan was employed a Scotchman of the old order who are quite well satisfied with things the way their fathers had them. This dour son of Caledonia was therefore little disposed to be friendly to the telephone system which was installed in the mine and likewise little inclined to learn how to use it properly.

"We canna hear o'er the dom thing a muckle o' sense," he reported one day to the superintendent. The superintendent had the line into the mine thoroughly tested and found nothing wrong. The next day the Scotchman reported that he had discovered the cause of the trouble.

"Just what seems to be the matter?" inquired the superintendent.

"Weel," replied the Scotchman, "there's ae Cousin Jock at ae end o' the line canna talkit Italian an' anither at ither end canna talkit English. Would ye put ae of those translators on the line so we will have na mair trouble?"

What the old man referred to as "translators" were the transformers which he had seen put on power lines about the mine.

Telephone Saves Life.

County Clerk Frank Baldwin of Ottawa, Kan., spent two and a half hours locked in the big vault in his office on January 11th and was saved from suffocation by John Bell, of Salina, who was clerk eight years ago and who remembered the combination.

Bell dictated the combination over the long-distance telephone, after

District and Division Collection Rating

DECEMBER 1, 1912.

| | Total to be collected Nov., 1912. | November collections. | Unpaid during 1912. | Per cent collected. | Stations. |
|---|-----------------------------------|-----------------------|---------------------|---------------------|-----------|
| 1. Wis. Tel. Co., Appleton Dist. | \$ 60,551 | \$ 58,725 | \$ 1,826 | 96.9 | 25,742 |
| 2. C. U. Tel. Co., Columbus Dist. | 48,482 | 46,356 | 3,126 | 93.6 | 20,242 |
| 3. C. U. Tel. Co., Terre Haute Dist. | 39,102 | 36,527 | 2,575 | 93.4 | 19,112 |
| 4. C. U. Tel. Co., Chillicothe Dist. | 30,241 | 27,339 | 2,902 | 90.4 | 16,798 |
| 5. Wis. Tel. Co., Madison Dist. | 36,244 | 32,193 | 4,051 | 88.8 | 14,946 |
| 6. C. U. Tel. Co., Dayton Dist. | 55,720 | 49,307 | 6,413 | 88.5 | 22,359 |
| 7. Wis. Tel. Co., Eau Claire Dist. | 27,960 | 24,513 | 3,447 | 87.7 | 10,150 |
| 8. C. U. Tel. Co., Toledo Dist. | 61,715 | 55,982 | 7,733 | 87.5 | 26,355 |
| 9. C. U. Tel. Co., Galesburg Dist. | 49,198 | 42,284 | 6,914 | 85.9 | 20,342 |
| 10. C. U. Tel. Co., Centralia Dist. | 21,262 | 18,225 | 3,037 | 85.7 | 10,807 |
| 11. Wis. Tel. Co., Janesville Dist. | 10,656 | 9,127 | 1,529 | 85.6 | 4,016 |
| 12. *Wis. Tel. Co., Milwaukee Dist. | 164,989 | 139,117 | 24,872 | 84.7 | 36,720 |
| 13. Chicago Tel. Co., Chicago Heights Dist. | 6,518 | 5,857 | 1,061 | 84.7 | 2,392 |
| 14. C. U. Tel. Co., Anderson Dist. | 61,380 | 51,731 | 9,649 | 84.3 | 27,316 |
| 15. C. U. Tel. Co., Springfield Dist. | 115,283 | 96,033 | 19,250 | 83.3 | 42,202 |
| 16. Chicago Tel. Co., La Grange Dist. | 13,025 | 10,821 | 2,204 | 83.1 | 4,412 |
| 17. Chicago Tel. Co., Chicago Dist. | 1,312,143 | 1,059,374 | 222,769 | 83.3 | 307,851 |
| 18. C. U. Tel. Co., Akron Dist. | 71,361 | 58,625 | 12,736 | 82.2 | 23,650 |
| 19. Chicago Tel. Co., Blue Island Dist. | 9,235 | 7,424 | 1,811 | 80.4 | 3,091 |
| 20. Chicago Tel. Co., Elgin Dist. | 15,126 | 12,017 | 3,109 | 79.4 | 5,987 |
| 21. Chicago Tel. Co., Woodstock Dist. | 9,536 | 7,359 | 2,167 | 77.3 | 3,261 |
| 22. Chicago Tel. Co., Wheaton Dist. | 11,433 | 8,801 | 2,632 | 77. | 3,610 |
| 23. *Michigan State Tel. Co., Detroit Dist. | 341,768 | 262,118 | 79,650 | 76.7 | 95,283 |
| 24. *Michigan Tel. Co., Evanston Dist. | 39,546 | 30,263 | 9,283 | 76.5 | 9,306 |
| 25. C. U. Tel. Co., Indianapolis Dist. | 91,046 | 69,533 | 21,483 | 76.4 | 28,093 |
| 26. Chicago Tel. Co., Oak Park Dist. | 33,416 | 25,393 | 8,023 | 76. | 9,528 |
| 27. Chicago Tel. Co., Aurora Dist. | 17,291 | 12,993 | 4,298 | 75.1 | 6,026 |
| 28. Chicago Tel. Co., Aukaugan Dist. | 27,778 | 20,653 | 7,115 | 74.4 | 7,311 |
| 29. Chicago Tel. Co., Gary Dist. | 15,628 | 10,821 | 4,807 | 75.6 | 3,943 |
| 30. Chicago Tel. Co., Hammond Dist. | 19,200 | 14,025 | 5,175 | 73. | 5,253 |
| 31. Chicago Tel. Co., Joliet Dist. | 26,841 | 18,875 | 7,966 | 70.3 | 9,313 |
| 32. *Cleveland Tel. Co., Cleveland Dist. | 173,424 | 113,737 | 59,687 | 65.6 | 32,067 |
| 33. *Mich. State Tel. Co., Marquette Dist. | 18,921 | 12,811 | 6,110 | 67.7 | 7,108 |
| 34. *Mich. State Tel. Co., Saginaw Dist. | 71,021 | 39,439 | 31,582 | 55.5 | 20,564 |
| 35. *Mich. State Tel. Co., Grand Rapids Dist. | 139,468 | 75,278 | 64,190 | 53.9 | 41,791 |
| Totals | \$2,269,833 | \$2,602,610 | \$667,223 | 81.9 | 971,053 |
| Division Summary | | | | | |
| Wisconsin Division | \$ 229,510 | \$ 263,675 | \$ 35,835 | 88. | 111,574 |
| C. U. Co., Ohio Division | 267,519 | 234,609 | 32,910 | 87.7 | 109,544 |
| C. U. Co., Illinois Division | 185,723 | 156,542 | 29,181 | 84.3 | 73,351 |
| C. U. Co., Indiana Division | 191,028 | 157,321 | 33,707 | 82.4 | 74,841 |
| Chicago Division | 1,550,478 | 1,270,480 | 279,998 | 81.8 | 378,970 |
| Michigan Division | 601,651 | 405,746 | 195,905 | 67.4 | 171,126 |
| Cleveland Division | 173,424 | 113,737 | 59,687 | 65.6 | 32,067 |
| Totals | \$2,269,833 | \$2,602,610 | \$667,223 | 81.9 | 971,053 |

*Quarterly rental billing.

spending an hour searching his memory for the correct numerals.

When liberated Baldwin no one in the floor unconscious. No one in Ottawa knew the combination except Baldwin.

ISLANDERS TO HAVE FINE NEW SYSTEM

Porto Rico General Telephone Company Installing Western Electric Plant.

The new plant and equipment of the Porto Rico General Telephone Company will be completed and installed ready for use in a very short time.

Since the new fifty-year telephone franchise was granted in August, 1911, \$300,000 has been spent by the telephone company to provide modern equipment that will give something like up-to-date service. The new six-story telephone building, at Tetuan and Tanca Streets, San Juan, is now nearing completion and when it is done the new central exchange and the general offices of the company will be moved into it.

When the new equipment is installed there will be a modern telephone system extending from Arroyo to Hormigueros and connecting with the South Porto Rico Telephone Company and with the telephone lines of the Insular Telegraph to other points. There are at present thirty-eight exchanges, connecting with 1,600 stations and serving 3,000 people.

A substantial pole line is now being built almost completely around the island to carry the wires of the telephone company. This pole line extends from Arroyo to Hormigueros and the new line has been strung most of this distance. The company now has 1,200 kilometers of wire in use.

Besides the new pole line modern switch-boards have been installed. F. J. Hyland of the foreign sales department of the Western Electric Company, has made a complete inspection of all the work so far completed and says that when all the improvements are finished the Porto Rico General Telephone Company will have as fine a system as can be found anywhere in the United States.

The main exchange, which will include San Juan proper and long-distance connections, will be on the top floor of the new telephone building. On the floor beneath will be the general offices of the company.

This will be the most modern office building in Porto Rico by far. It will have elevator service, uniform janitor service and other modern conveniences heretofore unknown in office buildings in Porto Rico. It is the highest building on the island, Porto Rico's first skyscraper. It cost \$100,000.

New Kinds of Service.

B. J. Ross, of the Cleveland collection department, answered the telephone the other day and the following conversation took place:

Ross: Collection Department, Clerk 10."

Subscriber: "I wish you would send me my bill for September."

Ross: "What is your telephone number, please?"

Subscriber: "Doan 3065-J."

Ross excused himself for a moment to look up the account, but failing to find anything against the subscriber he inquired:

"What is the bill for, please, rental, toll or advertising?"

Subscriber: "I really don't know as we have both the artificial and natural."

Ross suppressed a laugh with difficulty, and informed the subscriber that this was the Cleveland Telephone Company and not the gas company.

WRECK VICTIM TAPS WIRE TO GET HELP

A. T. & T. Line Inspector Equal to
Emergency In Big Four
Wreck.

A Bell telephone line inspector sent the first call for help when the Big Four passenger train was wrecked twelve miles south of Lafayette, Ind., January 7th, resulting in the death of one man and the injury of thirty-four others.

Ferd Edgar, 337 North Denny Street, Indianapolis, a line inspector employed by the American Telephone and Telegraph Company, is the man who sent the call. In company with several other linemen and inspectors, Edgar boarded the train for Lafayette, where they were to repair some wires broken down by the sleet.

Just as they neared Stockwell cemetery, a point twelve miles south of Lafayette, the crash came. Edgar found himself buried in glass and wreckage. At first all was dark, but gradually he recovered and upon examining his body found that he had suffered only slight injuries. His right wrist and one knee were badly sprained, but he was otherwise unhurt.

Clambering from the wreckage he was surprised to find that he still carried his tester's outfit. Along the track ran a telephone wire which had happened to stand during the storm. The wire caught Edgar's attention and he acted immediately. Although hindered by his sprained knee and a sprained wrist he climbed to the top of the pole, attached his tester's outfit to the wire and sent in a call for help.

It was this call which brought out a relief train and forty physicians from Lafayette.

Edgar arrived home on the special train which was run out from Indianapolis immediately following the first news of the disaster. He modestly refused to talk of the matter and immediately hurried to his home, having first telephoned his wife that he practically was unhurt.

Village Divides in Two.

Telephone line No. 13 known as the professional part of the Belt line, has been grounded for two weeks, but is again running in fine order. The village line is divided into two parts, the gossip and professional lines. The professional line has been out of order a great deal, everything seems cold. The gossip's line is certainly a peach, never out of order. It's kept so hot that even lightning has no effect on it. Messages seem to melt right off the end of the wire. Talk about rapid service. This line fades them all.—Local, Horton, Mich.

MR. VAIL'S PORTRAIT

There are available for distribution a number of fine half-tone prints of a portrait of Theodore N. Vail, President of the American Telephone and Telegraph Company. These prints are suitable for framing. Any employee wishing a copy apply by letter to Clifford Arrick, Manager Publicity Department Chicago.



OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



THE GIRL AND BUSINESS.

Question: Is the work in which a telephone girl is engaged a profession or a business?

Answer: Neither; it is a calling.

The conundrum suggests another question which we often hear asked: Can a girl be business-like? If we could get an answer from all the operators who read the BELL TELEPHONE NEWS, we imagine the great majority would say "yes" in a most emphatic chorus. And there is a reason why we think their answer would be correct. The fact is, that the well-trained telephone operator has lessons on being business-like which can hardly be found in any other employment and the result is that she knows from experience that a girl can be business-like.

Who has not noticed what a transformation can take place in a girl after a few weeks in the telephone school and at the board? The sixteen-year-old girl who comes directly from day school and home life is quite unused to the necessary restraint of business life. But in the school she learns many things besides the intricacies of telephone operating. She begins at once to learn the principles of business which will be capital for a girl whether she remains in the telephone business or goes to any other, or even enters the "calling" of matrimony—that "big business" which calls so many away from our offices.

First of all she has to learn and apply in the school of operating the lesson of unselfishness. In business the lesson is not called by this name. It is called concentration. The telephone operator learns that when she goes to the board she must for a while forget herself. The finer her concentration, the better her work will be and this is the reason that she likes a busy board; it is so much easier to keep her mind on the work when the lights are flashing. Some girls are so self-centered that they find it hard to forget themselves, even for a few hours. Personal preferences and peculiarities which at home and in social life may be quite attractive must be curbed in the office. The young lady must almost forget for a while her own identity if she will gain the more dignified position of a well-trained business woman. Not that she will need to lose the charm of personality; that will only add to her value if she learns the lesson of unselfish devotion to her work.

Another point which is essential for the successful business woman is to know how to do good team work, and this, too, can only be attained by the person who is willing to forget self and reach out to help another. You may call it co-operation. The telephone operator learns this early in her career. She lends a helping hand many times a day. If a girl allows the rather feminine fault of jealousy or pride to enter into her business, she will act as a hindrance rather than a help in the office. The sooner a girl can learn that when she begins a business career she is bound by her contract to give her service to her employer and for the hours of business she owes it to him to co-operate with him and with all other employees in a courteous



MRS. MARGARET HYATT,
Traffic Supervisor, Chicago.

This picture of Mrs. Hyatt, which appears in connection with the article taken from the *Daily News* happens to be a timely illustration of the editorial on the business girl. Mrs. Hyatt proves the assertion to be correct, that a woman may be as businesslike as a man and yet preserve the charm of refined womanliness.

One thing should be added to the sketch, and that is this significant fact, that although Mrs. Hyatt has held positions of authority over many girls in Chicago and has been a most successful chief operator and manager, the universal sentiment among the forces is enthusiastic admiration and personal affection.

and business-like way, the better it will be for her and every one she works with.

One other difficulty in being a business woman is the matter of dress. Men are seldom tempted to appear very unsuitably dressed. They may not be so picturesque as girls, but they certainly have the advantage of not attracting attention by their appearance.

Here again the telephone operator is fortunate. If she appears with her face touched up with rouge or powder, and possibly with lips and eye-brows accentuated, she doesn't pass even in to the school. And lessons on suitable

dress and appropriate hair dressing are given before she leaves the school for the exchanges. The neat shirt waist and dark skirt of our telephone girls set a good fashion for all business girls.

So we conclude that the telephone operator has a right to say that a girl can be business like, for she herself proves it. She is cultivating the fine business qualities of concentration, or, unselfishness—co-operation or helpfulness, and she knows how a business girl should dress. And all of these attainments will help make a woman of character as well as a woman of business.

A Woman Who Has Won

Margaret M. Hyatt Tells How She Advanced in The Telephone Business.

Mrs. Margaret M. Hyatt, traffic supervisor for the Chicago Telephone Company, was recently interviewed by Isabel Stephen, a writer for the McClure Newspaper Syndicate. Miss Stephen is writing a series of articles on women who have made a success in their vocations, and chose Mrs. Hyatt as a sample of the women who have started at the telephone switchboard on careers of success. Mrs. Hyatt's story, is published in the *Chicago Daily News*, in part, follows:

"It (the position with the Chicago Telephone Company) appeared to be an open door of opportunity and I was glad to enter. There was nothing unusual or spectacular in my advancement; promotion came step by step. I began as operator and was promoted by successive steps to supervisor, assistant chief operator, chief operator and manager. When a new position was offered it never occurred to me to reject it because of the added work or responsibility. The larger field of action simply meant greater opportunity. I had a capacity for hard work and enjoyed having something to do that required concentration and close attention. For any measure of success that I can claim first place must be given to the early home training that had fixed in my mind the injunction, 'Whatsoever thy hand findeth to do do it with all thy might,' so that it seemed the natural thing to give of my best in performing any task, and telephone work was sufficiently interesting to make participation in its development a pleasure.

"The position of manager of a telephone exchange is one that has been occupied almost exclusively by men, but my superiors considered that I had shown ability in the lower positions that qualified me for promotion to this higher one, and I was given charge of the largest telephone exchange in Chicago, one of the largest and busiest in the world. I held this position for several years and was recently promoted to an advisory position on the staff of the superintendent."

Telephone Office a Safe Place.

Mrs. Hyatt was then asked to give the readers of this paper advice, resulting from her successful experience, which might decide for them whether they, too, might successfully follow in her footsteps.

"I believe telephone work is a good business for girls," she replied. "A telephone office is one of the safest places in which a young girl can be in the business world. She is guarded from temptation and her welfare is always considered, while the compensation is equal to, and in many cases exceeds, that given in other lines of business. She is trained in a profession that secures employment wherever she may be. Should an operator in Boston find it necessary to go to live in San Francisco, arrangements may be made for her employment in advance, so that when she arrives in the western city she can at once enter upon her duties. The discipline and training fit her for any position; she has

learned lessons that will prove helpful all through life.

"There is a large field for beginners in this work, and employment is easily secured by application to any of the telephone companies. The age at which girls are employed is sixteen years and over. It has been found that young girls learn the work much more readily than older ones. They simply pass from one school room to another, the difference being that now they are paid for attending.

Steps in Advancement.

"The graded steps of advancement are student, operator, supervisor, monitor, senior supervisor, assistant chief operator, chief operator, school principal, with various other positions available; for example, clerks, private branch exchange instructor, special study work, etc.

"The requirements for a successful telephone operator are about the same as those needed in any other business. She must have good health; that is essential.

"She should have a fair education, preferably high school, although this is not an absolute necessity. Any girl who is ambitious may by observation and home study qualify even though her education is elementary, but she will find it more difficult than does her more fortunate sister who has had opportunity for a higher education. She should have a goodly share of common sense and be well balanced. Telephone work teaches patience and self-control, but it is desirable that the applicant for a position as operator have these qualities to start with.

"All who become efficient operators do not qualify for the higher salaried positions. The cause appears to be the same that results in failures in other lines of endeavor. Temperament and the intangible something called personality have to be considered. Lack



OPERATORS AT PEORIA, ILL., STARTING OUT WITH CHRISTMAS BASKETS.

of tact and lack of good judgment are serious hindrances to the success of a woman in business. Some are found who will not assume responsibility, others have no confidence in their own ability, while still others see only the pecuniary advantage, and if the next

step does not appear to them to pay sufficiently for the additional responsibility they are unwilling to take it, not having sufficient foresight to see that progress has to be made step by step. We find persons who are familiar with their work and conscientious in

tron, are provided. A trained nurse is also on duty, so that an operator who may be taken ill is sure of receiving the best possible care. In many cases ground surrounding the buildings is used for gardens, in which operators when off duty may enjoy the freedom of out of doors. Roof gardens are to be found and are in constant use on a number of telephone buildings in both business and residence districts. All this insures to the operator every possible help and inducement to succeed.

"My advice to girls entering the telephone business and to those now employed is to give it their entire attention while they are on duty. Study the work so as to be thoroughly familiar with it and follow instructions closely; be ready for the position that is sure to be waiting. It is easier to find the position than the person qualified to fill it."

Gifts to Kaukauna Operators.

Six operators of the Wisconsin Telephone Company at Kaukauna, Wis., were handsomely remembered on Christmas by the officers of a firm of heavy toll users. M. A. Wertheimer, President, and C. W. Stribley, Secretary and Treasurer, each sent every operator in the exchange \$5 and Nellie Jones, chief operator, \$10. The operators sharing in the gift were Ada Lindberg, Martha Schultz, Elizabeth Keelan, Selma Weber and Ella Pratt.

Accompanying his gift, Mr. Wertheimer sent the following letter.

Dear Miss Jones: Will you kindly cash enclosed check and extend my compliments and good wishes together with five dollars to each young lady including yourself, in the office.

I appreciate very much the pleasant and good service you have all rendered during the year.

With a very Merry Christmas to all of you,
Yours truly,
M. A. WERTHEIMER.

Dec. 24, 1912.



MT. CLEMENS OPERATORS AS CHRISTMAS GIFT DISTRIBUTORS.

The second annual dance of the Mt. Clemens operators at the Chamber of Commerce, November 30th, was the brilliant success anticipated. There were beautiful electric effects, Japanese lanterns and autumn leaves, and the company's familiar token, the blue and white bell, was suspended at intervals. The parlor was handsomely furnished, and punch and wafers were served. Music was played by Schock's orchestra of six pieces.

A considerable sum of money was left on the right side of the balance after all expenses had been paid. After the members of the club had discussed the question of donating about fifty per cent of the earnings to charity, they readily fell in with the idea of making Christmas presents for poor children and families of the city. Arrangements were quickly made. Provisions and toys were bought and delivered on the afternoon of the day before Christmas. The manager of one big department store gave the operators all of the miscellaneous toys he had left after the close of business on the 24th.

A group of operators and commercial clerks left the office at two o'clock on the afternoon of the 24th with one load of provisions and presents, and proceeded to the city library building, where they were met by the plant and commercial employees. The above picture was taken and the load was then distributed.

On the evening of the 24th another load, with another group of operators and commercial clerks, left the office and distributed the provisions and presents. All the girls report that they enjoyed the distribution of the proceeds of their dance in this way much better than by making up a party and treating themselves to a dinner, as had been done in the past with the money taken in from their dance. The girls say that the poor children went wild with joy when they found their arms filled with candies, nuts, oranges, and toys. The mothers and fathers could not thank them enough for providing them with their Christmas dinner for their family.

Richard Moore, assistant wire chief, was dressed in full regalia to represent Santa Claus, and assisted the girls in their good work.



PEORIA OPERATORS WRAPPING CHRISTMAS PACKAGES FOR POOR.

performance of duty, but utterly lacking in executive ability—essential qualification for one who wants to succeed. Besides these, there are a great number who take up work for a short time to bridge over the period between school and marriage and do not take sufficient interest in it. They are looking forward to the day when 'Prince Charming' may arrive, and their attention is not concentrated on the duties before them.

Comforts for the Workers.

"We find in every town and city, in the buildings owned by the telephone company and built especially for the needs of the business, that particular attention is given to the requirements of the operators. Comfortably furnished rest rooms and dining rooms, in charge of a competent ma-

She Heard It, Too.

His name was Plipsin, and when his wife answered his telephone call he said:

"Don't wait for me at dinner this evening, dear. I shall be detained on business."

"Very well," she replied. "I'm sorry you can't be with us, but business is business, I suppose. Where are you now?"

"Where am I? In my office, of course. I have had a very busy day."

"It is too bad that you have to work so hard, George. But tell me something, George."

"Yes, dear; what is it?"

"How can you keep your mind on business with the orchestra playing, 'Every Little Movement'?"—*Exchange*.

Indoor Baseball League

STANDING OF THE TEAMS.
January 24, 1913.

| | W. | L. | Pct. |
|------------|----|----|-------|
| Traffic | 3 | 0 | 1.000 |
| Auditors | 2 | 1 | .667 |
| Commercial | 2 | 2 | .500 |
| Plant | 0 | 2 | .000 |

The Chicago Telephone Employees' Indoor Baseball League, organized January 13th, is composed of teams from the Auditing, Commercial, Plant and Traffic Departments. Two games will be played each week on Tuesday and Wednesday nights at 8:30 at the gymnasium of St. Alphonsus' church, corner of Lincoln, Wellington and Southport Avenues. Admission to the games is free and all employees are invited to attend and "root" for their departments. The season ends March 12th.

H. E. Eldridge has been elected President of the League; R. S. Boulard, Secretary and Treasurer, and J. Dunne and P. Hart, Advisory Board. After the games of the week of January 20th, the Traffic and Auditing Department teams were tied for first place with two games each, won, while the Commercial and Plant Departments each had ciphers to their credit.

The Traffics defeated the Auditors 6-3 at St. Alphonsus' Gymnasium, January 23, breaking the tie for first place.

The game was closely contested and exciting throughout, and the early lead of the Traffics was often threatened. Both pitchers were remarkably effective, Fremi making a record of eighteen strikeouts and four bases on balls, while Dillon registered seventeen strikeouts and three bases on balls.

The Traffics hit safely six times, the Auditors but three. Eldridge obtained a two bagger to the back wall, while J. Carney placed a double and two singles in right, easily winning the batting honors of the evening. Welsh of the Auditors, in the eighth, lined out to Ryan, who whipped to E. Carney double Demmer at second. The score:

TRAFFICS.

| | AB. | R. | IB. | PO. | A. | E. |
|-----------------|-----|----|-----|-----|----|----|
| Ryan, 3 | 3 | 0 | 0 | 1 | 2 | 0 |
| J. Carney, c | 4 | 2 | 3 | 16 | 3 | 1 |
| E. Carney, 2 | 4 | 0 | 0 | 3 | 3 | 1 |
| H. Driscoll, 1 | 4 | 2 | 2 | 6 | 0 | 1 |
| Eldridge, 1b | 4 | 1 | 1 | 1 | 2 | 0 |
| F. Driscoll, 1b | 4 | 0 | 0 | 0 | 0 | 0 |
| McMahon, rs | 3 | 1 | 0 | 0 | 0 | 0 |
| Zulinski, p | 3 | 0 | 0 | 0 | 0 | 0 |
| Fremi, p | 3 | 0 | 1 | 0 | 2 | 0 |
| | 32 | 6 | 6 | 27 | 11 | 2 |

AUDITORS.

| | AB. | R. | IB. | PO. | A. | E. |
|---------------|-----|----|-----|-----|----|----|
| Rosen, rs | 5 | 2 | 1 | 0 | 5 | 0 |
| Sullivan, 3 | 4 | 0 | 1 | 1 | 0 | 0 |
| Perina, 1 | 4 | 0 | 0 | 5 | 0 | 1 |
| Mulachy, c | 4 | 1 | 0 | 14 | 5 | 1 |
| Demmer, 2 | 3 | 0 | 0 | 2 | 1 | 1 |
| Robertson, 1b | 2 | 0 | 0 | 2 | 0 | 0 |
| Welsh, 1 | 4 | 0 | 0 | 0 | 0 | 0 |
| Dillon, p | 3 | 0 | 0 | 0 | 2 | 0 |
| Baker, c | 4 | 0 | 1 | 0 | 1 | 0 |
| | 33 | 3 | 3 | 24 | 14 | 3 |

Umpires—Swenson and Shepley.

Score by Innings:

| | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|
| Traffic | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Auditors | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Traffic | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| Auditors | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Auditors | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Entirely New Source of Cable Trouble Appears

One night about two weeks ago in a metal garage building in the rear of 478 Terrace Place, Milwaukee, the gasoline tank exploded. One of the fragments of tin blown into the air managed to cut a Wisconsin telephone cable in two.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES
GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
G. W. CUMMINGS
Correspondents

Echoes of Christmas.

Dec. 24, 1912.

Operator 2832.

Dear Friend:

I take this means to wish you a Merry Christmas and a Bright and Happy New Year, and to thank you for the excellent service you have rendered to the Chicago Evening Post for the past year. If at any time I should be able to give you a recommendation in regard to your ability as an operator, I should be more than pleased. I wish you to accept this little remembrance with the same good wishes in which I send it hoping they will fit and please you, and wishing you again all the good luck for the coming year.

KITTIE MALONE,
Private Exchange Operator.

Operator 1364:

I wish to thank you for the courtesy shown me in the past and wishing you a Happy New Year and a successful one, yours truly,

G. COHEN,
2472 North Clark Street.

December 31, 1912.

Chicago Telephone Company.

Gentlemen:

Attention H. G. Moore,

Supervisor of Service.

Referring to your valued favor of December 28th, on the subject of my telephone—Garfield 3864—permit me to thank you most kindly for your courtesy in the matter. I am pleased to advise that in the last few days I have had no cause for complaint as to the service rendered and appreciate most thoroughly your kindness.

At this time I want to call your attention to the service rendered by operator 4718 (Miss M. Aschler) on the Monroe exchange. She is the most efficient and obliging girl I have known; is at all times rendering, to the extent of her ability, assistance in securing perfect service. This is entirely voluntary on my part and merely my wish to express appreciation.

Respectfully,

H. E. PRESS.

Manager, the Faval Enamel Insulated Wire Company.

Suburban Promotions.

Alice Steber, Winnetka, transferred from Wilmette and promoted to chief operator.

Anna Durland, eight-hour operator to traffic clerk, La Grange.

Edith Olson, eight-hour operator, to assistant chief operator, Geneva.

Mabel Lindo, Glen Ellyn, transferred from Geneva and appointed chief operator.

Service Standing.

Following is the place position of the offices for the month of December, 1912:

| | |
|--------|-----------------|
| First | Lake View |
| Second | Calumet |
| Third | Canal |
| Fourth | Harrison |
| Fifth | Wentworth |
| | Wabash |

*Wentworth and Wabash tied for fifth place.

NEIGHBORHOOD EXCHANGES.

First Austin

Second Rogers Park

Musical Comedy to Be Given.

The young ladies of the Traffic Department who have been preparing a program for the musical comedy on Tuesday evening, February 4th, have had much fun in advance, and all who are to be present will certainly enjoy the original comedy which awaits them.

The next issue of the BELL TELEPHONE NEWS will endeavor adequately to report the interesting event and preserve in pictures some of the interesting scenes of the evening.

Gifts to Chicago Operators.

Christmas gifts from pleased subscribers presented to operators at Main office included forty-two boxes of candy, twenty-seven other packages and \$17 in money.

Birchwood Country Club Entertained
by "Figure of Speech."

At the meeting of the Birchwood Country Club, Saturday evening, January 25th, a vaudeville performance opened the entertainment. The most amusing feature of the program was contributed by Mr. Foster who had secured the famous mannikin for the occasion. He was received with such enthusiasm that it argues well for his success at the coming traffic entertainment, when he will take a conspicuous part.

Suburban Commercial Activities.

Contracts were secured by commercial agents of the Suburban Commercial Division for installation of private branch exchanges during November and December at follows:

By Commercial Agent Judd: Illinois Steel Company, Gary, Ind., three trunks, five terminals; Board of Education, Maywood, Ill., one trunk, seven terminals; American Brake Shoe Company, Melrose Park, Ill., two trunks, six terminals; Sturges and Burn Manufacturing Company, Bellwood, Ill., two trunks, eight terminals.

By Commercial Agent Pitts: Cyclone Fence Company, North Chicago, one trunk, seven terminals; Wilder Manning Tanning Company, Waukegan, Ill., one trunk, nine terminals.

By Commercial Agent Lawson: Federal Cement Tile Company, Hammond, Ind., one trunk, four terminals.

By Commercial Agent Goldsmith: International Corset Company, Aurora, Ill., two trunks, five terminals.

By Commercial Agent Weinert: Gary Trust and Savings Bank, Gary, Ind., one trunk, four terminals.

By Commercial Agent Plant: Pure Aluminum Co., Lemont, Ill., one trunk, five terminals.

By Commercial Agent Whallon: James G. Heggie, Joliet, Ill., one trunk, six terminals.

Charity By Maintenance Men.

During the week preceding Christmas the employees of the Maintenance Division of the Chicago Telephone Company in various exchanges in the city contributed \$108.41, which was used to purchase thirty-five baskets of food, each basket containing seven pounds of meat, vegetables, cereal, fruit, candy, nuts, one pound of butter, and two loaves of bread. In addition a generous supply of rice, pure milk was given to which they were added, there was one or more infants. These baskets were given to thirty-five poor families the day before Christmas. The majority of the families visited consisted of a widow and several children ranging in age from infants a few weeks old to thirteen or fourteen years. The names of the families visited were secured from the employees of the Chicago Telephone Company, Chicago Tribune, Salvation Army, and Cook County Agent.

The work of distribution was in charge of A. W. Nelson and O. J. Halberg, assisted by Edward Elsner, who had charge of the auto truck which the Chicago Telephone Company loaned for this occasion, R. M. Bennett, Assistant Maintenance Superintendent, in another automobile, piloted the auto truck during the forenoon, Mr. Halberg taking charge during the afternoon and evening. The automobiles left 111 N. Franklin street at 10 a. m., Tuesday, December 24th, and the work of distribution was completed at 11:30 p. m.

The approximate total weight of the food that was loaded on the auto truck was 1,300 pounds. The territory in which these families were located was bounded on the south by Seventy-eighth Street, on the north by Diversey Boulevard, on the west by Western Avenue, and on the east by Sedgwick Street.

Much credit is due the employees of the Maintenance Division, who so ungrudgingly contributed, making it possible to bring the Christmas spirit into so many homes. The great joy and words of thanks expressed by the recipients of the baskets will long be remembered by those who visited the homes. The success of this first attempt will no doubt urge the employees of the Maintenance Division to endeavor to make this an annual event.

Personals.

N. R. Smith, Special Agent in charge of the Legal Department of the A. T. & T. Company's Fifth Division, with headquarters at Kansas City, Mo., is to be married on February 2nd to Vera A. Daniels, of St. Louis, Mo. The couple will at once take up their residence in Kansas City.

On New Year's night at the home of the bride, Neil Strauss was married to W. R. Houchens, Manager Main Exchange. The home was beautifully decorated with

wedding bells and the friends who were present were most hearty in their congratulations. Mr. and Mrs. Houchens have a large circle of friends in the Chicago Exchanges who join in these congratulations and good wishes. Mr. and Mrs. Houchens are at home at 4520 West End Avenue.

Lina Bianchi, one of the operators at Elgin, was surprised Saturday night, January 19th, by thirty-five friends, who were women associates of the same office. The affair was a character party and favors for the best costumes were awarded to Elaine Johnson and Pauline Fritz. Flash light pictures were taken.

Heleen Willis, day operator at Kedzie, resigned in December to be married. May Helfman, day supervisor at Kedzie, resigned in November and was married Thanksgiving eve to William Daley from River Side, Mich. Mary Brown entertained the operators and supervisors at a shower in honor of the bride to be. Heartily congratulations were extended by all.

Margaret O'Rourke, day supervisor at Central, resigned to be married to Michael Roach, 31st to Michael Roach. Miss O'Rourke was presented with a box of silver. She has the best wishes of the entire force.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Centralia District.

The installation of twenty additional private branch exchange stations for the Langenfeld Hotel at Centralia was completed on December 19th.

An estimate covering the stringing of additional circuit with phantom between Vandavia and Collinsville has been completed.

The installation of two additional sections of No. 105 twisted pair wire in the house was completed on December 30th.

The Southeastern Illinois Long Distance Telephone and Telegraph Company has completed a twenty-five foot pole lead with one copper metallic circuit between Fairfield and Alblon.

H. H. Knipe, President of the Southeastern Illinois Long Distance Telephone and Telegraph Company, recently purchased the C. E. Hull Telephone system of Salem.

A meeting of plant chiefs was held in District Plant Chief Wallace's office on December 11th, relative to the making up of inventories for the year 1912.

Lloyd Stokes, toll line repairman at Murphysboro, has been transferred to Centralia in the same position. The position at Murphysboro has been abolished.

The establishment of a joint Class 10-A Western Union Office at Nashville and Class 10-B Office at Oakville was completed during December.

Galesburg District.

On December 20th contracts were signed for a private branch exchange for Deere and Company, East Moline, for two trunk lines, one switchboard and twenty-one stations.

The contract departments at Rock Island and Moline are real busy these days and are to be congratulated on the excellent business they are getting. On December 19th contracts were signed for a private branch exchange covering one trunk line, one receiving station and four stations, to be located in the residence of W. L. Venable, president of the Velle Carriage and Motor Company, Moline. Mr. Velle has a beautiful mansion on Rock River Road and with Bell service his home is now complete in every detail.

On December 11, 1912, a plant meeting was held at the Galesburg District office for the purpose of obtaining an inventory of the various exchanges in this district. Those present were A. N. Huckins, plant chief, Rockford; W. H. Huston, plant chief, Moline; James Conaty, plant chief, Galesburg; R. J. Schamel, district plant inspector; E. B. Williamson, Manager, Galena; Frank Shortz, Manager, Oquawka; Nox Dusch, plant chief, LaSalle; F. H. Whicker, Manager, Seneca; A. J. Ruman, plant chief, and also Robert Quimby, Manager, Kewanee. "Come again boys, we were certainly glad to have you with us."

Emma Lathrop, one of the most popular employees in the traffic department at Galesburg, was operated on at the Cottage Hospital for appendicitis last month. All employees wish her to hope that Miss Lathrop will soon recover her health.

The Galesburg District gained 360 stations in December. "Good work, boys, let's do better next month. Start on the new year right. You are to be congratulated on your excellent showing made in December, 1912." Galesburg Exchange made a gain of forty-two, Moline fifty-three, Rock Island forty-nine, Sterling sixty, LaSalle twenty-nine and Rockford 103. Small gains were made at Seneca, Galena and Oquawka, Ill., and all deserve mention.

Quinn Lewis, ticket clerk at the Galesburg Exchange, entertained a few of her office associates at her home on New Year's

Eye watching the old year out. A very pleasant time was reported by all.

Young women employees at the Rockford Exchange have organized the Blue Bell Club, devoted to social and musical objects. There are about seventy employed in the exchange and forty-five have enrolled. The others are expected to join at an early date. As a part of the force is employed at night the club has been separated into two divisions. The first division elected the following officers: President, Vera Ryan; Vice President, Stenna Munthe; Secretary, Anne Loneragan; Treasurer, Adeline Fitzpatrick; Entertainment Committee, Theresa Dean, Katherine McGrath and Dorothy Gee.

The second division chose the following officers: President, Mary Burke; Vice President, Lottie White; Secretary, Agnes Fitzpatrick; Treasurer, Pearl Apitz; Entertainment Committee, Aurilla Horigan, Blanche Pfannstiel, Jena Andrews. The club will have the use of the operators' retiring room for its headquarters. A number of the girls are musicians and an orchestra and a glee club are among the possibilities. The members are from both the traffic and commercial departments.

Springfield District.

Parker M. Wheeler has taken the position of collector at Champaign, succeeding Harvey E. Pruitt, resigned on account of ill health.

An estimate has been approved and assigned to the Chief Engineer for the following toll equipment at Bloomington: Four sections No. 1 toll board, eighty toll multiple, seventy toll answering jacks, ten recording trunks, twenty toll switching trunks, forty toll switching trunk multiple, one toll service observing section, one No. 2 combined local and toll chief operator's desk, additional power equipment and miscellaneous equipment.

An estimate covering the rebuilding of the Chenon-Peoria toll line and stringing one new mixed No. 12 copper and No. 9, iron circuit from Peoria to Casenovia, has been approved and assigned to the plant department. This work will be taken up in the spring.

J. W. Eakins has accepted the position of collector at Quincy, Ill., succeeding J. G. Gorin, who resigned to take another position.

An estimate has been approved and assigned to the plant department covering the rebuilding of the present toll line from Beardstown to Quincy and the stringing of a new copper metallic circuit from Quincy to the junction of the Quincy-

Beardstown and Quincy-Carthage lines. This is done in order to split up the present center checking circuit and provide one circuit from Quincy to Mendon and Lorraine and one to Fowler, Paloma and Coatsburg, Ill. This estimate also provides for the replacement of iron wire with copper wire in all the existing circuits on this route. It is proposed to take this work up in the spring.

Clarence C. Wilson has been appointed collector at Springfield, succeeding Leslie Robinson, resigned.

An estimate has been approved and assigned to the plant department covering work on the toll pole line through Havana to Duncan Mills. Included in this work is the replacing of No. 12 iron wire between Duncan Mills and Havana with copper circuit and new copper circuit from Virginia to Havana to be phantom transposed with existing circuit No. 20.

Mary Miller, for the past three years night chief operator at Kankakee, has resigned and will spend the winter in Los Angeles, Calif. Gussie Doran, formerly local night operator, will act as night chief operator and Helen Collins will have charge of the local board.

Henrietta Woodward of Springfield has been appointed chief operator at Kankakee.

E. F. Hall, formerly employed by the Central Union Telephone Company at Peoria, as chief collector, has resigned to accept a position as general bookkeeper with the Peoria Gas and Electric Company.

The operators at the Peoria, Ill., Exchange gladdened the hearts of thirty-two worthy poor children on Christmas day the children ranging in age from three to fourteen years and representing ten families. A new pair of shoes, stockings and underwear, together with oranges and candy, were given to each child. Also each of the ten families was presented with a dressed turkey. The fund from which the above were purchased was obtained by the annual boat excursion given by the operators last summer. After part of their profits had been spent on entertainment for themselves, they had in the neighborhood of \$70 left which was used in the above manner. Much credit is also due the Peoria business men and merchants, who sold the articles above mentioned at cost and in some cases below cost due to the good cause for which they were to be used.

A cordless private branch exchange with seven stations and two trunks has been installed for the Ayers National Bank at Jacksonville. Anna Livingston, formerly night chief operator at the Jacksonville

Exchange, has taken the position of operator of this exchange.

Edith Bealmer, who recently resigned her position as local operator at Jacksonville was married on December 10th to Dwight Kastrup, who is in the employ of the Burlington Railroad at that city.

Margaret Davis, formerly ticket examiner at Springfield, Ill., Exchange, who has been several months ago, has resumed the position of clerk in the accounting department.

Etruria Swigert, stenographer to the manager at Springfield, has taken a position as toll operator and is succeeded by May Doyle.

H. H. Stanley, District Plant Chief at Springfield, resigned his position December 1st and will locate on his cotton plantation in Mississippi.

An excellent dinner was served to the Springfield operators on Christmas day. The rest rooms were decorated with holly and bells and all seemed to enjoy themselves thoroughly.

G. W. Lindsay, clerk in office of C. H. Rotger, Commercial Superintendent, resigned and left January 3d for Philadelphia, Pa.

W. Crosley, wire chief at the Springfield Exchange, has resigned his position and accepted one at Quincy under H. B. Lewis, Plant Superintendent.

Louise Bealmer, who recently resigned her position as local operator at Jacksonville, Ill., was married on December 10th to Ross Bolton of Dallas, Tex. Mr. and Mrs. Bolton will make their home in Dallas. Stella McCarty and Elviah Shore have taken the positions made vacant by the resignation of Edith and Louise Bealmer.

Mayne Gilmore, toll operator at Canton, resigned December 24th and was married on December 25th to Paul Kramer. Miss Gilmore is succeeded by Hazel Peterson.

A No. 2 private branch exchange, consisting of one trunk and five stations, has been installed for the G. C. Willis Dry Goods Company at Champaign.

L. G. Sidenstricker, formerly of the Decatur Exchange, has taken the position of switchboardman at the Champaign, Ill., Exchange.

P. M. Wheeler has been appointed collector at Champaign, succeeding H. E. Rottger, resigned on account of ill health.

Robert F. Smith has been appointed collector at Decatur, succeeding Clarence M. Heger, resigned to accept another position at Decatur. H. Burk has taken the position of collector at Decatur, Ill., succeeding Guy Bundy, resigned to go into other business.

The second annual ball of the Bell Telephone operators of Pontiac, held Monday evening, January 6th, at the Opera House, was a very enjoyable affair. The decorations were very beautiful and the entertainment was of the most charmingly. In the center of the hall was suspended a large telephone, from which streamers were draped to the sides of the room. Along the sides of the room were hung box telephones at regular intervals, between which were the familiar Bell Telephone signs so commonly seen about the streets and elsewhere. The whole presented a very pretty and appropriate setting for the dance. The dance program was very enjoyable and a large number participated. — Pontiac Daily Leader.

OHIO DIVISION

W. R. NUTT, Correspondent, Columbus

Akron District.

The following letters created a great deal of interest and amusement as well as satisfaction among the Akron traffic forces:

Miss Mabelle McDonald, City.
Dear Miss McDonald:
Please accept this "Book" from Mr. Baldwin and myself as a token of our appreciation in looking after our long-distance calls, for which we thank you.
Yours sincerely,
JANET GLADWIN.

My Dear Miss Miner:
I certainly am grateful to you and your crew for giving me such excellent service. I am enclosing the nearest thing to a washing machine I can find in the warehouse.
R. M. DRAKE.

Miss McDonald is toll chief operator at Akron. Her letter contained a check for \$1.50. Miss Miner is one of the long-distance operators. She received a pretty calendar.

Another Christmas letter read:
Dear Sirs:
Enclosed \$5 is for Christmas box for operators on local switchboard on which is my telephone, Main No. 183.
It is a pleasure to be able to say that our service is now exceptionally efficient, courteous and cheerful.
In behalf of my household, I wish our friends at the Exchange a Merry Christmas and a Happy New Year.
Yours sincerely,
I. C. ALDEN.

Chillicothe District.

The plant department at Newark has just completed the installation of a No. 2 private branch exchange for the Blair Motor Truck Manufacturing Company. Complete new power equipment has been installed at the Newark Exchange by the Division Equipment Department. The installation included conduit, power board, ringing and charging machines and two sets of storage batteries.

C. H. Hafer has taken the position as lineman at Newark, succeeding V. H. Curtis, transferred to Dresden.

W. R. L. Dyer, toll wire chief at Portsmouth, has been transferred to Newark as chief inspector, superseding E. J. Roese, transferred to Springfield as plant chief. New supply quarters have been secured at Newark, providing better facilities for the handling and storage of material.

An estimate has been approved for Lancaster for the installation of one section of seven-panel switchboard with three operating positions, 410 answering jacks and 400 additional multiple. This is to take care of the steady growth at Lancaster. The Central Union Exchange now has over 2,400 telephones at this place, which is an extraordinary development for a city of 13,000 inhabitants. A contract has been secured by the manager at Lancaster, for a No. 2 private branch exchange to be installed in the new Fairfield National Bank.

Columbus District.

On the night of December 30, 1912, a smoker was held in the Grotto of the Hotel Virginia, which was attended by about 200 employees, who listened to a very interesting talk by Allard Smith on "The Functions of the Engineer and His Department." His talk will be printed in an early issue of the BELL TELEPHONE NEWS. The after part of the evening was enjoyed in song, music, refreshment, etc.

F. Gaines Lawrence has been appointed District Traffic Chief of the Columbus District, succeeding Walter Malloy, transferred to the Traffic Superintendent's office.

K. H. Johnson, formerly in the facility department at Columbus, who left for Oklahoma early in the fall, has returned and has taken a position in the Traffic Superintendent's office at Columbus.

Mary Maher, formerly clerk in the main operating room, has been appointed private exchange instructor.

For the first time, to the best knowledge and belief of the "stand pat" employees of the Ohio Division office, the month's expenses, both pay rolls and miscellaneous expenses were in and the month's business closed on January 5, 1913.

The standing of the Bell Telephone Bowling League as of December 20, 1912, is given below:

| Name | W. | L. | Pct. |
|-------------|----|----|------|
| Maintenance | 18 | 7 | .651 |
| Plant | 14 | 7 | .666 |
| Commercial | 13 | 8 | .619 |
| Engineers | 8 | 13 | .380 |
| Contract | 8 | 16 | .333 |
| Traffic | 2 | 19 | .095 |

On the occasion of the resignation of H. C. Sherer as Plant Superintendent of the Ohio Division, E. A. Reed, General Manager, gave a farewell dinner on Dec. 31st at the Ohio Club to Mr. Sherer and his direct subordinates. At that time Mr. Reed made known the fact that Mr. Sherer would still be connected with the company in the capacity of Special Agent, reporting direct to the General Manager, and also announced the following appointments: J. W. Cherry, District Plant Chief of the Chillicothe District, appointed Plant Superintendent of C. H. T. M. Plant Chief of the Toledo Exchange, appointed District Plant Chief of the Chillicothe District with headquarters at Columbus. Mr. Sherer was presented as a farewell remembrance, with \$155 in gold. He spoke

Telephone Lines Strung

on

"Thomas Quality"

Porcelain Insulators

give the best transmission

These brown glazed porcelain insulators are manufactured under the most rigid specifications and supervision.

They will meet the requirements of the most severe service conditions.

Manufactured by

The R. Thomas & Sons Company

EAST LIVERPOOL, OHIO

Distributors

Western Electric Company

Offices in all principal cities

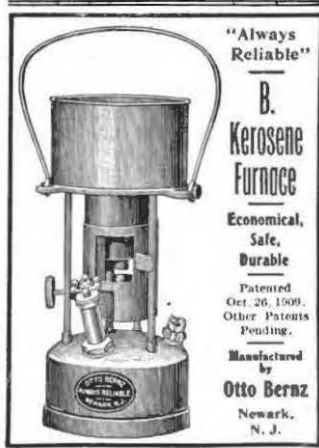
"Always Reliable"

B. Kerosene Furnace

Economical, Safe, Durable

Patented Oct. 26, 1909. Other Patents Pending.

Manufactured by Otto Bernz Newark, N. J.



of his hearty appreciation of the gift and expressed himself as being very sorry to sever his connection with the Plant Department. The following were present at the dinner: E. A. Reed, H. C. Sherr, J. H. Cline, J. H. Beilstein, J. W. Cherry, K. D. Schaffer, Clay McClurg, J. A. Bell, W. G. Palmer, T. E. Green, F. J. Riekey and C. B. Snyder.

C. W. Ebersold, wire chief at the North Exchange, and Hazel Hudson, clerk in the plant chief's office, Main Exchange, Columbus, were united in marriage on Christmas morning.

D. S. Keethier, construction foreman, Columbus, is putting in a new 600-pair cable at the Main Exchange, in order to take care of the increase in the south end business.

Columbus Exchange has just completed the installation of a No. 2 private branch exchange for the Logan Natural Gas and Fuel Company, and has contracts for a No. 2 private branch exchange for the Ford Motor Car Company, 297 North

On December 31st, Helen Daily, night relief operator for the branch offices at Toledo, Ohio, gave a New Year's party for the night operators of the different branches. A very pleasant and delightful afternoon and evening were spent, and at six o'clock luncheon was served. The decorations were red, green and white and the favors were miniature telephones of the desk type. Just before leaving for their respective offices a photograph was visited and the resulting photograph is shown in the center of this page.

An interesting event was the celebration of the marriage of Pearl Willis and J. Arthur Steuer, which occurred on December 25th, at Toledo.

Undine Lime, collector at Upper Sandusky, Ohio, Exchange, and C. W. New, of Toledo, were married at Monroe, Mich., in December.

Foreman J. E. Barker, with force of men, has begun work of setting poles on the Upper Sandusky-Marion toll line to be re-routed.



GROUP OF OPERATORS, TOLEDO, OHIO.
Upper Row: Alma Yeazel, Jennie Williams and Helen Dalley.
Lower Row: Madeline Faber, Mrs. Pearl Stever and Marie Ritch.

Fourth Street; for Claude Meeker, in the Capital Trust Building, and for Bryson, Bedwell & Brubacher, 1123 Columbus Savings & Trust Building.

Frank M. Long, inspector at Columbus, has been transferred to the plant measurement department. D. D. Ellenwood, foreman in the line department, succeeds Mr. Long as inspector.

Dayton District.

F. R. Eckley has been appointed District Traffic Chief of the Dayton District, succeeding H. H. Freeman, resigned.

C. E. Druckemiller, Plant Chief at Bellefontaine, has also been checked in as Commercial Manager, succeeding A. C. Wise.

The Dayton Exchange made a high record on private branch exchange contracts December 3d, 4th, 5th and 6th, writing five which totaled six trunks and forty-six stations.

Toledo District.

On the evening of December 16th, the operators of the Defiance Exchange, with a few friends, pleasantly surprised one of their force, Leah Du Pont, at her home, the occasion being her birthday. The evening was very pleasantly spent in cards and a delicious luncheon was served. The guests presented Miss Du Pont with a picture.

Edna Fowler, toll operator at Findlay, resigned on December 14th, and surprised her friends by announcing her marriage on August 2d, to Dr. Burrell Russell, of Kirksville, Mo. Mrs. Russell left on December 23d for Kirksville, her future home.

Gertrude Morgan, supervisor at Fostoria, has resigned and was married on December 23d, to Chester Lowery of Fostoria.

Effie McGahn, supervisor at Lima, Ohio, was married at Monroe, Mich., on December 25th, to O. O. Ireland, of Leipsic, Ohio.

Valma Callahan, operator at Lima, Ohio, entertained the employees of the traffic department at a watch party on New Year's Eve.

Edna Lusk, collector at Lima, Ohio, entertained the traffic chief and the commercial employees at a six o'clock dinner on January 2d. The evening was pleasantly spent in games and music.

Bowling Green and Sandusky Exchanges have just completed the distribution of new exchange directories, while Upper Sandusky and Norwalk Exchanges have just received shipments of new books and begun distribution.

On December 28th, A. L. Jerew, construction foreman, finished the work of re-routing the Fostoria-Tiffin toll line and the stringing of one No. 12 copper circuit from Fostoria to Bascomb; one from Fostoria to New Ileget and one from Fostoria to Tiffin, Ohio.

Catherine Kling, stenographer at Toledo, Ohio, resigned December 16th, to accept a position with the Ann Arbor Railroad. She is succeeded by Adeline Yaeger.

A private branch exchange contract has been taken with the Banting Machine Company, Toledo, for one trunk, one master station and four sub-stations. A contract has also been signed for seven additional stations to the private branch exchange of the United States Malleable Iron Company, Toledo.

Garnet Keifer, night chief operator at Findlay, has returned to work after an absence of three months, having undergone an operation for appendicitis.

The traffic employees of the Upper Sandusky Exchange were entertained on the evening of November 11th, by Mrs. Joseph Bolish, as a farewell courtesy to her niece, Agnes Hart, Miss Hart, who has been employed as toll operator at Upper Sandusky, left on November 15th, for Caldwell, N. J., where she will enter school.

Recently at the Fostoria Exchange a gentleman called long distance and asked to talk to a certain town. The operator asked him who he wished to talk to and he replied: "It is none of your business who I want. This is strictly private."

Frank S. Wright has been appointed temporary commercial agent at Toledo, while W. J. Valois and W. F. Wright, regular commercial agents, are doing special work at Lima, Ohio.

W. F. Wright, commercial agent at Toledo, and Harriet Swift, formerly of Saginaw, Mich., were married on December 17th. They will reside in the Pasadena Apartments, Toledo.

W. E. Stump, Commercial Manager at Fremont, and Edna Hutton of Bradner, were married December 18th. After a short trip to Chicago and other points, they have gone to house-keeping in the Jackson Annex at Fremont.

If you,
Mr. Manager,
need
another
clinchng
rural
telephone
argument,
here it is

A Timely Comment on Rural Telephones and Parcel Post.

Postmaster-General Hitchcock has the following to say regarding rural telephones in connection with the parcel Post:—

"Rural telephones have spread over practically the entire country, and they will be used in conjunction with the parcel post to the advantage of both the farmer and the country merchant. The housewife, for example, finds that she is out of sugar; she steps to her telephone and orders it sent by parcel post. If the farmer breaks a harrow or a part of some farm equipment, it will not be necessary for him to hitch up and drive to town; he will merely step to his telephone and order the new part sent by parcel post. The time saved will more than compensate him for his outlay of stamps. I expect to see the country merchants advertising free delivery in their local papers, just as his city brothers do. They will use the parcel post as their delivery wagons."

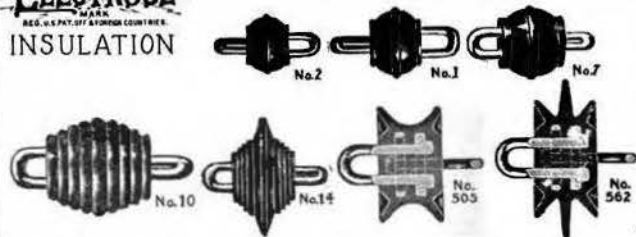
And while you are about it remember to mention

Western Electric

This name covers the best of everything for the telephone plant.

ELECTROSE
TRADE MARK
INSULATION
REG. U.S. PAT. OFF. AND FOREIGN COUNTRIES

INSULATORS from 1,000 to 1,000,000 VOLTS



ELECTROSE
MANUFACTURING COMPANY
60-72 WASHINGTON ST. BROOKLYN, N.Y.
66-76 FRONT ST.

ALSO FOR SALE BY
THE WESTERN ELECTRIC COMPANY
NEW YORK AND BRANCHES

INDIANA DIVISION

D. H. WHITHAM, Correspondent, Indianapolis

Indianapolis District.

Goldie Smith, one of the local operators of the main office at Indianapolis, has been given the position of traveling chief operator in the Southern District.

The girls of the Belmont Office gave a farewell party in honor of Emma Gerner, the assistant chief operator, who is returning to her former home in Louisville, Ky.

The L. W. C. Club gave a pretty dance at the Odessa Hall on January 10th. A large crowd attended, and a most enjoyable evening was spent. The chaperons were Mrs. Sullivan and Mrs. McWhinney.

The L. W. C. Club also gave a taffy pull January 23d at the home of Emma Grosvenor.

Nettie Sturgeon entertained the employees of the Toll Operating Department and their friends at her home on December 22d. Nora Thurston, traveling chief operator in the Northern District, was the guest of honor.

Nettie Osborn, toll operator, was married to Roy Thompson on December 24th. Ola McGuire, an information operator

in the Main Office, has been promoted to the position of local supervisor. Florence Houghton, one of the local supervisors, has accepted a position with the New York Central Lines as private branch exchange operator.

Elizabeth Ellis, a service observer, who was married in December, has been succeeded by Beale Quick of the Main Office. On January 8th a private branch exchange with two trunks and five restricted terminals was installed for H. H. Woodsmall & Co., Main 2908 and Main 2847, 18½ North Meridian Street.

Terre Haute District.

The annual Christmas entertainment of the Terre Haute exchange was held on Monday evening, December 23rd, and was attended by the employees of the Central Union Telephone Company, Western Union Telegraph Company and American Telephone and Telegraph Company of Terre Haute. Santa Claus came in the good old fashioned way, down an improvised chimney and fireplace, and after distributing the presents which were on and under a beautifully decorated tree, departed by the same route. After the presents had all been distributed there was dancing to music furnished by the Chris Stark Orchestra. Plenty of refreshments were to be had, and after the entertainment several large baskets of what remained, together with clothing and

Diamond Expansion Bolts

For fastening all kinds of material to brick,
stone or concrete
QUICKLY - POSITIVELY - SECURELY



"Diamond N" Expansion Bolt



"Diamond N" Screw Anchor



"Diamond N" Four Point Drill

The right bolt with the right drill gives best results

"Hold As Long As the Wall Lasts"

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 WEST ST., NEW YORK

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in
accordance with A. T. & T. Co. stand-
ard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

ELECTRICAL HARDWARE

PLAIN and GALVANIZED



GUY RODS

Braces, Back and Cross Arm
Break Irons
Bolts, Arm, Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Polehead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc

toys, were donated to the Salvation Army. All enjoyed themselves until midnight, when they departed, voting last year's entertainment the "best ever." A flash light picture of the party is shown on this page.

Gladys Livingood, for four years operator at Crawfordville, resigned December 25th to become Mrs. Schwindler. Crawfordville operating forces celebrated Christmas with a tree on which were hung many beautiful and useful presents from the girls to each other. In addition to the presents received apples and nuts were passed. All enjoyed the evening and the first Christmas tree was voted a success in every way.

Stedman's Record.

W. G. Stedman, commercial agent at South Bend, Ind., made the following record during 1912:
Total contracts 1,035
Private exchanges 15
This is an average of more than three

Main and West Win Honors.

A general meeting of the Milwaukee employees was held on the evening of Thursday, January 16th in the assembly hall at Grand Office.

About 600 employees attended and after listening to an enjoyable program, all participated in dancing.

The opening number on the program was an interesting talk by F. M. McEniry, Commercial Superintendent, after which General Manager H. O. Seymour, presented the operating honors for the year 1912 to the Main and West offices which were tied for first place as to per cent. of efficiency.

The honors were in the form of reading lamps and leather table covers for the rest rooms.

The remainder of the program consisted of a recitation by Emily Schanell, North Office; piano solo, Lila Bates, Grand Office; recitation, Harry Te Brake, Engineering Department; vocal solo, James



CENTRAL UNION EMPLOYEES' DANCE AT TERRE HAUTE, IND.

contracts for every working day in the year. During his canvass Mr. Stedman collected \$2,355.96 in advance on his contracts.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent, Milwaukee

Wisconsin Officials' Meeting.

A meeting of Wisconsin Division officials was held at Milwaukee on January 16th and 17th. H. O. Seymour, General Manager, opened the meeting with an interesting talk on the proposition of injecting "human element" and common sense into the carrying out of instructions in general and other bulletins and routines. Papers were read by the following:

J. T. Quinlan, District Manager, Appleton—"What can be done to relieve Managers of detail work in the way of reports, records, etc.?"

P. J. Skolasky, District Manager, Eau Claire—"What, if anything, is lacking in the way of assistance, co-operation, action, or reports from headquarters, to make the District Manager more efficient?"

F. J. Mayer, District Manager, Madison—"Training and selection of men for Local Managers."

George C. French, District Commercial Manager, Milwaukee—"How can the Exchange Manager get new business at small exchanges?"

A. F. McKivitt, District Traffic Chief, Milwaukee—"Training and selection of operators and Chief Operators."

Thomas Berry, District Plant Chief, Milwaukee—"Classification of Expenditures. By whom made. How far does the classification reflect the facts?"

C. L. Miller, District Manager, Janesville—"Sublicense relations."

J. P. Krizek, Attorney, discussed the public utility law and the regulation of the telephone company by the Railroad Commission and touched upon the Employees' Benefit Plan.

The Commercial, Plant and Traffic Superintendents and the Engineer showed interesting and instructive curves and charts showing the results obtained during the year 1912 in their respective departments.

J. W. Stickney, Commercial Superintendent of the Central Union Telephone Company for Indiana, and W. W. Miller of the Vice President's office in Chicago were present.

Milwaukee Sleighing Party.

Thirty young ladies of the Milwaukee offices enjoyed a sleighing party as guests of the Wisconsin Telephone Company on the evening of Friday, January 10th.

The guests included Mabel Kenney, of the Chicago Company; Mrs. Ella Markey, Teacher of the Milwaukee Operators' School; all the Milwaukee chief operators, assistant chief operators and service operators.

Judging by the merry laughter amid happy shouts and toasts of horns it was not to be disputed that all were having a fine time.

After a ride of two hours the merry party was brought back to the Grand Office where luncheon was served.

Several pretty musical numbers which were rendered by Addie Diercksmeyer and Mabel Kenney lent pleasure to the evening's entertainment.

Prizes for a guessing contest were awarded to Catherine Reilly and Pauline Reindel.

Good Work At Hartland.

The Crouch home is now connected with the Hartland Exchange for telephone service. We believe that Manager McCann deserves special praise for his efforts in building up and improving the local telephone service. Through arrangements with the Merion line many of the residents north of the village are now in the Hartland exchange. There is also a line to Nashotah in this exchange, not to mention all the new lines and new subscribers that have been added since Mr. McCann took hold. It all helps Hartland.

—Hartland News.

Appleton District.

The Crouch home is now connected with the Hartland Exchange for telephone service. We believe that Manager McCann deserves special praise for his efforts in building up and improving the local telephone service. Through arrangements with the Merion line many of the residents north of the village are now in the Hartland exchange. There is also a line to Nashotah in this exchange, not to mention all the new lines and new subscribers that have been added since Mr. McCann took hold. It all helps Hartland.

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—Hartland News.

has returned to work after a six-weeks' illness.

Mabel Marshall has been employed as chief operator at the Omro Exchange to succeed Dora Hartson, resigned.

Foreman C. Dettbrenner and crew are placing additional cable facilities at Omro. The switchboard at the Athearn Hotel, Omro, which is equipped for 120 subscribers, is being replaced by a switchboard wired for 150 subscribers with an ultimate capacity of 320 stations. This change is made necessary on account of the increased business of the Athearn Hotel.

Laura Goodchild, toll operator at the Sturgeon Bay Exchange, resigned her

position at Christmas with candy, as usual.

Janesville District.

The Janesville commercial force is very proud of the fact that a net gain of 344 telephones was estimated for the year of 1912 and 346 were secured. For the last quarter of 1911, at which time this estimate was made up, a net gain of 106 was estimated and a net gain of 114 was actually made.

The Evansville traffic force gave a party to be held on January 10th.

The Plattville, Rewey & Ellenboro



WINDOW DISPLAY AT JANESVILLE, WIS.

position on December 16th and returned to her home at Oconto.

George Pinney, repairman for and a stockholder in the Evergreen Nursery Telephone Company, was drowned on December 21st by falling through a hole in the ice on Sturgeon Bay.

The Red River (connecting) Telephone Company connected up four subscribers on December 12th, bringing the total to forty-eight.

A cordless private exchange was installed last month for the Huber and Fuhrman Drug Mill at Fond du Lac.

Appleton operators attended a theater party as guests of the Jack Bessey Company, playing in Appleton.

The Oshkosh Exchange has received two contracts for private branch exchanges, as follows: Diamond Match Company, fifteen stations; State Normal School, four stations.

Eau Claire District.

Christmas brought to the operators at Eau Claire the usual abundance of gifts, etc., for which they are duly grateful to the subscribers who so kindly remembered them. Among those that remembered the operators at Christmas were Union Business College, Eau Claire National Bank, Stevens-Jarvis Lumber Company, Boston Store, Galloway House, Eau Claire Grocery Company, Eau Claire Business College, Mrs. W. A. Dana and V. W. James. New Years also brought gifts together with best wishes. Among the subscribers to remember girls on this occasion was E. A. Dowling of the Grand Opera House who supplied each operator with a very choice seat at the theater. John Walter remembered the operators with a very generous gift of \$39 in gold, local operators receiving a two-and-a-half dollar gold piece each. The chief operators, toll operators, supervisors and the two local operators that handle Mr. Walter's calls most, received three and a half dollars each.

The Chippewa Valley Electric Light and Power Company also very generously remembered some of the operators with candy and one dollar bills, while Dr. Matheson sent a bountiful supply of candy and other sweets.

Lewis Benjamin, repairman of Chippewa Falls, went to Cumberland to spend Christmas and brought back his Christmas present with him in the person of a nice little wife.

J. E. Bonell, Manager at Eau Claire, recently spent a week in the Northern Woods.

The operating room and wire chief's office at Chippewa Falls have been painted and papered and present a nice appearance.

Misses Myrtle Kehnl and Margarite McDonald, of Eau Claire, have recovered from recent illnesses.

The Chippewa Falls operators were re-

membered at Christmas with candy, as usual.

Marion Van Derlyn, one of the senior toll operators of the Janesville office, has returned to work after a long siege of sickness.

J. A. Stewart, of the engineering department, is at Beloit working on additional facilities. Although this exchange was rebuilt in 1912 and much new cable added to the plant, a growth of over 400 telephones during 1912 and a similar number which is expected during 1913 makes it necessary to add to practically every part of the exchange.

The No. 2 private branch exchange of the Beloit Water, Gas and Electric Company at Beloit has been moved to the new building and a system of twice the size of the old installed.

A cordless private branch exchange has just been installed in the Beloit hospital. Francis C. Crandall, bookkeeper at the Beloit Exchange, was recently married to James P. Laussen of Racine, where they will make their home. Miss Crandall is succeeded by Rose E. Mell of the traffic department.

Robert Boyd, commercial agent at Beloit, is temporarily working at the Madison Exchange.

Anna Louis, toll operator at Beloit, was recently married to Paul Hulett of Rockton, Ill. Miss Louis was a fine type of an operator and her leaving the service is regretted. Nina Amundson succeeds Miss Louis.

Helen Vallee has been promoted to assistant chief operator at Beloit, succeeding Goldie Studebaker, resigned. Annegette Gavitt succeeds Miss Vallee.

Lillian Haller has been promoted to toll operator at Beloit, succeeding Hazel Barton, resigned. Nina Park succeeds Miss Haller as operator.

Madison District.

The Western Electric Company has just completed the installation of a new common-battery switchboard at Baraboo and the outside plant has been reconstructed under the personal supervision of Foreman J. S. Danly. When this work is completed Baraboo will have one of the most up-to-date telephone plants in the country.

Len Higgins has been appointed wire chief at Beaver Dam Exchange. Mr. Higgins succeeds O. Parfitt, who has resigned to engage in other business.

A meeting of all the plant employees from Jefferson, Watrous and Fort Atkinson was held at Fort Atkinson on January 3rd. This meeting was attended by all the district officials and by J. P. Brennan of the plant department in Baraboo. The meeting was called for the purpose of discussing the proper manner of handling plant matters.

A 10-B Western Union Telegraph office



The Associated Bell Telephone Interests have 89 of our trucks in use.

Mack Saurer Hewitt

Proved by 12 years
of real service

Proved by 17 years
of real service

Proved by 10 years
of real service

"Leading gasoline trucks of the world"

Your transportation problem—you want unprejudiced advice first; then service.

Who will best advise and serve you?

A manufacturer, who has only one kind of a truck built in one or two sizes? Or the International Motor Company, which manufactures trucks of value proved by years of use; with various designs and distribution of load and a full line of sizes with every kind of body built in their own plant?

Capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½, and 10 tons

You cannot afford to settle your transportation problem without consulting this organization.

We have data on the transportation problems of about every line of business. Our Engineering Department will be glad to send you, on request, special information in regard to your own particular needs.

International Motor Company

General Offices Works
57th and Broadway, New York Allentown, Pa. Plainfield, N. J.
Sales and Service Stations in all Principal Cities.
Chicago Branch and Western Sales Dept., 1808 Michigan Ave.

"Beldenite" Rubber Insulated Telephone Wires



We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue CHICAGO

Partridge & Anderson

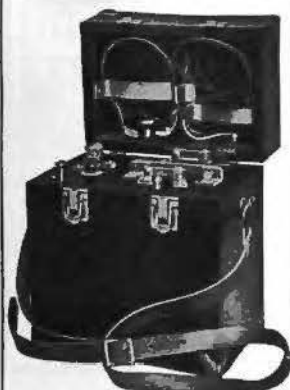
Designers Engravers
Electrotypers Stereotypers

ENGRAVINGS IN THIS PUBLICATION

PHONES MAIN 198 All Departments
AUTOMATIC 31-757 31-758

100-16 N. Fifth Ave. Chicago

You Can Find All of Your Cable Troubles WITH A Matthews Telafault



With the exception of "opens" the above headlines are absolutely true.

You can find "split pairs," shorted pairs, grounds, crosses, dead-seconds, damp places and wet spots, with a Matthews Telafault.

You can get a Matthews Telafault on a regular requisition if you really need an instrument for the purposes stated above. Your engineering department has approved it and quite a number of Matthews Telafaults have been shipped to your company.

The money now lost will repay its cost.



You can get them from The
Western Electric Co.

was established at the Horicon exchange during the month of January.
A contract was secured by Manager Brabany of Madison covering the installation of a cordless switchboard in the office of the Stoddard-Toftey Company.
Alice Stephenson, stenographer in the district office at Madison, resigned on

teenth Street, a No. 4 switchboard, two trunk lines and seven stations; the W. H. Bargar Company, 1730 Euclid Avenue, a No. 2 switchboard, one trunk line and six stations; the Clarence H. Collings Company, 4404 Euclid Avenue, a No. 2 switchboard, one trunk line and six stations; Drs. Bunts, Crile and Lower, 222 Osborn



TELEPHONE WINDOW DISPLAY IN THE J. BAILEY AND SONS STORE AT BELOIT, WIS.

January 15th to accept another position.
L. E. Derr, toll test man at the Madison exchange, has resigned to engage in other business.
Roy Gibbs, clerk to the wire chief at the Madison exchange, who has been seriously ill with typhoid fever for the past month, is reported convalescent.
The work covering the installation of the new chief operator's desk at the Stoughton exchange has been completed.
Mr. Van Sickle, Morse operator at the Waupun exchange, has resigned to engage in other business. Mr. Van Sickle was succeeded by Lydia Gross.

Milwaukee District.

Roland Burhenne, repairman at South Exchange, Milwaukee, has returned to work after an absence of a few weeks, being laid up in the hospital on account of an operation for appendicitis.
C. Relster, cableman at Milwaukee, is recovering from his accidental fall from cable messenger wire at Mayville.
Gordon D. Larkey, repairman, has been transferred from Hartford to Wauwatosa Exchange.
The Milwaukee plant department apparently is in store for a busy spring and summer season. Already several large estimates have been approved.

CLEVELAND DIVISION

W. K. LAWRENCE, Correspondent

Aid Society Meeting.

Thursday evening, December 19th, the Cleveland Telephone Company Employees Aid Society held a meeting in the dining room of the Telephone Building. About 100 members enjoyed the lunch, refreshments and cigars, and also nominated the following officers for the coming year: President, James J. Hogan; Treasurer, Norman Anderson; Vice President, J. K. Maitland.

With Commercial Agents.

A contract for a private branch exchange, which will consist of a cordless board, one trunk line and six stations was secured by W. A. Walsh, from the Federal Foundry Supply Company, 2639 East Seventy-ninth Street.
Through the efforts of Charles Elliott a contract was secured for a No. 2 switchboard, one trunk line and six stations from Amasa Stone Mather, for his residence at the corner of East One Hundred and Eighth Street and East Boulevard.
Contracts for private branch exchanges were received from the following concerns through the efforts of G. V. Shaw: The Bryan Company, 2120 East Nine-

Building, a No. 2 switchboard, two trunk lines and ten stations.
W. A. Walsh secured a contract for a private branch exchange from the Service Recorder Company, 2344 East One Hundred and Fifth Street, which will consist of a cordless switchboard, one trunk line and seven stations.

Personal.

The marriage of Anna Phillips, supervisor at Eddy office, to John Frank, took place January 1, 1913.
On December 18, 1912, Esther Rice, operator at Eddy office, was married to E. John.
The engagement of Elsie Wohlgemuth, operator at Eddy office, to Mr. Liepsinger was announced January 1st.
Rose Triner, assistant chief operator at Eddy office, returned to work January 2nd, after a two weeks' siege of grippe.
The Eddy operators surprised Esther Mattern, when about thirty of them arrived at her home, 497 East One Hundred and Fifth street, on the evening of December 30th. The time was spent in playing games and enjoying the refreshments. The rooms were prettily decorated throughout with poinsettia and holly.
The engagement of Dorothy Barrett, supervisor at Eddy office, to Mr. Simons was announced January 1st.
On December 6th Geraldine Smiley gave a party at her home, 2111 West Sixty-fifth street, in honor of Nellie Emmett,

When you want a Lock
you want the best.

EAGLE LOCK CO.

MANUFACTURERS OF

LOCKS

for all purposes.

WOOD SCREWS

Factories

TERRYVILLE, CONN.

Warehouses

NEW YORK

CHICAGO

PHILADELPHIA

YOU'RE WASTING TIME

If You Haven't Started Using

FRANKEL'S TEST CLIPS

No peeling the wires. Permanent, positive connection every time and no damaged wires to repair.



Each
No. 2521 25c
Box, 100 124
100 11
500 18

FRANKEL DISPLAY FIXTURE
COMPANY, Hudson and Vesey Streets,
NEW YORK CITY

You Can Save Time and Money

By

Equipping Your Office With



UNEDIT CLIPS



They are easily applied, hold securely and will reduce your mailing and filing expense.

MANUFACTURED BY

Buffalo Machine Mfg. Co.

1354-1362 West Ave.

Buffalo, N. Y.

operator at Ridge office, whose marriage to Charles Twigg took place on December 7th. Every one of the forty girls present enjoyed the refreshments and spent the greater part of the evening playing games. The operators at the Ridge office presented Miss Emmett with several beautiful pieces of cut glass.

The engagement of Miss Duerfing of the directory advertising department to D. S. Barrett, Jr., was announced January 5th.

Mrs. Nellie Rome Corlett of the Directory Advertising Department resigned January 15th, to accept a position with the American Bridge Company of New York.

Rose Smith of the Commercial Department, whose marriage to Mr. Andrus of Elyria, Ohio, will take place in the near future, resigned January 25th.

Cleveland Telephone Company Employees Aid Society

FOURTH QUARTERLY REPORT, 1912

| | |
|---|------------|
| Balance in bank October 1, 1912 | \$1,954.24 |
| Dues for fourth quarter 1912 | 368.50 |
| Per capita, fourth quarter, 1912 | 108.92 |
| P. Stelgewald, sick benefits | \$ 8.00 |
| J. E. Rimes, sick benefits | 12.00 |
| C. M. Locke, sick benefits | 22.00 |
| H. Prast, sick benefits | 11.00 |
| M. Wine, sick benefits | 8.00 |
| A. V. Kurts, sick benefits | 38.90 |
| F. J. Herkman, sick benefits | 27.00 |
| Thomas Hardy, sick benefits | 7.60 |
| H. Myers, sick benefits | 22.00 |
| W. A. Smith, sick benefits | 10.00 |
| H. Prast, sick benefits | 53.00 |
| F. J. Herkman, sick benefits | 7.00 |
| D. Dineen, sick benefits | 38.90 |
| S. C. Moule, sick benefits | 12.00 |
| A. Pasanny, sick benefits | 13.00 |
| N. M. Gregor, sick benefits | 10.00 |
| A. B. Cary, sick benefits | 10.00 |
| W. Engelhardt, sick benefits | 14.00 |
| P. O'Toole, sick benefits | 12.00 |
| Lunch | 22.48 |
| Refreshments | 14.00 |
| Cigars | 14.00 |
| Postage | 2.50 |
| Refunds | 3.00 |
| Printing | 19.00 |
| Secretary's salary for fourth quarter, 1912 | 12.50 |
| Balance in bank January 1, 1913 | 1,971.18 |
| Totals | \$2,431.66 |
| (Signed.) A. T. HOOD, | \$2,431.66 |
| Secretary. | |

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Some Michigan Snow Gets Publicity.

Popular Electricity Magazine for February, 1913, reproduces the cut printed on Page 3 of BELL TELEPHONE NEWS for December, 1912. This cut shows two plant men of the Michigan State Telephone Company working in the Upper Peninsula on an aerial cable which they can reach with their hands by simply standing on the snow. "Cable Splicing On Snow Shoes," Popular Electricity calls it, and adds: "In the Upper Peninsula of Michigan, where this picture was taken, winter is winter with snow and lots of it. Although this cable is upon poles, the linemen do not find it necessary to climb them, but reach the lines on snow shoes, as is here evidenced." The men in the picture are Max McKay and Pratt McKay, brothers.

P. B. X. Development in Detroit.

New private branch exchanges and additional equipment installed or ordered in Detroit during the months of November and December, 1912, were as follows:

| | |
|---|-----|
| Trunks, Ter's. | |
| Webster & McCansy Lumber & Coal Co. (new) | 2 6 |
| Kaufman's, Cleaners and Dyers (add'l) | 1 4 |
| Columbian National Fire Insurance Co. (new) | 2 8 |
| General Motors Co. (new) | 2 6 |
| Mexican Crude Rubber Co. (new) | 2 6 |
| General Aluminum & Brass Castings Co. (new) | 2 6 |
| Houghton-French Coal Co. (new) | 4 6 |
| Benn-Robinson Co. (new) | 2 6 |
| Goodyear Tire & Rubber Co. (add'l) | 17 |

| | |
|--------------------------------------|-------|
| Birmingham-Seaman-Patrick Co. (new) | 2 6 |
| Detroit Steel Products Co. (add'l) | 16 |
| Public Lighting Commission (new) | 13 |
| Lambrecht, Kelly & Co. (new) | 2 |
| Detroit Pressed Steel Co. (new) | 6 |
| Aetna Life Insurance Co. (new) | 6 |
| American Steel & Wire Co. (new) | 2 6 |
| H. K. McCann Co. (new) | 6 |
| Zenith Carburetor Co. (new) | 6 |
| Van Guard Mfg. Co. (new—intercom.) | 1 5 |
| Peter Smith & Sons (add'l) | 1 11 |
| Order table and Dr. Max Ballin (new) | 4 7 |
| Hoyt's "A Steam Laundry" (new) | 2 6 |
| L. C. Brosey Dyeing Co. (new) | 4 9 |
| Burrows-Egerton Co. (new) | 2 6 |
| Diamond Mfg. Co. (add'l) | 4 |
| National Mfg. Co. (new—intercom.) | 2 5 |
| Walker & Spaulding (new—intercom.) | 1 5 |
| Stewart, Bell & Stewart (new) | 2 6 |
| Colwell Lead Co. (add'l) | 1 11 |
| Madison and Lenox Apartments (new) | 8 214 |
| Addison Apartments (add'l) | 141 |
| Norton Hotel (add'l) | 50 |
| Grand Trunk R. R. (add'l) | 4 7 |

The year's business in private branch exchange development in Detroit has been large, and shows a gain of eighty-three per cent. over that of 1911, while the actual net gain in revenue from the installment of these exchanges is very nearly \$30,000. As an indication of the prosperous condition of business in the chief city of Michigan and the hard work of that part of the Michigan State Telephone Company's commercial department which is devoted to private exchange development, it speaks loudly.

Four solicitors were engaged in this department during 1912—C. A. Guerin, at present in the commercial department in the building of the former Home Telephone Company; F. E. Reiff, now district manager at the Houghton exchange in the Upper Peninsula; Floyd H. Lockwood and Dave S. Burke. These four men secured contracts for 123 new boards and thirty-seven "rewritten" contracts, the latter being for additional equipment. These 160 contracts call for a total of 275 trunks and 934 terminals. All of the contracts in the above list for November and December were obtained by Messrs. Lockwood and Burke.

The plant department was fully equal to the big private exchange business obtained by the commercial department, and there was no delay in installing the boards. This good work was done by Edward A. Hicks and his force of ten men.

An Appreciated P. B. X. Operator.

Kittie Locke, formerly an operator at the main exchange, Detroit, and now in charge of the board of the Detroit and Cleveland Navigation Company, at the foot of Wayne Street, performed her duties so much to the satisfaction of her employers and associates that they presented her at Christmas with a purse of thirty-five dollars in gold AND a pair of silk stockings. But that was not all. The post of the company produced the following verse, which pleased Miss Locke fully as much as did the gifts.

KITTIE LOCKE.

You have read of fair maidens in story,
Whose deeds set the earth in a whirl.
But for genuine gems they're not in it
With Kittie, our telephone girl.

The day through she promptly assists us,
And it must be an out and out cheer!
Who can't name by hundreds the favors
From our Auburn Haired Telephone Girl.

Few there are who cheerfully serve us,
In modern day life she's a pearl;
Just try living one day without her—
Kittie, the Blue Eyed Telephone Girl!

Let us hope she will live long and prosper,
And a friend to us all on the dock;
For we know if she leaves us we miss her,
Our Telephone Girl, KITTIE LOCKE.

Telephone Society of Michigan.

Only one meeting of this society has been held during the past four weeks, the regular one of January 2nd being omitted in deference to the holiday strain and to allow the usual New Year resolutions to settle down. At the meeting of December 19th, with President W. E. Dawson in the chair, an interesting paper on "Storage Batteries" was read by Hunter Simms, wire chief at the Pointe exchange, who illustrated his remarks with curves, drawn to scale so as to be seen at some distance. Mr. Simms is the first ex-Home Telephone Company employee to read a paper to the Telephone Society of Michigan—a precedent which, it is hoped, will be soon repeated. His paper will be reproduced later in the BELL TELEPHONE NEWS. His remarks were followed with attention, and manifestly interested all those present. The usual business of the society then followed. A letter of appreciation for some flowers

A Hip Pocket Drill Set of 7 PIECES

THE STAR DRILL SET used and preferred by up-to-date workmen because of its compactness and durability comprises six drills and a holder made of the best tempered steel. This set will drill a hole $2\frac{1}{2}$ to $3\frac{1}{2}$ inches deep and $\frac{1}{4}$ to $\frac{1}{2}$ of an inch in diameter.

The drills are made in the following sizes:



$1\frac{1}{2}$, $1\frac{3}{4}$, 2 , $2\frac{1}{2}$, 3 , $3\frac{1}{2}$.
If ordering a set, it is well to name the sizes required.

The SEBCO Screw Anchors



are used for securely fastening many kinds of smaller electrical fixtures to walls, floors or ceilings of stone, brick, concrete or any hard substance in which a hole can be drilled. Made of a non-rusting composition and is especially adaptable for work on marble or tile.

Star Expansion Bolt Co.

147-149 Cedar Street, - - NEW YORK

We Make Standard Loose Leaf Binders Used by the Telephone Companies



THE covers are of tough binders board, bound in high grade drab canvas. The lock is simple and non-breakable. The key operates the lock from the end of top cover. Six one-inch sections and a top ball in each post. A perfectly satisfactory binder at a low price. Special rates for quantities to Telephone Companies.

Send for Catalog showing other styles of Binders made for Telephone use

Workman Mfg. Company
1200 W. Monroe St. Chicago, Illinois

TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

Write for FREE SAMPLE
Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana

DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer

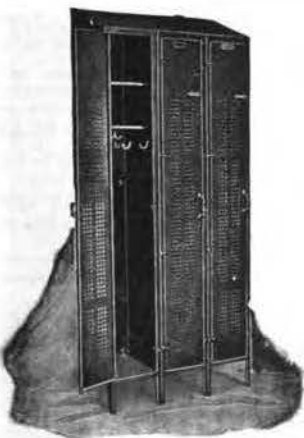
steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders. We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.



sent to him by the Sick Committee was read from H. D. Osborne, of the plant department. Several questions on telephone work, mostly of a commercial nature, came up for discussion. In the course of which remarks were made by R. J. Hall, M. C. Glass, W. A. Cardinal, Wm. Hildeout and C. R. Heygar. A few days later the board of governors decided to send some flowers to the young ladies of the Detroit Public Library who come to the room of the Society each Monday and dispense books for our branch. Mr. Glass ordered some flowers sent, therefore, to Miss Anleia Poray, Miss Bertha Ellis, Miss Helena Boyce and Miss Marietta Quinn. Letters of thanks were received from the librarians and placed on file. Shortly after the New Year the Sick Committee sent some flowers to G. M. Welch, Commercial Superintendent, whose ankle had been dislocated by a fall a few days before.

Michigan Telegram to Mr. Vail.

A. von Schlegel, General Manager of the Michigan State Telephone Company, was the speaker at the evening at a meeting, on January 16th, of the Telephone Society of Michigan. Mr. Schlegel went into the matter of the Plan for the Employees' Pensions, Disability Benefits and Insurance, which went into effect January 1st for employees of the Bell and allied systems. During the evening a motion was made by Commercial Manager C. S. Slack, of the Detroit District, that the appreciation of the telephone present should be expressed to Mr. Vail, President of the A. T. & T. Co. W. E. Dawson, President of the Telephone Society, appointed a committee of three, made up of C. S. Slack, Fred Clarke, Traffic Engineer, and D. H. Dodge, of the commercial department, to do this. The following telegram was sent:

Detroit, Mich., Jan. 17, 1913.
Theodore N. Vail, President, American Telephone & Telegraph Company, 15 Dey Street, New York City.

The Telephone Society of Michigan, at its semi-monthly meeting, held in its rooms on January 16, 1913, having listened to a discussion by General Manager A. von Schlegel, of the Michigan State Telephone Society, of the plan for the Employees' Pensions, Disability Benefits and Insurance, passed the following resolution: Whereas the Michigan State Telephone Company has adopted said plan, instituted by Theodore N. Vail, President of the American Telephone and Telegraph Company, be it resolved that this society, in regular session assembled, express its appreciation and gratitude for this plan, designed as it is solely for the benefit of each individual employee without obligation on his or her part, and that a copy of such resolution be forwarded by telegram to Mr. Vail.

TELEPHONE SOCIETY OF MICHIGAN.

C. E. CULVER, Secretary.

In reply to the above telegram Mr. Culver received this letter from H. B. Thayer, Vice President of the American Telephone and Telegraph Company:

"This is to acknowledge receipt of your telegram of the 17th instant to Mr. Vail. Mr. Vail is at present out of the city, but his attention will be called to it and I am sure that he will appreciate the expression of appreciation from your society."

Courtesies Remembered.

Michigan operators have frequent opportunities to extend courtesies to road-way companies and their subscribers. One of these tactful and accommodating girls is Mae Van Dyke, of Thompsonville. Just before Christmas Miss Van Dyke received the following letter and a check, and she says she thinks more of the letter than the check:

Nessen City, Mich., Dec. 24, 1912.

Miss Mae Van Dyke, Thompsonville, Mich.

In behalf of the Nessen Telephone Company I enclose a check for \$5.00 which I trust you will accept as a token of our appreciation of good service rendered.

We wish you a Merry Christmas and a Happy New Year.

Very truly,

A. BOLTON, President.

Large Order Table in Detroit.

When the Peter Smith and Sons Company moves into a new six-story modern building, which is being built at the corner of Griswold and State Streets, Detroit, it will be provided with a ten-position modified order table for handling orders received over the telephone. This order table will be equipped as follows: The first position, which will answer the purpose of the regular private branch exchange at other establishments, will contain trunk line and terminal equipment, and on these positions all calls originating from terminals will be handled. This position will also be used to handle traffic during light hours.

The remaining nine positions will be of the order-table type, with suitable space for the writing of orders. Each position will be equipped with four pairs of cords, a multiple of the trunk lines with call signals, and a multiple of the terminal. (In the ordinary order table no multiple of the terminals is extended into these

positions.) The management of this company, however, expects a large percentage of calls from patrons who will insist upon giving their order to some particular clerk with whom they have become acquainted. Because of this all positions will be provided with a small number of cord pairs and a multiple of terminals, in order to avoid double handling of these calls.

The Peter Smith and Sons Company expects to place in charge of the telephone switchboard a competent grocery clerk who will have general charge of the telephone order department. This supervisor will have information as regards prices on commodities which fluctuate from day to day, and also information as to whether or not certain articles, particularly meats, are in stock on each particular day; the telephone operators will be able to secure this information from him at once and thus patrons will not be inconvenienced either by having to wait or by having their order taken and later finding that the article is not in stock.

The company also proposes to provide each operator with a list of specialties in order that each order may be made as large as possible.

Peter Smith and Sons' concern will be one of the largest and best equipped markets in the country, not only as to the counter work and facilities for distribution, but also in regard to the method of handling telephone orders.

The study of the situation and equipment arrangement was made by Fred Clarke, Michigan Division Traffic Supervisor.

Detroit District.

Susie Philbrick, Mt. Clemens chief operator, has resumed her duties after a short illness.

William Leach, wire chief of the Mt. Clemens exchange, has been confined to his home with a severe attack of the grip.

Ben Shields, trouble man at Mt. Clemens, has been confined to his home on Rose street with an attack of the grip. The new system of centralized accounting has been put into operation at Mt. Clemens, this system having been thoroughly explained here by A. L. Riddle of District Commercial Manager W. D. Clark's office in Detroit.

G. M. Welch, Commercial Superintendent, fell on the steps of his house at the beginning of the year, dislocating the bone of his ankle. He was laid up for about a week, and is still limping.

When H. D. Osborne was transferred from the position of wire chief of the Grand exchange to work on the Home Telephone Company cut-over, the plant men at his exchange gave him a surprise party. The party took place December 23 and was pronounced a successful surprise. The surprise brought with them a stick pin and a pair of cuff buttons which they presented to Mr. Osborne. Mr. Osborne wishes his visitors to know how deeply he appreciates the compliment paid him.

F. J. Ellis, special agent, has not been out in his motor boat this year.

C. S. Slack, District Manager, and A. W. Leet, Commercial Agent, have been touring the city in an automobile (we cannot specify the brand, because in Detroit there is considerable feeling about free advertising of cars) determining the boundaries, from a service point of view, beyond which line mileage is to be charged. "This is the limit," said Mr. Leet to Mr. Slack, as they marked it on the map.

Mrs. Amy Bailey, chief operator at the Jackson exchange for the past two years, resigned January 1, 1913, and was succeeded by Mae Shorr, formerly a toll supervisor at the Detroit exchange.

Margaret Woods, traveling supervisor, has made an extended visit to the Jackson exchange, the service being greatly improved during her stay. On December 17, 1912, Miss Woods held a meeting with the day operators in the rest room of the telephone building, reading and discussing traffic bulletins, a course which was of great benefit to the operators. Refreshments were served. These meetings will be held at regular periods in the future.

Leota Grigware, toll operator at Jackson, has resigned to be married in the near future. Yvonne McClellan has been appointed night toll operator. Alta Wainwright, evening supervisor, has been appointed traffic clerk temporarily, owing to Estella Freer being transferred to the Commercial Department.

William Millman, collector at the Jackson exchange, resigned, effective December 1, 1912, to accept a position with a local printing concern.

B. F. Aronstein and his assistant are just completing the installation of a No. 4 private branch exchange system in the factory of the Schmitt Chemical Company; also one for the Imperial Auto Company of Jackson.

On December 31, 1912, Rose Tirrell was appointed Manager at the Rives Junction exchange, succeeding Aden M. Olds upon his resignation. The office was moved to Miss Tirrell's residence, which is an ideal location. Miss Tirrell has had considerable telephone experience, having been manager for the Michigan State

How Are You Going to Get Away From Facts Like These?

(1) The Autocall service in connection with P. B. X. installation will increase the efficiency without direct expense to you.

(2) It will decrease the percentage of lost calls by giving almost instantaneous connection with the particular party wanted.

(3) More than five hundred users are now enthusiastic with the results obtained from this service.

(4) It facilitates the prompt handling of long distance calls by eliminating "time lost waiting."

(5) Recommended by prominent engineers everywhere as a most valuable adjunct to the telephone.

AUTOCALL

used in conjunction with the telephone is productive of a combined service of much worth to the user and of great aid to the telephone service. Were you aware of its value you would not hesitate in recommending its utilization. To be familiar with this service is of a particular advantage.

Write for full details.

THE AUTOCALL COMPANY

110 Davis St. SHELBY OHIO

Telephone Company at Rives Junction about six years ago. During the last six years she has been an operator with an independent company.

The employees of the Jackson exchange provided for several poor families at Christmas. A subscription was taken up, each one giving liberally. Food also was donated, and several families were given a very merry Christmas. This no doubt will be a permanent arrangement with the Jackson exchange.

The new storage batteries at the Jackson exchange were completed December 23, 1912, by H. E. Moore, equipment inspector, and have been working to everybody's satisfaction ever since.

The management at Grand Ledge was transferred from C. F. Hibbard, Jr., to R. C. Tucker, as of December 23, 1912. The management at Ypsilanti was transferred from H. C. Gordon to C. F. Hibbard, Jr., as of January 3, 1913.

Romeo Council No. 116, Royal Arcanum, has re-elected T. D. Coe collector for the ensuing year. Mr. Coe is manager of the Romeo exchange and has acted in that capacity ever since the exchange was established in Romeo, some twenty-nine years ago. He has held the office of collector in the Royal Arcanum since the Council was instituted in Romeo, thirty-four years ago. He is without doubt the oldest collector, in point of continuous

mitting the connection of a large number of subscribers. A large estimate is being prepared that will care for the entire city, and which will require some months to complete.

Construction work has been resumed at Kalamazoo and will be carried on all winter. These estimates provide additional cable facilities in all parts of the city, and will approximate an expenditure of \$100,000. Kalamazoo is growing very rapidly, and in February will probably pass the 7,000 mark. An addition to the local switchboard is about to be made and two additional toll positions added.

The Lakewill toll station has been transferred to the Grand Rapids exchange area, so far as commercial matters are concerned. This station will be considered in the Ionia area as far as repairs are concerned.

Marquette District.

"Probably no city in Michigan," says the *St. Ignace Enterprise*, "has more obliging or more competent telephone operators than those of the local exchange. In appreciation of the work of the hello girls they were presented on Christmas with a magnificent basket of sweets by the management of the First National bank. The handsome basket, after its contents had been disposed of, fell to the lot of the chief operator, Miss Gallagher."



FORCE AT THE JACKSON, MICH. EXCHANGE.

Top row: F. Davis, collector; H. Sanwald, stockman; H. Hawley, assistant wire chief, and L. Goding, equipment installer. Bottom row, back: H. Darling, wire chief; H. Davis, repairman No. 4; W. Dunham, switchboardman; A. Locker, repairman No. 3; J. Foley, groundman, and S. Walker, linenman. Bottom row, front: O. Foley, line foreman; F. Watts, equipment installer; F. Schull, janitor; L. Marsh, repairman No. 1; W. L. Stevens, manager; F. Stevens, adjuster; V. C. Darling, commercial agent, and B. Aronstein, district installer.

service, of any Arcanum Council in the United States.

Grand Rapids District.

On account of ill health A. M. Williams, for the past few years Manager of the Traverse City exchange area, has been obliged to resign his position, and was on January 1st succeeded by H. J. Johnston of the Charlotte area. Mr. Johnston has been succeeded at Charlotte by H. E. Lampman of the Holland exchange. Mr. Lampman started in the telephone business some six years ago with the Camden Rural Telephone Company, with whom he was connected two years. He was then one year with the Reading Central Telephone Company. For the past year he has been at the Holland exchange as Manager. These promotions have been made strictly on a basis of reward for efficiency and untiring energy on the part of these men.

S. N. Bradford succeeds H. E. Lampman as Manager of the Holland exchange. Mr. Bradford has spent some eight years in the telephone business, being last with the Chicago Telephone Company at Gary, Ind. Mr. Bradford claims Holland as his home, hence his desire to engage with the Michigan State at this time. He entered on his duties on December 21st. Mr. Williams, late Manager of the Traverse City exchange area, has returned from Rochester, Minn., where the famous surgeons, Mayo Brothers, performed an operation on his arm, which was injured last winter by a fall upon the ice. The operation was quite successful, and in the course of a few months Mr. Williams expects to regain the entire use of it.

Bessie Parker has been appointed cashier of the Kalamazoo Exchange and entered on her duties December 22nd. Miss Parker has been connected with the traffic department at Allegan, and with the commercial department at Grand Rapids.

Considerable cable estimate work has been completed at Benton Harbor, per-

A toll station has been opened at Natpo, in Luce county. Natpo is three miles west of Soo Junction, between Newberry and Soo Junction, on the D., S. S. & A. Ry., about 150 feet from our toll lead, on the opposite side of the railroad track. Managers, National Pole Company.

Saginaw District.

The toll station at Kings Mills has been closed. A telephone in the same building is connected with the J. H. Vandecar Connecting Company at North Branch, and also with the Merton Haines Connecting Rural Company at Lum. The Northeastern Telephone Company, with an exchange at Mio, Oscoda county, was added to the list of connecting companies, as of December 10, 1912.

Death has taken Louise Ballhorn, the cashier of the Bay City exchange. Miss Ballhorn, who was an employee of the Michigan State Telephone Company for twelve years, had been operated on for appendicitis in the Mercy Hospital, and was recovering when pneumonia set in and carried her off in a few hours. She was thirty years old. Miss Ballhorn was as popular socially in Bay City as she was regarded with esteem as a business woman, her capabilities in this direction being very high. Her death is a shock to the Bay City telephone employees.

Roadway Company Notes.

A contract has been signed with the Smith's Creek Telephone Company for exchange service at Lapeer.

Contracts have been signed with the Edwards Roadway Company and the Clements Township Roadway Company, both to receive exchange service at West Branch. These contracts cancel contract with the old Edwards Roadway Company. The Stevensburg Roadway Company was connected January 11, 1913, with nineteen subscribers, to the Sault Ste. Marie exchange.

Poles

FROM THE

Stump

TO THE

Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
to Washington

National Pole Company

Escanaba, Michigan

BULL DOG CARBON PAPERS AND RIBBONS

ARE THE VERY BEST
The purchasing department can give you the results of the most exhaustive test ever made on material of this kind.

W. CARY LEWIS & CO.

39 W. Adams Street
Harrison 3280-2192 Auto 6352 8 CHICAGO

POLES OF STERLING QUALITY

Oldest Cedar Pole Firm in Business

Producers for 32 Years

MICHIGAN WHITE CEDAR

W. C. STERLING & SON CO.

1880 Monroe, Michigan 1912



MANUFACTURERS
OF
PERPETUAL ACCOUNT BOOKS
LOOSE LEAF SPECIALTIES
BLANK BOOKS
SEND FOR GENERAL CATALOGUE

W. G. LLOYD COMPANY

THE HOUSE OF GOOD ACCOUNT BOOKS

626 SOUTH CLARK STREET
CHICAGO, U.S.A.

ADVERTISE
IN THE
BELL TELEPHONE NEWS

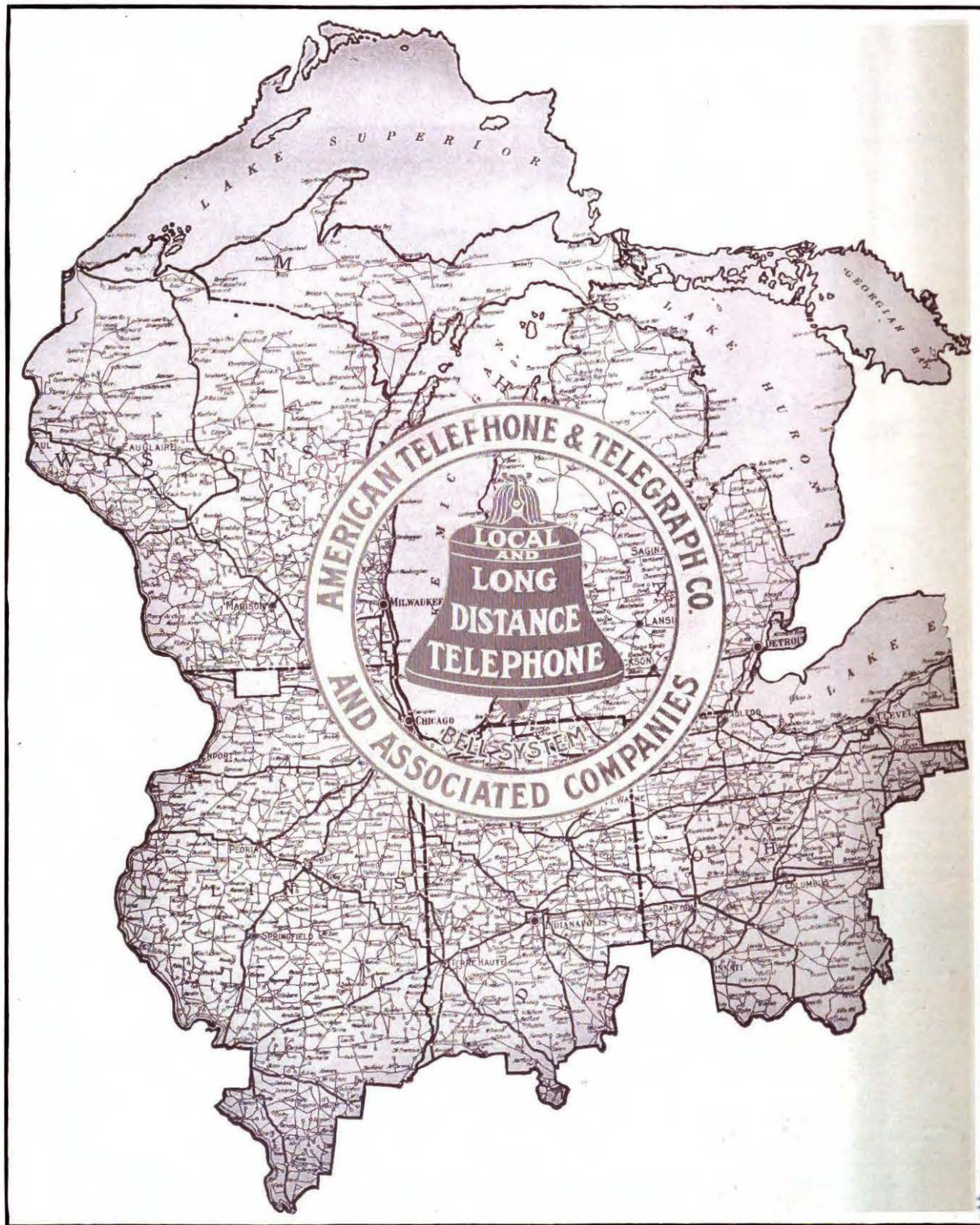
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

JANUARY 1, 1913

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 450,556 | 219,833 | 670,389 |
| INDIANA | 83,482 | 169,670 | 253,152 |
| OHIO | 162,873 | 163,978 | 326,851 |
| MICHIGAN | 179,916 | 56,900 | 236,816 |
| WISCONSIN | <u>123,630</u> | <u>104,359</u> | <u>227,989</u> |
| | 1,000,457 | 714,740 | 1,715,197 |

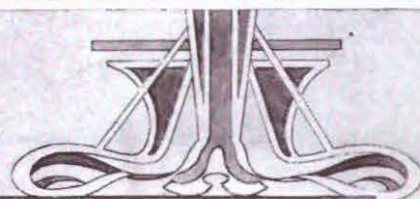


MAR 13 1913

ONLY 12 CENTS

BELL TELEPHONE NEWS

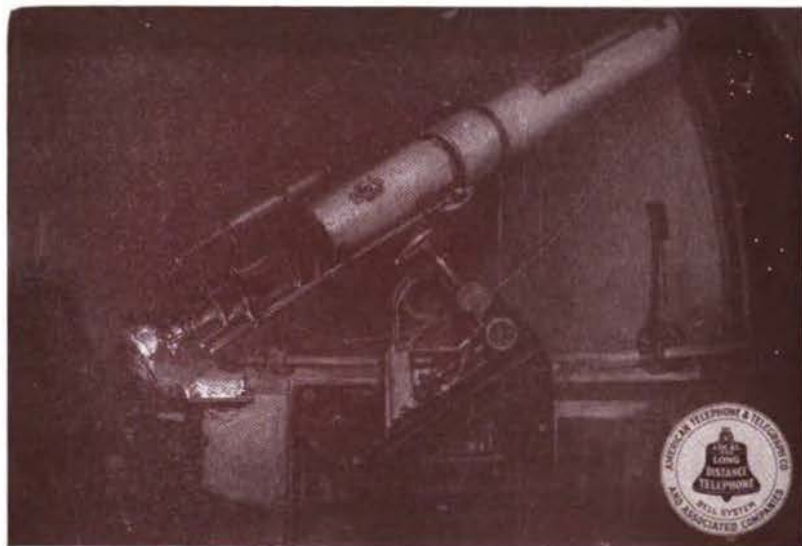
CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



Volume 2

MARCH
1913

Number 8



The Telescope of Speech

The astronomer, by the power of his telescope, becomes a reporter of the movements of a hundred worlds greater than ours, and the student of celestial activities millions of miles away.

He points his instrument at any spot in the heavens, and his sight goes rushing through space to discover and inspect a star hitherto unknown.

Up to the power of his lenses, his vision sweeps the universe.

As the telescope may be focused upon any star, so the telephone may

be focused upon any person within the range of its carrying power.

Your voice may be directed anywhere in the Bell System, and it will be carried across country at lightning speed, to be recognized and answered.

The telescope is for a very limited class, the astronomers. The telephone is for everyone.

At the telescope you may see, but cannot be seen. At the telephone you may speak and be spoken to, you may hear and be heard. By means of the Bell System this responsive service is extended to the whole nation.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 8

CHICAGO, ILLINOIS

MARCH, 1913

STAFF PHYSICIAN TO WRITE HEALTH ARTICLES

Dr. Doty, New Head of Bell Medical Department, Begins Important Series.

Dr. Alvah H. Doty, recently appointed medical director of the Employees' Benefit Fund Committee of the American Telephone and Telegraph Company, Western Union Telegraph Company and Western Electric Company, will prepare a series of articles which will be published in the BELL TELEPHONE NEWS. These articles, of which the first on "Air," is printed, beginning below, in this issue, will deal with the fundamental facts of importance in sanitation and later take up in detail certain phases of the subject such as personal hygiene, the prevention of infectious diseases, etc. The series, if preserved, ultimately will form a useful condensed text book on the subject.

It is needless to say that these articles will be of the very highest value. Dr. Doty is now a staff physician of the Bell System and his articles will be written especially for telephone people. They should be read word for word by every employee. Dr. Doty's article on "Air," with which he has chosen to begin his series, follows.

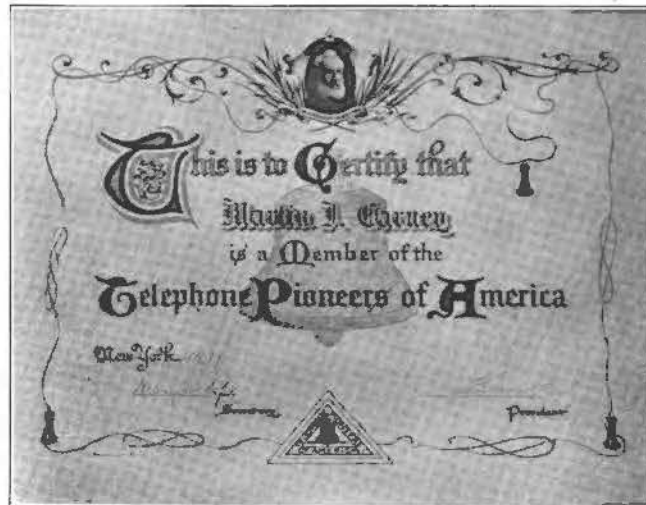
AIR

By DR. ALVAH H. DOTY

In recent years the subject of Hygiene, which treats of the laws of health, has received careful consideration on the part of the public, and special attention has been given to what are termed "preventive measures;" this refers to various simple and practical means which are employed to preserve health and protect against disease. The importance of this cannot be overestimated, for it offers a condition of well being which could not otherwise be secured.

In order to obtain the benefits which these measures extend, it is necessary to know the value of pure air and water, proper food, and the methods by which the body, the home, and workshop may be cared for. In dealing with this we must first consider the subject of air, for it is this which is most necessary to life.

We live in a sea of air or atmosphere which surrounds the world at a depth of many miles; naturally this involves a great pressure, which is equivalent to a weight of over fourteen pounds on every square inch of surface at the level of the sea. One of the important effects of this pressure so far as the human body is concerned is to aid in maintaining the equilibrium of the heart's action and the circulation of the blood. When a very high altitude is reached this control over the circulation is somewhat lessened as the weight of the air is diminished, and the heart frequently becomes dis-



MEMBERSHIP CERTIFICATE, TELEPHONE PIONEERS OF AMERICA. These certificates, signed by Mr. Vail, as president, and Mr. Pope, as secretary, are being received by pioneers in the Central Group. Each certificate is signed by Mr. Vail personally.

turbed, and some of the very small blood vessels often burst and nose bleed may occur. This condition is familiar to travelers who ascend lofty mountains, and it is usually untended with danger unless some serious organic disease of the heart exists.

Air is composed of gases, principally oxygen and nitrogen, about twenty per cent. of the former and nearly eighty per cent. of the latter. There is also carbonic acid present. These gases which are mixed together do not change in their relative proportions. In addition there is watery vapor and also various forms of impurities which vary in amount and composition according to the environments, the purest air being found at sea and in mountainous regions, where there are no means of generating offensive or poisonous gases, or supplying other forms of pollution. While the presence of nitrogen is necessary to dilute the air, for the oxygen alone would be too stimulating for respiration, and while carbonic acid is needed to support vegetable life, it is with oxygen that we are chiefly concerned, for of this we must have a constant supply to maintain our existence.

Through the respiratory tract the air reaches the lungs, where a vitally important interchange takes place. Here oxygen is absorbed into the system to enrich the blood and to aid in renewing the worn out tissues of the body, and in exchange carbonic acid and other products representing waste matter are thrown off with the expired air. This interchange occurs in the minute air cells, of which the lungs are composed. The surface represented by these little cells is so great that if spread out would cover a space of five or six hundred square feet. The air cells also play a very important part in some diseases, for instance in pneumonia they become filled with the product of inflammation and air cannot enter the portion of the lung in-

volved, and if this condition is sufficiently extensive a fatal result follows and in tuberculosis or consumption, the cells are not only rendered useless, but ultimately are destroyed, forming cavities in the lungs which are found in the latter stages of this disease.

This teaches us an exceedingly important lesson, i. e., the value of having the lungs properly filled with fresh air, in order that all parts of these organs may be kept in a healthy and active state. In this way the air not only reaches the cells but it also allows free exit of poisonous waste products from the tissues, and renders the lungs far more able to resist disease.

Impure air is found both within and without buildings. Outside its source is the various industrial occupations, particularly where coal is used in large quantities, the combustion of which generates gases injurious to health. Too high or too closely constructed buildings, narrow streets which prevent proper circulation, refuse and decomposing organic matter are also frequent causes of impure air. Nature goes far to neutralize these unhealthy conditions by oxidation, by winds which rapidly displace the air and freshen it, and by rains which wash out and carry down all sorts of impurities; instinctively we recognize the changed condition of the air after a storm. Sunlight and vegetation are also very important factors in securing this result. It is the great excess of impurities commonly found in the air and which nature is unable to deal with that constitutes the more serious menace to health from this source.

Within a building the most frequent causes of impurities are the exhalations and moisture from the lungs, mouth and skin of those present. Dust, improper plumbing and other unsanitary conditions are also usual means

(Continued on Page Three.)

STORM CUTS CHICAGO OFF FROM THE WORLD

Linemen Work Three Days to Restore Service After Worst Sleet Fall of Winter.

The sleet storm that visited Chicago on Friday, February 21st, worked havoc with telephone service in the city and for a radius of fifty miles around. The damage was slight in other parts of the territory of the Central Group of Bell Telephone Companies, the only damage reported from Wisconsin being thirty-five poles down near Geneva Junction, while Ohio, Indiana and Michigan seem to have escaped almost entirely.

In Chicago rain began falling early Friday morning, turning later to snow and sleet that coated the telephone cables and wires with an icy covering, until they were twice their normal size. The storm was accompanied by a forty-mile gale, which, with the added weight of the ice, was more than the telephone equipment could withstand and by noon wires began to break while great poles were snapped off short or twisted, and crossarms sank beneath their heavy burden.

There were 700 poles lost in Chicago by the Chicago Telephone Company and American Telephone and Telegraph Company, and much cable and wire were swept down during the storm.

In the immediate vicinity of Chicago telephone traffic came to a standstill Friday afternoon and one by one the surrounding towns became isolated and communication with them was lost.

The damage was probably heaviest at Aurora, where telephone, telegraph and light and power wires loaded with ice were blown down by the gale or torn from the poles by falling trees and soon became a hopeless, tangled mass. Danger to those in the streets from "live" wires made necessary the shutting off of electric current throughout the city for a time.

At Joliet great damage was done to wire using companies in general and in all parts of Chicago suburban territory the operations of the telephone companies were temporarily suspended.

All night Friday, Saturday and Sunday hundreds of linemen were at work repairing the storm damage and the engineers' reports Monday morning indicated that they had the situation well under control and that telephone and telegraph service would be restored to normal conditions within a few hours.

While the patrons of the service may now resume their customary use of the wires, telephone officials will contemplate with rueful faces the cost of the storm king's spree.

The Bell Telephone System loses thousands of dollars every year from sleet. It is the greatest enemy the telephone manager in this latitude has to meet and he has learned to look upon the months of February and March with dread as at least one and sometimes two or three devastating

sleet storms occur during those months, usually between Washington's birthday and Easter Sunday.

The high wind which usually accompanies or follows immediately in the wake of a sleet storm causes the wires to strain and sway. Suddenly, with a loud report, a pole has gone down. This added weight pulls the poles down on either side and with a crash a whole section of poles and wires falls and an inextricable mass of wreckage covers the highway.

The coating of ice on a telephone wire is sometimes an inch in diameter and such a coating will weigh one and three-quarters pounds to the foot. A length of wire between two poles, which normally weighs five pounds, grows to fifty times that weight and three crossarms filled with wires, thus coated with sleet, weigh about four

MONDAY LUNCHEON CLUB IN NEW HOME

Large Room On Eighth Floor of
New Building Assigned To
Weekly Meeting.

The Monday Lunch Club of Chicago is now comfortably situated in new quarters in the north wing of the new headquarters building. The new quarters give comfortable seating capacity to about 275 at the tables and it is expected that this number of regular at-

room on the eighth floor of the toll building.

The following account of the after history of the club and some of its aims and successes was contributed by J. M. Humiston, chairman of the committee which secures the attractions.

In June 1910 Mr. Hibbard announced his belief that these weekly gatherings should promote not only acquaintance but the ability to think on one's feet and the distribution of ideas of the work of the different departments. He proposed that each Monday some man should tell us briefly about the work of his department and close by naming some one who was to talk the next week.

Mr. Hibbard started the ball rolling by nominating R. S. Pierce for a talk the next Monday. Mr. Pierce selected for his subject the new headquarters

against the overwhelming evidence condemning his client.

Among the offerings placed before the Monday luncheon by this committee were:

Charles H. Wacker, on the Chicago Plan; Martin Delaney, on the Olympic Games; Robert W. Bonyuge of Denver, on Currency Reform; Hon. Charles G. Dawes, on the Philosophy of Investments; Superintendent E. B. De Groot of the Public Playgrounds of the City of Chicago, and a number of others of equal excellence.

At the opening of the new club room, Mr. Sunny was present with a number of the directors, and presented some very profitable ideas, by reviewing the negotiations of the company with the city council. Coincident with the opening of the new room the committee was reorganized and now con-



THE MONDAY LUNCH CLUB, CHICAGO.

A picture taken under considerable difficulty, which created enough amusement to take the place of the regular club program Monday, February 17th. The photograph was taken in two sections and joined in making the plate, a row of posts in the center of the room being eliminated.

tons. Such conditions crush and splinter the stoutest poles.

Up to this time no successful method has been devised to protect aerial telephone lines against sleet. The engineers of the Bell System are experimenting with reinforced concrete poles but as yet there has been no satisfactory test of their staying powers.

The danger from charged wires is always great when a tangle occurs in city streets, as was the case in Aurora during the storm of February 21st.

Operator Rewarded.

Directors of the local state bank of Hull, Ill., voted Mrs. Anna Sloan \$25 at their last meeting, for saving the bank from being robbed last fall. Mrs. Sloan was telephone operator at the time and also resided in the office building, which is just north of the bank. When she heard the robbers at work, she went to the switchboard and gave the general alarm call. Help arrived as the robbers were preparing to touch off a charge in the inner door of the safe. There was quite a sum of money in the safe and they would have secured it in a very few more minutes.—Hull Enterprise.

tendants will be reached within a short time.

The Monday Lunch Club is a weekly gathering of officials and employees holding the more important positions in the general and local departments of the Chicago Telephone Company and the five states organization centered at Chicago. The officials simply get together and eat lunch, for which each man pays thirty-five cents, and, at the conclusion of the lunch, some speaker, secured by a committee, makes a talk on some live topic. Sometimes the speakers are within and sometimes without the organization.

The Lunch Club started in 1905. The first meeting was held at the Bismarck Restaurant, with an attendance of about twenty-five.

In 1907 the club held the lunches at Vogel's in the large banquet room, with an attendance of from fifty to one hundred. In 1909 it was moved to The Tavern, but owing to the large membership, it became quite a problem to get a space large enough and with reasonable service, so the banquet room, at King's Restaurant, second floor, was tried out. After a short time, and in the latter part of 1909, the club was moved to the operators' lunch

building for the Central Division, then under construction. He gave us the reasons for such a building, the reason for its location and the arguments for the design chosen. He closed by nominating J. S. Ford for the next speaker. A sequence of papers and speakers thus started, continued for nearly a year, and many valuable papers were offered.

At that time, with a view to presenting more variety and increasing the latitude of both the entertainment and instruction, a committee was appointed of which B. S. Garvey was chairman. This committee acted for some months—arranging for speakers from both outside and inside the organization.

One of its signal successes was the mock trial of one of our popular associates, who was blessed with an abundance of ingrowing hair. He was indicted on a charge of parting his hair with a towel. The ten-minute farce thus produced demonstrated that considerable latent histrionic talent lurked in our organization. Mr. Sharpe very cleverly played upon the sympathies of the jury and displayed his well-known strategic ability

sists of J. M. Humiston, W. J. Boyd, W. T. Bell, U. F. Cleveland, W. W. Hiller, V. Ray and H. E. Eldridge. This committee requests the co-operation of all in providing interesting and instructive papers on the different activities involved in carrying on our business.

New Money Transfer Rates.

The new schedule of rates for transfer of money to be put in effect by the Western Union Telegraph Company follows:

For a transfer of \$25 or less, twenty-five cents will be charged.

For a transfer of over \$25 and not exceeding \$50, thirty-five cents.

For a transfer of over \$50, not exceeding \$75, sixty cents.

For a transfer of over \$75, not exceeding \$100, eighty-five cents.

For each additional \$100 or fraction thereof, up to and including \$3,000, twenty-five cents.

For each additional \$100 or fraction thereof over \$3,000, twenty cents.

There will also be a charge for telegraph service equal to a fifteen word day message from the office of deposit to the office of payment.

STAFF PHYSICIAN TO WRITE HEALTH ARTICLES. (Continued From Page One.)

of vitiating the air. The unpleasant odors which are almost always noticeable where large numbers of persons are brought together, are due principally to decomposed organic matter from decayed teeth, mouth and skin, particularly where cleanliness is not observed.

Therefore these unpleasant effects may be greatly diminished by the careful observance of personal hygiene.

In manufactories and mines there are in addition to the impurities above referred to, products arising from the various occupations, such as particles

only cause unpleasant odors but may contaminate milk or other food stuff which is present.

It is not difficult to understand why those who work in mines are frequent victims of tuberculosis. In marked contrast to this is the fact that those who are most free from this disease are farmers and fishermen, whose occupations keep them more or less constantly in the open air.

There is a popular belief that impure air is the origin of infectious disease. This is not true. The danger of impure air lies chiefly in the fact that it reduces the resisting power of the system and renders it far more susceptible to disease.

those who are constantly exposed to it have a lowered vitality and succumb more readily to disease, and we should always bear in mind that it is not the minimum, but the maximum amount of fresh air to be sought for, and this can only be found outdoors.

While it is impracticable for many to secure extended outdoor exercise, there are but few who if they try cannot find in some part of the twenty-four hours an opportunity to obtain some benefit in this direction. The belief that night air is detrimental to health is without foundation. It was formerly supposed that it bred malaria, now we know that this disease is transmitted from one person to an-

Ventilation or the purification of air within the house has chiefly to do with the cold months, for in summer when the windows and doors are open sufficient air is usually secured by natural means for all purposes. While the most complete ventilation does not secure all the value of outside air, it is important that it be given the most careful attention in connection with the hygiene of our homes and workshops.

In this as in the purification of air, nature plays a very important part. For owing to the great pressure of the atmosphere and the law of the diffusion of gases, it is practically impossible to prevent air from passing



DISCOVERERS OF TWO POLES MEET.

The above photograph is reproduced by the BELL TELEPHONE NEWS by courtesy of the National Geographic Magazine and by permission of Harris and Ewing, the photographers. It was taken at a recent meeting of members of the National Geographic Society in Washington, at which the discoverers of the two poles met for the first time. Additional interest is given the picture by the recent news of the fate of Captain Scott and his companions in the Antarctic disaster.

Beginning with the second man in the lower row and reading from left to right, those in the row are Ambassador Jusserand of France; Captain Amundsen, discoverer of the south pole; Admiral Peary, discoverer of the north pole; Ambassador Bryce of Great Britain; Dr. Grosvenor, editor of the National Geographic Magazine, and Professor Alexander Graham Bell, inventor of the telephone.

of coal, stone and metal, which are largely responsible for diseases of the lungs so commonly found among employees of these places.

Air is carried into the soil and when mixed with decomposed organic matter underground, becomes offensive and unhealthy. Poisonous and inflammable gases are also generated beneath the surface, and may be found at a considerable depth; therefore when excavations are made, or during mining operations, these gases are frequently released and are not only detrimental to health, but often when exposed to flame or the oxygen of the air, cause explosions. Carburetted hydrogen or "fire damp," is an illustration. This condition is not infrequently the cause of offensive and unhealthy cellars for if the walls of these apartments are not properly constructed underground gases may enter and not

Modern sanitation has brought about a more serious realization of the necessity of pure air, both to the sick and to the well. Physicians know the importance of it in disease, and the windows in sick rooms are no longer closed, and certain affections are treated in the open air with the most satisfactory results, and medication in certain ways has been discarded. Sleeping in the open air is now a common practice, and those who adopt it under proper conditions learn the stimulating and invigorating effect of it. Fresh air is therefore a tonic, both in health and in sickness, and a powerful factor in combating disease.

It is not necessary that the public should attempt to deal with the mass of literature relating to the scientific investigation of this subject, further than to learn that impure air is not compatible with good health, and

other by the mosquito, and that exercise even after sundown is also very beneficial. Careful attention to this important requirement returns a large interest, for in a way it compensates for many hours of indoor work under unfavorable atmospheric surroundings. By this means health may be maintained.

Dwelling houses and apartments should, so far as possible, be selected where good air space exists, away from narrow streets, high buildings, manufactories or offensive trades. Residence in suburban towns should be encouraged, in order that pure air may be enjoyed, even if it involves time and discomfort in traveling, for it will secure better health and longer life, and is particularly necessary for children, for the latter are like plants and must have fresh air and sunshine to thrive.

into the house, for it will enter every opening no matter how small it may be, even through bricks and mortar, still this does not secure the needed amount and it devolves upon us to use every effort to obtain a constant supply of fresh air.

Air which is warmed becomes lighter, expands and ascends, therefore it will more quickly escape from a higher level in the apartment, for this reason exits for impure air should be arranged in the upper part of the room. Cold air is more condensed, heavier, and descends and may be better introduced at a lower point, although this should not be too close to the floor, for the fresh air which is below the temperature of the room may be uncomfortable about the feet of those in the apartment, and may also cause colds, or other unpleasant conditions; furthermore air for ventila-

tion should not be taken too close to the ground for the surface contains decomposed organic matter and other forms of impurities. The incoming current should, if possible, be given an upward turn, in this way it better mixes with the impure air, and dilutes it; it is also desirable that the force of this current or draught should, so far as possible, be diminished on entering the room, particularly if the air is frequently introduced. This may be modified in a simple way by use of cheese cloth or some other loosely woven fabric or fine wire netting placed over the opening which admits the air. If such articles are used they should be frequently changed or cleaned. These points are followed by engineers in supplying ventilation to great buildings and even in large dwelling houses. By modern apparatus it can be so arranged that those present are not conscious of the continued withdrawal of impure air or of a constant supply of fresh air.

While there are many simple, inexpensive and effective apparatus which may be purchased for ventilating the interior, each person interested should, if practicable, improvise his own methods of house ventilation, not so much for purpose of economy as the education which is gained by a familiarity with this subject. Windows can always be opened and by this means, if no other, fresh air can be obtained. Those who sleep outside, or in an apartment where the air enters freely and who are protected by proper covering know full well the healthful effect of this modern hygienic measure.

It must be remembered that the purification of the air within the building depends largely on cleanliness and other sanitary observances. The accumulation of filth in various forms, bad plumbing, defective heating and lighting apparatus and other unsanitary conditions go far to neutralize the value of careful ventilation.

Various heating and lighting agents in use vitiate the air. A coal stove cannot be regarded as a sanitary or modern means of securing warmth, for the latter is not evenly diffused throughout the apartment and when the stove is highly heated the air becomes unpleasantly dry and particles of organic matter floating about become charred and offensive. These details require careful consideration for a certain amount of moisture is necessary and if the air becomes too dry respiration is interfered with. The danger from a stove is not imaginary, for the combustion of coal forms poisonous gases, which commonly enter the apartment, particularly when fresh coal is added. Therefore if stoves are used this danger should be guarded against by having the chimney or stove pipe damper fully opened in order that the gases may quickly escape. It is not an unusual practice in sections where stoves are depended upon, to leave the doors open and partly close these dampers to reduce the heat; this should not be done, besides the damper in a stove pipe or chimney should be so constructed that it cannot be entirely closed. Moisture may be supplied by placing a receptacle containing water on the stove or in its immediate vicinity.

We have been taught that grate fires secure very excellent ventilation, and that the draft up the chimney takes with it the impure air in the room. While this is true to a certain extent, the suction force may also carry up the fresh air just entering the room, and materially interfere with the ventilation of the apartment. In some instances as a result of adverse winds, air may even blow down the chimney with unpleasant consequences. It is enough to know that there are more simple and modern means of ventilation.

Hot water and steam are satisfactory and sanitary means of securing heat, for the warmth they supply is more equally diffused and the needed moisture in the apartment is less interfered with than when other methods are employed. Besides these agents consume no oxygen and give off no product of combustion to vitiate the air. For these reasons electricity is also a very valuable means of obtaining heat, however, at present the expense of this method renders it impracticable for general use. Although from a sanitary standpoint hot air is inferior to steam and hot water, it may safely be used for heating purposes if the furnace is properly cared for and if fresh air from outside and moisture are constantly supplied for its operation.

tricts where there is but little chance of securing even fair ventilation. It is here where sickness is constantly present, and it is very important that those who are obliged to reside in these places, should be taught not only the value of fresh air, but the best means of securing it under adverse circumstances. They should know that aside from the efforts which they may make to secure this at home, the most valuable remedy for these unpleasant surroundings is to remain outside as much as possible. We may learn much from animals in this direction, for their freedom from disease is in a measure unquestionably due to the fact they are almost constantly in the open air.

A careful consideration of this subject will not only indicate the impor-

Marconi wireless station at the foot of Madison Street:

On Board Pere Marquette Steamer 15.
January 24, 1913.
Manager Mich. State Telephone Co., Ludington, Mich.

Please put phone and extension bell in residence part of court house as soon as possible.
(Signed) M. E. CHASE.

The Car ferry No. 15 from which the message was sent was many miles out on the bosom of old Lake Michigan, speeding her way to Ludington. "It's up to us to keep pace with the times," mused the telephone manager as he pulled his watch from his pocket and noted the time as being 3:20 and then sighed at the probable hopelessness of the task confronting him. Then he grabbed off the telephone receiver again and called below to his wire chief: "Here's an order that calls for action, please see what you can do," and he read the wireless message to him adding, as a matter of a little oil to increase the speed, "This telephone should be in ahead of the boat."

There was a rustling in the workshop of the telephone exchange such as has not been witnessed probably before, and just one hour and twenty-three minutes later the telephone manager's bell rang and as he raised the receiver to his ear this salutation from the wire chief was wafted good and strong into his ear: "The telephone, sir, is in ahead of the ship, ha, ha." It is no wonder he laughed, for the feat performed, undoubtedly breaks all records of installing telephones, under the new method the Bell system has of installing. Besides the many connections to be made, there was the insertion of tubes and protectors and the running of right on to 500 feet of wire.

Mr. Chase, who sent the wireless order for the telephone, is the pursuer of the Car ferry 15 and not to be outdone by his progressive business spirit the telephone manager, as soon as the telephone was installed and working,

| No. 2-11-11000 | | Filing Charge | | Filing Date | |
|--|------------------------|---------------|-----------|-------------|----------|
| MARCONI WIRELESS TELEGRAPH COMPANY OF AMERICA | | | | | |
| 27 WILLIAM STREET, Lord's Court Building, NEW YORK | | | | | |
| No. | 2-15 MG | Station | LUDINGTON | Path | 1215-191 |
| Profile | Code | Words | 26 | By whom | Chase |
| Office of Origin | Pere Marquette Ste 15. | Time | 3:20 PM | By whom | Chase |
| Service Instructions: | | | | | |
| To: Manager Mich. State Tel. Co., Ludington, Mich. | | | | | |
| Please put phone and extension bell in residence part of court house as soon as possible. | | | | | |
| M. E. Chase. | | | | | |

WIRELESS MESSAGE ORDERING TELEPHONE.

While gas and oil present about the same objections for heating as they do for illuminating purposes, i. e., unhealthy products of combustion and the consumption of oxygen, it must be admitted that heating apparatus for the use of these agents have been so far improved that with care they may now be employed without injurious effect.

It would be difficult to estimate the value of electricity as a lighting agent, for as it has already been stated it consumes no oxygen and gives off no products of combustion, and is less heating than other illuminating agents. Before electricity was employed for this purpose it was exceedingly difficult properly to ventilate theatres and other buildings where many were congregated, and where gas and oil were used in large quantities for illuminating purposes.

In workshops there must be very free ventilation, particularly where employes are performing manual labor, for the exhalations from the skin and mucous membrane under these circumstances are greatly increased and more rapidly thrown off than where but little physical exertion is required.

In the country and to a certain extent in private dwellings, or properly arranged apartments in the city, the danger of impure air is not so very great, nor is the belief justified that the air in theatres, subways, or public conveyances is injurious to health for even if the air is more or less impure, the exposure is of comparatively short duration, and nature supplies a tolerance of this to the extent that practically no harm is done, except possibly to the employes who are more or less constantly present.

The real danger lies rather in the constant exposure to impure air, particularly among those who live in closely built tenement houses, in dis-

tance of fresh air in the preservation of health but it will also prove that the latter may be maintained by means which are simple and practical. Of these the most valuable of all, particularly for those who are employed within doors, is daily exercise in the open air, for instance, a walk of three or four miles or more. By following this course good health may be preserved and disease prevented even under very bad sanitary surroundings.

FIRST TELEPHONE ORDER BY WIRELESS

Ludington, Mich., Force Installs
Service Before Subscriber
Reaches Port.

There never has been any question about the up-to-date manner in which Ludington (Mich.) and its people do business and often there is such a marked contrast from the manner in which the rest of the world does it, that the attention of all the rest of the world is centered upon this city in an air of wonderment. The more we have of this the better for the city for it helps to advertise us as an enterprising, progressive community, says the *Ludington Daily News*. Right along this line there was a business transaction took place here yesterday (January 24th) which for its oddity alone makes it unique, as well as breaking all known records of the kind and setting a pace for the rest of the world.

Yesterday afternoon Manager Kelly of the Michigan State Telephone Company received the following wireless message, telephoned to him from the



LUDINGTON INSTALLATION CREW.
Which distinguished itself in filling an installation order for a Bell telephone, sent by wireless from the Pere Marquette Car ferry No. 15, January 24th, to Manager J. J. Kelly of the Ludington area. At the top is George E. Doran, wire chief (note the "business dress" on his face). To the left is George E. Potvin, repairman No. 2, who is a streak of high-grade grease, in action, and pace-setter of the crew. To the right is Merle W. Bowen, repairman No. 1, a recent importation from Wisconsin, but whose previous long residence in this "neck-o'-the-woods" thoroughly imbued him with the hustle spirit of the northwest. This picture was taken the day after the unusual feat was performed.

sent him the following wireless, catching the ship some three miles out at sea: "Your telephone number is 261-L and your folks are waiting for you on the line."

Ludington has certainly set the pace in the matter of ordering telephones installed by wireless and the time limit established in filling the order is undoubtedly a record breaker. So convinced of this is the Ludington telephone manager that he had his crew of installers before a camera to-day for the purpose of having their pictures published with an account of the feat in the BELL TELEPHONE NEWS, which goes into the home of every employe of the company, great and small in the states of Illinois, Wisconsin, Indiana, Ohio and Michigan. By this act, the name of Ludington, Mich., will be placed before the eyes of many thousands of people and will be a very good advertisement for the city and its progressive spirit. — *Ludington Daily News*.

QUINCY GIRLS ENJOY 'GET-TOGETHER' PARTIES

Central Union and Home Operators
Mingle in Two Pleasant
Entertainments.

Operators of the Central Union and Home Telephone Companies of Quincy, Ill., held "get-together" dinners on January 29th and 30th.

The Home system was recently purchased by the Central Union Telephone Company and preparations are under way to join the whole body of subscribers in one exchange as soon as possible. All the operators will then work together in the new exchange, which will occupy the former Home Telephone Company's building.

told the operators that they should no longer feel that they are "Bell" girls or "Home" girls only, but that they are "Our" girls. He dwelt on the absolute necessity of co-operation and loyalty to give the people of Quincy the best of service especially after the cut-over. J. E. Halligan, Central

the best looking one in the crowd.

After a standing vote of thanks from all operators to their superior officers for the very pleasant evening and the general good fellowship created, good nights were said and the entertainment fled away with other pleasant memories.

in the head. The right arm raises to a salute by a release magnet. The arm is restored manually.

A Western Electric loud-speaking receiver is mounted in the body of the figure, and the horn of the receiver is concealed by the shirt. An ordinary transmitter is mounted in the



CENTRAL UNION AND HOME OPERATORS AFTER DINNER AT HOTEL QUINCY, QUINCY, ILL.

Union manager, followed with his usual cheery words and sunny smile. L. L. McMaster, the new Quincy traffic chief, was then called on and gave an instructive talk.

The pleasant evening was brought to a close after short talks by Miss Hofmeister, chief operator of the Home Company, and Miss Mitchell, chief operator of the Central Union, and all operators clasped hands over the past

Daffodill—The Manikin

Description and History of Conical Fellow Who Entertained Operators at Show — By A. P. HYATT,
Superintendent of Equipment.

The manikin, which, under the name of "Daffodill" furnished so much amusement to the girl audiences at the Chicago Traffic Department show,

back of the figure and used by the interlocutor, in talking to the distant speaker.

The keyboard is provided and equipped with four telegraph keys for operating the head and jaw solenoids and the arm magnet; also a special transmitter connecting to the loud speaking receiver in the figure, and an ordinary head receiver connecting to the transmitter in the figure, with the necessary induction and resistance coils and an eighteen-volt storage battery for the energy.

The keyboard and the manikin are connected by a six-pair cable, 200 feet in length, making it possible to place the keyboard and speaker in an adjoining room where the speaker cannot be seen and where his voice can only be heard from the loud receiver in the dummy.

The special transmitter is similar to an ordinary desk set, although the carbon chamber is much larger and contains three carbon electrodes and is ten times more sensitive than the standard transmitter, requiring one ampere of current for talking. The transmitter has not yet reached a perfect stage of development and care is necessary to avoid burn-outs. The transmitter used in the New York laboratory for testing out receivers is water cooled.

The loud-speaking receiver has been developed by the Western Electric Company during the past year, and a



CENTRAL UNION AND HOME OPERATORS AT DINNER IN HOTEL NEWCOMB, QUINCY, ILL.

The dinners were given to furnish the girls an opportunity to get better acquainted.

The first dinner, on January 29th, was given in the breakfast room of the Hotel Newcomb and was attended by thirty-six operators from the two exchanges. Immediately after dinner the Misses Hall and Morton rendered several selections on the piano and violin; also, a humorous reading, "How Old Mose Counted Eggs," given by Miss Morton, was greatly enjoyed.

C. H. Archelpohl, manager of the Home Company, acted as toastmaster, and introduced J. H. Barlow, district traffic chief, who made a short talk, stating the object of the meeting. He

and feel that they are "our girls."

Thursday night, January 30th, another splendid "get-together" dinner was given the night and relief operators of the Central Union and Home Telephone Companies in the Dutch room of the Hotel Quincy, covers being laid for twenty-eight.

After dinner the manager of the hotel, Mr. Pennell, tendered the use of the parlors, where a similar program to that of the previous evening was carried out; speeches, recitations and music, both vocal and instrumental, and a flashlight with "Jerry," the hotel dog, as a mascot and guest of honor for the picture, and the dog, some friends kindly remarked, was

is an electric contrivance for increasing the volume of conversation or music and, at the same time produce the appearance of speech on the part of the dummy itself. It was manufactured by the Western Electric Company and first used at the second annual reunion of the Telephone Pioneers of America at New York, November 19, 1912.

The manikin is a wooden figure representing a red-headed boy dressed in a red-striped shirt and blue-striped trousers and sitting on a stool.

The head has two motions, right and left, operated by two solenoids, mounted in the body of the figure. The lower jaw moves by a solenoid mounted



CAR FERRY NO. 15.
From which wireless message was sent
ordering telephone.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
212 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonzo Burt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. G. Gray, Chief Engineer.
H. H. Henry, Supply Agent.
H. F. Hill, General Manager, Chicago, Ill.
E. A. Reed, General Manager, Columbus, Ohio.
H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegell, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.

number of installations, such as annunciators at railroad stations and for paging in hotels, have been made in New York.

The receiver is provided with a large horseshoe magnet with two coils on one of the pole pieces with an armature fastened to a lever which extends to the diaphragm, thus greatly intensifying the vibrations, and a small metal horn amplifies the sound.

A special induction coil, having two primary windings, is used. One end of each winding connects to each of the two transmitter electrodes and the carbon chamber of the transmitter connects to one side of the battery. The secondary of the induction coil connects directly to the loud-speaking receiver.

After its first use in New York the dummy was loaned to A. S. Hibbard, former general manager of the Chicago Telephone Company, and used by him at the Chicago Association of Commerce Glee Club banquet at the Blackstone Hotel on December 2, 1912. It was then returned to New York and used by the New York Telephone Society at a meeting. It was again shipped to Chicago and used by Mr. Hibbard at the Association of Commerce banquet to the sons of members at the La Salle Hotel on December 26, 1912.

Its next use was by the Western Electric Company's Mens' Club of Hawthorne at their annual banquet at the La Salle Hotel on January 9th.

From thence it was shipped to St. Louis and used by W. O. Pennell of the Bell Telephone Company of Missouri at a banquet on January 16th.

It was returned to Chicago and used by N. G. Moore at a minstrel show at Oak Park given by the members of his Bible class for the benefit of the Jefferson Park Gymnasium on January 20th and 21st. It was used by A. P. Hyatt at the installation of officers on January 23rd, of the U. S. W. V., Greely Camp (Signal Corps men who served in the Spanish-American war.) It was used by H. N. Foster at the Birchwood Country Club banquet on January 25th.

After its exhibition at the operators' show it was used at the Chicago Electric Club's weekly luncheon at the Sherman House on February 6th and the Chicago Telephone Company's Monday Luncheon February 10th. At the last named appearance it was disguised as an Egyptian mummy and operated by W. G. E. Peirce, made some droll remarks about things and people in the telephone organization.

NEW EXCHANGE AT FORT ATKINSON, WIS.

Equipment Now in Thorough Good
Order and Everything Running
Smoothly.

The very few cases of trouble which developed after the cut-over at Fort Atkinson, Wis., have been adjusted, the whole exchange thoroughly inspected and everything is now in ship-shape. The cut-over, which took place December 18, 1912, was a complete success, less than one per cent. of the lines being in trouble afterwards. This is a good record for an exchange of 726 stations.

The new switchboard consists of two toll, two rural and two local positions, the board being of the thirty-six volt type No. 9.

Up to the time of the cut-over this office was working on an old type "American Transfer" magneto switchboard, which was taken over at the time of the purchase of the independent company at Fort Atkinson.

In single office districts the Wisconsin Telephone Company has made it a practice to cut over to new switchboards at either 12 noon or 1 p. m., as they have found those hours the most advantageous. This fact was clearly demonstrated in this particular cut-over. The cut-over was made at 1 p. m. and the installers were at work installing new instruments where the old magneto instruments showed trouble, at 1:30 p. m. so that by 6 p. m. all cases of trouble were cleared up and the office was in perfect running condition.

The new office at Fort Atkinson is located on the second floor of the Wigdale block, a large brick building on the most prominent business corner of the city.

The rooms consist of a large operating room equipped with a common battery switchboard, composed of three local, one rural and two toll positions and chief operator's desk; an operator's rest room, apparatus room in which are located the wire chief's test table, power board, machine, batteries, etc. The commercial office is divided by an oak counter into a public lobby and the office for the manager, his clerk and Morse operator.

The rooms have all been remodeled and decorated and present a pleasant and business-like appearance.

The outside plant, or line work, was in charge of Foreman B. Hanson with a crew of twenty-two men and consisted in stringing new cable, terminals, service drops, etc., and provides the city with sufficient facilities to permit a substantial increase in subscribers.

The sub-station work was in charge of Foreman R. Longhelnrich and a crew of seven men and consisted of rewiring practically all stations and placing condensers in the old instruments. After the cut-over new instruments were installed at all sub-stations.

The people of Fort Atkinson showed an unusual amount of interest in the installation of a new plant and the cut-over at that point due to the fact that the exchange was formerly owned and operated by local people. On October 3, 1899, the local company was incorporated and began business with a small switchboard and eighty subscribers. In 1905 the exchange had grown to such a proportion that it necessitated rebuilding and installing a new switchboard. On July 1, 1909, the property passed into the hands of the Wisconsin Telephone Company and at that time the plant was gone over and repairs made that were sufficient

District and Division Collection Rating

JANUARY 1, 1913.

| | Total to be collected during Dec., 1912. | December collections. | Unpaid Jan. 1, 1913. | Per cent collected. | Stations. |
|--|--|-----------------------|----------------------|---------------------|-----------|
| 1. Wis. Tel. Co., Appleton Dist. | \$ 58,679 | \$ 57,442 | \$ 1,237 | 97.9 | 26,040 |
| 2. Wis. Tel. Co., Madison Dist. | 37,123 | 36,420 | 1,103 | 97.1 | 15,094 |
| 3. C. U. Co., Terre Haute Dist. | 37,127 | 35,127 | 2,010 | 94.6 | 19,165 |
| 4. C. U. Co., Columbus Dist. | 49,059 | 46,349 | 2,710 | 94.5 | 20,294 |
| 5. Mich. State Tel. Co., Marquette Dist. | 30,198 | 28,152 | 2,046 | 93.2 | 13,790 |
| 6. C. U. Co., Chillicothe Dist. | 28,741 | 26,520 | 2,221 | 92.3 | 16,917 |
| 7. Wis. Tel. Co., Milwaukee Dist. | 126,972 | 116,485 | 10,487 | 91.7 | 57,219 |
| 8. C. U. Co., Dayton Dist. | 54,550 | 49,372 | 5,178 | 89.8 | 23,352 |
| 9. C. U. Co., Toledo Dist. | 62,269 | 55,277 | 6,992 | 88.8 | 25,555 |
| 10. Wis. Tel. Co., Janesville Dist. | 10,507 | 9,214 | 1,293 | 87.7 | 4,053 |
| 11. C. U. Co., Anderson Dist. | 55,823 | 51,303 | 4,520 | 86.6 | 27,158 |
| 12. C. U. Co., Centralia Dist. | 30,604 | 18,032 | 12,572 | 87.5 | 10,989 |
| 13. C. U. Co., Galesburg Dist. | 48,980 | 42,586 | 6,394 | 86.9 | 21,393 |
| 14. Chicago Tel. Co., Chicago Heights Dist. | 7,114 | 6,178 | 936 | 86.8 | 2,405 |
| 15. C. U. Co., Springfield Dist. | 112,188 | 96,201 | 15,987 | 85.7 | 42,582 |
| 16. Chicago Tel. Co., Blue Island Dist. | 8,472 | 8,053 | 419 | 85 | 2,171 |
| 17. Wis. Tel. Co., Eau Claire Dist. | 35,622 | 30,019 | 5,616 | 84.2 | 12,357 |
| 18. C. U. Co., Akron Dist. | 64,195 | 53,496 | 10,699 | 83.3 | 23,857 |
| 19. Chicago Tel. Co., Chicago City | 1,336,494 | 1,106,177 | 230,317 | 92.9 | 312,091 |
| 20. Mich. State Tel. Co., Saginaw Dist. | 47,737 | 39,206 | 8,531 | 82 | 20,403 |
| 21. Mich. State Tel. Co., Detroit Dist. | 314,177 | 254,679 | 59,498 | 81 | 96,071 |
| 22. Chicago Tel. Co., La Grange Dist. | 12,557 | 10,148 | 2,409 | 80.9 | 4,169 |
| 23. Chicago Tel. Co., Elgin Dist. | 15,128 | 11,852 | 3,276 | 78.3 | 5,942 |
| 24. Mich. State Tel. Co., Grand Rapids Dist. | 91,871 | 70,520 | 21,351 | 76.7 | 41,712 |
| 25. Chicago Tel. Co., Oak Park Dist. | 34,514 | 26,428 | 8,086 | 76.6 | 9,654 |
| 26. Chicago Tel. Co., Wheaton Dist. | 10,919 | 8,272 | 2,647 | 75.8 | 3,598 |
| 27. Chicago Tel. Co., Woodstock Dist. | 9,212 | 6,925 | 2,287 | 75.3 | 3,283 |
| 28. C. U. Co., Indianapolis Dist. | 39,593 | 29,392 | 10,201 | 74.2 | 9,306 |
| 29. Chicago Tel. Co., Evanston Dist. | 80,465 | 59,813 | 20,652 | 74.3 | 28,569 |
| 30. Chicago Tel. Co., Waukegan Dist. | 35,633 | 25,392 | 10,241 | 71.2 | 11,797 |
| 31. Chicago Tel. Co., Hammond Dist. | 19,341 | 14,162 | 5,179 | 73.2 | 5,300 |
| 32. Chicago Tel. Co., Gary Dist. | 9,120 | 6,870 | 2,250 | 75.1 | 1,973 |
| 33. Chicago Tel. Co., Joliet Dist. | 27,815 | 20,187 | 7,628 | 72.3 | 9,332 |
| 34. Chicago Tel. Co., Aurora Dist. | 17,232 | 12,406 | 4,826 | 72 | 6,071 |
| 35. Cleveland Tel. Co., Cleveland Dist. | 112,959 | 76,737 | 36,222 | 67.9 | 53,141 |

Total \$3,058,322 \$2,539,057 \$519,265 83. 994,275

Division Summary.

| | | | | | |
|-----------------|------------|------------|-----------|------|---------|
| Wisconsin Co. | \$ 269,307 | \$ 249,571 | \$ 19,736 | 92.6 | 115,293 |
| C. U., Ohio | 259,214 | 231,014 | 28,200 | 89.1 | 110,005 |
| C. U., Illinois | 181,772 | 156,819 | 24,953 | 86.3 | 75,241 |
| C. U., Indiana | 176,226 | 146,243 | 29,983 | 83 | 74,912 |
| Chicago Co. | 1,674,816 | 1,388,116 | 286,700 | 81.7 | 332,066 |
| Michigan Co. | 484,029 | 392,557 | 91,472 | 81.1 | 171,977 |
| Cleveland Co. | 112,959 | 76,737 | 36,222 | 67.9 | 53,141 |

Total \$3,058,322 \$2,539,057 \$519,265 83. 994,275

*Quarterly rental billing.

to take care of the equipment until a new building could be arranged for. The change last December means the fourth stage in telephone activity at Fort Atkinson and gives the subscribers as complete a plant as can be found in the country.

The following officials were present at the cut-over, from Madison: Messrs. Mayer, Schroeder and Brewer, and from Milwaukee, Messrs. Brennan, Wilson, Whelan and Siegl.

OBITUARY.

W. H. KEYS, general manager of the Fond du Lac Rural Telephone Company, died at his home on Monday, January 7th, of pneumonia brought on by a cold contracted about Christmas time. Mr. Keys was a pioneer in the rural telephone development in Fond du Lac county, promoting and financing the building of the first rural line in Fond du Lac county. This line belonged to the Empire Telephone Company and was incorporated on April 1, 1906, for \$5,000. From a modest beginning of eighteen subscribers, in the town of Empire, under Mr. Keys' able and efficient management the Empire Telephone Company continued to develop rapidly and on January 1, 1910, was consolidated with the Eldorado and Friendship Telephone Company and incorporated as the Fond du Lac Rural Telephone Company with a capital of \$20,000. The company has now over 300 subscribers on thirty-six circuits with about seventy miles of poles and 385 miles of wire line, and is at present in a very prosperous condition, due directly to the good work of Mr. Keys. Mr. Keys was born in the town of Empire, county of Fond du Lac, and was fifty-five years of age at his death. He leaves three children, Ruth, Frank and Emma, all residing at the family home about six and one-half miles east of Fond du Lac.

MRS. CECILIA B. CAGWIN, mother of T. P. Cagwin, Jr., commercial man-

ager of the Cleveland Telephone Company and president of the Cleveland Automobile Club, died at the Hotel Morland, February 16th, of heart disease.

She was seventy years old and a prominent Christian Science worker. She is survived by her husband, a son and a daughter, Mrs. James Richards of New York.

T. P. Cagwin, besides being president of the Cleveland Automobile Club, is a member of the Athletic, Advertising, Electrical and Euclid Clubs.

Bell Telephone Bowling League

STANDING OF THE TEAMS.

February 13, 1913.

| Team. | Won. | Lost. | Per cent. |
|--------------|------|-------|-----------|
| Commercial | 38 | 16 | .704 |
| Installation | 35 | 19 | .648 |
| Maintenance | 35 | 19 | .648 |
| Engineers | 34 | 20 | .630 |
| Revenue | 30 | 24 | .556 |
| Suburban | 24 | 30 | .444 |
| Traffic | 24 | 30 | .444 |
| A. T. & T. | 18 | 36 | .333 |
| Inspection | 12 | 37 | .315 |
| Accountants | 15 | 39 | .278 |

The hot fight for leadership in the Bell Telephone Bowling League of Chicago is still on with at least five teams still well in the running. The Commercial maintain a precarious hold on first place and the Installations and Maintenance are straining neck and neck just a few percentage points behind.

Chairman M. D. Atwater of the entertainment committee, and W. E. Conrad of the banquet committee authorize the BELL TELEPHONE NEWS to announce that another banquet and entertainment will be given this spring at the close of the bowling season, sometime after April 10th. Plans are already under way and the show will be "bigger and better than ever."

Exchange Collection Rating

An interesting statement is given below of all exchanges in the Central Group at which collections range from 95 to 100 per cent. of the total charges to be collected during December, 1912.

As this record will be published at regular intervals in the future, it is expected that its appearance will inspire a greater effort towards improving collection conditions, thereby securing a position on the list by the exchanges not now appearing thereon.

Exchanges having a collection percentage from 90 to 95 can, with little additional effort, earn a position on this statement.

Let every manager endeavor to place his exchange on the published list.

| City and state. | Per cent. Collected. | Stations. |
|----------------------|----------------------|-----------|
| Asheville, Ohio | 100 | 22 |
| Banta, Ind. | 100 | 736 |
| Baraboo, Wis. | 100 | 1,305 |
| Beaver Dam, Wis. | 100 | 356 |
| Beecher, Ill. | 100 | 95 |
| Belfast, Ohio | 100 | 89 |
| Boggs, Ind. | 100 | 91 |
| Bourneville, Ohio | 100 | 55 |
| Brooklyn, Ind. | 100 | 74 |
| Buffalo, Ill. | 100 | 396 |
| Burlington, Mich. | 100 | 25 |
| Burnett, Wis. | 100 | 76 |
| Cantrill, Ill. | 100 | 116 |
| Champion, Mich. | 100 | 100 |
| Columbus, Wis. | 100 | 802 |
| Cornville, Ohio | 100 | 142 |
| Cumberland, Ind. | 100 | 120 |
| Danville, Ohio | 100 | 230 |
| Elkhart, Ind. | 100 | 13 |
| Enon, Ohio | 100 | 64 |
| Florence, Mich. | 100 | 69 |
| Fort Atkinson, Wis. | 100 | 724 |
| French Lick, Ind. | 100 | 436 |
| Goshen, Ind. | 100 | 199 |
| Grass Lake, Mich. | 100 | 21 |
| Hartstown, Ill. | 100 | 91 |
| Hastings, Mich. | 100 | 107 |
| Hercules, Wis. | 100 | 321 |
| Humboldt, Mich. | 100 | 10 |
| Huntersville, Ind. | 100 | 120 |
| Hurley, Wis. | 100 | 254 |
| Jefferson, Wis. | 100 | 103 |
| Juneau, Wis. | 100 | 175 |
| Keweenaw, Mich. | 100 | 246 |
| Kokomo, Ind. | 100 | 14 |
| Lake Geneva | 100 | 1,003 |
| Lancaster, Wis. | 100 | 252 |
| Lewisville, Ind. | 100 | 201 |
| Lima Center, Wis. | 100 | 75 |
| Linden, Ind. | 100 | 76 |
| Ligonport, Ind. | 100 | 66 |
| Mackinaw City, Mich. | 100 | 354 |
| Manchester, Mich. | 100 | 63 |
| Manila, Ind. | 100 | 63 |
| Manteno, Ill. | 100 | 102 |
| Marshall, Ohio | 100 | 162 |
| Mechanicsburg, Ind. | 100 | 208 |
| Michigamme, Mich. | 100 | 25 |
| Milan, Ill. | 100 | 21 |
| Monroe, Ill. | 100 | 107 |
| Mt. Orah, Ohio | 100 | 105 |
| New Moorefield, Ohio | 100 | 69 |
| Niagara, Mich. | 100 | 23 |
| North Freedom, Wis. | 100 | 134 |
| Oquawville, Ill. | 100 | 18 |
| Plainfield, Ind. | 100 | 109 |
| Princeton, Wis. | 100 | 119 |
| Prospect, Ohio | 100 | 22 |
| Rainbow, Ohio | 100 | 140 |
| Reading, Mich. | 100 | 100 |
| Red Granite, Wis. | 100 | 113 |
| Richmond, Ind. | 100 | 72 |
| Richmondale, Ohio | 100 | 36 |
| Riverton, Ill. | 100 | 238 |
| Romeo, Mich. | 100 | 218 |
| Romey, Ind. | 100 | 162 |
| Smith Valley, Ind. | 100 | 59 |
| Stoughton, Wis. | 100 | 84 |
| Wabash, Ind. | 100 | 84 |
| Waupun, Wis. | 100 | 582 |
| Weldman, Mich. | 100 | 53 |
| Whitewater, Wis. | 100 | 789 |
| Harford, Wis. | 99.9 | 539 |
| Ironwood, Mich. | 99.9 | 926 |
| Galena, Ill. | 99.8 | 460 |
| Neenah-Menasha, Wis. | 99.8 | 1,412 |
| Watertown, Wis. | 99.7 | 83 |
| Winnebago, Wis. | 99.7 | 136 |
| Omro, Wis. | 99.6 | 525 |
| Berlin, Wis. | 99.5 | 384 |
| Manitowoc, Wis. | 99.4 | 1,384 |
| Vincennes, Ind. | 99.3 | 2,586 |
| Boyer City, Mich. | 99.2 | 381 |
| Fond du Lac, Wis. | 99.2 | 3,281 |
| Oconto Falls, Wis. | 99.2 | 93 |
| Alzoma, Wis. | 99.1 | 842 |
| Bedford, Ind. | 99.1 | 1,534 |
| Byron, Mich. | 99.1 | 102 |
| Edwardsville, Ill. | 99.1 | 1,113 |
| Shelbyville, Ind. | 99.1 | 1,394 |
| Hillsboro, Ohio | 99.0 | 604 |
| Shelby, Mich. | 99.0 | 300 |
| St. Charles, Mich. | 99.0 | 111 |
| Keweenaw, Ill. | 98.9 | 398 |
| Mt. Morris, Mich. | 98.8 | 104 |
| Depere, Wis. | 98.7 | 857 |
| Spencer, Ind. | 98.7 | 250 |
| Appleton, Wis. | 98.6 | 1,658 |
| Greenville, Mich. | 98.6 | 43 |
| Piqua, Ohio | 98.6 | 394 |

| | | |
|-----------------------|------|-------|
| Iron Mountain, Mich. | 98.5 | 570 |
| Lancaster, Ohio | 98.5 | 2,374 |
| Oakbrook, Wis. | 98.5 | 4,081 |
| Three Oaks, Mich. | 98.5 | 169 |
| Flushing, Mich. | 98.4 | 266 |
| Marquette, Wis. | 98.4 | 1,369 |
| Port Washington, Wis. | 98.4 | 374 |
| Stans, Wis. | 98.4 | 302 |
| Stevens Point, Wis. | 98.4 | 884 |
| West Bend, Wis. | 98.4 | 401 |
| Fairland, Ind. | 98.3 | 54 |
| Genoa Junction, Wis. | 98.3 | 220 |
| Little Chute, Wis. | 98.3 | 56 |
| Menominee, Mich. | 98.3 | 1,096 |
| Burlington, Wis. | 98.2 | 734 |
| Crawfordsville, Ind. | 98.2 | 2,342 |
| Green Bay, Wis. | 98.2 | 432 |
| Howell, Mich. | 98.2 | 216 |
| Ishpeming, Mich. | 98.2 | 182 |
| Stephenson, Mich. | 98.2 | 78 |
| Mason, Mich. | 97.9 | 230 |
| Mt. Gilead, Ohio | 97.9 | 23 |
| Dresden, Ohio | 97.8 | 203 |
| Sturgeon Bay, Wis. | 97.8 | 734 |
| Bellefontaine, Ohio | 97.7 | 717 |
| Cedarburg, Wis. | 97.7 | 181 |
| North Hampton, Ohio | 97.7 | 280 |
| Hart, Mich. | 97.6 | 59 |
| Gladstone, Mich. | 97.6 | 330 |
| Lewistown, Ill. | 97.5 | 230 |
| Midland, Mich. | 97.5 | 248 |
| Chenosa, Ill. | 97.4 | 207 |
| Hortonville, Wis. | 97.4 | 320 |
| New Haven, Mich. | 97.4 | 68 |
| Shavano, Wis. | 97.4 | 111 |
| La Salle, Ill. | 97.3 | 1,839 |
| Cadillac, Mich. | 97.2 | 587 |
| Harrisonville, Ohio | 97.2 | 84 |
| New London, Wis. | 97.2 | 472 |
| Oconto, Wis. | 97.2 | 430 |
| Amasa, Mich. | 97.1 | 12 |
| Franklin, Ind. | 97.1 | 41 |
| Pekin, Ill. | 97.1 | 140 |
| Ripley, Ohio | 97.1 | 384 |
| Centerville, Ill. | 97.1 | 1,724 |
| Menomonia, Wis. | 97.1 | 927 |
| Norway, Mich. | 97.1 | 265 |
| Dedanda, Ohio | 96.8 | 511 |
| Hudson, Wis. | 96.6 | 560 |
| Vandalia, Ohio | 96.5 | 866 |
| Chippewa Falls, Wis. | 96.4 | 163 |
| Delaware, Ohio | 96.4 | 28 |
| Ironton, Ohio | 96.4 | 1,208 |
| Tremont City, Ohio | 96.4 | 91 |
| Wrightstown, Wis. | 96.4 | 117 |
| Green Bay, Wis. | 96.3 | 1,561 |
| Selet, Wis. | 96.3 | 1,139 |
| Mt. Vernon, Ill. | 96.2 | 1,430 |
| New Castle, Ind. | 96.2 | 1,499 |
| Powers, Mich. | 96.1 | 39 |
| Waukegan, Wis. | 96.1 | 1,684 |
| Corcoran, Ohio | 96.0 | 29 |
| Elyria, Ohio | 95.9 | 458 |
| Green Lake, Wis. | 95.9 | 82 |
| Sturgis, Mich. | 95.8 | 13 |
| Selet, Wis. | 95.7 | 1,561 |
| Reed City, Mich. | 95.7 | 167 |
| Augusta, Mich. | 95.6 | 105 |
| Eau Claire, Wis. | 95.5 | 2,728 |
| Kaukauna, Wis. | 95.5 | 75 |
| Magnolia, Ohio | 95.5 | 71 |
| Milan, Mich. | 95.4 | 519 |
| Bowling Green, Ohio | 95.3 | 872 |
| Vandalia, Ill. | 95.3 | 642 |
| Eau Claire, Mich. | 95.2 | 208 |
| Traverse City, Mich. | 95.2 | 509 |
| Newberry, Mich. | 95.1 | 109 |
| Peshigo, Wis. | 95.1 | 124 |

Indoor Baseball League

STANDING OF THE TEAMS.

February 24, 1913.

| | W. | L. | Pct. |
|------------|----|----|------|
| Traffic | 5 | 1 | .833 |
| Auditing | 4 | 2 | .666 |
| Plant | 3 | 3 | .500 |
| Commercial | 0 | 6 | .000 |

The Traffic took the lead in the indoor race at Chicago by defeating the Auditors fourteen to five in the big slug-fest on the night of February 19th. Excitement ran high and the gallery went home hoarse. E. Carney carried off the honors with a double, two singles and a base on balls. Eldridge at left short made a sensational catch of Welch's liner in the sixth. Rosen of the Auditors made a double play from right short, picking up H. Driscoll's third strike which the catcher dropped, in time to tag him and to meet Ryan at the plate.

| The Box Score. | | | | |
|----------------|---|---|----|---|
| Auditing— | | | | |
| Robertson | 1 | 2 | 0 | 0 |
| Sullivan | 0 | 1 | 0 | 1 |
| O'Malley | 1 | 0 | 5 | 0 |
| Mulcahy | 1 | 1 | 16 | 0 |
| Demo | 1 | 2 | 2 | 0 |
| Welch | 0 | 2 | 0 | 0 |
| Rosen | 0 | 1 | 2 | 0 |
| Baker | 0 | 0 | 0 | 0 |
| Dillon | 0 | 0 | 1 | 5 |
| Benson | 0 | 0 | 0 | 0 |
| Totals | 5 | 8 | 24 | 7 |

| Traffic— | | | | |
|-------------|---|---|----|---|
| Ryan | 3 | 3 | 0 | 1 |
| E. Carney | 4 | 3 | 2 | 0 |
| F. Driscoll | 2 | 3 | 21 | 0 |
| H. Driscoll | 2 | 3 | 2 | 0 |

| | | | | | |
|-------------|---|---|---|---|---|
| Bates | 0 | 2 | 0 | 0 | 0 |
| Eldridge | 1 | 0 | 1 | 0 | 0 |
| F. Driscoll | 1 | 1 | 1 | 0 | 0 |
| Three Oaks | 0 | 0 | 0 | 0 | 0 |
| Fremi | 0 | 1 | 0 | 2 | 0 |
| Margraf | 0 | 1 | 0 | 0 | 0 |

| | | | | | |
|----------------|----|----|----|----|----|
| Totals | 14 | 16 | 27 | 3 | 0 |
| By Innings: | 1 | 2 | 3 | 4 | 5 |
| Auditors: Runs | 0 | 0 | 0 | 10 | 0 |
| Hits | 1 | 0 | 0 | 2 | 1 |
| Traffic: Runs | 0 | 0 | 2 | 0 | 14 |
| Hits | 1 | 0 | 3 | 1 | 17 |

Two-base hits—E. Carney, J. Carney, F. Driscoll. Double play—Rosen. Struck out—By Fremi, 19; Dillon, 15. Bases on balls—Off Fremi, 7; off Dillon, 4. Passed balls—Mulcahy, 2; Carney, 1. Time of game—1:45. Umpire—Mike Myers, W. Clarke.

The Plant Department wrought the downfall of the Traffic leaders on the night of February 5th. The Pluggers scored twice in the second session and blanked their opponents till the sixth, when the Diggers got to Fremi for three hits and thus won the game, 3 to 2. It was a pitcher's battle. Fremi struck out twenty and walked three, while Deuse fanned sixteen and passed none. E. Cleary and Smith executed a double play. F. Driscoll covered the entire outfield.

The Box Score.

| Plant— | R. | H. | P. | A. | E. |
|------------------|----|----|----|----|----|
| Dolan, c. | 0 | 18 | 1 | 1 | 0 |
| Brown, 3b. | 0 | 1 | 0 | 0 | 0 |
| Savage, 1b. | 0 | 0 | 3 | 0 | 0 |
| Butler, 2b. | 1 | 2 | 1 | 1 | 0 |
| Creed, ss. | 0 | 2 | 0 | 0 | 0 |
| Fletcher, r. | 1 | 2 | 0 | 1 | 0 |
| Carney, rs. | 0 | 1 | 1 | 2 | 0 |
| Gairity, ls. | 0 | 0 | 1 | 1 | 0 |
| Deuse, p. | 0 | 1 | 1 | 0 | 0 |
| Totals | 3 | 27 | 7 | 0 | 0 |
| Traffic— | R. | H. | P. | A. | E. |
| E. Carney, 2b. | 0 | 0 | 2 | 1 | 0 |
| McMahon, rs. | 0 | 0 | 1 | 1 | 0 |
| Casey, p. | 0 | 15 | 2 | 1 | 0 |
| Smith, 1b. | 0 | 4 | 1 | 0 | 0 |
| Eldridge, ls. | 1 | 2 | 3 | 4 | 0 |
| F. Driscoll, 3b. | 1 | 1 | 0 | 0 | 0 |
| Margraf, 2b. | 0 | 1 | 0 | 0 | 0 |
| Fremi, p. | 0 | 1 | 0 | 2 | 0 |
| Totals | 2 | 24 | 11 | 1 | 0 |

By Innings: 1 2 3 4 5 6 7 8 9
Plant: Runs 0 0 0 0 0 0 0 0 3
Hits 0 0 0 0 2 0 0 0 1
Traffic: Runs 0 2 0 0 0 0 0 0 2
Hits 1 0 1 0 0 0 0 0 1

The Traffic defeated the Commercial 19-2 at St. Alphonsus' gymnasium, February 11th. H. Driscoll got five hits, including a double. J. Carney made two doubles and two singles. Fremi pitched his usual steady game and started with the broom-handle, making three singles and a homer into the attic. The worm turned when the Commercial pulled a triple play in the sixth, Casey to Gavin to Dunne.

The Score.

| Traffic— | R. | H. | P. | A. | E. |
|------------------|----|----|----|----|----|
| Bates, 3b. | 2 | 3 | 1 | 0 | 0 |
| E. Carney, 2b. | 3 | 3 | 2 | 0 | 0 |
| J. Carney, c. | 3 | 4 | 16 | 1 | 0 |
| H. Driscoll, 1b. | 0 | 5 | 6 | 0 | 0 |
| Moeller, 3b. | 1 | 3 | 1 | 2 | 0 |
| Moeller, rs.-p. | 2 | 3 | 0 | 0 | 0 |
| Fremi, p.-r. | 3 | 4 | 2 | 1 | 0 |
| F. Driscoll, 1b. | 3 | 2 | 0 | 0 | 0 |
| Margraf, rs. | 3 | 2 | 0 | 2 | 0 |
| Totals | 19 | 29 | 27 | 6 | 0 |
| Commercial— | R. | H. | P. | A. | E. |
| Hardin, c. | 0 | 1 | 6 | 2 | 0 |
| Dunne, 2b. | 0 | 0 | 2 | 0 | 0 |
| Creed, ls.-p. | 0 | 1 | 6 | 2 | 0 |
| Cungham, rs. | 0 | 0 | 0 | 0 | 0 |
| Murray, 3b. | 0 | 0 | 1 | 1 | 0 |
| Gavin, 1b. | 1 | 2 | 7 | 0 | 0 |
| Casey, p. | 1 | 3 | 3 | 1 | 0 |
| Matson, r. | 0 | 1 | 2 | 0 | 0 |
| Baker, 1b. | 0 | 2 | 0 | 0 | 0 |
| Totals | 2 | 8 | 27 | 6 | 1 |

By Innings: 1 2 3 4 5 6 7 8 9
Traffic: Runs 0 6 1 1 1 1 6 2 1—19
Hits 2 8 1 3 1 3 8 2 1—29
Commercial: Runs 0 0 0 0 0 0 0 0 2
Hits 1 4 1 1 0 0 1 0 0—8

Home run—Fremi. Three-base hit—Margraf. Two-base hit—J. Carney (2). Bates (2), Moeller (2). E. Carney, H. Driscoll, Creed, Casey. Struck out—By Fremi, 9 in 6 innings; by Moeller, 6 in 3 innings; by Casey, 5 in 7 innings. Bases on balls—Off Fremi, 3; Creed, 3; Moeller, 1. Balk—Casey. Triple play—Casey to Gavin to Dunne. Umpires—Mike Myers, Waldorf.

The Telephone in the Wilderness.
In writing in the WESTERN ELECTRIC News of his experiences during a recent vacation trip in the heart of the

snow-clad Rockies, W. P. Sidley, vice president and general counsel of the Western Electric Company gives a striking illustration of one of the many phases of usefulness of the government's forest service telephones. After describing the beginnings of the trip, Mr. Sidley goes on to say:

"While we were at Paint Rock Lakes, a forest ranger rode into camp one afternoon with a message sent me that same morning from Chicago, stating that my law partner, Arthur D. Wheeler, had died suddenly the previous evening. I was too stunned by the news at the time to inquire how the message had reached me in the heart of the Big Horns with such marvelous promptness, but I had the story the following day from the ranger. To appreciate this remarkable performance, it should be remembered that we had left our last point of communication with the outer world, viz.: Horton's Ranch, on the east slope of the mountains, ten days before, had traveled north and west over the crest, and were then camped in the wildest part of the west slope some five days distant from East Tensleep Lakes, our next point of communication with Horton, where he was to bring us fresh supplies on September 4th. Under ordinary circumstances it would have taken from three days to a week to have located our party and delivered this message from the ranch. An extraordinary incident, however, brought about its delivery within a few hours after it was filed at Chicago.

The Paint Rock region of the Big Horn lies within the forest range territory assigned by the government to O. A. Emery. This district is some fifty miles north and south, and about twelve miles in width, with its western edge overlooking the Big Horn basin. On the morning of August 30th, the ranger was out on a high rim of rock near his home examining the surrounding country through a powerful field glass in search of possible forest fires, when his eye caught sight of a sorrel horse feeding on the shore of Paint Rock Lake six miles away. He watched the horse closely and concluded from the manner in which it stood after feeding, that it was not one of the state horses that graze in a semi-wild state over this region, but belonged to some party of campers or "tourists," as they are called in that country.

Almost immediately upon returning to his cabin, he received a call on his telephone asking him if he knew anything of my whereabouts in his district and stating that an urgent message was awaiting delivery. My message, which was then given him, had been telegraphed to me at Buffalo, Wyo., telephoned to Horton's Ranch, relayed from there in the same manner to Sheridan, from Sheridan across the Big Horns to Basin City, from there to Hyattville at the foot of the west slope and thence up the mountains to the ranger's cabin, where it was received over the Western Electric equipment that is used throughout this government service. Mr. Emery at once replied that he felt sure he knew just where to reach me, mounted his horse and started for Paint Rock Lakes and within two hours placed the message in my hands."

Girl Stays on Job.

Annie McBride, telephone operator at McConnellsville, Ohio, had a narrow escape from death on the night of February 9th. When she reached past an open grate to turn out a light her dress caught fire, but she beat out the flames with her hands, then telephoned her highly correspondence to a newspaper twenty-eight miles away.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,900 copies per month.

MARCH, 1913.

SEEING STRAIGHT.

There is a tendency these most brisk and giddy-paced times to get away from

"Tongues in trees, books in the running brooks, Sermons in stones and good in every thing."

Rather do we seem ever on the alert to discover evil in everything, ulterior motives behind the acts of men—be they ever so honorable. The inclination is to question, to place the wrong construction, to voice doubt as to sincerity and to twist expressions from good to bad intent.

This is the attitude of many individuals and, we regret to say, of many publishers. In the case of the individual it arises from the inability to see straight—due perhaps to disappointment, to misfortune or failure in his business which has set his thought awry—or, it may be due to indigestion.

In the case of the publisher it comes too often from over development of the commercial instinct and a corresponding atrophy of the sense of justice. Such a condition produces an inordinate desire to increase circulation which will in turn produce increased receipts from advertising; in other words, increased profits. This desire is commendable except when it is achieved at the sacrifice of principle for gain.

But from whatever cause the inability to see straight starts the malady is an agency for harm and one should turn from it as from a pestilence.

The natural bent of the healthy, manly man is to see the good in his fellows and there is none but will remember the shock he has felt in his boyhood days when something detrimental has been said of a person or institution which had hitherto stood in his mind as the embodiment of that which was honorable, upright and fair. There is none but remembers how his feelings rose in revolt and how he—mentally if not audibly—cried out, "I refuse to believe it!" Times without number then and now—in the vast majority of cases in fact—investigation has shown that the person or thing was aspersed unjustly in part, if not wholly so.

It is of the utmost importance that we endeavor to see straight in all matters concerning the private and public welfare and the lives and characters of our countrymen and our townsmen, and that we strive to see good in everything, until the last vestige of that good has vanished.

Good is the golden thread running through the fabric of our being and though there may be thousands of strands discolored, soiled and worn that obscure for the moment the golden thread, it should be patiently sought out—it is worth the entire mass of tatters that envelop it.

In corporate affairs we are prone to see otherwise than straight, to seek for a "joker," a hidden motive. And in ninety-nine cases in one hundred this inclination is due solely to the fact that the matter in hand is a corporate matter. Before joining in or permitting yourself to be influenced by noise and turmoil, stop just for a minute and be sure that you are seeing straight. Ask yourself,

"What is this so-called corporation?" It is but an association of men—it is not in reality an entity, an artificial person, expressing views repugnant to human sense of right. It is but the channel through which are manifested the ideas of men like ourselves. And these men?—Wait a bit—"I know some of them. They are all right, I'll guarantee that. And what is more they are nobody's fools, their associates cannot slip anything over on them—in fact they wouldn't be their associates long if they tried to. Now it is just possible there is something about this whole thing that I do not understand. I will suspend judgment until I have fuller information."

You are beginning to see straight! Arrived at this point, you are turning to analysis, the only correct rule for the solution of large problems. You are turning from over-hasty generalizations and are awake—not alone to the fact that some of your fellows are all right but to the more important realization that you have a discriminating mind, that you are, so to speak, a court of equity whose function it is to judge righteous judgment. To you, acceptance by the mass, be it never so general, does not make an accusation true. Instead of a weather-cock, swept and whirled about by every breeze, you have begun to sift for the reasons, to look for the good in everything.

There has been much hue and cry raised about monopolies. They have been condemned ruthlessly, in high places and in low, until the word has come to have an almost sinister meaning.

A prerequisite to an intelligent discussion of monopolies is the ability to accurately and clearly define them. It is a world old topic—Joseph cornered the Egyptian corn crop seventeen hundred years before Christ—and saved a nation from starvation!—and when anyone starts to tell you what is true of monopolies and what, in their wisdom, society should do with respect to them, see straight, that they make it plain to you that they know what they are talking about.

"Ware the hairbrained 'reformer'—God save the mark!—whose pen is for hire, who, for the purpose of increasing the circulation (and advertising profits) of a popular magazine, let us say, assumes the role of an economic Moses who will lead us from the monopolistic slough! whose atrophied morality has permitted him to seek, in times past, the savings of the poor, through lurid advertisements, inviting them to come in on what turned out later to be odoriferous stock swindles, and whose excuse, when he takes the uplift role, is that he, who has now the wisdom of Solomon, was the victim of misplaced confidence—the object of a 'hellish conspiracy!' See straight, see that such stuff while it increases the value of advertising space—more's the pity—can scarce give safe conduct through any field of thought where doubt and uncertainty exist.

Rather see the good even in monopoly. It is not without its virtues, as hard as this may be to believe in the face of so great a cloud of witnesses.

Hear what Mr. Frank Munsey has to say editorially on the subject in the February issue of *Munsey's*. Surely the opinions of one who gave liberally of his time and his means, in support of the enemies of the Powers of Pillage, are entitled to weight. Mr. Munsey says:

"A day or two before Christmas, a great franchise-owning corporation in New Jersey, widely rated and berated as a very wicked monopoly, announced that its welfare committee had recommended, and its directors had adopted, the policy of establishing a minimum wage for women. Hereafter no female employe will be paid less than nine dollars a week. That may not sound like a very princely figure, but an enormous number of women earn less. The directors named it as a minimum because they found, by investigating the matter, that it is the lowest wage upon which a woman can support herself in decent comfort.

"The same day, in an adjoining column of the newspaper, it was announced that some forty thousand garment workers in New York had voted to strike for higher wages. The minimum established for the women employes of the horrid monopoly would probably have been pretty nearly a maximum for these toilers of the sweat-shops, excluding a comparatively few skilled specialists.

"Just about the same time, another much criticised corporation, which is accused of monopolizing a vast industrial field, voted a general increase of wages to its lower grades of employes, amounting to about five million dollars a year. And still another great company, commonly called a trust, announced the

establishment of a pension system for its workers, backed by a ten-million-dollar fund.

"These incidents seem to warrant some inquiry about the actual, practical, workaday aspects of the problem of competition versus monopoly. There is no trade in which competition is keener and more unqualified than that of the garment-workers—and few in which turbulence, disaffection, and charges of starvation wages are more common. On the other side, the three monopolies that have been mentioned as making important voluntary concessions to their people, are perhaps as generously execrated by professional anti-monopolists as any that could be found.

"It would appear that sometimes, at least, monopoly imbues its managers with a realization of their liability to public sentiment, and makes them anxious to be thought well of. Competition—well, competition doesn't need to protect itself in that way. Some genius in statecraft who will show how we may get the benefits of competition and the stability and practical advantages of its restriction, will contribute very substantially."

While the last paragraph may indicate that the praise is grudgingly bestowed it does not alter the fact.

Governor Dunne of Illinois in his inaugural address went far in his support of the principle of monopoly by public service corporations when he said:

"There should be in each community but one concern furnishing public utility service of a given kind. The day of competition in this field has passed. Monopoly must be recognized, accepted and regulated in the interest of the people, a fair profit being allowed on capital invested. The only question is as to whether the public shall manage its utilities directly or shall permit private corporations to manage them under public regulation."

On the other hand, there are those whose slogan is, "Monopoly must cease." This is but an opinion of men like ourselves written large. Before you accept it see if it proves up, after careful analysis.

In your analysis and conclusions concerning the methods of big-minded, public-spirited successful men, let noise and clamor play no part. Let your earnest endeavor be to see straight—and "in all things whatsoever ye would that men should do to you do ye even so to them."

"JUST BITS OF FUN."

One of the most delightful and unique entertainments that came near the close of Chicago's season of gaiety was the musical comedy presented by the operators of the Chicago Telephone Company at the Hotel La Salle, Tuesday evening, February 4th.

The name chosen for the playlet was "Just Bits of Fun" and the lines, which were written by the operators, sparkled with humor and the scenes were portrayed in a manner that would have done credit to professional vaudeville entertainers.

The unique feature of the occasion was that there were no men in the cast and but few in the audience. The manikin that Mr. Hibbard introduced to Chicago was the only semblance of "mere man" on the stage and while he did his part well—it was a small part! There were twelve hundred young women in the huge banquet hall and the sprinkling of men was fittingly covered by the phrase "among others present."

And, moreover, while there were twelve hundred young women in the hall, fifteen hundred were turned away for lack of room. These, however, were given an opportunity of witnessing the play when it was repeated later in the week.

Those fortunate enough to obtain admission on the first presentation of the play witnessed a clever performance. It was all so well done that it is hard to select any particular features for special mention. The Chorus which had been thoroughly trained by Miss Haggan more than met all demands upon it. The operators' ballet, drilled by Mrs. Moore performed with precision and their evolutions on a darkened stage were made more effective by the use of tiny electric bulbs on head-dress and wands that gleamed and sparkled as the marchers turned hither and thither in perfect rhythm.

Miss Riedl's vocal numbers showed a well cultivated voice of excellent quality and unusual range and but for the absolute prohibition of encores she would doubtless have been called upon repeatedly. The Misses Scabill and Rossell in their Spanish dance were graceful and finished. The Hi lee Hi lo

girl and the Irish jig dancer measured up in their work, with the best—but there! To tell the good numbers would be to mention every one who sang a song, spoke a line of dialogue or tripped a toe! It was just a lot of jolly, bright, breezy stuff presented by a well-balanced, charming company of players and Miss Casey and her corps of able assistants may well feel proud of the results of their labor.

And the audience! Such an audience! Girls! Girls! Girls! Tall girls, short girls, slim girls, plump girls, young girls, younger girls! Twenty-five hundred of them stormed the La Salle, swarmed on the eighteenth and nineteenth floors and packed the Ball Room and Red Room full to overflowing.

A brighter, fresher, better groomed lot of young women never got together anywhere than the cheery, laughing lot who came to see and to hear that which their sister operators had to offer. They were as enthusiastic as they were comely and by their hearty demonstrations of approval assisted materially in making the performance go with snap and vim.

Mr. Burt made a few remarks, as did Mr. Foster—a man took a flash light and several representatives of the Bell Telephone News occupied the stool of repentance—but it was the girls' evening and the mere men who were there would only, and could only agree that it was the happiest, merriest, handsomest crowd of girls they had ever seen, and that to them and to them alone was due all the credit for the long-to-be-remembered evening of fun and frivolity.

NEWS CORRESPONDENCE COURSE.

The first leaflet in the Correspondence Course for Plant Employees is being prepared and will probably be distributed to the plant men within a few days from the time this item reaches the eyes of our readers.

The first subject to be covered will be the Installation of Instruments at the subscribers' premises. This important part of the business of preparing to furnish telephone service will be treated in a thorough yet simple manner and cannot fail to interest every installer and maintenance man in our territory.

The commercial man is the first and the installer the second man who meets the subscriber and both have their opportunity to make a good impression before the traffic department takes the subscriber over for permanent relations. The first lesson will deal not only with the electrical and mechanical features of telephone installation, but with the common-sense side as well.

The leaflets, which are to be issued as supplements to the BELL TELEPHONE NEWS, will be distributed, as before explained, through the regular channels of the organization and definite instructions will be issued covering the routine to be followed by employees who take advantage of the course.

THE NEW HEALTH DEPARTMENT.

Second only in importance to the Pension, Disability and Insurance Plan comes the announcement that a health department has been established by the Bell Telephone System and associated companies, and that a physician of national reputation for knowledge and skill has been placed at its head.

The most expeditious and logical method of getting his advice before the greatest number of Bell telephone employees is the one adopted by Dr. Doty. He will contribute a series of articles to the telephone companies' publications, of which the first, on "Air," appears in this issue of the BELL TELEPHONE NEWS.

A careful reading of this article discloses nothing which is beyond the understanding of anyone. It is written so plainly that "he that runs may read." And his recommendations are all of the most simple and practical character. The Doctor does not waste words on matters too complicated for practical use. His advice is such that we may all adopt and follow it without any serious changes in our usual routine of life.

This, we doubt not, will be the keynote of future articles. It is probably not difficult for the man or woman of leisure, with nothing much to do but lead an easy life, to keep well at all times. For the man or woman who must earn a living and spend a large part of the time under a particular set of conditions the problem is not so easy. These conditions Dr. Doty will study and his advice will be directed to the preservation of health under the conditions of necessary employment and the condi-

tions of life which necessarily surround the person of small or moderate means.

The activities of the Medical Department will not stop with the preparation of discourses on health preservation. An organization is to be formed in every state to give not only advice, but help in health matters. A more careful selection of applicants for service will not only raise the health standard of the whole body of employees, but will safeguard the individual against the dangers which naturally accompany the close association of workers engaged in the same tasks.

Like the Pension, Disability and Insurance Plan, the benefits of the Health Department will cost the employees nothing. The companies will bear the expense and will expect reimbursement only in an added degree of health and contentment among the men and women of the "telephone army." This will probably "pay" the companies in the long run, but, as we said of the pension and insurance plan, by "those whose eye is single," honor will be accorded to the men who, with keen prescience and painstaking, earnest desire for good, have wrought and brought to fruition a scheme that will bring help and comfort to thousands. There can be no quarrel with a thing that pays if it be right.

Employees of the Bell System will welcome the Medical Department as they have welcomed other agencies for good that have been created for their common welfare. All should co-operate with the Medical Director and his associates in the new department that the greatest possible good to the greatest possible number may be secured. Health has been called the "poor man's capital." Here is an opportunity to conserve our capital offered to us by those who are also the buyers of what our capital produces—the services our health and strength enable us to render.

THE MINIMUM OF EDUCATION.

A good deal of discussion is going on as to the general amount of education necessary for young men and women to enter the various trades and vocations.

While there is undoubtedly abundant room for discussion as to the amount of general literary or scientific training which a person should receive, unless, of course, he deliberately chooses to spend more time in school for the sake of the personal gratification which he may derive from the education so acquired, there is no certain minimum of schooling which it is necessary for an individual to have if he expects to do anything better than the roughest manual labor.

The writer has had occasion within the last few weeks to seek a man to do work occasionally in a given special line. While some advanced training might be useful in this work very rudimentary schooling and a supply of common sense were all that was absolutely demanded. Of the men tried one was found to be unable to read or write and another unable to add or subtract simple numbers having decimal fractions. This latter man is nearly thirty years old, a native of one of our central states and has had the ordinary opportunities for acquiring a common school education and still he thinks that the telephone company is not giving him a fair chance for advancement. Such ignorance as this is truly inexcusable, although pitiful, but any of us may profitably consider once in a while with whom the responsibility for our lack of advancement lies.

ONCE MORE—THE FLY.

Maybe it is a little early to begin harping again on the fly. Our answer is, it is always the right time to boost a good cause. And it will not be long until Mr. Fly and—worse yet—Mrs. Fly begin to hatch in devastating myriads. It is this hatching which we must try to prevent. Look out for the dirt. Clean up all the stable filth. If not possible to burn it then sprinkle it liberally with a strong solution of carbolic acid or formaldehyde. This will kill the eggs and destroy the first crop.

Then, to those flies which are lucky enough to escape this crusade administer the "swat" which destroys them in their infancy. Remember that one fly destroyed in May means potentially five million less in August—five million less carriers of disease and death in our midst.

A COURAGEOUS OFFICIAL.

Since his appointment as chairman of the liquor committee, Alderman Harry Dingeman of Detroit, has been obliged to install four telephones in his home. The alderman declares that all four bells

ring almost continually, morning, noon and night. His telephone calls average more than fifty a day.

People call him to the telephone early in the morning; they call him late at night. They call him away from his meals; they disturb him in his office; they rout him out of bed a dozen times a night.

"I never thought so many people were directly interested in the saloon question," said the alderman, wearily. "I'll bet I have already talked to half the population of Detroit on the saloon question. Why, it keeps everybody in the house constantly on the jump to answer telephone calls. I've given up trying to shave myself. I'm getting so nervous I'm afraid I will cut myself, even with a safety razor."

"I always had two telephones in the house, but to save my failing strength I had two more put in a few weeks ago. Now I've got two upstairs, one downstairs and one on the stairway landing. When the bells begin to ring I simply lean against the wall and use the nearest telephone. After battling with callers in my office and in the city hall during the day I don't always feel in the mood to hold long conversations over the telephone in the evening."

"People call me up and bawl me out because I do not favor closing all the saloons; they bawl me out for wanting to cut too many. Saloonkeepers and antisaloon people are constantly on the line."

To the philosophic mind of the telephone man two conclusions are plain. The telephone service of Detroit reaches everybody and the alderman is showing cheerful good sense in putting a brave front on the matter and preparing himself by extra telephone service to receive the onslaught full in the front as fast as it comes.

CHANCE FOR INVENTORS.

Inventors, professional and amateur, are constantly offering devices to the engineering departments of our companies. Of course, ninety-nine per cent. of these offerings are either inferior to the apparatus now in use or they are the attempt to solve problems on which our own experts are making progress along scientific lines. But there is one field open to all investigators.

How to diminish damage to telephone and telegraph lines by sleet is a problem which confronts the companies every winter, but its solution is apparently as far away as ever. Sleet and snow storms cost the wire companies hundreds of thousands of dollars yearly—money absolutely lost. Any one who can discover the way to avoid this will confer a lasting benefit both on the companies and on the public. At a recent meeting of men interested in this subject the most plausible suggestion offered was that the Gulf Stream might be backed up the Mississippi River and thus abolish winter. But somehow the idea did not seem to meet the situation.

Dispatches tell us that a former telephone operator is now an English peeress. Whether being an English peeress is really such a desirable job or not it is generally conceded that it takes one up several rungs on the social ladder, if again that is any special object. But the point is that a telephone girl has attracted the notice of a nobleman just as many another telephone girl has attracted the notice of an untitled nobleman and led him triumphantly to the altar as a trophy of her attractive manners and obliging spirit as displayed over the wires while engaged in the performance of her duties.

There are doubtless many other noblemen, titled and untitled, as well as millionaires and other desirable bachelors waiting to be captured by telephone girls who prove their attractiveness while at their boards.

Large amounts were spent last year and still more probably will be spent this year improving and extending toll facilities. Every employee should make it his or her business to encourage the public to use the toll lines. It is a safe promise to make that the toll service will be continuously better than ever.

"No facilities" should never be made the excuse for allowing revenue to stand still. Sell existing subscribers a better class of service or an extension.

Plenty of fresh air in the office, in the shop, in the home is like having money in the bank—both give you that good feeling.

Bell Telephone Operating Schools In The Central Group

By MRS. F. E. DEWHURST.

Educational opportunities for women are multiplying everywhere and new schools for vocational training for girls, as well as for boys, are springing up in all of the large cities. The question of what is essential in education is being discussed more and more by school boards and in various social service clubs.

Meanwhile thousands are entering a school which is hardly recognized by the general public though it graduates more students than almost any vocational school in existence.

In this great school, girls learn many things besides telephone operating, for the training is of a kind that may supplement the work of the schools from which they come. Voice culture, clear enunciation, memory training, physical culture, concentration, patience and courtesy are a few of the things that are taught in these schools. Aside from the vocation of operating, the training may be said to help fit a girl for any occupation and it has often been said that a girl who comes from the telephone company is especially valuable in office positions.

Formerly the girl who desired to become an operator was taken into the exchange and taught at the board, but in our large cities, as unit after unit was added and more complications had to be met in the tremendous growth in service, it was found best to have a preliminary course in a school where the fundamental training could be given, to be supplemented later by observation at the board before being placed in actual contact with the public.

The work of the various schools in Chicago, Cleveland, Indianapolis, Detroit and Milwaukee is of course similar in most respects, though varying in some features as it is adapted to the size of the school and the environment.

The following description from Cleveland of the school there is in its main features quite typical of all of the others.

It is safe to assume that not one out of a hundred subscribers knows what takes place at "Central" when he removes his telephone receiver from the hook and makes a call. Neither do the "ninety-nine" appreciate the time and effort that was expended in training the pleasant voiced operator that answers, so that the call may go straight to the bull's-eye instead of flying off into space. As shown by the accompanying pictures the Cleveland exchange is well provided for both in the way of apparatus and instructors, to convert the new recruit into a practical operator. The school, which is planned to accommodate fifty students, is located on the fourth floor of the Telephone Building, and its four rooms possess a business-like atmosphere. To the left of the entrance door to the school is the office of Edith Campton, chief instructor, and it is here that applications are taken and applicants asked to fill out in their own handwriting the blanks provided for this purpose, which give in detail statistics of such a nature as to enable the chief instructor to judge whether or not they are fitted for telephone work. The date of birth, general condition of health, eyesight, height, hearing, voice, and degree of education, are some of the important features that must be taken into consideration and given careful thought by the chief instructor. Provided the application is accepted, the course of study and requirements are gone over



MRS. KATHERINE MOORE.
Instructor, Chicago Operators' School.

In detail and thoroughly explained, and the applicant is told when she shall report at the school. On entering, the student's first day is spent in learning the names of the different apparatus and in locating numbers on a wooden block of 100 jacks. This

her to locate numbers in the multiple quickly and accurately. This could be compared with the training a stenographer undergoes in respect to locating the keys on the typewriter keyboard. Although the touch system does not apply to locating numbers in the multiple, the operators become so adept at this that it seems to be second nature to go to the correct jack without any hesitation. The preliminary training in this branch of telephone operating is transmitted to the student by means of a dummy multiple made of wood and patterned exactly after the regular multiple. The student is required to put wooden plugs in certain numbers that appear on a list that is furnished her. This is painfully slow at first, but with practice she soon becomes efficient enough to be transferred to a practice switchboard of the latest standard type, which gives her the same training as is had by a full fledged operator working in a telephone exchange. After thorough instruction on lessons and practice on the practice switchboard the matter of proper voice training and enunciation is taken up both in concert and individually, until a high standard of perfection along this line has been reached. It takes the average student from two to three weeks to complete the course of eight lessons, special voice drills and general telephone routine. If at the end of this period she is able to pass the final examination she is then a graduate and can be assigned a regular position in one of the central offices. And so it is every day throughout the year the nine instructors at the Telephone School are training students to become efficient operators. Is it any wonder the visitor has to be told that



EDITH CAMPTON.
Instructor, Cleveland operators' school.

her twelve assistant teachers.

In Milwaukee, the operators' school is located in the Main Exchange building on Broadway. Mrs. Ella Markey, who has been the teacher for over six years, came from the east where she had ten years' experience in telephone work. Before entering into her school work Mrs. Markey studied the methods of the Chicago school. The requirement is made that all applicants shall be graduates from the grammar school, the preference being given to young women who have attended high school and about fifty per cent. of the operators in Milwaukee have attended high school a year or more.

Indianapolis has a flourishing school. The work is so similar in all the telephone schools that is unnecessary



LUNCH ROOM, GRAND OFFICE, MILWAUKEE.

initial training might be aptly termed the A. B. C. period of telephone operating. As the student advances in the work the lessons become more interesting and absorbing. For instance, in the lecture room each chair is equipped with a head telephone jack which is electrically connected with a similar jack on the instructor's desk. The student is provided with a complete operator's set and when she and the instructor plug into their respective jacks they are connected telephonically and the student experiences the novelty of reciting her lessons over a telephone.

A very important step in the training of a student operator is to teach

it is a Telephone School and not a regular central office?

The school in Detroit has been somewhat hampered for space and equipment, but the visitor will always find a studious group of girls hard at work, learning the intricacies of operating. The average attendance is about eighty. The school is soon to have a new practice board taken over from the Home company office, that company having recently been added to the Michigan State Telephone Company. With new and more adequate equipment, Mrs. Lena P. Smith, the principal, is looking forward to much more satisfactory and smoother work in the school. Mrs. Smith has under

sary to speak of many of the details, but there is one feature in the Indianapolis school which is especially encouraged by the principal, Anna Welch. To cultivate the ability to think and speak intelligently and thus make operators who, when advanced to a supervisory position can meet subscribers successfully, the young ladies in the school write short essays on various practical topics. As an example of the good work accomplished by this method, we give a few extracts from papers written by various girls in one of the classes on one of the topics assigned, "The Value of My Word."

"Who are the reliable people in the world? Who are the people who have advanced from common laborers to managers and even owners of large concerns? It is a question that can only be answered by the man who has made good. How did he make good? By being reliable, trustworthy and honest; when he made a promise, he kept it; when he undertook a task, no matter how difficult, he mastered it.

"How does this affect us? How can

man's door but once; let us seize the opportunity of our lives and follow the beautiful examples given us by Mrs. McWhinney and our instructors. And by so doing, learn to say, 'I will,' or 'I will not,' and make good our word. If we do this, we are sure to succeed, and truth, honor, character and principle, which have woven the cables of our lives, will not be broken by the 'petty' failures of life, but will only make us strong and self-support-

back to their exchanges. This prevents a girl from entering the service who would be physically unfit for the work and also protects the girls from undesirable companions at the board.

In addition to this physical oversight, lectures on hygiene are given twice a week while the girls are in school, and these lectures cover the important facts which a girl should know to keep her health as a business woman. The lectures touch on the

thus help to memorize the new vocabulary of telephone terms.

To help in teaching concentration the scholars are sometimes asked to mark every A or some other letter given in the column of a newspaper. The results from this exercise show great differences in the scholars in the power of concentration and observation and the exercise has proved to be a useful one.

This school graduates over 2,000 a



CLASS ROOM OF CHICAGO OPERATORS' SCHOOL.
These practice boards have twenty-seven positions.

we advance to positions of responsibility and trust? Are we not merely students in the telephone work? Can we ever be more than an ordinary operator? Let each one of us stop and ask ourselves these questions. Let us look around us and see the examples others place before us. Let us give the matter thought and consideration, and I am sure we will find that those over us, whom we honor and respect, were at one time merely students as we are to-day. Then let us ask ourselves: How did they do it? And our answer will be, by punctuality, honesty, character, living up to the promises made when students, and being loyal to their employers. They have seized the opportunity of their lives and have made good; they have realized the value of self-control and honesty, and have so strengthened their character and have become such important employees, that I am sure the company would feel their loss. The first step on the road to failure is 'Untruth' and 'Unreliability'; and the first step on the road to success is 'Reliability and Truth.'

"How many of us realize the promises we have made; to work faithfully and conscientiously any hours assigned to us; to work Sundays and holidays; to report when compelled to be absent; to give ten days' notice when we wish to resign? Do we fully realize the meaning of these promises? Did it not seem easy to say, 'I will.' Yes, I think it did, girls, but is it as easy to carry out the above promises as it was to make them? How many of us have character and backbone enough to make good our word? I am sure we are all ready to answer and say, 'We will,' but the test has not yet come; when it does, we will see how many 'jelly-fish' we have in our class.

"Perhaps in the past we have not had the opportunity of fully realizing the necessity of making each promise a debt, which we are in duty bound to pay. Opportunity knocks at each

ing business women, which the business and social world will only be too glad to recognize.

"Can we do this? Yes, and I for one will."

The Chicago Operators' School is the oldest and largest of the group. Mrs. Katherine Moore, the principal of

structure of the body, the bones, the digestive organs, the nervous system, sex hygiene and eugenics with many invaluable health hints as well as lectures on conduct. It has been found that the students are able to work better if given a period of gymnastics each day. In pleasant weather these

year. In 1910, 2,455 entered Chicago exchanges from the school. Graduates in the years 1904 to 1912 numbered 14,070.

In view of the similarity of the general work in the schools it is superfluous to give a detailed description of the work in each one. But the schools as a unit represent a work which is far reaching in its influence and is developing girls for useful lives both in the telephone service and other walks in life. If a girl enters one of these schools determined to get all she can from the opportunities offered her and applies what she has learned to her work as an operator it is certain that this education can be as practical and useful in general culture as that given by many high schools and seminaries. The teachers are instructed to be patient and considerate and the feeling of co-operation, so essential to good work anywhere, is inculcated by theory and practice.

One interesting feature of the schools is the fact that every girl is paid while learning the business, or while she is really an apprentice at the work. For the untrained sixteen-year-old girl just coming from school this means a good opportunity and this with the fact that girls are so carefully protected from the public makes the school appeal to mothers who wish their daughters to enter a safe business career.



ANNA WELCH.

Instructor, Indianapolis operators' school.



MRS. LENA P. SMITH.

Instructor, Detroit operators' school.

the school, has been identified with it from the beginning and has given her best effort to perfecting the methods used in training operators for the demands of Chicago exchanges.

For about fifteen years a careful examination has been made of all applicants by a trained nurse who is styled a Medical Matron. To her also all operators who are ill are obliged to report for re-examination before going

are taken on the roof, and in summer a number of classes are taken out into the fresh air on the roof for recitations. Vocal lessons are given every day for the purpose of helping the students to use the voice properly and thus avoid strain from constant use at the board.

Five-minute lessons in spelling are another new feature. The words are selected from the day's lesson and

The Operator and Her Work As Viewed By An "Outsider"

By E. W. PICKARD

Each year thousands of young women go from the farms and the small towns of the United States to the large cities to earn their living.

In searching for employment in the city, many of the girls turn to the big department stores. The proprietors

of most of these establishments treat their employes reasonably well during work hours, but with the closing hour their responsibility ceases, their care comes to an end, and the girl is left free until the next morning. Others obtain work in the restaurants, where their pay is small, and their labor tiresome and often done under humiliating conditions. Factory work, too, is often ill paid and demoralizing to the better nature of the girl.

So if the newcomer to the city is not trained for some especial work,

blank form and submitting to the medical examination comprise the only scrutiny to which she is subjected, for all this part of the proceedings is in the general charge of Mrs. Katherine Moore, a mild mannered, quiet little woman, who naturally and through long experience is one of the most accomplished physiognomists and character readers in the country. After a few minutes' conversation with the applicant she knows a whole lot about her that does not appear in writing. It is a wonderfully clever girl who can impose on this expert—

ters which it is necessary for the operator to know are set forth in lesson sheets, which supplement the oral instruction. Just what to say and what to do in every probable contingency is here put down in black and white, the following "Lesson 5" being a fair sample:

The "busy-signal" is a signal with an interrupted buzzing sound that flashes the supervisory cord lamp in front of the "A" operator, and is given by the "B" operator to a subscriber when he calls for a number in her exchange that is busy. She inserts the plug of the trunk assigned in one of the jacks located in the lower part of her board called "busy-signal" jacks, which

Should a second wrong number be received, she will refer the matter to her supervisor.

When a supervisory lamp flashes, the operator will at once cut in on the connection and say, "WHAT IS IT PLEASE?" If called party wants a number, operator will say, "PLEASE SIGNAL YOUR OPERATOR," and then disconnect.

If the calling party asks for a number, which the operator recognizes as being the same number as previously called, she will repeat order and say, "I WILL RING THEM AGAIN," and do so, even though the ringing induction is heard. If she does not know, operator will repeat order and say, "IS THAT THE SAME NUMBER?" If it is, she will say, "I WILL



INSTRUCTORS IN CLEVELAND OPERATORS' SCHOOL.

Back row, left to right—E. Thoma, A. Frell, O. Abel, F. Vlethen, A. Wilson (clerk), E. McCarthy.
Front row, left to right—F. Baker, G. Mannen, E. Campton (chief instructor), K. Thomas, F. Fitcher.

where shall she turn? To such a girl, if she is bright and industrious, there is open an employment that is free from the unpleasant features of many others, that offers her a good living wage from the start and a more than comfortable future, and at the same time makes sure her personal well-being so far as it can be made sure away from her own home. This employment is with the telephone company.

In a large city like Chicago the telephone company employs hundreds of operators and the demand for more is practically constant. It is easy for the applicant to obtain a hearing, and almost equally easy for her to get a position if she "makes good." Moreover, the telephone company is unique among employers in that it devotes time and money to assisting the applicant to make good. In other words, it trains the girl for the work she is seeking, at its own expense, and even pays her for learning. That should sound good to young women who are looking for a chance to earn a living.

Taking the Chicago Telephone Company as an example, it may be interesting to read how its operators are employed and cared for. The applicant, as has been intimated, is not examined as to her ability as an operator, but she is required to answer all manner of questions relating to her birth, nationality, parents, education, previous employment, and the condition of her health, past and present. This matter of health is given especial emphasis, and the replies of the applicant are reinforced by an examination by a medical matron, for the company is especially solicitous of the physical welfare of those already in its employ. Thus every precaution is taken that the latter shall not be exposed to contagion, and applicants who are found to be afflicted with tuberculosis in even the slightest degree are rejected.

Now, the young seeker for work must not think that filling out the

too clever to be wasted on the switchboard.

Having passed the examination successfully, the novice is enrolled as a pupil in the school which is conducted by Mrs. Moore in a large room



VOCAL TRAINING IN CHICAGO SCHOOL.

Miss Haggan, assistant principal.

fitted up just like a regular telephone exchange. Between two long switchboards is a row of high desks at which are seated teachers who represent both the callers and the called in telephone work. The lessons include every possible condition that confronts the operator, and being at "both ends of the line" at once, the teacher is enabled to check absolutely the work of the pupil. The mechanism of the exchange and all other technical mat-

ters are equipped with this buzzing sound that automatically lets a subscriber know the line called for is in use.

If subscriber fails to understand, or asks what the "busy-signal" is, operator will remove connecting cord and say, "THAT SOUND IS THE BUSY-SIGNAL," and should he fail to hang up promptly,

Almost any day in pleasant weather a class of these bright faced young women may be found on the top of the Main exchange building drinking in fresh air as well as instruction.



TELEPHONE CLASSES ON ROOF AT CHICAGO.

RING THEM AGAIN," and handle as outlined above.

Request for a different number is to be treated as a new call.

Should subscriber ask to have a connection re-rung, the connecting cord supervisory lamp indicating that the called party has not answered, operator will repeat order and say, "I WILL RING THEM AGAIN," and do so.

Should subscriber ask to have a connection re-rung, the connecting cord supervisory lamp indicating that the called party has answered, operator will say, "DID ANY ONE ANSWER YOU?" and if reply is in the affirmative, she will add, "YOU ARE STILL CONNECTED," and will not ask for a re-ring. If a negative reply is received, operator will repeat order and say, "I WILL RING THEM AGAIN," and do so.

If engaged when lamp flashes, operator will say, "ONE MOMENT, PLEASE," finish connection she is engaged on, return and say, "WHAT IS IT, PLEASE," and handle as above.

Flash signals should always be cared for first, as an operator should take care of and dispose of but one connection at a time, and she is the only operator who can answer her flash signals, whereas the operators on either side may answer the line-lamp signals, or if they are busy, the supervisor will come to her assistance.

If, during the course of a connection, a disconnect signal is received on the connecting cord operator will supervise the connection as on a flash signal, and handle according to reply received.

Another feature of the school that is notable is the training in voice culture and quick hearing. It may well be that the operator will not always understand the subscriber, for few persons really have the art of speaking plainly; but never does the subscriber fail to understand what the operator says. Her voice is pitched so low that it is inaudible to one standing a few feet behind her, but her enunciation is so clear and distinct that it carries perfectly over many miles of wire. Cheerfulness, politeness and patience are inculcated and the result is seen in the respect shown the girls by most users of the telephone and their growing toleration when untoward circumstances prevent their getting a good connection or interrupt their conversation over the wire.

For the sake of the girls themselves

the pupils are given careful instruction in personal hygiene. They are taught, too, the advantages of neat and not too conspicuous dress, and from the very beginning care is taken that the girls are located in decent living quarters.

The school course lasts not to exceed four weeks. At the end of that time either the girl is competent to

the dining room and kitchen found them absolutely clean and sanitary and the food as inviting as one could wish. In the recreation room I found easy chairs, couches, books and magazines, and the lavatories would delight the commissioner of health.

If you have ever seen the operating room of an exchange you must have noticed that behind each group of six

mother on the farm or in the small town whose daughter has gone to the city knows what such care means and values it at its true worth.

The rather modern gospel of fresh air has a firm adherent in the telephone company, and while this works to the advantage of the corporation in keeping up the efficiency of its employees, it is no less to the advantage of the girls. I have not found in Chicago any other room where large numbers of persons are at work where the air is so fresh, sweet and clean as in the operating rooms of the telephone exchanges. At some of the exchanges, where there is enough ground space, pretty gardens have been laid out in which the girls during their rest periods get the sunshine and outdoor air. Flower beds, vines and fine lawns are in their own charge, and there are plenty of seats and swings. The exchanges in the more crowded districts are provided with pleasant roof gardens that are a fair substitute for those on the ground.

All in all, the assertion of the telephone companies that they are endeavoring to make telephone work not a temporary form of employment for women, but a real profession, seems to me to be the truth. The wages they pay, already fair, have been increased recently twelve per cent. The prospect of advancement is good and the girls receive better treat-



MRS. ELLA MARKEY,
Instructor, Milwaukee operators' school.

murder, and knocked on the depot door.

"Lemme in this yeah door, you—you—Belvy," said Horace.

"Brooks wouldn't let him in. So Horace broke the door down with his shoulder. As he came through the opening Brooks took a snap shot at him with a little derringer. The bullet bit Horace spang in the middle of his



CAFE AT DETROIT EXCHANGE.

take her place at the switchboard, or she has demonstrated her inability to learn the work. In many cases not more than a week is necessary to show that the pupil is unfitted to become an operator. During all this learning time the girl is paid \$5 a week, but she is expected to be as regular in her attendance as she would be if a regular operator.

And now she has graduated from the school and is assigned to a seat at the switchboard where, if on the day force, she sits from nine in the morning to five in the afternoon, serving the needs of the subscriber. But

or nine operators there walked up and down another girl. She is the supervisor, and the girls in front of her are her especial charge. It is her duty to see that they do their work properly and promptly and to "plug in" and help answer calls when they are coming in too fast, and to her the operators refer all manner of matters. But her duty does not end here. She is a woman of experience and is held in a considerable measure responsible for the girls in her group outside of working hours. There is no system of espionage, no restrictions in terms are set on the lives the girls lead, but



DETROIT SCHOOL ROOM, SHOWING STUDENTS AT WORK ON PRACTICE BOARD.

ment and more solicitous care than in any other employment within my knowledge.

Anecdote of Belvidere Brooks.

No one calls him "Belvy" about the Western Union Telegraph Company's general offices. No one there ever heard that affectionate diminutive for Belvidere Brooks. Also, if any one there were to hear that mankin edition of the general manager's first name that some one would begin making signs against the evil eye. Mr. Brooks is some personage about those offices.

"Back in 1876 he was just a rudiment, you might say," said one of Brooks' old friends. "He was then the telegraph operator and station agent at Waco, Tex. One of his supernumeraries was Horace. Horace was black as a thunder cloud on a picnic day, he stood six or eight feet tall and was plenty thick, and he had a mean, contumacious disposition. One day Belvy and Horace had a falling out. By and by Horace came a-whooping down the street, full of Tom gin and

forehead, and followed the outer rim of his skull until it wore itself out. Horace had a headache for almost an hour. Last season General Manager Belvidere Brooks of the Western Union company visited Waco in his private car. Horace was waiting on the platform. He seized Brooks by the hand. Horace just gleamed all over, he was that happy.

"I don't remember you," said Mr. Brooks.

"W'y, Misteh Brooks," said Horace, sadly. "W'y, Misteh Brooks! Doan you all remembah me? W'y, Misteh Brooks, I'm one of de niggahs you shot in 1876."—Chicago Daily News.

A Modern Supposition.

"Frederick," said the Sunday school teacher, "how many years did Methuselah live?"

Frederick looked nonplussed. "But see," she admonished, "here is this list I asked you to memorize. Methuselah: 969."

"Oh," said Frederick, deprecatingly, "is that what it means? I supposed that was his telephone number.—Woman's Home Companion.



STUDY ROOM, CLEVELAND TELEPHONE SCHOOL.

the assiduity of the company, classed by the unknowing as one of the "soulless corporations," never relaxes. The work is rather exacting, so the operator is given fifteen minutes for rest each morning and afternoon in a cheery, comfortable recreation room, and half an hour at mid-day for luncheon. This luncheon is served free in the building, and my unexpected visit to

the supervisor is expected to know to some extent how they spend their time, and a kindly suggestion from her often saves a young woman from thoughtless, foolish action that might lead to worse. So the supervisor is in a way a big sister to the girls in her charge, and the operator who wishes to live right soon realizes and appreciates the relation. Surely the



OPERATORS' LUNCH ROOM, CLEVELAND.

WHAT IS A DROP?**—Answer No. 1**

Chicago, Ill., February 13, 1913.
Dear Editor:

As I am always anxious to earn something for nothing, I will do my best to unravel this seemingly contradictory conundrum, and if you want to know how I know, I'll tell

you. we are most everywhere using metallic systems, it naturally takes two wires to constitute a drop, therefore a drop is not a pair of drops, even when twisted pair is used for the run of it, "but one drop."

A drop is that part of construction which extends the line from the terminating point of the line on the pole to the entrance of the building, be the terminating point of the line in a cable box aerial wire or other.

The construction of a drop does not

speak, when fastened to the insulator on drop bracket for extension.

Again we are confronted with the application of a word. Interior block wiring is a class of construction, or rather a form of construction, that has obtained its name through its strong resemblance to that of interior wiring, for instance, where it runs great distances along a wall supported on knobs and it has been found that this same class of wiring is advantageous and sometimes necessary on outside work, where it is necessary to span the walls of brick buildings or such, so we have only changed the use of this kind of construction and let the name remain the same as that from which its discovery was made.

Since we are using an interior construction for an exterior purpose bearing the name of an interior construction, one would not look any more conspicuous than the other on either side, only that one or the other might be shadowed by a roof or floor.

Now to show you that I am not a bit selfish, you may put this in either

holding their first "get-together" meeting on February 13th, and forming a permanent organization to meet once a month.

Through the courtesy of W. G. E. Pierce, chief commercial agent, the dinner was served at the Chicago Athletic Club, nineteen being present. During and after dinner many subjects of interest to telephone commercial men were discussed by Mr. Pierce, F. J. Beseler, J. F. Mears, George Wooten, C. M. Connell, G. Arnold, A. H. Reed, H. D. Bent, F. A. Featherstone and E. Lowe. A committee was appointed, consisting of W. G. E. Pierce, F. J. Beseler, J. F. Mears and G. Arnold to make arrangements for the next meeting, which will be held March 13th at the Grand Pacific Hotel. After the meeting the party attended the theater.

Directory Unites Family.

Separated from his family twenty years ago, Gustave Zuelke found his



CALISTHENICS ON ROOF AT CHICAGO SCHOOL.

class, the worst or the best, but in case you send me a News kindly put my name on it, as we have a number of ambitious young men in this office when the News shows up.

Very truly,

(Signed) Wayne J. Chilton,
American Telephone & Telegraph Company,
4701 Kedzie Avenue.

Chicago Commercial Men Meet.

Chicago commercial men showed their disregard for superstition by

son Julius in Fond du Lac, Wis. He is now searching for his daughters, Olga and Ida. Zuelke left home twenty years ago to make his fortune, leaving a wife and three children at Ripon. Five years later he read of his wife's death and returned, but the children had gone. He has searched over every state in the Union for twenty years and returned to Ripon recently heartbroken. There he picked up a Fond du Lac telephone directory and found his son's name in it.



TEACHING ANATOMY AND HYGIENE IN CHICAGO SCHOOL.

you. I found out up in Marquette, Mich. Now go on with the story.

Since the beginning of time there has been a name for things. There have been many new things invented and likewise, many new words and many different meanings to the same words; it depends on their application. Like figures, the same figure appears many times throughout all different branches of mathematics, but since probably at first we used them to add and then to multiply, we find the result is different because we have changed their application, therefore we must accept them as the expressions of what we are working in and so it follows:

Is a drop the same thing as a pair of drops? Now, as I have said, it depends on their application, however, since the word "Drop" has been assigned this part of construction, and

always terminate on a house bracket. It largely depends on conditions and what angle you hit the building. I should say that the drop proper does not terminate until it has reached the instrument, but I can't do so since we are obliged to extend the drop to the instrument under other names, as it is a different class of construction and must be classified under such.

A lead-in wire is sometimes part of the drop, but not always same as the drop. I should like to call this the tail of the drop where it goes directly through the tube to the arrester.

When a drop wire is tied to the glass on a house bracket and led in through a tube to the arrester, only the drop wire and glass are chargeable to the drop. The bracket is chargeable to poles, the tube to 28-C., arrester to 18-C. The drop is forgotten, so to



OPERATING ROOM, OPERATORS' SCHOOL, INDIANAPOLIS.

Telephone Officials Guests of Lincoln Centennial Association At Springfield, Illinois

The Springfield Armory, Springfield, Ill., on the occasion of the annual meeting of the Lincoln Centennial Association, February 12th, was transformed into a banquet hall the beauties of which have seldom if ever been excelled elsewhere in this country. The grim walls were covered with a lattice through which were twined poinsettias and smilax to the height of the galleries. Above, the American and German flags formed festoons supplement-

sincere friendship welded together the common interests of Germany and the United States in Lincoln's day and closed his tribute with the fervent wish "That such relations of friendship between our two countries may always continue."

Senator Bailey followed the German Ambassador and was cordially welcomed by cheers from the floor and handclapping and waving of flags in the galleries which were completely filled with women who had been admitted for the speaking. The senator's masterly tribute to Lincoln, eulogistic and replete with historical reference, will long be remembered by his hearers and will rank as a classic in the

"That advice is wise, and it to-day ought to be written in letters of gold on the walls of every schoolhouse and university of this land."

"Judging what Lincoln would say if he were with us now by what he did say when he lived, I have no shadow of doubt that to the impatient men who would change the principles of the government in order to accomplish what they call reforms he would counsel moderation and explain to them that every useful reform can be accomplished under this government as it is and without any departure from its great principles."

"He would call on them to point out when and where the wise and fearless

content which now inflames the minds of so many men shall lead us into new and dangerous experiments which are destined to fail, and in their failure to enthrall upon us disasters from the contemplation of which I shrink, we must still remember that this is our country and our duty commands us to do the best we can to promote its welfare and to secure the liberties of its people."

Through the courtesy of C. H. Rottger, Commercial Superintendent of the Central Union at Springfield, places at the banquet were provided for a large party of telephone officials which included:

W. R. Abbott, General Commercial



STUDY ROOM, OPERATORS' SCHOOL AT INDIANAPOLIS.



LECTURE AND RECITATION ROOM, CLEVELAND OPERATORS' SCHOOL.

ed by flags bearing the coats of arms of the various states. The floor was covered with white canvas and white covers enveloped the backs of the chairs. On each of the tables at which the guests were seated were candles shaded by crimson shades of a color to harmonize with the poinsettias that covered the lattice. At each guest's place were small silken flags and a handsome souvenir volume "Lincoln, Master of Man," by Alonzo Rothschild, bound in half morocco, inside the front cover of which were bound the menu, lists of the committees and a complete roster of the association. The speaker's table, occupying a platform built high above the floor and extending almost the entire length of the building, was lavishly decorated with flowers and flags, with massed American and German flags as a background. At the north end of the building a fountain flashed and glittered in the light which fell from eight huge electrolights, the incandescent bulbs of which peeped from masses of smilax entwined with brilliant poinsettias, making the scene a veritable corner of fairyland.

Judge J. Otis Humphrey, president of the Lincoln Centennial Association, was the eloquent toastmaster who gracefully presented to the 700 diners the special guest of the evening, Count von Bernstorff, the German Ambassador, and the Hon. Joseph W. Bailey of Texas.

The subject of the address of Count von Bernstorff was "Abraham Lincoln as the Germans Regarded Him." He declared that the courage and great heart of Lincoln appealed strongly to the German sentiment. "He was born a leader, in truth the savior of your country." The Count referred to Carl Schurz and his associates, declaring "It will always be the proud boast of the American citizens of German extraction that in their ancestors the immortal Lincoln had as strong support as ever championed the cause of a leader." He quoted numerous authorities to show what a strong bond of

country's record of modern eloquence.

Near the close of his speech the senator made reference to "government by newspapers" which created a whirlwind of cheers and applause.

"If we had followed Lincoln's philosophy," he said, "there would be today a government of the people, by the

application of its principles had failed to meet any new condition or to solve any new problem.

"In all these things Lincoln would find an inspiration and a hope, and he would say to the agitators who are now instilling in the minds of the masses an unspeakable hatred against the



SCHOOL CLASS ON MAIN BUILDING ROOF, CHICAGO.

people, and for the people, instead of a government of the newspapers, by the newspapers, and for the newspapers."

Referring to political events of our day, the senator spoke as follows: "One of the most valuable admonitions which ever fell from Lincoln's lips was that in which he warned his fellow countrymen against innovations, and urged them in impressive words and with prophetic vision to stand in the old ways and never to change the institutions of our fathers unless the wisdom of that change was so apparent that even the authority of their great names could not forbid it.

classes that the true duty of an American patriot is to efface that line of distinction by teaching all men that they are to be judged by their character and their conduct, not by their wealth or their poverty.

"I cannot read the future and I do not know what it holds for us; but whether the sober second thought of the American people shall assert itself and renew our devotion to the fundamental principles upon which this government was founded, thus making it certain that it will fulfill the mission to which our fathers dedicated it; or whether this restless dis-

Superintendent, Chicago, Ill.; Clifford Arrick, Manager Publicity Department, Chicago, Ill.; Frank Redmund, General Plant Superintendent, Chicago, Ill.; W. R. McGovern, Engineer, Chicago, Ill.; F. A. de Peyster, Traffic Superintendent, Chicago, Ill.; W. W. Hiller, Supervisor of Collections, Chicago, Ill.; E. G. Drew, Division Auditor of Receipts, Chicago Telephone Co., Chicago, Ill.; W. E. Conrad, Special Agent, Chicago, Ill.; H. J. Booth, Auditor of Receipts, Chicago, Ill.; Verne Ray, Superintendent of Maintenance, Chicago Telephone Company, Chicago, Ill.; A. J. Parsons, Agent for Connecting Companies, Springfield, Ill.; H. B. Lewis, Plant Superintendent, Springfield, Ill.; E. R. Cogswell, District Commercial Manager, Springfield, Ill.; M. H. Riley, Facilities Engineer, Chicago, Ill.; E. F. Morrill, Equipment Supervisor, Springfield, Ill.; C. H. Rottger, Commercial Superintendent, Springfield, Ill.

LINEMEN MAKE GOOD RECORD.

Make Complete Repairs on Sixty-Four Miles of Wire in Two Weeks After Storm.

Foreman James Manning and Sub-Foreman William Purdum of the Vermilion County (connecting) Telephone Company of Danville, Ill., are receiving congratulations from their associates, and also the subscribers and toll users on account of their good work in restoring service after the sleet storm of January 5th.

When the storm put several hundred telephones and sixty-four miles of toll wire out of service Foreman Manning estimated that he would be able to put the lines into service again in fifteen days. His assistant, Mr. Purdum, placed his estimate at twelve days, and there was considerable wagering on the result. The outcome justified the expectations of the sub-foreman, for on January 17th, just twelve days after the storm, the job was reported complete.

Fifty men were employed in the work.

"Who's Who In The Telephone Game"

Telephone Engineer, of Chicago, Prints Interesting Sketch of Alonzo Burt, Vice President of the Central Group of Bell Telephone Companies.

From the Telephone Engineer.

We are going to run out of the good, old-fashioned sort some of these fine days and it will all be due to the thing we call "progress." It is refreshing to come face to face with the man who stiffens with pride when he lays his early educational efforts on the site of the little red school house. You know right away what that means. Born in the country; helped with the chores; chopping the fodder out of the ice for the cattle; mixing the bran for the sheep and pigs; lugging the corn to the horses and hogs; shoveling the snow in winter and fighting the flies and yellow jackets in summer. Then the trudge to school during the short days, with a great muffler wrapped about your neck and head and tramping along in the snow with your tattered boots and a lunch. Getting a start in the little red school means a lot more than it says. And then after one grew up in such environment; how unaffected the greeting, "Why, Hello Bill! Mary, this is Bill, my old school pal you've heard me tell you about. Off with your things, Bill—Mary, another plate right here—of course you'll stay and have a bite with us." You don't find it except among the number who got their start in the little red school.

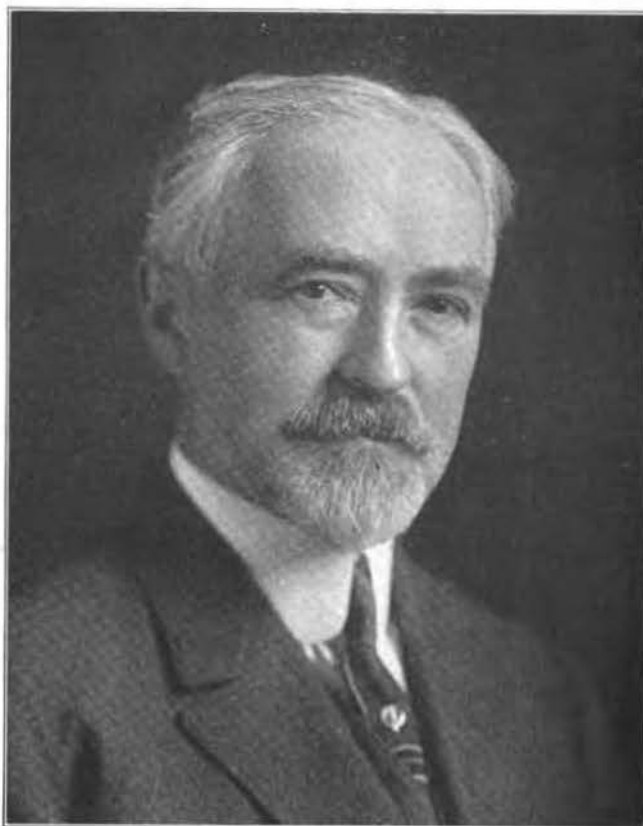
And how it sticks! That's its beauty. The lines in the face show it. The eyes are always clear and steady. Folks who claim the little red school never want for friends.

Alonzo Burt claims the title. His very name suggests that he belongs. When he was born near Cambridge, Ohio, in 1849, his parents didn't hesitate to name him Alonzo. They never thought of Algernon, nor Percival. And when the country school laid no further claim to Alonzo Burt, how natural that country merchandising would claim him. But the country store lost its charm after a time and seeking a new field for operation, the railway mail service, then in its infancy, seemed to be the most alluring. At twenty-four, Mr. Burt entered into Uncle Sam's postal business and was identified with the train traffic for nineteen years. He was superintendent of the fifth division, embracing Indiana, Ohio, Kentucky and Tennessee, maintaining his headquarters at Cincinnati. During these years he formed an intimate acquaintance with C. Jay French and Theodore N. Vail, which accounts for his change from handling one form of transmitting intelligence to another. Mr. Vail, it will be remembered, is the father of our highly efficient railway mail service. When he engaged in the telephone business he first took with him Mr. French. When Mr. French needed a lieutenant, he called for Mr. Burt.

In 1892 Mr. Burt resigned from the government service to engage in the telephone business. He was special agent for the American Bell Telephone Company in all the territory north of the Ohio river and from Pittsburgh on the east, to Salt Lake on the west. For twelve years he was the general manager, vice president and president, respectively, of the Missouri and Kansas Telephone Company, with headquarters in Kansas City. During these earlier days of the Bell's organization, it wasn't unusual for some of its big men to be holding down several positions with their attending titles. During a part of the time that Mr. Burt claimed Kansas City for his home, he was the active, responsible head of the Wisconsin Telephone Company.

It was in 1905 that he went to Milwaukee to live, where the Wisconsin's affairs took all his time. Probably nothing gave him greater pleasure than his trips into sub-license territory on a mission of inter-connecting systems. Like all true Bell types, Mr. Burt believes in a universal system and he has fostered and foisted the belief wherever he went and whenever he went and he has been everywhere.

In June, 1911, when the "central group" was formed, Mr. Burt came to Chicago. He is Vice President of the central group, and is directly in charge of operation.



"No one ever accused his old-fashions of being impractical."

For clubs he cares little. He is a member of the Union League and Westward Ho, but they are merely conveniences—requirements of a big, busy man. Mr. Burt is the kind who gets more pleasure in the eating of an apple at his desk than he does in chasing over town for a club lunch. For the same reason that he qualified in throwing his practice cards, back in the early seventies, he holds power in the Bell organization. His heart is in his work. He is old-fashioned, but no one ever accused his old-fashions of being impractical. Old-fashioned means full knowledge of how to do; it means wholesome regard for time; full consideration of your subordinates; an honest measure. Mr. Burt is all of these and more. He stands full six feet and carries himself with sprightliness which belies his age. If he has a hobby it must be found in his home. And having been reared on rag carpets why wouldn't he cherish oriental rugs? He got the habit in knocking around the country; shifting his household ef-

fects. Probably none of the big men in the Bell organization have moved more frequently.

About seventeen years ago, Mr. Burt found himself without floor coverings. He had spent lots of money for carpets, but all he could find of his investments was one little rug that had been with him for years. He examined it and found it was all there. The thought struck him that maybe that was the answer. Since then, he's been a fan. You'll find that he carries the idea into his office way up among the top floors of the Chicago administration building.

WESTERN ELECTRIC HAS BIGGEST YEAR

Business During 1912 Exceeded High Water Mark of Boom of 1906.

The gross sales made by the Western Electric Company in its fiscal year ending December 31, 1912, last, made a new high record exceeding even the former high point of \$69,000,000 touched in the 1906 boom. On account of the world-wide ramification of its business the exact figures of the 1912 year's business are not yet at hand.

It is known, however, that for the year the aggregate turn-over was between \$71,000,000 and \$72,000,000, which compares with \$66,211,000 in 1911, an increase of \$5,500,000, or eight per cent., and which exceeds by \$3,000,000 the 1906 showing.

The excellent results of the 1912 year, so far as gain in sales is concerned, were largely the reflection of advances made outside the Bell system. The so-called "outside" business of Western Electric has increased almost 100 per cent. since 1908 and the European sales last year were also of record proportions. The \$71,000,000 of business billed last year was accomplished by an energetic selling campaign in the face of increasing competition. It is a fact not generally appreciated that Western Electric meets a more varied competition than does General Electric or Westinghouse. The company is now selling to upward of 30,000 customers in the United States alone.

Two new vice presidents have recently been added to the Western Electric staff. They are Gerard Swope, for a number of years the company's general sales manager, and A. D. Salt, the general purchasing agent.

THIEF MAKES 10,000 IDLE.

Prisoner Accused of Stealing Twenty Miles of Wire Completely Paralyzing Telephone Service.

William H. Jones was arrested in his cabin in Moon Run, fourteen miles southwest of Pittsburgh, Pa., as the sequel to seven indictments charging larceny. The indictments are made in behalf of the Standard Oil Company, the Bell Telephone Company and the Pittsburgh Coal Company. The officers charge Jones with stealing more than twenty miles of copper wire. It is charged that more than once he has paralyzed the Pittsburgh Coal Company's power plant and caused complete suspension of the Moon Run and Heidelberg mines. On these occasions more than 10,000 men were thrown out of work.

Because of the frequent thefts and the amount of wire taken, the companies believed they were being preyed upon by a band of wire thieves. The detectives laid various traps and finally caught Jones through his operations with a junk dealer at Carnegie.

J. W. Cassidy, representing the Standard Oil Company, says the Standard lost about \$2 every minute its lines were out of order. Sometimes the wires were useless for a whole day.

Be Calm.

Speak gently to the telephone.

Don't holler in its face: Just stop and think how you would feel if you were in its place.

—C. S. Watkins, Chicago.

Additional Service for Rock Island.

The Chicago, Rock Island and Pacific Railway Company recently placed an order with the Western Electric Company for apparatus to be used in extending its telephone train dispatching circuits. The successful operation of the present lines and the economy resulting therefrom have been the incentive for the extension.

Two circuits are to be equipped. One is intended for train dispatching service and will be installed between Des Moines, Ia., and Trenton, Mo. The other will be used as a short haul talking and message circuit between Davenport, Ia., and Rock Island, Ill., including the yard district in the latter territory. The length of the line in the first named case is approximately 110 miles, while the latter is about five miles.

The new installation will consist of two complete dispatcher's equipments, and twenty-one No. 102 type selector sets containing the standard Western Electric No. 50 selectors.



LOOKING FOR MONEY.

In an unfortunate moment, I heard the story of a man whose health having broken down was obliged to get some work which would give him mild exercise and keep him out of doors. He conceived the brilliant idea of collecting lost money in the street. From morning till night he would walk the streets always looking for money, especially frequenting the railway stations and other places where crowds gather and where they get out their money often too hurriedly to notice a loss.

The man who told me the story is a truthful man, but I was a little incredulous when he said that this man not only regained his health but became a wealthy man. Still, in spite of my scepticism, I found myself the next day after hearing this story going to my work with my eyes fastened to the ground. At the station I lingered, losing a train while I looked at the floor as the crowds hurried along. My best friend passed me on the street and wondered why I was peering into the gutter at the crossing. A lovely picture was on exhibition in a shop window, a picture I had longed to see, but I passed with my eyes riveted on the ground. "Did you notice the airship in the park," asked a friend at the office? "Why, no, I was too busy." "Busy! What were you doing?" "Oh, just looking for health and wealth." I replied, ashamed to let anyone know how silly I had been. And it was not until weeks had passed that I could throw off the effect of the story. Often I found my eyes fascinated by a glimmer in the distance, which alas; never turned out to be gold.

After a while I regained my normal state of mind and could look up at a sunset as I went home from work without fearing that I was losing my chance to win a fortune.

On the whole, however, I am getting more good than harm out of the story and from my experience after hearing it. For I have found it a good illustration of the truth, that life is much too full of interest and joy to give it all up in the search for money. I have concluded that I would rather not get rich if I have to do it at the expense of everything else.

To be sure, I must earn money, but I have made up my mind that there is no work in which one may not take an interest and that the desire to do good work will redeem any occupation from being mechanical or mercenary. And I am persuaded that we need not lose the chance to see the sunset, and the airships or the dear faces of friends, if we look for life and not alone for money.

Who works for money coins his very soul;
Work for the work's sake, and then it may be
That these things shall be added unto thee.

After recording this experience, it occurs to me that it would be quite interesting to have some discussion on the question, "Can one work for money and still get beautiful things in life?" We could have a few little editorials from others who work. The Editor of the Girls' Department will be glad to continue this subject in the next month's issue of this paper. Send in contributions before March 15th to Mrs. F. E. Dewhurst, care of BELL TELEPHONE NEWS, Chicago.

OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



STAGE SETTING FOR "JUST BITS OF FUN."

A GIRL LIKE YOU.

Song composed by Norman Anderson and sung at Traffic Entertainment in Chicago. (Tune: "Put Your Arms Around Me, Honey.")

Put your mind upon your work
And do it well.
Remember, you are working
For the Big Blue Bell.
Oh! Girls, won't you roll those threes.
So the subscribers will be pleased?
When you get the number right
It makes less work.
Remember that it doesn't pay
To try to shirk.
Oh! Oh! I never knew,
Any girls like you.

Au-to-matic service
Some may think all right;
But it's hard to use it
When there is no light.
You are always at your post.
Serving the might city's host
When they want to call a doctor.
Cop, or cab;
All they have to do is just to
Make a grab;
Then they're mighty glad to have
A girl like you.

Plug in hand you're watching close
To answer every call.
We know that you are trying hard
To get them one and all.
Number please?—accent quick and clear,
So they can-not fail to hear.
As subscribers like to hear a voice
Of pleasant tone.
When they are a calling on the telephone,
Soon they won't want to hear
Any girl but you.

One Subscriber's Reason.

There is a former judge residing out Cass street way who is decidedly against new fangled notions in the shape of telephones and such like. But recently he added a telephone. His excuse was:

"We had a hired girl who had a friend working for a family out in Frankfort. The friend's employers had a telephone. Our girl said she would leave unless we got one." He heaved a sigh, then added, "We got one."—*Journal (Ill.) News.*

ALL THE CHICAGO GIRLS.

Song composed by H. E. Eldridge and sung at Traffic Entertainment in Chicago. (Tune: "When Johnny Comes Marching Home.")

In this department we have jewels,
They're girls. They're girls.
You never catch them breaking rules.
Those girls, those girls.
They answer sweet and then repeat
And work away so swift and neat.
They're our girls, girls, girls.
All the C. T. girls.

Now who is it brings in the "mon"?
The girls, the girls.
With inside cords they say "two one?"
The girls, the girls.
And when they work, O how they work
And never, never, never shirk.
They're our girls, girls, girls.
All the Traffic girls.

They work out North, they work out West,
The girls, the girls.
And those down town are at their best.
The girls, the girls.
And 'way out South where Forbes holds
away
They certainly do earn their pay.
The girls, girls, girls, girls.
In puffs and bangs and curls.

Who makes the best of cooks and wives?
"A" girls, "B" girls.
They'll smash the china, dull the knives.
These girls, these girls.
But their many virtues far exceed
Such little faults, O yes, indeed!
And we love them all, big and small.
Our dear Chicago girls.

Willie's Little Joke.

A night private branch exchange repairman was working on a switchboard in a down town hotel, changing a bank of trunk jacks. All lines were out.

A "bell hop," coming along, saw the repairman working on the board and said to the operator:

"Hilda, are you going to do your washing?"

Operator: "Now, what's up?"

Bell Hop: "Repairman has your lines out."



"JUST BITS OF FUN"

Musical Comedy Presented by Traffic Department of Chicago Telephone Company—By Mary A. Casey, Mrs. Margaret Hyatt, Mrs. F. E. Dewhurst and H. E. Eldridge. Electrical and Mechanical Effects by A. P. Hyatt and Thomas Freeman.

The cast:

Hotel Clerk.....May Connolly
Page.....Elate Thompson
Messenger.....Pearl Ouergrasser
Stenographer.....Edna Grimes
Porter.....Irene Driscoll
Telegraph Operator.....Veronica Winters
Switchboard Operator.....I. M. A. Daffodill
(Western Electric Manikin, operated by W. G. E. Faircox.)

Bell Telephone News.

Operating Bulletin.....Myra Kane

Hotel guests: Hazel Daly, Myra Kane, Catherine Guitman, Mabel Nelson, Rose Duffy, May Tuohy.

Russian Grill: Anna McGuire, Durrell Hall, May Preuss, Katherine O'Malley, Margaret Norman, Margaret O'Connor, Rose Carolan, Pearl Kenny, Rose Kiensche, Caroline Phillips, Margaret King, Elizabeth Meile, Julia McAuliffe, Beatrice McGraw, Elsie Thomas, Loretta O'Malley.

Maid of the Mist: Anna Sall, Leola Rossell, Catherine Scabill, Belle Caulfield.

Ghost of the Violin: Monica Keon, Jeanne Owens (violinist).

Operators: Nell Payne, Ethel Shea, Mae Walsh, Catherine O'Connor.

Supervisors: Orpha White, Mary Carter.

Monitors: Anna Carroll, Hattie Cramer, Anna Schwab, Esther Kane.

Lunch Girl: Ethlyn Rump.

Chief Operator: Helen Keled-kale.

Dances: Dutch Dance, Elizabeth Mansell, Irish Jig, Anastasia McGuire, Horn Pipe, Mary Daly.

Spanish Dance: Katherine Scabill, Leola Rossell, Rose Riedl.

Toil Operators: Hazel Tipping, Mazie Walsh, Agnes Olsen, Carrie Littleton.

Repair Clerks: Agnes Jensen, May Farrell, Lillian Wisniewski, Nora Conley.

Tandem Operators: Maud Sack, Helen Kaledekavis, Nellie Murphy.

Hospital Operators: Nellie Tuohy, Louise Muth, Elsie Hoeftin, Bessie Sweeney.

Information Operators: Margaret Messenle, Ethel Mounsey, Gertrude Halpin, Edna Oakes.

Chorus: Nancy Berglund, Ruth Brown, Gertrude Mainstrom, Florence Snyder, Marie Kahne, Ethel Coldrey, Ella Dwyer, Mae Mark, Florence McDonald, Anna Gaertner, Anna Foley, Mollie Leinweber, Clara Kahners, Anna Burns, Elizabeth Schluter, Marie Robl, Clara Klermund, Emma Bauer, Margaret Arnold, Julia White, Clara Becking, Mable Mook, Edith Tierney, Helen Hendrickson, Erna Lawrenz, Anna Elsel, Mae Eckhardt.

By Little Henry Richards.

Just 100 Chicago Telephone girls and one man gave a telephone show in Chicago, February 4th. Then, to satisfy the demands of 1,500 disappointed people who were not able to squeeze into the hall room of the Hotel La Salle that night, the show was twice repeated—on the night of February 6th and the afternoon of February 7th in



EIGHT GROUPS OF GIRLS IN TRAFFIC DEPARTMENT SHOW, CHICAGO.

1. Ensemble of Act I. Mary E. Casey, director, at right.
2. The Chorus.
3. Girls in the Russian drill.
4. Monitors and supervisors.

5. Toll and hospital operators.
6. Tandem, information and repair girls.
7. Dutch, Irish, Spanish and Hornpipe dancers.
8. Ensemble of Act II, with chief operator in center.

the same beautiful room. In all, about 5,000 people, mostly Chicago Telephone operators and traffic people, had the pleasure of witnessing the performance.

And pleasure it was—for the telephone girls' show was one of the clearest, brightest, breeziest performances ever given by amateur talent in Chicago. "Just Bits of Fun," it was called. The score, which was full of catchy bits of humor, was largely the work of Mary A. Casey, chief clerk in the traffic department. Portions of the dialogue and some of the songs were contributed by Mr. Eldridge, Mrs. Hyatt and Mrs. Dewhurst. A. P. Hyatt was responsible for the proper rigging up of the manikin "Daffodill" while W. G. E. Pierce, the one mere man in the performance, operated that mystifying and irrepressible fellow.

The performance was preceded by a short talk by Vice President Alonzo Burt, who bade the guests welcome. Then the curtain rose on the "Blue Bell Inn" at Duxbury, Mass., summer home of H. F. Hill. The stage setting showed a hotel office with clerk's desk and private exchange switchboard at which was seated I. M. A. Daffodill, the operator, who was something of a wag as it soon developed. In flocked a bevy of telephone operators from Chicago.

"Talk about railroad service," said Miss Kedzie, "if the telephone service back in old Chicago was anything like it, Mr. Cooper would be on our trail in a minute," a sure enough compliment to the vigilance of the traffic chief.

And so it kept up. The girls were up to everything and into everything. They made such a fussiness in that hotel office that the stenographer remarked *sotto voce* that she hoped they wouldn't keep her "working overtime like Mr. Conway of Chicago did when he was here. Why he added postscripts until 2 a. m. and wore out the letter 'x' (throws kiss) on my machine."

Then the girls discover that Mr. Sunny is upstairs. With Chicago-like aplomb they send up a request that he "frank" them a few messages to Chicago, which modest request he is represented as granting with the generous nonchalance of corporation executives on the stage. Calls are put in for Mr. Burt, Mr. Abbott and Mr. Duffy.

"Surely you are not going to waste a frank on Mr. Duffy," said Wentworth.

"But he's a bachelor, and I'm going to call the bachelors," replied Main.

"Don't waste your time on him, he's hopeless," said Douglas.

"All right, I'll call for Mr. Arnold," said Main.

"He's more hopeless than Mr. Duffy," said Douglas. "He has been congratulating himself on passing leap year safely."

Here the manikin furnished the baseball score to Mr. Garvey and was shocked to hear his reply. Then came a call for the morgue.

"Try the engineering department," said Yards.

Then there was a deal of gossip chatter about the idiosyncrasies of various officials of the company, including Mr. Hill, Mr. Hamm, Mr. Bradshaw, Mr. Campbell (both Wallace and J. L.), Mr. O'Connor, Mr. Freeman, Mr. Foster, Mr. Forbes, Mr. Larned, Mr. Atwater, Mr. Anderson (of Cleveland) Mr. Whitten (of Columbus), Mr. Redmond, Mr. Conway, Mr. Cooper, Mr. McCorkle and Mr. Bickel.

Then came a sound of confusion at the door. In bounded a tall, handsome girl clad in gaudy vestments of colored paper. "Who are you," cried all the girls. The newcomer answered:

"I am the great Bell News, the greatest journal, edited and published by the smartest men in the world. Found

on all news stands and carried under the arms of all telephone employees in the United States. No family should be without me.

"Children and babies cry for me,

"Grown-ups sigh for me,

"And then they die for me."

Yards: "You may be popular with the men but you never made a hit with the girls."

News: "I am too deep for you."



GROUP OF PERFORMERS.

"Daffodill," the manikin, in center; Bell Telephone News on right.

(Enter Operating Bulletin.)

Yards: "I thought I saw a ghost of the Operating Bulletin."

(Bulletin appears, wabbling and weak.)

News: "Why I thought you died two years ago. How dare you cross my path!"

Manikin: "Get the hook."

Bulletin: "I may be dead in the heart of Mr. Irwin, but I still live in the heart of Mrs. Dewhurst." (Faints.)

Tremendous excitement ensues. The "pulmotor," disguised as a vacuum cleaning machine is dragged in and applied to the expiring Bulletin. The porter in high disdain turns on the Bell News:

"You big know nothin', what you come 'round hyah raisin' 'sturbances for. We doan need yuh!"

"You don't need me!" retorted the News. "With such men as Mr. Arrick, Mr. Irwin and Mr. Pratt! Why they devote their entire time to trying to teach you a few things!" And the poor News was hustled out without ceremony.

The fun was now on in earnest. Free use was made of the names of Mr. Vette, Mr. Bennett, Mr. Boyd and Mr. Hibbard. Then came the drills and marches. Mrs. Moore had trained sixteen girls to a high degree of perfection in the Russian drill. The four "Maid of the Mist" performed a beautiful dance and everybody shivered sympathetically with the "Ghost of the Violin." Then came groups of traffic department people characteristically costumed. Each sang a clever verse describing their part of the work, all set to the tune of "Be My Little Baby Bumble Bee." First came the operators who "run all Chicago and the neighborhood." Then came the supervisors, impressively attired as policemen, with helmet and mace. The monitors, with megaphones, "whom the girls love dearly" (the monitors, not the megaphones); then the "bread

line," as the lunch girl was called; then the chief operator, ugh! the bogey! "She takes off their puffs and biscuits and their curls." Here a little diversion was introduced in the form of dances by the Dutch and Irish girls which were received with immense delight by the audience.

Miss Janovsky presented a novelty in her illuminated bouquet of roses which threw light over the stage while

in the hands of Miss Casey, chief clerk to the traffic superintendent. Miss Casey was given free rein and the results showed the wisdom of the arrangement. She originated the general plan of the performance, prepared a large part of the dialogue and trained the girl performers in their parts. She worked early and late and the happy result was in a very large measure due to her energetic and intelligent efforts. Miss Haggan, who trained the chorus, and Mrs. Moore, who rehearsed the girls in their drills, also received many compliments.

A "Disobliging" Operator.

The new mayor of Detroit, Oscar Marx, has a secretary, a Mr. Fitzgerald, who stands between his Honor and all unnecessary interruption, as is proper for a mayor's secretary. Mr. Fitzgerald's duties and experiences are naturally various. Here is one of them, according to the *Sunday News-Tribune*:

Perhaps the limit of requests came over the telephone recently. Secretary Fitzgerald answered.

"I've been insulted by the telephone company," said a feminine voice from the other end of the line. "I wanted to call my grocer, and I couldn't find my telephone book. The girl said I'd have to find the number before calling, she couldn't look it up. Now don't you think a telephone girl ought to give a party, when the book is lost, without a number? Can't you do something to make the telephone company do these things?"

Mr. Fitzgerald advised the woman to call for "information," but she gave no evidence of having been appeased.

"It's the greatest job you ever saw," said the new secretary. "If there's anything in the world you don't know you can bet your life it will be asked of you at least once in the course of a week here."



IRENE DRISCOLL.

Who covered herself with glory and burnt cork as the colored porter in the Chicago Traffic Department entertainment.

she sang "I Hear You Calling Me." The singer created intense excitement by descending suddenly to a deep baritone but this was soon discovered to be a trick of the impudent Daffodill. Rose Riedl carried away the vocal honors of the show by her rendition of the waltz song from "Carmen." Miss Riedl has a soprano voice of great range and sweetness. She was a member of the Chicago Grand Opera Company chorus this winter. The Spanish dance by Misses Scabill and Rossell provoked tremendous applause.

Then the music changed. The toll operators tripped in, to the tune of "The Flowers That Bloom in the Spring." They were followed closely by the repair girls, to catchy and characteristic verses of the same song. The tandem operators dragged in their explanatory designation in the shape of a large double motorcycle, the significance of which was not lost on the girl audience. The hospital girls, neatly gowned and capped, carried dolls which were afterwards stated to represent "wrong numbers." Information girls were dressed in flaring front sheets of daily newspapers and carried copies of "Mr. Ramsay's new bulletin." (Directories.)

The entertainment closed with an ensemble led by the silvery voice of Miss Riedl. The audience and performers then mingled in a good-natured rush for ices in the room across the hall. Then came dancing, the girls with each other and "with just as much enjoyment as if there had been two men for every girl" as it was confidently asserted by one of the traffic men present.

It was a great performance and set a pace which will make the boys step lively when they get ready for the annual bowling show this spring.

The entire responsibility for the show as well as the direction of the performance and the rehearsals was



THREE BIG AUDIENCES WHICH WITNESSED THE TRAFFIC DEPARTMENT SHOW AT CHICAGO.

Exchange of Exchanges

South Chicago, Ill.:

A subscriber having had considerable trouble with his alarm clock advised his wife to set the alarm for an early hour in the evening so that they would know before retiring whether or not to depend upon it to awaken them in the morning. About 5:30 p. m. the alarm went off and the subscriber went to the telephone, took down the receiver and after answering several times the operator made the usual response, "I am sorry, we rang your bell by mistake." After a lapse of two or three minutes the alarm clock again went off and this time the man's wife answered the telephone and the same thing was repeated. In two or three minutes the bell was again heard and this time the man fairly screamed, "Hello, hello, hello," only to hear again, "I am sorry, etc." By this time he was so enraged that he just sat and waited for the bell to ring and when it did ring he rushed frantically to the telephone and was still telling the operator what he thought about her, the telephone and the telephone company in general when, to his great dismay, the alarm clock again pealed forth and Mr. Man, humbly begging the operator's pardon, hung up the receiver.

Port Huron, Mich.:

A few days ago a man called the Port Huron toll operator and said: "Central, I'll have to talk to Detroit, as I lost my car on account of your bridge turning to let the 'Atmosphere' through; you have some town." ("Atmosphere" was the name of a boat.)

A few months ago a man called the Port Huron toll operator for London, Ont., and asked for a Mr. Stoudt. The London operator located him at a poultry show, and reported ready. When he got the party on the line the roosters all began to crow and he couldn't hear Mr. Stoudt at all. He shook the receiver and said: "Central, you have made a mistake; I want Mr. Stoudt—not a chicken coop. Some other fellow must want to talk to those chickens."

Grand, Detroit, Mich.:

Recently a Grand information operator had a call for a name not listed, and upon making this report to subscriber was told: "You surely can't tell me that. Why, central, he has been married four months and must have a telephone."

Eau Claire, Wis.:

Operator—"Number, please?"
Subscriber—"1289."
Operator—"Red or Black, please?"

Subscriber—"Why, I don't know, central, but I thought the telephone looked brown to me."

Operator—"Number, please?"
Subscriber—"Gimme Black 158 and anodder von."

Operator—"Another what?"
Subscriber—"Anodder eight."

Operator—"Operator."
Subscriber—"Where is my party?"
Operator—"Your party left the line."
Subscriber—"No, they did not, you shut off the draught."

A subscriber upon taking his receiver down found his line rather noisy and called for the chief operator. Chief operator answered and subscriber said, in a very aggravated voice, "Take that noise off my line, I want to talk."

Wentworth, Chicago:

The subscriber's five minutes were up and the operator called the time limit. The subscriber was angry and said: "I hope you get a one-cent raise for that."

Frankfort, Ind.:

Number 253 on the Frankfort Board is a two-party line (one and two rings) and the designations in the directory are 253-1 and 253-2. Recently a lady wanted one ring on the number and asked the operator for "253, minus 1."

Subscriber wishing to talk long distance was told that the desired party had no telephone. When asked if he wished to send a messenger, he said, "Why, Central, he lives only a block from the exchange, and if the girl will go to the window and yell real loud, he will hear her."

Indiana Division:

"Hello, Central; is that you Central?" The answer was "Operator." "Well, Operator, you will do then, if I can't reach the Central. My telephone fell down the stairs last night and it kicks me every time I talk to it."

Lowell, Ind.:

A rural twelve-party subscriber who had made frequent complaints because there were so many on his line called the manager one evening, saying he had been looking through the directory and found there were thirty-nine on his line. He thought everyone that had J3 was on his line.

The Force of Habit.

In the telephone office there was one girl who was always late in the morning.

Time and time again the local manager requested her to be more punctual; but her tardiness still continued,

until he was moved to use desperate methods.

"Now, Miss —," said he, as he came to her exchange board one morning carrying a package in his hands. "I have a little scheme that I hope will induce you to arrive at the office on time. I have bought this fine alarm clock for you. Please promise me that you will make proper use of it."

The young woman promised, and the first night set the alarm at the required hour for rising the next morning.

At the indicated hour the clock set up a tremendous whirring, loud enough to awaken the whole house. But the sleepy little lassie turned over in bed, and said in her sweetest tone: "Line's engaged; call again, please."
—*Tit-Bits.*

"HELLO" BAD FORM.

Evanstonians Refuse to Use It in Telephone Conversation, Saying It Is Vulgar.

"Hello," as a form of salutation over a telephone wire, is passing out of existence in Evanston.

It has not suffered a contraction by the elimination of the last syllable, but has been termed "vulgar," and when anything is called "vulgar" in Evanston its death is near.

"Good morning," "Good afternoon" or "Good evening," have taken the place of the shorter and more convenient word. In some cases where an undesirable has called, the "Good night" is used with peculiar and equal emphasis on each word.

The substitutes for "hello" have become so common that they have attracted the attention of the telephone girls, not to insinuate that the girls ever listen to conversation over the wire. It is necessary, however, for the girls to make sure that the connection is right.

The operator in the office of H. B. Gates, manager of the Evanston exchange of the Chicago Telephone Company, said that the women have abandoned the "hello" for the more polite and formal substitute. "It is seldom that I ever hear 'hello,'" she said. "I have occasion to call the homes of many of the society women in the course of a day, and in nearly every instance the woman at the other end of the wire greets me with 'good afternoon,' or 'how do you do?'"

But a new complication presented itself when the reform began to reach to the ranks of the domestics. The servant fresh from the lands of the fjords could learn to say 'hello' in three lessons, but when it became necessary to say "good afternoon" it was more difficult.

In fact, the telephone has been adopted in many instances as the means of fulfilling social obligations. Short calls, instead of being made in coupe or limousine, are made over the telephone, and if the matron of the house is out, the caller leaves her telephone number with the maid, in lieu of a calling card.—*Chicago Record Herald.*

Ex-Telephone Girl a Peeress.

By the death in Paris of Bertram, the fifth Earl of Ashburnham, a New Brunswick girl, formerly a telephone operator in the employ of the New Brunswick Telephone Company in the exchange in Fredericton, becomes a peeress of the realm in Great Britain and her husband becomes the Earl of Ashburnham.

Major Ashburnham, the new earl, served through the Egyptian campaign and also in South Africa during the Jameson raid.

He came to Fredericton several years ago and married Marla Anderson.

DROP CHUNKS OF ICE ON BLAZING CABLE

Unique Method Employed By Auburn Plant Men To Extinguish Fire.

Confronted by a failure in water pressure which made the firemen helpless, Chief Inspector Van Gundy of Auburn, Ind., was equal to the occasion and saved three 200-pair cables which were about to be burned through in a fire on the night of February 8th. The method employed by the resourceful plant man and his assistants will go down in the annals of the telephone industry as one of most unique on record.

The fire destroyed the McIntyre building, one of the principal structures of Auburn, which housed the DeKalb county court offices, the Double Fabric Tire Company, the W. H. McIntyre Company salesroom and the Auburn Courier.

A fifty-foot Central Union pole stood directly across the street from the burning building and caught fire during the progress of the blaze. This pole carries three 200-pair cables and five cross arms loaded with important toll wires. The firemen realized the importance of saving the burning pole but the water pressure was unfortunately so weak that they could not reach the cable, to say nothing of the toll wires and cross arms above.

Manager S. E. Van Flett, who was on the scene promptly, called Chief Inspector Van Gundy and Lineman Dawson and suggested the possibility of climbing the pole and smothering the fire with wet cloths, at the same time pointing out the danger from two adjacent high-tension electric lighting circuits. Both plant men measured the danger and both declared their intention of mounting the pole. Inspector Van Gundy prevailed and went up the pole, taking a hose with him. But the water pressure was still insufficient and he was forced to abandon the hose.

Men on top of the adjoining buildings noticed Mr. Van Gundy attempting to stamp and smother the fire and began throwing to him chunks of ice and snow. By the aid of these he at length put out the fire. The providential supply of ice and snow on these buildings was all that saved the telephone service of Auburn from very disastrous interruption.

When the chief inspector climbed down from his dangerous place on the pole he was warmly congratulated for his brave and energetic performance.

Manager Martin Gets a Hand.

An interesting article appeared in the current issue of the BELL TELEPHONE NEWS in regard to the new switchboard at the local exchange. Equipment Supervisor Harrington of the Michigan State Telephone Company gives a complete description of the new exchange and compares it with the old one.

He pays a high tribute to James F. Martin, manager of the exchange, and his able corps of assistants and states that Iron Mountain now has one of the most complete exchanges in the state.

It is a pleasure to Mr. Martin to receive this favorable comment, as he has always aimed to give the people of Iron Mountain the best telephone service possible.—*Tribune Gazette, Iron Mountain, Mich.*

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

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GUY RODS

Braces, Back and Cross Arm
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Pole Steps and Brackets
Pole Balconies

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Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES
GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST

G. W. CUMMINGS

Correspondent

A Disastrous Fire.

On Tuesday, February 11th, at 11:30 o'clock, eighty-two telephones in the Hyde Park exchange were suddenly put out of service. So quickly did the fire in the Ingram and Kall apartments on the former Midway burn that in the space of a half hour eighty-two telephones were out. Of these thirty were a total loss.

H. W. Rissie of the building repair department of the Chicago Telephone Company lived in the Ingram apartment. At the time of the fire one of his children was sick with pneumonia and had to be carried down the fire escape. Mr. Rissie lost everything, as the fire was so sudden that nothing could be removed.

The family of Miss Maxwell, of Oakland exchange, was living in one of the Kall apartments and a brother occupied another apartment in the same building. One interesting incident in the fire was the brave venture of a young man to rescue the Scotch suit and bag pipes of the brother of Miss Maxwell, who was away at his work. The bag pipes were wet but not ruined. The elegant Highland suit with its beautiful chased silver ornaments was rescued. Unfortunately other treasures from the fatherland which cannot be replaced were lost in the fire. The big family Bible and the grandmother's picture were saved at the risk of Mr. Maxwell's life.

Party for Miss Rogers.

On Thursday evening, January 23d, the day force at Wentworth gave a pretty surprise party at the Ogden Field House to their chief operator. The music was furnished by the Misses Nellie and Catherine Murray, and Miss Taylor, assistant chief operator, danced the Highland Fling accompanied by the "Wearing of the Green." A supper was served at ten o'clock and Miss Rogers was presented with a large bunch of American beauties. The floor was good, the music fine and the dancing all that one could desire. There wasn't a man in the place, but we did have such a good time.

Personals.

J. H. Riddell, Central Division installation foreman, is able to be out after a two-months' siege of typhoid fever.

Louis M. Larson, clerk in the suburban commercial department and W. C. Vauhen, commercial agent at Oak Park, have been on the sick list.

H. J. Tinkham, formerly with the Chicago Telephone Company, has been appointed division superintendent of plant for the Inland Division of the Pacific Telephone and Telegraph Company.

Service Standing.

The following is the standing of offices for the month of January, 1913:

| | |
|--------|-----------|
| First | Edgewater |
| Second | Hyde Park |
| Third | Lake View |
| Fourth | Calumet |
| Fifth | Wabash |

Neighborhood.

| | |
|---------|---------------|
| First | South Chicago |
| *Second | Austin |
| *Second | West Pullman |

(*) Tied for second place.

WISCONSIN DIVISION

F. M. MCENIRY, Correspondent, Milwaukee

Wisconsin Subscribers Satisfied.

With new directories recently delivered in several Wisconsin exchanges, post cards were enclosed, on which subscribers were invited to make any comments on the service and make the cards to District Manager Quinlan at Appleton. Among the subscribers who answered, and their comments were the following: A. Dyaland, Green Bay: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly, and the service generally is very good.

Thomas Nicholson, Green Bay: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention, and we get first class service in every respect.

D. W. Britton Company, Green Bay: Everything O. K.

W. M. Hurd, Green Bay: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. Everything very satisfactory.

E. C. Juley and C. W. Dismen, Green Bay: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. Service exceptionally good. No reason for complaints here.

T. D. Phillips, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I usually can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. I very seldom have any trouble with central.

Wolf Brothers Lumber and Fuel Company, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. Very satisfactory service.

G. M. Thompson, agent of "Soo Line." Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are always given prompt attention. Best of service at all times. I all we can say is, we're glad to be connected.

E. M. Clough, Neenah-Menasha: The central operator usually answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. Have no complaint to make. Service is perfectly satisfactory so far as I am concerned.

Charles E. Herrick, Neenah-Menasha: Have very few troubles and they are little ones.

Defaut-Jagerson Supply Company: We have no complaints to register. Our service is good, no trouble whatever with the local lines and very little delay in getting long-distance calls.

S. L. Oborn, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are always given prompt attention. Everything very satisfactory.

J. P. Jaspersen, Neenah-Menasha: No complaint whatever. Everything O. K.

Nels Matheson, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. It seems to me no one could ask for better service. Myself and family are fully satisfied.

Jene C. Jorgensen, Neenah-Menasha: Very satisfactory at all times.

Ed and Wells, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I usually can hear and be heard distinctly. Have had no complaints to report, always having very good service.

John W. Pleasant, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. The service is very good.

Fred Elwers, Neenah-Menasha: Everything is all right with us.

J. R. Bloom, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; complaints are given prompt attention. Best sort of local manager. Thorough going chief operator. Polite operators throughout. No kick except when nerves are off and big hurry is on.

H. H. Held, agent St. Paul Railroad, Neenah-Menasha: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. I know of nothing to add to the service to make it more complete. We are perfectly satisfied.

Patten Paper Company, Appleton: The central operator answers promptly; I get very few wrong numbers; I can hear and be heard distinctly; I report all troubles promptly and they are given prompt attention. The most serious trouble we have is busy line, averaging about thirty per cent. Hope this can be remedied under the new conditions.

Charles Wagner, Appleton: We are satisfied.

Aug. H. Meyer, Appleton: Your service is 100 per cent. better than it was a year ago and it is a pleasure to be able so to state.

Grant Phillips, Appleton: The central

operator answers very promptly; I very seldom get wrong numbers; I can hear and be heard distinctly; I have no complaints to make. You have fine service, and your long distance leaves nothing to be desired. Just give us those Fox River connections to enlarge the field of operation. You are to be congratulated on your good service.

Appleton District.

Grace Hilton, toll operator at Algoma, recently enjoyed a two weeks' visit at Fond du Lac.

The old two-position magneto switchboard at Algoma is to be replaced by a new three-position board.

Myrtle Struck, clerk at Appleton, spent her vacation the third week of January.

C. Keeffe has been employed to succeed L. Othow as installer at Appleton.

During the past month the Berlin operators held two meetings for study under the direction of the chief operator, the latter one closing with a spread.

The Berlin Telephone Company, connected with Berlin, held its annual meeting January 13th. Old officers were re-elected. The company is in a prosperous condition and declared a six-per-cent. dividend.

Ostergaard, who has been employed as lineman at the Oshkosh exchange, has been transferred to the De Pere exchange succeeding Andy Lendved, resigned.

Theresa Fehrman, who was formerly employed as operator at the Western Union Telegraph office at Fond du Lac, has accepted a position as Morse operator at the De Pere exchange.

District Foreman U. G. Freiburger and crew are making D. R. repairs on the lines recently purchased from the Fox River Valley Telephone and Telegraph Company.

J. I. Anderson and J. I. McKenzie, Western Electric installers, are now installing two additional positions at the De Pere exchange in order to take care of the former Fox River Valley subscribers.

Mae Haanen, clerk at the De Pere exchange, spent a few days at Marinette.

W. A. Walters, a former construction man with the Wisconsin Telephone Company, has purchased the Luxemburg Telephone company's system. He is making many new additions and improvements.

Eather Sullivan, former chief operator at the Green Bay exchange, has returned home fully recovered in health. Miss Sullivan will have many congratulations from her associates in the office.

Nettle Knight, chief clerk at the Green Bay exchange, expects to leave her position to study and become a surgical nurse.

Elmer Tennis, chief collector at the Green Bay exchange, has been confined to the hospital and his home will badly suffer. He caught a cold which caused an enlarged gland.

Meetings for plant, traffic and commercial employees at Green Bay are very popular. Everybody is attending them, and very good work is being accomplished.

Katheryn Kelly, toll operator at Green Bay, spent a week at Milwaukee.

The new hotel at Kewaunee has been wired for six telephones.

The Manitowish and Western Telephone Company is moving its office at Whitefish, which was necessary on account of Hugo Jones, former manager, leaving the city.

Clara Koch, toll operator at the Manitowish exchange, has been absent from duty for the past month on account of illness.

On January 12th, six poles on one of the main leads carrying thirty wires of the Larsen Telephone Company, a company connecting with the Neenah exchange, broke down putting about 150 telephones out of commission. New poles were put in and all repairs were completed in about three days.

Mr. Parvis of the equipment department is installing a two-position addition to the New London switchboard to take care of congested conditions.

Foreman Charles Detbrenner has finished removing the old Fox River Valley plant at New London. He also replaced cable on Shawan Street and St. John's Place with larger cable.

A circuit is being strung to meet seven new subscribers of the Poppy Rock Telephone Company.

Foreman C. Detbrenner completed the installation of additional submarine and aerial cable at Omro. Omro has an all-cable plant now.

Mr. Parvis, of Milwaukee, has completed the installation of the new two-position wire chief desk at Oshkosh. The desk is now working satisfactorily.

A. C. Gallagher, manager, and Miss Rice, chief operator, at Oshkosh, are conducting traffic meetings which prove very instructive and interesting to the traffic force.

Mildred Raymond, operator at the Oshkosh exchange, has been confined to her home by an attack of inflammatory rheumatism.

L. M. LaChapelle, commercial agent at Oshkosh, has secured a contract for a cordless private branch exchange of two trunks and four stations to be installed at the Normal School. Mr. LaChapelle also secured a contract for a No. 1 private branch exchange of eight stations to be

installed in the Diamond Match Company's plant at Oshkosh.

A car load of cable has arrived at Green Lake to complete the work of laying one and a half miles of underground cables on the property of Victor Lawson on the lake shore.

The Red River Telephone Company expects to build about fifty miles of new line in the spring and connect up about 100 new subscribers. Forty-eight subscribers are connected at Shawano.

Mary Kessler, chief operator at the Shawano exchange, was away from the office for about a week on account of sickness.

The Gillett Rural Telephone Company, a connecting company of Shawano, just completed connecting up eight new subscribers on a new piece of line built this winter. This makes a total of 123 subscribers getting service from this company.

During the year 1912 a telephone company was organized on Washington Island, incorporated under the name of the Washington Island Telephone Company. This island is five miles square and located in the waters of Green Bay eight miles from the mainland. There are one hundred and ten families living on this island. This company's lines now cover the island giving service to ninety-three subscribers connected to a Western Electric self restoring drop switchboard. For toll service this company connects with the United States government submarine cable to the mainland and then connects with the Wisconsin Telephone Company toll line from Hedge Hog Harbor to Sturgeon Bay.

The Nassewapeun Telephone Company has crew at work strung another circuit to the exchange limits at Sturgeon Bay. This company will add several new subscribers to its system.

A Class 10-A toll office has been established at Waupaca effective January 1st. Fred J. Nichols, the former Western Union operator, has been retained as Morse operator and Glenn Batten as messenger for the telephone. This combination of offices affords the telephone patrons the advantage of continuous service something before unknown in Waupaca, even with a competing telephone company in the field. It also gives the telephone company the much needed floor space for the traffic and commercial departments.

Eau Claire District.

"Dan Cupid" evidently made a raid on the Eau Claire exchange during the month of January. No day was without his employees fell victims of his trusty love darts with the following results: Clara Skog, ticket clerk, and William A. Kurtz, repairman, were married on January 1st.

Nora Finn, toll operator, resigned and was married to Earl Coss, of Altoona, Wis. Evelyn LaDuc, local operator, resigned and was married to Leo McCombs of Seattle, Wash. The smile at Eau Claire felt that the events of the month should be properly celebrated and the result was a dancing party with the Newlyweds as the guests of honor. On the evening of January 22nd about fifty of the employees and their friends gathered in the club rooms of the Rod and Gun Club which had been elegantly decorated with the usual blue and white streamers and blue bunting. Dancing was indulged in until midnight when a flashlight photo was taken and afterwards a banquet was served at the completion of which the three brides were presented with beautiful sets of table linen together with the best wishes of all for their future happiness and prosperity.

You gave a sleigh ride party out to her home for the operators of the Chippewa Falls exchange night and evening force.

Ruth Ransauwe entertained the operators of the Chippewa Falls exchange at a six o'clock dinner Sunday, January 26th.

Anna McDonald entertained the older operators of the Chippewa Falls exchange at her home.

Mayne Jasper, Ruth Ransauwe, Loretta Strahan and Ellen Young, operators at the Chippewa Falls exchange, were absent from duty a few days on account of a gripe.

Eva Adams of Chippewa Falls exchange was out the greater part of January on account of the sickness and death of her baby sister.

A party during February talked from Menominee, Wis., to Duluth, Minn., ninety-six minutes, breaking the record at the Menominee exchange. This was the longest single call from this central office to any city.

On the night of February 12th about ten employees of the traffic department of Menominee attended a meeting in the manager's office. The opening number on the program was an interesting talk by Glenn R. Howe, manager of the exchange, after which several questions were brought up concerning the operators' duty. At this occasion it was decided to hold a meeting every month. The purpose of this gathering was to discuss matters in connection with the work of the traffic department.

The Blue Bell Club of Merrill met with Lana Ruder and after a thorough discussion of traffic rules current rules were taken up. The club agreed to give a

dance in the near future, the proceeds of which will be turned over to the Woman's Alliance to be expended for children's play grounds. Whist and music added to the evening's diversions, which were followed by a very dainty four-course luncheon.—Merrill News.

Alfred Johnson is temporarily employed at the Menomonee exchange on account of the absence of Repairman Oscar Peterson.

District Foreman Lewis Zarbock made an inspection of the Menomonee exchange February 1st, and while there held a meeting with the plant employees. Emma Inenfeldt has been employed as operator at the Menomonee exchange.

Madison District.

Charles Clark, city foreman at Baraboo, was quite seriously injured recently. However, at the present time he is rapidly improving and ought to get to work in the course of a few days.

Bess McHugh, chief operator at the Baraboo exchange, resigned February 1st. She was succeeded by Edna Dollard.

Retta Winter, chief operator at the Horicon exchange, resigned February 1st and was succeeded by Frieda Meyer.

I. M. Abernethy, manager at Lancaster, was confined to his home for ten days with a serious attack of the grippe, but is now able to attend to his duties.

Henry Schroeder, district plant chief of the Madison district, who was confined to his home for ten days with a serious attack of the grippe, is reported convalescent.

James R. Gaynor, lineman at the Madison exchange, has been transferred to the district force, and was succeeded by William Bromer.

The installation of the new toll chief operator's desk at the Madison office has been completed. The work was done by the Western Electric Company, under the personal supervision of Foreman Loneragan.

Ferne Winn, chief operator at the Madison exchange, has resigned and has been succeeded by Mrs. E. Wald, former teacher at Madison. Miss Winn has accepted a position as chief operator at Richland Center.

Elsie Rosenberg has been promoted to the position of toll operator No. 3 at Madison, succeeding Selma Wendt, resigned.

Louise Larson has succeeded Miss Lettie Olson as operator at the Stoughton exchange.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Centralia District.

Central Union operators at Alton gave a birthday surprise party for Florence Doughty on the night of February 11th. Miss Doughty received a mesh purse as a birthday gift from the operators.

The traffic department at Alton gave a sleighing party, entertaining a number of friends, on the night of February 3d. After the sleigh ride the party spent an hour or so at the home of Julia Hale.

Galesburg District.

Olive Kinsel, toll operator at Galesburg, has resigned her position and goes with her family to Michigan, where she will make her future home.

Florence Anderson has accepted a position as local operator at Galesburg.

Millie Augustine, local operator at Galesburg, has resigned and moved to Omaha, Neb., where she will make her future home.

Edna Shearer, who has been a local operator at Galesburg for several months, has been made clerk to the traffic chief.

Maud Hagenjos, traffic chief at Galesburg, has been kept extremely busy during the past month to keep a sufficient force of operators to handle the business on account of an epidemic of colds and grippe which has been passing among her operating force.

L. P. Shoop, who for several years has been chief clerk to District Commercial Manager Thomas Brown at Galesburg, has resigned his position with the Central Union Telephone Company and accepted a position as Manager of the Order Department for the Electric Service Supplies Company, 417 South Dearborn Street, Chicago, Ill., and Mr. Shoop will appreciate having his friends call upon him at any time they happen to be in the city. All the employees of this company, who have been associated with Mr. Shoop regret to see him leave the service but all wish him every success in his new position.

An estimate has been approved and assigned to the engineer for the following work at the Galesburg Central Office: 1,000 subscribers multiple, 500 subscribers answering machine and other miscellaneous equipment. This estimate is to be started April 5th and completed June 15th.

A new toll station was opened at New Windsor, Ill., January 24th with J. O. Freeman, agent.

The first section of the Blue Bell Club held its first semi-monthly meeting Wednesday evening, February 5th, in the operators' rest room at Rockford. The program for the evening was given by the Misses Emma Siewenie and Gladys and Hazel Marston in a comedy sketch, "A Courtship Under Difficulties," and was thoroughly enjoyed by all. Plans were also discussed for a dancing party to be given in the spring, at which the club will put on a play of some kind. There

Miss Winter, on January 16th, in honor of the "Newlyweds."

The Bell Telephone girls of Quincy were hostesses on the night of January 22d at the second of a series of complimentary dances given in the Knights of Columbus hall. More than one hundred couples attended and socially the undertaking eclipsed anything of that nature previously attempted. The affair was strictly invitational and the crowd in attendance was a select one. Dancing commenced at



TELEPHONE DANCE AT EAU CLAIRE, WIS.

is considerable talent among the girls and they are quite interested.

Springfield District.

A private branch exchange has been installed covering fifteen sub-stations at

8:30 o'clock and was continuous until after midnight. The program embraced fourteen regular numbers and three extra dances. Music was furnished by Kels' orchestra, late and popular selections constituting the musical program. The dance



TELEPHONE WINDOW DISPLAY AT LIVINGSTONE DEPARTMENT STORE, MERRILL, WIS.

Clarke Brothers & Company Distillery, Peoria.

Contracts have been secured for private branch exchanges for the Boss Manufacturing Company, of Peoria, and also Emerson Brantingham Company, Peoria.

Irene Wonder, toll supervisor, has resigned to accept a position as private branch exchange operator at the E. Herschel Manufacturing Company, East Peoria.

An estimate has been approved and assigned to the plant department covering underground conduit construction in the Main Office District at Peoria. This conduit is to be placed in the alley between Adams and Jefferson streets, from the end of the present conduit north of Caroline street.

On January 15th, Miss K. V. Heckenkamp, clerk in the commercial department at the Quincy exchange, was married to C. O. Holmes of Lima, Ohio, at the St. Rose of Lima church. The young couple will make their home in Lima, Ohio. The commercial department was entertained at the home of the cashier,

proved more popular than the initial affair given several weeks ago and to those actively in charge credit is due. It is probable that a similar affair will be arranged for in a few weeks.

Margaret Davis, toll operator at Springfield, has accepted a position in the commercial department.

Etruria Swigert, toll operator at Springfield, has taken a position as private branch exchange operator at the St. Nicholas hotel.

Genevieve Albright, traffic chief at Springfield, returned home January 16th from a six weeks' visit to a school in Chicago.

Fred H. Sawtell of Chesterfield, Ill., has accepted a position as collector in the Springfield exchange.

C. C. Wilson, collector in the Springfield exchange, resigned his position on January 1st.

William Bullough, employed by the Western Electric Company, had his hand cut while working on the new switchboard which is being installed in the Springfield exchange. The injured member is doing nicely.

Nellie Gaffigan has accepted a position as toll operator at Springfield.

Nellie Carney, local operator, has accepted the position of private branch exchange operator at the State House during the legislature.

Bessie Morganstein, private branch exchange operator at the St. Nicholas hotel, Springfield, resigned her position December 27th to be married.

Elsie Jones, local operator at Springfield, while on her way home from work Monday evening, January 13th, was knocked down by a street car and just escaped being fatally injured, the feeder passing over her.

Eva Fox, chief operator at Springfield, left for Champaign Tuesday, January 14th, to take up the duties of Miss Smith, traffic chief at that place, who left for a six weeks' schooling in Chicago. Hattie Peek is acting chief operator.

Helen Ambs accepted a position as local operator January 15th in the Springfield exchange.

Grant Turner, formerly toll wire chief, has accepted the position of wire chief in the Springfield exchange, made vacant by W. C. Crowley, who has accepted a position in Quincy, under H. B. Lewis, plant superintendent.

S. Williams has been appointed repairman at Ridge Hill, Ill.

Mabel Auten, local operator at Springfield, resigned her position January 8th.

Marie Winan, of Decatur, has accepted a position as local operator at Springfield. Ethel Scarsy, local operator at Springfield, has returned after an illness of several weeks.

Hattie Staples, local operator at Springfield, who has been ill for several weeks, is not yet able to return to work.

T. M. Bradford, division traffic chief at Springfield, left Saturday, February 1st, for Chicago to take up his new duties at that place and is succeeded by N. V. Harrison. I. I. Andrews, Mr. Bradford's clerk, left February 5th for Peoria, where he will be service inspector under G. B. Luyvenport in that district.

The new Burlington passenger depot at Galesburg, which is considered one of the best in the state of Illinois, has just recently been opened to the public and the Central Union Telephone Company has installed a very beautiful double No. 29 booth, made of birch and finished in mahogany to match the other woodwork, and the booth and equipment make a very fine appearance and are appreciated by the public as well as the railroad company.

The Western Electric Company is installing two full sections of switchboard at the Moline exchange and also adding 1,000 multiple jacks and changing the circuits. The work is progressing very rapidly under the guidance of Foreman Loneragan.

L. L. McMaster, traffic chief at the Moline exchange, has been transferred to Quincy, Ill., as traffic chief. He will be succeeded at Moline by Austin Seguin, service inspector in this division, who comes as acting traffic chief. "Farewell, Mac. Good luck to you and a hearty welcome to little Austin."

J. S. Millam, wire chief at the Moline exchange, has resigned and gone to Grand Island, Neb., to take a position with the Nebraska Telephone Company as wire chief.

T. D. Wright, chief clerk to the plant chief at the Moline exchange, resigned January 1st. He will be succeeded by Howard Lane, formerly foreman and B. Lane, father of the present incumbent, will be the new storekeeper.

The commercial department has shown its ability by securing a contract for a No. 4 private branch exchange board for the Deere Harvester Company, of East Moline, to be equipped for twenty-one stations. The commercial men have also secured a contract for a No. 2 private branch exchange with fourteen stations for the W. I. Velle summer residence on Rock River near Moline, and a No. 2 private branch exchange board for the Post Office at Rock Island, with six stations.

The Central Union Telephone Company boys met at the exchange in Moline some few weeks ago for the purpose of appointing a committee to draw up a constitution and by-laws for the organization of a Central Union Club. At a later meeting the genial plant chief, W. H. Huston, was by unanimous vote of all present elected to fill the chair and while he asked the boys not to thrust the honor and responsibility upon him, he was told that he was best able to wield the gavel and he accepted in a neat speech, and the club started out as of January 16th. Here is hoping there will be co-operation to make the term "Universal Service" better known in the area. The officers who will guide the destiny of the new club are W. H. Huston, president; W. W. Gibson, vice president; I. O. Schultz, treasurer; A. J. Beverlin, trustee for three years; W. J. Franks, trustee for two years, and C. H. Fred, trustee for one year. The new outside construction work is being pushed to completion as fast as possible under Foreman C. E. Johnson, assisted by a large force of men, and when this work is completed it will relieve a tense situation by providing facilities to take care of the business in this area and things will be far from bad for the Commercial hustlers and the assistance of

the Plant Department and the good service of the operating forces will be needed. Through the generosity of Mr. Arrick, our Publicity Manager in Chicago, the Central Union Telephone Club received a picture of Theodore N. Vail and the same will be framed and hung in the place of honor in the club room. It cannot but be a source of inspiration to all who see it.

J. B. Roscoe, wire chief of the Central Union at Sterling, Ill., and Nori Sharpe of Owensboro, Ky., formerly chief operator for the Interstate Telephone Company at Sterling, were married on January 30th. Mr. and Mrs. Roscoe are "at home" to their many friends at their residence on First Avenue, Sterling, since February 5th.

Contracts for the installation of the first private branch exchange in Sterling have been secured by Commercial Manager C. M. Armstrong. Contracts call for one trunk and five stations to be installed in the office of Sterling Gazette.

Former Manager James O. Duffy, of the Central Union Telephone Company at Sterling, has taken a claim in Montana and moved his family there on February 1st.

Neta Teachout, toll operator at Sterling, resigned February 15th, and has accepted a position in Chicago. Miss Teachout is succeeded by Lily Swartz, former operator for the Interstate Telephone Company, of Sterling.

All records for net gain of subscribers at Sterling were broken during the month of December, 1912. A net gain of sixty subscribers was shown and also a net of seventeen regresses to better class of service.

C. Kennelly from Peoria will be N. R. Harrison's clerk in the Springfield District.

Rule Blount, stenographer in the office of T. P. Ryan, was taken ill with appendicitis Thursday, January 30th, and was taken to her home in Bloomington.

The fire which destroyed the livery stable of E. Salzenstein also burned a twenty-five pair cable belonging to the telephone company. Very little time was consumed in making repairs.

INDIANA DIVISION

D. H. WHITHAM, Correspondent, Indianapolis

Violent Indiana Storm.

On January 17th a sleet storm swept across the northern portion of Indiana and caused considerable damage both to the local and toll lines. The storm was felt most around Fowler, which was entirely cut off from telephone and telegraph service for one and one-half days.

There were approximately 1,200 poles down and at least 1,500 local telephones out of service. Temporary toll service was established by means of twisted pair wire the third day after the storm, but many of the subscribers were out of service much longer.

The sleet continued for two days, this hampering the work of the men very much and in a number of cases they would repair the lines and move on to the next break, only to be informed that their previous work was down again.

The work of establishing permanent repairs and reconstructing the lines totally destroyed is progressing as rapidly as the weather will permit, but it will be some time before the effects of the storm are entirely overcome.

Much credit is due Manager Blinn of the Indiana Union Telephone & Telegraph Company for his efficient work in restoring service on the toll lines in the vicinity of Fowler.

Indiana Bell Telephone Society.

The Indiana Bell Telephone Society met at the University Club, Indianapolis, Monday evening, January 27th, with practically all members present. Frank Wampler, district commercial manager of the Southern District, read a paper, "A Problem for Solution and the Responsibility of the Employee." The paper was followed by a general discussion which was helpful to all.

New 11-B Western Union Offices.

Western Union offices, 11-B class, have been opened as of February 1st at Albion, Avilla, Romney, Oolitic, Gaston, Yorktown and Manilla. Western Union telegrams can now be filed at the telephone offices in these places and will be telephoned to the nearest Morse operated Western Union office.

Indianapolis District.

Miss Newnam, chief clerk to the Indianapolis district traffic chief, and Miss Welch, chief instructor of the Indianapolis training school, attended the play and reception given by the traffic department of the Chicago Telephone Company at the La Salle Hotel, February 4th. They were beautifully entertained by Mrs. Margaret Hyatt, traffic supervisor of the Chicago Telephone Company, and had a most delightful visit, meeting many Chicago

telephone people of the different departments.

A group of the Prospect operators gave an informal dinner at the Prospect office on January 30th, after which they attended a theater party at English's opera house. They were chaperoned by Inez Johnson, the chief operator.

Anis Mueller's division entertained Viola Kennedy's division of the Prospect office with a theater party at the Belmont in recognition of their defeat in the attempt to render the best work during the month of January.

Marie Fisher of the North office entertained a number of the operators January 22d to announce her engagement to Herbert Hopenger. The wedding will take place early in the summer.

Bertha Childers of the North office has been promoted to the position of night relief operator.

The J. W. C. Club gave its regular monthly dance at the Odéon on January 4th.

Ruth Braughton was hostess to the members of the J. W. C. Club Tuesday evening, February 11th.

Laurel Parker has announced her engagement to G. B. Lovelace of Lebanon, Ind.

On January 23d the girls of the Belmont office gave a dinner in honor of Cecil Smith, the Irvington chief operator, who has been taking Miss Brosnan's place for the past two months at the Belmont office. The dinner was an elaborate affair of fried chicken with all accessories. Miss Smith gave a pleasant little talk, thanking the girls for the honor shown her. Mrs. McWhinney assisted the girls in planning the surprise for Miss Smith, and with Miss Welch were guests at the dinner.

On February 4th the toll operators gave a shower for Mrs. Roy Thompson, nee Nellie Osborn, formerly a toll operator. She was presented with a cut glass water set. Refreshments were served and a social time enjoyed by all.

Bertha Faut and Mabel Benson entertained the chief toll operator and supervisors at their regular monthly meeting, January 24th. After luncheon was served a business meeting was held, after which they all adjourned to the home of Miss Benson, where a social hour was enjoyed.

On the evening of February 10th fourteen of the toll operators were entertained at the country home of Vonnie Nelson near Southport, Ind. The cooking party which had been planned was spoiled on account of rain and it was changed to an old fashioned taffy pulling. Hazel Bell was the only one of the party capable of making taffy guaranteed to pull. The girls returned to the city at a late hour and all reported a jolly good time.

Caroline Heltzel has been promoted to the position of evening chief operator at the Belmont office, succeeding Emma Gernert, who returned to her home in Louisville, Ky.

Ethel Brosnan, chief operator of the Belmont office, who has been ill for several weeks, has returned.

On February 1st a private branch exchange of one trunk and seven stations was installed for the National Casket Company, Capitol Avenue and Pratt Street.

Indianapolis exchange made a gain of 334 subscribers during the month of January, without any special canvass being made.

H. F. Hill, Jr., district commercial manager at Indianapolis, is around again after being laid up for a couple of weeks as a result of an automobile accident.

Jessie Loree, who has been employed in the division offices since February, 1904, left January 1st to live in New York. She visited New York on her vacation last August, and incidentally took unto herself a husband. She, however, forgot to say anything about it until ready to leave. She has the best wishes of all.

H. B. Coldwell, traffic supervisor of the Indiana Division, was married to Ida Marie Rogers on January 29th at the Second Presbyterian Church, Indianapolis. C. L. Sawyer, district traffic chief of the Southern District, was best man, and a number of the employees of the Central Union attended the wedding. A handsome dinner set of Haviland china was presented to the bride by friends from the telephone company.

Clifford Arrick, Manager Publicity Department, Chicago, was a visitor in Indianapolis February 11th on business connected with the Publicity Department.

Northern District.

Anderson traffic employees who bought, dressed and distributed dolls and other toys to poor children during the holiday season declare they never had such a good time as Christmas. They are planning to make it an annual event. A picture of some of the girls at work preparing the gifts as shown on Page 25.

A contract has been made for connection with the Rochester Telephone Company of Rochester, Fulton county. This company has 1,200 subscribers who will now receive Bell toll service.

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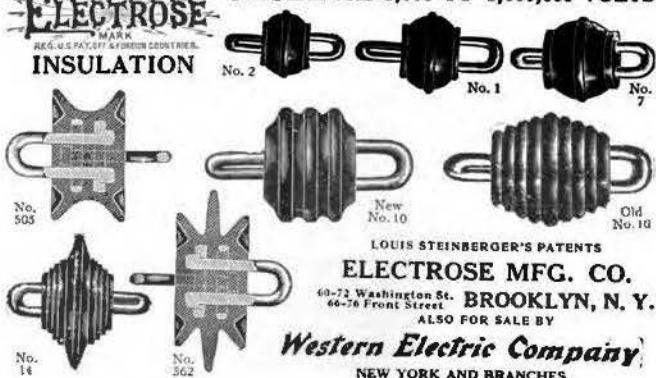
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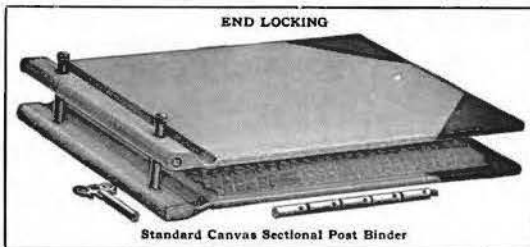
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BEST ROOM AT ANDERSON, IND.
Photograph Taken While Girls Were Preparing Christmas Gifts for Poor Children.

Southern District.

Manager Paul S. Higman, of Bedford, is very proud of the record of his exchange on the occasion of a recent fire in the stock room of the Webb Dry Goods Company. The fire broke out about 7 p. m. and for a time threatened to be serious. W. A. Webb, president of the company, was promptly called at his home by the operator. A few days later Manager Higman received the following letter:

Central Union Telephone Company,
City.
My Dear Sirs: Will you kindly express to the young ladies in your exchange our hearty appreciation of their thoughtfulness and promptness in notifying us of the fire Wednesday night.

The writer was at home resting peacefully when our property was in peril, and but for their promptness more serious loss might have occurred.

We fully appreciate their kindness, and with best wishes for them all, beg to remain, a friend of the Central Union Telephone Company.

Yours truly,
WEBB DRY GOODS COMPANY.

William A. Webb, President.
Ursula Duffy, operator at Washington, has been ill with tonsillitis.
Lyda Bowling, operator at Washington, spent a vacation in Lawrenceville and Vincennes.

The Frankfort traffic employees enjoyed a hay ride and oyster supper New Year's eve.

The Vincennes operators enjoyed their first Christmas entertainment on Monday night, the twenty-third. The affair was complete with Santa Claus and Christmas tree, and it is planned to make the Christmas entertainment an annual occurrence.

CLEVELAND DIVISION

W. K. LAWRENCE, Correspondent

Death of Thomas La Velle.

The funeral of Thomas H. La Velle, who had been employed by the Cleveland Telephone Company and its predecessors for thirty-one years, took place January 15th. Beautiful floral offerings were sent by officials and employees of the company and sympathy tendered to Mrs. La Velle and the family.

In 1886, when Mr. La Velle was a lineman, a forty-foot pole fell on him and a number of his bones were broken. He was in the hospital six months recovering from these injuries. Afterwards he held various positions in the supply department which he filled in a faithful and efficient manner. He was known as an honest and industrious worker and was deservedly popular among his fellow employees.

Builders Visit Telephone Building.

On Thursday, January 23d, 225 members of the Cleveland Builders' Exchange visited the Telephone building. They were served with a chicken dinner in the

exchange girls' dining-room, and afterwards were taken on a tour of inspection throughout the building.

With Commercial Agents.

L. W. McKee had the pleasure of writing the following contracts for private branch exchanges: The Hart Manufacturing Company, 2319 East Twentieth Street, contract calls for a cordless board, one flat trunk line and six stations. The W. S. Gilkey Printing Company, West Ninth Street and Main Avenue, a No. 4 switchboard, one trunk line and eight stations. Herriek & Hopkins, 913 Society for Savings building, a No. 2 switchboard, two trunk lines and six stations. The American Type Founders Company, 15 Saint Clair Avenue, a No. 2 switchboard, one trunk line and six stations. The Clausen & Wilson Company, 418 Saint Clair Avenue, a No. 4 switchboard, two trunk lines and eight stations.

Through the efforts of G. V. Shaw a contract was secured for a No. 2 switchboard, one trunk line and six stations, from the Sixth City Tire & Repair Company, 1737 Euclid Avenue.

A contract was secured from the Otis Steel Company, in the Leader-News building, for a No. 4 switchboard and four trunk lines with eleven stations by N. J. Forgue.

R. H. Barch secured a contract from the Cleveland Steel Tool Company, 6060 East Eighty-second Street, for a private branch exchange which will consist of a cordless switchboard, one trunk line and six stations.



THOMAS LA VELLE.

Kline, Clevenger, Buss & Holliday, 707 Marshall building, signed a contract for a private branch exchange which will consist of a cordless switchboard, two trunk lines and seven stations, through L. F. Barkhauer. Mr. Barkhauer also received a contract from Hubbell & Benes, 4500 Euclid Avenue, for a cordless switchboard, two trunk lines and six stations.

Charles Ellert secured a contract from the Central Press Company, 2063 East Fourth Street, for a private branch exchange which will consist of a No. 2 switchboard, one trunk line and six stations; also one from the Cuyahoga County

OHIO DIVISION

B. T. CALLAWAY, Correspondent, Columbus

Akron District.

Four-party service has passed out of existence at the Canton exchange. With the exception of the former lines, everything is on a jack-per-station basis.

The Centralized Accounting Method has been started in the Akron District. Toll

relatives. Mr. and Mrs. Andrew, of the Akron office, took charge of the Macedonia exchange during her absence.

Grace Brodie has been appointed chief operator at Cuyahoga Falls.

Lydia Augustine, local operator at Akron, has been appointed local supervisor. Mr. Vernon and Coshoxon offices were transferred to the Chillicothe District January 1st.

Toledo District.

J. R. Dunn, for a number of years wire chief at the Findlay exchange, has resigned to accept a position with the West-



SHAWHAN HOTEL.
Tiffin, Ohio.

formerly pay station attendant, succeeds Miss Daugherty.

Pearl Deck, clerk at Toledo, has resigned and is succeeded by Gertrude Dorr.

Vera Whisler and Lillian Murphy of Cuyahoga, Ohio, have taken operating positions at Bowling Green.

On account of the consolidation of the Central Union and the Home Telephone Companies at Defiance, the Central Union employees held a farewell Central Union party Monday evening, January 27th, at the home of the commercial manager, Charles J. Rappaport. The evening was very pleasantly spent, music and cards being the diversions, after which a dainty luncheon was served.

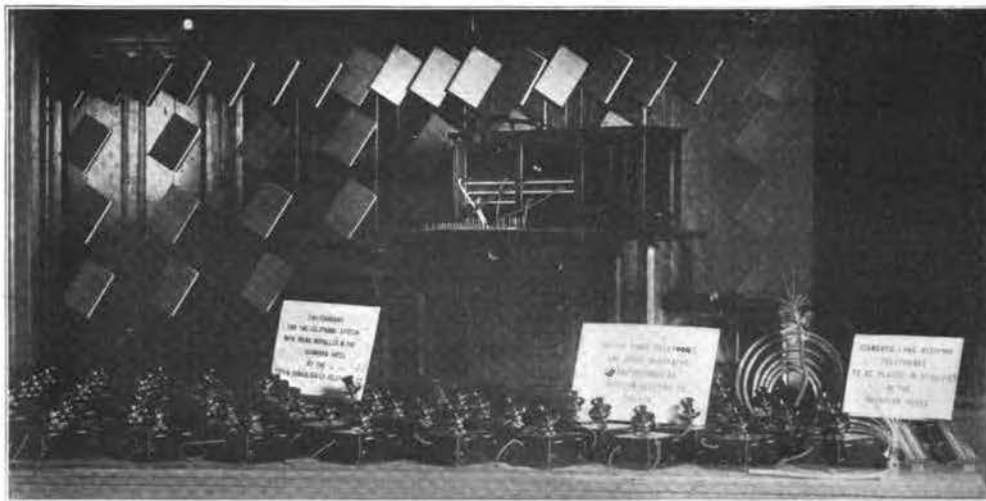
On Thursday evening, January 30th, the operators in Miss Snyder's division of the Findlay exchange were entertained at the home of Beulah Gassman in honor of Ethelyn James, who left a few days later for her future home in Los Angeles, Cal. Pauline M. Cox also entertained for Miss James, on Friday evening, January 31st, the operators in Miss Routson's division being her guests.

Bertha Petersen, toll operator at the Lima exchange, resigned January 31st, on account of moving to Anderson, Ind. She is succeeded by Gertrude Long, of Newark, Ohio.

Frances Guyton, operator at the Lima exchange, resigned her position, to take effect February 15th, and was married February 20th to A. C. Winters, of Ft. Wayne, Ind.

Grace Hannon, formerly an operator in Sharon, Pa., has accepted a position at the Lima exchange.

Maude Evans, traffic chief at Lima, Ohio, attended a meeting of the A. T. & T. traffic employees which was held in Detroit, Mich., on January 30th.



DISPLAY OF APPARATUS TO BE INSTALLED IN SHAWHAN HOTEL, TIFFIN, OHIO.

Court of Appeals for a No. 2 switchboard, two trunk lines and four stations; and another from Rice & Hutchins, 1330 West Sixth Street, for a No. 4 switchboard, two trunk lines and seven stations.

tickets are now sent to Cleveland office to be billed.

Ella Gray, night operator at Akron, has resigned to be married.

Rose Linke, local operator at Akron, has resigned to be married.

Zela Loomis, former cashier at Akron, who resigned recently, has been married to William Hart of Springfield Center, Ohio.

ern Union Telegraph Company at Atlanta, Ga.

A private branch exchange contract has been taken with the Ohio Pipe Company, of Findlay, for one trunk and five stations.

Helen D. Blair, clerk in the office of the district commercial manager at Toledo, has resigned on account of moving to Cleveland, Ohio. Adeline Yeager, who

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LOCAL COMMERCIAL DEPARTMENT, DAYTON, OHIO.

A new directory has been issued for Akron and vicinity.

Jennie O'Neill, chief operator at the Cuyahoga Falls office, was married January 22d to Fred Smith of Akron. Mr. Smith was formerly wire chief at the Akron office.

Mrs. Scott, of the Macedonia office, spent January 21st to 23rd in Cleveland, Ohio, and Erie, Pa., visiting friends and

has been employed temporarily as stenographer at the Toledo exchange, succeeds Miss Blair.

Mary Walsh, stenographer at the Toledo exchange, has resumed work after having been absent for some time on account of illness.

Rachel Daugherty, clerk at Toledo, has resigned to accept a position with the Second National Bank. Hazel Coonrod,

Genevieve MacDonald, formerly in the traffic department of the Chicago Telephone Company, has been appointed day chief operator at the Toledo Main Exchange, succeeding Emma Koch, who was transferred to Detroit, Mich.

Vera Athelston, formerly supervisor at the Collingwood office, Toledo, has been appointed evening chief operator at the Toledo Main office.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

P. B. X. Development in Detroit.

Among the new private branch exchanges and additional equipment installed or ordered during the month of January the following are notable:

| Terminal | Trunks | Lines |
|---|--------|-------|
| E. J. Woodson Co. (fire brick and foundry requisites) (new)..... | 6 | 12 |
| Keston Motor Co. (new)..... | 12 | 12 |
| Wayne Cigar Co. (new)..... | 12 | 12 |
| Abena Post (German daily paper) (new)..... | 12 | 12 |
| Himehock Bros. & Co. (suits and furs) (new)..... | 19 | 11 |
| Ignition Starter Co. (new)..... | 11 | 11 |
| MacDiarmid's Candy Co. (new)..... | 2 | 6 |
| Speaker-Hines Printing Co. (new)..... | 2 | 6 |
| Yeomans-Driver Co. (boxes) (new)..... | 2 | 6 |
| Fisher Body Co. (addition)..... | 2 | 9 |
| Travelers' Insurance Co. (addition)..... | 1 | 8 |
| Tullar Envelope Co. (intercom) (new)..... | 1 | 5 |
| Spelt Creamery Co. (new)..... | 1 | 5 |
| Barnes Crosby Co. (engraving)..... | 2 | 6 |
| W. W. Chapin (attorney) (new)..... | 2 | 7 |
| Hoskins Mfg. Co. (electrical stoves) (intercom) (new)..... | 2 | 6 |
| Chamberlain, May, Denby & Welch (attorneys) (intercom) (new)..... | 1 | 6 |
| Hotel Victory Annex (new)..... | 2 | 21 |
| Francis Apartments..... | 2 | 21 |

Day Supervising Force, Detroit.

The flashlight photograph printed on Page 30 shows the Detroit day supervising force gathered together on the evening of February 14 in the Association Room of the Telephone Society of Michigan to listen to a talk on the pension plan, the Home Telephone cut-over, and the new complaint routine by District Traffic Chief W. A. Spencer, and by Traffic Manager E. J. Vermilyea.

While most of those present had heard something of the liberal benefits of the pension plan, this was the first official notification, and keen interest was displayed in its many provisions. The announcement that they might be retired at the age of fifty or fifty-five years, or after thirty years of telephone service, was received with some amusement by these young ladies still in the early morning of life. The sick benefit seemed to appeal as meeting a present want and was met with enthusiasm. Anticipating a possible question in the minds of those present, Mr. Spencer explained that the salary or standing of an employee would in no way be affected by the institution of this plan. Here as everywhere that these plans have been announced the liberality of our employers in providing for our possible future needs apparently left a deep feeling of gratitude and the desire to reciprocate by loyalty.

In speaking of the Home cut-over which was expected to take place March 1st, it was said that all but one (City) of the six Detroit offices of the Home Telephone Company would be abandoned. The lines of the offices abandoned, Field, Oak, Bell, Crest and Pointe, would be cut over to the Bell office of the city, which will be rechristened "Cadillac." The Home long-distance board now located at the City Exchange would be moved into the long-distance room of the Bell office at Washington and Clifford Streets. Attention was called to the fact that the entire Home office force could be needed at the Cadillac exchange at the time of the cut-over, and Home lines to Bell offices would require additional force in those offices. The co-operation of all supervisors in any additional stress on the force because of these conditions was asked, also in meeting and eliminating difficulties anticipated because of the difference in equipment of the two plans.

It was explained that any who wished to take a short furlough during the next two or three months might do so, the object being to give those who might require a longer rest than the summer would give them, or those who wish to visit out of town a chance to do so at a time when their absence would not affect the service as much as it would during the summer when the traffic increases.

The new complaint routine which contemplates handling all service criticisms of a minor nature by the floor supervisors instead of by a group of special supervisors known as chief operators' desk supervisors, as at present, was outlined. The advantages in this plan to the supervisor in that she would be in closer touch with her subscribers and the service that they were experiencing when handling their criticisms, was emphasized and supervisors agreed to be particularly courteous in starting the plan, as it was wished to introduce it without any adverse criticism upon the

method from the subscriber. This method will improve the service, as the complaining subscriber will be handled, for instance, on a D. A. or a busy by not more than two or three people at the outside, where under the old method sometimes five or six were involved.

One has only to look at the faces in the picture to know that there lies the willingness to lend the co-operation asked in these things, and that the qualities required to solve some of the problems that confront the district traffic chief are present.

After the meeting refreshments were served in the main cafe on the fourth floor. This was followed by dancing in the recreation room on the fifth floor.

Detroit Operators' Dance.

By Agnes Neville.

The first dance of the year given by Mr. Parent to the girls of his five offices was a great success. He has not lost the art of being a successful and appreciated host, and his efforts in giving unlimited pleasure in beautiful surroundings have not been affected by the supposed "hoodoo" of '12. But then Mrs. Parent's dainty presence and assistance at "our" party easily knocked the "doo" out of "hoodoo." Every one had a good time. It was an ideal winter's night. The coming and going were pleasant. (Is it "hats off" to Mr. Parent for this, too? Surely he must have a stand-to with Detroit's weather prophet, for it was the first fine weather of the season.) The hall was beautifully decorated, with flowers, and autumn leaves predominating. No! I'll admit that is an error. Our girls and boys were far more numerous and were the real beauties of the ballroom. The gowns were sweetly pretty, and our girls were pretty sweet, a combination the boys seemed to favor greatly. The music was especially fine. All appreciated the exceptional abilities of Mr. Bath's musicians, as well as their pleasing manner of rendering their best. Mr. Kerwin kindly furnished a splendid lunch, and Mr. Spencer, in his usual kind-hearted manner, undertook to see that each one was generously served. That lunch is "gone but not forgotten," and just "thank you" seems but a poor return for the thoughtfulness that made it possible. Mrs. Kramp, with our chief operators and our numerous supervisors of the different exchanges, ably assisted in attending to the hungry cravings of their guests.

There were many pretty dances, and the pleasure of the dancers was enhanced by the singing of several numbers. Mr. Downey, of Glanville's, sang several selections in a fine baritone voice. Miss Wolfe of the Main office sang very sweetly, "While the Dance Goes On," and "Miss Stevens," of Walnut, sang in her usual good style, "That's How I Need You." We all appreciated her singing this so beautifully to us, but we did not realize before that she needed us, though we were pretty sure we needed her to make our happiness complete on this festive occasion.

Miss Middleton, and her girls of the East, as at our previous affair, proved themselves able assistants in keeping everybody happy. Miss Greenstidel of the West attended, and with the aid of her girls helped to materialize the promised pleasure. Miss Chambers of the Hickory, and her Hickory girls, enjoyed themselves most thoroughly, and their happiness was contagious. Even the policemen caught it. (How many dances?) We were glad to meet you, Miss Faber. Oh! yes. We have met your girls before at our parties and have always thoroughly enjoyed their presence. We hope that "lastings is likings" and that you will attend again, if only to insure or rather increase the pleasure of our Cedar girls. Our Walnut girls turned out in goodly numbers and enjoyed every minute.

The invited guests were Messrs. Spencer, Vermilyea, Laskey, Murray, Ewald, W. P. Smith, Ford, Glass, and the latter's guests, Mr. MacDonald and his mother Mrs. MacDonald of the MacDonald School of Dancing. We were especially pleased that Mrs. MacDonald graced our party with her genial presence. We regret that some of the invited guests did not attend. One young gentleman explained that he was "held up" at the L. A. C. Did he lose his watch in acquiring a "skate"? Perhaps Mr. Murray will explain.

The most talked of event? The party. The most popular question? When are we going to have another? Let us hope it will be soon and that '12 will bring our girls the good fortune of attending many more such pleasant affairs.

A. T. & T. Operators Meet in Detroit.

A special campaign was conducted in the Detroit and Toledo offices of the American Telephone and Telegraph Company during November and December, 1912, to reduce lost calls. During December both of these offices reached the lowest percentage of total lost calls ever attained: 11.7 per cent. at Detroit, and 12 per cent. at Toledo. These figures, in comparison with the standard determined for these offices by the general

Mr. Manager:



This is the battery your company is using.

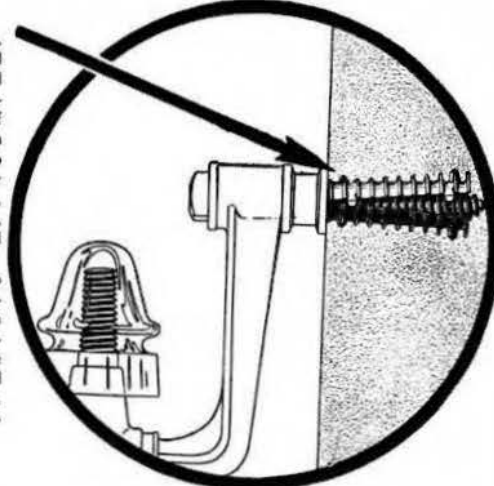
Are all the telephone companies in your territory using it?

If they are not, tell them about it, you know its good points—long life and steady current

And then there are our quick shipping facilities—from 28 points.

SEBCO EXPANSION BOLTS

The quickest, simplest and most economical means of fastening any kind of brace, brackets or fixtures to walls, floors or ceilings of brick, stone, concrete, tile or any hard substance, especially adapted to all kinds of electrical uses, such as fastening bridge rings, cable clamps, insulated brackets, motors, large switch-boards, etc.



Star Expansion Bolt Co.
147-149 Cedar St. New York City



The Associated Bell Telephone Interests have 89 of our trucks in use.

Mack Saurer Hewitt

Proved by 12 years
of real service

Proved by 17 years
of real service

Proved by 10 years
of real service

"Leading gasoline trucks of the world"

Your transportation problem—you want unprejudiced advice first; then service.

Who will best advise and serve you?

A manufacturer, who has only one kind of a truck built in one or two sizes? Or the International Motor Company, which manufactures trucks of value proved by years of use; with various designs and distribution of load and a full line of sizes with every kind of body built in their own plant?

Capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½, and 18 tons

You cannot afford to settle your transportation problem without consulting this organization.

We have data on the transportation problems of about every line of business. Our Engineering Department will be glad to send you, on request, special information in regard to your own particular needs.

International Motor Company

General Offices Works
57th and Broadway, New York Allentown, Pa. Plainfield, N. J.
Sales and Service Stations in all Principal Cities.
Chicago Branch and Western Sales Dept., 1808 Michigan Ave.

"Beldenite" Rubber Insulated Telephone Wires

We make all kinds of Telephone Cords—Silk, Cotton, Belden-
amel, Silkenamel and Cotenamel Magnet and Resistance
Wires—Coil Windings—Cord Tips and Terminals.

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offices in New York, show an efficiency of over 100 per cent. in this feature of the service. A letter from J. L. R. Van Meter, general superintendent of traffic of the A. T. & T. Co., was read by Detroit Traffic Chief Slocum, stating that the percentage of total lost calls for the company during December, 1912, 11.9 per cent., was the lowest figure ever attained in any month.

In connection with "Service Observing," Miss Myers, Detroit A. T. & T. Co. chief operator, mentioned the different operating intervals upon which particular stress is being laid, in an effort to perform them within the standard time allowances. It was shown that considerable improvement had been made in nearly all of the various intervals mentioned. Those intervals which have a direct bearing on circuit efficiency, and those in which the operators are least efficient have been explained to the operating force, and are now being given special attention. From

to do so. Regular business preceded the papers. It was moved and seconded that the annual outing of the society be taken out of the society's hands, and that President Dawson appoint a committee of one to wait on the general manager with the view to discuss having the outing made a company matter in the future; seconded by Mr. Hayger; carried.

A letter was read from Mr. Thayer, vice president of the American Telephone and Telegraph Company, answering the society's telegram to Mr. Vail. W. A. Cardinal gave a short talk on collections.

The following letter was received by the Michigan correspondent of the News from C. F. Hibbard, now manager at Ypsilanti, and former secretary of the Telephone Society of Michigan:

"Two years ago this winter there was born into the hearts of several active telephone men in Detroit the desire to create a feeling of inter-departmental comradeship, which would furnish an



MAIN A OPERATORS, THIRD DIVISION, DETROIT.

The operators of the Third Division of Main A won the Supervisor's Division contest for the month of January. On the night of February 4 they spent a very pleasant evening at the Detroit Opera House, where "The Chocolate Soldier" was being played, after which they had luncheon at the Hotel Cadillac. Names follow:

First row, left to right—Emma Somerfield and Mary McMahon. Second row—Henrietta Ryan, Anna Regan (senior operator), Erma Hamm, Mary Scharreit and Pauline Kraut. Third row—Lena Westfall and Ethel Barr. Fourth row—Carrie Groshave, Mary Schwohl (supervisor) and Clara Bruce.

month to month the particular intervals, upon which a campaign is conducted, are changed, and several additional intervals will be added to the number in the coming month.

Miss Lyons, the Maumee A. T. & T. chief operator, spoke on the handling of through traffic and service observing at a through station.

Bulletin boards have been provided at Detroit and Toledo showing the comparative standing of all A. T. & T. stations in general efficiency. This bulletin will be changed each month to show the standing for the previous month. Mr. Slocum explained how the general efficiency figure is determined by taking an average of the percentage efficiency for the month of four features of the service, each of which counts twenty-five points. These features are: Units for Operators; Speed of Service, from the service observations; Delayed Calls with Circuits normal, and Total of Lost Calls. The method of determining the efficiency percentage for each of these items was explained in detail.

Before the operators dispersed they were also addressed by Commercial Manager Slack, who spoke pleasantly covering the relations of his office with the public, stating that the toll business of a telephone company was its backbone. He said that it would probably not be so very long before we would be telephoning across the ocean.

Telephone Society of Michigan.

The meeting of January 16th was referred to in last month's issue of the BELL TELEPHONE NEWS, at which our general manager discussed the Employees' Pension Plan. The next meeting occurred on February 5th, when two papers bearing on "The Necessity of a Well-Defined Order Department" were read by C. A. Marantette and T. L. Finneran. A lengthy debate followed the reading of these papers, and those members who failed to turn up—it was a cold night—missed one of the most educational gatherings the society has had in the discussion of commercial routine. It was moved and seconded that Messrs. Marantette and Finneran combine their papers into the form of an article to be submitted for publication to the editor of BELL TELEPHONE NEWS. They promised

opportunity to the individual to broaden out into the other departments educationally and socially. To-day no one in Detroit needs be told that the fruition of the efforts of these few men in the Telephone Society of Michigan, a splendid and successful organization which has far exceeded the hopes of some of its founders, and which is respected and enjoyed by all employees and officials who are members; it is the gathering place of messenger boy and department head alike—occasionally of the officials themselves. There, of a noon-hour, one may either look upon the smoothest game of checkers conceivable, or he may hear from the traffic man some of the intricacies of traffic engineering, from the plant man the easiest way to locate and clear trouble in an instrument, from the commercial man the words necessary to convince a four-party line subscriber that what he really needs is an individual line—in short, anyone can find the answer to any telephone questions.

"Successful organization, did I say? Yes, and I repeat it. Our society is far beyond the hopes of its early members. But stop a minute. Success in coming was fortunately good natured enough to leave a practically endless field for further conquests. Otherwise the mainspring in the organization, the desire to benefit every male employee in the state, would have been overlooked and left behind. The society was given the name of Michigan to grace its title, and it is in Michigan that further and complete success may be achieved. If you fear it a success to conquer in Detroit, try to imagine just exactly what you would feel like if at the end of a few years you could say to your friend, for instance, the Central Union company: 'Why, yes, our society includes in its membership every male employee in the state.' If after this exhilarating thought you are able to get back to earth again, get on your hat and coat and go to the next Board of Governors meeting with some suggestions as to the best way to reach the men in the field. Get busy, governors; it is a big field."

Traffic Conference at Kalamazoo.

A conference of chief operators from the larger offices and the traffic chiefs in the Grand Rapids district was held at the Rickman Hotel, Kalamazoo, January 21st,

You Can Find All of Your Cable Troubles WITH A Matthews Telafault



With the exception of "opens" the above headlines are absolutely true.

You can find "split pairs," shorted pairs, grounds, crosses, dead-grounds, damp places and wet spots, with a Matthews Telafault.

You can get a Matthews Telafault on a regular requisition if you really need an instrument for the purposes stated above. Your engineering department has approved it and quite a number of Matthews Telafaults have been shipped to your company.

The money now lost will repay its cost.

Manufactured Exclusively By



"Matthews Does While Others Buzz"
For Sale By The
Western Electric Co.

22d and 23d. L. J. Walley, district traffic chief of the Grand Rapids district, being the presiding officer.

On Tuesday, the first day of the conference, the local operating methods were discussed. Interesting papers were read on "Selection and Training of Students" by W. H. Kendrick, traffic chief at Kalamazoo, the "Selection and Training of Supervisors" by H. V. Weed, traffic chief at Grand Rapids, and "Elements of Self-entitled Management" by L. J. Walley, dis-

ally. This, however, was pardonable under the circumstances. Mr. Walley, as toastmaster, showed a truly remarkable ability for remembering names and for calling on all those who, due to their naturally retiring disposition, tried hard to be overlooked. Had it not been for an unexpected guest (a mouse), which was most unwelcome, there might have been an opportunity to discover some embryo "after dinner speakers". The advent of the unwelcome guest caused everyone to



CHERRY A OPERATORS, THIRD DIVISION, DETROIT.

The winning division in the Cherry A spent two enjoyable evenings on the proceeds of their premium money. Instead of the usual supper, the girls enjoyed two evenings at the theater. The names follow: First row—Evelyn Masmore and Eva Solo. Second row—Pearl Lezotte, Louise Wiederhold (supervisor) and Anna Phillips. Fourth row—Margaret Brisson, Leslie Phillips, Lillian Sullivan and Vera Smith (senior operator).

district traffic chief. These vital features of the organization and training were very thoroughly discussed and much valuable information gathered by all present. Immense benefit was derived from the frank, informal discussion of all these points and some very interesting methods and points of view brought to light. Each chief operator avowed her intention to select and train her employees in the future in a systematic and thorough manner, and by so doing build up an organization on a firm foundation of interest and efficiency.

The supervision of local traffic, handling of apparatus, proper repetition of numbers, team work development, local service standards, position of operators while at the switchboard, etc., came in for their share of consideration, and plans for improving all of these features were discussed.

The chief operators in offices where both local and toll work are handled by one executive realized that many important features of local operating have not been given the proper consideration and supervision toward getting uniform results.

On Wednesday and Thursday the toll service and operating methods were discussed in detail by chief operators who were assigned to various subjects. They were all handled very efficiently, and clearer understandings were established as to operating details and their relative importance. The following being some of the important subjects: The handling of through traffic, the clearance of circuits, the cancellation of calls, the 103 operating method, routing, handling tributary traffic, delayed calls, waste circuit time, rate chart, campaigns on perfect ticket records and service charges for centralized accounting.

The preparation of Toll Speed of Service Report was taken up in detail by Mr. Walley and Fred Clarke, division traffic supervisor, and its importance as an efficiency record was clearly defined and believed to be thoroughly understood by all as being an important factor in judging the character of toll service.

Messrs. G. E. Kerwin, traffic superintendent, and G. M. Welch, commercial superintendent, were present Wednesday, and gave interesting talks on subjects under discussion. Mr. Kerwin outlined the work of the past year, commenting favorably upon the improvements over the previous year, and expressed the hope that the year 1913 might even be more successful. Mr. Welch's remarks on courtesy being a business asset left a very strong impression upon those present of its intrinsic value. The principal features regarding the centralized accounting method were mentioned by both superintendents.

On Tuesday night, January 21st, Mr. Walley was host at an informal "Get-together" dinner party, at 8:30 o'clock. A six-course dinner was served, during which time everybody was forbidden to talk "shop". However, due to the lively interest in subjects under discussion, a day, a little "shop" crept in occasion-

ally. This, however, was pardonable under the circumstances. Mr. Holland, traveling auditor, otherwise known as the "Grand Old Man of Michigan", and Mr. Robb, commercial manager at Kalamazoo, were guests and added their share to the general good time by their presence.

On Wednesday night, January 22d, all present at the conference attended a dancing party given by the Kalamazoo

operators in the ballroom of the New Burdick Hotel, where despite the strenuous work of the day they "tripped the light fantastic" until the wee sma' hours. The conference closed Thursday, January 23d, at noon, and every department head went to his or her office with renewed interest and enthusiasm, which bids fair to make the year 1913 go down in history as a banner year of the traffic department. There is no reason why the Grand Rapids district should not revise the well-known Grand Rapids City slogan into "Grand Rapids District Knows How" and go ahead and get results at all times. Those privileged to attend the conference considered it the most successful one they ever attended.

The chief operators present were: Louise Lane, Albion; Elizabeth Vason, Battle Creek; Mabel Gilbert and Polly Phillips, Benton Harbor; Sadie Wallen, Cadillac; Katherine McCarty, Charlotte; Nellie H. Tall, Dowagiac; Estella Biehl, Grand Haven; Sadie Nell, Grand Rapids; Ruby Bugelow, Ionia; Lucille Potvin, Ludington; Augusta Peterson, Manistee; Helen Heinley, Marshall; Rose McNeill, Petoskey; Anna Schmor, Niles; Marita Johnson, St. Joseph; Bertha Robb, Traverse City; Laura Quick and Hazel Tripp, South Haven; Lucille Robinson, Three Rivers; Anna Clifford and Helen Hare, Kalamazoo.

The district and division representatives present were: L. J. Walley, district traffic chief, Grand Rapids district; H. V. Weed, traffic chief, Grand Rapids; H. S. Richardson, service inspector, Grand Rapids; W. H. Kendrick, traffic chief, Kalamazoo; W. G. Slocum, district traffic chief, A. T. & T. Company, Detroit; T. E. White, division traffic supervisor, A. T. & T. Company, Chicago; Fred Clarke, division traffic supervisor, Detroit; G. E. Kerwin, traffic superintendent, Detroit; and G. M. Welch, commercial superintendent, Detroit.

Detroit District.

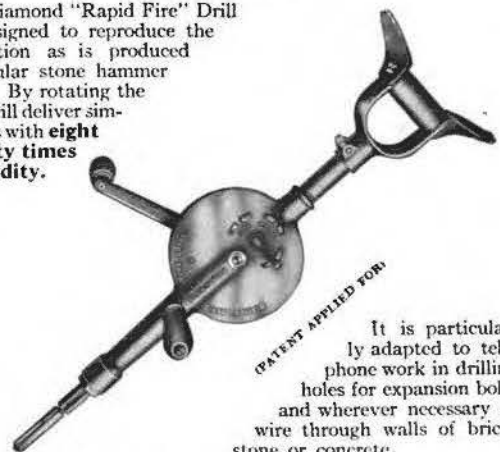
Recently the Grand office had a subscriber calling a number in a foreign exchange, complaining he had been given incorrect number three times. The supervisor handling the call passed the number, and when the called party answered, said: "Is this West —?" The man replied: "This is Number 45." She at once passed the information to the distant supervisor, who reported the number that the Grand office had called was connected on a trunk and that signals indicated they had answered O. K. She rang on the line again and the same gentleman answered. To our query, "What is your number please?" we received the re-

Diamond "Rapid Fire" Drill

(PATENT APPLIED FOR)

For economically DRILLING HOLES IN BRICK, STONE OR CONCRETE

THE Diamond "Rapid Fire" Drill is designed to reproduce the same action as is produced by a regular stone hammer and drill. By rotating the crank it will deliver similar blows with eight to twenty times the rapidity.



It is particularly adapted to telephone work in drilling holes for expansion bolts and wherever necessary to wire through walls of brick, stone or concrete.

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties

90 West Street, Corner Cedar

New York

sponse. "This is Number 45. Do you want to change?" The supervisor then went back to the subscriber and asked for the name of the party he was calling. He replied "Dr. . . .". She checked with number 45 and found it was the doctor's residence, and he was promptly called to telephone and trouble overcome. Upon investigation we found this "doctor" is what is termed a "healer," and his patronage is so great that each person is given a numbered ticket upon his application for an interview, and according to their number they are "next." Frequently people call and secure their tickets and leave, then telephone at intervals to learn when their turn has come, or change with someone where it makes it more convenient. Thus number 45 had become so thoroughly imbued with his number that he remembered nothing else, and almost caused a subscriber to believe he had a careless operator.

At Christmas time the Grand office had five operators on the sick list, so, to cheer them, baskets of fruit were sent to Leta Merrifield, Grace Gilmore, Isabelle Andrew, Tillie Noreau and Esther Du Montier. Each basket, if the wish had been unexpressed, would have said: "We wish you a Merry Christmas and a speedy recovery." Grace Gilmore and Leta Merrifield are both with us again, feeling better and gaining every day, but the others were forced to resign on account of their health.

Lost, strayed or stolen: One moustache. Finder will be liberally rewarded and no questions asked if returned to George Watkins, janitor at the Grand office, Detroit.

For December, 1912, the Third Day A Division at Grand office, Detroit, won the premium in the supervisors' division contest. On Wednesday evening, January 15th, the young ladies, chaperoned by Chief Operator Mae Thompson, enjoyed themselves at a theater party at the Detroit Opera House, seeing Maude Adams in "Peter Pan." Supervisors Kate Sharpe, with the following operators, were the winners: Kathleen Bishop, Florence Van Sickle, Guilla Smelser, Elizabeth Neenan, Laura Hall, Virginia Frotman, and Alice Roberts.



MICHIGAN STATE CONSTRUCTION CREW REBUILDING EXCHANGE AT MILAM, MICH.

Left to right—R. Greenman, A. Kendall, A. R. Vershaye, E. M. Jibb, F. Barnes, H. J. Gordon, R. A. Smith, foreman; H. J. Bowers, cableman; F. Geer, E. M. Causgrove, H. Holcomb, V. A. Draper, B. Sissam and E. Heath.

For several weeks after their day's work was done you could have noticed some weeks ago a group of Grand office girls with their heads together, planning something which seemed to be of great importance. Finally the facts became known. They were planning for their second informal dancing party to be given at Clark's Dancing Academy, Thursday evening, January 23d. What anticipation! What expectation! And oh, what hopes for a beautiful day and evening! But no, the day dawned, and with it a heavy rain, consequently several long faces, but as the day wore on the rain ceased, the

we hesitate to doubt her, but as others have treated us the same and not taken us into their confidence, have we not reason to be dubious?

The first illustration in the book, "Welfare Work," published by the American Telephone and Telegraph Company, and Associated Companies, which meets the eye after the cover is turned, is of extreme interest to Detroit operators, for the cut is of Margaret Kopp, chief operator of the long distance office in Detroit. Under it the legend reads: "An operator with a record of eighteen years' service without illness."

been promoted to supervisor to fill the vacancy left by Miss Duckwitz.

W. E. Spencer, district traffic chief of Detroit, held an all-day session with the chief operators of the Mt. Clemens area on February 6th. The meeting was for the purpose of explaining the new toll rate charts and everything in general relating to the traffic department. All local exchanges were represented.

David Grandy, repairman of the Mt. Clemens exchange, decided to impose upon himself a life sentence by taking a wife on Thursday, January 30th.

R. Moore, assistant wire chief, Mt. Clemens exchange, gave a dance on Monday, February 2d. It was largely attended and all enjoyed themselves thoroughly.

Charles Beard, repairman of the Mt. Clemens exchange, has been confined to his home at the Crystal House with an attack of the grip.

District Plant Chief Kirk and District Foreman Bisbee made a pleasant call to the Mt. Clemens exchange February 10th to prepare plans for the cut over of the Macomb County Telephone Company, scheduled for about March 15th.

Bernice Pierson was appointed chief operator at the Armada exchange January 10th to fill the vacancy left by Grace Downey, who resigned her position. Bertha Van Inzagin was appointed operator No. 2 to fill the vacancy made by Miss Pierson's promotion.

Gertrude Chapman, operator at the Algonac exchange, is very ill at her home, suffering from ptomaine poisoning. Miss Chapman is recovering, but was unable to resume her duties last month.

Mattie Sikes, who has been toll operator at the Romeo exchange for nearly a year, has resigned her position there to accept a position as private exchange operator in a motor factory in Indianapolis.

A new section of No. 9 relay switchboard has been installed at the Mt. Clemens exchange, the work being done by Fred Kline and G. Bertr. "Two genius souls with their hearts in the right places." The equipment was installed to distribute the load better on the several boards, and to enable the transferring of the Macomb County Telephone Com-



DAY SUPERVISORY FORCE, DETROIT.

YOU'RE WASTING TIME If You Haven't Started Using FRANKEL'S TEST CLIPS

No peeling the wires. Permanent, positive connection every time and no damaged wires to repair.



FRANKEL DISPLAY FIXTURE COMPANY, Hudson and Vestry Streets, NEW YORK CITY

clouds broke and the evening came forth fair. All turned their footsteps toward the Academy, and were rewarded for their work and efforts, as they had a nice crowd and a fine time. One very noticeable feature was that each office of the company had a representative, as well as many of the different departments. The girls wish to extend their thanks to the many persons who assisted in making their party a success. The following members of the committee deserve the credit for the work: Margaret Murphy, Martha Schmitt, Hazel Broderick, Edna Price, Pearl Burns, Laura Hall, Alice O'Connell and Mae Thompson.

Monday morning, January 20th, the father of Frances Lovett, day supervisor at Grand office, Detroit, died after having undergone an operation. He had been ill for the past year. The operators at the Grand office extended their sympathies through a beautiful floral piece.

Martha Schmitt, clerk at Grand office, wears a beautiful sparkler on the correct finger of the proper hand. She states it is a birthday gift, but very innocently let slip her birthday is in April. It is nice to have a thoughtful admirer who will purchase your birthday gift early, and as Martha has always proved truthful,

E. L. Barrows, formerly order clerk in the Detroit office, who resigned a year ago to go to New Mexico for his health, has returned to Detroit with the health and is again with the Michigan State Telephone Company, to the satisfaction of his many friends.

F. J. Ellis, special agent, reports that his motor boat has not emerged (to date) from its winter quarters.

Everybody is working hard these days. The biggest cut-over in telephone history takes place on the night of February 28th-March 1st, and we all intend it to be a proportionately big success.

Effective February 6th, Prattville toll station is discontinued. Prattville can be reached by subscribers' stations from Hudson and Ransom.

Mable Duckwitz, supervisor in the Mt. Clemens exchange, has been promoted to chief operator to succeed Susie Philbrick, whose marriage to Frank Roberts, Jr., took place on January 29th. We all join in congratulations to them. Miss Philbrick was very popular in home circles and will be missed very much, not only with her co-operators, but with her many friends. Miss Philbrick was considered one of the best employees this company ever had. Clara Barek, toll operator, has

"Always Reliable"

B. Kerosene Furnace

Economical,
Safe,
Durable

All Rooms
Fused, Not
Soldered.

Patented
October 26,
1909. Other
Patents
Pending.

Manufactured
by
Otto Bernz
Newark,
N. J.

TELEPHONE WIRE

We Guarantee

Greatest Efficiency

Longest Life

Most Satisfactory Service

Lowest Cost of Up-keep

In the Use of our wire.

Write for FREE SAMPLE Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana

DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer

steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

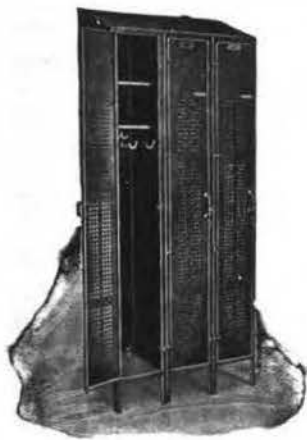
These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

Durand Steel Locker Company

76 West Monroe Street
Chicago, Ill.

132 Nassau Street
New York, N. Y.



pany's subscribers over to the Bell exchange. The "independent" property was recently acquired by purchase. The work was supervised by H. E. Harrington, equipment supervisor, Detroit.

Harry S. Pratt, in charge of Commercial Agents John W. F. Stevens, E. Hardy and J. F. Bacharach, has been in Mt. Clemens for a few days visiting the Macomb County Telephone Company's subscribers (an independent company recently acquired by purchase). The subscribers were notified of the cancellation of their independent contract and asked to sign up for Bell service. The genial gentlemen met with good success, a large number of the independent subscribers readily signing up. All subscribers took the matter good naturedly and no "kicks" were made. The business men of Mt. Clemens are congratulating themselves on getting rid of a dual service. The Macomb County Telephone Company has been in service just one year and nine months. These people started to give service on April 1, 1911, with one of the best outside plants in Michigan, all cables being made of twenty-gauge wire, and they installed the most modern automatic switchboard equipment they could purchase. They also had automatic toll-line service with Detroit. But the Bell service, both local and toll, was good and the other people were unable to secure over 500 telephones, and these gradually dropped from month to month until they now have 263. The exchange building and outside plant are still in good shape and can be used by the Bell Company to good advantage.

V. L. Stevens, manager of the Jackson exchange, has secured a contract covering a private branch exchange system to be installed in the Jackson Motor Shaft Company, to consist of one trunk and five terminals.

Mae Shorr, chief operator of the Jackson office, attended the chief operators' meeting of the district, in Detroit, Thursday, January 30th. Many good points were brought up in regard to traffic, and Mr. Spencer's talk proved beneficial to all present.

Vera Hall, toll operator at Jackson, is seriously ill at her home.

Nettie Brower, local operator at Jackson, has returned to work after a two weeks' illness.

Nora Seymour, local operator at the Jackson office, has resigned her position because of poor health.

Lena Garret, local operator at the Jackson office, has resigned her position to resume her high school work.

Ethel Freer, local operator at the Jackson office, has been granted a leave of absence because of poor health. She will return to her position the middle of March.

Mrs. Blanch Kraft, Edith Roberts, Alice Stinson and Ida Gilbert are the names of local operators recently taking positions at the Jackson office.

The plant department has an order for installation of a new private exchange at the Jackson Motor Shaft Company. Also, the Jackson Automobile Company's private exchange is to be replaced by a No. 4, as the company has outgrown the capacity of the present board.

The work has begun, under Foreman E. Lewis, of stringing two new circuits from Jackson to Ann Arbor, to replace present circuits on the old "New-State" lead.

Morris Dunn, repairman No. 1, has resigned his position at the Jackson exchange.

Material for a No. 2 private branch exchange for the Jackson central office, is at Jackson, awaiting installation.

Floyd Davis, formerly of the collection department, Jackson, has resigned to take a position with the storage battery department, under Herbert Moore, of Detroit.

A manager of one of our connecting companies was a recent visitor at the Jackson exchange. He was apparently very much impressed with our equipment, including underground cables, etc., and took much interest in looking over the exchange. On returning to the commercial department he made the remark to the manager and commercial agent that we have a great many more "freaks" around the Jackson exchange than he had. The girls of the commercial department took exception to this remark.

On the evening of January 24th the ladies of the commercial department entertained at a dinner and theater party in honor of Viola Smith, who recently resigned her position as stenographer at the Jackson exchange to accept a position in Detroit.

Eather O'Grady, after an absence of one year, has returned to her old position as stenographer at the Jackson exchange.

Benjamin Waller, formerly an engineer in Mr. Boyce's department and now in Rio de Janeiro, South America, where he holds a position with—let the compositor be on the job, now—the Brasilische Elektrizitäts Gesellschaft, writes us, in a recent letter: "While the long German name is the correct legal name for our company I find that custom is to call us 'Companie Telefonica.' This will do

for a few years or decades. We all read BELL TELEPHONE NEWS with much interest, as men at home from Central Union, Cleveland, Chicago and Detroit." Mr. Waller's article, describing the private long distance system over the state of Michigan of the General Motors Company, published last April, will be recalled.

A prominent music house in Detroit has been drawing attention to its goods by mailing a free copy of some recent popular song to persons whose names happen to be on its mailing lists. Plant Superintendent Boyce seems to be much a person. The other day he was highly incensed by receiving one of these free copies and finding a ditty entitled: "I Cannot Drink the Old Drinks." "What the dickens do they mean by sending such stuff to me?" he muttered, hurling the gift into the waste-basket.

Ruth Pond has been promoted from senior operator to relief supervisor at Cherry.

Grand Rapids District.

Effective February 1st, the stations of Brinton and Sherman City and the territory adjacent will be transferred from the Saginaw district to the Grand Rapids district, thus removing them from the Mt. Pleasant area and placing them in the Big Rapids exchange area.

C. E. Waite has been appointed commercial manager at Grand Rapids, succeeding J. D. Hess, resigned. Mr. Waite has been with the Grand Rapids exchange for the past seven years, starting as collector, and his experience covers the commercial and accounting work pertaining to the Grand Rapids exchange. Mr. Waite assumes his new duties with the best wishes of all his associates.

Division Auditor of Receipts, G. J. Brett, of Detroit, was a recent visitor at Grand Rapids, arranging for office quarters to cover the new Centralized Accounting Plan, to be made effective for the Grand Rapids district, as of April 1st next. Quarters have been secured in the Shephard Building, directly across the street from the Company's building, at the corner of Ionia and Fountain Streets. The growth of the business at Grand Rapids has been such, that the chief commercial agent's office and the district plant chief's quarters are in the Shephard Building at the present time.

The Traverse Bays Telephone Company, operating in Antrim County, has just closed a very successful year. The annual report shows that on December 31, 1912, the company was operating five exchanges, with, in all, 629 stations. Report shows that an average of 2,135 calls are handled daily, of which 1,824 are local, 276 to other exchanges, and forty-two are toll calls over the Michigan State Telephone Company lines. This indicates that the operators are handling almost a million calls yearly. The board of directors declared the usual 7 per cent. dividend on stock at December 31st, this being the fifth consecutive 7 per cent. dividend paid; 1,730 shares of stock have been issued and are held by 475 stockholders, most of whom are subscribers of this company. During the year an agreement was reached with the Western Union Telegraph Company, whereby any subscriber of this company may send telegrams day or night from his telephone, and night letters, paying no more for service, than if the messages were delivered personally to the telegraph operator. The officers of the Traverse Bays Company are: H. R. Maddock, president; R. E. L. Gibson, vice president; L. Armstrong, treasurer, and W. D. Hicklin, secretary and general manager.

The Kibble Telephone Company which operates in Van Buren County, and receives its service from the Michigan State Telephone Company, has just closed a very successful year's business. At the present time it is operating more subscribers than at any time in its history. The officers of this company are: Dr. O. M. Vaughan, president; R. H. Adkin, vice president, and J. H. Frapp, secretary and treasurer. The Kibble Telephone Company at the present time is operating nine exchanges and approximately 3,000 subscribers.

On February 1st, the North Town Line Roadway Company of Big Rapids was connected for service with eight subscribers. There are 263 Roadway subscribers now connected with the Big Rapids exchange.

Dating from February 1st, 1913, Mrs. E. O. Bellows succeeded Mrs. Snyder as manager at Baroda toll station.

As of January 10th C. L. Foster succeeds Dr. W. J. Shilliday as manager at Lake Ann.

One of the most interesting social affairs of the season in Kalamazoo was the big dance given by the Bell operators January 23d at the New Burdick Hotel. The ball opened with the grand march, led by Druzella Ames, evening chief operator, Bessie Hughes, Edward Chapman of Findlay, Ohio, and Sidney Lawrence. The programs were neat little affairs in blue and white, and contained twenty timely numbers. Every one that could be thought of was done for the

How Are You Going to Get Away From Facts Like These?

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(2) It will decrease the percentage of lost calls by giving almost instantaneous connection with the particular party wanted.

(3) More than five hundred users are now enthusiastic with the results obtained from this service.

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used in conjunction with the telephone is productive of a combined service of much worth to the user and of great aid to the telephone service. Were you aware of its value you would not hesitate in recommending its utilization. To be familiar with this service is of a particular advantage.

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THE AUTOCALL COMPANY

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pleasure of the guests. Besides Miss Arnes and Miss Hughey, the committee on arrangements consisted of Mrs. Helen Hare, Anna Clifford, manager A. W. Robb and W. H. Kendrick. The decorations were in charge of Messrs. O. H. Kohler, Jack Dykstra and Lyle Reynolds. The *Kalamazoo Gazette* gave a column next day to an account of the dance, and printed a description of the dresses of thirty of the operators. To a mere man these costumes, in type, seemed to be the acme of all that is desirable in the way of ball dresses, and no doubt they were.



PLANT FORCE AT THE GRAND OFFICE, DETROIT.

From left to right—Paul Knitter, order clerk; James Land, assistant order clerk; Dan O'Leary, ammeter man; Harvey Falt, assistant tester; Chester Lord, tester; W. F. Smith, wire chief, and Fred Ehrensberger, switchboard man. This and the other Grand pictures were taken by Mr. Ehrensberger's camera.

The toll station at Henry was discontinued as of December 21, 1912. This station is now reached by farm lines from the Thompsonville exchange, and should be listed in the tariff and route book, as "Check Thompsonville."

Bert Cole succeeds William Budge as toll station manager at Austin, as of January 8th.



A. T. & T. TRAFFIC FORCES IN MEETING AT DETROIT.

Those in the picture are, from left to right: First row—S. H. Dickinson, assistant traffic chief, Detroit; W. G. Slocum, district traffic chief, Detroit; and E. L. Kane, traffic chief, Toledo. Second row—Emelle Rousseau, Sybil Miller, Annie Smythe, Mary Thierry, Helen Wilson, Helen N. Strong, instructor, Detroit; Lulu B. Church, chief operator, Toledo; Olive E. Lyons, chief operator, Maumee, Ohio; Maud Evans, traffic chief, Lima, Ohio; C. U. T. Co., Elsie Steele, chief operator, Beaverdam, Ohio; Elizabeth L. Myers, chief operator, Detroit; Lila Fairchild, service observer, Detroit; Grace Armitage, and Lillian Van Avery. Third row—Clarice Ratterhall, Jauneta Hilton, Marie Hampden, Lily Elstob, Lottie Parks, Gertrude Travis, Marie Williams, Lois Ferguson, Susan Millward, Anna Staley, Marie Hyland, Emily Gehrig, Hazel Dickman, and Clara Ziehr.

Messrs. Montague and Johnson succeed W. W. Baldwin in the management of the Comstock toll station, as of January 1st.

Marquette District.

The Daggett-Nathan-Faithorn Telephone Company opened a toll station at Banat, Menominee County, December 1, 1912. This station is approximately six miles northwest of Daggett, between Nathan and Daggett.

C. C. Brown, Chatham, has discontinued Au Train Camp and Coalwood toll stations, as of January 14th.

The Munising, Marquette and Southwestern Railway Company has discontinued Camp 4 toll station, as of January 1st. This was a telephone used exclusively by the railroad train men, and should not have been reported as a toll station.

Saginaw District.

As soon as weather will permit the new estimate, covering additional aerial and underground cable and pole lines to take care of the increased business in the Port Huron exchange, will be started, at an estimated cost of \$37,750.

Work will also soon be started on the estimate at St. Clair, covering additional plant facilities, at an estimated cost of \$11,000.

Two new positions have been added to the Port Huron local switch-board, also.

Poles

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Stump

TO THE

Line

Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
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ADVERTISE

IN THE
BELL TELEPHONE NEWS

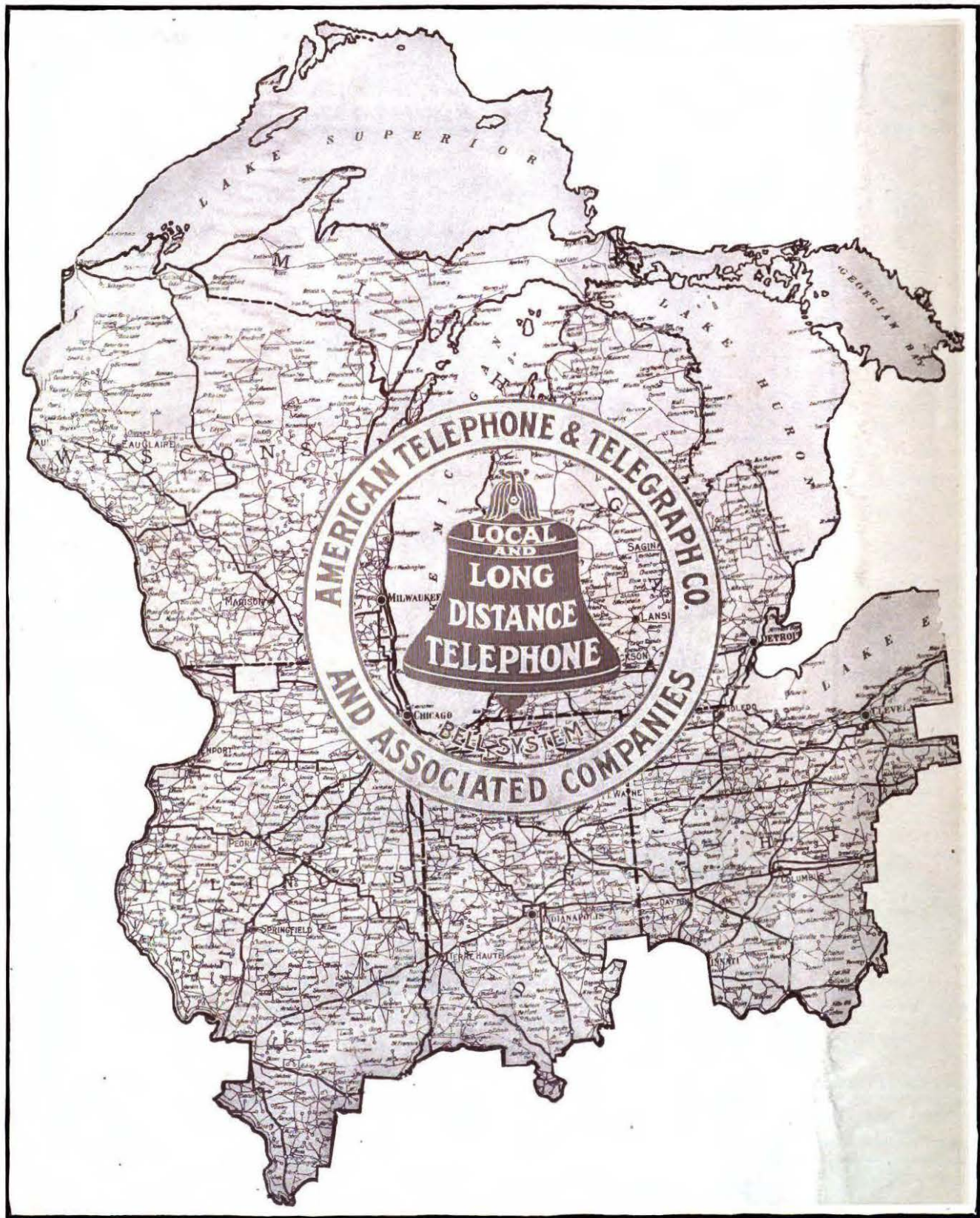
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

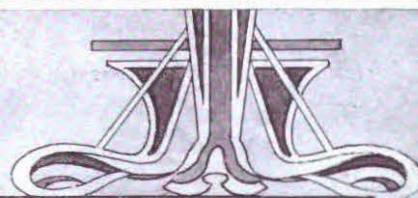
FEBRUARY 1, 1913

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 455,173 | 219,640 | 674,813 |
| INDIANA | 83,935 | 171,281 | 255,216 |
| OHIO | 163,929 | 165,084 | 329,013 |
| MICHIGAN | 181,136 | 54,381 | 235,517 |
| WISCONSIN | <u>124,512</u> | <u>105,466</u> | <u>229,978</u> |
| | 1,008,685 | 715,852 | 1,724,537 |



BELL TELEPHONE NEWS

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



Volume 2

APRIL
1913

Number 9



The Winged Message

Noah's messenger was a dove. In Solomon's time, pigeons were trained to carry messages. Brutus used them at the siege of Modena. They served the Turks in their fights against the Crusaders. In mediæval wars they were more useful than ever before.

France had a carrier-pigeon mail service, with messages reduced by photography and read through a microscope.

Even today carrier pigeons are utilized as news-bearers in isolated parts of Europe.

In America, the land of the telephone, the carrier pigeon is bred only for racing. The winged word has taken the place of the winged messenger.

Pigeons may fly more than a mile a minute, but the telephone is as quick as speech itself.

The dove is the emblem of peace. The telephone is the instrument of peace. The telephone lines of the Bell System unite a hundred million people in one national family.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 9

CHICAGO, ILLINOIS

APRIL, 1913

LAST YEAR LARGEST IN TELEPHONE HISTORY

Annual Report of A. T. & T. Company Shows Steady Growth of Bell System.

The annual report of the American Telephone and Telegraph Company, issued March 19th, showed that the fiscal year of 1912 was the most profitable in the history of the organization. Net earnings of \$37,907,644 were \$4,606,398 better than the previous year, and the amount left for the payment of dividends after fixed charges had been met was equivalent to 5.57 per cent. on the \$334,805,700 outstanding stock. The report for the preceding year showed that the balance applicable to the stock was equal to 8.64 per cent. The balance carried to the reserve and surplus account was \$6,047,357 at the close of 1912.

The gross revenue of the Bell telephone system, from which the American Company derives the greater part of its income through stock ownership, was \$199,200,000, an advance of nearly \$20,000,000 over 1911. Operating costs consumed \$65,200,000 of this total and taxes took \$10,300,000 more. Maintenance expenses required \$31,800,000, and there was written off from gross receipts \$34,900,000 for depreciation, the aggregate of payments made out of income being more than \$14,393,000 greater than in the preceding year. The surplus available for interest charges, etc., was \$56,900,000, of which \$14,200,000 was paid in interest and nearly \$29,500,000 in dividend.

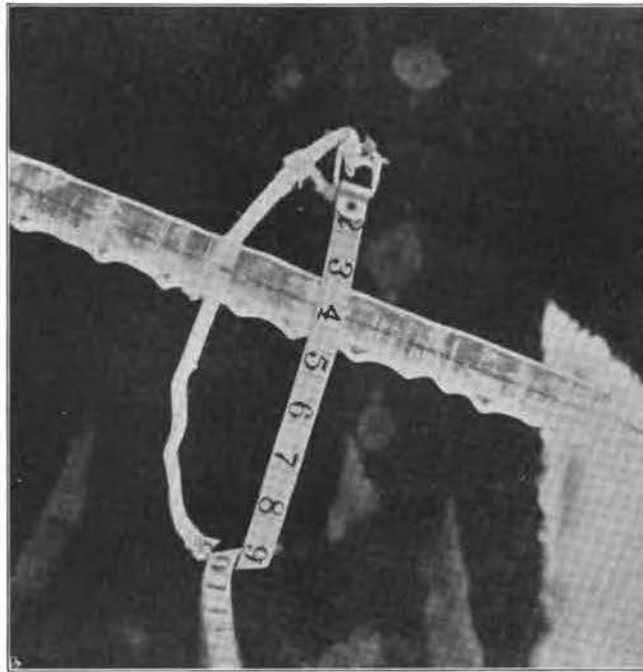
Increase in Shareholders.

The number of shareholders on the books of the American Telephone and Telegraph Company at the close of 1912 was 50,297, an increase for the year of 2,956. The stock was distributed in this way: 43,553 persons held less than 100 shares each; 6,354 held from 100 to 1,000 shares each; 356 held from 1,000 to 5,000 shares each; nineteen held 5,000 shares or more each, (omitting brokers and holders in investment trusts, etc.). Of the holders of less than 100 shares each, 9,450 held five shares or less each; 31,953 held twenty-five shares or less each. Women constituted a majority of the stockholders in the company.

The report tells of the new plan announced January 1 for employees' pensions, disability benefits, and insurance adopted by the American Telephone and Telegraph Company, by its associated companies, by the Western Union Telegraph Company, and by the Western Electric Company. For the purpose of inaugurating these benefits the American Telephone and Telegraph Company made an initial appropriation of \$2,000,000.

Station Figures.

At the end of the year the number of stations which constituted our system in the United States was 7,456,074, an increase of 823,449, including 344,173 connecting stations. Of these, 2,502,627 were operated by local, co-operative and rural independent companies or associations having sub-



THE TROUBLE MAKER.

Wire coated with sleet after storm in Illinois. The tape line shows the ice formation to be almost two inches thick. The background is not a grizzly bear, but the fur coat of a lineman.

license or connection contracts, so-called connecting companies.

The Bell telephone toll lines of the United States now reach 70,000 places, from many of which a telegraph message can be sent. The extent of the system is best realized by comparison with less than 65,000 post offices, 60,000 railroad stations and regular telegraph offices at about 25,000 places.

Wire Mileage.

The total mileage of wire in use for exchange and toll service was 14,610,813 miles, of which 1,678,198 were added during the year. Of the total mileage over 12,400,000 miles were exchange wires, and nearly 2,200,000 toll wires. These figures do not include the mileage of wire operated by connecting companies. Of this total wire mileage 7,804,528 is underground, including 452,374 miles of toll wires in underground cables.

Traffic.

Including the traffic over the long-distance lines, but not including connecting companies, the daily average of toll connections was about 738,000, and of exchange connections about 25,572,000, as against corresponding figures in 1911 of 645,000 and 23,484,000; the total daily average for 1912 reaching 26,310,000, or at the rate of about 8,472,000,000 per year.

The amount added to plant and real estate by the companies, excluding connecting companies, constituting the Bell System in the United States during the year 1912 was \$75,626,329. It is estimated that about

\$62,000,000 will be required for plant extensions during 1913.

President Vail devotes some attention in his report to the extension of the company's legal and engineering departments, showing the value of these departments to the associated companies. On the subject of public relations the report says:

"The relations of our companies with the public and with the supervising Commissions have continued, on the whole, to be satisfactory. It would be impracticable to review the many orders, rulings and decisions made during the year, but most of them have been favorable and none, it is believed, will have the effect of permanently retarding the development of the business along the lines which have been adopted as the policy of the company.

"The New Jersey Commission has sustained our rates in Camden, and elsewhere throughout southern New Jersey, as just and reasonable.

"The Ohio Commission has sustained our objection to compulsory physical connection with another company operating in localities where we were already rendering service, and where the effect of such a requirement would be to make our facilities available to such other company, without the justification of a public necessity.

"The Attorney General of the United States has, during the year, conducted an examination of our affairs, and, as a result of such examination, has sug-

(Continued on Page Three.)

SLEET, WIND AND FLOOD WORK FEARFUL HAVOC

Three More Terrific Storms Visit Central States Territory, Causing Heavy Damage.

At the time of this writing only meager details of the great Ohio and Indiana floods are available and the amount of damage to telephone property cannot be estimated. It is hoped that a complete account may be published in the May issue.

Three terrific storms—one a heavy fall of sleet and snow followed by a gale, another a veritable cyclone and the third a devastating flood—visited the central states on Friday, March 21st, and Sunday, March 23d, and the week of March 24th, and inflicted additional severe damage on all wire systems, many of which had not yet recovered from the effects of the storm of February 20th. The heaviest damage from the sleet storm fell on northern Illinois, the Chicago Telephone Company suffering the worst series of interruptions to service in many years. The outside plant of the Central Union Telephone Company at Terre Haute, Ind., was also badly damaged. The wind storm at Terre Haute was the most severe experienced in the territory of the Central Group of Companies. A number of Central Union exchanges in Ohio and Indiana were out of service on account of floods and no details are obtainable for publication at this time.

The sleet storm of March 20th was worse than that of the month before but the damage, fortunately was not so widespread. All long-distance lines out of Chicago were paralyzed with the exception of one lead to Milwaukee which is carried underground in a conduit system.

The greatest havoc occurred on the Kedzie Avenue pole line, south from Forty-second to Sixty-third street. This line carries the heavy long-distance leads of the American Telephone and Telegraph Company that stretch away across the country to the Atlantic seaboard, and over which are transmitted thousands upon thousands of messages each day. This line is of necessity, of the highest type of construction, the weight of the wires under normal condition being very great. When to this weight is added an additional burden of ice and, on top of all, comes a terrific forty-mile gale sweeping broadside on the strands of wire and ice, no line supports have thus far been discovered that will successfully withstand the strain.

The cyclone of March 23d was not accompanied by sleet, but the damage was serious. Many poles were blown down and almost all long-distance lines put out of use. The situation was aggravated by the fact that a great deal of temporary work put in after the two previous storms was destroyed or damaged. At this writing (March 24th), it is not possible to give accurate details of the damage in all divisions.

The following article is such a type-

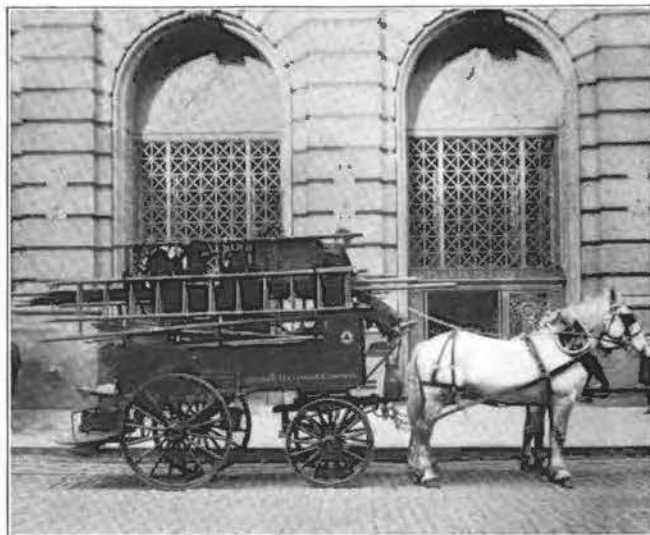
al story of the process of rehabilitation after storm damage that it probably could be applied with equal verity to the two later storms. It is a description of the work of the plant department in restoring service after the storm of February 20th and 21st, written by J. Vranek, plant wire chief of the Chicago Telephone Company. The pictures were collected by J. C. Bone of the Suburban Plant Department. This department had the busiest time in its history during the two or three weeks following the storm. After communication was restored by stringing twisted pairs thus temporarily closing the gaps in the damaged toll lines, the work of permanent repair started immediately and the broken leads rapidly restored to normal working condition.

Friday morning, February 21st, men were detailed on all the important lines to find out the extent of trouble. Reports were sent to Chicago by means of messengers and telegraph, as all of our communication with the outside towns was cut off. As soon as the extent of the trouble was reported, men were detailed on the various leads, with instructions to get a pair of wires working through to Chicago. They found this quite a task, as the wires were heavily coated with ice and broke down as fast as they were put up.

The district headquarters were communicated with in roundabout ways as fast as the lines were restored to service and gangs were detailed on the toll leads to close in sufficient wires to the various towns temporarily by installing emergency cable and twisted pair wires. Every available reel of emergency cable was shipped out to

the cold, is due the credit for the promptness in which temporary and permanent repairs were made to the toll lines.

Sunday, February 23rd, was the coldest day of the year, the thermometer registering as low as nineteen degrees below zero, but still there were a great many men willing to go out and close the wires at the numerous breaks.



CHICAGO LINE WAGON LOADED WITH MATERIALS FOR SLEET STORM REPAIRS.

The picture illustrates the degree of excellence attained in heavy line wagon equipment and scientific loading.

The toll testers kept the traffic department advised of the lines restored to service as fast as the breaks were closed, so that Sunday morning, a number of towns were reached by making patches on the lines.

In order properly to handle the line gangs, charts were prepared showing each line gang and the direction in which they were working on the various leads.

Every toll lead out of Chicago had either wires or poles broken down. The city gangs started out from Chicago putting up wires and poles, and the

Street to Spring Grove, Ill., 183 poles down.

Chicago-Elgin. Between Elmhurst and Bartlett, 200 poles down.

Chicago-Geneva. Between Wheaton Junction and West Chicago, 35 poles down.

Chicago-Joliet. Between Bellwood Park and Joliet, 29 poles down.

Chicago-Joliet, via Blue Island, 16

cago were also badly crippled on account of various pole and wire breaks. On the New York and Philadelphia leads, carrying seventy wires on each lead, running south from Forty-seventh Street on Kedzie Avenue on the east and west sides of the street, wires were broken down up to Seventy-fifth Street. Between Seventy-fifth and Eighty-seventh Streets seventeen poles were broken down.

The Chicago-Milwaukee lead was down on Fortieth Avenue, just north of the Drainage Canal, five poles being broken. This line was also down at several places in the suburban territory.

The Chicago-Minneapolis lead had twenty-eight poles down from the Drainage Canal to Grand Avenue, and from Grand Avenue to the state line poles were down in several places. Altogether, there were 750 poles down on this lead.

The A. T. & T. testers report that during the morning of February 21st, when the wires were heavily coated with ice, they came in contact with the trolley wires on Kedzie Avenue, and there was a line of fire running up one or more spans, burning down several wires.

Every toll lead leaving Chicago had a number of wires down in every span, therefore the progress made in putting up wire was very slow. A great many highways were blockaded by our poles and wires lying in the road. A large number of men were employed to gather up the wire and remove the poles. At some of the locations the farmers took advantage of this and removed the broken poles themselves.

The electric light companies' plants were badly crippled and it was found necessary in several of the towns to



BLOWING POLE HOLES WITH DYNAMITE.

Incident of the Illinois sleet storm where quick work was required in frozen ground.

close in the large breaks, and approximately 125 miles of twisted pair wires were shipped out from the Western Electric Company.

Sunday morning, the twenty-third, 118 Chicago physical toll lines were still out of service. Every available line gang was working on the toll leads, and it was necessary to call on the Wisconsin and Central Union Telephone Companies for assistance in obtaining additional men. Repairmen from the city exchanges were also detailed to the suburban towns to clear local trouble.

The Chicago toll tester's board (where all the toll lines center) was a busy place during the storm. The lines were continually tested, and every trick in the way of patching and repairing was resorted to whereby service could be restored on the lines. The testers were at their posts for a great many hours at a time, in order to assist the outside men in locating and closing up the bad breaks, and to this, and no less to the men who faced



NEAR LIBERTYVILLE, ILL.
Part of a break of eighty poles. Many toll leads looked like this.

suburban line gangs started out from the various towns and worked toward Chicago until both gangs met. The most serious pole breaks reported were as follows:

Chicago-Lake Geneva. From the cable pole at Milwaukee Avenue and Lydie

poles down one mile east of New Lenox.

Elgin-Rockford. Between Elgin and Boone County line, 123 poles down.

Elgin-Lake Geneva, 87 poles down.

Bartlett-Cloverdale, 45 poles down.

Big Hollow to Fox Lake, 56 poles down.

Crystal Lake-McHenry, 36 poles down.

McHenry-Fox Lake, 35 poles down.

McHenry-Woodstock, 20 poles down.

Lemont-Downers Grove, 25 poles down.

Aurora-Oswego, 35 poles down.



POLE AND CABLE BOX DOWN.
Part of a break of thirty-nine poles six miles northwest of Libertyville, Ill.

Newark-Millington, 36 poles down.

Wayne-Bartlett, 33 poles down.

Roselle-Palatine, 33 poles down.

In the suburban territory there were approximately 1,219 poles broken down on toll lines.

The A. T. & T. leads entering Chi-



BAD BREAK ON CHICAGO-LAKE GENEVA TOLL LINE.

ago were also badly crippled on account of various pole and wire breaks. On the New York and Philadelphia leads, carrying seventy wires on each lead, running south from Forty-seventh Street on Kedzie Avenue on the east and west sides of the street, wires were broken down up to Seventy-fifth Street. Between Seventy-fifth and Eighty-seventh Streets seventeen poles were broken down.

The subscribers' lines in the suburban territory were badly crippled, as a great many of the farmer-line leads were down, and the lines within the town were broken down on account of limbs of trees falling on them. There were approximately 8,000 local subscribers' stations out of service in the suburban territory as a result of this sleet storm.

The Western Electric Company assisted us greatly in providing sufficient material, and making prompt shipments. There were approximately 844 miles of No. 104 copper wire; 503 miles of iron wire; 129 miles of twisted pair; 2,700 standard ten-pin crossarms and eighteen car loads of poles shipped out. In addition to this, miscellaneous material, such as tie wire, sleeves, etc., was shipped.

LAST YEAR LARGEST IN TELEPHONE HISTORY.

(Continued from Page One.)

gested a thorough study, from the standpoint of the public, by the Interstate Commerce Commission, of the whole problem of the relation of government to the transmission of intelligence by telegraph and telephone. The company's policy, as already announced, will be to co-operate fully with and assist the Commission in every possible way.

"The Interstate Commerce Commission has already issued a general accounting order, effective January 1, 1913, providing a uniform system of accounts for telephone companies. The order follows generally along lines which the accounting officers of this company have endorsed."

LIVES SAVED BY DIRECTORY.

Thrilling Experience of Six Men on Board Damaged Lake Michigan Tug Boat.

A half-pound telephone book, left by accident aboard a fishing tug, was the means of saving the lives of six men on the tug Tessier, which arrived ice-bound in Milwaukee harbor, fourteen hours late on the morning of March 2nd.

The little craft blew out a stay bolt in her boiler, extinguishing her fires and flooding her boiler room. The boat was thirty miles from shore and the temperature was seven below zero. A sixty-mile gale was blowing. Telling of their after experiences, Captain Charles Tessier said:

"A search of pockets revealed the fact that but three dry matches, from which a fire might possibly be made on the concrete floor of the engine room, stood between us and a death by freezing.

"We realized this and determined to be careful with the precious fire sticks. We chopped down a portion of the side wall of the cabin and shaved it into splinters. When all was ready the first match was applied. However, the damp wood refused to burn under the feeble match and it soon went out. Another attempt was made to ignite the shavings, and this, too, failed. But one match was left.

"Outside the wind howled terribly. A driving snowstorm had risen and it was dark as night at four o'clock in the afternoon. The heavy waves, dashing tons of water over and against the little tug, which rocked unsteadily at its insecure fastenings, roared and thundered.

"Not until then had the thought or fear of death been present in the minds of our little party. Unwhimpering but knowing, we sat huddled on the floor of the little room in consultation.

"All our lives lay concealed in the flaming strength of one little sulphur

match. To prevent any possibility of the little harbinger of hope and life from becoming wet and useless, it was rolled into a thick blanket and placed in the farthest corner of the room, while we sat and talked calmly of ways and means to build a fire—a seemingly hopeless task.

"Then, by accident, Herman, one of the crew, who had sat silently while the others talked, both hands in his coat pocket, drew out one. In it was a small candle.

"The one remaining match could now be applied to the wick, and light and enduring fire could be gotten. The match was applied and twelve eyes watched breathlessly while it flickered, almost went out, then flaming up, lit the slender wick. I ordered Alex. Treu to sit in a corner and guard the precious fire with his life. But he knew as we all did, what the extinguishing of the little light meant. But even the candle, when the time came, refused to light the wet wood.

"Then like a flash the memory of a little old telephone book in my locker struck me. I hurried and brought it. A little kerosene was left in a lantern, and with it the paper was soaked.

"The candle was applied and the flame shot out. Willing hands piled the wet splinters. The heat dried them and soon we had a roaring fire, to which small pieces of coal were put on. The rest was easy. From time to time the coal was thrown on and the little cabin filled with warmth.

"With nothing left to fear but the tearing loose of the walls of the cabin or the possibility of springing a leak, we went to work with a will to repair the injured boiler."

Prominent Capitalist Talks on "Capitalization"

Rufus C. Dawes, a prominent Chicago capitalist, was the speaker at the Monday Lunch Club on March 2nd. Mr. Dawes spoke on "Capitalization."

The speaker took the bold stand that so-called "watered stock" is necessary and proper in corporations as representing the share in the enterprises of those who contribute brains and energy instead of actual money capital. He said:

"Corporations are organized to embody, and do embody, in permanent form, all possible contractual partnership relationships. Bonds, preferential stocks, and common stock express permanently the particular partnership agreement underlying the company making the issues. Any limitation put upon the issuance of stocks that would prevent some particular agreement from being embodied in corporate form, would to that extent be an impairment of the usefulness of the incorporation privilege, unless it could be shown that the particular form of agreement prevented was harmful to the public good.

"The following is a very common agreement between men, viz.: That the one should furnish the capital, and the property purchased should be held for his security and the ultimate return of his capital; and that the other should find the opportunity or assume the management, and share in the profits earned over and above the interest in the capital invested. The first has an equitable protection for his investment; the second would receive a compensation, or no compensation, measured accurately (as it ought to be) by the success or failure of the enterprise to which he has invited the capital. I conceive this to be a fair agreement. It is an agreement that could be written into corporate form only by the issuance of unpaid stock. Should the second party to such an agreement receive stock paid for in full, he might profit while the first

party might lose. It might even be to his advantage to let the enterprise suffer. If he receives unpaid stock, issued on such terms that it makes no return until after the just claims of capital are satisfied, his utmost efforts for success are stimulated. This particular kind of agreement finds its chief usefulness while the resources of the country are being developed, but it may be applied, and is applied to increasing efficiency and disclosing opportunity in a developed country. If it be a useful form of agreement, its use by incorporated organizations cannot be denied without injury to the country. I believe that it is a useful agreement. I believe that the almost universal use of 'watered' stock is evidence that it is the most common form of agreement between men in business life."

Important Wisconsin Ruling.

Attorney General W. C. Owen, of Wisconsin, gave out a ruling from Madison March 3rd in response to an inquiry from the State Railroad Commission, that a telephone company must not operate in territory occupied by another telephone company without a permit from the commission.

The point was raised in the case of the Bergen Telephone Company of the town of Bergen, Rock County, and the Clinton Telephone Company of Clinton, Rock County. The Railroad Commission ordered the Clinton Telephone Company to make physical connection with the Bergen Company, for service in Clinton.

The Bergen Company built direct lines to local subscribers in Clinton and the Clinton Company complained to the Railroad Commission, and the question was put up by the commission to the attorney general. The attorney general ruled that the Bergen Company had no right to operate in Clinton.

Brief News Notes From Everywhere

San Francisco, Cal.—The Pacific Telephone and Telegraph Company had 581,423 telephones at the close of 1912.

New York.—The Walker-Lispenard building, which is being erected in New York for the joint use of Western Union Telephone Company, the New York Telephone Company and the American Telephone and Telegraph Company, will be fully completed and ready for occupancy in the spring. The building is seventeen stories high, and each floor contains about 13,000 square feet.

Denver, Colo.—The Mountain States Telephone and Telegraph Company has taken over the Grover Telephone Company, with lines covering a large territory in northern Colorado.

Omaha, Neb.—President C. E. Yost, of the Nebraska Telephone Company, is quoted as follows in the *Wall Street Journal*: "Our net profits in the year ended December 31, 1912, were the largest of any year in the history of the company." No annual report is being published.

Paris, France.—At a council of Ministers on March 3rd the Minister of the Colonies informed his colleagues that wireless messages were exchanged for the first time between the Eiffel Tower and Lake Tchad in Central Africa. The distance is about 2,810 miles.

London, England.—The first telephone conversation between London and Berlin was held March 4th. The distance between the two cities is 700 miles, including sixty miles of submarine cable. A regular service between the British and German capitals is promised.

Carson City, Nev.—The Bell Telephone & Telegraph Company, of Nevada, has been incorporated, with a capital stock of \$500,000. The new company, it is stated, will take over all the Nevada properties of the Pacific Telephone & Telegraph Company.

New Orleans, La.—New Orleans, with 21,000 telephones, has the largest exchange in the south, Atlanta being a close second. A new building is to be erected by the Cumberland Telephone and Telegraph Company.

Virginia, Minn.—The city council voted against the proposition to admit a second company to compete with the Mesaba Telephone Company, which is affiliated with the Bell organization.

Economy in Luxury.

"A master entrepreneur" is one of the terms applied to Theodore N. Vail by an individual who has known the President of the American Telephone and Telegraph Company from his early boyhood down to the present time. "Besides all his other admirable qualities," says this man, "he is also a great economist."

"Some time ago, when the telephone business was largely divided between New York and Boston, Theodore N. Vail found it necessary to make several trips a week, sometimes, between these two cities. At first he rode with the 'folks' on the regular trains, and was often to be found in the day coach or smoking car. He discovered, however, that there was too much visiting and a trip under these circumstances entailed a waste of time, unless he could get by himself where he could think, work, relax or browse as the mood inclined. And so he got a special car and rode alone, or with one, two or three men with whom he wished to talk.

"He realized that this was a great economic stroke. Instead of making appointments with a man at the office, he simply invited him to ride over to Boston, and together they would thrash out the matter; and you may depend upon it that when they arrived in Boston, the other man had accepted Vail's point of view. Theodore N. Vail is a great economist."—*Wall Street Journal*.

Opening of Baseball Season.

The outdoor baseball season promises more interest this year than ever before even in baseball-mad Chicago.

The Commercial League is to be strengthened by three of the best known amateur lines in the city, representing Swift & Company, Illinois Steel Company and Kellogg Switchboard and Supply Company.

These three will take the places filled last year by the Public Service Company, the City Hall and LaGrange.

The Commercial League thus becomes entirely a corporation league and largely a public utility league.

Officers for the coming year will be: President, Carl Kempf; Secretary and Treasurer, F. J. P. Seuel. Managers: Western Electric Company, H. H. Magers; Chicago Telephone Company, F. W. Driscoll; Commonwealth Edison Company, F. J. P. Seuel; People's Gas, Light & Coke Company, J. McKay; Fuller & Fuller, Arthur Lavell; Kellogg Switchboard & Supply Company, J. F. Parker; Swift & Company, A. J. Merker; Illinois Steel Company, B. E. Bowliby.

F. W. Driscoll of the Chicago Telephone Company will be chairman of the schedule committee.

The first games will be played on May 17th.

The heads of the various corporations are showing keen interest in their nines, and expect them to make an excellent showing on the diamond in return for their generous support.



TANGLE OF WIRES AND BRANCHES. Showing thickness of sleet formation in Illinois.

TRAFFICS WIN CUP AND CITY CHAMPIONSHIP

Chicago Telephone Team Cleans Up On Fast Combination Team of Opponents.

FINAL STANDING OF THE TEAMS.

| | Won. | Lost. | Pct. |
|-------------|------|-------|------|
| Traffics | 7 | 2 | .777 |
| Plants | 6 | 3 | .667 |
| Auditors | 5 | 4 | .555 |
| Collections | 0 | 9 | .000 |

The Traffics, champions of the Chicago Telephone Employees' Indoor Baseball League, bested the pick of the Knights of Columbus League, re-enforced by the Gunthers, on March 19th at St. Alphonsus' Gymnasium, by the decisive score of 7-3. Fremi was in magnificent form and blanked the All-stars after the first. He struck out twenty-one and passed six. The enemy's three in the first came as a result of three bases on balls and a long hit to center by Butler.

Fremi himself made two hits and



TRAFFIC TEAM IN CHICAGO TELEPHONE INDOOR BASEBALL LEAGUE.

Winners of League Championship and Claimants of city championship by defeat of the Gunther-Knights of Columbus, Combination Team.
Standing: Moeller, Smith, John Carney (Capt.), Atwater (reporter), Myers (umpire), Marggraf.
Sitting: Bates, Fremi, H. Driscoll, Eldridge (president), E. Carney.

cup presented by A. G. Spalding for their season's record. It will grace the new club room of the Telephone Building along with photographs of the teams of the league.

THE SCORE.

| Gunthers-K. C. | R. | B. | P. | O. | A. | E. |
|----------------|----|----|----|----|----|----|
| Robertson | 0 | 0 | 3 | 0 | 0 | 0 |
| Clark | 1 | 0 | 0 | 0 | 0 | 0 |
| Butler | 1 | 1 | 0 | 0 | 0 | 0 |
| McGuire | 1 | 2 | 12 | 0 | 0 | 0 |
| Vollman | 0 | 0 | 8 | 0 | 0 | 0 |
| Rosen | 0 | 1 | 2 | 2 | 0 | 0 |
| Keeley | 0 | 0 | 0 | 0 | 0 | 0 |
| Sternheim | 0 | 0 | 2 | 0 | 0 | 0 |
| Dillon | 0 | 0 | 0 | 4 | 1 | 1 |
| Hutton | 0 | 0 | 2 | 0 | 1 | 1 |

| Traffics | R. | B. | P. | O. | A. | E. |
|--------------|----|----|----|----|----|----|
| Ryan | 1 | 1 | 1 | 1 | 0 | 0 |
| E. Carney | 1 | 1 | 1 | 0 | 0 | 0 |
| J. Carney | 1 | 1 | 21 | 1 | 1 | 1 |
| Eldridge | 1 | 1 | 2 | 1 | 1 | 1 |
| Fremi | 2 | 2 | 0 | 1 | 0 | 0 |
| Marggraf | 0 | 0 | 0 | 0 | 0 | 0 |
| Shaw | 1 | 0 | 0 | 0 | 0 | 0 |
| Moersch | 0 | 0 | 0 | 0 | 0 | 0 |
| James Carney | 0 | 0 | 1 | 0 | 0 | 0 |

Struck out—By Fremi, 21; by Dillon, 17.
Bases on balls—Of Fremi, 6; of Dillon, 2.
Passed balls—McGuire, 2. Wild pitch—Fremi. Time—1:45. Umpires—J. Slack and Kid Broad.

The Traffics won the championship of the Chicago Telephone Employees' Indoor Baseball League, which fin-



COLLECTIONS TEAM IN CHICAGO TELEPHONE INDOOR BASEBALL LEAGUE.

Standing: Morris, O'Connor, Smith, W. Dunne, McMahon, Hardin, Kindeln.
Sitting: Gavin, Hurley, Creed, J. Dunne (Capt.), mascot.



PLANT TEAM IN CHICAGO TELEPHONE INDOOR BASEBALL LEAGUE.

Standing: Dense, Dolan, Tikalsky, Butler, Myers (umpire), Savage.
Sitting: Moersch, Schneider, Garrity, Jas. Carney (Capt.), Brown.

two runs, stealing two bases. J. Carney, Marggraf and Robertson each stole two, equaling the speed of the lightning Vollman. Keeley with his big-league reputation for speed, unfortunately, for the crowd, didn't get on.

McGuire is the acknowledged premier back-stop of the city. Our own Dillon is one of the best pitchers on the K. C. roster, and Rosen and Robertson are the fast shortstops of the Auditors.

Vollman, at first base, displayed the skill that has marked him as the greatest all-round athlete of the North Side. Sternheim is well known to the Gunther Park fans, and Keeley, lately of the Washington Americans, is the new Captain-Manager of the Chicago team in the Federal League. Jim Hutton, the Manager of these all-stars, is the hard-hitting first baseman of the Gunthers and Manager Niesen's right-hand man. Clark and Butler are from the DeSotos in the K. C. League. All told, it was a notable aggregation the Traffics had to face, and their victory does them and the Company great credit.

The Traffics are to have a fine silver



AUDITORS' TEAM IN CHICAGO TELEPHONE INDOOR BASEBALL LEAGUE.

Standing: Hart (Mgr.), Rosen, Dummer, Benson, Myers (umpire), Robertson.
Sitting: Welsh, Mulcahy, Dillon, Baker, Perrina.

ished its schedule on March 12th. The winners had strong opposition all the way and were twice tied by the Auditors, but in the last round the latter team lost to both Plants and Traffics, while the Plants won from all the others and the Traffics won two out of three, holding their lead while the Plants nosed into second place.

It was an exciting finish to a successful season. President Eldridge, Secretary Boulard and Messrs. Dunne and Hart deserve great credit for promoting a creditable schedule.

Next year it is hoped that the league will be continued with even more enthusiasm and that another cup may be provided for a trophy.

The only criticism on this year's management is that several outsiders, albeit good fellows, were allowed to crowd company players off the teams, and that some members of one team properly belong in the teams of other departments. These irregularities will doubtless be remedied another season.

The Collections appeared without their regular pitcher, March 5th, and were easy victims for the hard-hitting Traffics, 19-2. Moeller fanned nineteen men in seven innings.

| | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|
| Collections— | 0 | 0 | 1 | 0 | 0 | 1 | — | 2 |
| Runs | 0 | 1 | 0 | 0 | 0 | 1 | — | 3 |
| Hits | 0 | 1 | 0 | 0 | 0 | 1 | — | 3 |

Traffic—
Runs 7 3 0 5 4 0 *—19
Hits 9 4 1 9 4 0 *—27
Double play—Baker to Butler to Dunne.
Two-base hit—E. Carney, 2; Marggraf, 2.
Fremi. Stolen bases—Marggraf, 2; Ryan.
Gavin, Hardin. Umpires—Mike Myers and Jim Hutton.

Owing to rush of work in the Collection department the nickel-chasers were obliged to forfeit their last game with the Plant Department, by a score of 9-0.

The final game of the schedule was played March 12th to a crowded and enthusiastic gallery. Mulcahey started for the Auditors. The Traffic laid down four bunts in the third, netting four runs. Dillon went in to pitch in the fourth, but could not check the fusillade. Two bunts, Bates' single to the roof and Eddie Carney's two-bagger adding three to the Traffic score.

THE SCORE.

| | | | | | | |
|------------------------|----|----|----|----|----|----|
| Traffic— | R. | B. | P. | O. | A. | E. |
| Ryan, 3b..... | 2 | 2 | 0 | 0 | 0 | 0 |
| E. Carney, 2b..... | 1 | 0 | 0 | 0 | 0 | 0 |
| J. Carney, rs..... | 1 | 2 | 1 | 0 | 0 | 0 |
| H. Driscoll, 1b..... | 3 | 2 | 6 | 0 | 0 | 0 |
| Eldridge, cs..... | 1 | 1 | 0 | 2 | 0 | 0 |
| Fremi, rf..... | 2 | 1 | 0 | 0 | 0 | 0 |
| Bates, c..... | 2 | 1 | 8 | 0 | 0 | 0 |
| F. Driscoll, rf..... | 3 | 1 | 0 | 0 | 0 | 0 |
| Moeller, p..... | 2 | 2 | 1 | 2 | 0 | 0 |
| Auditors— | R. | B. | P. | O. | A. | E. |
| Robertson, c. 1st..... | 0 | 0 | 1 | 0 | 0 | 0 |
| Wendorf, 2b..... | 0 | 0 | 2 | 0 | 0 | 2 |
| Rosen, 3b..... | 2 | 2 | 1 | 1 | 0 | 0 |
| Corbett, 1c..... | 1 | 3 | 5 | 0 | 0 | 0 |
| Welsh, 1b..... | 0 | 1 | 2 | 0 | 0 | 1 |
| Mulcahey, p..... | 0 | 0 | 11 | 2 | 1 | 1 |
| Perrina, rs, f..... | 0 | 0 | 1 | 0 | 1 | 1 |
| Dillon, fp..... | 0 | 0 | 1 | 1 | 1 | 1 |

| | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|----|
| Traffic— | 0 | 1 | 4 | 2 | 0 | 1 | 3 | 2 | — | 16 |
| Hits | 0 | 0 | 4 | 4 | 0 | 1 | 3 | 2 | — | 14 |

Auditors—
Runs 1 0 0 0 0 0 0 0 2—3
Hits 2 0 2 0 0 0 0 0 2—6
Stolen bases—H. Driscoll, Moeller, E. Carney. Two-base hits—Rosen, 2; E. Carney. Struck out—By Moeller, 19; by Mulcahey, 7; by Dillon, 12. Bases on balls—Off Moeller, 1; off Dillon, 5. Passed balls—Robertson, 1; Corbett, 2; Bates, 2; Mulcahey, 3. Wild pitch—Dillon. Time—2 hours. Umpires—Mike Myers and Kid Broad.

The Auditors with only five men, defeated the full strength of the Collectors on February 25th, the score being 16 to 8 at the end of seven innings. Dillon struck out seventeen, gave two bases on balls and allowed four hits. Robertson got two doubles, three singles and two bases on balls. Benson got a double, four singles and a walk.

| | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|----|
| Auditors— | 5 | 6 | 1 | 0 | 2 | 2 | 2 | — | 16 |
| Runs | 2 | 3 | 2 | 1 | 4 | 0 | 4 | — | 16 |
| Hits | 2 | 3 | 2 | 1 | 4 | 0 | 4 | — | 16 |

Collections—
Runs 2 0 2 0 3 0 1—8
Hits 1 0 0 0 1 0 2—4
Umpires—Myers and Walsdorf.

The Plant Department defeated the Traffic 11-7 on February 26th in a loosely played game. Fremi with a sore thumb was not effective in the pinches. The losers made twelve safe hits, but Dewes kept them scattered. Young Garrity, the human toy, won the game. With two out and two on bases in the second, he lammed a single to right, and soon came in on a passed ball, tying the score. In the next inning his triple scored two, breaking up the game. With two down in the eighth, Snyder drew a pass. Butler and Dolan singled through the infield and Savage bounced one off the railing, netting three.

At first, Savage had twelve put-outs, the record this year.

THE SCORE.

| | | | | | | |
|----------------------|----|----|----|----|----|----|
| Traffic— | R. | B. | P. | O. | A. | E. |
| Bates, rs..... | 1 | 1 | 0 | 0 | 1 | 1 |
| E. Carney, 2b..... | 1 | 1 | 2 | 0 | 0 | 0 |
| J. Carney, c..... | 0 | 1 | 11 | 3 | 1 | 1 |
| H. Driscoll, 1b..... | 1 | 3 | 6 | 0 | 2 | 1 |
| Eldridge, 1c..... | 0 | 2 | 2 | 2 | 0 | 0 |
| F. Driscoll, 1c..... | 1 | 1 | 0 | 0 | 0 | 0 |
| Marggraf, 3b..... | 1 | 0 | 1 | 0 | 1 | 1 |
| Moeller, p..... | 1 | 1 | 0 | 0 | 0 | 0 |
| Fremi, p..... | 2 | 2 | 2 | 0 | 0 | 0 |
| Plant— | R. | B. | P. | O. | A. | E. |
| Moerach, 1c..... | 0 | 0 | 0 | 2 | 1 | 1 |
| Snyder, rs..... | 1 | 0 | 0 | 2 | 0 | 0 |
| Butler, 2b..... | 2 | 2 | 0 | 0 | 0 | 0 |
| Dolan, c..... | 3 | 2 | 11 | 0 | 1 | 1 |
| Savage, 1b..... | 1 | 1 | 12 | 0 | 1 | 1 |
| Dewes, p..... | 1 | 1 | 2 | 0 | 0 | 0 |

| | | | | | |
|-----------------|----|---|----|----|---|
| Carney, 3b..... | 1 | 0 | 0 | 1 | 1 |
| Garrity, f..... | 2 | 2 | 2 | 0 | 0 |
| ..... | 11 | 7 | 27 | 11 | 4 |

| | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|----|
| Traffic— | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | — | 7 |
| Runs | 1 | 2 | 1 | 0 | 1 | 4 | 1 | 0 | 2 | — | 12 |

Plant—
Runs 0 3 4 0 0 1 0 3 *—11
Hits 0 2 2 0 0 1 0 3 *—8
Three-base hit—Garrity. Two-base hits—Butler, Savage, Eldridge. Struck out—By Dewes, 11; by Fremi, 12. Bases on balls—Off Dewes, 3; off Fremi, 4. Umpires—Mike Myers and W. Back.

The Plants beat the Auditors 13 to 6 in seven innings on Inauguration Day. The winners were there with the stick, making twelve clean clouts, and holding their opponents to seven.

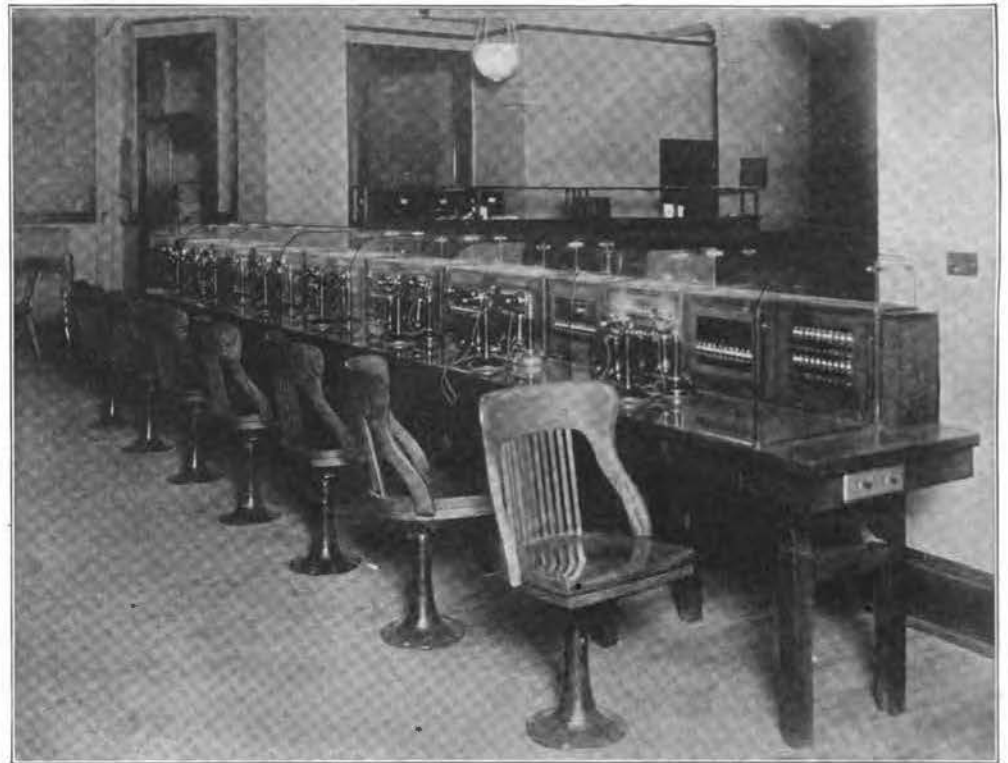
The Cleveland Press Telephone Order Table

The new Telephone Order Table of The Cleveland Press in the Press building at the corner of Rockwell Avenue and East Ninth Street is used exclusively for all in-coming and out-going classified advertising received over the telephone.

The Cleveland Telephone Company has twelve trunk lines and thirteen stations attached to the table and receives on an average 1,000 calls a day.

of twenty ring-down lines from the private branch exchange. At present twelve lines are in service. Each line terminates on a lamp and associated therewith is a red "busy" lamp, an answering key and a holding key. The answering and holdings keys are of the No. 92-B type. A desk standard with hand receiver is installed on each position. On a supervisor's desk a short distance from the want-ad table is a turret containing a multiple of the want-ad lines.

Operation.
The private exchange operator, upon receiving a request for the want-ad



TELEPHONE ORDER TABLE TO TAKE CARE OF "WANT ADS." INSTALLED BY THE CLEVELAND PRESS, CLEVELAND, OHIO.

Garrity drew two passes and two singles; Butler in the sixth speared Baker's hard drive with his left hand, a classy stab.

THE SCORE.

| | | | | | | |
|--------------------|----|----|----|----|----|----|
| Dolan, c..... | R. | B. | P. | O. | A. | E. |
| Demmer, 2b..... | 3 | 2 | 11 | 1 | 0 | 0 |
| Garrity, lf..... | 3 | 2 | 0 | 1 | 0 | 0 |
| Snyder, rs..... | 0 | 0 | 0 | 0 | 0 | 0 |
| Savage, 1b..... | 0 | 1 | 4 | 1 | 0 | 0 |
| Matt, 1c..... | 1 | 1 | 1 | 1 | 0 | 0 |
| Carney, 3b..... | 2 | 2 | 2 | 0 | 0 | 0 |
| Dewes, p..... | 2 | 1 | 0 | 3 | 0 | 0 |
| Brown, rf..... | 1 | 1 | 1 | 0 | 1 | 0 |
| Butler, 2b..... | 1 | 2 | 2 | 0 | 0 | 0 |
| ..... | 13 | 12 | 21 | 7 | 1 | 1 |
| Robertson, 1c..... | 2 | 2 | 7 | 0 | 0 | 0 |
| Mulcahey, 1c..... | 1 | 2 | 3 | 0 | 0 | 0 |
| Welsh, 1b..... | 0 | 0 | 7 | 1 | 1 | 1 |
| Rosen, rs..... | 1 | 2 | 0 | 3 | 0 | 0 |
| Dillon, p..... | 0 | 0 | 0 | 1 | 0 | 0 |
| Perrina, lf..... | 0 | 1 | 0 | 1 | 0 | 0 |
| Baker, 3b..... | 1 | 0 | 1 | 0 | 0 | 0 |
| Benson, rf..... | 1 | 1 | 0 | 1 | 0 | 0 |
| ..... | 6 | 8 | 21 | 5 | 1 | 1 |

| | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|----|
| Plant— | 1 | 1 | 2 | 6 | 2 | 2 | 5 | — | 13 |
| Runs | 0 | 1 | 2 | 0 | 2 | 4 | 3 | — | 12 |

Auditing—
Runs 2 0 0 1 1 0 2—6
Hits 3 0 1 1 1 1 1—3
Two-base hits—Demmer, 2; Mulcahey. Struck out—By Dillon, 15; by Dewes, 12. Bases on balls—Off Dillon, 4; off Dewes, 2. Umpires—Mike Myers and Hart.

The Cuyahoga Telephone Company has eight trunk lines and thirteen stations attached to the table and receives an average of 400 calls per day.

The Press Building is one of the most modern and complete in the Sixth City and is equipped with the best and latest newspaper facilities in the country.

The contract for Bell service throughout the building calls for twelve flat trunk lines and three measured, with fifty-six stations.

Two standard eighty-line No. 4 lamp sections were installed, as two operating positions are required during rush hours. Each position is equipped with fifteen cord pairs. At present fifteen trunk lines and fifty-two station lines are in service.

Want-Ad Table.

A long table with continuous double sided turret on top is divided by glass partitions into twelve positions, seven positions on one side and five on the other. The turret is built for two panels per position, one panel for Bell equipment and one panel for Cuyahoga equipment. Bell equipment is provided on each position for a multiple

departments, connects with one of the want-ad lines and rings. The signal appears on each want-ad position and any clerk who is idle at the time answers by pushing in the No. 92-B answering key and removing the receiver from the desk standard. This operation sets the "busy" signal at all positions.

If the patron desires information which it is necessary for the clerk to have looked up, it is possible to push in the corresponding holding key and in the meantime answer other incoming signals. When the patron's order has been taken and the conversation completed, the holding and answering keys are restored to normal (pulled out) and a disconnect signal appears on the private exchange board.

If a want-ad clerk desires to make an outgoing call, the receiver is taken from the hook and an answering key is pushed in on some available line. The line signal appears at the private exchange board and the connection is established as requested.

Traffic records show that twenty-eight per cent. of the incoming trunk calls on the private branch exchange board are for the want-ad department.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
212 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonzo Hurt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. G. Wray, Chief Engineer.
H. H. Henry, Supply Agent.
H. F. Hill, General Manager, Chicago, Ill.
E. A. Reed, General Manager, Columbus, Ohio.
H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegell, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.

OBITUARY.

EDWARD W. MOISTER, auditor of disbursements of the American Telephone and Telegraph Company, was instantly killed on the morning of March 12th by a subway train in New York. Mr. Moister is thought to have suffered an attack of vertigo and fallen to the track from the platform at One Hundred and Fifty-seventh Street.

Mr. Moister was sixty years old at the time of his death and had been with the Bell Telephone System twenty-one years. He was a telegraph operator in his earlier life and was afterwards with the Lehigh Valley Railroad and Lehigh Valley Coal Company. He entered the Bell service as acting auditor of the American Telephone and Telegraph Company and was continuously thereafter in the accounting department. In 1909 he was made assistant controller in charge of accounting for long-distance lines. In 1911 he was transferred to the general auditing department, being given the title of auditor of disbursements when the present form of organization was adopted.

Mr. Moister was a member of the Telephone Pioneers of America. He leaves a widow, one son and three daughters.

ASHLEY M. VAN DUZER, eighty-four years old, died at Cleveland, Ohio, February 28th. Mr. Van Duzer was a former telegraph operator and afterwards manager for the Western Union Telegraph Company at Cleveland. He was a close personal friend of General Thomas T. Eckert and General Anson Stager, men prominent in the early telegraph and telephone days.

LINEMAN'S ADVENTURE.

Witnesses Shooting from Top of Pole and Helps Police Capture One of the Gunmen.

J. W. Hallam, a lineman working in the Yards exchange district, Chicago, had an exciting adventure with "Apaches" on the afternoon of March 14th. As the result of his promptness, one youth in a gang of would-be murderers was captured.

Hallam was on a cable pole in the alley east of Halsted Street, just south of Thirty-first, when he saw three boys lure a junk dealer named Louis Bennett down the alley to a barn near the foot of the pole. The boys told the Jew they had some junk for sale.

Hallam paid no particular attention to the quartet, but happened to cast a glance in their direction just in time to see the oldest of the three youths draw a pistol and shoot the junk man.

District and Division Collection Rating

FEBRUARY 1, 1913.

For the information of those interested in the collection statement given below, an additional column has been added, which shows the per cent. of collectable to the total charges.

| | Total to be collected during January, 1913. | January collections. | Unpaid February 1. | Per cent collected. | Per cent uncollectable to charges. | Stations. |
|---|---|----------------------|--------------------|---------------------|------------------------------------|-----------|
| 1. Wis. Tel. Co., Appleton Dist. | \$ 61,104 | \$ 59,727 | \$ 1,377 | 97.7 | 15 | 26,126 |
| 2. C. U. Tel. Co., Columbus Dist. | 75,179 | 73,300 | 1,879 | 97.5 | 19 | 20,455 |
| 3. C. U. Co. (Indiana), Southern Dist. | 51,875 | 48,565 | 3,310 | 93.6 | 2 | 18,233 |
| 4. C. U. Co., Chillicothe Dist. | 51,844 | 47,960 | 3,884 | 92.5 | 18 | 18,779 |
| 5. C. U. Co., Quincy Dist. | 8,408 | 7,740 | 668 | 92.1 | 1 | 3,123 |
| 6. C. U. Co., Centralia Dist. | 12,187 | 11,045 | 1,142 | 90.6 | 1.2 | 4,953 |
| 7. C. U. Co., Alton Dist. | 10,991 | 9,907 | 1,084 | 90.1 | 1 | 2,987 |
| 8. C. U. Co., Toledo Dist. | 77,709 | 69,855 | 7,854 | 89.9 | 4 | 25,612 |
| 9. Wis. Tel. Co., Janesville Dist. | 12,063 | 10,818 | 1,245 | 89.7 | 2.8 | 4,101 |
| 10. C. U. Co., Dayton Dist. | 70,245 | 62,942 | 7,303 | 89.6 | 5 | 23,514 |
| 11. Chicago Tel. Co., Chicago Heights Dist. | 6,993 | 6,256 | 737 | 89.5 | .08 | 2,423 |
| 12. C. U. Co., Champaign Dist. | 12,119 | 10,158 | 1,961 | 89.5 | 5 | 2,232 |
| 13. Wis. Tel. Co., Madison Dist. | 37,079 | 32,940 | 4,139 | 88.8 | 4 | 15,276 |
| 14. C. U. Co., LaSalle Dist. | 6,513 | 5,709 | 804 | 87.7 | 1 | 2,402 |
| 15. C. U. Co., Galesburg Dist. | 7,615 | 6,640 | 975 | 87.2 | 5 | 3,227 |
| 16. C. U. Co., Rock Island Dist. | 25,284 | 22,017 | 3,267 | 87.1 | 4 | 9,057 |
| 17. C. U. Co., Akron Dist. | 89,360 | 76,991 | 12,369 | 86.2 | 6 | 22,291 |
| 18. C. U. Co., Peoria Dist. | 49,798 | 42,789 | 7,009 | 85.9 | 2 | 15,027 |
| 19. C. U. Co. (Indiana), Northern Dist. | 76,527 | 65,933 | 10,594 | 86.3 | 3 | 27,164 |
| 20. Chicago Tel. Co., Chicago Dist. | 1,396,106 | 1,195,890 | 200,216 | 85.6 | .07 | 315,481 |
| 21. C. U. Co., Springfield Dist. | 33,296 | 28,087 | 5,209 | 84.4 | 4 | 9,717 |
| 22. C. U. Co., Jacksonville Dist. | 11,547 | 9,683 | 1,864 | 83.9 | 1 | 4,193 |
| 23. Wis. Tel. Co., Milwaukee Dist. | 359,730 | 300,076 | 59,654 | 83.4 | .07 | 57,664 |
| 24. C. U. Co., Rockford Dist. | 18,681 | 15,372 | 3,309 | 82.1 | 1 | 6,982 |
| 25. Wis. Tel. Co., Eau Claire Dist. | 26,382 | 22,555 | 3,827 | 85.5 | 19 | 12,842 |
| 26. C. U. Co., Kankakee Dist. | 15,027 | 12,198 | 2,829 | 81.2 | 2 | 5,514 |
| 27. Chicago Tel. Co., LaGrange Dist. | 12,670 | 10,269 | 2,401 | 81.1 | .12 | 4,200 |
| 28. Chicago Tel. Co., Elgin Dist. | 15,220 | 12,317 | 2,903 | 80.9 | 1 | 5,911 |
| 29. Chicago Tel. Co., Blue Island Dist. | 9,105 | 7,326 | 1,779 | 80.6 | 5 | 3,177 |
| 30. Chicago Tel. Co., Aurora Dist. | 17,612 | 13,896 | 3,716 | 78.9 | .09 | 6,105 |
| 31. Chicago Tel. Co., Evanston Dist. | 39,800 | 31,237 | 8,563 | 78.5 | .04 | 9,406 |
| 32. C. U. Co., Paris Dist. | 1,943 | 1,523 | 420 | 78.4 | 2 | 1,543 |
| 33. Chicago Tel. Co., Woodstock Dist. | 9,076 | 7,111 | 1,965 | 78.1 | 1 | 3,324 |
| 34. Michigan State Co., Detroit Dist. | 448,081 | 349,781 | 98,300 | 78.2 | 6 | 96,954 |
| 35. Chicago Tel. Co., Oak Park Dist. | 34,269 | 26,702 | 7,567 | 77.9 | .04 | 9,744 |
| 36. Chicago Tel. Co., Waukegan Dist. | 24,735 | 19,242 | 5,493 | 77.8 | .22 | 7,334 |
| 37. Chicago Tel. Co., Decatur Dist. | 17,118 | 13,052 | 4,066 | 76.3 | 1 | 5,306 |
| 38. Chicago Tel. Co., Hammond Dist. | 19,185 | 14,509 | 4,676 | 75.9 | .24 | 6,332 |
| 39. Chicago Tel. Co., Gary Dist. | 9,127 | 6,917 | 2,210 | 75.7 | .03 | 1,993 |
| 40. Chicago Tel. Co., Wheaton Dist. | 10,656 | 8,037 | 2,619 | 75.4 | .04 | 3,603 |
| 41. C. U. Co. (Indiana), Central Dist. | 139,206 | 103,581 | 35,625 | 74.4 | 1 | 28,893 |
| 42. Cleveland Tel. Co., Cleveland Dist. | 468,222 | 324,159 | 144,073 | 69.2 | 32 | 53,515 |
| 43. Chicago Tel. Co., Joliet Dist. | 27,469 | 18,452 | 9,017 | 67.1 | .16 | 9,403 |
| 44. Mich. State Co., Marquette Dist. | 85,550 | 47,546 | 38,013 | 55.5 | 1 | 13,842 |
| 45. Mich. State Co., Saginaw Dist. | 123,450 | 67,736 | 55,714 | 54.8 | 1 | 20,850 |
| 46. Mich. State Co., Grand Rapids Dist. | 227,259 | 122,222 | 105,037 | 53.7 | 12 | 41,575 |
| | \$4,347,964 | \$3,463,588 | \$884,376 | 79.7 | .22 | 952,567 |

Division Summary.

| | | | | | | |
|-----------------------------|-------------|-------------|-----------|------|-----|---------|
| Central Union Co., Ohio | \$ 364,337 | \$ 331,048 | \$ 33,289 | 90.9 | .4 | 110,691 |
| Chicago Co., City | 1,396,106 | 1,195,890 | 200,216 | 85.6 | .07 | 315,484 |
| Wisconsin Co. | 505,168 | 433,196 | 72,972 | 85.5 | 1 | 116,109 |
| Central Union Co., Illinois | 225,316 | 191,900 | 33,416 | 85.2 | 3 | 76,281 |
| Central Union Co., Indiana | 267,608 | 217,839 | 49,769 | 81.4 | 2 | 75,288 |
| Chicago Co., Suburban | 235,848 | 182,271 | 53,577 | 77.3 | .09 | 71,958 |
| Cleveland Co. | 468,232 | 324,159 | 144,073 | 69.2 | 32 | 53,515 |
| Michigan Co. | 884,349 | 587,285 | 297,064 | 66.4 | 4 | 173,231 |
| | \$4,347,964 | \$3,463,588 | \$884,376 | 79.7 | .22 | 952,567 |

*Quarterly Rental Billing.

They then ran. The lineman hooked his test set to a convenient circuit and at once called the police station, at the same time giving as good a description as he could of the appearance of the three young men. Within ten minutes the patrol wagon was on hand and within forty minutes one of the gunmen was caught.

LINCOLN SAVED ECKERT'S JOB.

Fact Comes Out in Contest Over Will of Former Telegraph Company President.

How General Thomas T. Eckert, former head of the Western Union Telegraph Company, nearly lost his commission during the civil war was related on the witness stand recently in the trial of the contest over the general's will, which his son, James Clendennin Eckert was pressing. The anecdote was repeated as the witness said General Eckert had related it to him by the Reverend James Velt, assistant pastor of the Church of Our Lady of Lourdes, testifying for the defense.

"In 1862," he quoted General Eckert as saying, "when I was an officer in charge of the telegraph bureau with the rank of captain, Secretary of

War Stanton called me to his office. He told me that he had received advice that I was not attending to my duties and that my dismissal had been written out. While I was standing speechless before him, I felt a hand on my shoulder and some one said: 'I vouch for Captain Eckert. I have had occasion to go to his office several times and I always found him there attending to his duties.' It was Abraham Lincoln. Stanton broke the silence. 'I apologize to Major Eckert,' he said."

Reduce Cable Rates to Cuba.

The Western Union Telegraph Company, in line with previous reductions in its cable and money transfer rates, announces the extension of its cable letter service to Cuba. A cable letter from Chicago, consisting of a minimum of twenty words, which may be written in English or Spanish, will be delivered in Havana within twenty-four hours for \$1.50. For each word in excess of twenty there will be an additional charge of five cents. To other points in Cuba there will be an additional charge of five cents per word for the same minimum of twenty words. The present rate to Havana is fifteen cents per word, and to other points in Cuba twenty cents per word.

Exchange Collection Rating

Exchanges in the Central Group at which collections range from 95 to 100 per cent. of the total charges to be collected during January, 1913, are given below.

| City and State. | Per cent. Collected. | Stations. |
|------------------------|----------------------|-----------|
| Ashville, Ohio | 100 | 14 |
| Banta, Ind. | 100 | 36 |
| Boggetown, Ind. | 100 | 91 |
| Brooklyn, Ind. | 100 | 73 |
| Burnett Junction, Wis. | 100 | 75 |
| Canal Winchester, Ohio | 100 | 155 |
| Columbus, Wis. | 100 | 809 |
| Conseville, Ohio | 100 | 144 |
| Corsica, Ohio | 100 | 19 |
| Elkhart, Ind. | 100 | 13 |
| French Lick, Ind. | 100 | 437 |
| Goshen, Ind. | 100 | 106 |
| Harmony, Ohio | 100 | 27 |
| Horicon, Wis. | 100 | 321 |
| Juneau, Wis. | 100 | 170 |
| Kokomo, Ind. | 100 | 5 |
| Linden, Ind. | 100 | 76 |
| Manilla, Ind. | 100 | 62 |
| Marshall, Ohio | 100 | 169 |
| Mt. Gilead, Ohio | 100 | 19 |
| Mt. Orab, Ohio | 100 | 14 |
| Ooltie, Ind. | 100 | 139 |
| Pitchin, Ind. | 100 | 75 |
| Mainfield, Ind. | 100 | 121 |
| Princeton, Wis. | 100 | 121 |
| Prospect, Ohio | 100 | 21 |
| Rainsboro, Ohio | 100 | 136 |
| Red Granite, Wis. | 100 | 115 |
| Richmond, Ind. | 100 | 8 |
| Smith Valley, Ind. | 100 | 59 |
| Wabash, Ind. | 100 | 33 |
| Wrightstown, Wis. | 100 | 13 |
| Bedford, Ind. | 99.9 | 1,514 |
| Danville, Ohio | 99.9 | 230 |
| Ft. Atkinson, Wis. | 99.8 | 737 |
| Edwardsville, Ill. | 99.7 | 1,121 |
| Belfast, Ohio | 99.6 | 14 |
| Beecher, Ill. | 99.5 | 356 |
| Hartford, Wis. | 99.5 | 596 |
| Jefferson, Wis. | 99.5 | 379 |
| Neenah-Menasha, Wis. | 99.5 | 1,434 |
| Beaver Dam, Wis. | 99.4 | 1,346 |
| Omro, Wis. | 99.4 | 529 |
| Baraboo, Wis. | 99.3 | 730 |
| Kewanee, Ill. | 99.3 | 32 |
| Manitowish, Wis. | 99.2 | 1,414 |
| Richmondale, Ohio | 99.2 | 34 |
| Vincennes, Ind. | 99.2 | 2,483 |
| Fairland, Ind. | 99.1 | 53 |
| Algoma, Wis. | 98.9 | 248 |
| Cumberland, Ind. | 98.9 | 119 |
| Fond du Lac, Wis. | 98.9 | 3,314 |
| Oconto Falls, Wis. | 98.9 | 378 |
| Hillsboro, Ind. | 98.8 | 597 |
| Appleton, Wis. | 98.7 | 1,105 |
| Little Chute, Wis. | 98.7 | 56 |
| Loganport, Ind. | 98.7 | 65 |
| Stoughton, Wis. | 98.7 | 1 |
| Tremont City, Ohio | 98.7 | 91 |
| Vandalia, Ohio | 98.7 | 167 |
| Cedarburg, Wis. | 98.5 | 155 |
| Pe Pere, Wis. | 98.5 | 877 |
| Spencer, Ind. | 98.5 | 252 |
| Climax, Mich. | 98.3 | 60 |
| Oconto, Wis. | 98.3 | 424 |
| Marquette, Wis. | 98.2 | 1,374 |
| Rockyford, Ind. | 98.2 | 60 |
| Dresden, Ohio | 98.1 | 266 |
| Enon, Ohio | 98.1 | 6 |
| Keweenaw, Wis. | 98.1 | 248 |
| West Bend, Wis. | 98.1 | 408 |
| Franklin, Ind. | 98.1 | 41 |
| Peotone, Ill. | 98.0 | 30 |
| Shawano, Wis. | 97.9 | 412 |
| Watertown, Wis. | 97.8 | 586 |
| Columbus, Ohio | 97.8 | 19,873 |
| Lancaster, Ohio | 97.8 | 2,420 |
| Port Washington, Wis. | 97.8 | 375 |
| Stevens Point, Wis. | 97.8 | 870 |
| Lawrenceville, Ind. | 97.7 | 2,917 |
| Menomonee, Wis. | 97.7 | 1,106 |
| Kaukauna, Wis. | 97.6 | 427 |
| West Lafayette, Ohio | 97.6 | 111 |
| Bourneville, Ohio | 97.5 | 51 |
| Berlin, Wis. | 97.4 | 390 |
| Burlington, Wis. | 97.4 | 740 |
| Winneconne, Wis. | 97.3 | 136 |
| Oshkosh, Wis. | 97.2 | 4,095 |
| Waupaca, Wis. | 97.1 | 456 |
| Buchtel, Ohio | 97.1 | 128 |
| Delavan, Wis. | 96.9 | 880 |
| Galena, Ill. | 96.9 | 460 |
| Hortonville, Wis. | 96.9 | 319 |
| Lancaster, Wis. | 96.9 | 254 |
| North Hampton, Ohio | 96.9 | 286 |
| Okawville, Ill. | 96.8 | 78 |
| Sturgeon Bay, Wis. | 96.8 | 731 |
| Galva, Ill. | 96.7 | 8 |
| Lewisville, Ind. | 96.6 | 196 |
| Waupun, Wis. | 96.6 | 593 |
| Beloit, Wis. | 96.5 | 1,589 |
| Green Bay, Wis. | 96.5 | 3,627 |
| Green Lake, Wis. | 96.4 | 85 |
| Nelsonville, Ohio | 96.4 | 407 |
| Mt. Vernon, Ill. | 96.2 | 1,201 |
| Whitewater, Wis. | 96.2 | 794 |
| Genoa Junction, Wis. | 96.1 | 220 |
| Piqua, Ohio | 96.1 | 393 |
| Winchester, Ohio | 96.1 | 327 |
| Peru, Ohio | 96.1 | 39 |
| Bellevue, Ohio | 95.9 | 315 |
| New London, Wis. | 95.8 | 512 |
| Magalloway, Ohio | 95.8 | 78 |
| Mechanicburg, Ill. | 95.7 | 204 |
| Bloomington, Ind. | 95.4 | 2,160 |
| Centralia, Ill. | 95.3 | 1,747 |
| Adrian, Mich. | 95.1 | 1,177 |
| Holly, Mich. | 95.1 | 287 |
| Litterberry, Ill. | 95.1 | 131 |
| Anderson, Ind. | 95.0 | 2,995 |
| Mackinaw City, Mich. | 94.8 | 13 |
| Sheboygan, Ind. | 95 | 1,692 |

Chicago Telephone Company's City Exchanges

IV.—MONROE

By P. D. STOBBE, Wire Chief

On January 27, 1900, Monroe Office was cut over to the common-battery system with 1,159 stations. At that time it occupied a small two-story building at its present location, 28 South Sangamon Street, and had only eleven A and five B Board positions. The first floor was used as an apparatus room, wire chief's headquarters, and also used as headquarters for the West Division Construction Department, which at that time had a small private branch exchange board with four trunk lines and five local telephones. The second floor was used as an operating room, operators' rest room, and for A. D. T. messenger and watch service.

As this office began to grow, it was found that the space occupied by the A. D. T. messenger service was needed, and in 1904 the A. D. T. Company was transferred from Monroe Exchange to other headquarters.

About this time it became necessary to straighten out the B Board of ten positions, which were straight across the room at right angles to the A Board, and place them up against the south wall in line with the A board. This was quite an undertaking, as the B board could not be left out of service except over Sunday. On a Saturday night at ten o'clock the board was cut dead, the traffic in the meantime being handled by direct trunks terminating in answering jacks in the A Board and rung manually in the A board multiple. Thirty-five hundred multiples had to be respliced and the power wires, trunk cables, etc., feeding this board had to be rerouted before 8 a. m., Monday. The work was handled by our present equipment department and was a complete success, the public not being aware that any large rearrangement was going on.

In 1909 the new addition was built. The ability of the entire force at this time was taxed to its utmost, as the conditions were not very favorable for telephone work, and considerable credit is due the force as very little complaint was made regarding conditions. The roof covering the operating floor was raised to a sufficient height to allow another story to be added to the building. A temporary ceiling was put in to protect the operators from injury, and in this way another story was added to the Monroe office building.

Up to the time that the Haymarket unit was cut over, which was in the year 1909, we had no four-party stations working in the Monroe board. Those that we had in Monroe district were routed from our district back into West office through trunk cables and they worked out of the West office A board. Although we maintained these stations, West office counted them on their total stations.

In 1909, the Haymarket unit was cut in and the four-party lines that were located in Monroe district and working in the West A board were cut into Haymarket.

This district has been gradually growing out of a semi-residence into a manufacturing district.

At the present time we have ninety-six working switchboard positions, this equipment being operated by a total of 250 girls, 122 being day operators, twenty-six day supervisors, seventy-five evening operators, fifteen evening supervisors, ten night operators and two night supervisors. The maintenance of our central-office equipment

is looked after by one day switchboardman, one evening switchboardman, one night switchboardman, one cord man, two testmen, one frameman, and three janitors. The outside force which maintains our subscribers' stations consists of eight repairmen and one student repairman. One of the re-



MONROE OPERATING ROOM IN 1902.

pairmen handles re-running of inside wire and all miscellaneous jobs, while the other seven care for the reported trouble.

The total number of stations cared for by this force was 12,409, January 1, 1913. This is made up of 3,496 single-party stations, 2,446 two-party stations, 3,350 four-party stations and 230 private branch exchange switchboards with 785 trunks and 3,117 stations. We have also 1,626 message registers in service at the present time.

to produce two separate circuits of 110 volts each; one for depositing, and the other for returning nickels. The other set is the same kind of a generator, direct connected to a twenty-four-volt one horse-power motor which runs on the office battery, and is provided for emergency use. There are also two sets of machines for generating the thirty-six-volt current used to operate message registers. One set is a 220-volt one and one-quarter horse-power motor direct connected to the



GARDEN AT MONROE EXCHANGE.

The main distributing frame consists of ten rows of terminal blocks and is sixty-six feet in length. There are forty-three cables on this frame, twenty-four of which are subscribers' cables with 9,800 pairs of conductors, the remaining twenty-one being trunk cables with 3,500 pairs.

The power plant comprises sixteen machines. There are two 300-watt motor-generators to supply ringing cur-

rent for the entire exchange, as well as the private exchange boards in the district. One of these machines runs on the regular 220 volt power circuit, the other is used for emergency and is wound to run on the twenty-four-volt circuit from the office battery.

There are two sets of machines provided to produce the 110-volt direct current which is used to operate coin collectors. One set is a 220-volt one horse-power motor direct connected to a 550 watt generator, which is wound

Nash gas engine and is for emergency use.

The power board consists of six slate panels and is provided with the various switches, rheostats and meters for controlling the various machines.

The main battery consists of eleven cells and has a capacity of 4,000 ampere-hours. There are also two sets of small cells provided to furnish the forty-eight-volt "ticker" battery. One of these sets is charged while the other is in use.

Bell Telephone Bowling League

STANDING OF THE TEAMS
March 29, 1913.

| Team | Won | Lost | Per cent. |
|---------------|-----|------|-----------|
| Commercial | 50 | 19 | 72.5 |
| Installations | 46 | 24 | 66.7 |
| Maintenance | 46 | 23 | 66.7 |
| Engineers | 44 | 25 | 63.8 |
| Revenue | 40 | 29 | 58.0 |
| Traffic | 30 | 39 | 43.5 |
| Suburban | 29 | 40 | 42.0 |
| A. T. & T. | 24 | 45 | 34.6 |
| Inspection | 15 | 50 | 23.2 |
| Accountants | 17 | 52 | 24.6 |

The Bowling League of Chicago has developed the closest race of any organization in the city. Within two weeks of the season's end only six games separate the first four teams. The Installations and the Maintenance are tied for second place.

If the Commercial take two games from the Installations next Thursday night (March 27th), it will practically put the latter team out of the pennant race and clinch the championship. But if the Installations win all three games they will be only one game behind the leaders and will still have a chance. The Commercial must then meet the strong Revenue, who are coming fast. The same possibilities apply to the Maintenance team, except that they do not meet the leaders again. The Installations and the Maintenance wind up the season in a game postponed from Thanksgiving. It will be a fierce struggle. All told there are four more series to bowl.

The A. T. & T. team, although in seventh place, are rolling like whales, and took two from the Maintenance last week.

The Installations still hold the high records of the league, 854 pins for season's average against 843 for the Commercial, 1010 for single game, the only score above a thousand ever made in the league, and 928 high team three game score, which, however, was surpassed last year by a score of 944.

The following individual scores top the list:

| | Average | Games |
|-----------------------|---------|-------|
| Welsh, Installations | 184 | 86 |
| Johnson, Engineers | 172 | 86 |
| Cary, Commercial | 179 | 85 |
| Atwood, Engineers | 178 | 90 |
| Love, Revenue | 178 | 86 |
| Stallwood, Commercial | 177 | 51 |

Interstate Exchange Burns.

An electric power wire carrying a current of heavy voltage fell with its weight of steel across a wire of the Interstate Telephone and Telegraph Company at Aurora, Ill., during the storm of February 21st. In the resulting fire the exchange was partially destroyed. The loss was about \$50,000. Service over the Interstate lines in Aurora was restored in about three weeks.

Troubles of Their Own.

Workmen were in great demand during recent storms in Illinois. Joliet was not the only spot damaged by the storm. Tinon, the chief engineer on the C. & J., sent a rush order to a friend in Chicago for a gang of men to be rushed there immediately.

The reply came soon. It was "Go to h—!"—From a Joliet, Ill., newspaper.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,900 copies per month.

APRIL, 1913.

KEEPING THE FAITH.

"Our work is a work of restoration," said President Wilson in his inaugural address.

His words have the ring that awakens hope and confidence in the bosom of those who have watched with foreboding the actions of some of our political leaders whose bent, of late, has been to scoff at well-established institutions and traditions and the basic principles set out in the Constitution which is the foundation of our government. The Constitution has been assailed as archaic and inadequate to the necessities of this day and generation.

The claims of those whose faith still rests upon the wisdom of our forefathers as portrayed in the Constitution has been amply justified by the momentous events that have marked the current month's place in history. We have seen the management of our nation's business turned over, without friction or jar, from the representatives of the Republican to those of the Democratic party. The new administration has come into power in a manner marked by dignity and a gravity of demeanor which compels the respect and inspires the hope of all.

Without exultation or self-aggrandizement, but with full appreciation of the responsibilities resting upon them, the President and his advisers have assumed the reins of government at the behest of the people, indicated by their votes in the November elections, and pursuant to Constitutional provisions which have safely and sanely prevailed since the day of our birth as an independent sovereignty.

By its very orderliness, calmness and modesty, backed with a quiet but unflinching courage, betokening a determination to govern justly, the claims of the lovers of the Constitution are upheld and ramping demands for the initiative and the referendum, the recall of judges and of judicial decisions and other wild and dangerous nostrums are left without rhyme or reason for their being and shown to be but means to the end of selfish advancement and without a shadow of sound value.

Those who would be off with the old and on with the new, in matters of such grave import as national, state or municipal governmental machinery, should pause and consider whether we can, with safety, swing clear of the old moorings and attempt to steer the Ship of State through an uncharted sea of radicalism and reckless change.

It should be borne in mind that passions, private aims and the satisfaction of selfish desires are ever the most effective springs of action. As a rule

they respect none of the limitations imposed by justice and morality. They are meant to stir the impulsive and they have more influence than the tedious discipline that tends to order and self restraint.

With this in mind, check and balance the iridescent, against the old, the time-tried and tested. Determine whether, aside from dreams and fancies, our political Canaan is to be the more surely attained via the route of New Nationalism, a New Charter for Democracy, an easily amended Constitution and an easily eliminated judiciary, or in the wake of the Constitution, which for a hundred years and more has been the pillar of cloud by day and of flame by night, that has given safe conduct through civil and foreign disturbances and under whose beneficent influence our nation has been sustained and nurtured from weak and struggling infancy to robust, vigorous and successful maturity.

The people rule—they demonstrated their power in the great referendum of November last when the Republican Party was swept from power and the Democratic Party was made the conservator of the public weal. They demonstrated their faith in the Constitution by changing from one old party to another, as old and older, content in the knowledge that be the title Democrat or Republican the rule would be Constitutional.

So may it ever be; so may we keep the faith and cling to that which is good. So may we retain that which from Concord and Lexington, down through Gettysburg and Appomattox, to Taft and Wilson, has shown itself to be, not shifting sand, but the rock upon which our government stands unshaken and unafraid.

BELL SYSTEM'S YEAR.

Steady, forward progress is the keynote of the annual report of the American Telephone and Telegraph Company for the year 1912, a summary of which appears in this issue.

A keen minded philosopher once said, "Happy the people whose annals are blank in history books." So might it be said of a business enterprise. When the history of its affairs for a season is but the record of advancement along normal channels of growth then the enterprise may truthfully be said to be accomplishing its purposes in the highest possible sense. This is the condition of affairs in the Bell System as disclosed in the report for 1912.

The telephone industry has reached a stable basis. The days of exploitation for quick profits are over. The business has settled into a steady stride, taking its place among the other big, useful enterprises of the American people.

The telephone stockholder and the telephone employee will find much of vital interest in reading this report. The financial features are wholly satisfactory. In spite of the well-known fact that earnings tend to decrease as the volume of business grows, the rate of earnings of the Bell System has shown a distinct improvement. As a further evidence of good management and intelligent effort, it is shown that average gross earnings per station throughout the country increased from \$30.85 in 1911 to \$30.93 in 1912, and operating expenses per station decreased from \$15.36 to \$15.17. Although the items of depreciation, maintenance and taxes increased, the report is able to show improved net earnings of \$9.29 per station as against \$9.12 the previous year.

To the Bell employee, the growth of the system as shown from year to year, must always be the thing of greatest interest. The gigantic total of almost seven and one-half million telephones, everyone a "center of the 'system'," staggers the imagination. And we find ourselves mentally wrapping the fourteen million miles wire around the earth, the division into such possible windings producing an amazing quotient. The volume of "talk" suggested

by the figure of twenty-five million daily exchange and toll connections is likewise a challenge to our powers of comprehension. It shows, as no other evidence could, the tremendous use the American public makes of its telephone service. Every Bell telephone in the country is used on the average three times a day.

President Vail does not find it necessary to comment at any length on the public relations of the Bell System. The policy of complete publicity, consistently followed during several years has borne fruit in an improved feeling toward our companies on the part of the people at large, and present relations, both with the telephone users and the supervising commissions, are stated to be satisfactory. This is a matter of congratulation as it promises development of the system along approved lines.

THE ILLINOIS STORM.

Three of the worst sleet, snow and wind storms in the recollection of the oldest inhabitant have come and gone and telephone service in Northern Illinois is back to normal. The story of these storms is simply the ever repeated epic of telephone work and the characters are the same—the heroic plant men.

Our little paragraph last month, telling of a "Chance for Inventors," was written before the report of the first storm came in, but even as we wrote the words came true. The storm-proof telephone line is yet to be built.

There has already been a "feel of Spring in the air," but it is not wise to take Spring for granted. Late in March of last year a most disastrous sleet storm leveled telephone lines in three states. In April came floods in Southern Illinois which taxed to the utmost the energies and ingenuity of the plant men.

To the Bell system the effects of a storm are simply temporary trouble and expense. To some of the smaller companies they are annihilation or bankruptcy. At this writing there are still telephone lines of smaller companies in many places down as a result of the February and March storms and no promise is forthcoming as to when they will be rebuilt. It is the same after every big storm.

The Bell telephone companies, operating over a wide territory, lose only a small percentage of their property in any single storm. This tends strongly to prove that the depreciation reserve of a small company should be much greater, proportionally, than that of a large one. A storm which destroys only a comparatively small percentage of the total property of a big company may wipe out half the investment of a company whose whole property lies in its pathway.

BRAINS VERSUS HANDS.

Are we brain workers or hand workers?

To be of much value we must be both.

A man who has since risen high in the world of journalism was once expressing sympathy with a younger brother worker who had fallen a victim to rheumatism in the lower limbs.

"A newspaper man," he said, "may get along without brains, but he must have legs."

The journalist did not mean this exactly. He merely meant that brains alone will not suffice to command success in his profession.

There is a mistaken tendency to make a distinction between what we call "brain work" and "manual" occupations. The mistake lies in the implication that so-called "manual" work does not require brains.

As a matter of fact, the work which is done with the hands—and which often soils the clothes of the worker, frequently requires a higher quality of brains than does the work done at a desk with pen or pencil. Particularly is this true of telephone work.

It is the constant effort of the operating departments of the telephone companies to secure men and women with brains in all positions—to increase the brains element. To this end they conduct traffic schools and plant schools. Advancement and raise in pay are prompt to follow on evidence that an employee is supplementing his hands with his head.

ARE YOUR TOLL LINES BUSY?

How does long-distance business show up in your exchange? Is it anywhere near equal to the capacity of the equipment and forces? How many people do you know whose business is such that they obviously should be heavy long-distance users? How many people do you know who never "talk long distance"?

The toll service affords a mighty good field for increasing the revenues of your exchange without increasing the expense. A timely suggestion injected into ordinary conversation may do the business. Sometimes details are necessary—a comparison of cost with the saving in time; sometimes it is desirable to call attention to what some one else is accomplishing by the liberal use of the telephone; in fact there are dozens of good methods and good arguments which will present themselves to the mind of the manager who decides to increase the long-distance business in his exchange.

Bear in mind that lines which are not making money are eating up money in depreciation, interest, taxes, etc., which is a gross miscarriage of the purpose for which they were intended.

THE DETROIT CUT-OVER.

All departments must feel gratified over the success of the biggest cut-over in telephone history, which has just been accomplished in Detroit, for every department had a share in the work and responsibility and therefore has a share in the credit.

The Detroit cut-over offered an unusual opportunity for team work. The transfer of eight thousand telephone subscribers from one system to another involved every branch of the service in problems which were extremely large and, to some extent, new and unusual.

The Home Company furnished entirely different grades of service from those of the Michigan State Company, and from those proposed to be given after the consolidation. The commercial men, therefore, were the first to get into action and their work started almost before the ink was dry on the Railroad Commission's order authorizing the merger. Every one of the eight thousand subscribers had to be visited and his contract taken for Bell service. Meanwhile the engineering and plant departments had not been idle. Regular conferences were arranged and the progress of plant work was carefully checked and everything possible prepared in advance for the cut-over. The traffic people had troubles of their own to contend with in reconciling the difference in operating methods and these differences and difficulties traffic men know to be legion.

But brains, energy and team work made good and made good to an extent almost if not altogether without parallel. "Not a line was lost in the cut-over," said General Manager von Schlegell, to a Detroit newspaper, "and we have not experienced a single mechanical trouble since," and we know that Mr. von Schlegell is not given to mere idle boasting.

It was a big job, handled in broad-gauge style and Mr. von Schlegell and his associates and forces are entitled to feel extremely proud.

PROFANITY BY TELEPHONE.

Mixed thoughts fill the mind on reading a late decision of the Supreme Court of Iowa.

Henry Ricksmeier owns, in the commonwealth of Iowa, a certain portion of the globe, which was recently invaded with disastrous results by cattle belonging to a neighbor, Nettle Kramer. Mr. Ricks-

meier rushed forthwith to the telephone and unburdened himself profanely and explosively to his neighbor, whereupon he was sued for damages on account of "fright, shock and humiliation." The court held that profane and harsh words heard over the telephone are not a basis for legal damage.

The importance of such a decision will escape no one. If the telephone can be made a safety valve for pent-up feelings, how much easier it will be to tell a large and impulsive man exactly what you think of him. If your vocabulary is more extensive than his, and you have enough agility to keep out of his way, nothing will mar your triumph.—*Chicago Record Herald.*

DEATH TO ROMANCE.

How our hearts used to thrill as we sat on our oaken school benches, with shining eyes fixed on some future Demosthenes, and listened, years ago, to the story of the wild rider who "brought the pardon."

It was a wonderful story, garnished with all the dramatic details of the trial of innocence forced into a false position and damned by the weight of circumstantial evidence. Verse by verse the tragic tale rose to its climax—that tense moment when the prisoner, pale but undaunted, looking calmly out with the steadfast eye of virtue misjudged, stands on the scaffold waiting for the drop to fall which is to "launch him into eternity."

But hold! A faint sound is heard. A moving spot appears on the distant, dusty highway. Nearer and nearer it comes resolving at length into the outlines of horse and rider. Still nearer it comes, the horseman urging onward his jaded mount "with whip and spur." The crowd parts, the dusty rider jumps from his horse and springs upon the scaffold platform, where all the while the neilless prisoner has been standing with eyes bulging from their scarce restraining sockets.

The horseman waves aloft a crumpled sheet of white paper.

"A pardon!" he cries, and then sinks unconscious at the feet of the man he has saved.

Now all this is just as it should be. Romance oozes from every line of it. But alas for romance when it comes into conflict with modernity. Alas for the rider, alas for the horse and alas for the sparks from his flying hoofs. To-day the pardon comes another way.

Governor Sulzer, of New York, is the man who put the eternal quietus, so to speak, on the romance of the pardon. Recently he telephoned a reprieve for a convicted murderer to the warden of Sing Sing prison. The prisoner had made his last appeal to the governor by means of a special delivery letter, which is likewise a latter-day refinement of the agencies of communication. Surely it is evidence of a decadent sense of the fitness of things that such methods, whimsical in their very commonplaceness, should supersede the good old ways of our fathers.

President Wilson, who is also something of a modern, recently used the telephone to adjourn the United States Senate, a proceeding which must have given a jar to the sensitiveness of that dignified body. One by one the ceremonial customs which have come down to us from the Middle Ages are yielding to advanced thought and no physical agency has contributed more to this movement than the telephone.

NEW BELL PUBLICATION.

The latest of the Bell Telephone Company publications has made its first appearance. It is the *Southern Telephone News*. Issued by the Southern Bell Telephone and Telegraph Company and the Cumberland Telephone and Telegraph Company, whose headquarters have recently been combined in Atlanta, Ga.

The new journal is issued under the supervision of Mr. Evelyn Harris, Publicity Agent, and Mr.

J. H. Atchison is the Editor. Mr. Atchison was formerly Editor of the *Cumberland Telephone Journal*, which is merged into the new paper.

The *Southern Telephone News* is well arranged and attractively printed. It is sixteen pages and cover. The first issue carries a portrait and greeting from Mr. Union N. Bethell, Senior Vice President of the American Telephone and Telegraph Company. President W. T. Gentry, of the Southern Bell and Cumberland Companies, contributes the salutatory article. Portraits of twenty-two of the superintendents form another feature.

The BELL TELEPHONE NEWS extends its greeting to the new publication and promises to crib freely from its pages.

BOTH 'PHONES.

We note on a passing wagon the words "Both Phones." Why both? Why would not one 'phone answer for everybody? It would certainly be more convenient and ought to be cheaper than would be the case with two 'phones. We may be trenching upon the domain of law or ethics, but somehow it seems that the public welfare would be advanced by having one telephone instead of two.

Of course the monster Monopoly looms up before the problem, but in these latter days, when regulation takes a hand in human affairs, it does not seem so threatening. That feature will be promptly taken care of if the public welfare finds the amalgamation satisfactory. All of which suggestion is made with high regard to the interests of all sides of the proposition. It does seem that this union might take place to the satisfaction of both the people and the companies. It is only a question of the way where there is a will.—*Ohio State Journal*, Columbus.

MAKING THE LINE.

One of the Chicago newspapers publishes daily a column of wit and humor under the heading "A Line-o-Type or Two." Contributions are accepted from any source, the sole condition being that the contribution must be worth reading—it must have a real laugh in it.

We print each month in this publication a column of little jokes and quaint sayings heard in our exchanges under the heading, "Exchange of Exchanges." Our girls are the principal contributors. They report the little sarcasms and humorous complaints of subscribers—always without malice and in perfect good-temper.

The editor of "A Line-o-type or Two" speaks of the success of any contributor in getting a joke into his column as "making the line." And quite a contest has developed.

We should like to start a friendly contest among our girl readers (or men for that matter) to develop contributions to our "Exchange of Exchanges." Send on your joke, either direct or through your division correspondent. Attach your name or initials and the name of your exchange. See how many will be able to "make the line."

It is considerably cheaper to save a telephone station already installed than to allow it to be taken out for want of salesmanship and then exert an equal or greater amount of canvassing effort to get a new subscriber to keep up your list.

When a subscriber discontinues his service for any other reason than removal from the exchange area, he is liable to become a "knocker." It is a natural psychological result of the transaction. The subscriber, anxious to justify his action before his friends, who are curious to know why anyone should deliberately choose to do without telephone service, is liable to exaggerate his complaints against the company, if he has any, or invent some if he hasn't.

Perhaps not every take-out can be saved, but many of them can. The manager who succeeds in persuading a subscriber to keep his telephone is probably quieting a trouble maker at the same time.

LARGEST CUT-OVER IN TELEPHONE HISTORY

Michigan State Telephone Company Takes Over 8,000 Home Subscribers in Detroit.

By S. H. Williams, District Line Engineer, Detroit.

At one o'clock on Sunday morning, March 2nd, the plants of the Michigan State Telephone Company and of the

of more than 8,000 subscribers to the Detroit exchanges.

Soon after authority was granted by the Railroad Commission of Michigan to merge the plants of the Home Telephone Company of Michigan and its subsidiary companies, consisting of the Detroit River Telephone Company, the Macomb County Telephone Company, the Wayne County Telephone Company and the Interstate Long Distance Telephone Company, with the Michigan State Telephone Company's plant, a conference of department heads was called by the General Manager at which general plans and methods of procedure were discussed and a permanent committee named to prepare and execute the detailed plans, specifications and estimates.

touch with the progress being made by the other departments so that certain portions of the work might be hastened or retarded as might be deemed best for the general good of all concerned.

Before definitely deciding upon the final course to be pursued, a preliminary canvass was made by the commercial department to ascertain (1) what proportion of the "exclusive" Home patrons would subscribe for Bell service, (2) what class of service would be required, and (3) what additional Bell service would be required by those users having both Bell and Home connections. This preliminary canvass was made to reach a certain number of both "exclusive" Home and "duplicate" subscribers in various parts of

scribers' lines and stations expected in each branch exchange district, this estimate to be used as a guide for furnishing plant and traffic facilities required for the additional load that would result from combining the two systems.

While this preliminary canvass was being made a skeleton map of the Detroit exchange area was prepared, showing the location of each Bell and Home branch office and the route, size and load or cable fill of all Bell and Home local trunk and toll cables.

From a study made of the conditions found as a result of this preliminary work and of the conditions and capacities of the branch exchange buildings and switchboards, it was definitely decided that, with the exception of



COMMERCIAL DEPARTMENT MEN WHO MADE 15,000 VISITS TO HOME COMPANY SUBSCRIBERS BEFORE THE CUT-OVER IN DETROIT.

From left to right: Top row—J. Cronberger, C. M. Tower, C. Shepherd, I. M. Hadley, Roy Unger, F. Van Gorder, J. M. Purcell, J. E. Martz, Harry Hartness, K. F. Senften and J. Morrison. Middle row—C. J. Nelhammer, W. F. Stevens, C. Robinson, Theodore Gold, E. V. Hardy, A. Craig, Charles Ritter, S. L. Smith and J. M. Jamieson. Bottom row—L. F. Guenther, A. H. Treppa, F. Roembach, F. M. Riegel, Jr., J. F. Bacherach, G. C. Wynne and W. R. Johnson. Mr. Riegel was at the head of this department. The group is standing on the steps of the Cadillac exchange.

Home Telephone Company of Michigan in Detroit were consolidated, thus bringing to a successful termination the unification of the two telephone systems and resulting in the addition

This permanent committee was composed of members of the commercial, plant, traffic and engineering departments and has been holding regular weekly conferences up to the time of the cut-over. In addition to these regular weekly meetings special conferences were called whenever conditions demanded. The chairman of the conference was Carlyle Kittridge, engineer. At the meetings the commercial department was represented by G. R. Heywood, commercial superintendent at the Cadillac office; the engineering department by the chairman, by M. B. Huntoon, equipment engineer, and by S. H. Williams, district line engineer; the plant department by C. L. Boyce, superintendent of plant, or C. E. Gardner, assistant superintendent of plant, and by W. C. Kirk, district plant chief, or R. V. Hurlbut, Detroit plant chief; the traffic department by W. E. Spencer, district traffic chief, or Fred Clarke, traffic engineer.

The object of these conferences was to enable each department to keep in

each Michigan branch exchange district, so that a fair estimate might be made of the total number of sub-

the Pointe exchange subscribers, all of the Home subscribers who contracted for Bell service should be cut



THE THREAD OF THE STORY.

Pole yard of the Michigan State Telephone Company, showing some of the reels of cable made by the Western Electric Company especially for the Detroit telephone cut-over.



OFFICE DETAILS.

Part of the office force at the Cadillac exchange writing orders for Bell telephones to replace those used by former "exclusive" Home subscribers. There were nearly 9,000 of such orders.

over to the Michigan system at one time. The Home toll switchboard was consolidated with the Michigan two weeks in advance of the cut-over. The cut-over was scheduled to occur on March 1st, or as soon thereafter as possible, this date depending consider-

Michigan branch offices as described below

The accompanying diagram, which is a reproduction of one prepared as an aid for the assignment clerks, shows the relative location of all of the Michigan and Home Detroit branch

the West and Walnut districts; that the Home Oak district includes all of the Michigan North and Hemlock districts and parts of the Walnut and Ridge districts; that the Home Field district includes nearly all of the Ridge and small parts of the East and Hick-

districts; therefore, to cut the Home subscribers into the Michigan branch office within which district they appeared would mean the re-districting of all the Home branch office districts and the reversing of large parts of the Home construction so that it would feed from the Michigan branch offices.

If this could have been done economically it would, of course, have been ideal—that is, after the cut-over each office district would have been self contained and have had no subscribers' lines extending into another office district; but as there were not sufficient cable facilities in the Michigan plant to cut all Home lines into Michigan offices, and the cost of supplying such facilities was prohibitive, this plan could not therefore be considered feasible.

To illustrate, the extreme northeast section of the Home Dell exchange district lies in the extreme southern part of the Michigan Walnut exchange district, so, lacking facilities in the Michigan plant, to cut Home subscribers in this territory into the Walnut exchange it would have been necessary to install cable from the Walnut exchange to within a short distance of the southern limits of the Walnut exchange district.

An objectionable feature of this plan, aside from the great cost of cable, would have been that cutting the Home subscribers' lines onto new cable in the Michigan system would have killed Home cable conductors for their entire length from the Dell office to the extreme limits of that exchange district, with no prospect of recovering them for new subscribers' lines in the near future.

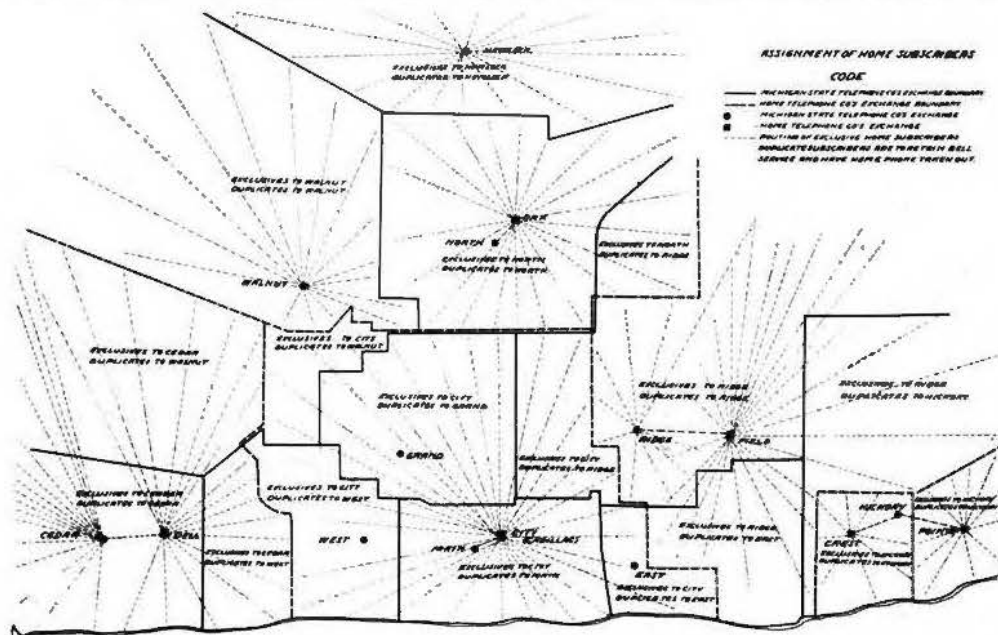
The assignment of Home subscribers' lines was made as follows:

- (1) In general, all duplicate subscribers to both systems to have their Bell lines continued without any change, the Home lines to be discontinued at the time of the cut-over and Home instruments removed immediately thereafter.

(2) Exclusive City subscribers in all Bell districts served by the City exchange to be assigned to the new Cadillac exchange.

(3) Exclusive Dell subscribers to be assigned to the Cedar exchange.

(4) Exclusive Oak subscribers in the Hemlock district to be assigned to the Hemlock exchange.



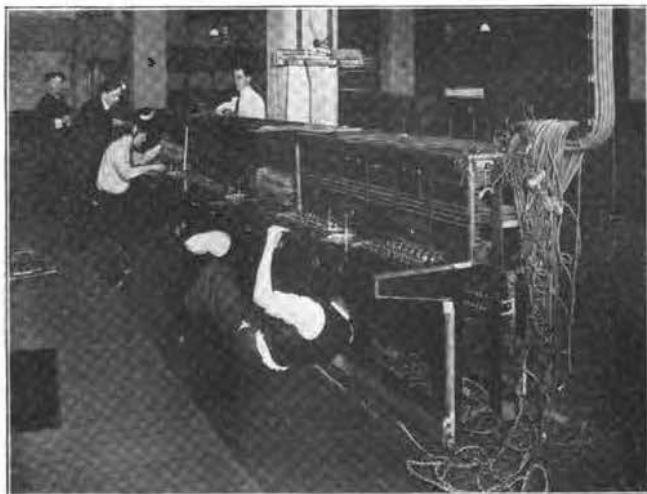
TRACING SHOWING THE ASSIGNMENT OF HOME TELEPHONE SUBSCRIBERS TO THE EXCHANGE OF THE MICHIGAN
STATE TELEPHONE COMPANY IN THE DETROIT CUT-OVER.

ably upon the amount of time required to print the new directories after the closing of the final canvass. It was further decided that all of the Home offices should be discontinued with the exception of the "City" branch office, this office to be renamed "Cadillac," and that the former Home subscribers' lines should be assigned to the various

offices and of these branch office boundary lines. On this diagram it will be noted that the Home City office district includes all of the Michigan Main-Cherry and Grand office districts and portions of the Michigan West, Walnut, Ridge and East districts; that the Home Dell office district includes all of the Michigan Cedar and parts of

ory districts, while the Home Crest and Pointe districts lie wholly within the Michigan Hickory district.

From the above it will be seen that the office districts of the two systems have no boundary lines in common, with the exception of that between the Michigan Main-Cherry and North districts and the Home City and Oak



ADDED TOLL BOARD

This is part of the Cadillac toll board which was brought over to the long-distance room in the main building to take care of the additional toll business caused by the Detroit telephone merger. M. B. Hinton, equipment engineer, was in charge of this installation. Behind him stands Margaret Kopp, chief operator of the long-distance room.



NEW CHARGING MOTOR AT THE NORTH OFFICE, DETROIT

This machine was installed by the Western Electric Company expressly for the addition to this office caused by the cut-over hither of Home "Oak" subscribers. It is a 220-volt motor, of 800-ampere capacity, giving 900 revolutions per minute. Healy Freeman and Wire Chief Fritz are seen in the background.

(5) Exclusive Oak subscribers in the Walnut district to be assigned to the Walnut exchange.

(6) Exclusive Oak subscribers in the Ridge district to be assigned to the North exchange.

(7) Exclusive Oak subscribers in the North district to be assigned to the North exchange.

(8) Exclusive Field subscribers in all Bell districts to be assigned to the Ridge exchange.

(9) Exclusive Crest and Pointe subscribers to be assigned to the Hickory exchange.

As fast as the orders were secured by the commercial department they were turned over to the engineering department, where they were recorded on "block" cards, two cards being made for each order.

These block cards were numbered

overcome and one requiring a large amount of work prior to the cut-over was the modification of the Home subscriber sets so that they might operate on the Home system up to the time of the cut-over and upon the Michigan system immediately thereafter.

The Home Company furnished selective-ringing party-line service up to four parties on a line, but, instead of using pulsating positive and negative ringing current applied on the tip or ring side of the line through the ringer coils to ground at the sub-station, as is done by the Michigan Company, the Home Company used the harmonic ringing system.

By this system the ringing current is always alternating and is applied to the tip side of the line, through the ringer coils, to the ring side of the line and thence to ground at the cen-

and plant departments, and a great deal of credit is due to them for the success of the cut-over.

The method of making the final cut-over was practically the same as that usually employed for cutting lines from one office to another.

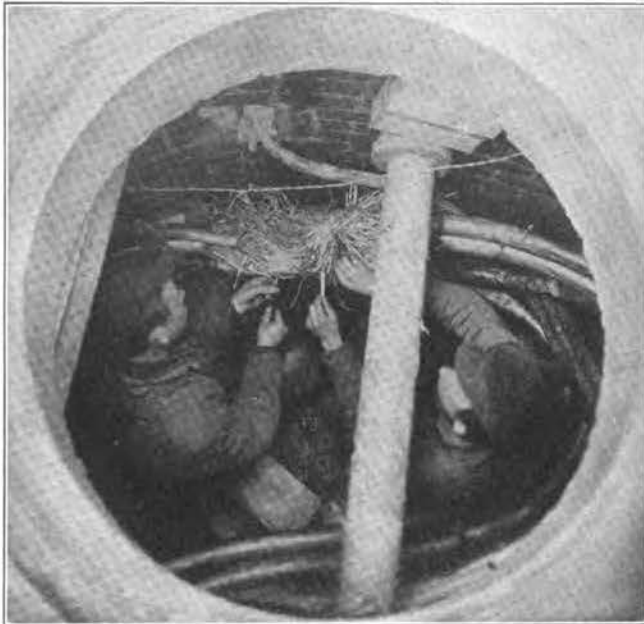
Prior to the cut, all subscribers' lines were made to appear on the main frames in both the Home and Michigan offices and all necessary jumpers run.

The cut was then made by removing the heat coils or cutting jumpers in the Home offices and placing heat coils or closing jumpers in the Michigan offices, and enough people were stationed at various positions in the Home and Michigan offices so that the cut was made all at one time.

Following are a few statistics per-

A word or two may be said as to the work done by the directory department. Five proofreaders, at the head of whom was Stella McGraw, read proof almost continually for ten days at the printers' composing room, where the work that they accomplished, including reading of galley proofs, checking, etc., amounted to the equivalent of reading an average of eighty-five directory pages per day. The errors detected after publication were very few, being one and one-fourth per cent. of the new additions only; they consisted of wrong numbers, mis-spelled names, wrong addresses and omissions. In no single case was any unadjustable immediately by the information department.

The delivery of these 91,000 books was handled by E. M. Steiner, of the commercial department, with James



MANHOLE AT LELAND AND McDOUGALL AVENUES, DETROIT.

Splicers M. H. McKinley and George Souller are seen connecting the last of the 1,200 lines of the Home Telephone Company's Field office into the Michigan State Telephone Company's Ridge office.



MANHOLE AT CASS AND MILWAUKEE AVENUES, DETROIT.

Splicers Robert McDonald and Leo Legendre are seen connecting the last of the 810 subscribers of the Home Telephone Company's Oak office into the Michigan State Telephone Company's North office.

to correspond with numbers assigned to each city block, and all orders for service within each block were assigned the same block number.

The object of these block cards was to enable the engineer to keep in touch with the cable requirements in each block, each group of blocks, and so, finally, each exchange district.

One set of these cards was filed numerically by block numbers, and the other set filed alphabetically by the subscriber's name, the latter being used as a cross reference to the numerical cards. After making these cards for each order the engineer noted on each order his recommendation as to which exchange district the order should be assigned, and forwarded the orders to the plant department.

Upon receipt of the orders by the plant department the telephone number and cable conductors were assigned and all necessary cable and other plant records made. The orders were then forwarded to the traffic department for intermediate frame assignment, to the directory department for directory listing, and finally to the bookkeeping department for billing purposes.

One of the greatest difficulties to be

trated office, the selective feature being accomplished by using ringing current of four different cycles and voltages, and ringers whose armatures are so "tuned" that they can be actuated by but one of the four types of current employed.

In order that Home subscribers on party lines might be called selectively by both the Home and Michigan methods of ringing, it was necessary to install local grounds at all subscribers' stations and modify the Bell circuits only; in other cases, in addition to the above, it was necessary to install Western Electric Company's bells and remove the Home bells after the cut-over; and in still other cases, in addition to all of the above, it was necessary to reverse the subscribers' lines at the time of the cut-over.

With but few exceptions the actual work of installing switchboard equipment, sub-station apparatus, underground and aerial cables, temporary and permanent main frame and intermediate frame jumpers, and miscellaneous aerial construction, was all done during the month of February. It required perfect organization and supervision on the part of the traffic

taining to the cut-over that are of interest:

62,200 switchboard jacks were installed as part of additional subscriber and trunk equipment.

3,217 subscriber installation orders completed.

29,228 feet of underground and aerial subscribers' cable installed.

27,958,050 feet of wire in this cable.

298 cable splices in this cable.

478 pairs is the average size of cable installed.

285,000 approximate number of wire splices made.

17,340 feet of trunk cable installed.

150,000 feet of jumper wire used.

10,400 jumpers run.

175 men on duty all night the night of the cut-over.

15,000 visits made to Home subscribers by solicitors.

60,000 daily calls added to traffic load by the cut-over.

8,775 directory changes made.

91,000 directories delivered.

4 days consumed in delivering directories.

250 men employed to deliver directories.

Jeffries, William Johnson and William Melbeyer as assistants. The compiling of records for the delivery required the services of ten girls for sixty days, as well as of every employee of the adjustment department in the evening. The territory covered by the eleven offices was sub-divided into districts; tags for every book were similarly sorted, and then arranged alphabetically by streets and numerically by house numbers. Thirty trucks and 250 men were hired for the delivery of the directories. On each of these trucks were tacked large signs, reading;

Connecting Bell and Home Wires



200,000 Wire Connections
Necessary to Consolidate
Bell and Home Telephone
Plants.

The same signs had also been placed on all plant department wagons and automobiles during the month preceding the cut-over. We had plenty of publicity.

During the last few days of February the General Manager of the Michigan State Telephone Company drew the attention of the people to the coming cut-over by means of display advertising of a careful and effective nature in the Detroit newspapers.

The public was therefore well-advised of the magnitude of this undertaking. Its success was marked from the moment of its completion, and the company has received congratulations from all parts of the city, and from all classes of its subscribers.

Washtenaw County Also.

C. B. Hall, formerly general manager of the Washtenaw Home Telephone Company, contributes the appended account of the cut-over to one system in Washtenaw County, Michigan:

The cut-over, or unifying of telephone service of the Ann Arbor, Ypsilanti and Dexter exchanges in Michigan occurred on Wednesday morning, February 5th, at five o'clock, and was so sudden and complete that the public could hardly realize that it had actually taken place. But it had, and the work done was as nearly perfect as could be hoped for.

Eliminating duplications, this merger gives the Michigan State Telephone Company a net increase of over 800 subscribers, which means that Washtenaw County now has 9,500 subscribers connected under one system. This means a great saving to the people.

The stamp of condemnation has certainly been placed on dual service in this locality.

The work done by the different departments made a pretty study, and demonstrates the advantages of functional organization. Each man knew what should be done and did it, without confusion or conflict. The engineering department mapped out the way with blue prints; the plant men followed and made the physical conditions ready; new numbers were assigned and directories distributed marked "For use after February 5th," the auditors had their data for the billing, and the operating and traffic departments had given full instructions as to what should be done. Hence, when the proper time arrived, all was in readiness and was done inside of ten minutes. So much for SYSTEM.

It was a big job well done and every one connected with the work deserves credit.

Merger Completed in Marquette.

The telephones of the former Marquette County Telephone Company in Marquette were cut into the Michigan State Telephone Company's central office in its building on Washington Street, March 1st. The Marquette County central office is to be abandoned and the switchboard and other equipment removed. Where subscribers used the Marquette County service exclusively their old instruments were adjusted to the common-battery system. While these instruments will continue in use it will no longer be necessary to spin the crank to get the central office.

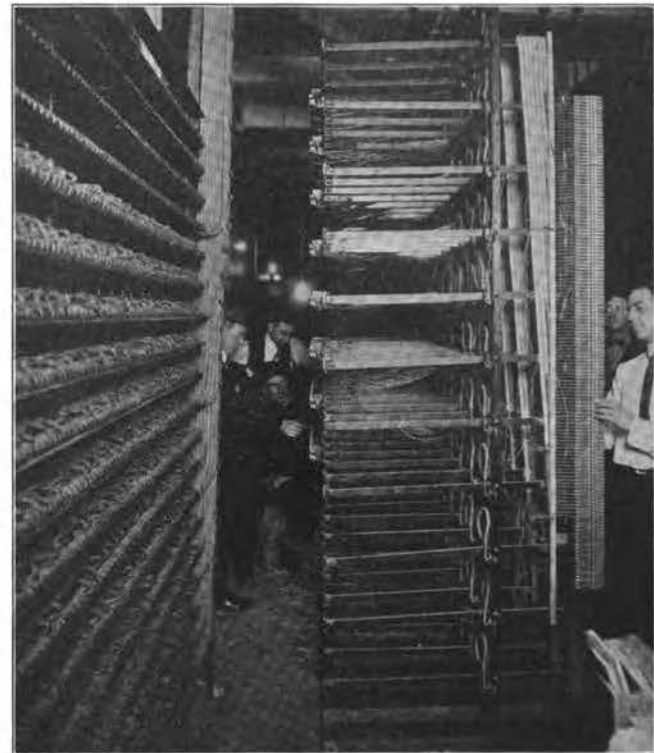
The Ishpeming and Negaunee exchanges of the Marquette County central offices will be maintained for some additional months, while the Michigan State company is working out comprehensive plans for new central offices and equipment that will take care of the future growth of its business for some years to come. There are connected with the Michigan State central offices by several trunk

lines, so that all the telephones in use in the county are operated as one system. The Michigan State service is extended so as to include all subscribers who were formerly exclusive users of the Marquette County telephones.

The merger adds about 550 subscribers who prior to the first of the year used the Marquette County service exclusively. Most of these are residents of Ishpeming. The Marquette County subscribers added to the system represent an increase of about one-sixth in the scope of the service compared with what it was before the merger. The

its New York offices. It is in three sections.

The historical section shows the development of the telephone from its earliest stages up to the present time. The smoked glass records of sound waves made by Alexander Graham Bell in 1874, using the human ear as a transmitting diaphragm, and thus proving that diaphragms would transmit sound waves; parts of Bell's original telephone of 1876, mounted to make a complete model, and numerous instruments showing the gradual improvement in design. Included in the



RACK IN THE NORTH OFFICE, DETROIT.

The partially bare section in the foreground was added not only to take care of the Home subscribers in the Oak office who were cut over to the North office, but also for future local growth. At the left are seen G. A. Fritz, wire chief; L. Greene and Paul Leavelle. "Bud" Carroll was also working on this frame when the flashlight was taken, but he is modestly lost in the umbrageous depths of the background. At the right, by the protector mountings, are Russell Casey and Healy Freeman.

Michigan State Telephone Company gets a largely increased number of subscribers in the remote towns of the county, particularly on the Swanzy range, where the Marquette County company had worked up a considerable list.

Considerably over half the subscribers for residence telephones are on two-party selective lines. Practically all the business houses, however, are on individual lines, and many of them have two or three separate installations, so that their customers will be less subject to delays.

The company's plans for Marquette county contemplate a large additional outlay on the modernization of the system at Ishpeming and Negaunee, and when the projected work is finished the system will stand comparison with any to be found in the state.

Permanent Exhibit of Apparatus.

An exhibit of historical and modern telephone apparatus and electrical supplies was recently inaugurated by the Western Electric Company at

historical collection, which is composed partly of apparatus loaned by the American Telephone and Telegraph Company, and partly of Western Electric apparatus, are the switchboard used by Mr. Bell in opening the New York-Chicago line in 1892, and the receivers and transmitters used at the opening of the New York-Denver line in 1911.

The modern apparatus section contains switchboards, magneto and central battery, each switchboard having wired to it a number of telephone sets, so that service demonstrations may be made to visitors.

In another part of the exhibit room every system of interphones is represented, and there is also a complete line of representative telephone train-dispatching apparatus in operative condition.

Miscellaneous telephone apparatus, such as combined jacks and signals, keys, lamps, lamp sockets, jacks, cords, plugs and repeating coils, as well as representative pieces of tele-

graph apparatus, are exhibited in a large glass show case.

In other show cases are samples of all the various supply lines manufactured and distributed by the company.

The exhibit, arranged with the cooperation of the American Telephone and Telegraph Company, is intended to be of a permanent character, and as new apparatus is placed upon the market, or new supply lines added, representative samples will be exhibited.

Changes in Pacific Company.

General changes in the list of officials of the Pacific Telephone and Telegraph Company were announced following the annual meeting March 5th. Louis Glass and E. J. Zimmer, both vice presidents and members of the board of directors, resigned and were succeeded by J. M. Quay and H. D. Pillsbury.

E. C. Bradley, vice president and general manager, resigned, but remains a member of the board. His successor was not named.

It was announced that an adjourned meeting would be held when Henry T. Scott, who was re-elected president, would resign to be succeeded by G. E. McFarland of Omaha, now vice president and general manager of the Nebraska Telephone Company. Mr. Scott will become chairman of the board of directors, a newly created position.

WHAT REGULATION HAS TAUGHT ONE REGULATOR

Retiring Public Service Commissioner of New York Tells Experience with Corporations.

(By Hon. John B. Olmstead, Former Public Service Commissioner of New York.)

I came into office with decided leaning towards the anti-corporation view of public-utility questions. Some of my good friends among the corporation lawyers in Buffalo were kind enough to say that I was too much of an anarchist to be of much use as a commissioner. Want of knowledge as to the precise point involved I have found in many cases to be the principal cause of the prejudices I then entertained. Experience has taught me that there is another side to these questions, and one not lightly to be dismissed.

For instance, I held the view, as I imagine many other persons hold the view, that the New York Central Railroad is grossly over-capitalized, and is paying dividends on a large amount of what is popularly known as water. When it came to my knowledge as a part of the evidence of a long investigation in the Buffalo, Rochester & Eastern case that the estimated cost of that company's 300 miles of railroad from Troy to Buffalo, planned without adequate allowances for terminal yards and facilities at either end, and touching but one or two large centers of population, was approximately one hundred millions of dollars, I came to the view that the New York Central, with its four tracks running through the heart of so many great cities of the state, with all the attendant advantages to freight and passenger business, and with approximately 500 miles more trackage, including the vast and valuable terminal facilities of New York City, might possibly on a valuation measure up to

a capitalization of five times that of the B. & E.

Managers Conciliatory.

I have changed my mind also as to the attitude of most corporation managers towards the public. I had expected to find it recalcitrant and obdurate, which is a Latinized and "more tenderer" way of saying that it was made up of kicks and damns. I have found it almost uniformly, when expressed in the presence of the commission, conciliating and willing to abide by the results of a fair hearing. The difficulty with me has been not so much in getting the corporations to do what I thought was right as to determine in my own mind what under all the circumstances of certain cases was right.

I am fully aware that this is not the popular view of public service corporations, nor do I wish to be understood as having discovered wings on the shoulders of the managers thereof. I say that a better knowledge of the conditions under which their business is carried on brings one to a more just appreciation of some of the difficulties under which they labor. I know well that there are many—very many—particulars in which the service which they are rendering may be improved, as I know well that there are very many particulars in which the business of every man might be improved if an inquiry into it were started by a commission armed with power. Such a commission would be at once met with the objection that its suggestions required too much of an outlay to carry them out, and would be asked how it proposed to provide the funds for the improvements recommended. Let us be reasonable as well as critical. Let us realize that the management of one thousand men on a street car line is no less difficult than the management of an equal number in a factory, and that there are times when you have to do the best you can with the material with which you have to work.

"Straight Street" More Popular.

I believe that in the past ten years a great change has come over the minds of men who are in the management of public utilities. There are still some left who cling to the old "public-be-damned" idea, but they are fast being supplanted, and the up-to-date railway or electric light official stands ready to listen to any reasonable complaint that may be brought to his attention, and, what is more to the point, to turn a deaf ear to proposals which call for abhorrent and forbidden methods in their accomplishment. I am not innocent enough to believe that all the dark, devious and easy ways of "getting there" have been wholly abandoned; but I do hold the view that the street called "Straight" is a much more popular thoroughfare than it used to be, and that the directors and agents of the corporations over which we have control are walking it with much cleaner consciences and with great gain to their self-respect.

Risks of Investment.

I have intimated that one great difficulty with certain corporations is the lack of means to carry out the improvements to service which their operating men admit would be advisable and desirable. On this point some figures from our last annual report may be illuminating. Out of seventy-eight steam railroads reporting to the commission in this state, only twenty-seven paid any dividends for the current year. Out of 364 electric railroads, light, heat and power, and gas corporations, 273 paid no dividends. In 1909 it was 237 out of 310, so that conditions are improving some, but the figures are significant. They are contradictory to the general im-

pression that dividends are the foundation upon which all public service corporations are erected, and they have a sobering effect upon an official who starts in with the idea of building Rome—or even Schenectady—in a day.

a public service commissioner should be pictured with a knot of thongs to lash the sides of all the hated corporations, irrespective of their merits or deserts. In my view that savors too much of "Donnybrook Fair." I like the expression of President Taft

as it can determine it, both to shippers and to carriers, to consumers and to producers, and if it has attained some success in its work of the last five years, it has done so by strict adherence to that view, and not by spectacular brandishings of the "big stick." It has accomplished more good by getting both parties before it, pointing out the strength or weakness of opposing views, and then appealing to that sense of fair play which is inherent in every man, than it ever has by a display of the tremendous powers which the law undoubtedly confers upon it.—Finance, Cleveland, Ohio.

DISTANCE NO BAR TO CHICAGO OPERATORS

Send St. Patrick's Day Greeting To Former General Manager in Far West.

For a number of years it was the custom of the Chicago Telephone operators to present A. S. Hibbard, General Manager of the company, a bouquet or green carnations on St. Patrick's day. On March 17th last year, after Mr. Hibbard had left Chicago, the little remembrance was not overlooked, but Mr. Hibbard found the carnations on his desk in New York.

This year it was resolved to send the bouquet as usual, but a difficulty presented itself. Mr. Hibbard was in the far west on a business trip and the girls did not know where he would be on St. Patrick's day.

But the ever resourceful wires solved the problem. H. N. Foster, traffic superintendent, wrote on March 7th to J. P. Downs, of the Pacific Telephone and Telegraph Company, asking him to ascertain if possible where Mr. Hibbard would be on March 17th. Mr. Downs learned that on the day mentioned Mr. Hibbard would be on the train between Los Angeles and Denver. Mr. Foster immediately wrote to W. F. Cozad, general traffic superintendent of the Mountain States Telephone and Telegraph Company, asking him to locate Mr. Hibbard and present the flowers to him. This Mr. Cozad did by the aid of his representative in Albuquerque, N. M. When the train reached that point the flowers were presented to Mr. Hibbard "with compliments of the Chicago operators." Mr. Hibbard immediately sent the following telegram to Mr. Foster:

"Please thank the Chicago operators for their kind remembrance which reached me here. The color is right and so are the operators."

"ANGUS S. HIBBARD."

If it had not been for the little detective work employed, Mr. Hibbard might have forestalled the young ladies, for under date of March 10th he sent the following letter from San Francisco to Mr. Foster:

"Dear Mr. Foster: Will you please give my very best regards and remembrances to the Chicago telephone operators on St. Patrick's day. I do not know just where I shall be on that day this year, but wish that it might be with you in Chicago to see the evidences of loyalty which I always so much enjoyed on that day. Please say also for me that I continue to be of the opinion that, east or west, the Chicago telephone operators are best."

"Yours very truly,

"ANGUS S. HIBBARD."

It should be noticed, however, that the girls started their inquiry on March 7th, three days before the date of Mr. Hibbard's letter.



THE LAST TOUCHES.

The greater part of the actual work done in a telephone cut-over, especially the joining of cable, is usually performed in places far removed from the public eye. Here, in the subway of the main building at Washington boulevard and Clifford street, are seen a few of the final perfecting details and adjustments of the new lines. Work in such places is limited, and there are many spots which are hard to get at, but the work is done efficiently as the men are experienced. From left to right are: Charles Johnson, Harry Leonard, Isaac Perrine, Harry Piggott, Frank Healy, George W. Burnham (main office wire chief), Lumley Hueston, Harry Tinsale and Ronald Warrick.

The consideration of them has not swayed the mind of the commission where conditions have become intolerable or even irritating; but they

who quietly reminded his hearers on one occasion, as I recollect it, that the phrase "all the people" means just what it says, and that "all the



"RING OUT THE OLD—"

Bell boxes, receivers and portable standards used by the former Home Telephone Company in Detroit, which have been replaced by similar equipment of the Michigan State Telephone Company. The latter company has been obliged to go to a great expense in replacing some of the former equipment for its own, in order that telephone service may not be jeopardized by any differences in standardization. This department, situated in the basement of the Cadillac exchange, is under the charge of William Cochran, who, with his assistant, attends to such repair work on the old equipment as may be done on the premises.

have at times prevented the attainment of ends which otherwise might have been ordered.

I know that these views are not wholly popular, and I know that in certain quarters the idea prevails that

people" included also the corporations, which are made up of people just as much as a municipality is.

Even-Handed Justice.

The Public Service Commission is organized to hand out justice as near

MODERN EXCHANGE CUT OVER AT BARABOO, WIS.

Common-Battery Service Replaces Old Transfer System Operated by Former Independent.

On February 14th at 9 p. m., the Wisconsin Telephone Company's exchange at Baraboo was cut over from an American Electric transfer magneto board to a central-energy No. 10 standard switchboard. The cut-over was a pronounced success, being made with but two cases of trouble, which were found to be instrument trouble and were taken care of promptly. Although considerable work was involved in the change from one system to the other, owing to the fact that practically all of the numbers had to be changed, very little confusion existed.

The new switchboard consists of two toll, two rural and two local positions with facilities for terminating 600 local, sixty rural and twenty toll lines.

The interesting operation of transferring the subscribers' service from one class of central-office equipment to the other was witnessed by a number of prominent local people; among them were Mayor G. T. Theurer and August Fischer. It was proper that these two men should witness the opening of Baraboo's modern plant. Mr. Theurer was one of the pioneer telephone men in Baraboo and Mr. Fischer was Secretary of the local company, organized in 1895. The exchange was built and service was furnished at that time; it grew from a very small beginning until the subscribers numbered about 500.

In January, 1910, the plant was sold to the Wisconsin Telephone Company. Considerable improvement was made to take care of a reasonable amount of growth. In a short time it was proved that a large development could be expected and better facilities would have to be provided. The estimate was started covering the installation of equipment that is now in use.

The new Baraboo quarters are owned by the Wisconsin Telephone Company and are admirably laid out for comfort, convenience and the future growth of this exchange. The building is a two-story brick structure. In the basement is located the storeroom, repair room, gas engine room and heating plant. The first floor is divided; the front part is used for a commercial office in which are located the manager, his clerical force and Morse operator; the rear of the first floor is used as an apparatus room and in it are located the main frame, protectors, test table, batteries, power plant, etc. The second floor is occupied by the main operating room, in which is located the switchboard, chief operator's desk and the intermediate frame. The rear of the second floor is occupied by the operators' rest room, locker rooms, etc.

There is a side entrance from the street for the operators only; a main entrance to the commercial office and a rear entrance to the apparatus room. Taken as a whole the Baraboo plant is about as complete an installation as can be found.

The following division and district officers of the company were present at the cut-over: Messrs. Killam, McEniry, Siegl, Wilson and Whalen from the division office at Milwaukee, and Messrs. Mayer and Brewer of the Madison district office.

WATER

By DR. ALVAH H. DOTY
Medical Director, Employers' Benefit Fund of the
American Telephone & Telegraph Company, Western
Union Telegraph Company and Western Electric
Company

The ocean, which covers more than three-fifths of the surface of the globe, is the natural source of our water supply. From it arises a continuous stream of vapor to the atmosphere to be recondensed and precipitated in the

may remain below until an outlet is made for it in the form of a well.

The strata are not uniformly arranged, and are at various levels and frequently curved, sometimes forming large underground basins. As a result water upon entering the earth may reach impermeable strata at different depths, and supply either superficial or deep wells.

Various forms of contamination are carried into the ground by the surface water. Many of these are filtered out by the soil, some are destroyed by oxidation, and some by certain forms of

formation of lather, therefore "hard" water is neither satisfactory nor economical for bathing or other domestic purposes. While there is practically no danger in drinking it, it may not be as acceptable as some other kind. Water which contains but little or no lime is called "soft," and is far better and pleasanter for general use. Not infrequently heated water which probably has its origin deep in the earth reaches the surface and forms what are commonly known as "hot springs." These various conditions have led to the establishment of many celebrated resorts, or "water cures" throughout the world.

If it were possible to collect rain water above the point of contamination in the air it would be the purest and softest supply we could obtain, but as it falls to the ground some form of pollution always takes place, for it washes out the air. In the country it is comparatively small, and does not materially affect its value, but in cities and manufacturing towns where the air is constantly charged with poisonous gases, the products of offensive trades, and the usual contamination of these places, rain water, unless purified, becomes unfit for drinking.

In sections where there is no general water supply to draw from, such as springs, rivers, lakes, etc., and where but little can be secured from underground sources, owing to the peculiar formation of the soil, rain water is eagerly collected. In emergencies it is often caught upon canvas or rubber cloths, and for general use large ground areas with cemented floors and underground storage cisterns are sometimes employed, although the common method of securing it is from roofs of buildings. As a rule but little attention is given to the cleanliness of these surfaces, although it is a matter of great importance provided the water is used for drinking purposes. This protection may be secured in a simple manner by having the waste pipe from the roof so constructed that it can be quickly disconnected from the storage tank at the beginning of the rain, and allowed to discharge over the ground for a few minutes, in order that the roof may be cleaned, and then reconnected with the cistern.

Careful attention should be given to the construction of storage tanks. They ought not be made of wood, which rots and leaks, nor should they be composed of lead, zinc or iron, for the "soft" water readily dissolves these metals and renders the water unsafe for drinking purposes. Furthermore, poisonous gases and other forms of impurities will gain entrance into the underground tanks if they are not properly constructed of brick or stone and cement, as they do into cellars having defective walls. Although underground tanks do not freeze in winter, and while the water which they contain may be kept cool in the summer, they cannot be so easily inspected and cleaned, a very important consideration.

Rain water barrels which are commonly found outside the house in the country, are usually unsanitary, as well as defective, besides, they are common breeding places for the mosquito, for, as a rule, they are not properly covered. This will also occur in underground cisterns, therefore the openings of these receptacles should be protected by wire netting.

Spring water in the country is valuable for drinking purposes provided inspection indicates that it is practically free from contamination. It is usually cold, and sparkling, besides receptacles are not needed for its storage. In towns there is always danger of contamination, for, although the supply may come from miles away, it is sometimes superficial and receives impurities from the surface. Spring wa-



EXCHANGE BUILDING, BARABOO, WIS.

form of rain and snow. The far greater portion of this returns to the ocean. The part falling on land either forms rivers, lakes or pools, or penetrates the earth and becomes the great underground water system upon which we so largely depend for drinking purposes. It is both interesting and important to know something of the course taken by the water after entering the ground and the combinations it forms as it descends.

A cut section of the earth extending vertically downwards for a considerable depth would show the soil arranged in various layers or strata. The significance of this, so far as it indicates the formation and age of the earth is well known to geologists. It is also of great interest in connection with the underground water system, for it explains the manner in which it is collected and distributed.

The layers referred to are variously composed of sand, gravel, chalk, clay, etc. Some of them, for instance clay, are practically impermeable, i. e., water cannot pass through them, while on the other hand, sand is easily penetrated. Therefore, water, in its descent, passes without difficulty through the latter substance, and upon reaching a layer of clay or some other impermeable stratum, is directed along until it finds an exit somewhere, probably in the form of a spring, or as a supply to some body of water, or it

bacteria which live upon organic matter. For this reason water becomes purer as it goes further down, and we may expect to find a better and safer supply in a deep well.

Certain gases confined in the earth may sometimes force underground waters to the surface, although this is usually brought about by the pressure of the water from behind in its effort to reach its own level, for this supply frequently has its origin in mountainous regions, or where there is considerable elevation, and may follow along impermeable strata, sometimes at a considerable depth, and appear at the surface through natural or artificial means many miles away.

During the transit of water through the earth, certain chemical changes take place. The soil is rich in carbonic acid, and the underground water holding this gas in solution dissolves out various mineral substances contained in the strata with which it comes in contact. In some instances the presence of these salts is so pronounced that the water is rendered unfit for general use, although in this state (New York) it is often valuable for medicinal purposes.

The most frequent combination is with lime and magnesia, particularly the former. When a comparatively large amount of it is present the water becomes "hard," i. e., the lime or magnesia combines with the fatty acids of soap and prevents the prompt

ter should be protected against contamination at its exit by stone or cement walls and floors. In addition a pipe may be introduced into the opening, not only for protection but to direct more effectively the water to its exit.

Lakes under proper conditions furnish a very satisfactory drinking sup-

ply was brought from distant sources by aqueducts so splendidly constructed that some portions are still in use.

Well water is a common source of supply in the country, and like spring water is cool and pleasant to drink. Unfortunately, wells are frequently contaminated, and often transmit in-

artesian well water is with safety often used in built up communities, although these wells should always be under careful supervision.

The need of protection about the opening of ordinary wells and the space immediately surrounding them is often a fruitful source of contamination. The old oaken bucket system,

be placed at the highest practical point, but should be as far as possible from all sources of contamination. The distance cannot be accurately determined, for it depends largely upon the arrangement of the underground strata, however, a careful study of the situation along the lines already referred to should secure sufficient information to place the well fairly out of harm's way.

The presence of infectious contamination is not indicated by the appearance of the water, for the clearest and coolest specimens may contain germs of disease.

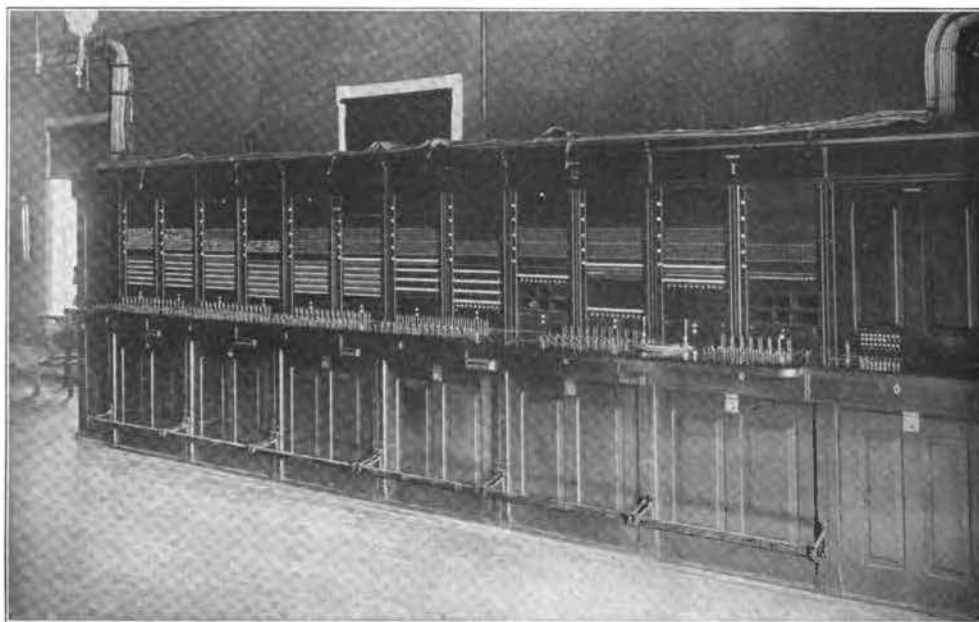
Distillation obtains a water which is practically pure; however, this is frequently objected to on the ground that it is "flat" to the taste. Recently distilling apparatus has been devised, and successfully operated which also aerates the water. This should provide a very pure and acceptable drinking water, and is particularly valuable when the safety of the general supply is questioned.

Sea water also may be distilled and used for drinking purposes. All modern steamships and war vessels are now supplied with apparatus for this purpose and thereby secure an abundance of pure water.

Strangely enough there is but little or no municipal, state, or federal supervision over the sale of bottled water, which comes from every section of the world. We have practically no official knowledge as to its character, the methods of bottling, or the means that are taken to prevent contamination of the receptacles by employees or otherwise, with which we should be familiar. Our information on this subject is confined principally to the advertisements of the various waters, whereas it is a matter which should be under strict official surveillance.

Water next to air is most necessary to our existence. It plays an exceedingly important part in maintaining the various functions of the body. It is constantly needed to make up for the loss of moisture from the skin and lungs, and it flushes out certain organs, and, also, preserves the shape and symmetry of the body.

The importance of water in the preservation of health is far from being appreciated, and but few persons drink enough of it. This lack of fluid may lead to unpleasant conditions, such as indigestion, torpidity, head-



NEW SWITCHBOARD, BARABOO, WIS.

ply. The water is still, and the organic matter and other forms of impurities which it contains more quickly settle to the bottom. There is considerable truth in the saying that lakes "purify" themselves. Where lake water is used for drinking purposes there should be a most rigid and constant patrol of its shores to prevent the discharge of sewerage or other forms of filth into the water, besides the intake should be some distance from the shore still further to prevent contamination. The safety of this form of water must always be seriously questioned if there are built up communities along the border of the lake.

The river water of inhabited regions which is commonly used as a general water supply, is very apt to be dangerous and unfit to drink except at its head, where it receives its supply from the mountains or from tributaries which are not contaminated, or before it receives the waste and sewerage of towns. The ease and economy with which municipalities can draw water from these sources has led to many serious consequences so far as general infection is concerned.

River water used by large communities for drinking purposes, is generally filtered. Briefly speaking, the method usually employed consists in passing the water over filter beds, which are composed of three or four feet of gravel, on top of which is a layer of fine sand of about the same depth. Impurities are removed as the water passes down through these permeable layers to its destination. Still, this system is open to various objections, and cannot be compared with water obtained from other sources some distance away. The ancient Romans were aware of this, for although the Tiber runs through the city, the water

which required that the well shall be freely open, is anything but sanitary. In its place a modern pumping apparatus should be used so that the opening can be properly closed and protected, besides the space surrounding the opening of a few feet at least, be graded and cemented from the well outward and downwards, and for ten

Deep wells are less dangerous in this respect than superficial ones, for the water is usually drawn from below an impermeable stratum. While this does not usually occur in a superficial one, however defective construction

which required that the well shall be freely open, is anything but sanitary. In its place a modern pumping apparatus should be used so that the opening can be properly closed and protected, besides the space surrounding the opening of a few feet at least, be graded and cemented from the well outward and downwards, and for ten



PLANT FORCES, BARABOO, WIS.

will allow surface impurities to reach the interior of deep wells through their walls. Artesian wells constitute an exception to this, for they are bored frequently to a depth of many hundreds of feet to reach below or between impermeable strata where water is held under pressure and which escapes to the surface through a continuous tube or pipe, which if properly constructed admits of but little danger of contamination; for this reason,

or fifteen feet down, the walls of the well should be constructed with brick or stone and cement. A layer of clay on the outside of the well renders it still more safe.

Wells become contaminated and receive infectious matter usually from nearby privy vaults and outhouses, cesspools, etc., through the soil to the underground water which supplies the well. Therefore, in addition to proper construction, a well should not only

ache, dryness of the skin, etc., the cause of which is not usually understood.

It is estimated that the adult human being needs two to three quarts of water in twenty-four hours. Probably one-third of this is usually taken in with the food. In addition, four or five glasses of water a day under ordinary conditions would be a fair estimate of what the system requires, although it is subject to great changes

depending largely upon exercise and climatic conditions, for during the warm weather the skin rapidly abstracts large quantities of water from the system which needs to be promptly replaced. Contrary to the general belief there is no objection to drinking a reasonable amount of water with the meals, although it should not be confined to this time, but distributed more evenly throughout the day.

The importance of water in maintaining proper health requires that the supply shall be as pure as possible. We have already learned in a previous article that to a certain extent the body becomes tolerant of impure air; this same protection exists in connection with water, for there are some forms of impurities in all drinking water which practically do no harm. As a rule water used in cities is of this quality. The danger is not so much from ordinary contamination, but is due rather to the presence of infectious germs, and it is fair to assume that if there is no unusual prevalence of diseases commonly transmitted by water, the general supply may be drunk with safety. During warm weather, and particularly among children, certain impurities in the water will often cause a widespread outbreak of stomach or intestinal irritation. The large number affected and the rapidity with which the malady spreads will usually indicate the source of trouble.

It is rather in small communities, and in the country where no properly organized health protection exists, that each citizen must be alert in protecting his home against improper drinking water. By carefully bearing in mind the way it is collected and distributed, the ordinary means of contamination which have already been referred to, and the necessity for prompt examination if the water becomes in any way suspicious, there should be secured an efficient protection against danger from this source. It may be added that public laboratories usually examine specimens of drinking water free of charge.

There is a practice among those who frequently make short excursions into the country, to drink of the so-called clear and cold water whenever they can get it. This is unsafe, particularly where the well is not in constant use. Water from this source should not be used for drinking purposes, unless after careful observation and inquiry there is reasonable evidence that it is not contaminated; typhoid fever is not infrequently the result of this imprudence.

When there is reason to believe that water contains infectious contamination there is but one way to render it safe for drinking purposes, provided no other supply can be obtained, and that is by boiling. Simply heating the water to the boiling point is not sufficient for this purpose, for it must be continuously boiled for fifteen minutes in order that all germs which may be present are destroyed. The water should then be cooled and protected against further contamination. In no instance where the water is believed to be infected should either the so-called domestic filters or agents advertised to purify the water be substituted for boiled water for they cannot be depended upon to protect, and are often worse than useless.

While boiling renders the water somewhat "flat" to the taste, as the air which it contains is expelled by the heat, and although there are simple means of aeration, for instance, by agitating the water in an ordinary churn or by dropping the water through a tin plate containing numerous small holes, in order that it may be finely divided and better combine with the air, it is safer for a short period at least, to drink the water as it is boiled than to employ means of aeration

which, through carelessness, may again infect it, unless some person in the household is appointed personally to take charge of this work and prevent additional contamination.

In connection with the subject of water it is proper that some reference should be made to ice.

It is a common belief that infectious organisms existing in water, are destroyed when freezing takes place. This is not true, for some of the organisms survive the reduction of temperature and become active again when melting occurs; for instance,



COMMERCIAL DEPARTMENT, BARABOO, WIS.

this has been conclusively proven in connection with typhoid fever.

Although ice may be obtained from water sources where there is no serious contamination it is well known that it frequently comes from bodies of water which receive sewerage directly from large towns. To what extent ice under these circumstances becomes involved it is, of course, impossible to determine.



MANAGER'S OFFICE, BARABOO, WIS.

It would seem practical and logical in protecting against impure ice that we should use the kind which, so far as we can ascertain, is most free from danger. Artificial ice is more apt to supply this need, for it is usually made from distilled water and therefore should be pure.

Not infrequently it is stated that artificial ice is rendered unsafe by the ammonia used in its manufacture. That is not so, for the ammonia does not come in direct contact with the water, but is confined in pipes and used simply for freezing purposes.

Tree Trimming and The Care of Trees

By E. O. LIEGHLEY, District Engineer of the Chesapeake & Potomac Telephone Company, Hagerstown, Md.
Reprinted from *The Telephone News*. Photographs and Drawings by Courtesy of Mr. Lieghley, the author.

Among the many ways in which the work of our company touches upon public opinion, there is none in which it is more easy to lose the good will of a community than by trimming the trees improperly. Not only the owners of the trees are affected, but other

applies to the work done by our company.

For clearness, the information has been arranged under the following headings:

- A. Healing of wounds.
- B. The season for pruning.
- C. Where to make the cut.
- D. Removing large branches.
- E. Trimming to clear our wires.
- F. Guying to trees.
- G. Felling trees.
- H. Second-growth timber from old stumps.
- I. Forestry in Europe.
- J. "Tree doctors."
- K. Raising trees for posts, etc.

A. Healing of Wounds.

It is very important that the wounds made in pruning for all purposes should heal promptly in order that the exposed wood may be covered permanently by the new growth which forms the growing tissue immediately under the bark. This, creeping in from the edges, as is shown in Figure 1, will in a few years completely cover the exposed wood and protect it from decay.

The activity of the healing process depends upon the character and position and the time of year when the wound is made rather than upon protective coverings. No artificial medium can be applied to the surface of a wound which will induce it to heal more quickly. All wounds should be protected against decay by a thorough coating of lead paint or tar. Where it is convenient, the paint should not be applied until several days after the cut is made in order to permit the wood to dry, so it will absorb and retain the paint.

B. The Season for Pruning.

Large limbs particularly should be removed as soon as possible after the full leaf-growth (as the annual growth then begins.) Thus the healing process may begin at once and continue as long as possible during the season in which the cut is made. For the above reason, large branches of the apple and pear should be removed about the time they come into bloom, which is also the period of the beginning of active growth.

Maples and birches may also be pruned from October to December without danger of the wounds "bleeding" during the following spring. Oaks, sycamores and other trees may be pruned from November to March as well as after June.

C. Where to Make the Cut.

The place where the cut is made and the smoothness of it will make a big difference in the future of the tree. The rot-spores would readily lodge if the wood were left rough. Also decay starts more quickly on a level surface from which water does not easily run off, than on one on which water cannot collect. Therefore, vertical stems should be cut at a slant of about forty-five degrees, and all cuts should be left as smooth as possible. They should be finished smooth with a chisel or drawknife and then painted. With many species of trees—maple in particular—if the cut is made at a little distance from the origin of the limb or beyond a fork, the stub which is left dies back to the trunk or fork, as shown in Figure 2. Decay follows, and then the real damage begins, for the decay continues back in the center of the limb or trunk, the cavity catches and holds water which makes it decay more rapidly, and in time nothing but the outer shell of the tree remains and it finally is broken by a

vent further extension of the decay into the trunk of the tree. By doing the trimming properly and pruning the tree instead of merely removing those parts which interfere with our wires, we can hold the good will of the owner and more easily obtain permission to trim all along the line.

I desire to give full credit to the United States Department of Agriculture for much of the information given in this article; while preparing it, I carefully studied their bulletins in order to obtain correct information and to select that which particularly

storm. Notice the shade trees that you pass and you will see that most of them show the decayed stubs as described above.

The correct way is to cut off a limb close above a fork or flush with the trunk of the tree; never leave a stub to decay. This rule is closely followed by owners of good apple orchards. The exposed wood is completely covered in a year or two, without any decay, and all limbs remain solid.

In taking off limbs of considerable size, an undercut should always be made first, in order to prevent them from splitting off slivers of bark and wood from the trunk.

D. Removing Large Branches.

When very large limbs are to be removed, first cut off the limb at about two feet out from the trunk by an undercut and then an overcut. After this the stub can be supported and removed without silvering the bark.

The surface of the wound should be brought in line with the general outline of the trunk, unless it is a tree in the woods where appearance need not be considered, and where it is merely necessary to cut closely enough to guard against decay. If

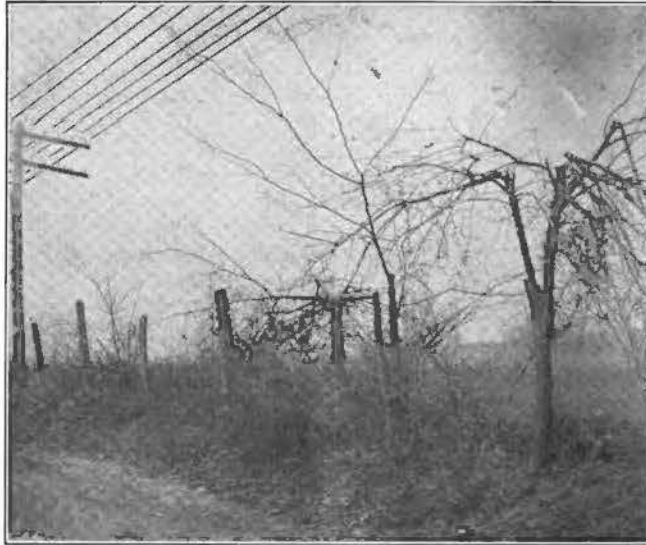


FIGURE 5—HOW NOT TO TRIM TREES.

well done during dry weather or before the leaves were on the trees, during or after a shower in the summer when the leaves are heavy with the water on them, the end of a long limb may bend down and rest on the wires, as shown in Figure 4.

Of course, for telephone purposes, the best way to "trim" a tree is similar to the rule for curing a dog of killing sheep—"Cut off its tail just back of the ears." Trees under our lines should be entirely removed whenever permission to do so can be obtained.

Occasionally when the owner will not permit a tree to be topped, it is possible to lower the arms and wires, trim off the lower branches, and run

a low line under the remaining limbs. It is well to plan the trimming of a tree for several years ahead.

Figure 5 shows how not to trim. The limbs were cut half through, broken over, and left hanging there. This was along a much-traveled turnpike just outside a city where many people would see it. Brush should be burned, hauled or dragged away. Often a large limb may be used as a sled, the other brush piled on to it, the "sled" roped to the rear axle of the wagon and dragged down the road to a place where it may be burned or piled. This saves lifting all the branches and limbs to pile them on a wagon, and will be found to take less time and be easier. Never throw the brush over into the field where it will damage the farmer's temper, as well as his mowing machines.

While looking for these illustrations, I found Figure 6, which Eugene Field might have described in his Primer somewhat as follows:

"THE GRAPE ARBOR."

"See the Grape Arbor! It was made by letting a wild grape vine climb over a Bell Telephone Toll Line. Oh, see! The little birds have built two nests in the vines above the wires!"

"The Trouble-man did not disturb them. What a kind man. The Telephone Company likes kind men, but not that kind of a man. His place has been filled."

F. Guying to Trees.

Figures 7 and 8 show the effect of wrapping a guy wire twice around a tree; it killed that portion of the tree. The guy wire should go only once around the tree, and blocks of wood should be placed between the tree and the wire. It is much better to use a tree eyebolt, as it cannot injure the tree. Insert it just far enough around the tree so the strain cannot pull it out.

At Johnson's Mill at Cumberland, Md., two guys (from a pole and from a smokestack) were attached to lag screws driven into the side of a sycamore tree. The wood has now grown over them, entirely covering the lags without injuring the tree.

G. Felling Trees.

The tree must be thrown where it will not unnecessarily injure other trees or crush in its fall young seedlings on which the future of the forest de-

pends. Young trees which are thus bent down will spring up straight again if quickly released; otherwise they will be killed or permanently injured. Therefore, it is very important to dispose of both the trunk and the top of each tree as soon as it is cut down. Even the branches of the tops, which cannot be used for posts, etc., should be cut away enough so as to let the tops sink close to the ground where they will rot as speedily as possible. Dry crowns propped clear of the ground by their branches rot slowly, burn fiercely, and are very dangerous in case of fire.

I. Forestry in Europe.

Nearly 200 years before the discovery of America, the city of Zurich, in Switzerland, began to make rules for the protection and management of a forest which it still owns. This now yields an annual return of about eight dollars per acre. Except China, all civilized nations care for the forest. Until recently the United States ranked nearly with China in this respect. Not only the countries of Europe, but Canada, Japan, Australia, Cape of Good Hope and India have excellent forest service.

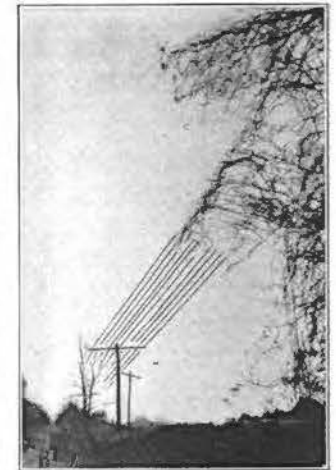


FIGURE 6—THE GRAPE ARBOR.

One plan is to divide the timber tract into twenty parts and cut over one part each year. In this way the tract is divided into twenty sections of all ages of growth from one to twenty years. Great care is used to leave every stump in the best condition to sprout; thus the tract produces regular crops of firewood and small timber.

J. "Tree Doctors."

Some firms in this country make a business of strengthening old trees and repairing trees damaged by sleet or other storms. Any one of their men often goes out on long, slender limbs to trim off the broken branches. The man's weight is partly supported by a rope attached to the back of his safety belt. The rope is then passed over a higher limb and down to the ground, where it is held by the other men.

Decayed places and hollow trunks are treated by having every portion of the decayed wood removed with chisel and mallet. The exposed wood in the cavity is then treated with a solution of five pounds of copper sulphate in five gallons of water, to prevent further decay. After this the cavity is filled with concrete or a mixture of one part cement with three parts sand, and faced with an even



FIGURE 1—NEW WOOD COVERING OLD WOUND.

the cut is a quarter or half an inch deeper than the outline of the trunk, so much the better. It will then heal over completely, giving a shapely form to the trunk. No permanent harm will be done to the tree by the severe cutting recommended.

E. Trimming to Clear Our Wires.

When a tree is directly under the wires so the top must be removed, it is better to cut off the large limbs quite a distance below the wires, rather than just two feet below them, so that after a year or two when it becomes necessary to retrim, the sprouts will merely have to be shortened instead of being entirely removed every year.

In this way the top of the tree may always have a bushy growth of good appearance instead of the ends of big stunted limbs always protruding from the top. In Figure 3 it would have been much better to have removed entirely the central limbs; then the strength would have gone into the side limbs instead of continually sprouting up through the wires. Permit me to repeat that though the trimming may have been fairly

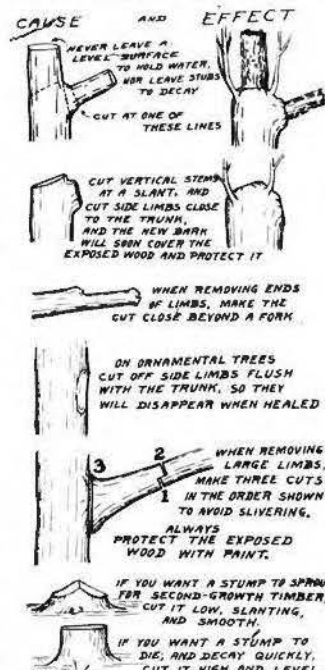


FIG. 2. WHERE TO CUT.



FIGURE 7—HALF OF TREE KILLED BY GUY WIRE WRAPPED TWICE AROUND IT.

mixture of cement and sand. The surface of the cement must be one-half to three-quarters of an inch below the surface of the bark. The cavity must be larger inside than at the opening, so the cement will hold.

The bark should be trimmed around the edges of the opening to expose the growing tissue, so it will begin at once (if at the proper season) to grow over the cement and conceal it.

K. Raising Trees for Posts, Etc.

When trees grow singly, as along fences the side branches are numerous and the trunk short, and usually crooked. When the trees grow in a grove, the side branches die for lack of light, and the tree grows upward, and a long, straight trunk is produced.

Nearly every farm has some land that is too stony or steep to farm, which could be used to advantage for a locust grove to supply posts for the farm, and much better posts would be produced than those grown along the fences—particularly under our lines. Or if the farmer is not so fond of locust trees as farmers are in this section of the country, a grove of



FIGURE 8—CLOSER VIEW OF HOW GUY WIRE WAS WRAPPED AROUND TREE.

black walnut trees should be planted. These will pay well for the investment.

He Got What He Wanted.

He had been graduated with the class of 1912 from the Massachusetts Institute of Technology, and one

month's experience of the outside world led him to walk into a large business office, ask for the boss, make a little speech, and offer his services. The head of the firm listened and looked the young man over casually.

"I have no position to offer you," he said.

"You misunderstand, sir," responded the young man. "What I want is a job."

Two minutes later he was at work.

—Exchange.

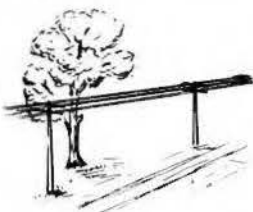


FIGURE 9—NOT SUFFICIENTLY TRIMMED. TRIM TO CLEAR WIRES DURING WET WEATHER.

Joint Bell and Western Union Offices

The list of joint Western Union offices, Classes 10 and 11, which have already been established in the territory of the Central Group, is given below.

Under the former method of operation, a large number of these offices were open only a part of each day, while the new arrangement provides for continuous telegraph service.

The results following the establishment of these offices are pleasing and indicate that the public is now taking advantage of the additional facilities placed at its disposal.

The asterisks (*) indicate that money transfer offices have been opened at the points so designated.

CENTRAL UNION TELEPHONE COMPANY.

Illinois.

| | |
|---------------|------|
| Benton | 10-A |
| Buffalo | 11-B |
| Cantrill | 11-B |
| Chatham | 11-B |
| Gillespie | 11-B |
| Mechanicsburg | 11-B |
| Murphysboro | 10-A |
| Nashville | 10-A |
| Okawville | 10-A |
| *Paris | 11-B |
| Riddle Hill | 11-B |
| Riverton | 11-B |
| Rochester | 11-B |

Indiana.

| | |
|--------------|------|
| Ablon | 11-B |
| *Auburn | 10-A |
| Avilla | 11-B |
| Banta | 11-B |
| Beech Grove | 11-B |
| Ben Davis | 11-B |
| Bugsdown | 11-B |
| Bunker Hill | 11-B |
| Ellettsworth | 11-B |
| *Frankfort | 10-A |
| Gas City | 11-B |
| Gaston | 11-B |
| Lewisville | 11-B |
| Manilla | 11-B |
| Montpelier | 10-A |
| Ooltie | 11-B |
| Romney | 11-B |
| Smith Valley | 11-B |
| Southport | 11-B |
| Trafalgar | 11-B |
| *Washington | 10-A |
| Yorktown | 11-B |

Ohio.

| | |
|------------------|------|
| Belfast | 11-B |
| Bourneville | 11-B |
| Butcher | 11-B |
| Canal Winchester | 11-B |
| Centerville | 11-B |
| Danville | 11-B |
| Harrisonville | 11-B |
| Marshall | 11-B |

| | |
|----------------|------|
| Milledgeville | 11-B |
| *Nelsonville | 10-A |
| Rainsboro | 11-B |
| Richmondale | 11-B |
| *Ripley | 10-B |
| Trimble | 11-B |
| West Lafayette | 11-B |

CHICAGO TELEPHONE COMPANY.

| | |
|--------------------|------|
| *Blue Island, Ill. | 10-A |
| *Chicago Heights | 10-A |
| Crystal Lake | 10-A |
| *Gary, Ind. | 10-A |
| *Glenview | 10-B |
| *Glen Ellyn | 10-B |
| *Highland Park | 10-A |
| *Lake Forest | 10-A |

| | |
|--------------|------|
| Lake Zurich | 11-B |
| *Morris | 10-A |
| *Oak Park | 10-A |
| Plainfield | 11-B |
| Wauconda | 11-B |
| *Waukegan | 10-A |
| West Chicago | 10-B |
| *Wheaton | 10-A |
| *Wilmette | 10-A |
| *Winnetka | 10-A |
| Woodstock | 10-A |

MICHIGAN STATE TELEPHONE COMPANY.

| | |
|-----------------|------|
| Algonac | 11-B |
| Berrien Springs | 10-B |
| Charlotte | 10-A |
| East Jordan | 11-B |
| Eau Claire | 11-B |
| Gladstone | 11-B |
| *Iron River | 10-A |
| Niagara, Wis. | 11-B |
| Rapid River | 11-B |
| *Wyandotte | 10-B |

WISCONSIN TELEPHONE COMPANY.

| | |
|----------------|------|
| *Baraboo | 10-A |
| *Berlin | 10-A |
| Cedarburg | 10-B |
| *Columbus | 10-A |
| *Delavan | 10-A |
| De Pere | 10-A |
| *Fort Atkinson | 10-A |
| Hartland | 10-B |
| Hortonville | 10-B |
| Hudson | 10-A |
| Kaukauna | 10-B |
| *Lake Geneva | 10-B |
| Mayville | 10-B |
| *Menasha | 10-A |
| Menomonie | 10-A |
| *Merrill | 10-A |
| *Neenah | 10-A |
| New London | 10-B |
| *Oconomowoc | 10-A |



FIGURE 10—VERTICAL STEMS SHOULD HAVE BEEN ENTIRELY REMOVED.



E. O. LIEHLEY.

| | |
|------------------|------|
| *Oconto | 10-A |
| Oconto Falls | 10-B |
| Peshigo | 10-B |
| *Port Washington | 10-B |
| Princeton | 10-B |
| Seymour | 10-B |
| *Shawano | 10-A |
| *Stoughton | 10-A |
| *Sturgeon Bay | 10-A |
| *Watertown | 10-A |
| Waupaca | 10-A |
| *Waupun | 10-A |
| Wausau | 11-B |
| West Bend | 10-B |
| *Whitewater | 10-A |
| Winneconne | 10-B |

ALTON NEWSPAPER TO GET QUICK SERVICE

Contracts For Press Association Report and Specifies Bell Wires.

The Alton Daily Times, a progressive newspaper published at Alton, Ill., has just closed a contract with one of the press associations for a special telephonic press report which, in the opinion of E. E. Campbell, the editor, will give Alton a news service three hours later than any heretofore received.

At the beginning the service will consist of the use of the wire for fifteen minutes each day from St. Louis to Alton and, in transmitting the signed contract to the press association, Mr. Campbell wrote: "We will want you to use the Central Union telephone service, as its wires are in the better shape and we can hear better."

The service is known as the "fifteen minute spot news service." A special booth will be placed in the office of the newspaper and a head telephone will be used by a stenographer in the office, who will transcribe in shorthand notes the news as it is sent, and the same stenographer will then go to one of the linotype machines and set the matter up into type.

The news that is received from three o'clock to 3:15 will be printed in the paper and for sale on the streets before four o'clock.

New York Company's Report.

In the annual report to stockholders of the New York Telephone Company, President U. N. Bethell states that on December 31, 1912, there were 985,780 telephones directly operated by the company and a total of 1,750,343 by the combined associated and connecting companies, an increase of 232,419 stations. The increase in regular stations was 97,415. Gross revenue was \$43,233,623, as compared with \$39,189,966 in 1911; and net revenue was \$17,313,170, as compared with \$15,233,020 in 1911. Surplus increased from \$2,827,194 to \$4,261,325.



LITTLE EDITORIALS.

Not many have responded to the call for suggestions on "Work," but the few may stimulate more discussion in the May magazine.

In conversation with several young ladies, this remark was made—"You wouldn't catch me working if I didn't have to." "But," said another, "you would work at something, wouldn't you, even if you didn't have to work for money? You wouldn't be happy to be absolutely idle." "Yes, I would," she replied, "I don't want to do one thing." Looking at her dissatisfied face, I was glad she was not a telephone operator. With such an attitude towards life, she could hardly succeed in any direction. Such a feeling about work is not unlike the boy in a story which someone has contributed. It is a good little editorial in itself:

"Ere, Bill, wot's the matter? You're lookin' worried."

"Work! Nothing but work from mornin' till night."

"Ow long 'ave you been at it?" "I begins tomorrow."

This reminds me of the story of the boy who said he liked his job well enough but he didn't like this working between meals.

The attitude of the young lady whose remark was quoted above indicates one of two things; either she was so worn out or sick that she was not normal, or she was looking out on life through very smoky glasses.

We can sympathize with the poor, worn-out housekeeper with a big family and a record of many years of overwork. When asked what she would do when she got to heaven, she said, "Well, for the first thousand years I want to sit in a rocking chair and just do nothing." But for a healthy person to look at work as an unmitigated evil must be because the vision is distorted by the clouded mind through which she looks at life. Such a person should try to realize what a reasonable amount of work means to health. We wish she could read the following contribution which is pertinent to this subject:

"In reply to the question whether work gives a person something besides money, I want to say it keeps a person from getting lonely. This week there was a company of one hundred tramps, or 'down and outs' in Chicago, who were asked to tell why they were lonely and hungry that day. While there were many reasons for being unhappy, every one said that it was lack of employment that made them hopeless. I think it is work that makes anyone contented, and working with other people keeps us from being lonesome."

A JUST VERDICT.

On a recent night, at about 11:30, there was a call for a Chicago police station, which was answered by the man at the desk. The man calling insisted upon speaking with the captain of the district, but refused to state his business. He became exceedingly abusive, using vile language, etc., to the clerk, so that the clerk finally hung up the receiver. This man continued calling some six or eight times, still using this vile and abusive language.

SOMEBODY'S ON THE LINE!



Finally the clerk called the operator and ascertained from her where the call came from. When the operator came in on the line the calling party greeted her also with a torrent of profanity and abuse.

The clerk at the police station then called the patrol wagon and sent it for the man who was using this abusive language. He was picked up, brought to the station and sent to a cell upon a charge of disorderly conduct made against him on the ground if he was arrested. The case came up for trial and, after a hearing of all the evidence, both of the police clerk and of the operator, the court declared the man guilty and fined him \$10 and costs.

This shows the results of the close co-operation between the police and the operator, making a quick punishment possible, and is a salutary lesson for people who take advantage of the fact that an operator is not present in person to abuse her over the line.

DETROIT OPERATORS MEET.

Interesting Discussion of Traffic Matters Incident to Big Home Company Cut-Over.

A meeting of chief operators, supervisors, and operators of the Grand, Main and Cherry offices, Detroit, was

held in the Telephone Society room, in the Main Building, by Traffic Chief E. C. Laskey on February 17th. W. A. Spencer, district traffic chief of the Detroit Exchange, and Traffic Manager Vermilyea also addressed the operators.

Mr. Spencer spoke on the Home cut-over, which was to take place on March 2d. He gave some excellent advice on being very careful at this time to avoid mistakes, and not to be impatient if the subscribers became irritable or cross, and to handle all cases of trouble as patiently as possible by referring them to the proper authority; by so doing they will help in the best way possible to meet some of the unpleasantnesses which naturally arise from so large a cut-over; such co-operation is sure to help the success of the company.

Mr. Spencer also spoke of the new leave of absence plan adopted by the company. This is something entirely new and means a whole lot to some girls, giving those whose homes are out of town a chance to visit their people. It is especially fine for girls who are in poor health, giving them a chance for a rest from their duties, while they retain their present positions and salaries; they will also be entitled to their annual summer vacation, providing they have been in the service a year. Mr. Spencer requested all who could to take advantage of this chance for a leave of absence period, between the present time and May 15th, pointing out to the young ladies the many good points as stated before. A burst of applause greeted his words. Mr. Spencer is no small favorite with the girls, and they are always very glad to hear from him at any time.

Mr. Vermilyea gave an address on the new multiple marking plan adopted for the improvement of the service and spoke of it as a clearing house system. He requested the operators to be careful in handling the calls for the multiple marking operator, and to see that only the proper calls were sent there so that the operator would not be loaded up with miscellaneous data.

The multiple marking position is located on the A board, where the operator has access to trunks to all offices in order that she may complete any call which is referred to her, whether local or for a distant office. Local trunks are terminated on answering jacks in this position from both the B and A boards. Calls received for lines which are plugged, or which are marked in any way, indicating that calls cannot be completed by any operator in the room, are put on these local trunks and in turn answered by the multiple marking operators.

The multiple marking operator has a chart which is a facsimile of the multiple, showing the new number on all changes, the telephones that have been taken out and the lines and stations which are not working. After referring to this chart she gives the subscriber the necessary information, and, if the connection is to be completed, completes it, whether for her own office or for a distant office.

Where the load for this regular multiple marking work is sufficiently light



SUGARING TIME AT SPEEDWELL FARMS.

This photograph of a grove and camp on the farms of Theodore N. Vail, at Lyndonville, Vt., was presented to Mrs. F. E. Dewhurst. At Speedwell Farms there are five sugar camps similar to the above. These camps are equipped with modern evaporators which produce the purest of maple syrup. About 14,000 trees are being tapped this year.

"Driving through the country one day in the summer," said Mrs. Dewhurst, "I remarked to the farmer beside me on the beauty of the maple woods which stretched out on either side of the road with their green leaves glistening and flecks of sunshine filtering through the branches on the soft carpet of last year's leaves. 'Yes,' he said, 'they're a mighty pretty sight once a year.' I said, 'Oh, yes, in the fall when the leaves have turned to such beautiful colors.' 'Well,' he said, 'I s'pose they look kinder nice then, but the purtiest sight is when there's a pall tied onto each tree.'"

"No doubt, to the man who owns a sugar grove the beauty of the tin-pall decoration is most appealing."

to permit it, this position is also made a clearing house for other classes of calls, such as signal appearing in front of the B operator, indicating that a trunk line has been taken without order or assignment. Also for "Don't

present figures taken from Windsor tickets by some careless operator with those of ancient days. He particularly laid stress on this point, and asked them all to concentrate their minds on their work and try to

face; Mildred Middleton, chief operator of the East office; Jennie Battishill, pay roll clerk; and Villa James, record clerk of the Main office.

After the meeting musical numbers were rendered as follows: Leata

OPERATORS DRIVEN FROM THEIR BOARDS

But Return To Waukesha Exchange For Duty in About Twenty Minutes.

The Randall building at Waukesha, Wis., in course of construction, burned to the ground on March 6th. The explosion of a heating plant in the basement is thought to have started the blaze. The alarm was sounded by one of the men working on the building. Before the fire department reached the scene, the building was entirely ablaze and the flames could be seen all over the city.

The office of the Wisconsin Telephone Company, located on the opposite side of the street caught fire several times. There were nine operators on duty at the time and they were kept very busy on account of the excitement caused throughout the entire city. Other buildings caught fire and for a time it was thought that the whole city was in danger. The operators remained at work until practically all of the windows in the office were broken and the floors covered with water, the fire chief finally ordering them to leave the building.

The fire was finally under control and the fire chief announced the telephone office safe. The operating force returned to their work, after being absent from the building for about twenty minutes. When on duty again, the operators were compelled to put on their wraps on account of the cold and dampness of the room as the floor was flooded with water and the windows broken.

Old Lady's Life Saved.

A weak cry of distress over the telephone at two o'clock in the morning of March 11th was the means of saving the life of Mrs. R. M. Stamford, eighty-one years old, at Hudson, Ohio. She was taken from the burning residence by Fire Chief Samuel Linford a few minutes after her call for help reached the ears of May Glenn, the night telephone operator.

Mrs. Stamford awakened in a room filled with smoke. An oil lamp had exploded. The flames were beaten down and the aged woman carried to the home of neighbors.



MAIN, GRAND AND CHERRY CHIEF OPERATORS, SUPERVISORS AND OPERATORS, DETROIT.

More than 260 girls gathered at this meeting, which was held in the room of the Telephone Society of Michigan. E. C. Laskey, traffic chief of the above three exchanges, who held this meeting, is seen in the left foreground. He is in the act of telling a funny story, which explains the attractive smiles on the faces of some of these Detroit operators.

answer" and "Busy" reports where the subscriber insists upon further attempts being made to obtain his party and to be called back on same.

Mr. Vermilyea also mentioned the new routine of handling complaints, which enables the supervisors to keep in touch with the weaker spots in their divisions. He asked for the earnest co-operation between the girls and supervisors, saying no one should feel that when supervisors had occasion to criticize operators it was done for any reason other than that of promoting the company's material welfare. He closed his remarks with a humorous story touching on the correct use of all phrases.

Last, but by no means least, came Mr. Laskey. Judging from the burst of applause that always greets the traffic chief as he steps upon the platform at one of these meetings, Mr. Laskey is regarded with high esteem by the employees.

After talking on the service in a general way and touching on the excellent showing that the Grand, Main and Cherry had made in the standings of the various offices, Mr. Laskey asked the operators to study their bulletins and keep in touch with the bulletin boards, so as to have a full knowledge of how the work should be done, and how to handle their positions so as to obtain the best results. He also spoke of the keen interest taken by the supervisors in the contest for the premium between supervisors each month, saying that he enjoyed seeing the eagerness they each displayed in trying to be first, and by so doing, unconsciously helping out each division and making each other so much nearer the top.

Mr. Laskey explained to the operators how the company sometimes lost money through careless or inefficient markings of figures on Windsor tickets, comparing some of the

do their very best, whatever they did. Occasionally Mr. Laskey told a funny story, lightening up the seriousness of the discussion.

This was one of the largest meetings ever held by Mr. Laskey, over 260 people being present. Among those who were guests of the evening were, Miss Stackpole, chief operator of the Cadillac office, formerly the City exchange of the Home Company, Cadillac Traffic Chief Belanger and several of his operators. Others were: Alice McGee, chief operator of the North Office; Mazie Noble, chief operator of the Ridge office; Leora Stevens of the Walnut of-

Maryfield, supervisor of the Grand office, piano solo; Edith Polhamus, Main supervisor, accompanied by Leona Kunzle, Cherry chief operator, vocal solo; Margaret Taylor, accompanied by her sister, violin solo; Leora Stevens, Walnut chief operator, accompanied by Mildred Middleton, chief operator of the East exchange, vocal solo; Barbara Schwohl, Main A operator, piano solo. A flash light picture was then taken of the crowd, after which all retired to the cafe on the fourth floor, where they were bountifully served with refreshments. Then followed dancing.



OPERATING FORCE AT WAUKESHA, WIS.

Several of these girls were on duty when the fire, described on this page, drove them from the building. Upper row, left to right—Hazel Tait, Clara Dinkel, Myrtle Matters, Grace Zillner, Belle Kendall, Irene Putz, Mae Highley, Adeline Merry, Edith Trakel. Lower row—Pearl Beckman, Irm Matters, Ada Schentz, Anna Stoeckel, Ethel Trakel, Ella Watt, Genevieve Brooks, Elsie Jones, Mayme Martin.

Important Work of Matrons.

The matrons are the heads of the domestic part of the telephone offices. That means that the large family of young women in telephone offices have a housekeeper who looks after their comfort while in the rest and lunch rooms during lunch hours and rest periods.

Each employee of the telephone company has certain duties to perform which will tend to make good telephone service, and the matrons help make good service by doing things for the comfort of the operators and by taking a personal interest in them, giving advice and consolation at the right time and in the right way, and taking the attitude of a mother toward them.

The matrons at the telephone exchange form a very important part of the organization, because there are so

Exchange of Exchanges

Harrison, Chicago:

The subscriber gave the number without the prefix. The operator asked, "What exchange?"

Subscriber: "You already got the change. I dropped a nickel."

The operator repeated the number, 1066. A sympathetic voice replied, "Oh, operator, are you sick?"

The operator reported to the supervisor that she had cashed a nickel by mistake. The subscriber interrupted her and said he didn't want the nickel back, anyway, because it had a hole in it.

A little boy came to the house of

Artificial 300 over the main call circuit. What department did she want?

Subscriber: "Graceland 1234."

Operator: "Is that the same number?"

Subscriber: "No, that's the phone number."

Belmont:

Subscriber: "Give me the collection department."

Operator: "I will give you Official 200."

Subscriber: "Who said anything about fishing?"

Subscriber: "No. 1."

Operator: "What exchange, please?"

Subscriber: "I don't want anything exchanged, I want the call department."

(Private Exchange 1 is the directory

is wholly because of that same abuse from the public. The manual part of the work is no more difficult than a hundred other lines of effort pursued by working women. And with rest periods and cozy rest-rooms in which to enjoy them, with libraries and gymnasiums and all the rest of the welfare equipment provided by paternal corporations, the life of the operator would doubtless be a rosy one—if the public would cease its perpetual nagging.

But it is quite evident that the appeal to public sympathy may be overdone. These chivalrous defenses of the poor overworked operator are not prepared in the publicity departments of the telephone companies; but they often look as if they were. The hasty reader might easily conclude that the company was apologizing for its service on the ground that the work was being done by girls with sensitive nerves. But the telephone company knows better than to offer such an explanation even for poor service. It is the newspaper space filler and the back-writer looking for human interest stories who find such good copy in the intricate operations of the telephone exchange.

The newspaper reading public is casually interested in the fact that the telephone operator makes so many connections a day, or an hour, and stands much abuse without taking back—just as the same public is interested in the fact that Smith's department store in London serves tea to its clerks, or that women in Jenksville, Ark., wear shoes one and a half sizes larger than the average. The interest, in other words, is purely academic, and is never applied to the public's particular and specific service. People actually care little or nothing whether their telephones are operated by a woman, a man or a machine. The fact that telephone companies provide rest rooms and libraries for their employees, while pleasant to contemplate, is absolutely unconnected in their minds with the service they get.

In short, when a telephone subscriber wants a connection, he wants it delivered as quickly as the most highly efficient system can complete it, and without any balk. The system that can fill that modest requirement all the time, regardless of the means of performing it, will survive.—*Telephone Engineer.*

"MOTHERS' DAY" BRINGS VISITORS TO EXCHANGE

Unique Function Established by Traffic Department at Kalamazoo.

On Saturday afternoon, March 1st, the traffic department of the Grand Rapids district established a unique social function called "Mothers' Day" for entertaining the mothers and relatives of operators employed at the Kalamazoo exchange. This opportunity was afforded them to become acquainted with the telephone operating work and the pleasant working environments furnished by the company to its employees.

An entertainment committee, composed of the Kalamazoo local and toll chief operators, the Kalamazoo and Grand Rapids traffic chiefs, and L. J. Walley, district traffic chief of the Grand Rapids district, explained in detail to the guests the intricate workings of the switchboards, the handling of various classes of calls, from their origin to completion, the method of



MATRONS IN MILWAUKEE EXCHANGES.

Top row, left to right—Miss S. Schulte, Miss M. Hagenson, Mrs. L. Eagan.
Bottom row—Mrs. M. Reineman, Miss B. Mink, Mrs. G. Henze, Mrs. K. Gaffney, Miss B. Davy and Mrs. A. Roach.

many things that can be done to assist the young lady employees who are in the service at the several exchanges that is hard to be gained in any other way.

From the reproduction of the photograph on this page it seems evident, from the kindly expression on the faces of the matrons, that they are of the sort that are kind and sympathetic and who follow their part in the scheme of things in a manner that is appreciated by all that have to do with them.

Quiet in the Exchange.

A subscriber who came to Grand Office, Milwaukee, to make a quarterly payment was invited to step upstairs to visit the operating rooms, which he had never seen before.

The working of the switchboard was explained to the visitor, and throughout the time of his visit he wore a surprised look which was explained when he expressed his surprise by remarking that it was indeed to be wondered at that such a large amount of business could be done by so many women in such a quiet manner; as his experience had been to find a great deal more noise where five women gathered to discuss the latest morsel of gossip.

Described Minutely.

Helen—"What were you and Hazel talking about for three hours over the telephone?"

Marion—"I was telling her how my little hat is trimmed."—*Chicago Daily News.*

one of the operators and asked if he could use her machine. When asked what he knew about a sewing machine he said, "O, I want to talk into it."

Calumet, Chicago:

A subscriber calling Calumet 4040, said, "Op-er-ator, op-er-ator, give me Calumet four nothing, four nothing."

North, Chicago:

An operator, upon answering a call, heard someone saying "Hello" several times but was unable to make him hear her. Finally the line was in order. The subscriber upon hearing the operator exclaimed (all out of breath), "Great guns, operator, I am almost run out of hellos."

Geraldine, four years old, was listening on the line. Her older sister reminded her for it, saying, "Why, Geraldine, I'm surprised, don't you know it is naughty to listen on the telephone like that?"

Geraldine replied, "Oh! sister, I heard the whole congregation."

B supervisor rang down on the desk and said, "Miss —, please send me over a bunch of spaghetti sleeves," meaning the smaller ones used only at the board.

Supervisor: "Manager's office."

Subscriber: "The manager's off? All right, I'll call tomorrow."

Belmont, Chicago:

Operator: "Official 200?"

Subscriber: "No, I don't want the fish market."

Edgewater, Chicago:

A student was discovered calling

listing of Marshall Field and Company.)

Marinette, Wis.:

Operator—"Number, please?"

Subscriber—"Hello, Schentrail."

Operator—"What number, please?"

Subscriber—"Schentrail, I said hello."

Operator, impatiently—"What number, please?"

Subscriber—"Schentrail, vats the matter mit your girls up dere, are you getting so lazy you can't say hello to me any more?"

Eau Claire, Wis.:

A subscriber asked the chief operator for the number of a subscriber whose service had just been installed. The chief operator did not clearly understand the name and asked the subscriber to spell it. He replied: "Well, I know it has two s's and two z's in it, but I will be darned if I know how to spell it."

Sympathy for the Operator.

Whenever we read in the lay press of the trials and hardships of the telephone operator, done in poetry or prose, we are pleased. We think the public is beginning at last to realize the intricacies of telephone operating, and to extend a little sympathy, instead of a good deal of abuse, to the operator. We like to believe that the impatient, quick-tempered, hard-hearted American people are being softened by the recital of operating stress and strain, and are making allowances for the delays and wrong numbers which may be expected to follow the natural perturbation caused by verbal attacks which may not be answered.

If the operator's is a hard task, it

training operators to become experts, the opportunities for advancement, the welfare interest taken in each individual from a business and social standpoint.

Much interest was displayed and favorable comments made by the guests regarding the details of the work, the pleasant surroundings, the fine sanitation of the building and the comfortable operators' rest room quarters. Many of the mothers and relatives had never visited the telephone exchange and were glad to receive the opportunity.

After the inspection of the local, and toll departments the guests were entertained by the local and toll operators in the rest room quarters, where "afternoon tea and wafers" were served. The delightful informality that prevailed throughout the afternoon caused the mothers to relate some pleasing anecdotes regarding "Our girls." Carnation favors were given the guests upon departing, and each declared that they had spent a very interesting afternoon, and highly complimented Toll Supervisor Cora

sleeved gowns—these to work during the severest of weather.

Now if this does not make the girl actually ill, it draws on her vitality, and in time wears her out and she becomes useless as a factor in the business world. If she lives, she often becomes subject to many nervous, anaemic ills. All through the folly of not conserving her vitality.

Another common error is to be careless in the matter of not taking the precaution of keeping the feet dry and warm. The practice of women and girls wearing low shoes in cold or damp weather is really criminal. Intelligent protection of the ankles will secure and prolong the health wonderfully.

Proper food is such a big subject in itself, that I will only mention one or two of the best known sides to it. Proper food, we understand, means that which is nutritious. A frequent change in diet goes far towards keeping up the appetite. Let us treat our stomach as we would a dear friend; don't expect too much from it and overburden it; learn to conserve the

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST G. W. CUMMINGS
Correspondents

J. P. Hansen Transferred.

Joliet Plant Chief John P. Hansen has been transferred to Chicago as chief toll line inspector. A banquet was given in his honor on Thursday evening, February 27th, at which all telephone employees of the Joliet District were in attendance.

The following editorial appeared in the Joliet News:

Parting with Mr. John P. Hansen is like losing a good team on the farm. Telephones are now so necessary to life and happiness, and Hansen has been with us so long, the parting appears to tear up things. He was the "trouble man," and if we could get his ear we felt that was sufficient. He had the true mechanical instinct and disposition. The repairs would be done promptly, done exactly right, and there would be no fuss about it. Upon the average we did not exchange a dozen words in a year, but always felt kindly, the air felt clearer when he passed by. There goes one of our kind, things seemed to say, a genius, a gentleman on the square.

Alvin M. Glahn succeeds Mr. Hansen as district plant chief of Joliet. Mr. Glahn will be remembered as the Oak Park wire chief from 1909 until 1911, from which time he has been on the supervising force of Assistant Plant Superintendent L. C. Jones.

Interest Shown in Welfare Work.

The number of invitations which come from various societies, clubs and churches for addresses on the operating side of the telephone work make it evident that people are awaking to the fact that the interests of subscribers and operators are one, and that co-operation is the attitude which is rational and most satisfactory.

The ladies are especially interested in the welfare side of the traffic department. On Wednesday evening, February 26th, Mrs. Dewhurst was invited to speak to the ladies at the Church of the Redeemer and on Saturday, March 22nd, she spoke to the Dames Club of the University of Chicago. These talks were followed by visits to the exchanges.

Telephone Quartet Pleases.

The Arcadian male quartet sang at the University Congregational Church on Sunday morning, February 16th. Their services were truly appreciated and there were many who expressed the wish that it were possible to hear the quartet every Sunday. The quartet is composed of R. W. Sullivan, A. U. Hoefler, F. B. Roziene and H. H. Smith, all of the Chicago Telephone Company.

The quartet also sang at the Woman's Club of Austin on February 17th. The occasion called for patriotic songs as it was a Washington celebration. "Tenting on the Old Camp Ground" and the "Soldier's Farewell" were old favorites which were especially enjoyed.

A Perfect Sleigh Ride.

A beautiful starry night just cold enough to make the snow sparkle, but not too cold for comfort, a big sleigh and a jolly crowd of girls—all this and much more was enjoyed Monday evening, March 10th by the Hyde Park girls, but alas, only in anticipation. Fleckle spring, playing its game of hot and cold, mischievously upset all their well laid plans, and the nice clean streets well washed by melted snow suggested a summer evening ramble rather than a sleigh ride. It was postponed indefinitely.

Service Standing.

Following is the place position of the offices for the month of February, 1913:

City Division.

First Lake View
Second Main
*Third Yards
*Third Douglas
Fifth Lincoln
*Yards and Douglas tied for third place.

Neighborhood Division.

First South Chicago
Second Austin

Students Debate Suffrage.

Members of the graduating class of the Operators' School on Saturday, March 15th, were quite up to date. As a feature of their graduating exercises they proposed having a debate on Woman Suffrage. Miss Scott took the affirmative, Miss Williams the negative and Miss Rittner acted as judge. The arguments were so good on both sides that Traffic Chief Cooper, who was present and invited by Mrs. Moore, the principal, to decide the case, found it quite impossible to do more than praise both sides for their entertaining discussion.

Personals.

Stella Vaughn, day operator at Belmont, was married March 9th to Mr. Cook. A beautiful present of cut glass was presented to her by the Belmont day force.

Mabel Iverson, evening supervisor at Belmont, was married March 20th to Mr. N. Gibson. The young ladies associated with her gave her a gift of silverware.

The many friends of Mary Casey, chief clerk of the traffic department, and Lilian Casey of Lawndale exchange were saddened to learn of the death of their mother, Mrs. Honore Casey, who passed away suddenly Thursday, March 13th. At the funeral services held Monday, March 17th, in the Church of the Blessed Sacrament a beautiful tribute was paid to Mrs. Casey by Father Burns, who, among other things, said, "She never opened her lips except in death efforts. To her family who has lost such a mother, her going means a bitter loss. Warmest sympathy is felt for them by hosts of friends in all departments of the Chicago Telephone Company."

An informal dancing party was given by North Installation and Construction offices on Friday, February 21st, at Holstein Park Pavilion. There were about 100 couples present, and each and every one voted it the jolliest evening they had spent in a long time. Miss E. Pearson was chairman of the Arrangements Committee, assisted by J. E. Lindholm, who acted as treasurer, and G. J. Wachterlin as secretary. The great success of the affair was largely due to the efforts of these three people, combined with the hearty co-operation of the entire office.

Promotions.

The following recent promotions in the traffic department are announced:

Harrison—Operators to supervisors: E. Tierney, M. Tracey, K. Burns, J. Keelhoe.

Main—Operators to supervisors: A. Schaefer, A. Molloy, I. Rurup, G. Garlock. West—Operators to supervisors: M. Grunst, L. Breen.

North—Operators to supervisors: S. Hollahan, M. Sherry.

Lincoln—Operators to supervisors: K. Jacobson, M. McAuley.

Irvine—Operators to supervisors: S. Dillon.

Yards—Operators to supervisors: F. Patz, J. L. Gilmore, M. D. Meahan.

Central—Operators to supervisors: E. Lennon, M. Pfeiffer, M. Brown, M. Burns.

Wabash—Operators to supervisors: N. Kennedy, M. Karleskind.

Toll—Operators to supervisors: A. Coates, E. Horsman, D. Ebers, N. Workman.

Calumet—Operators to supervisors: C. Josting, E. Kelly.

Douglas—Operators to supervisors: M. Barr, L. Lynch.

Lakeview—Operators to supervisors: A. Carlson, L. Christensen, M. Kraus.

Oakland—Operators to supervisors: A. Wenhardt, M. McCrudden, M. Toplinska.

Wentworth—Operators to supervisors: J. Andrews, E. Gehring, M. Casey, A. Friedel, H. Kiehl, E. Barker.

Hyde Park—Operators to supervisors: K. Dineen, M. E. Gallagher, M. Hayes, E. Hopstock, K. Scanlon.

Monroe—Operators to supervisors: L. Skinner, E. Benjamin.

West Pullman—Operators to supervisors: S. Falkenberg.

Edgewater—Operators to supervisors: W. Hart, E. Rold, E. Barker.

G. Amundson, from supervisor to night chief operator at West.

M. Lynch, from supervisor to senior supervisor at North.

M. McClory, from supervisor to night chief operator at Yards.

E. Wollweber, from supervisor to senior supervisor at Douglas.

M. Mahoney, supervisor to senior supervisor at Douglas.

H. Furlong, from supervisor to senior supervisor at Edgewater.

A. Stark, from supervisor to senior supervisor at Edgewater.

H. Pekar, from supervisor to senior supervisor at Calumet.



IDA EUKLER.

Supervisor, South exchange, Cleveland, Ohio. Was not absent in seven years.



JOSEPHINE KREHER.

Service observer, Main exchange, Cleveland, Ohio. Was not absent in seven years.

Scotsman upon her art of brewing "the cup that cheers but not inebriates."

The affair was a very successful one. Others will be held throughout the Grand Rapids district.

CONSERVATION

By MRS. ADALINE McWHINNEY, Welfare Supervisor, Indianapolis

So much has been written on the subject of "Conservation," that it may occur to those interested in telephone service that it could be applied to advantage in our traffic department. First take our operators. They apply for positions, and all claim, in their applications, that their health is good; we take them on their own word. All work is more or less confining, and the girl who desires to "make good" should look well to conserving her health and strength.

Health is the greatest asset any one possesses. There are legions of ways that health can be dissipated without receiving any value in return, unless it be the so-called good time.

We all possess more or less reserved vitality. One great waste of reserved strength or vitality is in the girl attempting to live through our Middle West winters clad only in thinnest and lightest of clothing, viz., silk hose, light summer underwear, thin short-

strength of our digestive apparatus.

"All work and no play makes Jack a dull boy," but recreation, or play, may mean several things. To many of us, recreation is often enjoyed at the expense of health. My desire is not to put old heads on young shoulders, but to try to make my reason so good and plain, that it will appeal to the intelligence of all of you. I believe in fun, and lots of it; fun in the proper time and place is the best medicine and the best preservative we can take. And let it be said to the credit of most of the operators whom I know, their fun has been tempered with great reasonableness.

Cheerfulness is the greatest sweetener of life. The girl who is cheerful from habit, shows it in her countenance and clear eyes, and mark you, girls, it really is good for the complexion.

An operator who goes through life caring intelligently for her health, doing her duty cheerfully, taking and enjoying her good times as they come, making the most of her opportunities for advancement, is doing the best work towards conserving her mental and physical resources. Her reward is sure. Her ability to "make good" is assured. Age holds no terrors for her; in spirit she continues young. Life will not be a bore, for to work will be a real pleasure.

CONSERVATION is a good word—it pays.

OHIO DIVISION

B. T. CALAWAY, Correspondent, Columbus

Columbus Commercial Men's Dinner.

The commercial department of the Columbus exchange had a most enjoyable evening on Wednesday, February 19th, when a dinner was held at the Ohio Club, after which a very profitable discussion upon the work of the department and future plans was entered into by all present. E. E. Farrett succeeded in changing Frank Cook, impersonating an east side two-party residence subscriber, and selling him independent service, after which E. E. Binder tackled G. I. Schultz, representing a groceryman, and finally pinned him down to the dotted line on a contract for independent service.

It is proposed to have frequent meetings of this kind at which the various ideas of the commercial agents may be exchanged, weak points strengthened and the entire department benefited.

Ohio Bell Telephone Society.

On Tuesday evening, February 18th, at the regular monthly meeting of the Ohio Bell Telephone Society, held at the Southern Hotel in Columbus, nearly sixty members were present and had the pleasure of hearing a most enjoyable talk from S. G. McMeen, president of the Columbus Railway and Light Company, and formerly chief engineer of the Central Union Telephone Company for many years, and a telephone engineer and author of national reputation.

After the talk many reminiscences were indulged in by older members present, who had served under Mr. McMeen's connection with the company in the early days. C. G. Sharp, of Vice President Burt's office was a guest and spoke a few words of interest to all. We only wish that more frequently men from the general offices would happen in at the meetings of the society and give us the opportunity to become better acquainted with them at these pleasant social gatherings.

At the next meeting of the society, C. S. Matby will present a paper on the subject of "Our Relations to Interest Companies," and at the following meeting a debate will be held between two teams on the question, "RESOLVED, that telephone systems should be owned and operated by private individuals or corporations."

Akron District.

The plant department at Akron has recently completed move and increase of service for the A. Polsky Company private branch exchange from six to nineteen stations.

Commercial Agent Roberts has recently secured contracts at Akron, from the Depositors Savings Bank for a manual

stallation of about 3,500 feet of 600 pair underground cable to relieve the congested condition in the west part of Akron.

Material is arriving in Akron to lay the underground from Forge Street to Case Avenue on Market Street, a distance of about two miles.

Anna Ritzman, formerly clerk at Canton, has been transferred to Youngstown as cashier, succeeding Cecelia Curl, who resigned.

Gertrude Padgett, clerk at Youngstown, resigned February 15th, and was succeeded by Anna Collins.

Ossa Hargett, formerly clerk in the plant department at Canton, has been transferred to the position of stenographer in the commercial department at that exchange.

Chillicothe District.

Barbara Ball, clerk to the manager at Winchester for eight years, has tendered her resignation, effective March 8th. She says that she is moving to Dayton, Ohio, but it is generally understood that she is to be married and live in Dayton. Miss Ball has been a very efficient clerk and her services will be greatly missed; the best wishes of the entire force go with her. She will be succeeded by Mabel Long.

C. V. Dixon, repairman at Winchester, was transferred March 1st to Portsmouth.

Toledo District.

Edith Coontz, operator at Findlay, resigned on March 1st, and has entered the Training School for Nurses at the Flower Hospital, Toledo.

Daisy Wyatt, operator at Lima, resigned on February 28th, and was married on March 3rd to Harry Croy of Toledo. Miss Wyatt is succeeded by Fern Mitchell, formerly of Anderson, Ind.

Martha Willis, toll operator at Lima, resigned her position taking effect March 1st.



SWITCHBOARD, SOUTH EUCLID, O.

23rd, and was married on March 27th to Harley Fett of Findlay.

The following is taken from the *Sandusky Star Journal*, Sandusky, Ohio, of March 21st:

Twenty-two girls of the Bell Telephone Exchange were the participants in a most enjoyable sleighing party Friday evening. Mr. and Mrs. George McCoy entertaining them at their home at Bogarts.

After a ride of an hour or more with the usual blowing of horns, singing, etc., the McCoy home was reached and here an arch under which they drove had been lighted with numerous lights, making a pretty scene as they approached the house from the country road.

Japanese lanterns and several large ferns added to the attractiveness of the rooms inside where a delightful evening was spent with songs, piano music, dancing and games. Some of the girls were in costume and this feature afforded much enjoyment.

"Uncle Sam" and "Ma Katzenheimer" led the march to the dining room where a delicious supper was served at two long tables. Other characters represented were Soldier Boy, Old King Cole, a cyclist, etc. (Mr. and Mrs. George McCoy, who entertained the girls, are former subscribers of the Sandusky exchange.) The traffic employees at the Upper Sandusky exchange received a card from Dr. Carl Otto Stutz, who is at present traveling in Europe. The card was dated Berlin, Germany, and read as follows:

"Hello girls! How is Central? Will be back in March, then will trouble you again. Just dropped you a card to let you know I did not forget you."

"Dr. Carl Otto Stutz."

The card is considered a curiosity by the operators and will be framed and hung in the traffic department. It is the only one of its kind ever received at the exchange.

The girls of the Blue Bell Club of the Upper Sandusky traffic department entertained an equal number of young men at a progressive dinner on February 20th. Dinner was served in seven courses at the homes of seven different members of the club and was pronounced a success for those who enjoy eating, as it was de-

cidedly "a case of eat" from eight o'clock until twelve.

Contracts have been taken for No. 2 private branch exchanges as follows:

A Bentley and Sons Company, Toledo, one trunk and six stations.
Ohio Bank and Savings Company, Findlay, one trunk and five stations.
Gertrude A. Dorr, clerk in the commercial department at Toledo, has re-



EXCHANGE, SOUTH EUCLID, OHIO.

The South Euclid, Ohio, exchange, which was located at Stop 10 on the Gates Mill car line, has been moved to Stop 15.

Mrs. J. Yassany, former suburban supervisor and private branch exchange operator at the Main exchange, Cleveland, has charge of the South Euclid exchange. The switchboard was installed in one of the front rooms of Mrs. Yassany's home, which makes it very convenient for her to answer the 400 calls a day from the 160 subscribers.

signed to accept another position and is succeeded by Lou Shaumleffel.

Shipments of new exchange directories have just been received by the Findlay and Gallon exchanges.

Two new toll positions of this company have been installed in the office of the Citizens Telephone Company at Delaware and all Bell lines are now being operated in the office of that company and the equipment at the former Central Union exchange quarters is being dismantled and shipped away.

The Jolly Bachelor Girls of the East exchange entertained with a dance March 25th.

Helen Bridge of the East exchange, Toledo, was married March 8th to John Naurer.

Mae Connolly has been transferred to the observation department, Toledo, and Miss Hogan succeeded her as supervisor.

Elizabeth Goldsberry of the Toledo exchange was at home for a week with a sprained arm.

The *Deshler Flag*, of Deshler, Ohio, recently printed the following item about Manager N. B. Penny, of the Crescent Telephone Company: "N. B. Penny, manager of the Crescent Telephone Company, has been a busy man since the sleet storm of a few weeks ago, which put nearly all their phones, not only here, but over their entire system, out of commission, and has just succeeded in getting them back in working order and he made mighty good time at it at that, considering the amount of work he had to look after."

Mr. Penny makes a good telephone manager, always trying to give the patrons the very best service possible. He is a kind, courteous gentleman and is making friends for the system every day and is proving to be the right man in the right place."

CLEVELAND DIVISION

W. K. LAWRENCE, Correspondent

Bouquet for Installers.

This is a copy of the letter received by T. P. Cagwin, commercial manager of the Cleveland Telephone Company, from W. J. Hanley of the General Electric Company, Cleveland.

Dear Sir: I want to thank you personally for the prompt manner in which you have taken care of our telephone changes and also for the efficient force which you had doing the work. Our service was not interrupted at all, a thing which could hardly be expected, and all of which is thoroughly appreciated.

With kind personal regards, I remain, Very truly yours,

W. J. HANLEY.

With Commercial Agents.

G. V. Shaw had the pleasure of writing the following contracts for private branch exchanges last month:

The Ward Baking Company, 1506 Superior Avenue, a No. 4 switchboard, two trunk lines and six stations.

Drs. Hill & Thomas, 533 Osborn Building, a No. 2 switchboard, one trunk line and six stations.
Hiram House, 2723 Orange Avenue, a No. 2 switchboard, two trunk lines and six stations.

The W. P. Hyde Company, 1008 Scovill Avenue, a cordless board, two trunk lines and six stations.

Through the efforts of L. S. Barkhauer contracts were secured from:

The James & Manchester Company, 522 Leader-News Building, for a cordless board, two trunk lines and six stations.

Smith Taft & Arter, tenth floor of the Marshall Building, a No. 4 switchboard, two trunk lines and ten stations.

The Dunham Realty Company, 1001 Hippodrome Building, a cordless board, two trunk lines and six stations.

A contract was secured for a private branch exchange which will consist of a No. 4 switchboard, one trunk line and six stations, from the Boardwalk & Hagenbuch, 358 Leader-News Building, by Charles Elliott. Mr. Elliott also secured a contract from Bagly, Simmons & DeWitt, 1447 Leader-News Building, for a private branch exchange which will consist of a No. 2 switchboard, one trunk line and six stations.

I. W. McKee was fortunate in securing a contract from the Water Works Department of the City of Cleveland for a No. 2 switchboard, one trunk line and six stations.

A contract was secured from the E. & H. Laundry Company, 2314 Detroit Avenue, for a No. 4 switchboard, two trunk lines and six stations, by W. Englehart.

INDIANA DIVISION

D. H. WHITAM, Correspondent, Indianapolis

Indiana Bell Telephone Society.

The Indiana Bell Telephone Society met at the University Club on the evening of February 28th. After the usual supper and informalities a paper was read by C. A. Cora entitled "Net Revenue." Following the paper was a general discussion by the various members present with reference to the company's revenue and expenses. This is one of a series of meetings which will be held to discuss the various phases of the company's revenue.

Central District.

About twenty girls of the Prospect office, Indianapolis, gave a theater party at the Colonial. Mrs. Prosch chaperoned the party.

The birthday anniversary of Edna Harkins, one of the supervisors of the Prospect office, Indianapolis, was celebrated February 27th at her home. The guests being the girls from the Prospect office. The hostess was presented with a half dozen cut glass tumblers. Dancing and games formed the entertainment.

Mrs. Nora Busch, one of the oldest employees of the Indianapolis traffic department in point of service, having been in the employ of the company for twenty years, was married March 6th to Robert Warner. The wedding took place at the home of her mother on Pratt Street in the city of Indianapolis. In the company of friends, many of whom were co-workers from the Central Union. Mrs. Busch was the recipient of many beautiful and useful gifts.

Mabel Raymond of the North office, Indianapolis, entertained a number of girls in honor of her twenty-first birthday. The evening was enjoyed with games, and a very handsome luncheon was served.

On February 24th a private branch exchange with two trunks and five unrestricted terminals was installed for the Interstate Public Service Company, 508 Board of Trade Building, Indianapolis.

On February 26th E. O. Langen & Company, 13-15 West Washington Street, Indianapolis, replaced their one business line by a private branch exchange with two trunks and two unrestricted terminals.

On March 12th six unrestricted terminals were added to the private branch exchange which was installed on February 20th for the A. & M. Sales Company, 410 North Capitol Avenue, Indianapolis.

On Thursday and Friday, March 13th and 14th, the Indiana managers met with the officials and heads of departments of the roof garden of the Telephone Building for a general discussion of ways and means of increasing the company's revenue and effecting economies for the welfare of the company. Among those present were: L. N. Whitney, general manager; J. W. Stickney, commercial superintendent; L. Wayne, traffic superintendent; Managers Lee, Mattox, Bonds, Early, Bebee, Van Fleet, Monticue, Hutton, Otis, Chas. Dalrymple, Taylor, Dalrymple, Springer, Porter and Commercial Agents Fifer and Smelzer representing the Northern District, and Managers Dyke, Higman, Severance, L. H. Renshaw, McDonald, Finical, Shoemaker, Fee, Allen, Roe and Commercial Agent Kissling representing the Southern District.



MRS. J. YASSANY, Operator at South Euclid.

switchboard with one trunk and six stations, and the National City Bank for two trunks and eight stations.

A new switchboard has been ordered to replace the No. 2 equipment for the Akron Press, on account of increased demands for service.

The second private branch exchange has recently been installed at Akron for the Firestone Tire and Rubber Company at the old plant, consisting of one trunk, seventeen stations and three private lines to the main private branch exchange.

Plans are now being perfected to consolidate the Goodrich and Diamond Rubber Companies' private branch exchanges in Akron. After consolidation, the company will use twenty-two trunks and have over 300 stations with an eight-position relay multiple board.

Foreman Keithler is completing the in-

Northern District.

Anna Cramer, who served about four years as an operator in the Kendallville exchange of the Central Union Telephone Company, has been promoted to a clerkship in the commercial department of the company, succeeding Elmo Smith, who has resigned.

Great interest is manifested by the young ladies of the traffic and commercial departments at South Bend who have recently organized an embroidery and

crocheting class, under the instruction of Mrs. George Byers. They meet in the telephone building on Monday evening of each week.

Arthur L. Moore of the South Bend commercial department has been transferred to the plant department at Peru. E. O. Fifer has been appointed traffic chief of South Bend, Elkhart, Goshen, Ligonier, Osceola and Mishawaka.

Alice Murphy, toll recorder, and Grace Chambers, toll operator at South Bend, are ill with tonsillitis.

Edna Hast, toll operator, has resigned, being succeeded by Emma Wagner.

Cleta Giek, toll operator at South Bend, has resigned, her position being filled by Bessie Zanley.

Lura Whiting, toll supervisor at South Bend, has returned from Wino, Ill., where she was called to be with her father during his illness and death.

Bernice Gemberling, local chief operator at South Bend, is on a leave of absence until May, due to illness. Her position

is understood arrangements are practically completed whereby the work of consolidating the two plants in Crawfordsville is to be pushed to early completion and the news is happily received not only by the telephone employees but by the public as well.

W. R. Willis, lineman at the Crawfordsville exchange, on February 1st was transferred to Manager Smith at Frankfort, Ind.

A stranger, with somewhat of a benevolent look, recently applied to the Crawfordsville manager for the refund of five cents which he dropped, through error, in a pay station telephone during March, 1911, stating he had not been in the city since that date and therefore made his request now for the refund, which the manager was unable to comply with as his memory did not extend that far back as to details.

Effie Biddle, telephone operator, and Leason Taylor, wire chief of the Spencer exchange, were quietly married on February 28th. Both have been in the employ of the telephone company for a number of years. Mr. and Mrs. Taylor have gone to housekeeping on South Washington Street. They have the best wishes of a host of friends.

ILLINOIS DIVISION

F. J. DOLAN, Correspondent, Springfield

Reorganization of Districts.

Effective February 1, 1912, the three districts as previously organized in the Illinois Division of the Central Union Telephone Company were abolished, and the territory divided into fourteen districts in the plant and commercial departments. The number of districts of the traffic department will be increased from three to four, with headquarters at Rock Island, Peoria, Springfield and Centralia.

Alton District.

The Counties of Bond, Jersey, Madison and one-half of Macoupin have been made into a district with Richard Wilder, district commercial manager, A. B. Singer, district plant chief, and C. G. Seytler, district traffic chief, in charge.

Anna Monks, traffic chief at Alton, Mrs. L. M. Lax, traffic chief at Edwardsville, Virgie Beattie, chief operator at Collinsville, and Mabel Ernst, chief operator at Highland, attended a meeting of traffic chiefs at Centralia, Ill., February 25th.

Rachel Grisham has taken the position of operator made vacant by the resignation of Margaret Coleman. Miss Coleman resigned to accept a position in the office of Dr. L. O. Landor.

L. O. Harris, formerly chief clerk to O. M. Burgess at Centralia, has been transferred to the position of chief clerk to A. B. Singer, district plant chief at Alton.

Sadie Kennedy was "surprised" by a party of her friends among the Alton operators on the night of February 22nd, the occasion being her birthday. She was presented with a handsome mesh purse.

Champaign District.

An estimate has been approved and assigned to the plant department covering underground cable, pole line and aerial cable work for Champaign.

Cecil Howell has been appointed clerk to the plant chief, succeeding Julian Collins, resigned.

Anna Meyers, toll operator at the Champaign exchange, has resigned to accept a position with the Lewis & Company Department Store. She is succeeded by Pearl Allen.

Eva Fox, chief operator at the Springfield exchange, has been acting as traffic chief for the Champaign exchange during the absence of Lillie Smith, who is attending an operators' school of instruction in Chicago.

Married last Thanksgiving day at Joliet, H. H. Stanley and Mabel C. Barr were successful in keeping their marriage a secret until last month when a young woman admitted the fact. Mr. Stanley was formerly district traffic chief at Bloomington. Mrs. Stanley is chief clerk in the exchange at Champaign. Mr. Stanley now cultivates a plantation at Duncan, Miss.

Decatur District.

W. F. Hupp, Springfield, Ill., has been appointed commercial agent at Decatur, succeeding George A. Pankey, transferred to Peoria.

Maurene Leonard has taken the position of bookkeeper at Decatur, succeeding Nellie Neyhart.

E. R. Goreman has taken the position of collector at Decatur, succeeding Virgil Oscar Whitall.

Galesburg District.

Florence Frey, who has been toll operator in the Galesburg exchange for several years, has resigned.

Otto Seastead has taken a position as commercial agent at Galesburg.

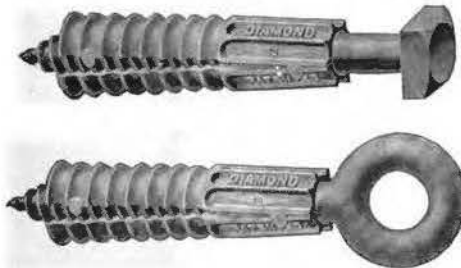
F. H. Stompe, formerly with the Chicago Telephone Company, has taken a position as commercial agent at Galesburg.



VALENTINE PARTY AT SOUTH BEND, IND.

The employees, and their families, of the South Bend, Indiana, exchange, which includes Elkhart, Goshen, Mishawaka and Osceola, held a valentine party at South Bend on the evening of February 15th. The four vacant rooms on the third floor of the telephone building, formerly used as district headquarters, were decorated with appropriate symbols of St. Valentine's day, and in the largest room an L-shaped table was set, with places for sixty people at supper. After supper the table was removed and the party grouped for a flashlight photograph. The remainder of the evening was devoted to cards, dancing and the distribution of valentines. Every one present expressed satisfaction with the event and gave much credit to Chief Toll Operator Miss Swintz, Traveling Chief Operator Miss Thurston, Plant Chief Burt, and Commercial Agent Stedman for their voluntary work as a committee of arrangements in making the affair a success.

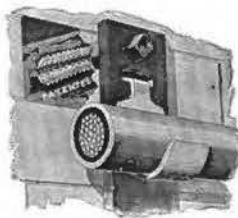
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tion is temporarily filled by Nora Thurston, service inspector.

Mary Muman, night chief operator at South Bend, was married January 15th to Murel Ringborge and will make her future home in Eagle Gorge, Wash. Her position was filled by Vera Ammons.

Chloe Herrick, senior supervisor at South Bend, has accepted the position of chief operator in the exchange at Kalamazoo, Mich. Her successor is Mabel Shippe.

Myrtle Nelson and Marie Van Kerrebroeck, local operators at South Bend, have recently been promoted to supervisors.

Mabel Turner, operator at South Bend, has resigned to go to her former home in Toledo, Ohio.

Ruth Ogborn, operator at South Bend, has resigned and will make her future home with her father in Denver, Colo.

Leona Quick, traffic clerk at South Bend, has returned from a ten days' leave of absence on account of the death of her brother.

Southern District.

Amy Dodds, chief operator of the Bedford Exchange, who has been away since August, 1912, on account of ill health, is again on duty.

Alice Stigall, local operator of the Bedford Exchange, has resigned her position and is succeeded by Pauline Deniston.

Harry D. Cornelius, repairman, recently captured a large hoot owl which had become entangled in the Bedford-Seymour circuit. The owl, which measured four feet and six inches from tip to tip, was exhibited in the window of the Owl Drug Store where it attracted considerable attention.

Martha Waldron, formerly temporary collector at Bedford, is now local operator in the operating room.

The local plant force has just completed the installation of a No. 2 private branch exchange for the Consolidated Stone Company at its general offices and mill in Bedford. A private line connecting the mill with the quarry three miles west of the city is also under construction.

Foreman S. L. Butler, in charge of the estimate covering the consolidation of the Bedford Home Company and the Central Union Telephone Company, expects to complete his work this month.

The Crawfordsville construction department recently finished a new No. 12 copper circuit between Crawfordsville and LaFayette, which greatly relieves the former congested condition between these points.

Jessie Sloan, Florence Anderson and Ursula Wilbur are new local operators at Galesburg.

Howard Upton, who has been wire chief at Galesburg during the past two years, has been transferred to Rockford to become toll line wire chief at that point.

C. E. Wood, who has been toll line repairman, becomes wire chief at Galesburg, filling the position formerly held by Mr. Upton.

The employees of the Galesburg District have organized a club to be known as the "Bell Telephone Association of the Galesburg District." The object of this association is to promote co-operation, efficiency and intellectual welfare among the employees. The meetings are held every Monday night and great interest is being shown by all employees and considerable good has been accomplished already. In addition to the school of instruction, which is a feature of the association, the club plans several social features to be enjoyed in the near future.

On February 21st, this district was visited by a severe sleet storm which broke down about 280 poles on the toll lines north and east of Galesburg. The Plant Department did excellent work in making the emergency repairs and had the lines working to all points in the district by noon of the 23rd. In order to get the lines working quickly, it was necessary to use about ten miles of No. 17 distributing wire.

Ruth Miller is a new local operator at Galesburg.

Jacksonville District.

C. C. Hard of Springfield has taken the position of wire chief at Jacksonville exchange, filling the vacancy caused by the transfer of former Wire Chief W. L. Taylor to the position of toll wire chief at Springfield.

A No. 2 private branch exchange with one trunk and five stations has been installed for the Jacksonville Daily Journal. Louis E. McKean, local operator, and Howard Anders, repairman at the Jacksonville exchange, surprised their many friends on February 27th by quietly slipping away to Virginia, and on their return announced their marriage. The ceremony was performed by Judge Martin, of Virginia.

Contracts have been secured from the Schultz-Boujan Elevator Company of Beardstown for a No. 1 cordless private branch exchange, of two trunk lines and seven stations.

Kankakee District.

Kankakee has been made district headquarters and Thomas Brown district commercial manager.

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LOCK
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MANUFACTURERS OF

LOCKS
for all purposes.

WOOD SCREWS

Factories
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**NEW YORK
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An estimate on the reconstruction of a new toll line from Gilman to Watsika and Forrest has been assigned.

A No. 2 private branch exchange has been installed in the City National Bank Building for the Attorneys Gower, Cooper, Hobbie and Parish.

New steel lockers are being installed in the store-room of the Kankakee exchange.

The new trouble ticket system will go into effect the first of the month, Edith Kemnitz acting as clerk.

A. V. Smith, repairman at Gilman, has been transferred to Kankakee.

Ruth Beam has resigned her position



FAREWELL LUNCHEON AT KANKAKEE, ILL.

as local operator and rumor has it that wedding bells will soon ring. The vacancy caused by Miss Beam's resignation has been filled by Miss Dawson.

Grace Byram, formerly stenographer in the Galesburg District office, has been transferred to Kankakee as chief clerk to the district commercial manager.

The employees of the Kankakee exchange gave a farewell luncheon on Saturday evening, February 8th, in honor of J. L. Thomas, who has been transferred to Bloomington, Ill. This event was in the nature of a surprise to Mr. Thomas. An elaborate luncheon was served by the young ladies of the arrangement committee. After luncheon several of the men present made appropriate speeches. F. W. Marshall, traffic chief, in an eloquent manner welcomed those present and expressed regret at losing the manager, under whom all worked so favorably.

Peoria District.

Harry Culbertson, formerly toll line manager at the Bloomington exchange, has resigned to accept a position with the Chicago Telephone Company.

Charles Warren, commercial agent at the Peoria exchange, entertained a number of the employees of the office at his home on Friday evening, February 27th. All reported a very enjoyable time, returning home near the wee small hours of the morning.

Anna Nolan of the commercial department at Peoria exchange, who has been ill since February 8th, returned to her duties Saturday, March 1st.

William Wengert has accepted a position in the Peoria plant department.

Quincy District.

The work of consolidation of the two exchanges at Quincy is progressing very slowly as Foreman Champion and his linemen have been called out of the city three different times to assist in restoring service put out by sleet storms.

Mr. McMahon of the Western Electric Company has arrived at Quincy and is to commence at once the work of installing a new six-position toll board and two position wire chief's desk, also a service observation board.

Fred Gregory arrived in Quincy, and has commenced the work of installing intermediate frames.

A. J. Noiret, equipment formen, has started the work of installing two additional sections to the present switchboard at the new exchange.

L. L. McMaster has been transferred from Rock Island to Quincy as traffic chief.

C. A. Robinson, right-of-way man, has been making a prolonged stay in Quincy, securing right-of-way for the new work.

Springfield District.

Elizabeth May, formerly toll chief operator at Springfield, has been promoted to the position of instructor of operating school.

Little Hall, toll chief operator's clerk, has been promoted to toll chief operator

and is succeeded by Ruby Winkiehak, ticket examiner. Eva Stover, long-distance supervisor, has taken the position of ticket examiner.

Ota Epperson, operator at Mechanica-burg, was married to Clarence Rentschler, of Dawson, February 5th.

The offices of H. B. Lewis, plant superintendent, moved into new headquarters in the News Building Saturday, February 8th.

The firm of Newmans, dealer in ladies' wearing apparel, Springfield, signed a contract for a private branch exchange with one trunk and five stations to take effect March 1, 1913.

exchange, has taken the position of store-keeper at Moline.

J. C. Gibboney, formerly of Rockford, has been transferred to Moline exchange as installer.

Lester Blair, formerly of the A. T. & T. Company at Rockford, has taken a position at Moline as installer.

The Western Electric Company's force of installers are fast completing the installation of the two new sections of switchboard at the Moline exchange and expect to complete the work about April 10th.

Archie Eddy, chief clerk in the district plant chief's office in Moline, was ill in the hospital for three days early in February, but is now back on duty.

A new No. 4 private branch exchange board with a capacity of forty lines, ten trunks and ten cord pairs has been installed in the magnificent new People's Bank Building at Moline. The installation was completed on March 1st. Many favorable comments were passed by the public on the new board.

A new No. 2 private branch exchange system of two trunks and six stations has been installed in the offices of Dietz, Dietz and Johnson at Moline.

A new No. 1 private branch exchange system of one trunk and five stations has been installed in the law offices of Shalburg and Harper, Moline.

The installation of a No. 2 private branch exchange system of one trunk and six stations was completed at the Rock Island Post Office.

At a display of different merchandise manufacturers in Sterling, Manager C. M. Armstrong placed a No. 4 private branch exchange which created quite an interest among the manufacturers of that city. There are good prospects for at least three exchange contracts being secured from firms who saw the working of this exchange.

On Wednesday evening, March 6th, a box social was given by the manager of the Illinois Theatre to the telephone operators. They had a good time.

WISCONSIN DIVISION

F. M. McENIRY, Correspondent, Milwaukee

Death of Herman A. Heinze.

The collection department of the Wisconsin Telephone Company lost a valued fellow employee and friend in Herman A. Heinze, who died February 27th after a pucky struggle against a serious illness continuing a little over a year.

Mr. Heinze was born in Milwaukee February 17th, 1886, and received his education in the public schools of Milwaukee. He entered the employ of the company as a collector April 8, 1907, and was promoted to nickel adjuster and again to chief nickel collector, which latter position he held at the time of his resignation, an account of ill health on February 1, 1912.

Mr. Heinze was of a bright and cheerful nature, and his optimism made his fellow employees feel that he would be able to join them after a complete rest and change of climate; their hopes were in vain. Mr. Heinze was unmarried and leaves a mother, four brothers and a sister.

Milwaukee Annual "Stag."

On February 17th, the Milwaukee collection department gave its annual "stag" at Keppeler's Park. The party took a chartered car on the Milwaukee-Northern Road at 5:30 p. m., arriving at Keppeler's Park in time for a sumptuous dinner.

That the occasion had been sufficiently advertised, and that the proprietor's reputation for providing a most tempting repast was well known, was evidenced by the appetites displayed by those present, who conducted themselves at the board, well-laden with wholesome viands, as only right good trencherman could.

After dinner, Cashier Schilling acted

Rock Island District.

L. J. Stoner, formerly of Galesburg

M. LANZ & SONS, Pittsburgh, Pa.

Manufacturers of

ELECTRICAL HARDWARE

PLAIN and GALVANIZED



GUY RODS

Braces, Back and Cross Arm
Break Irons
Bolts, Arm, Eye and Thru
Cable Racks and Hooks
Guy Rods and Clamps
Hub Guards

Pole Steps and Brackets
Pole Balconies
Pothead Supports
Patented Ground Rods
Reinforcing Straps
Strain Plates, Etc.



JOSEPH SCHOEN.
Appointed district commercial agent at Madison March 1. Mr. Schoen had been commercial agent at Madison for the previous three years.

as toastmaster, and short remarks were made by District Commercial Manager George C. French, Commercial Superintendent F. M. McEnry, Chief Commercial Agent H. J. Hendinger, Commercial Agent F. W. Stelzel, Adjutant Thomas S. Bell, and Collector Thomas Boland.

After the toasts, everyone repaired to the bowling alleys where interesting games were bowled between the "Bunk Shooters," headed by George C. French, and the "Slug Detectors," headed by George Stark; the "Time Killers," headed by F. M. McEnry, and the "Coin Chasers," headed by C. Laetch. The winners and losers of both games then rolled against each other, after which the ten men who had rolled the highest scores were divided into two teams of five each for the final supremacy of the evening. Some phenomenal scores were registered, the

surprise of the evening being the failure of the much touted Kolster, the bulwark of "Inns' Colts," of local fame, who rolled a 107 score in the first game against the "Slug Detectors."

Kolster somewhat redeemed himself in the second game against the "Time Killers," but this redemption may be explained by the self-evident name of the opponents in that game. It should be but an easy matter for only a very ordinary bowler to romp home a winner with opponents such as these.

After the final shakedown it was found that the bowling honors belonged to a team consisting of V. Gruenewald, George M. Stark, J. Van Erden, P. A. Eastey and N. P. Roggenbauer. Mr. Kolster, of the "Coin Chasers," rolled the highest individual score of the session, 211.

In addition to the members of the collection departments, the following officials of the Division and District Offices were present as guests: Commercial Superintendent F. M. McEnry, Chief Commercial Agent H. J. Hendinger, Chief Clerk M. B. Dougherty, District Commercial Manager George C. French, Commercial Agent F. W. Stelzel and Chief Clerk P. A. Eastey.

Private Exchange Installations.

Following is a list of private branch exchanges recently installed in Wisconsin:

| Name and Location. | Equipment. |
|--------------------------------|------------|
| APPLETON: | |
| D. M. & A. Geenen..... | Cordless |
| BELOIT: | |
| Berlin Machine Wks..... | No. 4 |
| Fairbanks-Morse..... | Cordless |
| Beloit Hospital..... | Cordless |
| EATON CLAIR: | |
| Luther Hospital..... | No. 2 |
| Drs. Lyman & Derge..... | No. 2 |
| FOND DU LAC: | |
| Zinke Mercury Co..... | Cordless |
| Galloway-West Co..... | Cordless |
| Northern Casket Co..... | Cordless |
| Harris Typewriter Co..... | Cordless |
| Huber & Fuhrman..... | Cordless |
| Rueping Leather Co..... | No. 4 |
| Commercial National Bank..... | No. 2 |
| Grafton Hall..... | Cordless |
| GREEN BAY: | |
| Spuler Co..... | Cordless |
| LAKE GENEVA: | |
| Lake Geneva Hotel..... | No. 1 |
| MADISON: | |
| University Club..... | No. 1 |
| State Journal Printing Co..... | No. 1 |
| University Y. M. C. A..... | Cordless |
| Stondall-Toftoy Co..... | Cordless |

| | |
|-----------------------------------|----------|
| MANITOWOC: | |
| Smalley Mfg. Co..... | Cordless |
| Schuetz Bros..... | No. 2 |
| MARINETTE: | |
| Eastman, Goldman & Fairchild..... | Cordless |
| MERRILL: | |
| Livingston's Merc. Co..... | Cordless |
| MILWAUKEE: | |
| Douglas, Porter & Monson..... | Cordless |
| August Rehan Co..... | Cordless |
| Edmund Gram..... | Cordless |
| Sternberg Mfg. Co..... | Cordless |
| Milwaukee Motor Co..... | Cordless |
| Independent Mill. Brew. Co..... | Cordless |
| Davidson Theatre..... | Cordless |
| Henry Thiele Co..... | Cordless |
| Imperial Berlin Dye Works..... | Cordless |
| Manney & Finney..... | Cordless |
| Mer. & Mrs. Asen..... | Cordless |
| Day Bergwall Co..... | Cordless |
| Ind. Elec. Mfg. Co..... | Cordless |
| Federal Pressed Steel Co..... | Cordless |
| Zimmerman Bros..... | Cordless |
| Jonas Automobile Co..... | Cordless |
| Huelsch Laundry Co..... | Cordless |
| Milwaukee City Agri. School..... | Cordless |
| Milwaukee Hospital..... | Cordless |
| The Young Churchman..... | Cordless |
| Miller Brew. Co..... | No. 4 |
| Herman Andrae Elec. Co..... | Cordless |
| Arthur L. Richards Co..... | Cordless |
| Dumphy-Fridstein Co..... | Cordless |
| Goodyear Rubber Co..... | No. 4 |
| Wollaege Sales Co..... | Cordless |
| Wm. Goodrich & Co..... | Cordless |
| Arthur A. Muller..... | Cordless |
| Western Iron Stores Co..... | No. 4 |
| Crucible Steel Casting Co..... | Cordless |
| NEENAH: | |
| Ansbach Dept. Store..... | Cordless |
| OCONTO: | |
| Oconto Co..... | Cordless |
| OSHKOSH: | |
| Oshtosh Motor Car Co..... | Cordless |
| Doman Motor Car Co..... | Cordless |
| Oshtosh Mfg. Co..... | Cordless |
| RACINE: | |
| Steele Shoe Co..... | Cordless |
| Gold Medal Camp Furn. Co..... | Cordless |
| B. D. Elsenrath Co..... | Cordless |
| Simmons & Walker..... | Cordless |
| Martin J. Gillen..... | Cordless |
| City of Racine..... | No. 1 |
| W. H. Kranz..... | Cordless |
| Friedman Cloak & Suit Co..... | No. 2 |
| W. F. McCaughey..... | Cordless |
| T. Driver & Sons Mfg. Co..... | Cordless |
| Racine Puttless Window Co..... | Cordless |
| The Lavigne Gear Co..... | Cordless |
| Journal Print. Co..... | Cordless |
| STEVENS POINT: | |
| H. D. McCullough Co..... | Cordless |
| Cove Furniture Co..... | Cordless |
| WAUKESHA: | |
| Waukesha Hotel..... | No. 1 |

The Bonduel Telephone Company proposes building about eight miles of line in order to serve thirty-five new subscribers. Work will start in about a month.

The Gillett Rural Telephone Company will build fifteen miles of line to connect up about forty-five subscribers. The company now has one hundred and thirty subscribers.

E. F. L. Benson, installer for the Western Electric Company, is at Appleton and with his crew is installing additional equipment in the new exchange building. A new three-compartment booth and a toll attendant's desk have been installed at the Sherman House at Appleton and in the future an attendant will be provided during the busy hours better to handle the toll business.

It is a good thing that we sometimes have a German operator, as the other day a subscriber at Green Bay called for "one nodding twice, two rings." The operator that answered could not understand, being of Irish descent, and the call was referred to the desk monitor who was



ROMAN E. MILLER.

One of the live commercial agents of the Wisconsin Telephone Company is Roman E. Miller, who wrote 128 contracts during the month of January, amounting to a total of \$3,288.

Mr. Miller has been with the company since March 9, 1910, in the commercial department of the Milwaukee District, and has proven himself to be a reliable and conscientious solicitor.

German, and posted the operator as to what number the party was calling. Lena Holts, private exchange operator at the Beaumont Hotel, Green Bay, has resigned her position, effective March 15th, to be married.

A. J. Schultz, manager at Green Bay, was confined to his home for a week on account of influenza.

The County Line Telephone Company connecting with our Manitowoc exchange has purchased from the Wisconsin Telephone Company the line into Two Creeks and will serve farmers along this line with exchange service at Tisch Mills.

Alice Riley, local operator at Marinette exchange, is confined to her home as the result of a serious fall received several weeks ago.

Helen Sharkey, assistant chief operator at Marinette, has resumed her duties after a week's illness.

On the evening of February 6th, after the operators' regular traffic meeting, a delicious lunch was served by the opera-

A Hand for Lendved.

A new directory is being distributed in Hortonville. According to the new book there are almost 400 people getting telephone service through the local exchange. And while we are talking service let us go a little farther in the discussion. Have you ever noticed how comparatively little "kicking" there exists against the local service? Or haven't you ever had occasion to use the service given in other places? Those who have at any time used other service than the local have undoubtedly found much cause of complaint. We know of places where the telephone service is the cause of more useless language than any other one thing. But Hortonville is blessed with a good service. Manager Lendved is always on the job and ready to correct any errors. The local exchange girls can never be caught napping. Such is probably what the service should be, but we could not refrain from putting in a word for the local service after having occasion to use the service given in other places.—Hortonville Review.

Appleton District.

Amelia Merles has been employed as substitute operator at the Kaukauna exchange.

Mr. Parvis has completed the installation of an additional two-position section of switchboard at the New London exchange.

Telephone Lines Strung

on

"Thomas Quality"

Porcelain Insulators

give the best transmission

These brown glazed porcelain insulators are manufactured under the most rigid specifications and supervision.

They will meet the requirements of the most severe service conditions.

Manufactured by

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198 All Departments

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AUTOMATIC
31-757 31-758

tors of the Neenah-Menasha exchange. The plant department, having a meeting on the same evening, were invited to partake of the good things to eat with the operators. All reported a good time, as the men expressed it, and hoped that in the near future another traffic and plant meeting would be held.

One additional operator was added to the operating force at the Neenah-Menasha exchange February 1st.

On February 1st the traffic at the Neenah-Menasha exchange was very heavy, due to the death that morning of



JOSEPH J. GILL

High nickel collector at Milwaukee. He learned to speed up while in the barber business. We don't know anything about his qualifications to shave and other stunts, but we do know that he is a "live-wire" collector.

Mr. Gill was born February 18, 1872, in the city of Mainz, Germany. He attended the common schools in that city, and moved to Milwaukee in 1890.

He worked for a while at the upholstering trade and later in the barber business, at which trade he was employed a number of years. He has been in the employ of the Wisconsin Telephone Company for two and one-half years.

During the month of January, 1913, he made 1,747 calls and collected from 1,517 stations. This is an average of seventy-six calls and sixty-six collections per day.

Dr. E. J. Smith, who was one of the oldest and a very prominent physician in the two cities.

Two operators' meetings were held at Omro during February.

The VanDyne Telephone Company, connecting with the Oshkosh exchange, has grown so rapidly in the last year that it has become necessary to install an extra trunk line from the VanDyne exchange to the Oshkosh exchange.

L. M. LaChapelle, commercial agent at Oshkosh, has secured a contract for a No. 1 board with twelve stations from the Diamond Match Company and a cordless from the State Normal School for four stations.

The Wautoma-Mt. Morris Telephone Company, a connecting company, has added an additional section to the switchboard in the Wautoma office.

H. Johnsrude, president of the Viking Telephone Company, visited the Sturgeon Bay exchange on February 20th. The Viking Telephone Company has men at work stringing a new circuit to the Sturgeon Bay exchange limits.

On the night of February 4th the operators at the Sturgeon Bay exchange enjoyed a sleigh ride party out in the country to the residence of Mr. and Mrs. H. Taube, where the evening was passed playing games, after which supper was served. A very enjoyable evening was spent. Mrs. Taube was formerly chief operator at the Sturgeon Bay exchange.

Louis VanSlekle of Green Bay worked five days as Morse operator at the Sturgeon Bay exchange during the month of February.

The following letter was received by Miss H. Rice, chief operator at Oshkosh:

Dear Miss Rice: The card for the district commercial manager, Appleton, enclosed in our last telephone book just received, asking about the service, brings the thought to me that possibly you as chief operator might like to know that we feel that the service and attention we are getting from your office is very satisfactory. We want to thank you for your part, which is of course seeing to it that we get just this kind of service and we appreciate it very much.

Yours truly,
WM. J. WAGSTAFF.

F. E. Colleen, who has worked during the past year with district crews from the Appleton and Madison districts, has accepted a position as manager for the Marion and Northern Telephone Company at Marion.

Eau Claire District.

Gunda Peterson, chief operator at the Menomonee exchange, has been absent from duty for the past month on account of illness.

An estimate covering twelve new rural subscribers at the Menomonee exchange was completed by Foreman A. W. Johnson on March 15th.

A. W. Johnson, troubleman at the Menomonee exchange, has resigned to accept a position as foreman of a construction crew at Superior.

The operators at the Menomonee exchange were pleasantly surprised on March 14th, when Glenn Howe, manager, celebrated his second anniversary as manager for the Wisconsin Telephone Company, by having a fruit and candy shower. All extended their hearty congratulations and hoped that Mr. Howe might be with them many more years.

Anna Gadov, formerly toll operator at the Menomonee exchange, is to be married to Gustav Hassel shortly after Easter.

Freda Richards resigned her position at Bayfield January 31st and is succeeded by Gertrude Harding, formerly night operator. Substitute Operator Ingrid Donaldson was promoted to night operator.

An additional wire chief's desk is being installed at the Eau Claire exchange. The work is under the charge of Mr. Farris of Milwaukee.

A district plant meeting held at Ashland during February represented the following exchanges: Hurley, Bayfield, Washburn and Ashland. J. P. Brennan, superintendent of construction, Milwaukee; P. J. Skolsky, district manager Eau Claire, and E. P. Gray, district plant chief, conducted the meeting.

J. E. Bonell, manager at Eau Claire, has secured roadway contracts from the following companies during the past month: all contracts being signed for a period of from five to ten years:

Caryville Telephone Company, extending southwest of Eau Claire, including fifty-one subscribers.

West Creek Telephone Company, extending south of Eau Claire, consisting of eight subscribers.

Rock Creek & Brunswick Telephone Company, extending southwest of Eau Claire, consisting of sixteen subscribers.

Washington Telephone Company, extending southeast of Eau Claire, consisting of sixteen subscribers.

Brunswick Center Telephone Company, extending southwest of Eau Claire, consisting of sixteen subscribers.

These companies, together with the other companies located in this territory which are now under construction extending for a considerable period of time, will give the Eau Claire subscribers a very complete service with the surrounding rural territory.

Margaret Coleman has been engaged as local operator at Chippewa Falls in place of Anna Strahan, resigned and married to James Wall.

L. Benjamin has been transferred from Chippewa Falls to Cumberland and Mr. Stewart will come to Chippewa Falls to take L. Benjamin's place as repairman.

W. G. Wilcox has been appointed manager of the Superior exchange, succeeding T. F. Keefe who has resigned to engage in other business. Mr. Wilcox has been in the employ of the Michigan State Telephone Company for something over twenty years, and has recently been in charge of the Ironwood and Besmer exchanges and other nearby points of the Michigan State Company. He has also looked after the Wisconsin Telephone Company's exchange at Hurley, Wis., in connection with his other duties.

Edna Dollard has been appointed chief operator at Baraboo, succeeding Miss Wilson.

The operators of the Baraboo exchange gathered in their new relief room, March 17th, and enjoyed a St. Patrick's party given them by their chief operator, Miss Dollard, and assistant, Miss Dwyer. The decorations and refreshments were in keeping with the occasion.

The work covering the installation of fifteen additional rural subscribers at the Beaver Dam exchange has been completed. The completion of this work makes Beaver Dam one of the best developed rural territories of any exchange in the state.

Minnie Kluge, operator at Beaver Dam, resigned to accept another position. She was succeeded by Miss G. Neugebauer.

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A little talk
from you,
Mr. Manager,

will convince the telephone men in your territory that

**Western Electric
Telephone Apparatus**

will give the best of service.

Your advice will help them plan their equipment.

Their acceptance of your advice will benefit you by making your territory a model of uniformity.

Western Electric Company



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Mack Saurer Hewitt

Proved by 12 years
of real service

Proved by 17 years
of real service

Proved by 10 years
of real service

"Leading gasoline trucks of the world"

Your transportation problem—you want unprejudiced advice first; then service.

Who will best advise and serve you?

A manufacturer, who has only one kind of a truck built in one or two sizes? Or the International Motor Company, which manufactures trucks of value proved by years of use; with various designs and distribution of load and a full line of sizes with every kind of body built in their own plant?

Capacities: 1, 1½, 2, 3, 4, 5, 6½, 7½, and 10 tons

You cannot afford to settle your transportation problem without consulting this organization.

We have data on the transportation problems of about every line of business. Our Engineering Department will be glad to send you, on request, special information in regard to your own particular needs.

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Allentown, Pa. Plainfield, N. J.

Sales and Service Stations in all Principal Cities.
Chicago Branch and Western Sales Dept., 1808 Michigan Ave.

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We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

Write for FREE SAMPLE
Make Test and Comparison



Approved by Leading Institutions
of Technology and Tele-
phonic Science. Handled by
most representative Jobbers
and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana

Sebco Enameled Bridle Rings



Perfect Insulation

for carrying and distributing wires—made of the finest bessemer steel covered with several coats of absolutely smooth glass enamel which insures perfect insulation with no chafing of the wires. The enamel is indestructible and will last forever.

A number of wires may easily be placed in the ring and as easily removed but the shape of the ring makes it impossible for the wires to come loose through any strain or action of the weather. The rings have a wood screw thread for use in fastening to Anchors.

We make all kinds of jumper and special rings for carrying and distributing wires on brick and stone construction.

Star Expansion Bolt Co.
147-149 Cedar Street, New York

A. C. Johnson, formerly solicitor in the Appleton District, has been transferred to the Madison District temporarily. Mr. Johnson at the present time is soliciting at Fort Atkinson.

A contract has been secured for a private branch exchange to be installed for the Hoard Printing Company, Fort Atkinson.

L. F. Teed, Morse operator at Fort Atkinson, resigned March 6th to accept a position as manager at Devils Lake, N. D. He was superseded by Marie A. Clow.

Edith Rodde, operator at Fort Atkinson, has resigned. She has been succeeded by Mary Chelene.

Frieda Leonard, operator at Jefferson, has resigned. She was succeeded by Etta Gross.

F. Schroeder, district plant chief of the Madison District, has been confined to his home for the past five weeks with a serious attack of grip.

Joseph Schoen, formerly a solicitor at the Madison exchange, has been promoted to the position of district commercial agent. Mr. Schoen assumed his new duties on March 1st.

O. J. Helliger of the Madison exchange, who has been working in the right-of-way department for the past three months, has been transferred to the commercial department.

V. Swenson, who has been working in the right-of-way department at the Madison exchange, has been transferred to

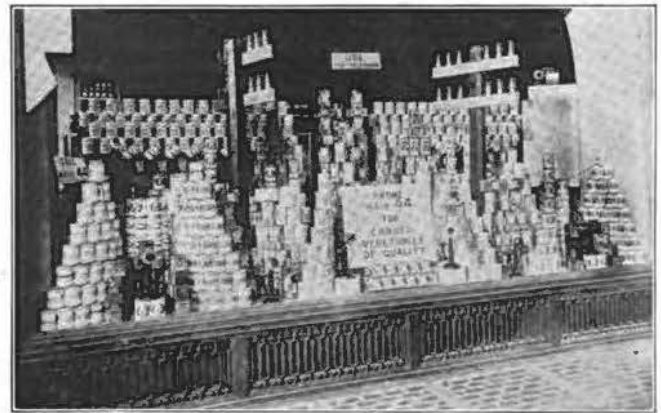
ary 5th in which the new plant codes and hand books, Specifications No. 5000 and 5003, were discussed. Thomas Berry, district plant chief; O. H. Carter, district wire chief; J. P. Brennan, supervisor of lines and equipment; William Schroeder, plant accountant, and managers of Burlington, Lake Geneva, Racine, Delavan and Genoa Junction attended.

Another plant meeting was held on the night of February 18th at Sheboygan. Those attending from the Milwaukee district were: Mr. Berry, Mr. Brennan and managers from West Bend, Mayville, Port Washington and Cedarburg.

The installation department also held a meeting on February 18th on the eighth floor of the Grand exchange, to discuss the codes and specifications.

An estimate for construction work to take care of the large new addition to the Boston Store, Milwaukee, was completed February 15th. This places two No. 4 eighty-line boards in this store, about 500 feet of seventy-five-pair cable to take care of their trunks and about 400 feet of 150-pair cable for interior telephones.

The erection of the new Merchants' and Manufacturers' Bank Building on West Water Street, Milwaukee, necessitated a large estimate which was completed on February 1st. This estimate provided for a 600-pair cable from the Grand exchange up to near the Merchants' and Manufacturers' Bank Building, a distance of ap-



WINDOW DISPLAY IN FOX GROCERY STORE, MILWAUKEE, WIS.

Appleton where he will engage in similar work.

Mabel Gross, Lisle Smith, Iva Grandy, Vera Adank, A. Berg, Esther Berg and Minnie Learner, operators at the Madison exchange, left the service during the past month.

A new cable plant is being installed in Stoughton under the supervision of Foreman Kane.

Olive Dutcher, operator at the White-water exchange, resigned to accept another position.

Milwaukee District.

On February 1st two boxes of Elks candy were received at the Racine exchange from Nellie Olson, chairman of the Elks bazaar, as a token of her appreciation for the excellent service rendered during the bazaar. A card was enclosed from Miss Olson, which read: "Kindly accept this as a slight token of appreciation for the excellent service rendered me while I have been chairman of the Elks bazaar."

The plant men at the Waukesha exchange held a meeting for the purpose of discussing specifications No. 5000 and No. 5003 on March 11th and good results are expected.

Miss Dinkie, chief operator at the Waukesha exchange, has been absent from her duties owing to a nervous breakdown. Clarence Mayer, installer at the Delavan exchange, has been promoted to the Waukesha exchange.

The Milwaukee installation department has been helped very much during the past month by the addition of a fine automobile truck which was put in service on January 15th. This automobile has a specially designed body with shelving for wall sub sets and desk stands, also a shelf for extra receivers. These shelves are so arranged that the wall sets cannot come loose or jar from side to side. The shelf for the desk stand is so arranged that by placing a slide board, covered on the bottom with felt, the desk standards are held in position and cannot come loose. These shelves are hinged so as to be let down for hauling a private exchange or some large box.

A plant meeting was held in the Milwaukee exchange on the night of Febru-

approximately 1,600 feet, and 300-pair cable into the building. The work in the building is of special interest; it is one of the best wiring jobs done in Milwaukee to date. All cable is enclosed in conduit; all branches to terminals are also in conduit as well as the lead to the bank itself on the first floor. The wiring is all enclosed in conduit also. Mr. Dunning, installation foreman, is to be complimented for being on the job in this case. The architect, in laying out the conduit, would have had to plan around a projection of about two feet which would have had a crook at each floor. By being on the ground before the building was completed, Mr. Dunning persuaded them to change their plans and allow him to have the conduit put in in straight leads.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

P. B. X. Development in Detroit.

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of February, are the following:

| | Terminals. | Trunks. |
|---|------------|---------|
| United Fruit Auction Co. (inter com.-new)..... | 2 | 5 |
| Monarch Steel Castings Co. (new)..... | 2 | 6 |
| Rowley Scale & Supply Co. (new)..... | 2 | 6 |
| Nat. Express Co. (add.)..... | 1 | 3 |
| A. C. Knapp Co. (auto body painters) (new)..... | 2 | 8 |
| Thompson Auto Co. (new)..... | 2 | 6 |
| H. A. Jones Real Estate (new)..... | 2 | 6 |
| Druggists' Co-operative Ass'n (new)..... | 2 | 6 |
| Westinghouse Electric & Mfg. Co. (add.)..... | 4 | 4 |
| Krit Motor Car Co. (add.)..... | 4 | 4 |
| Holley Brothers Co. (auto parts) (new)..... | 2 | 8 |

F. S. Stoepel Co. (real estate) (new) 2 6
 W. J. Burns Agency (detectives) (inter com.—new) 1 5
 Carey, The Philip, Co. (roofing, etc.) (new) 2 6
 Detroit Stoker Co. (iron implem. mfg.) (new) 2 6
 Of the nineteen contracts obtained during the month, ten were taken by Dare S. Burke, eight by Lloyd Lockwood, and one by E. M. Steiner.

sides, it was observed that Mr. von Schlegel (who is tall) was paired with a very diminutive partner, while Mr. Heywood (who is not as tall as Mr. von Schlegel) found himself dancing with a statuesque lady. Again, later, when the Cadillac commercial superintendent endeavored to introduce in the many motions of the dance what he thought were a few Detroit novelties, his partner coldly remarked: "We discarded that in Grand Rapids a year ago, Mr. Heywood." After this he fell in line.

plant; and D. H. Dodge, commercial. For secretary the following: C. E. Culver (present holder), commercial; T. L. Finerman, commercial; E. A. Hoffman, commercial; and D. H. Dodge, commercial. For treasurer there was but one nomination, that of E. C. Sullivan, who had been treasurer of the society since its beginning. At that time Mr. Sullivan appeared to be in his usual health and no one suspected that his death (which is referred to elsewhere) would happen before the next meeting. The remaining

produce such a paper in the near future. Speeches were made by W. A. Gibson, honorary member of the society, and C. F. Hibbard, Jr., former secretary of the society, and now manager at Ypsilanti. President Dawson gave an extemporaneous talk-illustrated lecture on the handling of traffic complaints. This talk we would like to see in print, if the president would only write it out, or dictate it. Will he?

At the meeting of March 5th nominations for officers were re-opened in order to select a new treasurer to take the place of E. C. Sullivan, deceased since the previous meeting. Ernest H. Eyre was nominated, no other names being put forward. This was considered especially suitable because Mr. Eyre succeeds to the position of paying teller in the cashier's department which had been held by Mr. Sullivan. It was then moved and seconded that a committee be appointed to draft resolutions expressing sympathy with Mr. Sullivan's widow and that said resolutions be sent to the friends of the deceased. Messrs. Cook, Glass and Dodge were appointed to form this committee. A letter of sympathy from the society to Mrs. Sullivan was read; it was moved and seconded that same be spread upon the minutes. The talk of the evening was given by Messrs. Fred O'Meara and William M. Taylor, of the Sheldon School of Business Building, who spoke on the subject of "Salaries, or How Corporations Arrive at the Compensations Paid to Their Employees." Mr. O'Meara was the principal speaker. Mr. Taylor, a character analysis expert, gave practical demonstrations of his ability. The talk of both was much enjoyed by the members, who extended a vote of thanks to their guests for the pleasant evening which they had given to the society.

The Man Behind the Switchboard.

"Yes, sir," said a prominent citizen a few days ago, "Chelsea is now getting first-class telephone service. I used to be a chronic kicker, but now—well, you know yourself, it's good, and has been growing steadily better for a year past," to all of which the *Tribune* man cheerfully echoed, "Ditto." And now that the question is raised, we want to give due credit for the improvement to the proper official, the man behind the switchboard, "Mike" Welch and his assistants. To them belongs the credit for Chelsea's present telephone service. It's not a matter of improved equipment, but of careful and efficient management of the old equipment, coupled with loyal assistance of the "troubleman" and corps of operators.—From the *Chelsea (Mich.) Tribune*.

Death of E. C. Sullivan.

Employees of the Detroit office were greatly grieved to hear on the morning of February 28th of the death of E. C. Sullivan, who for so many years worked in the cashier's department. Mr. Sullivan died of pneumonia after an illness of a few days and his death was therefore somewhat sudden, especially to those who had not heard previously of his sickness. We cannot do better than quote from what was said by W. L. Harrows, cashier of the Michigan State Telephone Company, in whose office Mr. Sullivan worked so long:

"The death of Mr. Sullivan, long connected with the cashier's office, removed from our midst one who was always on the job—faithful to the last. He had little sympathy for those who, for trivial causes, reported ill and remained away from their post of duty. Mr. Sullivan started in the telephone business in 1889, and for years handled the collections in the downtown districts, thereby acquiring an extended acquaintance among leading business men. During the last ten years as assistant cashier, his work was of a high order. He was a member of the Odd Fellows and the National Union, also treasurer of the Telephone Society of Michigan. Mr. Sullivan was



BALL GIVEN BY VICE-PRESIDENT WATERS AT GRAND RAPIDS.

Mr. Waters' Ball at Grand Rapids.

Dudley E. Waters, Vice President of the Michigan State Telephone Company, has annually for the past eight years, given a dance in the early part of the year, at which the invited guests are the employees of the telephone exchange in Grand Rapids, the city where Mr. Waters has always lived. This ball is eagerly looked forward to, and with good reason, seeing that it not only proves to be always one of the most successful affairs of the season, but because it emphasizes in a peculiar way a mutual regard which exists between the employees of the telephone exchange and an officer of their company.

This year the dance was held on Monday, March 10th, at the Press Assembly Hall. About 300 guests were present. Those from out of town included Messrs. A. von Schlegel, general manager of the Michigan State Telephone Company; G. R. Heywood, commercial superintendent at the Cadillac office, Detroit, and former district manager at Grand Rapids; George P. Holland, traveling auditor; J. F. Greve of Detroit; and Mr. and Mrs. C. L. Lockwood of Otsego. Many of the former employees of the Grand Rapids district were also present, and renewed pleasant friendships of the past.

The flashlight photograph which is a good one considering the difficulties under which it was taken, shows Mr. Waters himself in the second row; he may be seen standing behind the third young lady (from the left) in the first row. The third figure in the front row on the left is that of General Manager von Schlegel. But Mr. Heywood's features are to be described only by the very sharp-eyed; he is in the (n-1)th row, somewhere in the background.

The dance was really great fun, especially in the "circle two-step." When the master of ceremonies made his call: "Everybody two step," and the gentlemen sailed out to the center with the ladies who had been standing on their other

Delicious refreshments were served and it was a late hour when the guests reluctantly dispersed.

Mr. Waters, besides being a Vice President of the Michigan State Telephone Company, has a number of other business interests in Grand Rapids. He is chairman of the Board of Directors of the Grand Rapids National City Bank; he is one of the receivers of the Pere Marquette Railroad; he is President of the Grand Rapids Clearing House Association. Indeed, to give a complete list of all his enterprises would be out of place here, but they are numerous.

It would seem, however, that not one of these things interests him as much as his annual telephone dance. His own enjoyment of the occasion is obviously immense.

Telephone Society of Michigan.

The meeting of February 19th was called to order by President W. E. Dawson. Mr. Ewald, of the Board of Governors, reported that the next annual excursion of the Society was scheduled for August 9th. Mr. Glass, of the Sick Committee, reported that Fred Luxford, plant department, was not recovering from his sickness (pneumonia) as rapidly as had been expected; regrets were expressed.

The nomination of officers for the fiscal year beginning April 1st was then taken up. For the office of president, W. E. Dawson, traffic department, was nominated and seconded, no other nomination being put forward, in spite of his requests that another person be named. This will make Mr. Dawson's second year in this office, in addition to the five months, beginning November, 1911, of an unexpired term of the first year's existence of the society. For vice-president the following names were put forth: Chester B. Earl (the present holder); Martin Ewald, plant department; M. J. Magar, commercial; G. A. Fritz, plant; E. A. Mend, plant; W. E. Dunten, plant; George Solomonson, plant; Louis Casenhiser, plant; Samuel Abernathy,

nominations were for a new governor representing the commercial department, and for this the following were made: C. S. Slack, commercial manager; M. J. Magar, Robert J. Hale, C. A. Marantette, and W. A. Cardinal. The paper read at this meeting was on "The Evolution of the Lineman," and was delivered by Mr. Solomonson, of the plant department. This paper has since been revised and enlarged by Mr. Solomonson, and submitted to the Editor of BELL TELEPHONE NEWS. W. F. Smith then arose and wanted to know why none of the private branch exchange men had yet contributed a paper to the society on their very interesting work. Mr. Smith's inquiry was immediately taken up by several other members who also wanted to know, and the consequence was that Mr. Ewald promised that he or one of his men would

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We make all kinds of Telephone Cords—Silk, Cotton, Belden-sil, Silkenamel and Cotenamel Magnet and Resistance Wires—Coil Windings—Cord Tips and Terminals.

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You Can Save Time and Money

By
Equipping Your Office With

UNEDIT CLIPS

They are easily applied, hold securely and will reduce your mailing and filing expense.

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Buffalo, N. Y.

NATIONAL

Double Table Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company

3932 Superior Avenue

CLEVELAND, OHIO

Chicago Manufacturing & Welding Co.

Not Incorporated

Special iron work for inside equipment in accordance with A. T. & T. Co. standard specification. Orders filled promptly

1622-24-26-28 Carroll Avenue

CHICAGO

what might be termed a family man, taking his greatest pleasure in his home. He was a man of sympathetic nature and ever ready to give aid to a friend in distress or trouble. Not having been for the last few years in the best of health, he was a ready victim to the dreaded disease, pneumonia. A wife, one married son and two small children survive him.

Detroit District.

Adelaide C. Cross has taken Grace Conkright's place as clerk in the Ypsilanti office. Miss Cross has had five years' experience as chief operator and commercial representative in the Wash-tonaw Home telephone office.

Henrietta Kieherer, assistant chief operator at Ypsilanti for the past two years, resigned March 1st. She was succeeded by Edna Huttling.

Hazel Palmer, information operator at Ypsilanti, has resumed duties in Ypsilanti after a short illness.

A. F. Smith and crew have been doing farm line installing in the neighborhood of Denton.

The Union City exchange of the Michigan State Telephone Company is one of the oldest in this part of the State, it having had a continuous existence ever since 1883, when the first subscribers were assembled into a local exchange. A goodly list of the subscribers has been maintained continuously ever since, hence it will be seen that there has been useful activity for a period of thirty years. During this period other telephone exchanges of the independent type have sprung up and disappeared, but there has been no cessation of the Bell business. The Union City exchange was likewise one of the first to enter the rural field in this locality, it granting telephone privileges to a large territory in every direction from town in 1902, and enlarging the field ever since. This network of rural lines centering in Union City is of great value to the town, and fully appreciated by business men. Last November the local exchange was equipped with a new switchboard and terminal room of latest approved form. They have given splendid satisfaction. The general opinion locally is that the Bell is giving the very best telephone service to be had. Hereafter Union City will be represented regularly by news in BELL TELEPHONE NEWS.

Lena Steidel has been appointed by Manager P. E. Gannon to prepare the news for the coming month, and some interesting items may be expected. District Plant Chief Kirk paid a visit to Mr. Clemens on March 8th in connection with the cut-over of the Macomb County Telephone Company. Foreman Bisbee has made several visits lately. W. Frost, Kid Mack, J. Martin, L. Spencer, L. Pain, and others were also in town making preparations for the cut-over which was expected to take place March 15th or 17th. Wire Chief W. S. Leach and his staff worked overtime getting all preliminaries ready for the cut-over. Margaret Woods, traveling supervisor of traffic of the Michigan division, called at the Mt. Clemens office March 16th and remained about seven days to assist the traffic department to complete arrangements to handle the traffic necessitated by the cut-over of the Macomb County Telephone Company's subscribers to the Bell Exchange. Miss Woods has recently been assisting at all of the other cut-overs, at Detroit, Ann Arbor, Ypsilanti, Adrian, and Pontiac.

Mattie Sykes, toll operator at Romeo, has left the service to accept a position as private exchange operator for the Nordyke-Marmon Company at Indianapolis, Ind. Lila Fox is the new toll operator at Romeo.

Cora Sawitzky, night operator at Mt. Clemens, is seriously ill with appendicitis. Eula Chapple is filling the position until Miss Sawitzky is able to return. Gertrude LaCroix, night operator at the Marine City exchange, has resigned her position. The vacancy will be filled by Esther McDonald.

Mabel Mott is a new operator at the Utica exchange.

A toll station has been opened at Somerset, Hillsdale County. Managers A. Leuthner and Company, Check Center, Jackson.

Two good men are on the sick list. They are Carl Reed and Fred Luxford, both of the plant department at Detroit. Both were seriously sick at the moment of writing.

Some measles arrived February and March and made friends with the following employees of the Detroit commercial department: Grace Aiken, Myrtle David, Bessie Kress, Laura Robinson, Mary Shock, Nellie Webb, Katherine De Drain, Mae Hartman, Alger S. Cook, William T. McMullen, J. E. Wardle and John W. Riddle. Whether the germs were of German measles, or just measly measles, we know not, but all the patients have recovered, or are recovering, and at least wasn't the least bit of agitation. There was no complaint from those who didn't get 'em; everybody's satisfied.

The great cut-over is over—at least, the part that affects the public—and a good many plant men are now getting some untroubled sleep, the kind which had been a stranger to them for the

month or so before. It was a great, big, grand success and congratulations are extendable from each of us to the other. Chester Earl of the Grand office, mildly reproaches the Michigan correspondent because his name was given as Chester Lord (who is a well-known newspaper man) in the March BELL TELEPHONE NEWS. The Michigan correspondent is the man to blame, because that's the kind of error he can't shove onto the Editor or the printer. Mr. Earl wants to know if our mind was so running on aristocratic titles that we pass from one to another unconsciously. "If I were H. A. King," he said, "you wouldn't have made that mistake." In that case he feels, no doubt, that F. M. Riegel is equally safe.

Commercial Agent C. M. Darling has recently secured a contract for the installation of a private branch exchange at the Jackson Rm Company.

A No. 4 private branch exchange has arrived at the Jackson exchange and is awaiting installation for the Lewis Spring and Axle Company. This will replace their present No. 1 private branch exchange, the capacity of which is too small to take care of the present business of that company.

Fred H. Kline and Glen Barrie are at present installing a new No. 2 wire chief's desk at the Jackson exchange.

C. E. Buell and B. F. Aronstein are installing a No. 2 private branch exchange in the commercial offices at Jackson.

Mae Shorr, chief operator of the Jackson exchange, has returned from home in Lafayette, Ind., where she spent a two weeks' vacation. Margaret Woods, traveling supervisor, filled the position during Miss Shorr's absence.

Bessie Armstrong, late in the Jackson office, as local operator in the Jackson office. During the past year she has been in the employ of the Lewis Spring and Axle Company, as private branch exchange operator.

Mrs. Helen Wallace has returned to Jackson for future residence, and has again taken a position as local operator. Ella Hillard has been transferred from local to relief toll operator at Jackson.

Merle Boswell, formerly of the Central Union Telephone Company at Lafayette, Ind., has accepted a toll position in the Jackson office.

Ruby Mitchell, Lela Dossion and Grace Koerning have resigned their positions as local operators at Jackson.

Mrs. Blanch Kraft has been promoted to relief chief operator, to take the place of Cassie Hinton, who has taken a toll operating position.

Clara Waltz has been promoted to relief toll supervisor, taking the place of Madeline Fitzsimmons, who has taken a toll position.

A photographer came to Wyandotte March 15th and took some pictures of the sections of switchboard, and frame, added to our equipment to take care of new lines of the former independent company. We are told that these pictures and the story of the cut-over here will be finished too late for the April number of the BELL TELEPHONE NEWS, so will be especially on the lookout for the May issue.

Grand Rapids District.

The toll station at Sturgeon Bay, Emmet County, has been discontinued.

Effective February 1st, Emma Palmer, chief operator of the Grand Rapids south office, was promoted to the position of chief operator of the Grand Rapids main office.

Mary Osborne, evening chief operator of the Grand Rapids main office, was promoted to the position of chief operator of the Grand Rapids south office.

Mable Kintz, a supervisor in the main office, was made evening chief operator to fill the vacancy caused by the promotion of Miss Osborne.

On March 5th John L. Loeks of the Grand Rapids adjustment department was married to Jeanette Boersma. The young couple received a handsome silver set presented by the groom's associates in the adjustment and canvassing departments.

Marquette District.

Louis La Forals has succeeded Lou J. Le Veque as manager of the Tyoga toll station. Tyoga station was opened in February. It is three and one-half miles west of Nestora between Nestora and Covington, check center, Ironwood.

W. W. Wilcox succeeded W. G. Wilcox as manager at Ironwood, effective February 22d.

Manager W. G. Wilcox, of the local exchange of the Michigan State Telephone Company, is to leave Ironwood within a few days. He having accepted a position as manager of the Superior exchange for the Wisconsin Telephone Company. While we congratulate Mr. Wilcox on his advancement to a much more lucrative and desirable position, we greatly regret his departure from our city. Mr. Wilcox is one of the old time residents of Ironwood and has held his present position for the past twenty years. The writer has hunted, fished and otherwise mixed with "Bill" for many years, and the only grouch we ever had

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against him was that he was so infernally and persistently good-natured that it was impossible to kick up a row with him when one felt so disposed. We commend him to the people of Superior as a man who thoroughly understands the telephone business in every particular, a business man and a valuable citizen. Mr. Wilcox's family will remain at Ironwood for a few months, until they can arrange for a home at Superior.—Ironwood Times.

Saginaw District.

Harry F. Allmann has been appointed cashier at the Bay City exchange, to succeed Louise M. Ballhorn, deceased. Harry Boyce has been secured to fill the position of collector which was made vacant by the promotion of Mr. Allmann. An estimate covering one physical and one phantom circuit between Bay City and Turner was completed during the month of February. This gives a much needed increase in toll facilities between Bay City, Standish and Turner.

Foreman Ferris completed a farm line estimate at Standish February 15th, adding thirty-five farm subscribers to the Standish exchange.

Mrs. M. M. Benedict, for a number of years manager of the Cheboygan Telephone Company, and later manager of the Cheboygan exchange for the Michigan State Telephone Company, has resigned her position on account of ill health and left for the west March 1st. Mrs. Benedict leaves a legion of friends who wish her health and success in her new home, and also takes the best wishes of her associates in the telephone work and the officials of the company with whom she came in contact.

E. P. Edison, of the plant department, Saginaw exchange, has been appointed exchange area manager to take charge of the new Cheboygan area. Mr. Edison has had a wide experience in the telephone field, and with the new equipment and plant at his disposal in the city of Cheboygan excellent results and a large growth at that exchange are expected.

The conflagration caused by the use of an ordinary match in the rear of the local switchboard at Bay City, nearly caused a complete tie-up of service. The combination of fire and chemical fire extinguisher put 300 lines out of commission for five or six hours.

Clyde H. Dutt, repairman, has added to the social attractions of his home town by marrying one of the charming telephone employees of the Belding exchange and bringing her to Oscoda.

Bertha Dickson, a member of the traffic department, Bay City exchange, was detained at home by illness for about sixty days.

Florence Tarzwell, Alberta Graves and Dorothy Ardwin, have been added to the local traffic force, Bay City exchange.

Anna Bowman, Bay City traffic department, resigned to take up other work March 1st.

Cards are out announcing the wedding of Mabelle Reynolds and W. Brown on March 18th. Miss Reynolds has been a valued employee of the Bay City traffic department and she carries the best wishes of the entire Bay City exchange force. She will be at home to her friends at Manila, Philippine Islands. (Call any time.)

A. Gibson, formerly construction foreman for both the Central Union and Michigan State Telephone Companies, is the new wire chief at the Flint office. He joined February 15th.

A toll station has been opened at Ashley, as of February 15th, on account of the Ashley Home Telephone Company closing its exchange at this point. Manager H. A. Rose, Check Center, Ithaca.

Goodar, Curtis, South Branch and Long Lake, toll stations of the Iosco County Telephone Company, were discontinued as of February 28th. These places, listed as toll stations, have always been on farm lines, but in the future they will be checked as Maltby instead of under a separate name.

A tree felled by a farmer of Swan Creek township, Saginaw County, fell in the wrong direction, broke two poles and tore down several rods of the Michigan State Telephone Company's long-distance lines, severing the long-distance connection between Saginaw and Owosso. Five linemen were rushed to the scene from the Saginaw office and in less than three hours had the wires in working order again.

Roadway Company Notes.

The rural exchange at Strasburg, operated by Weipert and Meyer, was discontinued February 20th. Two roadway companies, the East Strasburg Company, with eight subscribers, and the West Strasburg Company, with eleven subscribers were connected to Monroe exchange and service rendered beginning February 21st.

A contract has been secured with the West Meadow Roadway Company of Iosco County to connect fourteen additional subscribers with the East Tawas exchange.

A contract has been closed with the North Gibson Telephone Company at Bentley for a rural line consisting of eighteen or more subscribers.

DURABILITY-ECONOMY-SAFETY

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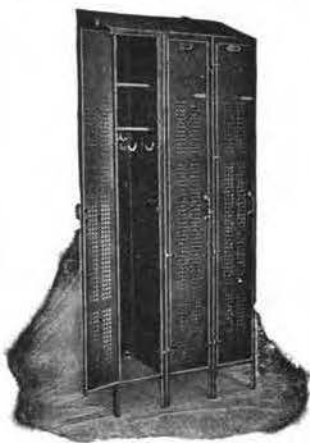
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AND CONNECTIONS

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Central Group of Companies

MARCH 1, 1913

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 459,563 | 232,820 | 692,383 |
| INDIANA | 84,619 | 171,441 | 256,060 |
| OHIO | 165,090 | 172,093 | 337,183 |
| MICHIGAN | 183,039 | 54,440 | 237,479 |
| WISCONSIN | <u>125,395</u> | <u>105,993</u> | <u>231,388</u> |
| | 1,017,706 | 736,787 | 1,754,493 |



BELL TELEPHONE NEWS

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY

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MAY 24 1913



FLOOD EDITION

Volume 2

MAY
1913

Number 10



The Voice of Reconstruction

When a flood sweeps over a vast area, desolating the cities and towns which lie in its course, the appeal for assistance gets a unanimous response from the whole country.

With all commercial and social order wiped out, an afflicted community is unable to do for itself. It must draw upon the resources of the nation of which it is a part.

In such an emergency, the telephone gives its greatest service when it carries the voice of distress

to the outside world, and the voice of the outside world back to those suffering.

At the most critical time, the nearest telephone connected and working in the Bell System affords instant communication with distant places.

And always the Bell System, with its extensive resources and reserve means, is able to restore its service promptly, and in facilitating the work of rebuilding, performs one of its highest civic functions.

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Every Bell Telephone is the Center of the System

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 10

CHICAGO, ILLINOIS

MAY, 1913

FLOOD EDITION

May, 1913

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BELL TELEPHONE NEWS.

Issued Monthly by

CHICAGO TELEPHONE COMPANY.

WISCONSIN TELEPHONE COMPANY.

CENTRAL UNION TELEPHONE COMPANY.

THE CLEVELAND TELEPHONE COMPANY.

MICHIGAN STATE TELEPHONE COMPANY.

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212 West Washington Street, Chicago.

The Crowning Achievement



THE MEN AND WOMEN in the Telephone service long ago in many trying circumstances, established a record for devotion to duty.

From the beginning there have been accidents, such as fires and other causes of alarm, in exchanges or adjacent thereto, and the Telephone people have with courage and self-sacrifice, continued in their positions, attending to their duties regardless of their own comfort or safety.

In the greater situations of danger and destruction which have visited communities, they have been fearless and steadfast, and until the poles and wires have been swept away and the life has gone out of the telephone, they have kept their positions and worked with coolness and energy for all who needed help.

The inventor of the Telephone gave humanity one of its most helpful appliances, and the investors in telephone securities have made it possible to put this appliance in every home and place of business, where its value is acknowledged.

The Telephone employes, however, by their intelligence, alertness and self-sacrificing interest in the welfare and safety of the public, have given this value a new significance; they have proven that, aside from being a piece of machinery of commerce and for general convenience, the telephone is a saver of lives and property.

The record of the magnificent helpfulness in so many distressing emergencies in the thirty-five years of the Telephone is a splendid one; but the crowning achievement of loyalty and devotion to duty came within the past few weeks when our men and women won new honors and universal praise, both for themselves and the Telephone Company.

The extraordinary character of the service rendered is set out in part in the pages of this number by the grateful citizens who, for the moment, have forgotten their own cares, losses and anxieties, to pay tribute to our sturdy helpers.

For the few that have expressed their gratitude, there are no doubt thousands who have had no opportunity to do so, but who will always feel a sense of indebtedness to everyone connected with the telephone.

The Officers of the Central Group of Bell Telephone Companies join with the people and the Officers of the States in the expression of their sincere thanks to the employes, and to them they gratefully dedicate this number of the Bell Telephone News.

B. E. Sumner
President.

Chicago, Ill., April 15, 1913:

THE BELL SYSTEM

The Stuff of Which Its Men and Women Are Made

By Clifford Arrick.

On the 23rd of January, 1909, Jack Binns, wireless operator, fought off, single handed, a destroying fate that clutched at the lives of hundreds of men and women who stood awe-struck, terrified on the decks of the steamship *Republic*, after the *Florida*, on a fog enshrouded ocean, had dealt her a mortal blow.

Four years and two months later, on March 23rd, John Bell telephone man, sent out a distress call, which, like the C. Q. D. of Binns, started relief forces racing from every quarter to succor those in peril in deluged, fire-ravaged Dayton.

Bell's message came at the culmination of a series of disasters that will make 1913 a notable year in the history of the American Telephone and Telegraph Company and Associated Companies whose wires had been swept by storms of unparalleled severity throughout the territory between the Rocky Mountains and the Alleghenies.

On February 22nd a sleet storm laid the wires low over a wide expanse of territory. In the Chicago exchange, one by one the lines went out and by three o'clock in the afternoon Chicago was cut off from telephone communication with the outside world, save for one underground connection with Milwaukee. The storm in its fury tore down the main pole lead of the American Telephone and Telegraph Company on Kedzie Avenue from Forty-seventh to Sixty-third Street and hundreds of wires snapped beneath their coating of sleet and the onslaughts of the gale.

In a remarkably short time a temporary service was installed and communication restored. The work of putting the lines in permanent shape was started as soon as the sleet was off the wires and was progressing rapidly when another storm swept out from the northwest on March 21st and ripped from their fastenings and tore in pieces both new and temporary work, splintering and uprooting 4,000 poles of the American Telephone and Telegraph Company and 1,500 of subsidiary companies, again shutting off Chicago from wire communication with other points, although not completely. While these conditions were at their worst a detoured message via Denver and Kansas City came to the Chicago office telling of a terrible cyclone that had torn its way across Omaha's finest residence and business section, leaving a fearful, jagged wound, bestrewn with the wreckage of buildings beneath which were buried none knew how many human beings. The country stood aghast at the ruin that had been wrought by this twisting, ravaging monster, anxious yet fearful to hear the details of the tragedy. Again by super-human efforts the telephone lines were opened up but, even as the fearsome tale was flying over the wires, the lines to the east of Chicago were suddenly lost and rumors came of a calamity that made the world shudder.

Heavy and incessant rains had been falling throughout Ohio and Indiana, beginning the night of the 21st of March.

Against a low-lying, almost indefinable ridge, that extends in a southeasterly direction across Ohio from Trumbull to Darke Counties, head the waters of the Muskingum, Scioto and Miami Rivers and their tributaries, comprising the drainage system of about four-fifths of the state.

The rainfall into the heads of these streams ran up to the unprecedented figures of seven to eight inches in forty-eight hours preceding the flood and brought the water up to the tops of banks and levees where it seemed to poise for an instant, like an evil thing, before flinging itself upon its prey, engulfing Columbus, Dayton, Zanesville, Indianapolis, Peru, Terre Haute, and a score of smaller towns in a whirling, seething flood of water and mud carrying death and destruction in its path; overturning houses, uprooting trees, flinging railroad tracks like jackstraws far from their roadbeds; pouring with resistless fury through storerooms, dwellings and factories, ruining everything with which it came in contact and plunging the fairest section of the middle west into chaos and night with no chance to cry out to the waiting world and tell the story of its suffering!

No chance did we say? There was one. A Telephone Man found the way to send news of that dire calamity that had made Dayton sink like a stricken thing, panting, fighting for its life. A Telephone Man, surrounded by flood-water, pelted with rain and snow, hungry, weary, in darkness, climbed alone to the roof of the Main Exchange of the Central Union Telephone Company and with a test set managed to open communication with the hamlet of Phoneton, eight miles north of Dayton. THEN the world knew that a catastrophe had befallen and that help must come and come quickly. Warm hearts and eager hands throughout the length and breadth of the land flew to help, each in the way that he best could, and soon assistance was on the way—on the way over quaking railroads, tottering bridges, dark and miry highways to the spot where that lone Telephone Man, true to his duty—Spartan in his courage, forgetful of self, defying hunger, dampness and cold, stood at his post telling listening millions of the happenings in that fainting, flood-bound city. Nor did he flinch when fire added its terror to the tale. No ancient bridge famed in song and legend was more tenaciously held than was that telephone line from Dayton to Phoneton by plucky John Bell.

And all the while, at Columbus, another man of the hour was making history. Wire Chief Tom Green, when the flood went raging over West Columbus and was sweeping ruthlessly over the whole state of Ohio, as it seemed, Tom Green was at the long-distance test board tracing out routes by which word could be gotten to isolated communities that were calling for aid in a panic of fear. For hours upon hours he stood and when lines were swept away in one direction he worked out new routes to take their places.

The arm of the State must needs be extended to help and protect her citizens in their misfortune and the Governor's orders, calling the militia into service, depended upon the ability of Tom Green to pass the word over the wires. Relief work must be an organized effort—again Tom Green must make the plans known to all concerned. And so it went, not for hours, but for days, with Tom Green ever at his post—and his wife at home, the while, hovering 'twixt life and death as the result of a critical operation under the surgeon's knife.

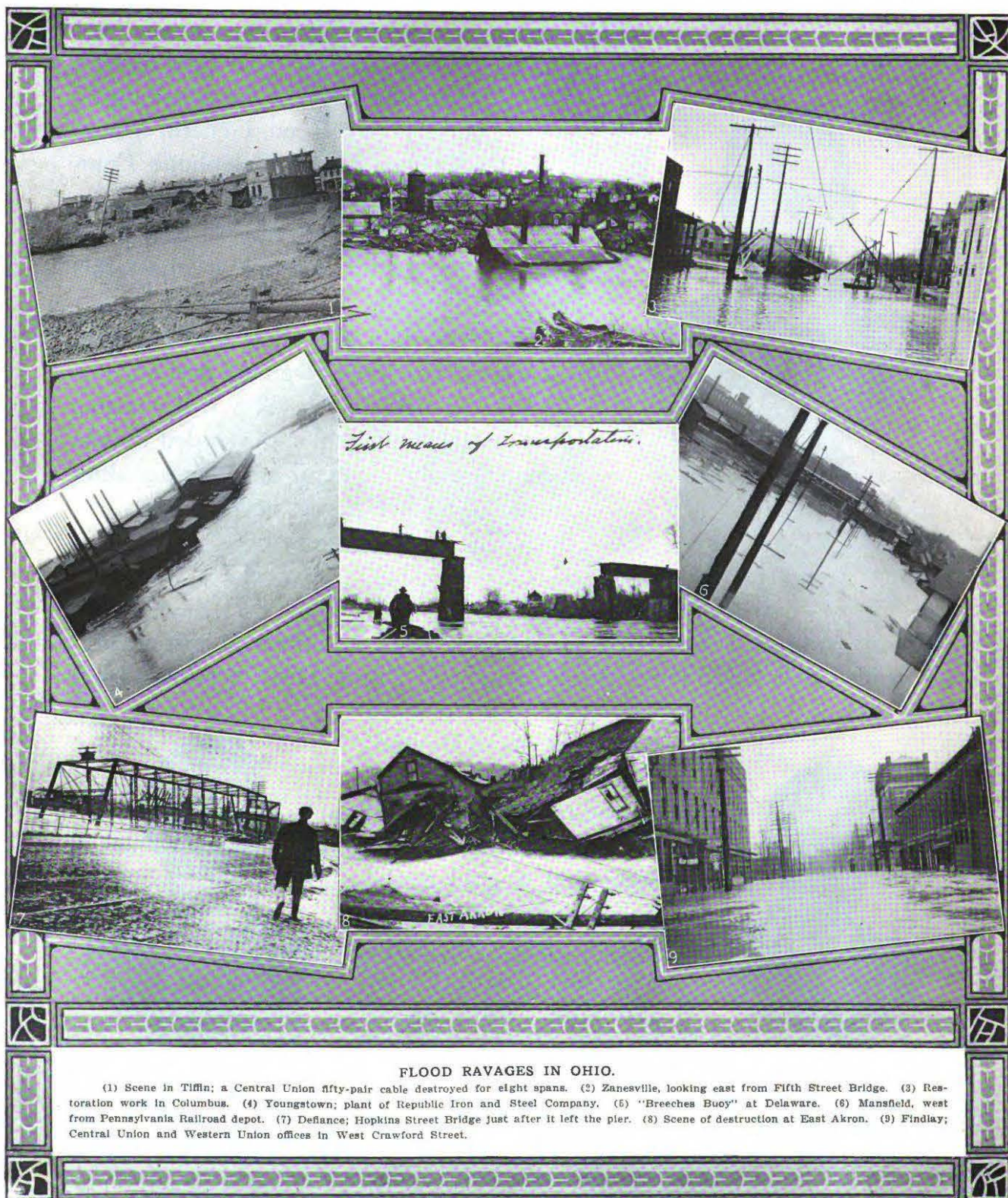
Across the border of Ohio, at Indianapolis where the waters of the White River had wrought havoc with a third of the area of the Indiana metropolis and the Wabash had fairly swept Peru from its foundations, Frank Wampler, district commercial manager of the Central Union Telephone Company, was at the elbow of Governor Ralston night and day in charge of telephone service, scheming and planning telephone ways and means for heeding and helping those whom misfortune had overwhelmed.

Operators Arline Barnell and Lillian Harvey told to Pittsburgh the story of Zanesville's woe when the river reached the stage of forty feet, higher than had ever before been known.

Conaway and Cazer, linemen, battled for hours with the fierce current of the Muskingum, taking their lives in their hands in order to ascertain Zanesville's needs and let them be known.

At Omaha, Neb., in the Webster exchange, Etta Larsen and her switchboard associates, with bruised and bleeding hands, worked with unflinching zeal for forty-eight hours after the awful tornado.

So we might continue, on and on and on, with the chronicle of heroic deeds and duty well performed, from wind swept Omaha to half submerged Marietta. And still would our theme fall short of completeness. Suffice it then to say that those of "Ours" who worked midst sleet and cyclone, flood and fire, and those who struggled from the outside to relieve the disaster-ridden communities, met with true manliness and womanliness every duty and responsibility that fell to their share in upholding the honor and the credit of the institution whose privilege and duty it is to serve the American people in fair weather or foul—THE BELL SYSTEM.



OHIO

OHIO'S FIGHT WITH A FLOOD.

By O. K. Shimansky.

Heavy rains that turned placid streams into maelstroms and city streets into devastating torrents; waters that piled up ten and twenty and even thirty feet high in residential and business sections of thriving communities; currents of mighty force that tore their way through levees, railroad embankments, bridges of iron and cement and buildings of wood and brick and stone—seething floods that actually covered hundreds of square miles of territory made Ohio a veritable inland sea for three days from March 25th to March 28th.

An unprecedented rainfall throughout a large part of the state poured torrents of water into ditches, streams and lakes. The water courses could not carry off the great surplus. Overflowing banks literally made turbulent lakes of farms, villages and cities.

Suffering that never can be adequately described and deeds of heroism that cannot be recorded marked the week's fearful disaster.

The loss of life was comparatively small. It will not exceed 600 in the state. The property loss was not overestimated.

Thirty villages and cities were flood stricken and a score more were hard hit. More than 500,000 persons were affected in communities devastated by floods and of these no fewer than 100,000 will have to be given financial aid to insure their rehabilitation.

During the week immediately following the flood, emergency committees fed and clothed close to 200,000 persons day in and day out. Even now (April 15th) 100,000 must be given emergency aid.

No one has been able to make a satisfactory estimate of property loss. It is shown that the losses to home owners, and they will feel it the most, will exceed fifteen million dollars; to manufacturing and merchandising, about fifty millions; to railroads, electric railways and plants, telephone, telegraph and other public utilities, more than forty millions; to public works, like bridges, highways, etc., thirty-five millions.

Nature made four distinct assaults upon life and property in Ohio during the week of Monday, March 24th, to April 1st. The Easter Sunday storm that hit Omaha swung eastward through northern Ohio into Pennsylvania, then doubled back into the southern part of the state via West Virginia. It left a trail of broken wires in its wake.

Then came the flood. Fire joined the waters in their merciless ravages. Then followed a sleet storm that added to the suffering and the property loss.

The first real news of an impending catastrophe came from the Columbus offices of the Central Union Telephone Company. Thomas E.

Green, Division Toll Wire Chief, went to his work early on March 25th as he anticipated trouble on long-distance lines because of the heavy rains. He was making tests on a line running to Marion and vicinity when someone broke in on him.

It was Manager Kniffin of the local company at La Rue, Marion County, who reported that the citizens of that village were driven to

second stories of buildings because of high water.

"We must have help or we'll be wiped out," was the startling appeal made to Wire Chief Green.

And from that minute scores of wires in all parts of Ohio carried the same plea:

"We must have help or we'll be wiped off the face of the earth."

Wire Chief Green put La Rue's dilemma up to Governor Cox. He routed the Governor out of bed to tell of the trouble. He told the Governor how boats could be secured at Lewiston reservoir—no other boats closer at hand were available. Mr. Green knew. He had been in communication with a half dozen committees that might be in a position to give help—they could not spare boats; they needed them to use in their own flooded districts.

Simultaneously, it seemed, the waters broke loose in the valleys of the Scioto and Miami rivers in the south and the Sandusky and Maumee rivers in the north.

Columbus itself felt the full force of the flood. It became the storm center of the state. The whole nation and the world were looking to it for news—and got little because during the next few hours communication with the outside world was almost impossible. Columbus was the news center because the devastated districts were making appeals to the seat of government for help.

Not long after Wire Chief Green had told Governor Cox of the trouble at La Rue and of reports of dangerously high water in other parts of the state, public officials woke up to a situation the like of which had never before confronted Ohio and perhaps no other state. The havoc was not confined to a single community as was the case with the Johnstown flood and the San Francisco earthquake and fire—it affected almost one-half of a big state.

Following the flood at La Rue, which did no great damage because of the prompt action of Governor Cox and Wire Chief Green, Columbus reported a record stage of water in the Scioto river.

Railroads throughout the state were almost paralyzed. Trains were stalled and delayed—and then for two or three days traffic was at a standstill.

When bridges went out, when steel rails were carried from roadbeds



DAYTON MAIN EXCHANGE BUILDING DURING FLOOD.

Enlargement of a small kodak picture taken from a window of the Y. M. C. A. building across the street when the water was almost at its height. As few people were interesting themselves in photography at that stage of the flood the picture is a rare one.

into streams, when telegraph and telephone poles and miles upon miles of wires became tangled wreckage, and when frantic appeals for help reached every city and town, all of which happened within a few hours, Ohio business was promptly suspended and men whose executive ability had created great commercial enterprises joined forces with federal and state officials, and helping hands stretched across the state.

With one accord, brain and brawn turned to the one big job—to get relief to flood sufferers.

The railroads, with their officers, their trainmen and their trackmen worked indefatigably day and night to restore service to stricken com-

John A. Bell, District Plant Chief of the Central Union Telephone Company at Dayton, has been placed on the hero list. He kept in touch with Governor Cox and the outside world over a lone Central Union wire to Phoneton and thence over an A. T. & T. Company (Bell System) wire to Columbus. The mechanical end of the Dayton plant was put out of business early but Mr. Bell and W. B. Stowell, toll wire chief, rigged up a test or magneto telephone which had been placed out of reach of rising waters. It was this instrument, in the hands of experts, that told the world of the calamity that overwhelmed Dayton.

Chief Bell was in constant touch with Governor Cox. The mechan-



LINE WAITING IN FRONT OF DAYTON MAIN EXCHANGE FOR MILITARY PASSES.

On account of its convenience to the only wire service out of Dayton, the second floor of the Telephone Building was used by General Wood as headquarters. The darkened portion of the church next door shows the muddy track of the flood. The water reached to the top of the entrances.

munities; telegraph companies, through loyal, hard working employees, labored feverishly to get wires back into commission; telephone companies hurried an army of heroes into devastated localities.

And then for three days it devolved upon telephone wires to keep the peoples of flooded districts in touch with those who could give them aid and comfort.

Wire Chief Green did not leave the job when he succeeded in getting succor to La Rue. He and his able assistants were overwhelmed with calls for help. The Bell System wires carried appeal after appeal. Telephone business had to be suspended in order to give clear wires to those calling for aid.

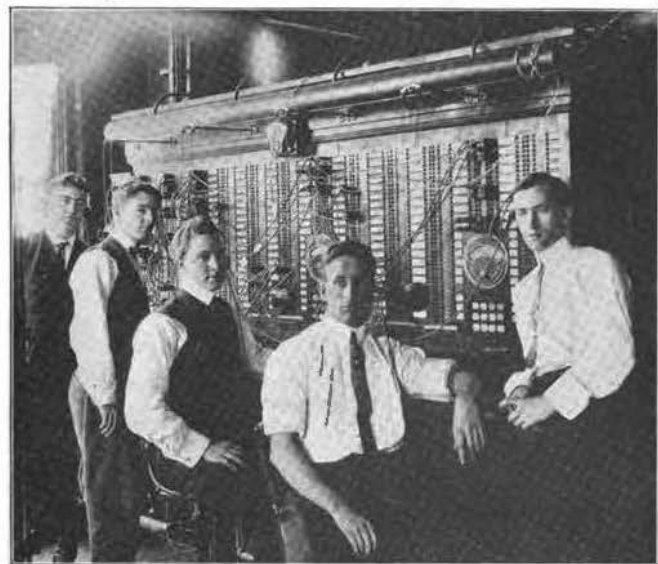
Then Wire Chief Green received a call. It was from his home. His wife was ill. The doctors said she must undergo an operation. The husband wondered for an instant what his duty was—when the wife, a heroine, sent word that he should stick to his post, for others were giving her every care possible.

ical experts in the Dayton office saw to it that communication was kept up—and over the one wire Bell told of what went on about him. He reported that the water had risen ten feet in the buildings where floods had never been known; he told of the suffering—of the cold, the rain, the snow, the lack of food supplies and inability to get water for drinking purposes. He reported the fires that burned out big business houses. From different parts of Dayton information was carried from building to building by megaphone and then heralded to the world over Bell System wires.

The reports from Dayton aroused the world. And acting on those reports Governor Cox sent the National Guard into that and every other stricken district. Federal life saving crews from Lake Erie and the Ohio river, naval reserves from Toledo and Cleveland; yachtsmen with power boats from every point, were hurried towards the floods—but it took from twenty to fifty hours to get to the distressed points though the distances were only forty and fifty miles from unaffected centers.

The rescuers in many instances walked for miles through mud and water, pelted by incessant rains. They were burdened with boats, with medical and food supplies—but they went on and on and finally their herculean efforts were rewarded. They rescued the marooned; their presence made hopeful a situation that had been hopeless—and they buried the dead.

And it was from Bell that the first good news came out of Dayton. Governor Cox tells it this way:



NERVE CENTER OF THE SYSTEM.

Stretching in radiate nerve lines thence
The quick wires of intelligence.—Whittier.

Toll Test Board, Columbus, Ohio. Left to right—Spence, Foreman, McCordie, Mohr, Green.

"I got into touch with Dayton. Bell was on the wire.

"'Good morning,' I said to Bell.

"And the answer was: 'Good morning, Governor; the sun is shining in Dayton.'"

Every newspaper in the land carried the news that the sun was shining in Dayton. A depressed nation straightened its shoulders and then buckled to the task of rushing supplies to the stricken communities.

Bell's range of information necessarily was small. He could not

give the details the world wanted and it was lack of detail that made the situation all the more horrible. He told an appalled country of the misery, the suffering, the loss of life and the loss of property that came to his attention but he could not altogether lift the veil of mystery—and it was this lack of information that led a horrified people to believe that Dayton had been literally wiped out of existence. And the same situation prevailed in every other water-covered community.

The world at first heard of the Dayton calamity. This was followed by the news that a portion of Columbus was under ten to twenty feet of water. Then it was learned that Hamilton was overwhelmed. About the same time Tiffin, in the northern part of the state, was inundated, with a heavy loss of life and property.

Just when the truth was learned about Dayton, about Hamilton, about Piqua and Tiffin and Defiance and more than a score of other towns, news came from Zanesville that the Muskingum river was over its banks and that Zanesville and the surrounding country was under twenty feet of water.

In the meantime the heavy rains had hit Youngstown and Akron, and Cleveland reported unusually high waters in the Cuyahoga valley with an attendant loss of property. Then the waters worked their way to the Ohio River. Marietta, Pomeroy, Middleport, Gallipolis, Ironton, Portsmouth and Manchester were deluged.

There was great property loss in every one of these towns though



DAYTON HIGH SCHOOL AFTER FLOOD.

but few lives were claimed. Warnings were sent into this latest flood district. J. Warren Smith, in charge of the weather bureau at Columbus, co-operated with the Bell Telephone System and succeeded in getting telephonic warning into every threatened community in the east and south.

Telephone poles were down, wires were crossed and broken but the stalwart heroes who went out over the lines and the hard working wire chiefs and their assistants built up communication into threatened territory and the warning was sounded that sent thousands flying to places of safety.

The Muskingum river had risen sixteen feet above the highest water mark ever recorded—and millions of dollars damage was done. Here was repeated the signal service given by the telephone—and again it was Central Union employees and Bell System wires that came to public notice. Misses Lillian Harvey and Arline Barnell, night operators at the Zanesville exchange, were the heroines—they told the world of what maddened waters were doing along the banks of the Muskingum and because they succeeded in getting information out of Zanesville relief was hurried to that stricken territory.

Every possible thing was done to get into Dayton, Hamilton, Piqua,



MAROOINED IN DAYTON.

F. W. Whitten, Traffic Superintendent; J. A. Bell, District Plant Chief, and M. B. Stowell, District Toll Wire Chief. These three officials were among those who spent three days flood bound in the Dayton Main Exchange.

Tiffin, Columbus and the other cities first hit by the high waters. Public officials, from Governor down to janitor; business and professional men; executives and employes of public utility companies—everybody had been working indefatigably day and night to help the suffering. When news came of another flood in eastern Ohio, far removed from the first scenes of distress, it seemed the last straw had been added that would snap the taut-drawn nerves. But the new emergencies were met with the same courage and intelligence that had surmounted the difficulties which had gone before.

THE DEVASTATION OF DAYTON.

By an Eye Witness, Judge Walter D. Jones, of Piqua.

That which transpired in Dayton during the thrilling days of the big flood was repeated in Hamilton, in Zanesville, in Piqua, in Columbus and in a score of other Ohio cities.

Judge Walter D. Jones of Piqua, Ohio, was a flood-bound visitor in Dayton. In graphic words he tells of the fearful experiences of the thousands who were threatened by flood and fire. The office of the Central Union Telephone Company, with forty employes marooned therein, was in the storm center so vividly described by Judge Jones:

It nears eight o'clock in the morning on the busy streets of Dayton and the movement of people is increasing. They are going their ways gayly or quietly; there is no thought of danger, all is serene and secure.

Ten minutes! A fragment of time. Ten minutes and the careless stream of people has changed to a white faced, frightened, bewildered throng frantically seeking refuge from an awful fate that has stolen on them unawares.



JUDGE WALTER D. JONES.

A rush of water came down the center of Jefferson Street. At the first sight it looked as though a fire hydrant might have been opened.

For the moment I was more curious than alarmed. I walked on to the Beckel Hotel. The water covered the street and began to lap over the curb on to the sidewalk. I went in. The elevator was not running and I hurried up the stairs intending to leave my satchel and coat in my room and return to see the strange sight. I began to think there might be some serious inconvenience coming.

I entered the room, dropped my coat and bag, and looked out the window.

A seething, foaming torrent was rolling down Jefferson Street.

Before the mind could grasp what had happened, a horrible crash sounded, apparently beneath me. The floor vibrated under my feet, and plastering commenced to drop from the ceiling.

Women's screams sounded from the next room. I sprang to my door. It would not open. But I heard men's voices outside and I shouted to them to throw their weight against the door and they did so promptly and by doing so saved me the horror of being entrapped on the fourth floor of a sinking building. The occupants of several adjoining rooms were released in the same manner. Walls were cracking and trembling and plastering falling. Someone shouted, "Fire!" but was sternly silenced.

We fled down the stairs, joined on every floor by ashen-faced men and women. It was the only time there was the semblance of a panic, and that was over in a moment. I think all must have realized, as I did, that something awful but unexplained had happened, and our lives might depend on keeping cool and quiet.

When we reached the second floor the office that I had just quitted was filling with a mass of muddy, black water that roared as it poured in, and rapidly mounted the stairs. It was evident that the only exit from the house was through the second story windows.

Something fearful had happened and something worse might follow it as suddenly. And ten minutes before we had all been so secure. We had never realized that "in the midst of life we are in death."

Before noon Jefferson and Third Streets were raging, roaring torrents of a depth of twelve to fourteen feet. It seems to me that the main current of the Miami river must have been diverted through the prin-

cipal streets of Dayton. The store rooms opposite us filled to the ceilings. Down both streets poured a mass of drift, now a lot of chairs and tables from some home, now counters, shelving, barrels, boxes, crates of fruit from some grocery; several pianos, piles of lumber and worst of all, every few minutes some struggling, drowning horse. Some of the wreckage drifted clear, some struck poles or street lights and broke into fragments, some was hurled against and shattered the plate glass windows of stores. It was a sickening sight of ruin and destruction.

In the rear of the hotel was a small court where a score or more of



WEBSTER STREET BRIDGE, DAYTON, OHIO.

Where the Maumee-Cincinnati line crosses the Mad River. The "X" shows where Bell pole formerly stood; a United States Company pole is shown hanging in the air.

horses released from a neighboring stable were struggling frantically and from time to time succumbing and dying.

The rooms on the third floor directly under the one I had occupied had fallen clear through to the basement, leaving a horrible gap. My room had sunk, but had not fallen. A jewelry salesman said his trunks



NEAR SECOND AND LUDLOW STREETS, DAYTON.

About one block from Central Union Exchange.

with \$30,000 worth of goods in them went down with the lower room. It is not certain yet whether this accident was due to the water undermining the walls or to the explosion of a small boiler in the basement.

All day long we sat on the second floor and watched the horrible muddy flood and the dreadful drift. The first rush of the waters came half way up the store fronts before any one could realize it. Then came the slower but steady mounting. There was a dreadful fascination in watching it creep upward inch by inch, in selecting some mark and watching it until submerged.

There was fortunately considerable food on the second floor though but little drinking water. The managers of the Beckel thought there would be provisions enough, with economy, to carry us through, and hu-

manely they shared this with all in the house without distinction between guests and refugees.

We made and enforced a peremptory order that not a match should be struck in the house. From the very first the dread of fire was in the thought of every one. One man tried to light a pipe, but was properly taken care of.

As night drew on, and the water still slowly rose, the horror of darkness was upon us—ominous cracking sounded from the broken east wall and many clambered, while there was light, to the buildings on the west for greater security. I secured a chair in an insurance office. There were five people there who had been caught while at work. They were very kind to me, and I shall never forget.

The night was an absolutely sleepless one, and in one or two directions fires could be seen, but at a distance.

We had hoped that by Wednesday the flood would be subsiding as rapidly as it came, but when the seemingly interminable night was ended, we were disappointed to find that, though there was a fall, it was but small. Indeed it is said that the waters rose till 3 a. m.

We all fled into the dining room in the morning, and thankfully received a portion of cold meat and fried potatoes, and what was most grateful, a glass of water and a cup of coffee—more than thousands of others had during the whole time of the flood.

Along the street at almost every window we could see anxious, drawn faces of people marooned like ourselves. There were no shouts or calls for help for every one knew that no help could come. In the Beckel people talked but little, and in low voices. Someone went around and secured a list of all our names. There were about 100 guests. "May be useful when it comes to identifying remains," said one man grimly, and actually there was a general hoarse laugh, though no one took it as a joke. Then all was silent but the awful roar of the water.

"Will try to give a lunch at four o'clock," was the hotel announcement, "and that will be all we can give today." It was never given.

A loud crash brought everyone to his feet. A drug store half a square away had collapsed. We saw some of it float away, but did not dream then what this accident meant to us.

Still another crash. A man on the opposite roof called over that three buildings on Main Street, just south of the Phillips Hotel, had gone down.

We had almost ceased to note time but I think it was 1:30 Wednesday afternoon, a man near me said in a low voice, "What if a fire breaks out?"

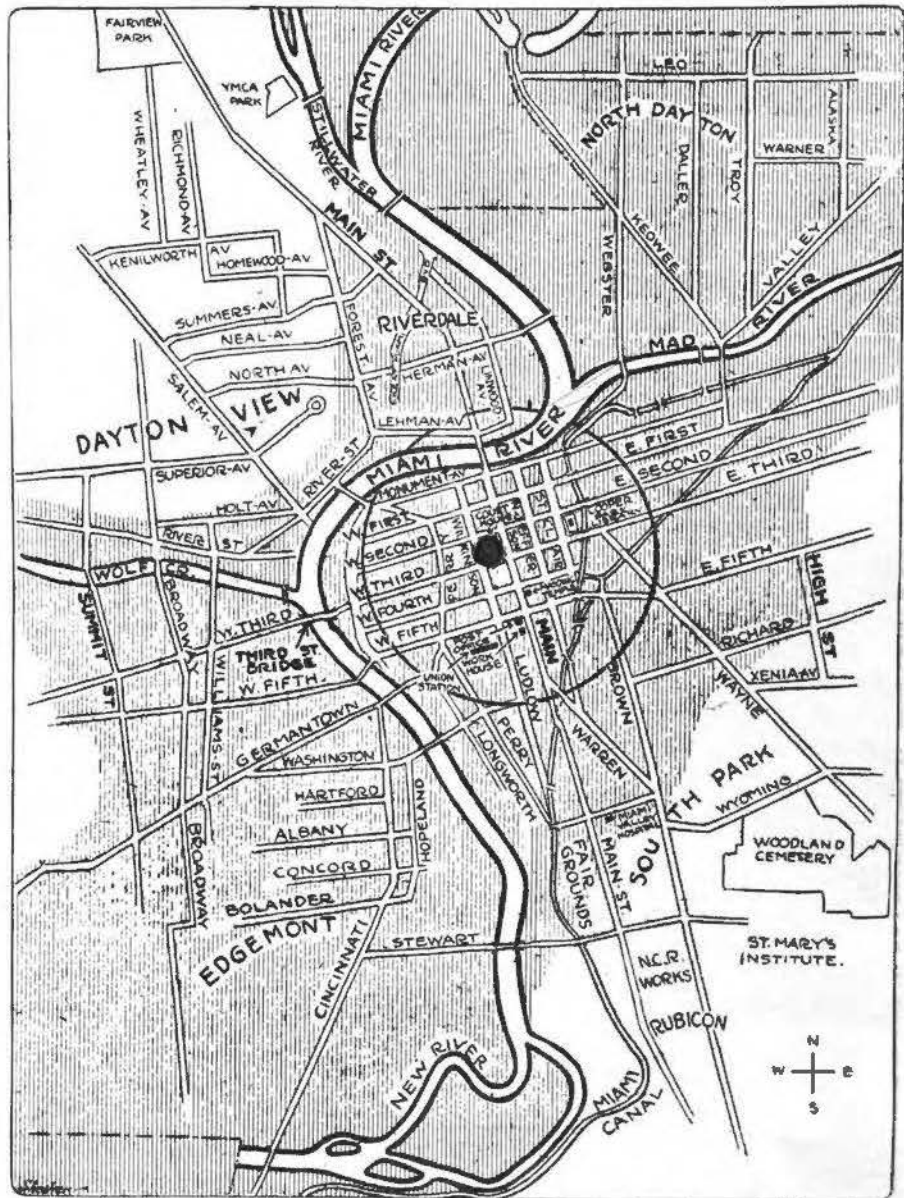
"Merciful God, there it is!" was the response.

A column of flame shot into the air like a towering beacon of death not over 300 feet from us. A blaze from the ruins of the drug store had entered the next building.

In this block immediately east of us were many inflammable stocks

of goods, including three wholesale liquor stores, whose contents, when ignited, would be liquid fire. Not a hand could be lifted to fight the flames, which must spread, unchecked by human means. This meant the destruction of the Beckel house, followed by the whole block.

There was a hurried, whispered consultation, but only for a moment. We must get as far away as possible from the fire, if only to prolong life.



MAP OF THE DAYTON FLOOD.

Shaded portion shows area covered with water. The part within the ring suffered the heaviest damage. The black dot shows the location of the Central Union Telephone Company's Main Exchange, almost in the center of the heavily flooded area.

Then began a remarkable march of retreat. Some two or possibly three hundred persons clambered and crawled from one end of the square on Third Street, from Jefferson to Main. Just how it was done, in every particular, probably no one can ever tell. We got out on the roof of the Beckel Annex. We went up and down fire escapes. We cautiously crossed frail looking skylights. We scaled fire walls. We took ladders along, and from slippery roofs got to open windows, passed through buildings, and from windows to roofs again. We reached a ten foot alley. A ladder was pushed across it to the next building and we crawled over, one at a time. This was done by men and women, and by one or two children. It was a journey for life, but it was not a mad flight. It was done quickly but quietly and each helped the other.

Among those taken out safely was a woman with a broken arm, and Mr. Bennett, one of the proprietors of the hotel, was carried from his dying bed. He died a few days later.

All made the perilous journey safely. That most of us could even attempt it is simply because it was a dash for life.

At the Main Street end of the square we could go no farther and we dispersed into different parts of the Callahan building and the one adjoining.

Our situation was this: There was the possibility at any moment that the building, as we had seen others do, would collapse and entomb us. A few hundred feet behind us, and moving steadily in our direction, were the roaring, leaping flames, devouring everything before them. In front of us was the black, hideous, drift filled current, in which it seemed hopeless for a stout swimmer to venture. But if one could pass through the icy water and escape with life for the moment, there would be no heat, no dry clothing, no succor, and it would seem that the exposure would be hardly less swiftly fatal than death by fire or drowning.

Death threatening in every one of four forms, and no one failed to realize it!

What little might be done was done. Two men managed to cut a cable in the elevator shaft. We were in the second story of the Callahan Building, opposite the old court house. There was some open ground where one might be comparatively safe. One end of the wire rope was made fast to our building and on a rude kind of scow it was managed to float the other end across the street, where it was caught and secured. The scow upset and that was the last I saw of it. One man came up in a boat and helped a little with the rope, but could not, or would not, stay, and his craft whirled away on the current; that was the only boat we saw during the flood.

The life line was stretched and three or four of the strongest managed to work their way hand over hand on it across to the court house. They were almost torn from it, and in each instance were up to their necks in water, drenched and icy cold and dropping with exhaustion when they had crossed. It was evident that this way of escape would be avail-

hold on to our frail line and commit our bodies to the rushing water and our souls to God.

There was no question but that the women and the children must have the first chance, but the trouble was to see any chance for any one.

Darkness came again, that is, darkness within, but without lurid, flaring, awful light. We could not see each other's faces. It was very cold. Outside snow and rain were falling, but little was thought of cold, hunger or thirst. We were waiting, waiting, waiting to know whether it was to be life or death.

I thought of what might be going on at home—of what the destruction must be there; of my loved ones and where they were, and I wondered whether, if I was rescued, there would be anything left to live for.

On the roof of the Phillips Hotel were men with megaphones. They



REPAIR WORK AT DAYTON STARTED BEFORE FLOOD HAD LEFT THE STREETS.



DINNER TIME AT THE DAYTON EXCHANGE.
These people were more fortunate than many others in the flooded city.

able for but very few while the high water and mill race current continued.

There were twenty-five or thirty people in the two rooms we occupied, and also one horse, that in some way had gotten in. Of our party about ten were women. One mother sat quietly with fixed, drawn face, and clasped firmly in her arms a little boy of seven or eight years. The child clung to his mother and tried to be and was brave. Once in a while a tear trickled down his face, but the mother never wept.

We were in the cruel position that while we could see the reflection of the fire, and watch the horrible driving smoke and sparks, it was behind us, and we could not see just what it was doing, but had to depend on what was shouted to us by those in other buildings.

As night approached, most of the men drew together, and a whispered conference was had. Every one believed that the fire sooner or later would reach the Beckel, and when that time came it was only a question of a few hours or even less when it would be upon us. Nearly everyone who expressed himself thought it almost certain that we had but a few hours to live, unless some miracle delivered us.

It was decided that when the fire reached the building next to us we should divide into parties of three, two men to each woman; try to

could see the fire, and they shouted news of its progress. We had no megaphone and it was difficult to call to them. It was found that my voice and that of another man seemed to "carry" the best, and I spent most of Wednesday night standing on a window sill, receiving and repeating the bulletins.

They came like this, hoarsely through the air:

"Oh, Callahan people, the fire has worked one door nearer. What do you say? No, the bank is not burning yet. The Beckel does not seem to have caught yet."

"Oh, Callahan, another store has caught but the bank is safe yet. The wind seems to be rising and blowing this way."

The bank was the Fourth National, corner Jefferson and Third Streets. It was said to be fireproof. Our lives depended on whether its east wall could resist the fire.

At one o'clock: "Oh, Callahan, fire seems to be going down. Think the bank will stand. We believe your danger is almost over."

There were long breaths and murmurs of "Thank God." We had suffered for nearly twelve hours. Was it possible the worst was over!

A dreadful explosion seemed to rend earth and sky. Sheets of blood red and ghastly green fire illuminated everything, showers of burning embers and sparks rained down, and hot smoke drifted past. I could only think of the Day of the Last Judgment.

The fire had leaped across Third Street and entered Lowe Bros. paint works, and apparently the whole contents had exploded at once.

It seemed that absolutely all hope was gone. Great masses of burning wreckage drifted down the current, threatening to fire buildings in every direction. Some of our people lost, not their courage, but their judgment, and wanted to start for the water. I believe I may have been indirectly the means of saving a number of lives, by earnestly insisting that we should stay till the last moment before jumping into the water. By professing much more hope and confidence than I really felt and aided by some others, we kept a number of people from abandoning a faint hope to go to certain death. And still the fire wall held! The wind shifted and as day broke Thursday morning the fire was going away from us and we were practically saved, after being for at least eighteen hours in the immediate shadow of death.

By four o'clock on Thursday afternoon we were able to leave the building where we had been imprisoned for fifty-six hours.

Dayton is a horrible sight. The streets are torn up and in many places half buried in rubbish. The stocks of goods in the cellars and ground floors of the entire retail business district are gone. On the north

side of Third Street, between Jefferson and St. Clair, every building but one is burned to the ground. One-half the opposite square is burned. These are the fires that threatened to wipe out the business quarter of Dayton, and destroy the hundreds of people trapped like rats on upper floors. There were many smaller fires.

On Friday morning I managed to get to Springfield. The city was swarming with refugees. Our first news from home was, "Piqua practically wiped out. Remainder burning. Eight hundred dead."

We could hear no word of our own families, nor could we hear just what the flood limit of Piqua was. All was anxiety and frantic attempts were made to communicate with friends, or to get home. Some queer things happened. For instance, I got acquainted with Mr. Al Harnisch, of Syracuse, N. Y., and found he and I had been talking to each other that night of terror across the black space between the Phillips and Callahan buildings. I am much indebted to him for what he did that night. When almost hopeless of getting out of Springfield, through the kindness of County Clerk Fred Snyder, Mr. Marshall, Mr. Devault, of Covington, and I were taken to Troy in his auto, and my kind friend Sheriff Paul drove me home in a buggy.

Writing under pressure I would say that:

I am glad to have seen the courage that men and women can show in the face of death.

That the death list in Dayton will be much less than estimated and this is miraculous.

That the property loss there cannot be overrated.

That the suffering in Piqua and a dozen other cities is, in proportion, as great as in Dayton.

And finally that all humanity is the debtor to the man who saw what to do for Dayton, and did more than anyone else for relief, John H. Patterson, President of the National Cash Register Company.

UNAVAILING COURAGE OF MAJOR R. B. HOOVER.

Of the splendid stories in connection with the many deeds of gallantry accomplished by various individuals, none is more stirring than that which involves Major R. B. Hoover, manager of the Springfield, Ohio, Bell exchange, who was in Dayton helping to restore the telephone service.



MAJOR R. B. HOOVER.

Through some erroneous and unauthenticated report to the effect that the Lewistown reservoir had broken, great excitement was caused in the eastern section of the city, and panic-stricken people here emerged from their homes, prepared to run for their lives. As they rushed madly by people in other houses, the cry, "Fly, fly for your lives, the reservoir has broken," aroused those who had been satisfied in the feeling that they were entirely safe and immune from any possibility of the water reaching them.

East Fifth street, in which the East branch of the Bell exchange is located, and at which point Major Hoover had been stationed, seemed to be the channel of emigration leading to the hills beyond, and as the first report of the fleeing, frantic refugees reached the major, with all the coolness and courage at his command he stepped into the street and with effort and energy argued and reasoned, trying to convince the howling, desperate mob that they were misinformed and their fears were needless.

Bare-headed and strong, the major like a veteran on the field of battle stood alone against the oncoming tide of helpless, unreasoning, panic-stricken humanity. But men's minds are unresponsive when fear has conquered them; their mentalities give way before emotion and, terror-stricken they hear not the wise counsel of those who know.

Ten thousand people filled the hills and looked for the water to come. But it did not approach and when reasoning returned, wonderment must have filled their minds as to who was the brave man who stood alone and unaided, urging them to listen and to heed, and whom they heard not.

DISTRICT OFFICE PLANT EMPLOYEES, DAYTON, OHIO.

J. A. Bell, district plant chief.
William H. Speidel, chief clerk.

Gertrude Alcock, stenographer.

DISTRICT COMMERCIAL DEPARTMENT, DAYTON, OHIO.

H. E. Allen, district commercial manager.
W. H. Thompson, district chief clerk.

DAYTON, OHIO, EXCHANGE, COMMERCIAL DEPARTMENT.

C. M. Raser, chief clerk.
A. C. Mack, teller.
B. Siler, clerk.
Mary Dadisman, clerk.
A. Stephens, clerk.
Lily McDonald, clerk.
Leona Welsh, clerk.
Sue Hicks, clerk.
E. Helmick, clerk.
Cora McKay, clerk.
Elmer Wagenfeld, office boy.
Kathryn McNamara, stenographer.
B. F. Kuhns, commercial agent.

W. M. Fryman, commercial agent.
A. C. S. Althoff, commercial agent.
C. H. Miller, commercial agent.
W. J. McClude, commercial agent.
J. L. Zug, commercial agent.
Geo. A. Smart, collector.
W. E. Boesel, collector.
E. A. Keller, collector.
W. B. Pleasant, collector.
John Hardy, collector.
J. C. Walsh, collector.
E. O. Loesch, collector.
J. Tucker, collector.

MEN EMPLOYEES CONFINED TO DAYTON EXCHANGE BUILDING DURING FLOOD.

F. W. Whitten, traffic superintendent.
E. T. Herbig, traffic chief.
J. A. Bell, district plant chief.
T. W. White, W. E. foreman.
M. B. Stowell, district toll wire chief.
H. D. Morter, A. A. & T. section lineman.
Perle Shue, testman.

Otto Tuttle, testman.
George Lause, W. E. employe.
C. O. Oateryday, testman.
Clarence Dillon, switchboardman.
P. O. Moore, W. E. employe.
Albert Tall, janitor.

WOMEN EMPLOYEES.

Belle Grant, chief operator (Main).
Grace Gugel, supervisor.
Ruth Lanning, supervisor.
Louise Hedges, supervisor.
Margaret Creamer, supervisor.
Cleo McGee, supervisor.
Anna Kern, observer.
Cora Smith, operator.
Grace Shaner, operator.
Emma Parks, operator.
Marie Carabin, operator.
Mary Spohn, operator.
Irene Bennett, operator.

Agnes Waldren, operator.
Helen Rompuch, operator.
Helen Folkert, operator.
Evelyn Condon, operator.
Gertrude Woischwill, operator.
Florence Ludlum, operator.
Helen Kern, toll operator.
Gertrude Duffy, toll operator.
Gertrude Gephart, toll operator.
Gladys Slater, toll operator.
Arvesta Helm, toll operator.
Emma Selig, toll operator.

LIST OF OPERATING EMPLOYEES, DAYTON EXCHANGE.

Bell Grant.
Louise Hedges.
Josephine Vrooman.
Mamie Ryan.
Elsie Conier.
Clara Hoskinson.
Jeanette Koogler.
Mrs. B. T. Pepper.
M. Barrett.
L. Lang.
Alice Keller.
Jessie Shannon.
Ruth Lause.
Grace Gugel.
Kate Kilbride.
Maude Haacke.
Lucy Boots.
M. Creamer.
G. Callaghan.
Helen Wogoman.
Alice Eck.
Doris Brittan.
Rosa Ort.
Cleo McGee.
G. Breitenstein.
Grace Shaner.
Cora Smith.
Gertrude Engle.
Emma Parks.
Irene Bennett.
Edna Hutzel.
Bessie Garman.
Blanch Newcomer.
Lillian Lambert.
A. Mary Gearin.
Marie Knapp.
Opal Martz.
Margaret Gaskill.
Mayme Perry.
Marguerite Lambert.
A. Griffin.
G. Tillie.
F. Ludlum.
Ruth Pearson.
Catherine Garden.
Mary Butler.
A. Fitzpatrick.
Helen Weisbrodt.
Hazel Wheeler.
G. Williams.
Viola Gerber.
Lottie Turney.
Marjorie Lawson.
Mary Ryan.
C. Hoskinson.
Flo. Renssenaehn.
Florence Roman.
Ethel Gray.
Marie Garlitz.
Gertrude Folker.
C. Shuttleworth.
Marie Kyle.
M. Alexander.
Marg. Curl.
V. Fraust.
Freida Schreiner.
Helen Hurst.
G. Woischwill.
Frances Carroll.
Marie Sites.
E. Schwartz.
Nellie Wilson.
Nellie Cole.
Lillian Weckesser.
P. Nahn.
Helen Rompuch.
Nettie Oswald.
Bessie Gaskill.
Marg. Cyphers.
Nannie Huffer.
A. Waldren.
Mollie Schneider.
A. Moore.
Stella Britton.
A. Pooler.
Marguerite Grimes.
Catherine Sweeney.
Marie Carabin.
Clara Ewald.
L. McFarland.
Mary Spohn.
Theresa Hamlin.
Alice Gilmore.
Elizabeth Knelling.
Ruth Altwig.
Forest Ingsall.
Mary Miller.
M. Sharp.
Elizabeth McKeown.
Yottie Dill.
L. Laycock.
Josephine Weischelt.
R. Kopplin.
N. Teeple.
Edna Poorman.
Jeanette Renner.
B. Valle.
M. Garritt.
S. Evans.
L. Glaeser.
E. Taft.
A. Bourelle.
Jeanette Keville.
Marguerite Pixler.
Marguerite Maloney.
Gertrude Knowles.
Nellie Kennedy.
Helen Lyons.
Agnes Wiles.
Irene Hillyard.
Josie Maloney.
Margaret Maloney.
E. Brittain.
Agnes Brun.
Flo Canfield.
Leona Hogden.
Mattie McCarthy.
Florence Warren.
Loretta Gordy.
Lucille Ball.
Florence Smith.
Florence Warren.
Mabel Watson.
Lillian Grass.
L. Weingardner.
Mary Deland.
Rose Gaeke.
Mabel Jackson.
Anna Gibson.
Lois Shank.



SOME COLLECTOR.

William E. Boesel, collector at Dayton, realized the menace of the river to the downtown district and left his home early in the morning on Tuesday. Before 7 o'clock he had visited and "robbed" all the pay-stations in the business section, and as soon as he reached the office, more than an hour before the force was due, began to move the commercial records to the second floor. When the plant employees were driven from the basement where they had been working to save the power plant, various material they turned in and helped him. When water reached nearly to their waists further effort was useless. Boesel was able to save all toll tickets for the month of March, representing over \$5,000, together with lease records, which will save a large amount of labor to the auditor and the exchange. Boesel was, of course, marooned with the other employees in the main building, and is said to have spent his daylight hours working on the records and books.

Charlotte Fulweiler, Irene Tyrell,
Helen Heckman, Roxie Leonard,
Arvesta Helm, Gertrude Gebhart,
Alma Perry, Hazel Cole,
Amy Ewings, Julia Kunz,
G. Duffy, Linnie Glesman,
Helen Kern, Bessie Miller,
Rose Boeckman, Florence Smith,
Veda Detrick, Carrie Hartman,
Gladys Slater,
M. Kangessier,
Freida Hoffman,
Emma Sellig,
M. Wischus,
N. Norris,
Isabell Thorp.

DISTRICT TRAFFIC.

F. R. Eckley,
E. T. Herbig.

LIST OF LOCAL PLANT EMPLOYEES DAYTON, OHIO

Andrew Foster, barnman.
J. Flynn, cable foreman.
Chas. F. Weckesser, cable helper No. 1.
C. P. Armacost, cable helper No. 2.
Ottilie Smith, cleaner.
J. G. Leicht, clerk assignment.
P. L. Dester, clerk.
Walter McKibben, clerk No. 2.
Rea V. Harding, clerk No. 4.
C. O. Clark, foreman No. 1.
W. C. Carney, foreman No. 2.
A. Davis, foreman No. 3.
O. C. Crawford, foreman No. 4.
Clyde W. Reitz, frameman No. 1.
W. E. Repp, frameman No. 2.
Charles W. Carter, groundman No. 1.
W. Getter, groundman No. 2.
J. W. Goldshot, groundman No. 3.
C. Y. Lohnes, inspector No. 2.
Herman R. Mann, installation foreman.
C. Campbell, installer No. 1.
Clifford Scheible, installer No. 2.
R. W. Thatcher, installer No. 3.
Walter Wentz, installer No. 4.
Roy A. Ewell, installer No. 5.
Albert Tall, janitor.
G. E. Courson, line foreman.
G. C. Houser, lineman No. 2.
J. T. Marshall, lineman No. 3.
J. Schnabel, lineman No. 4.
S. C. Wallingford, lineman No. 5.
John Hill, lineman No. 6.
W. G. Kinder, lineman No. 7.
E. Robeson, lineman No. 8.
Wm. Mattox, lineman No. 10.
F. Weitendorf, lineman No. 11.
O. R. Tuttle, P. B. X. repairman No. 2.
John Keller, repairman No. 1.
J. E. Peters, repairman No. 2.

LIST OF PLANT EMPLOYEES MIAMISBURG, OHIO.

Arthur Silcott, repairman. John Myers, wire chief.

VANDALIA, OHIO.

McClellan Heffner, lineman.

COLUMBUS, OHIO.

Hilltop, the latest addition to the Columbus exchange, was the only office in the city that had to face the terrors of the disastrous flood. The office is located (not as its name implies) in the lowland of the western section of the city, serving that part of Columbus called "Hilltop."

The flood water rose to approximately fifteen feet above the street level in front of the building and to a height of eight feet two inches on the first floor of the office, practically submerging all of the equipment on the floor as well as power apparatus and material in the basement.

The currents around the office were very swift for several days and many thrilling incidents occurred and deeds of heroism were performed by employees of the company.

Shortly after 10 a. m., Tuesday, when the water began rushing



FIRE ADDED TO FLOOD DANGER AT COLUMBUS.



OHIO LINEMEN IN REGULATION
FLOOD COSTUME.

Thos. H. Widener, repairman No. 3.
H. Houghton, repairman No. 4.
W. T. Kain, storekeeper.
Roslyn C. Moore, stockman No. 2.
E. C. Lubabill, switchboardman No. 2.
Clarence J. Osterday, switchboardman No. 5.
Ray Wetzel, testman No. 1.
F. L. Beust, testman No. 2.
G. H. Peters, toll repairman No. 1.
J. Finn, toll repairman No. 2.
P. W. Shue, wire chief.
W. L. Ulrey, wire chief assistant No. 1.
P. R. Shue, wire chief assistant No. 2.

down the street and past the building, P. N. Hummell, wire chief, and his assistant, Ralph Weir, went to the basement to protect, if possible, the power apparatus located in that part of the building, also to charge the central office batteries and prepare for any emergency that might arise. While there the water began to come in and rose rapidly. Mr. Hummell and his assistant stayed here and kept the engine running even while working in water up to their knees. Suddenly and with great force the water from the street broke through the basement windows, almost engulfing the two men, and forced them to flee for their lives. The water continued to rise. About 10:30 a. m. three of the operators were due to leave the building for their homes; there was no way to get out, for the water had by this time risen to a depth of three feet in the street. A moving van happened to be passing in full control of its driver and headed for the hill. The driver was hailed and the van backed up to

Public Service Pass

Pass CENTRAL UNION TELEPHONE CO.
Employee

Signed GEO. H. WOOD,
Gen. Commanding

File #1
ADJUTANT GENERAL
Dayton Ohio Ohio 9/19/13

PASS USED IN DAYTON.

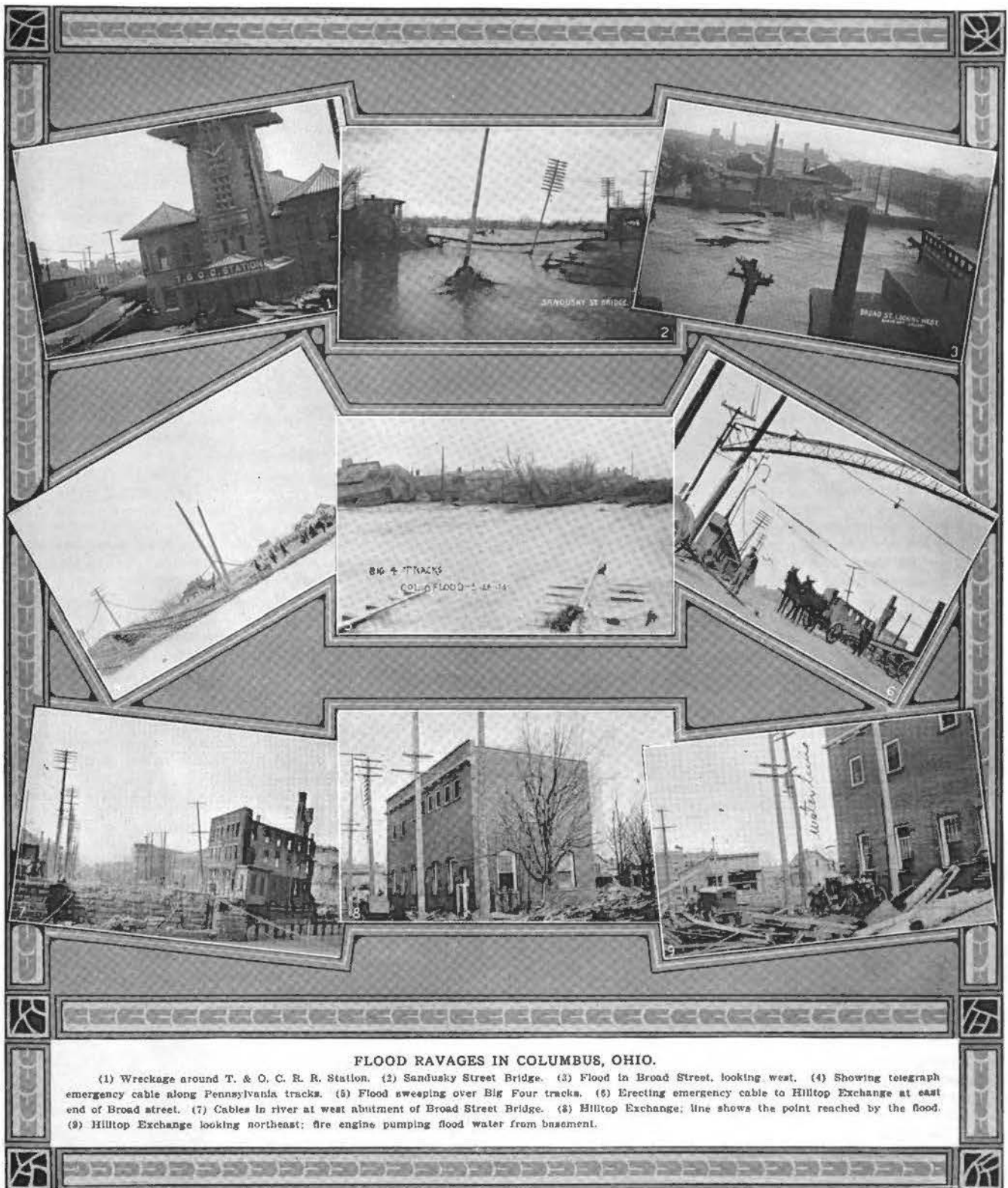
Facsimile of form issued by the military authorities to all persons authorized to be on the streets.



DAYTON PAY CAR AT SPRINGFIELD.

Ready to start for Dayton, April 3rd, with \$5,300 for the pay roll. Dayton banks had not opened. On the rear seat, left to right, W. H. Thompson, Chief Clerk, Dayton; Corporal Farnsworth, J. A. Bell, District Plant Chief.

the building. To get the girls into the wagon was a problem. When an attempt was made to open the door leading to the street it could not be moved; the force of the water rushing against it held it fast. Nothing daunted, the men in charge of the office placed planks from the windows to the van and the girls slid down to safety. At eleven o'clock J. Edmonson, of the Western Electric Company, and Ralph Weir, of the Central Union Telephone Company, rescued a man who came floating by clinging to debris, and who otherwise would have drowned. Mr. Edmonson and Mr. Weir swung out of the office window, caught and drew the man into the building. As the water continued to rise, at noon all lines in the office were dead. The building was completely isolated so far as communication was concerned; all the employees were driven to the second floor of the building. About one o'clock the watchers saw three people on a raft of wreckage riding swiftly over the water and calling for help. The raft struck and lodged in a tree about fifty feet from the building. The men in the office lost not a minute in devising means to rescue and bring the imperiled trio to a place of safety. Considerable wreckage had lodged in the space between the telephone building and the tree where the three unfortunates were marooned. A lot of wire was hastily collected and twisted into a cable which was, at great risk, worked over to the tree. This hazard was undertaken by Mr. Hummell. The cable was then used as a support and life line to prevent any of the people from slipping and falling again into the waters beneath their path. The rescued were Mrs. Diay, daughter and son. Two younger children were drowned just before the raft struck the tree. At about 3:30 p. m. the marooned



FLOOD RAVAGES IN COLUMBUS, OHIO.

(1) Wreckage around T. & O. C. R. Station. (2) Sandusky Street Bridge. (3) Flood in Broad Street, looking west. (4) Showing telegraph emergency cable along Pennsylvania tracks. (5) Flood sweeping over Big Four tracks. (6) Erecting emergency cable to Hilltop Exchange at east end of Broad street. (7) Cables in river at west abutment of Broad Street Bridge. (8) Hilltop Exchange; line shows the point reached by the flood. (9) Hilltop Exchange looking northeast; fire engine pumping flood water from basement.

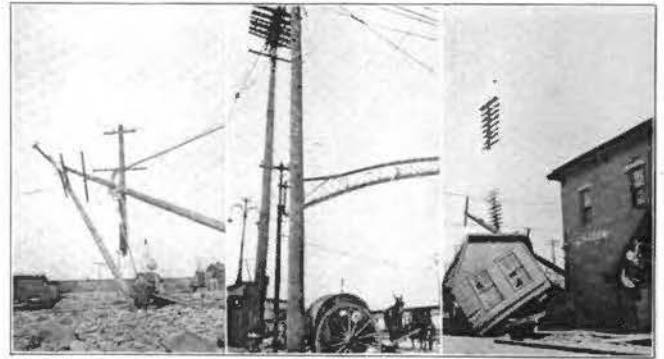
forces determined to get into communication with the city office, if such a thing were possible. Mr. Hummell, together with T. O. Palin, installer for the Western Electric Company, set about the task. Mr. Hummell carried a wire over the drift and wreckage from a second story window to

Central Union division cashier, and D. S. Keithler, construction foreman, who had been doing valiant relief work, reached this section. After trying many times to force their boat through the current, they like others were compelled to give up. Nothing daunted, however, they finally succeeded in reaching a telephone pole which had withstood the force of the water. After tying a long rope to their boat, in which was food and water, they climbed the pole and, inch by inch, slid along a Central Union cable lead towing their boat after them. After climbing along the cable for a distance of about 150 feet they slid down another



SITE OF BROAD STREET BRIDGE, COLUMBUS.
Bell linemen restoring connection after bridge went down.

a long-distance pole line nearby, and to the joy of all he found a toll line in good working condition and communication was again restored. This was not alone to the satisfaction of the marooned, but to those in the city who were anxious as to their safety, and particularly General Manager Reed, who was deeply concerned, and was personally devising means for their rescue. The rescue party sent to the Hilltop by the General Manager arrived at the office at 8:30 p. m. and all the employees were taken in boats to a place of safety. Not a single accident or mishap occurred to any one of our employees throughout the trying ordeal. Hilltop's flood story is a story of heroism and bravery, and exemplifies the spirit of manhood and womanhood that prevades our entire organization.



SOME WIRE CONDITIONS IN COLUMBUS.
Left to right—Wreck of 200-pair cable line on North Central Avenue. Erecting emergency cable to Hilltop Exchange. A. T. & T. pole on West Broad Street near Center.

pole and again got into their boat. They were then able to row to many houses where they distributed food and water and received many messages to be delivered to relatives and friends who were out of the flood zone. After distributing all the food they had with them, they again had to perform their "tight-rope act" to get back. This they did without mishap and many a person's heart was made glad by the news they brought with them.

CONAWAY AND CAZER.

On March 26th, great apprehension was felt at Columbus regarding the safety of employees at Zanesville, and regarding the condition of the city, and there was also great need to obtain lines across the river for the benefit of Governor Cox and the state officials, as well as the telephone officials. Instructions were issued to Wm. R. L. Dwyer, plant chief, and



ON SOUTH MAIN STREET, DAYTON, OPPOSITE FAIR GROUNDS.

FIRST NEWS BY COLUMBUS TELEPHONE MEN.

It was not until Thursday, March 27th, the third day of the flood, that news was received of people living just east of the Baltimore & Ohio embankment on the west side of Columbus. In this section many homes had been washed away and a good many drowned. It was through these streets, Glenwood, Cypress and part of Dakota Avenue, that the ponderous current went after breaking through the levee north of Princeton Avenue. This current had made it impossible for boats to cross. Many attempts had been made to rescue people in this district and to get them food and water; but the boats were either capsized or carried away by the current. At about three o'clock on Thursday afternoon, W. R. Nutt,



C. M. CONAWAY.



C. C. CAZER.

Mearl I. Sims, wire chief at Newark, to get into communication with Zanesville, if possible. Several efforts were made that afternoon by

Linemen C. M. Conaway and C. C. Cazer, who were able to proceed but four miles when darkness overtook them, and the road was no longer distinguishable. Their automobile had become mired in a sea of mud. Conaway and Cazer practically commandeered an electric car, which took them to Hebron, where they spent the night and secured an automobile truck. At daylight they started again, and were able to reach a point within two miles of Zanesville, where they encountered water so deep that the truck had to be abandoned. Here they constructed a raft of heavy timbers, and by dint of pushing and paddling were able to get within a mile of their goal, landing at Gant Park, on the west side of Zanesville. Here they saw the terrible havoc the Muskingum river was making upon the city; where railroad bridges were gone; where houses and barns were floating by, and where the famous "Y" bridge was submerged. These linemen had kept a line open behind them, and had a circuit good to Newark. Cazer had secured a magneto telephone from a rural subscriber near the point where they had constructed the raft, and this they placed in a house in Gant Park, convenient to the lead, and there they established a temporary station, and from this point officials of the company and the Governor received information.

While Cazer was doing this, Conaway, having secured a small boat, started across the river at the risk of his life toward the business district, and after narrowly escaping from being capsized by a floating box car, from being entangled in poles and wire that were floating down the river, and from running aground on a partially submerged railroad bridge that had been torn from its foundations, he finally landed in that part of Zanesville known as the "Terrace." Going from there to the Fifth street bridge, he again launched his boat in the swift current, and, constantly menaced by wreckage of all kinds, landed near the Central Union exchange almost exhausted, three hours after leaving his companion at Gant Park. At the exchange he learned that the lives of none of our employees had been lost; that the plant of the Central Union was badly damaged and hundreds were homeless. He spent the night at the exchange, and the next morning made the return trip to Gant Park, repeating the experiences of the previous day. He here reported from the temporary station to Columbus the first authentic information received by our officials as to the great damage sustained at Zanesville. On the basis of this report, plans for the restoration of service were made.

ZANESVILLE, OHIO.

Among the great sufferers from the floods in March was the city of Zanesville, located on opposite banks of the Muskingum River. The water rose to the unprecedented height of fifty-three feet—sixteen feet above all known or recorded high-water marks. This unusual rise threw currents of madly rushing water through the streets of both business and residence districts, and, while only two lives were lost, the percentage of those rendered homeless was greater than any other city in the State, excepting only Hamilton. More than 8,000 were rendered homeless, 1,320 were in distress and 450 houses were destroyed. Pen cannot describe the suffering or portray the awful destruction to property.

The telephone company suffered heavily. While the surface flood water never reached the exchange building, great havoc was wrought to the outside plant and at 2:30 a. m. on March 27th every local line in the city went out of service, as well as all of the toll lines excepting four A. T. & T. Cambridge circuits.

Through the energy and daring of employees, service failed for only a short interval, and at 6:06 a. m. on the following day restoration started. At no time during the flood was Zanesville cut off from the out-

side world. The A. T. & T. Cambridge circuits gave excellent service throughout the entire siege. The Zanesville Telephone & Telegraph Company (independent) abandoned its exchange at 6 p. m. on March 25th and did not open again until March 31st and the Postal Telegraph office was closed for several days. The record made by the Central Union in keeping its lines open to the public was due to the indomitable and persistent energy of the employees. P. R. Brehmer, the local manager, never left his office from the morning of March 25th until 9:30 p. m. on March 29th, and during the interval took only six hours sleep. Mr. Brehmer's activities are worthy of special note. When the force was short he took a hand at the switchboard, and at other times he labored in the most effective way to save the plant.



PUMPING FLOOD WATER FROM BASEMENT OF ZANESVILLE EXCHANGE. Manager Brehmer indicated by * on hood of automobile engine.

bored in the most effective way to save the plant.

Water entered the basement of the exchange through the conduits. Mr. Brehmer obtained a fire engine from the Weller-Thomas Chemical Engine Company and pumped out the water as fast as it entered. The illustration shows the engine in operation in front of the exchange. On March 29th, after several hours of patient effort, Mr. Brehmer succeeded in carrying a line through the water and drift over one of the bridges and re-establish connection with Columbus.

Throughout the work Mr. Brehmer was assisted by the employees of all departments. A remarkable incident was the volunteer service rendered by old employees who had previously left the service and married. Without their assistance the service would have suffered, as some of the operators were cut off by the flood and were unable to reach the office. So eager were some of the operators to get to their work that daily they would fight their way through the guard lines to get to the office, the city being under martial law. Great loyalty and devotion to duty by all the employees at this exchange reduced the suffering and the terror that the flood laid upon the city, and made the telephone the most indispensable of all the utilities.

CHILLICOTHE, OHIO.

The early morning of Wednesday, March 26, 1913, will be long remembered in Chillicothe as the time of the "Great Flood," when the Scioto river rose beyond all records and poured a yellow flood across the city, inflicting tremendous damage and taking the lives of eighteen people.

Every little stream in the Scioto Valley left its banks and the river rose to an unprecedented height and with terrible rapidity. On Tuesday, March 25th, it was above all previous flood records at Columbus, and a warning which was sent out from the Bell Telephone office was the first intimation Chillicothe had of what was to come.

Scant heed was paid to the warning, for the old city had known floods before and had suffered little, but never before had she experienced such a flood as rolled down upon her on Wednesday morning in the gray hours of dawn. At four o'clock a wall of water swept down the already swollen river. A few messengers hurried along the streets in the eastern and southern sections, bearing a warning, but the warning came too late.

Higher and higher rose the river until it topped its banks and poured its torrent through the town. It rose above the high embankments of the B. & O. railway across Yoctangee park, filled the park, rose and rose until it poured across the canal, rushed down Park and Walnut and Paint Streets and roared destruction through Hickory, Ewing, Poplar and other east end thoroughfares. By eight o'clock three quarters of the city was flooded and a yellow sea stretched from High Street to Mt. Logan. In the eastern and southern parts of the city the water, in some places, was twenty feet deep.

With such swiftness did the water come that the great majority of

people were caught unprepared. They had time only to flee for their lives to second stories or to roofs, where they clung, insufficiently clad, in the cold rain which fell with merciless persistence all day Wednesday.

The fiercest current swept down Ewing and Hickory Streets. Frame buildings were overturned or swept away; brick houses were undermined and came crashing down. Hickory Street, especially, was a scene of terrible destruction. The brick street paving was washed out and the street torn into a ravine from ten to twenty feet deep. At Fifth the current took a sweep to the southeast, tearing across the city until it rejoined the flood below. Ewing Street suffered almost as severely, in fact more or less damage was done over the entire east end.

Boats were launched early in the morning in attempts to rescue those in peril. Many really heroic deeds were done, and hundreds owed their lives to the gallant workers, one of whom, at least, Silas Pyle, gave up his life after saving at least twenty-five persons. All day and all night the dangerous rescue work went on, some families not being brought to safety until Thursday afternoon.

It is impossible to tell of all the narrow escapes and gallant rescues. One woman, on crutches, with a broken leg, saved her children by pick-

estimated at \$314,325. To farmers the loss is, at a conservative estimate, \$1,000,000. It is safe to say that the total loss in city and county will be \$2,500,000, to say nothing of the loss in wages, and business, which can hardly be estimated.

Eighteen lives were lost in the city and eleven in the county.

The Central Union Telephone Company, with great difficulty, gave local service during the entire period of the flood, and handled a very heavy traffic, not only on account of the excited condition of the people, but because the Home Telephone Company was out of service for a period of three days. A large number of letters of appreciation have been received by Manager Lou A. Green for the part the company took in furnishing service locally and getting a great many messages through to the outside world.

DEFIANCE, OHIO.

On Monday night, March 24th, the water in the Maumee and Auglaize Rivers at Defiance, Ohio, began rising; by Tuesday morning it was higher than it had been in years. By March 26th it had risen twenty-seven feet, breaking all former records. Homes to the number



FLOOD DAMAGE AT CHILICOTHE, OHIO.

ing a hole in the ceiling with a hat pin, and putting them up in the loft of their little home, while the water filled the room below. One man, with his wife and little daughter, stood on a mantelpiece in the cold flood, for twenty-four hours. Through the long hours of darkness the child prayed aloud for help. In another place one family, as their house began to fall, jumped to the roof of the next dwelling. That one began to crumble, and all the people, thirteen in number, crossed to a third, by means of an improvised bridge from roof to roof. When the third went down they managed to reach a loft, where they remained until rescued. Another family stayed huddled in a little attic, the front part of the dwelling swept away and the rest of the structure swaying and threatening to give way at any moment.

Not only did dwellers in the flooded sections suffer but those whose homes were not touched by water endured discomfort for water, gas, both artificial and natural, and electricity, were cut off. Not a railway was able to run and for three days a solitary Bell Telephone line to Cincinnati was Chillicothe's only means of outside communication.

As soon as word of the disaster went out the generous people of Ross and adjoining counties began sending in load after load of provisions and clothing. Neighboring cities sent carloads, which were brought as near the city as possible and then hauled in by wagon or ferried in by boat.

Over 2,800 houses were flooded and nearly 5,000 people were homeless. The damage to private real estate was \$3,000,000; to furniture, etc., \$150,000. The damage to city property and to corporations, including the railways, was tremendous. It is safe to say that the flood loss was over \$1,000,000. In the county the loss in bridges and roadways is

of 268 were surrounded and damaged by water; families having to move out. The Hopkins street bridge crossing the Auglaize river gave way; first one span leaving and later a second went out. One span of the State bridge crossing the Maumee also went out. The Central Union toll lines and also local lines are supported by the pier under the State bridge, and as the pier was not damaged the lines remained intact. Three miles of emergency wire was strung across the Wabash Railroad bridge crossing the Maumee to be used in case of total interruption of toll lines. Second Street bridge crossing the Maumee was also in danger, the south side being damaged by drift wood and water and part of its floor torn up. The Central Union local lines crossing the top of this bridge and the gas main at the bottom helped to hold it in place. About 100 telephones were damaged by water and mud. The waterworks pumping station was submerged by water, also the gas plant, leaving the city without gas or water service. All business was suspended while the flood was at its worst.

DELAWARE, OHIO.

Almost without warning, Delaware was plunged into the midst of the most disastrous catastrophe in the hundred years history of the city, shortly after midnight, Tuesday, March 25th. The Olentangy River, which runs through the midst of the city, rose to an unparalleled height, and, its own banks being inadequate to contain the raging waters, submerged a considerable number of blocks in the city. The water at the center of the city rose to thirty-two feet, twenty-three feet above flood stage, and eleven feet higher than the previous record.

Heroic rescues were made, and for more than a week the city gave

over practically its entire energies to the relief of flood sufferers and clearing up the wreckage of the catastrophe. Eighteen lives were lost, 214 families in the city lost all or a part of their possessions and seventy-two families lost all their household goods. Twenty-three homes were demolished, thirty-four homes were partially wrecked, and a large number of other buildings swept away or badly damaged. Forty-one costly bridges in the county, including all in the city, were swept away. Fifty-six business firms suffered losses ranging from \$500 to \$10,000. The aggregate damage, conservatively estimated, was not far short of a million and a half dollars.

The Citizens Telephone Company (connecting company) operates all the local and long-distance lines in Delaware and vicinity and was hard hit. General Manager George H. Carter reports that the exchange was compelled to discontinue all local service at 5:30 p. m., March 25th, so as to conserve the storage battery for the use of the remaining Central Union long-distance lines, which, at that time, were working to Marion. Communication in every other direction from the Delaware exchange had been cut off and a great many leads had been torn down and destroyed. One of the cable leads across the Olenyang River was carried more than a mile below the town. Out of our family of thirty-eight people, including our chief operator, Minnie McConahy (former Central Union chief at Dayton) who had gone to Dayton on a visit, we had eight operators and four linemen "on the job." Three of our men were caught in the flooded district and one man and his family were not rescued until March 28th. Many of our operators resided in East Delaware and were not able to reach the exchange because the bridges connecting east and west Delaware had been washed away and the whole residence section was filled with a dangerous current. Four long-distance operators (one being on the Central Union toll board), together with our bookkeeper, a former chief operator, worked continuously in tricks of eighteen hours. The Western Union telegraph office was closed and the telegraph operator marooned on the East side. The telegraph instruments were commandeered and placed in our terminal room and a traveling man from Columbus who was an old-time telegraph operator, took charge of this service. Through the co-operation of the Marion Telephone Company at Marion, and the local manager of the Western Union Telegraph Company at Marion we were able to get one side of the telephone circuit to Marion for a telegraph circuit. In two days we handled 550 messages to the outside world; but doubt if many of them ever reached their destination. We were overwhelmed by a crowd of 2,500 to 3,000 people clamoring for toll service. We did the best we could but a great many were not able to reach the points desired. All public utilities were affected by the flood, and we had to use coal oil for heat and candles and lanterns for light. Two linemen from the Central Union office at Columbus, who had been sent to repair leads torn down by the wind storm March 22nd and were caught by the flood, assisted us in getting a line working south to Columbus. This was done by using twin duplex wire and a part of one Central Union circuit running south on Sandusky Street and a run of three-quarters of a mile across the Tin Bridge of the Big Four Railway Company, one seventy-five-foot span of which had gone out. A line was shot across the span, then one-half inch messenger was strung and fastened to the railroad rails. A rope and pulley sling was improvised for transportation across this chasm. Among other people sent across in this "breeches buoy" were newspaper men. By this route we were able to connect with a circuit of the United States



H. E. WASHINGTON.

Telephone Company south and to reach Columbus. Many deeds of heroism might be described but one that impressed us was that of J. E. Freshwater, who worked the telegraph circuit in our office when his wife and little child were in the flooded district in Columbus—unable to reach them, unable to know their fate, he stood by and did all he could day and night to relieve our condition here.

WASHINGTON AT DELAWARE.

Among the deeds of daring which stand out were those of H. E. Washington, wagon foreman, at the Columbus exchange. Washington left Columbus for Delaware at 9:30 p. m. on Monday, March 24th, with instructions to repair the toll lines that were in trouble in the Delaware district. Washington succeeded in reaching Delaware that night and on the following morning found that, owing to the high water, it would be impossible to reach the toll lines and make the necessary repairs. During the night the water had risen to such a height that all means of returning to Columbus were lost. After carrying out instructions as far as he could, and not being able to get out of the city, he turned his hand to relief work in Delaware.

The Olenyang River flowing through the city had cut off many people from their homes or places of business, all bridges having been swept away. It was impossible to cross the river and render relief where it was most needed. Washington grasped the situation and lost no time in devising a new way to cross the river.

It so happened that along the fill of the Big Four Railroad where the bridge, commonly known as the "Tin Bridge," crossed the river, a single wire of the Western Union lead had not broken, although a seventy-five-foot span of the bridge had gone out. A strand of a one-half inch messenger was fastened to the telegraph wire, which had been cut on one side of the river, and in this way the messenger was drawn to the other side of the break in the bridge. The messenger strand was then anchored on both sides of the river. A rope seat was made and suspended from a cable riding carriage and was so arranged that it could be drawn along the messenger from one side to the other by means of a line. The arrangement was on the principle of the "breeches buoy" used in rescuing people at sea. During the worst stages of the flood this ingenious trolley bridge of Washington's carried many people across the river. Among those that passed over were newspaper men and doctors who ministered to the sick and suffering. Washington further rendered valuable assistance to the Home Telephone Company in Delaware in helping to repair their lines and also repaired the United States Telephone Company's long-distance circuits. Washington lives at 99 North Central Avenue, West Columbus, and while he was performing such valuable work at Delaware his home was ruined by the flood at Columbus. He lost all the furnishings on the first floor of his residence, including a \$350 piano. Mrs. Washington and family were rescued by Tom Croy, Columbus city foreman, and suffered no ill effects other than the loss of property.

TIFFIN, OHIO.

At Tiffin, the flood was more severe than at any other point in Northwestern Ohio. Eighteen lives were lost, many homes totally destroyed and a great many damaged. The property damage is estimated at \$2,000,000.

The Sandusky River flows through Tiffin within a narrow valley and the unprecedented rainfall at the head waters of this stream literally threw a wall of water twenty-four feet high upon the city of Tiffin, which carried away practically all bridges and all buildings in its path. The current was so swift that the channel was changed in many places and real estate holdings of a great many people were literally wiped out. The water began to rise on Monday night and the lower section of Tiffin, known as Mechanicsburg, was completely inundated and the people driven from their homes. Tuesday morning the crest of the flood was reached and put out of business the City Water Works, the Electric Light plant and cut off the gas supply on the west side of the city; practically all business was suspended and the two daily newspapers were unable to

print their editions from Monday to Saturday. The telephone company, on account of the unusual traffic, was compelled to suspend service at three o'clock on Tuesday, it being necessary to pull the main fuse to save the switchboard, the discharge from the batteries being three times as



FRONT STREET, FREMONT, OHIO.
Photograph taken near Central Union Exchange.

much as normal. The company had sent out information of the dangerous condition, and life savers were sent from Sandusky and Toledo. These crews made many heroic rescues; but were prevented in many instances by the terrible currents. The most daring rescues, however, were made by telephone employes under the direction of Otto Gauthier, wire chief, who, while at the test panel Tuesday night, heard screams and cries for help. When others had failed to reach the endangered people, Gauthier secured a cable riding carriage and rode into the flooded districts, and, by means of a hand line took many off. He made several trips over buildings which were afterwards washed away, and was able to save one woman just as the building in which she was marooned was swept into the flood.

Tiffin, in its relation to size, probably was as hard hit as any other city in the state. Even the lots upon which buildings stood were destroyed, and it is believed that there are certain sections of the city that never will be rebuilt.

Telephone people were thoroughly alive, not only in rescue work (for Gauthier and his band of rescuers have seventeen saved lives to their credit) but in caring for the service. It is interesting to note that Tiffin had scarcely recovered from the shock of the first disaster when the company, practically put out of commission by lack of power, restored a partial service on the afternoon of Tuesday at three o'clock. This was done with great difficulty by Manager Crawford, who made several ineffectual attempts to secure gas or traction engines. Finally he secured from the Edward J. Harter Company a 500-volt generator and by changing the plant, which had been installed for 220 volts, to accommodate the new generator, power was provided and service given. The gas engine which was used with this generator was cooled with water from sprinkling wagons which were filled by helpers organized into a bucket brigade who carried the water from the river. Approximately 1,000 telephones were out of order because of the flood; seventy-five instruments were lost and about 150 were damaged by water. The company will lose approximately \$20,000 as a result of the flood. Manager Crawford reports that the telephone situation has a promising outlook in spite of the heavy losses. Necessary material was ordered early and as soon as it is received gangs of men will be put to work to restore the system to its former efficiency. All employes of this company did valiant service and their work is deserving of high praise. "Happy" Gauthier, as he is best known, proved himself to be a hero of the highest type.

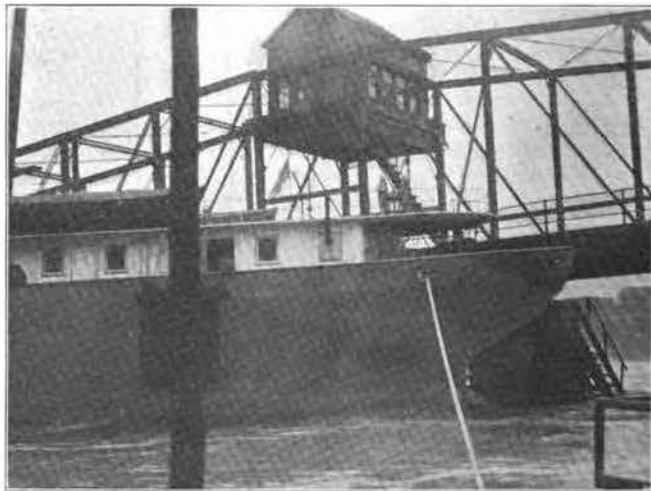
FREMONT, OHIO.

Fremont, situated on the Sandusky River below Tiffin, was badly hit by the flood. The water on Front Street, the main business thoroughfare, was ten feet deep at the highest point on the street. A great many people were endangered and many thrilling rescues were made by a life saving crew that came from Port Clinton. Many homes were washed away and great damage was done to the business section. Telephone service was discontinued on the twenty-sixth, because the telephone operators and other employes were forced to leave on account of lack of heat, and the dangerous condition of the building. The employes were rescued by means of boats which were sent in from high ground several blocks away. When the exchange was abandoned a toll line was connected up in the City Hall, and in this way communication was established to outside points. Service was restored in the Central Union exchange March 28th. The service of the independent company was also abandoned during this period.

CLEVELAND, OHIO.

Little did we think when we came to work Friday morning, March 21st, in a small gale, that before noon its velocity would have reached the high mark of sixty-seven miles an hour. The result of this gale on the Cleveland-Bedford lead was three and one-half miles of poles blown down, carrying on an average thirty wires and cutting off service of one hundred Bedford subscribers. There were also three Hudson circuits and six Bedford circuits out of order, but all suburban lines were in good working order by Saturday afternoon.

On Sunday afternoon a very heavy rain set in and continued until Wednesday night. Monday the rising of the water caused us very little trouble, but on Tuesday when the Cuyahoga River had reached its high level mark and spread over the flats which are occupied by lumber yards, manufacturing concerns, the Baltimore and Ohio Railroad, and the Wheeling and Lake Erie Railroad yards, we were compelled to send out the repairmen in a hurry. The equipment foremen and their crews were forced to work all of Tuesday night raising private branch exchanges above the high water. In a great many places boats were brought into use, as the water was over waist deep, but by Wednesday morning the greater part of the trouble was taken care of.



FLOOD INCIDENT AT CLEVELAND.
Steamer "William Henry Mack" jammed against West Third Street Bridge. Stern of boat rocking in flood formed giant lever which wrenched bridge from its support and destroyed it.

At the lower West Third Street bridge, the biggest blockade in Cleveland occurred, and was caused by the freight steamer, *William Henry Mack*, breaking loose from her moorings and jamming under the draw-bridge. Near this bridge are the submarine cables connecting the Main with the South Exchange and the different manufacturing con-

cerns along the river front. The steamer *Mack*, pressed by the lumber that came down the river, was transformed into a giant lever which on Wednesday morning literally pried the bridge from its middle pier and toppled it over into the water. A crew of men was constantly on the lookout for this contingency, and was prepared with extra submarine cable, furnished by the Western Electric Company, to repair any damage that might arise from it, but very fortunately the cables were not disturbed.

Wednesday night a sleet and snow storm followed the rain of the preceding three days, causing considerable damage to local and toll lines on account of poles being broken off and blown down. The Cleveland-Ravenna and Cleveland-Youngstown leads suffered to the extent of twenty-one poles broken and others toppled over for a distance of five and one-half miles. In repairing this trouble, the linemen were forced to make a detour of many miles, on account of bridges having been washed away. The leads to Sandusky, Vermillion, and Lorain, Ohio, suffered greatly. The toll lines to Lorain were in good working order Friday night and the lines into Sandusky by Saturday night.

Some praise has been given to the supervisory force and the linemen by the newspapers for their heroic deeds and almost instantaneous repairing of service, but in a great many cases newspaper men were not on the ground and were, therefore, unable to give them the full credit that they deserved.

Conditions in the Telephone Building.

It is probable that the traffic handled by the operators of the Cleveland Telephone Company has never been heavier than during this period when practically the whole State of Ohio was suffering from the effects of the heavy rains of the week ending Saturday, March 29th. Rain fell constantly from some time during the early part of Sunday, the 23rd, and at three o'clock Tuesday afternoon the Cuyahoga had risen to such an extent that the power plant of the Cleveland Electric Illuminating Company, which supplies direct current to the downtown district, was flooded, and as a result most of the places of business were without electric current for lights or elevator service.

Under these conditions, the first impulse was to go to the telephone to report the trouble. And this, together with the knowledge that many of the cities in the lower and central part of the State were in great danger from floods, brought about very heavy traffic conditions. When it was found that the Illuminating Company could no longer furnish current for charging the storage batteries of the Main Exchange and for lighting the operating room, immediate arrangements were made with the Bradley Power Company to furnish us with temporary current. The operating room, which is equipped with three emergency gas lamps, was insufficiently lighted, and candles were immediately secured, also three more gas lamps. A heavy powered cable which was secured from the Western Electric Company was run from the Telephone Building to the feeders of an isolated electric plant, which were tapped at West Third Street and Prospect Avenue. The elevator service was cut off in the Telephone Building for three days and also most of the nights.

The heavy traffic made it necessary that every available switchboard position throughout the city be filled at all times, and arrangements were made to house a number of the operators in a downtown hotel, so that they might be called in case of necessity and would be able to report at once to help handle the increased business. During the following days

and nights the heavy traffic continued, into Saturday afternoon, and it was necessary to provide additional help in taking down connections and the operators serving the heavier B positions were given frequent relief.

It is interesting to note the many conditions which arise to cause unusual use of the telephone. At first the calls were in connection with the failure of the electric light current; then stories began to circulate regarding the dangers from the flood, and reports that steam railroads and street car service had been interrupted; then a rumor that the natural gas supply was to be shut off, and, last but not least, the efforts of practically the entire city to reach the several concerns who had advertised they were in position to furnish proper drinking water, but had found their facilities entirely inadequate to the occasion.

Long-distance telephone service was almost entirely interrupted due to the floods, heavy wind storm and following sleet, and as a result many people tried to send messages by telegraph, though the telegraph company was in quite as bad shape as the telephone company. This fact did not seem to lessen the number of calls, but in fact seemed to increase them. The average number of calls handled by the Cleveland Telephone traffic department is about 400,000 per day, but it is safe to say that the number handled each day during the week would considerably exceed 600,000.

The newspapers have given accounts of many heroic deeds and devotion to duty and it has seemed to the management of the Cleveland traffic department that many more stories might have been written of the heroism of the girls who came to work through wind and rain, and sat many hours handling the traffic load, the like of which they had never seen before. Any number of the operators came to work against the advice of their parents and relatives. And one girl who was too sick to get out of



FLOOD INCIDENT AT CLEVELAND.
Steamer "William Henry Mack" drifts away, carrying part of abutment of West Third Street Bridge.

bed had her brother call up and say that she knew that we needed her and would have come to work had she been able to dress.

As a summary of the storm and flood damage in the Cleveland district it may be said that the telephone company had a most fortunate escape. Ten to fifteen thousand dollars, it is estimated, will cover it. The damage to other property, confined mostly to the district known as the "Flats," will probably total two million dollars.

MANSFIELD, OHIO.

At daybreak Tuesday, that portion of the city known as the Flats was flooded, water entering more than 100 homes. A great many families were rescued by the police and fire departments in boats. Many had narrow escapes and one man was drowned. The electric light plant and the city water works were put out of service Tuesday morning. All street car and interurban service was discontinued and the city was in darkness. This service was not restored until the following Sunday. The property loss in Mansfield and Richland County will reach about \$500,000. Practically all of the manufacturing plants were flooded and men were laid off for a time. Many of the big bridges in the county were swept away. There was considerable distress following the flood but the Mansfield people promptly organized and raised money to relieve it. The Central Union Company was dependent upon the Mansfield Railway, Light & Power Company for power and when this company shut down, the exchange was without current and there followed a total interruption of local service for twelve hours on March 25th. We were

able to give long-distance service from our pay stations, having enough current in our batteries to do this. The plant department in order to get power moved a dynamo in the test room to a machine shop a block and one-half away, and after setting it up were able to secure enough current to give very good local service. This continued until Saturday morning, March 29th, when the regular power was restored.

The damage to our plant in the city was not great although farmer lines fared badly, and in addition to the damage done by the flood, the sleet storm Wednesday night, March 26th, made matters worse.

The toll board carried the heaviest load this exchange ever had, which was doubtless due to the inability of the independent company to give long-distance service. Every operator was used that we could get and all responded loyally and willingly though it was very difficult for many of them to get to and from work. More than 1,000 Central Union and A. T. & T. calls were completed during this period.

FINDLAY, OHIO.

On Friday, March 21st, a heavy gale struck the city resulting in considerable damage to property and causing total interruptions in the toll service between Findlay and Upper Sandusky and Fostoria. There was also considerable local trouble from the same cause. The toll lines were put in good condition on the following day and on the morning of March 23rd we had a heavy rainfall which was almost continuous for forty-eight hours, causing the water to rise very rapidly and terminating in the worst flood in the history of Findlay. The body of water passed across the city from east to west in a path more than a mile in width, taking in the entire business section and also residences on both the north and south side of the Blanchard River. On Main Street near the river the water was six feet deep.

Our commercial office located on the ground floor was in twenty-two inches of water on March 26th. As soon as the water lowered sufficiently the office was moved to the second floor and there the pay station was kept open each night and on Sunday until a late hour to take care of the numerous long-distance calls. Practically all our records and supplies were saved, and the damage to the furniture was slight.

We are being complimented on every side for the great assistance our system rendered the public during the awful flood.

The Findlay Home Telephone Company whose entire plant is located on the ground floor, was entirely out of commission at noon, March 25th, the telegraph, railroads and various other companies were entirely out of business while the Bell system and the water plant were the only public-service concerns in operation. Our system operated without an interruption other than the trouble first mentioned. Our power plant was kept in operation by means of a gasoline engine.

AKRON, OHIO.

The high-water mark in Akron far exceeded anything of the kind in many years; the bed of the river in many cases being entirely changed and many miles of railroad track undermined. In a number of places the tracks were entirely washed away causing cars to fall over the embankments into the river bottom. For the first two days of the storm the city was without light and street car service. The Akron Peoples Telephone Company was completely tied up early in the storm by the failure of the light company to furnish power for its batteries, and this, with the total interruption of street car service, threw an unprecedented load of traffic upon the Central Union Company. Taxicabs and automobiles were hired by the management and every position on the switch-

board was filled. It was then almost impossible to give a satisfactory service. At the height of the storm our company had approximately 1,000 stations out of service. We lost poles on Newton, Charles, East, North, North Howard, Cuyahoga, Cherry and Canal Streets, and on Case and Kelly Avenues. Seven of our cables were more or less burned by light wires coming in contact with our aerial leads. Approximately seventy-five houses in the Valley of the Little Cuyahoga were wrecked and carried away with many bridges, both highway and railway. Manager Bradford reports many expressions of appreciation from the people of Akron for this company's share of rescue work by reason of keeping our telephone service going. This was made possible by heroic work on the part of all employees. Everyone did his or her part and perfect co-operation prevailed from start to finish. Toll-line service in the Akron area was maintained at all times except for an occasional interruption not exceeding two hours.

COSHOCOTON, OHIO.

Coshocton and Coshocton county were practically cut off from the rest of the state during the week of March 25th. Practically every bridge

in the county was washed away, and many of the highways for miles were obliterated. The telephone companies suffered greatly. The Coshocton County Farmers Telephone Company lost its exchange with its switchboard and central office at Warsaw, and the Central Union Company had many miles of its Coshocton-Conesville-Dresden-Zanesville lead washed away, and the right of way so damaged that a new route will need to be found. The Pan Handle Railway, together with the Walhounding branch of the Pennsylvania System, has had more than 2,000 men in this section repairing its bridges and right of way. There was small loss of life, but enormous damage to property.



INTERIOR OF A DEPARTMENT STORE IN FINDLAY, OHIO.

MASSILLON, OHIO.

Massillon suffered the worst flood in its history, hundreds of families were made homeless and thousands of men are out of work. All traffic was suspended; the water, gas and light supply was cut off and the east side of the city was entirely cut off from the west side by a broad expanse of water.

While there was no known loss of life, the damage to property will run into hundreds of thousands of dollars. The *Massillon Evening Independent*, the only paper published in the city, was put out of business March 25th and was unable to resume until April 1st.

Throughout the flood the manager reports that the exchange was kept running. All telephones were working with the exception of those that were in the flooded districts. The greatest problem was to keep the batteries charged, and it was with great effort that a gasoline engine was found that would do the work. All long-distance lines were working with the exception of the Mansfield circuits. Commercial Manager L. V. Beamer states that the operators were the heroines of the flood; they worked thirty-six hours without rest when the waters were highest and conditions most terrifying. They were ably assisted, however, by the boys in the plant department who secured for them sandwiches and coffee and at times actually helped the girls at the switchboard. The traffic, both local and long distance, was the heaviest in the history of the exchange, partly due to the closing of the independent exchange, which the flood put temporarily out of service.

SANDUSKY, OHIO.

While the great flood over central and southern Ohio was destroying telephone property, a severe sleet storm at Sandusky on the night of March 26th left that exchange without a working toll circuit, and with over 1,200 local subscribers out of service. None of the other wire companies nor any of the railroads had a wire working. On the twenty-seventh our plant men succeeded in getting one circuit through to Norwalk, completing it at 6:45 p. m., and in this way communication was opened to Cleveland. The importance of this circuit to Sandusky can be imagined when we consider the condition in nearby towns, and the fact that there had been no connection with the outside for more than twenty hours. The first wire to be restored by any of the other companies was at 10:10 a. m. on March 29th, about seventy hours after their wires went out.

UPPER SANDUSKY, OHIO.

Harry Latson, Central Union Company lineman at Upper Sandusky, Ohio, suffered a bad accident on March 30th; he was climbing a pole repairing flood damage when his left wrist struck a broken glass insulator. A deep gash was cut in the wrist and an artery severed. His companion lineman, August Fleck, fastened a wire about his wrist and hurried him to the Naus hospital. He lost a great deal of blood, but quick action on Mr. Fleck's part doubtless saved his life.

OHIO RIVER TOWNS.

After the Muskingum river had wrought its havoc at Zanesville, McConnelville and Malta, the full force of the flood was thrown upon Ohio river towns. To the great volume of water of the Muskingum was added the high water of the Monongahela and Allegheny and the smaller streams between Pittsburgh and Marietta, which had poured into the Ohio, so this old landmark suffered the worst in its history. Our company had sent warnings to the people in the lower Muskingum and to the people of the Ohio valley, and thousands of lives were undoubtedly saved through this service. While there was comparatively little loss of life, and while the people were warned of the coming water, and while these towns had suffered floods in recent years, hundreds upon hundreds of homes were either swept away or damaged beyond repair. Business was entirely suspended in Marietta, Pomeroy and Middleport, Gallipolis, Ironton and Portsmouth, and these towns were cut off from the outside world. The officials of our company, the state authorities and representatives of the press, had scarcely caught their breath following the catastrophes in the central part of the state when reports began to reach them of the awful devastation following one town after another along the Ohio river. Appeals for help came first from Marietta and troops and supplies were immediately started.

Word came from the Pomeroy Telephone Company that the water was higher than ever in the history of the town, and that the company was planning to move the switchboard from the second floor of the exchange building, which had been located on the side of one of the high banks and many feet above the high water mark of 1884, to the hill. In a short time, means of communication with Pomeroy were lost, and for days no further word was obtained.

Next came a report from Gallipolis that water was running in the main business street three feet deep, a thing that had never occurred before; that the building next to the exchange was collapsing, and that the manager had ordered all employees to their homes, where they were later taken in boats. Then communication was lost with Gallipolis.

Next word came from Ironton that three-fourths of the town was under water, buildings were being undermined and frame buildings were floating away. Then all communication by wire ceased. W. E. Putnam, manager of the Central Union exchange at Ironton, in an effort to get word to the outside, found that a mail clerk was attempting to get out with a message in a "John" boat. Securing paper and an envelope from the mail clerk, Mr. Putnam wrote a communication to Columbus, writing his letter against the side of a tree. For days nothing more was heard from Ironton.

Portsmouth had similar experiences. A telephone line from Portsmouth to Jackson was maintained a part of the time by joining a farmer line out of Harrisonville with a farmer line of the Jackson County Telephone Company. In this manner, intermittent reports of conditions in Portsmouth were received at Jackson and Columbus. The height of the water will be readily understood when it is stated that it reached the second floor of the Washington Hotel.

Telephone service in all of these Ohio towns was stopped; all business was paralyzed for many days, and great suffering endured.

YOUNGSTOWN, OHIO.

E. A. Sanders, Commercial Manager, reports that on Tuesday morning, March 25th, Youngstown was in the grip of a flood from the Mahoning river which reached a height of ten feet over the 1904 high water mark, when the river went to sixteen feet eight inches.

The water flooded all the iron and steel mills along the river from the Carnegie Steel and the Brier Hill Steel Company's plants to the west end of the city to the Ohio Iron & Steel Company's plant at Lowellville, putting all industries in the valley out of business, with a loss of approximately \$10,000,000. Forty or fifty business houses were flooded, and among them the *Youngstown Vindicator*, which was forced to suspend publication



THE FLOOD IN IRLTON, OHIO.
Central Union operators being rowed to the exchange building.

until the waters subsided.

The municipal water plant was put out of service from 8 a. m. on Tuesday until 8 p. m. on Saturday. The Youngstown Consolidated Gas & Electric Light Company had pumps flooded and was compelled to shut down the electric light and power. The Youngstown Telephone Company had total interruption of service between 8 a. m. and 7:10 p. m. on Wednesday, March 26th, for lack of power. Approximately 250 subscribers were out of service on account of the loss of a 150-pair cable and telephones that were submerged in the river district. The Central Union Telephone Company gave service continuously during the flood period.

The loss of the water service, which was used for cooling the gas engine, was met by the erection of an outside cooling plant.

The traffic, both local and long-distance, was the heaviest in the history of the exchange. The number of long-distance tickets was 100 per cent. in excess of any other time, and the traffic department was literally swamped with local calls. This department responded nobly to the situation and the service rendered at this time has met with praise from the city in general. Special service was given the police and fire department, the National Guard and the city officials. The city officials give us unstinted praise for our efforts in helping them handle a perilous situation. Altogether about 400 telephones were out of service. About 100 families in the flooded district were in great danger; but through the prompt assistance of the police and fire departments in boats all were taken to places of safety, with the exception of two men who were drowned. The Youngstown Chamber of Commerce promptly took charge of the matter of relief, raised a fund of \$20,000 and took care of the sufferers.

All fraternal organizations co-operated, throwing open their buildings to the homeless.

CIRCUITS BUILT UP.

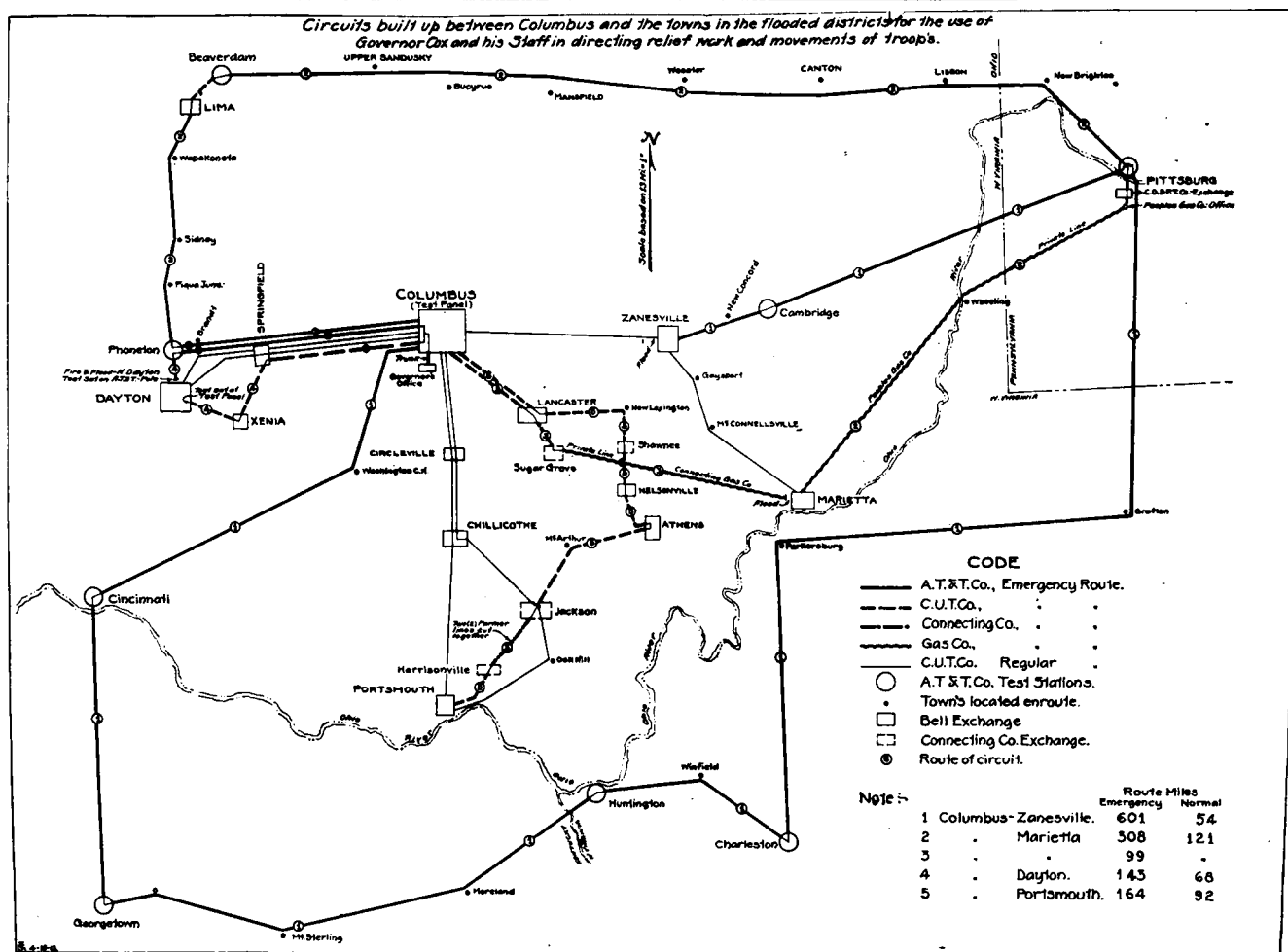
The map, "Circuits Built Up," tells a story of Bell Telephone efficiency better than words can describe it.

The engineers who made the report on the rehabilitation of the plants at Columbus, Dayton and Zanesville, printed on this and the fol-

lowing page, present a story which is typical of conditions in every other community where plants were flooded—and in Ohio more than a score were temporarily put out of service.

connection of 601 miles may be traced by following the line "No. 1." Starting from Columbus southwest to Cincinnati via Washington C. H., thence south to Georgetown, east to Charleston, north to Parkersburg, east to Grafton, north to Pittsburgh and returning again south and west to Zanesville via Cambridge. Under normal conditions this conversation would have been carried over a direct distance of fifty-four miles.

In other words, to make possible this very necessary conversation during this trying period a circuit of 601 miles was built up, which was



lowing page, present a story which is typical of conditions in every other community where plants were flooded—and in Ohio more than a score were temporarily put out of service.

Accompanying the story of the engineers is a table showing the damage to the exchange plants of the Central Union Company in Ohio.

For several days during the time of highest water when the Central Union Telephone Company, through the able work of the toll wire chief and his assistants at Columbus on the test board, were able to furnish the only means of communication for the important and necessary relief work being started by the citizens and the state officials, some of the devious routes built up through the expert knowledge of the toll line plant throughout the state by the test board men are of interest and will serve to show only in a small way the great difficulties overcome in establishing some of these most important connections. The routing of lines on five of such connections for Governor Cox and his staff is shown on the diagram. To read this diagram and follow the routing each connection is given a serial number—for example—the Columbus-Zanesville

547 miles longer than the normal circuit would have been, or a mileage increase twelve times the ordinary length of circuit.

COMMENTS OF ENGINEERS ON OHIO FLOODS.

At Columbus, Dayton and Zanesville the injury to the telephone plant was most severe.

The Hilltop Exchange building at Columbus, a substantial fireproof brick structure built about five years ago, was located in the direct path of the deepest and swiftest part of the flood, which spread over the greater part of the west side of the City of Columbus. This exchange furnished service to 2,300 subscribers, about three-fourths of whom were in the flood devastated area. Many of the buildings in which these telephones were located were either completely washed away or so severely damaged that replacing or rebuilding cannot be done for months.

The water at its highest stood eight feet two inches on the first floor and completely filled the basement and the first floor within three feet of the ceiling. The enormous pressure exerted by this swift running

current piled mud nearly a foot deep upon both the basement floor and the first floor and deposited it upon every piece of apparatus in the basement and in the first floor terminal room with the exception of the trunk equipment, which was located at the very top of the distributing frame. There was a mass of flood debris piled high about the building and at some points in the building itself, where the windows were broken by the impact.

The water pressure was so great that nearly all of the switchboard cabling was completely soaked through and by capillary attraction this water ran back into a portion of the cable which was above the water level and through the underground cable tips into the paper insulated lead covered entrance cables in the office vault.

It was necessary to replace practically all of the switchboard cabling between the main frame and the switchboard, including the intermediate frame and coil rack, also all of the outside cables entering this exchange from the office vault into the main frame. With the exception of the relatively small proportion of relays in the trunk equipment on top of the frame, entirely new relays, coils, protector blocks and mountings were necessary. The power and ringing machines were moved and placed in the shop, where they were dried out and repaired. The battery room was cleaned out and a new solution supplied.

The work of rehabilitation was seriously handicapped during the first week on account of not having gas or electric light; the only electric power being that furnished by a small temporary gasoline engine loaned from a private garage. After the water receded an attempt was made to pump out the basement with a fire engine but the water ran in so fast from the ducts that we could make no impression the first day in lowering the level. The second day, however, we succeeded in getting all of the water out and thereafter removing the mud. The repair work started then and soon was going on with three eight-hour shifts of sixteen men each under General Equipment Foreman Beilstein, this crew being made up from employees from the plant department of this Company, the Cleveland Telephone Company and the Western Electric Company.

The Broad Street Bridge over the Scioto carried 700 pairs of underground cables furnishing service to those Main Office subscribers located west of the river and the trunk wires between Main and Hilltop. This bridge was washed away and the cables taken with it. A temporary cable erected aerially restored partial service by April 3rd. This entire cable and conduit run must be replaced when a new bridge is constructed and in the meantime new cables have been erected at a point several hundred feet north of the bridge (crossing river on poles), by which means the trunk and subscribers' lines on the west side of the river will be taken care of for a year or two and until a more permanent crossing can be re-established in the new bridge.

At Dayton.

At Dayton the water completely filled the basement and on the first

floor to a height of within two and one-half feet of the ceiling. This floor had recently been entirely remodeled and equipped for the commercial department. The deposit of mud and debris together with the water has made necessary extensive repairs to the building, furniture and fixtures.

The gas engine set in the basement together with the batteries and the heating plant was completely submerged, requiring a general overhauling.

A number of the manhole covers in the down town area were washed away and a considerable amount of underground cable trouble resulted from this severe water pressure together with wreckage damaging the cables and splices at these locations.

The damage to the large number of private branch exchange switchboards throughout the business area, requiring twenty-eight (excluding No. 2) of such boards to be replaced entirely, represents a serious loss in service and equipment. These boards as well as the apparatus contained in them are completely wrecked.

At Zanesville.

At Zanesville five out of seven bridges crossing the rivers were completely washed away. Upon two such bridges this company maintained cables which were entirely destroyed. A temporary aerial crossing has been established at one location by suspending a 200-pair cable from poles on either side of the bank, while at the other location where at least 400 pairs must be replaced the river is too wide for a practical aerial crossing and a new submarine cable installation will be required, which matter is now in hand.

The Zanesville-Marietta toll line was rebuilt last year out from Zanesville with new thirty-foot poles. For several miles this line was entirely washed away. Some of the poles were recovered in wreckage at various points along the river but many disappeared entirely, which was the fate of other pole lines washed out by the swift current through the country districts.

The interruption to the toll-line service was severe in that the damage was so general and extended over such a wide area, so that there was hardly any line but what was affected at some point by the flood or accompanying wind and sleet. Approximately 7,000 miles of talking circuit was out of service at one time.

To replace the toll pole lines will require the erecting of about 1,000 new poles, resetting 600 poles and the placing of 400 miles of new wire. Several of the locations where the longest breaks took place are:

Coshocton-Dresden for a distance of 190 poles.

Miamisburg-Franklin for a distance of 280 poles.

Pomeroy-Gallipolis for a distance of 450 poles.

At some locations the entire highway along which the line stood has been washed away and there is no sign of either poles or wires there now.

SUMMARY OF DAMAGE TO THE EXCHANGE PLANTS OF CENTRAL UNION COMPANY IN OHIO FROM FLOOD AND STORM OF MARCH 23, 24, 25 AND 26.

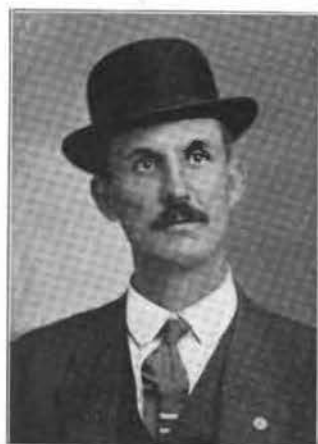
| Name of Exchange or location. | Total number stations. | Subscribers' Stations, Instruments and Wiring. | | P. B. X. switchboards to be replaced.† | Miles of Wire in Underground Cables. | | Miles of Aerial Wire. (Cables and open.) | | Number of Exchange Poles. | |
|-------------------------------|------------------------|--|-------------------------------|--|--------------------------------------|-----------------------------|--|-----------------------------|------------------------------|-----------------|
| | | Maximum number out of service. | Damaged and must be replaced. | | Maximum out of service. | Damaged and to be replaced. | Maximum out of service. | Damaged and to be replaced. | To be reset or straightened. | To be replaced. |
| Columbus | 20,000 | 3,200 16 | 1,600 8 | 5 | 1,910 | 24 | 5,944 | 432 355 | 30 | 75 |
| Dayton | 13,000 | 13,000 100 | 3,000 23 | 28 | 2,030 | 625 | 2,986 | 135 | 35 | 43 |
| Zanesville | 4,000 | 4,000 100 | 1,000 25 | .. | 2,275.8 | 98.5 | 3,543.4 | 443.7 | 20 | 151 |
| Ironton | 1,200 | 600 50 | 300 25 | .. | .. | .. | .. | 21.4 | 50 | 17 |
| Chillicothe | 900 | 350 39 | 25 3 | 1 | .. | .. | .. | 41 | 150 | 100 |
| Findlay | 2,700 | 1,500 55 | 50 2 | .. | .. | .. | .. | 60 | 150 | 50 |
| Sandusky | 2,700 | 1,000 37 | 25 1 | .. | .. | .. | .. | 50 | 150 | 50 |
| Akron | 5,200 | 750 14 | 20 4 | .. | .. | .. | 1,500 | 40 | 50 | 10 |
| Coshocton | 952 | 230 24 | 125 13 | .. | .. | .. | .. | 50 | 12 | .. |
| Fremont | 560 | 100 18 | 50 9 | 1 | .. | .. | .. | 60 | 75 | 25 |
| Toledo | 12,000 | 2,000 16 | .. | .. | *1,106.06 | .. | .. | 47 | .. | .. |
| Youngstown | 6,000 | 200 3 | 175 3 | 1 | .. | .. | .. | .. | .. | .. |
| Portsmouth | 500 | 500 100 | 200 40 | .. | .. | .. | .. | 40 | .. | .. |
| Circleville | 779 | 218 28 | 25 2 | .. | .. | .. | .. | 98 | 35 | 20 |
| Dresden | 200 | 150 75 | 40 20 | .. | .. | .. | .. | 52 | 23 | .. |
| Springfield | 5,500 | 500 9 | .. | .. | .. | .. | 1,000 | 2 | 2 | 4 |
| Massillon | 1,500 | 300 20 | 50 3 | .. | .. | .. | 200 | 4.25 | 10 | 15 |
| Piqua | 400 | 400 100 | 25 6 | .. | .. | .. | 30 | 10 | 10 | 10 |
| Other small exchanges | 8,000 | 3,500 44 | 500 6 | .. | .. | .. | 350 | 10 | 200 | 25 |
| Total | \$6,091 | 32,498 | 7,210 | 36 | 7,322.4 | 747 | 16,001.4 | 1,473.305 | 1,157 | 595 |

*Submarine cable at Cherry Street Bridge.

†This does not include probably 15 No. 2 Private Branch Exchange Boxes.

THE BATTLE FOR CIRCUITS.

Difficulties that are ordinarily thought to be insurmountable were overcome by plant men following the breaks in our lines. Merciless



R. E. WOLF.

rains, roads thought impassable, swollen streams without bridges, death-dealing currents, seas of mud, Cimmerian darkness, rivers of Styx, stopped not these men. The real story, with all its hardships and all its privations, will never be known, for these fellows are too modest to speak of them. They worked day and night in wet clothes, they were covered with mud, they got such food as they could, they drove automobiles where they could drive them, they commandeered teams and wagons when automobiles failed, they walked where horses could not go, they crossed rivers and streams at the peril of their lives, they slept at times in wagons, barns—in fact, any shelter they could get—and al-

ways left a line of communication open behind them. The officials at Columbus followed these men as they reported to them; but often would not hear from them for hours and hours at a time, and when they were heard from it was found that they had walked miles—compelled to make detours in order to follow a lead. An instance that is typical is that of the trip taken by "Bob" Wolf, who left Lancaster on Sunday at two o'clock to get a circuit through from Gallipolis to Portsmouth via Ironton. Accompanying Wolf were E. A. Armentrot, Frank Outcalt and Charles Leonard, of Lancaster. Lineman McLain was picked up at Logan. At Nelsonville Manager McBride, Repairman Hawk and Wire Chief Farrel joined the party. These men first cleared the line between Nelsonville and Athens, then, finding it impossible to get through to Gallipolis, returned to Logan. The party was augmented by Toll Repairman Dalton, Linemen Martin and Kuhns, from Athens, and from Logan a train was secured for Jackson, where they arrived at one o'clock in the morning and remained until daylight. An automobile truck was secured and the men were able to get within five miles of Gallipolis, where they found the water was over the entire lead. Then a detour was made to the Gallipolis-Portsmouth A. T. & T. lead, which was followed toward the town within a mile. Wolf secured a boat and arrived at the Gallipolis office at eight o'clock that night. From here he reported to Columbus via Jackson. The next morning the gang was divided, and, securing boats, one cleared a circuit from Gallipolis to Jackson and another from Gallipolis to Ironton, at the Gallipolis end. At ten o'clock that morning they returned to the automobile truck which had been left out in the country, and began to follow the Gallipolis-Portsmouth A. T. & T. line for about fifteen miles, and cleared several crosses where A. T. & T. poles had been broken down. From this point they went to Waterloo and over the Waterloo-Ironton line. From Waterloo to Ironton much of the line is over private right of way, and the men worked in relays of two men each, the automobile picking them up where the lead came back to the road. This was continued for a distance of about sixteen miles,



HARRY DALTON.

part of the men assisting in pushing the automobile up the hills. At one point it was impossible to move the truck any further. Teams of mules were secured, and the truck was towed for a distance of one-half mile. At 12:30 p. m. they arrived at Arabia and secured dinner, which consisted of beans and sardines. They moved on three miles further, but had to abandon the automobile truck in the hills, on account of its inability to run any further. At this point two teams of mules were hired from a farmer, and immediately after starting it was discovered that the man's house was on fire. The gang went back and extinguished the blaze and then started for Ironton, and on opening circuits found them still short in that direction. When within three miles of Ironton they were stopped again by the high waters. At this place the wagons were unloaded and the teams sent home. A night's lodging was secured at an abandoned sawmill. McBride and Leonard slept on the top of the boiler and Martin under it, the others having to take less desirable places. Wolf, McBride, Armentrot, Leonard and Hawk started again for Ironton. They detoured through the hills and finally reached a tunnel which leads into Ironton. The next morning officials of the company heard from Wolf, and were relieved of great anxiety.

RESTORATION OF SERVICE IN OHIO.

By J. W. Cherry.

The damage caused by flood of March 26 to 29, 1913, to telephone property in the state of Ohio is absolutely without precedent and almost beyond belief, but the story of the restoration of the plant is almost without precedent and to telephone men may be of as great interest as the story of the flood.

When it became apparent early Tuesday morning that a higher water level would be reached than ever previously recorded, preparations were made at exchanges where there was a possibility of interference by high water to provide means for charging the storage batteries and keeping the exchanges in operation.

At many points where exchanges themselves could not possibly be affected by high water, the power plants providing the current used in operating the motor generators were situated on the river banks and were damaged by the flood which made necessary the installation of gasoline engines in the exchange quarters.

Temporary gasoline engines were installed at Massillon, Chillicothe, Columbus North, and Mansfield, and at several other points it was necessary to install emergency cooling outfits for the gas engines already installed due to the fact that the city water system had failed.

As temporary power supplies were installed in ample time, none of the Central Union stations were obliged to shut down on account of loss of power, except Hilltop Exchange at Columbus, where the water rose to a height of eight feet nine inches in the terminal room, completely submerging the power plant and terminal equipment, and at Dayton Main exchange, where the height of the water was nine feet above the first floor, submerging the storage batteries and gas engine power plant in the basement.

At Mansfield, a gasoline engine was temporarily installed, but, due to the fact that the building was not stable enough to support the engine on the floor, it was necessary to move the generator end of the motor generator set to a machine shop in the rear of the building, where it was belted to an existing gasoline engine and the power supplied from that source.

During the time that this machine was being moved, the batteries dropped to the danger point, but service was not actually suspended to all subscribers.

At Akron there was some doubt as to the stability of the gas supply for the gas engine ordinarily used at that point, and arrangements were made for charging the storage batteries by means of a two-cylinder motorcycle which was installed in the apparatus room and belted to the generator. This tided over the difficulty, which lasted but a short time, and service was given continuously at that point.

This was probably the first instance in history where a telephone plant was operated with a motorcycle as the base of power.

At Zanesville the water approached the danger point in the basement of the building in which the storage batteries were located, but Manager Brehmer succeeded in obtaining a gasoline pumping fire equipment and by pumping the water from the basement kept it below the level of the storage batteries.

On Tuesday morning when the flood started, the Division Department Heads were widely scattered. The Plant Superintendent was in Toledo and could not get through to Columbus; Traffic Superintendent Whitten was in Dayton and was flood-bound in the Main Exchange Building from Tuesday until Friday; Engineer Allard Smith was en route from Defiance to Cleveland and had great difficulty in getting to Columbus from Cleveland on Wednesday; Commercial Superintendent Stevens was in Columbus.

There were a large number of toll line breaks scattered throughout the entire state. These were caused first by a cyclone which visited us the latter part of the preceding week and on which only temporary repairs had been made when the rain started on Sunday.

In addition to the damage caused by the flood, a severe sleet storm occurred on Wednesday in the northern half of the state which resulted in an increased amount of trouble and much greater damage.

The work of temporary restoration of service on toll lines was directed by former Plant Superintendent Sherer, whose intimate knowledge of the toll plant gained through his many years of service in Ohio was invaluable at this time.

Service was temporarily restored on practically all toll lines by Saturday, March 29th, and the men engaged on these repairs were turned back to the Plant Superintendent for repair work at the exchanges.

The Cleveland Telephone Company at Cleveland and the Central District & Printing Telegraph Company of Pittsburgh were called upon for help and material in this crisis.

The first question before us was, of course, the securing of the material necessary for the rehabilitation of the exchanges and the replacement of apparatus destroyed by the water.

The Hilltop Exchange at Columbus went out of service at 11:30 a. m. on March 25th. The Engineering Department set to work immediately preparing lists of apparatus and material necessary to restore the service. With great difficulty this list was telegraphed to the Supply Agent at Chicago. Part of the message was given by telephone and part by telegraph to the test station at Phoneton and from there telegraphed to Chicago, and the balance sent by Western Union to Chicago. An idea of the number of items called for can be gained by the fact that the Western Union telegraph bill for this one message was \$28.30.

The material necessary for the Hilltop Exchange was received by express and was delivered and ready for use as soon as the water could be pumped out of the building and the building made ready to receive it.

Following this telegram covering the shipment of material necessary for use at Hilltop, another message was sent, through various channels, covering the estimated amount of material needed for restoration of service throughout the state.

At that time railroad communication was open from Chicago to Toledo, but railroad transportation to Dayton, Columbus and Zanesville was either wholly cut off or very uncertain.

Plans were therefore made to ship all the material to Toledo and

open a base of supplies at that point, and redistribute as necessary. Before the receipt of the material, railroad service was restored to Columbus and cars were reshipped to that point for redistribution.

At Columbus, Zanesville and Dayton immediately upon the arrival of the men, the regular forces and the extra men were set to work recovering damaged property. Following this first hurried covering of the ground, the systematic work of repairs, beginning with the clearing up of underground cable trouble and replacing damaged aerial cable and cable poles and cable boxes, was started.

The Commercial Department covered the territory in an effort to ascertain what the subscribers' intentions were in connection with future service. The installers were started out at once, however, to restore such service as could be started from a visual inspection, and within a few days they were working entirely from cards supplied by the Commercial Department.

In connection with the restoration of the aerial plant at many points, it developed that it would be economical to replace aerial wire with cable or existing cable with larger cable, and for that reason a representative of the Engineering Department was placed on the ground to arrange for such changes and distribution as appeared advisable in connection with the repair work.

Information was collected by the Engineering Department as to the extent of damage at all of the points, and they maintained a general supervision of repairs so that the greatest benefit could be obtained in the permanent restoration of service.

The Hilltop Exchange at Columbus resumed service on April 23rd with about 900 subscribers and service was expected to be entirely resumed by May 1st.

At the time of writing, which is April 30th, Zanesville has in the neighborhood of 400 subscribers still out, largely in the country; Dayton Main has about 1,100 subscribers still out who desire service at this time, and at other points complete service has been practically restored.

The great stress and rush in connection with the repairs on toll lines and at most of the exchanges in the state has developed the fact that our organization is filled with men worthy of the greatest trust that can be imposed upon them and their loyalty and trustworthiness cannot be too highly complimented.

Many of our employees in Ohio continued to labor in the restoration of service when their homes and families were inundated and they could not receive any definite word as to their welfare.

These men and women are deserving of the highest commendation and will be remembered in all time to come.

TELEPHONE OPERATORS EACH TO RECEIVE A MEDAL.

J. A. Bell, of this city, and Thomas E. Green, of Columbus, the two telephone operators who performed especially heroic service during the early days of the flood, keeping the lines open long beyond the time that telephonic communication could have been had, if it had not been for their timely and self-sacrificing efforts, were given consideration in the sundry appropriation bill before the state legislature Monday, the sum of \$100 being set aside for the purchase for each of a gold medal.

The character of service performed by these two young men has been outlined in the daily press on various occasions.—
Dayton Daily News, April 29th.

EMPLOYEES LOSE HEAVILY.

A careful investigation discloses the fact that two hundred and twenty-one Central Union employees in Ohio lost either all or part of their personal property amounting to \$61,708. Emergency relief has been furnished to the extent of \$6,095.



Executive Department.
STATE OF INDIANA.

Executive Department.
STATE OF INDIANA.

April 15, 1913.

Mr. L. N. Whitney, General Manager,
Central Union Telephone Company,
Indianapolis, Indiana.

My Dear Mr. Whitney:-

I cannot refrain, at this time, from acknowledging the great obligation I feel, not only personally, but on behalf of the people of the whole state, for the special and most successful efforts made by the company, during the recent flood period, to maintain and restore telephone communication between the executive office and the many and widely separated cities and towns of the state.

The public at large has but an inadequate idea of the difficulties under which your officers and linemen labored in accomplishing such successful results, at a time when devastation by the high waters was everywhere. Only those who anxiously stood by, waiting some word from dear ones in distress,

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and those upon whom the responsibility of meeting the deplorable conditions with prompt and efficient measures of relief, could realize the splendid work of your officers and employees.

I especially desire to testify to the alertness, ability and quick grasp of the situation shown by Mr. Frank Wampler, District Commerical Manager, of this city, in this regard. For him and the other employees and linemen who so ably reinforced his plans and suggestions, and to the general officers of the Central Union Telephone Company, who donated so much time and service to the cause of suffering humanity, I tender my sincere thanks and those of the thousands of Indiana's flood victims, whom they all so freely and so loyally served.

Very truly yours,

Samuel M. Ralston

Governor

GOVERNOR RALSTON THE MAN OF THE HOUR

Indiana's Chief Executive a Tower of Strength In The State's Time of Need

The State's history does not record a disaster equal to that which attended the visitation of floods during the last days of March. Cities and towns were all but wiped off the map; hundreds of communities were within a few hours transformed by the high waters from a most prosperous state to that of dire suffering. This condition, brought about with only a moment's notice, made the suffering even greater than it would have been had there been any time for preparation and defence.

The State of Indiana has always been fortunate during times of disaster, to have in the Chief Executive chair, men big enough to cope with any condition. "The Man of the Hour" in these days was Hon. Samuel M. Ralston, Governor. His wonderful executive ability, guided by a most sympathetic personal feeling for the suffering people of his State, enabled him to handle the situation and direct relief in such a way that the people should never forget the service of this man. It must be realized that at the same time the floods wrought such disaster, they crippled to an immeasurable degree all means of communication and transportation, and the Governor for this reason was materially handicapped in carrying out his work.

His first appeal was to the Bell Telephone Company. He asked for the sake of humanity, that we use every effort to place him in communication with the stricken districts. His request was cheerfully granted. The long distance lines of the Bell Company were not only placed at his disposal, but special measures were put into effect by the exclusion of the commercial business to meet his demands.

Frank Wampler, an official of the company and a personal friend of the Governor, was assigned to the Governor's office for the purpose of giving every assistance possible. Mr. Wampler's long experience and familiarity with the circuits and numerous ways of reaching different parts of the State, placed him in position to make suggestions to an efficient traffic department which enabled them to get the Governor in communication with communities where it first appeared almost an impossibility.

The success attained in reaching the stricken communities by telephone brought forth special praise from the Governor, as well as newspaper men who were continuously in attendance at the Governor's office, and Mr. Wampler was given the title of "Night Governor." The article which was written up in the joke column of some of the newspapers, created considerable comment among the State officials and the Governor as well. The latter expressed himself as approving the newly created office and of having no objection to the appointee.

The Governor has publicly expressed his appreciation for the services rendered by the Bell Telephone Company.

B. B. Johnson, private secretary to the Governor, Lieutenant Governor O'Neil, Burt New, the Governor's legal clerk, and Adjutant General George W. McCoy, deserve special praise for the valuable assistance they rendered in carrying out and putting into effect the different plans of relief and methods for protection of person and property.

Other State officials, namely, W. H. Vollmer, treasurer of state; L. G. Ellingham, secretary of state; Elliot R. Hooten, chief of inspection bureau; Thos. M. Honan, attorney general; Fred France, clerk of supreme court, and Chas. Greathouse, superintendent of public instruc-

tion, offered their services to go anywhere and did everything within their power to assist the Governor in carrying out measures of relief.

An individual, and not a State official, who was at all times in position to observe the manner in which the Governor directed the handling of the relief measures, is authority for the statement that the people of the State of Indiana will never be able to repay Governor Ralston for the services rendered during those trying days. It is difficult to appreciate the task that confronted him when we see only the wonderful results accomplished.

Among others who have especially complimented the Governor, is Charles W. Fairbanks, Ex-Vice President of the United States, who has publicly commended him for the effective way in which he handled the situation.

Following an appeal from the Governor, contributions from all parts of this State as well as others, began to pour into the Governor's office. It was only a few days until subscriptions reached over \$118,000; Clinton County being the banner county in the State of Indiana, the contribution from that county alone amounting to over \$6,000.

The Governor appointed Hugh Dougherty of Indianapolis as Trustee to receive all funds, and immediately put into effect such routine as would insure the proper and equitable distribution of same. Almost a hundred carloads of food, clothing, tents, bedding, and other kinds of supplies were despatched to the different communities. Special commendation is due Adjutant General McCoy and Quartermaster General Garrard for their efficient manner of handling the situation and getting to their destinations, these supplies. In fact, it seemed that everyone in the State House connected with the relief work, at all times worked at the highest point of efficiency.

The Governor immediately got in touch with the Red Cross Society and Henry Stewart of Chicago was promptly despatched to Indianapolis where he rendered invaluable service and most substantial and practical relief. The Governor has expressed his sincere gratitude to these men, and to the Chicago Association of Commerce for their liberal and substantial assistance.

In fact, speaking for the people of Indiana, Governor Ralston has both personally and otherwise expressed appreciation to all, especially those outside of our great State, that have been so liberal with money and supplies. The Governor now has in mind, by co-operation with the Red Cross Society, as far as possible, to rehabilitate the different communities to their former condition. He realizes that while immediate relief was necessary, the most essential thing to our citizenship is to restore the stricken communities to their former prosperous and homelike condition.

This desire can come only from one who is not simply big enough to grasp the big business problems but from one whose sympathies are as broad as his executive efficiency, and a Governor who cherishes this laudable ambition is, if for no other reason, worthy of confidence and commendation of any patriotic citizenship and of a right thinking people everywhere.

During the short time that Governor Ralston has been in office he has proven to the people of Indiana his capability of dealing with hard problems, which has won for him the admiration of a proud commonwealth. The executive ability demonstrated during the flood period is of the same quality as that which has guided his official action in dealing with all questions since he has been in office.



L. N. WHITNEY
General Manager, Central Telephone Company,
Indianapolis, Ind.

GENERAL MANAGER EXPRESSES THANKS OF COMPANY TO EMPLOYEES

Indianapolis Ind., March 29, 1913.

Mr. J. L. Wayne, 3rd,
Traffic Superintendent.

Dear Sir:

Will you please extend to the entire operating force the appreciation of the President, Vice President and myself of the loyal and commendatory way in which they have handled the company's service during the storm and flood.

Outside of the Company's Officials, the Governor, the Mayor and the Relief Associations have all commended us on the way that the operators handled our service under such trying conditions.

I appreciate that the operating force had to contend with a badly crippled telephone system and also with a much excited and worried public. The results, however, have been most gratifying and the Company is prouder than ever of its Operators.

Yours truly,

L. N. WHITNEY,
General Manager

"THE NIGHT GOVERNOR."

Frank Wampler, an official of the Central Union Telephone Company, was one of those who did service at the Governor's office during the week of the flood. Mr. Wampler handled all long-distance calls that came and went from the Governor's office, and they were numerous. His "wireless" success during the time practically all communication was cut off brought forth praise from the Governor.

Because of Wampler's proficiency the coterie of workers who practically lived in the Governor's office during the week called him "the night Governor."

Governor Ralston usually went home at dinner time and kept in communication with flood sufferers and his office by telephone thereafter during the night. Wampler, Burt New, the Governor's legal clerk, W. H. Vollmer, treasurer of state, and Dr. Samuel N. Quillin, clerk of the house in the recent legislature, usually "stood guard" at the Governor's office until late each night.

Wampler was in "the night Governor's chair" one evening and the rest of the party were awaiting a call from stricken Lawrenceburg. The intense strain of the last few days was settling on all their nerves, and at last the state treasurer sought to throw it off. He arose and made an impassioned plea for "the night Governor" to appoint Dr. Quillin as constable of "the 1915 legislature."

"I see that Dr. Quillin is one of the very few men that might successfully hold that office," said Wampler.

He gravely selected a paper from among the legal documents on the Governor's desk, signed it, affixed the state seal and handed it to Dr. Quillin.

The blank was a parole and a remission of the fine of Samuel N. Quillin.—*Indianapolis News.*



FRANK WAMPLER
District Commercial Manager, Central Union
Telephone Company, Indianapolis, Ind.

INDIANA

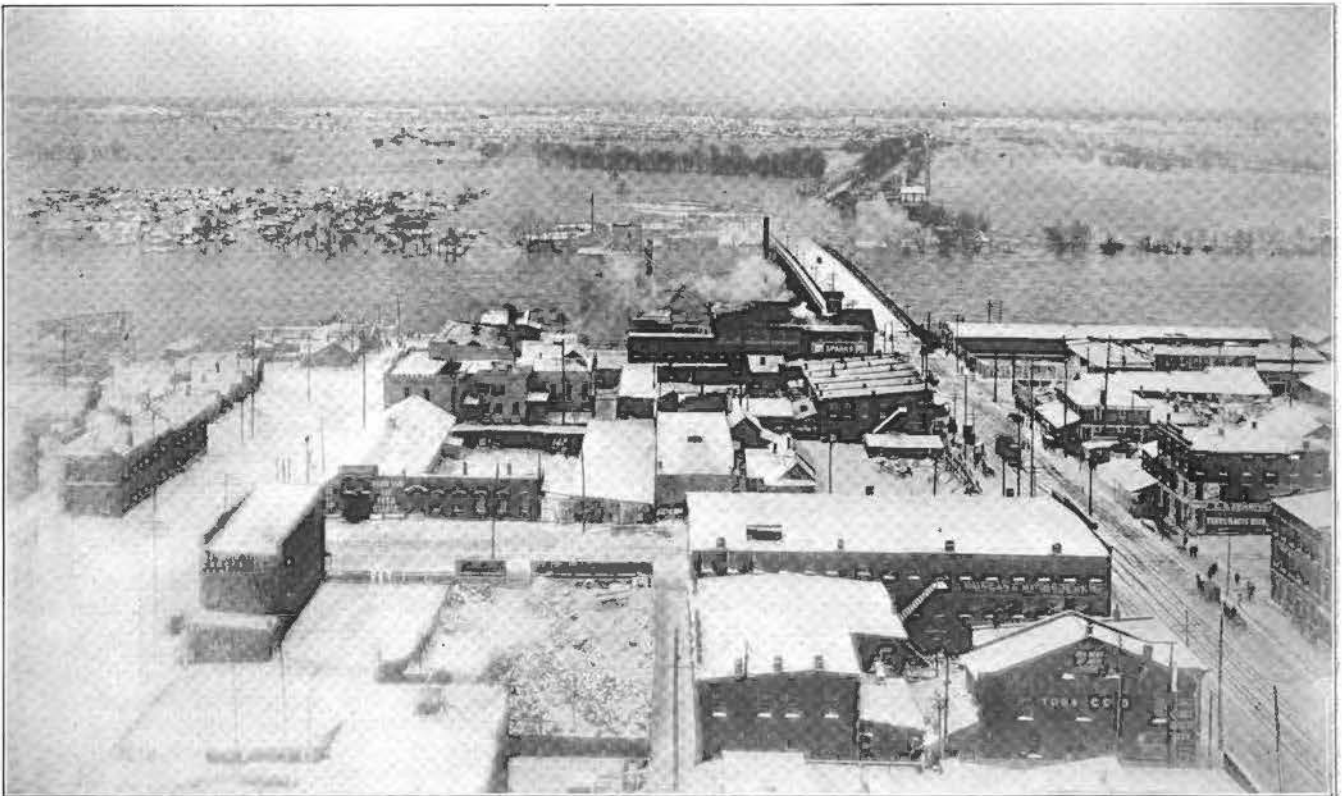
By G. C. Brooks.

A series of the severest storms ever known in the history of the country passed over the Central West in the latter part of March, causing exceptionally heavy damage by wind and flood throughout Indiana.

On the night of March 20th a very high wind crossed the central part of the State from the southwest, in several places reaching a velocity of sixty miles an hour. This wind was accompanied by some rain and continued for nearly twenty-four hours, causing extensive damage to the Central Union plant. Nearly 1,200 poles were blown down and another 1,000 broken or blown out of position; 1,000 feet of cable and 5,000 miles of toll circuit were put out of commission; a large number of sub-

cords. Levees and dykes gave way and hundreds of bridges were washed out and many thousand acres flooded, rendering thousands homeless and destroying millions of dollars' worth of property.

On the twenty-sixth the rain changed to sleet and snow and many of the company's wires, already weakened by the flood, went down. This sleet and snow was accompanied by severe lightning, which burned out many cables, instruments and switchboards. A summary of the damage done by the flood and accompanying sleet showed 500 poles washed out and destroyed; 15,000 feet of underground cable; 10,000 feet of aerial cable and 8,000 feet of duct destroyed, and 8,000 miles of toll



VIEW OF WABASH RIVER AT TERRE HAUTE, IND.
Showing inundation of West Terre Haute and Taylorville.

scribers (nearly 2,000), were out of service; many wires and cables were destroyed by coming in contact with electric light and power wires. This storm had hardly abated before another wind storm amounting to a cyclone passed over the southern portion of Terre Haute on March 23d, destroying practically everything within forty-five city blocks. It also struck the ground again at Perth, a small mining town a few miles east of Terre Haute, practically wiping it off the map.

In Terre Haute the Central Union Company lost about 100 poles; 6,000 feet of cable and 500 miles of toll circuit; nearly 600 subscribers being deprived of service; 100 subscribers' sets being lost entirely. The damage to the company's property caused by these two storms amounted to nearly \$30,000.

During the night of the twenty-second a heavy rain started to fall over the entire State, continuing for nearly five days, causing all creeks and rivers to overflow their banks and rise to heights never before re-

service put out of commission, 15,000 subscribers were out of service, 1,500 subscribers' sets being lost entirely. The estimated damage at this writing due to flood conditions, will not fall far from \$150,000, the entire loss, including the storm of March 20th, will reach about \$175,000.

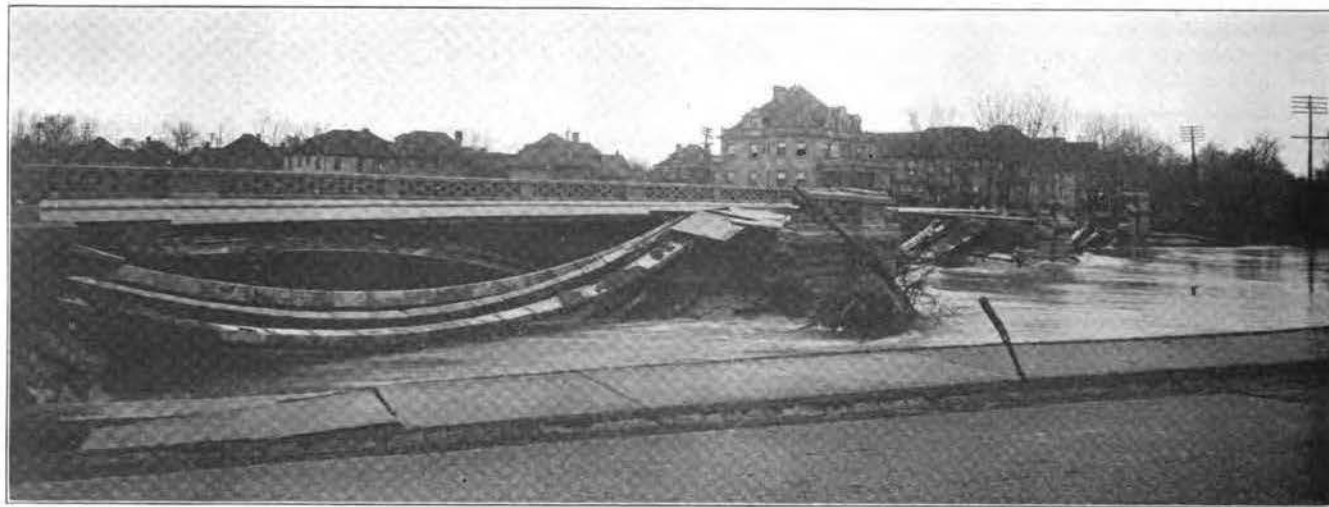
Owing to the widespread destruction of every kind of property, the failure of light, power and railway service, the demand made upon the crippled telephone property was enormous, but everything possible was done to keep the service going. Operators and employes were kept at hotels and central offices for several days, food and clothing being provided for those whose homes had been destroyed and everything necessary to look after their health and comfort being done. Too much praise cannot be given to our employes who worked almost incessantly for three days without thought of their own affairs, some of them knowing their own homes were under water.

While nearly every city in the State suffered to a considerable extent, Indianapolis and Peru probably felt the effects of the flood the most. At Indianapolis the entire west side was isolated from the rest of the city, being cut off by White River; that carried away the Washington Street bridge which carried the Company's cables to the Belmont office. All other bridges were rendered impassable, the Vandalia Railroad bridge being destroyed, and several thousand homes in the low lands west of the river were flooded and rendered uninhabitable. The destruction of the Washington Street bridge rendered the Belmont Ex-

change Central Union exchanges (about 3,800 subscribers) were entirely out of business for two days, hundreds of instruments being completely ruined by being covered with water. All the operators and other employees with their families were quartered in the exchange building.

Use Blackboard to Post Telephone Calls.

Owing to the reports that were circulated regarding conditions in Peru, the calls over the toll lines were extremely heavy and as it was impossible to reach any one by telephone, the expedient of erecting two



WRECK OF NORTH MERIDIAN STREET BRIDGE OVER FALL CREEK, INDIANAPOLIS, IND., SHOWING CONDUITS HELD UP BY CABLES. Seven Central Union underground telephone cables hung for a while as shown, but finally gave way.

change helpless on account of lack of power, the building being practically surrounded by water. This condition prevailed until the twenty-sixth, as the city authorities would permit no one to cross the river at any point.

Use Kite to String Cable.

Various means of getting a line across were suggested, as it was impossible to use a boat on account of the swift current. Finally Plant Chief McMaster at Indianapolis, suggested the use of a kite. One was secured, together with a man accustomed to handling it, and Mr. McMaster, Mr. Bacon, Foreman Haines and Lineman Fisher crossed the river on one of the railroad bridges and waded through water to a point opposite the Washington Street bridge. Here about 1,200 feet of copper wire was attached to the kite line about 500 feet from the kite. By clever manipulation the copper line was caught by those on the east bank; the kite was then pulled in and it was only necessary by use of the wire to pull a No. 9 guy wire across, which was followed by a No. 10,000 guy strand. Finally, a 100-pair cable was strung, thus restoring service to the Belmont exchange.

Another part of Indianapolis to feel the effects of the flood was the district just north of Fall Creek. This section is occupied by many expensive residences, many of them being damaged to a considerable extent. The Meridian Street bridge over Fall Creek was also destroyed. For several days Indianapolis suffered the inconvenience of being without water or street car service. On March 26th the Company had 6,000 subscribers out of service in Indianapolis, but with the exception of those in the flood district, they were rapidly restored.

Peru, Ind., in proportion to its size, probably suffered more than any other city in the State, the water covering the entire city with the exception of one block, on which the Court House was located, 3,000 people being massed in this block at one time. All bridges crossing the Wabash River were washed away and it was impossible for some days to get in or out of the city. Out of 3,000 houses in Peru, over 2,000 were damaged by the flood and a great many completely destroyed. Both

large blackboards was resorted to, one in front of the telephone exchange and the other in front of the Court House. On these the names of those desired at the telephone were written. This had the desired effect as every one who read the names passed them on to his neighbor.

Terre Haute, besides suffering from the cyclone, also suffered considerably from the flood, the river here being ten miles wide and completely inundating the town of West Terre Haute, putting out of service about 300 telephones.

Logansport was another city to feel the full effects of the flood, the Wabash River reaching as far as Fifth Street. The Central Union office was under water and the wire chief and operators remained on duty all night. It was impossible to rescue them on account of the swift current. They were finally taken out by stretching a ladder across the alley from an adjacent hotel. It became necessary to abandon the office and twisted pair was connected to the toll lines and carried further up the street beyond the reach of the water and a temporary office installed in an undertaking establishment and it was from this point that Logansport communicated with the outside world.

On March 25th the Culver Military Academy sent six ten-oared cutters to Logansport and the students with these boats did heroic work, bringing from twenty-five to thirty-five people on each trip in from the flooded districts. These boats were supplemented the next day by the Naval Apprentices from Chicago.

DETAILS OF THE INDIANA FLOODS.

While the story of the flood and wind storm which swept over Indiana from the twentieth to twenty-seventh of March has been set forth in a general way in the preceding articles, the details of the damage in each exchange were not mentioned. Nearly every exchange in the State suffered to a greater or less extent: Poles went down everywhere; the water rushed into manholes and soaked underground cables; aerial cable went down; thousands of telephones were under water and rendered useless; hundreds of fuses were blown out by the wires coming in contact with

high tension circuits before the flood put the power companies out of business. Nearly everywhere that there was a scene of wreckage a mass of telephone poles and cross-arms could be found. With the possible exception of the railroads, wire using companies suffered more than any other industry. Below will be found a summary of the damage done and subscribers who were out of service at each exchange.

Indianapolis. The wind storm of March 20th prostrated fifty poles

chiefly by wind and sleet, about seventy-five poles being down and 200 subscribers put out. All but thirty-five, mostly farmer lines, were restored by March 31st.

Gas City. Twenty poles blown down by wind and fifty subscribers out; all working by March 31st.

Fort Wayne. Telephone property in Fort Wayne suffered more by having nearly all toll lines out of the town cut off than by actual damage



REPAIRS OVER FALL CREEK AT NORTH MERIDIAN STREET BRIDGE, INDIANAPOLIS.

and put 700 subscribers out. About 500 of these were restored by the twenty-fifth, when the flood reached its height. At 8:30 p. m. of this day the Washington Street bridge went down putting the Belmont Exchange out of service; at midnight the Meridian Street bridge over Fall Creek also went down. At this time there were about 6,000 subscribers out of service. Temporary work was started immediately. At 12:30 noon of the twenty-ninth the Belmont exchange was again in service and by the thirtieth there were less than 1,000 subscribers not working, most of these being in the flood district where the instruments would have to be replaced on account of the high water.

Terre Haute. The cyclone did more damage here than the flood, blowing down 100 poles and 6,000 feet of cable and putting 600 telephones out of service. About 200 of these were restored by the time the flood came, which put 300 more out. The impossibility of reaching these until the water had subsided made the work of restoration extremely slow, the water here being from ten to twelve miles wide. On April 2nd everything had been put in service with the exception of about fifty subscribers; twenty-five sets were washed away completely and never found.

Anderson. The wind of March 20th blew down about ten poles and put fifty subscribers out. At the height of the flood about 100 subscribers were out. These were placed in service rapidly and by the thirtieth everything was working and in normal condition. The damage to telephone property here was slight.

Alexandria. The extent of the damage in Alexandria will be confined to the resetting of about 200 poles which were undermined, and replacing a few cross arms. On March 26th there were about 100 subscribers out, mostly caused by the sleet. These were rapidly repaired and by April 1st the conditions were again normal.

Auburn. The entire damage here was caused by the wind and sleet. Ten poles were blown down and about 150 subscribers temporarily out. By March 27th everything had been restored.

Cumberland. No damage by flood. Several poles blown down and about thirty subscribers out on account of wind. All working by March 30th.

Culver. Eighteen poles blown down by wind and about twenty subscribers out; all restored by March 27th.

Elwood. Considerable miscellaneous damage was done here, prin-

in the city. Fifty subscribers were out, but restored by March 31st.

Kendallville. No permanent damage; about fifteen poles blown down and fifty subscribers out. Conditions were normal on March 27th.

Muncie. Muncie felt the effects of the flood to considerable extent, the river inundating a large portion of the town. About sixty poles were prostrated by the wind, and underground cables soaked by the high water.

At one time there were about 450 subscribers out. They were all back in service, however, by March 31st. Considerable damage was done to farmer lines.

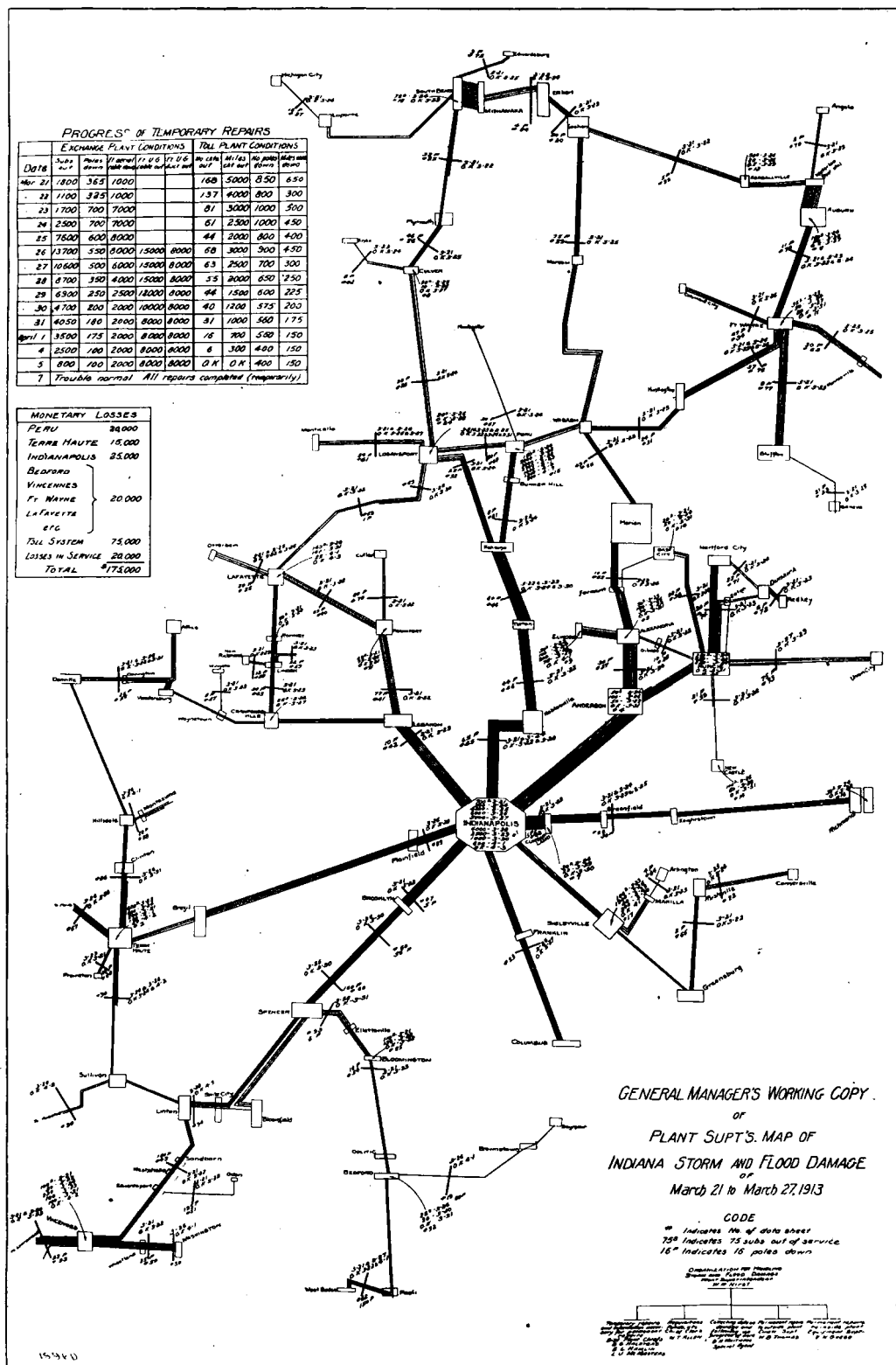
New Castle. Thirty poles washed out and cable struck by lightning; 100 subscribers out; considerable miscellaneous damage. All working temporarily by March 31st.

Peru. Peru probably suffered more than any other city in the State. Both Central Union exchanges were entirely out of business; 1,000 telephones being under water, and 2,000 more inaccessible; 150 poles and 3,000 feet of cable went down, only one block in the city not being under water. On April 4th trunks had been strung between the two exchanges and about 2,500 subscribers were again in working order. It will take some time and money to clear conditions up as the loss is extremely heavy.

Shelbyville. Nearly the entire town was under water. On the twenty-sixth water overflowed the power plant, putting the entire



DETAIL OF REPAIRS OVER FALL CREEK AT NORTH MERIDIAN STREET, INDIANAPOLIS.



PROGRESS OF INDIANA REPAIRS TOLD IN FIGURES ON CIRCUIT MAP.

exchange (1,900 subscribers) out of business. On March 27th a gas engine was set up temporarily and power restored. Forty poles went down and about 300 subscribers were put out on this account and wet cables. Normal conditions had been restored by April 10th.

South Bend. South Bend was fortunate in being out of the flood district. Ninety poles were blown down by the wind storm of March 23rd, but by March 29th all were restored. Not more than seventy-five subscribers were out at any one time.

Lafayette. The flood assumed considerable proportions at Lafayette, carrying away all bridges connecting the city with West Lafayette with the exception of the L. E. & W. R. R. bridge, and so weakening this, that traffic was prohibited. All telephones on the west side were out, and nearly all toll lines. All subscribers were again in service by April 4th.

Vincennes. The terrific wind storm which developed into a cyclone at Terre Haute passed over Vincennes and put out of service about 230 subscribers, and did serious damage to all toll and farmer lines. The crest of the flood did not reach here until March 29th, when about 100 telephones went out on account of wet cables occasioned by the high water. Normal conditions were restored in the city by April 2nd.

Logansport. Logansport lying as it does, only a few miles below Peru, felt the effect of the flood seriously, all property within several blocks of the river being inundated. Nearly every subscriber was out on account of the high water and all toll lines damaged to a greater or less extent. The city was second only to Peru in the material damage done and suffering of its citizens. The Central Union Company, having only a few subscribers at this point, escaped serious financial loss.

Bloomington. Bloomington felt the effect of the wind more than the high water. About ten poles were down and 130 subscribers out; there were restored by March 28th.

Frankfort. The damage in Frankfort compared to the other exchanges was slight, wind causing the most havoc. About seventy-five subscribers were out, caused by broken wires. They were all working normally by April 1st.

Bedford. Quite a number of farmer subscribers were cut off on account of the wind, and this service could not be repaired on account of high water; there were about twenty-five in all. These were restored by April 1st.

INDIANAPOLIS, INDIANA.

By H. F. Hill, Jr.

On Tuesday, March 25th, after an all-night rain which averaged an inch an hour, we faced a new situation in the telephone business in Indianapolis.

Early in the morning we were notified that the street car service had been discontinued and that within a few hours the pumping stations of the Water Company would be shut down. From indications, the Light Company, which furnishes our power, would be out of business. Fortunately having our own water, light and heating plant, we felt confident that we would still continue to operate a telephone plant provided the plant remained. The light companies were, however, able to keep their plants running.

The question of housing and feeding our operators was the next important one we had to decide. Our traffic department succeeded in

making arrangements with several hotels for rooms and meals. On Thursday, however, it was decided to furnish meals from our own kitchen. This practice we continued throughout the flood, meals being provided for 145 operators three times a day.

The plant department arranged sleeping quarters in our building, and in this manner we housed some fifty men.

On the first day of the flood, we were requested by the city authorities to help construct, with telephone poles, the foundation of a levee to protect the southwestern part of the city. Fifteen linemen volunteered their services and with the help of about fifty employes from the Nordyke & Marmon Automobile Company, and a hundred men from the City Street Cleaning Department, with teams, we were able to construct a levee, which, had it not been for the back water, caused by breaks below, would have probably saved quite a section of this district from water.

We had in use in Indianapolis, three motor trucks, with four drivers

in charge. These men and trucks were at work from 4:30 a. m. until 11:00 p. m. daily, over the worst kinds of roads through our flooded districts, where the water, on several occasions, completely covered the running gears. The speedometers on these trucks show about 1,500 miles to the car. They were used to haul drinking water, to bring employes to and from their homes and to deliver men and material to their several jobs throughout the city. The following drivers perhaps were responsible, in a great measure, for the prompt temporary repairs made by the plant department: A. Williams, Ed. Culp, Jesse A. Thomas, H. A. Bretney and "Red" Parny.

A great deal of credit must be given the Indianapolis district traffic chief, Guy Green, and his efficient force of operators for the

service they gave throughout the flood, working under a 300 per cent. abnormal load. In some instances operators worked fourteen hours with no relief, while other operators remained on duty knowing that their homes were being washed away.

R. R. Gleason, district traffic chief of the American Telephone & Telegraph Company, in Indianapolis, his chief operator, Ella Benson, and their operating force, handled a volume of business which was entirely out of proportion to their switchboard capacity, and only through the untiring efforts of this entire department was Indianapolis able to give information to the outside world and order supplies. This force was working in a building surrounded by over two feet of water.

In the past two weeks we have received numerous letters from our subscribers thanking our operators for the courteous way in which they had been treated during these strenuous times.

To the toll-line gangs fell the "peak of the load." Highways leaving the city in every direction were washed out and men who took chances to make toll lines "good" took their lives in their hands hourly. In one instance south of Indianapolis, I saw two toll repairmen walk and swim a horse a mile and a half across what seemed to be a lake. This trip



OPERATORS WHO REMAINED ON DUTY AT PERU, IND.

To Those in Authority of Flood Sufferers:-

Kindly pass the bearer.

L. B. Whitney, Central Union Telephone Company,
wherever he may desire to go.

Respectfully,

James M. Kelston
DISTRICT

March 28, 1913.

ONE OF THE ONLY TWO GENERAL
PASSES ISSUED IN INDIANA DURING
THE FLOOD PERIOD.

was taken with nothing but a halter for a bridle and with a coil of "twisted pair" around the horse's neck; the repairman making one pair "good" as he rode and swam the horse.

The picture of the Meridian Street bridge, which cost \$250,000, gives one a fair idea of the havoc that this ordinarily almost dry stream, caused the telephone company. Fortunately, enough of this bridge stood to enable us to get our cables across.

The picture of the West Washington Street bridge shows that all of our cables were put out of commission at this point. The width and swiftness of the current necessitated devising a method of getting a line across the river, which, after repeated efforts, was finally accomplished by the use of a kite.

The total cost of temporary and permanent repairs to our plant at Indianapolis has not even been estimated but it is safe to say that, with possibly two exceptions, we have suffered the greatest financial loss in this district.

Unfortunately, owing to our own damage, we were unable materially to assist, with our time, any of the relief committees, except by immediately installing telephones for their use, without charge. How-

Central Union Telephone Company was dependent altogether on the light company for power, when the waters rose, the charging of the storage batteries, which had been going on constantly all day, ceased. When power failed, arrangements were at once made to borrow from McCaffrey & Company two gasoline engines, which were secured by lowering them from a third story window, as the elevator was out of commission on account of the basement being full of water. One engine was taken to the Home exchange and the other to the Central Union. We were unable to use the engine at the Home office on account of a weak floor, and were unable to get the one at the C. U. office to carry the load of both exchanges until some time Wednesday. After it was found that we could not start charging until some other arrangements were made, all of the telephones that had not been put out of commission by the rapidly rising water were "killed." Desperate efforts were made to keep our toll boards in operation in order that communication with the outside world, that was fast being cut off, would not be lost completely.

Indianapolis was notified Monday night that the power had failed and an emergency charging outfit was started from Indianapolis on the 7 a. m. L. E. & W. train Tuesday in charge of D. A. Leach. On



PANORAMA OF THE FLOOD AT INDIANAPOLIS.

ever, numerous instances were brought to our attention where employees, after doing an abnormal day's work, found time at night materially to assist these several committees.

General Manager L. N. Whitney, through the daily newspapers, authorized to flood sufferers, three months' free service, at the same time offering to move all telephones in the flooded district, free of charge. This offer has been gratefully accepted.

PERU, INDIANA.

The name of Peru will go down into history along with Johnstown and Dayton as being one of the greatest sufferers from flood.

The newspapers have chronicled and elsewhere in this issue we have mentioned that Peru suffered more than any other city in Indiana. We have asked Manager Bebee to tell us the telephone side of it and how it affected the company's plant and employees. Mr. Bebee's story follows:

By C. R. Bebee.

Rain commencing Friday night, March 21st, and continuing constantly until Monday morning, March 24th, created a flood condition at Peru and Logansport from nine to twelve feet higher than the highest known high water mark, which was in 1883.

The water continued to rise and at Monday noon, March 24th, it had reached the high water mark, and at 7:30 p. m. had risen high enough to reach the generators in the city light plant, which are about six feet above the known high water mark, causing them to shut down. As the

account of a washed out bridge at Peru, he was unable to get farther north than Bunker Hill. As the Wabash railway was still running between Logansport and Peru, the outfit was transferred to the Pennsylvania road, and shipped to Logansport for reshipment to Peru, but by the time Logansport was reached all means of shipment to Peru were destroyed.

Mr. Leach was notified and upon the payment of \$20 was able to secure a dray that would make an effort to haul the outfit to Peru. It left Logansport at daylight Friday morning. Lineman Watkins of Logansport went along as guide, as it was necessary to zigzag back and forth across the country on account of bridges and roads being washed out. The outfit reached Peru late Friday afternoon and charging of the Home office batteries was at once started and continued until the batteries were fully charged, after which the exchange was gradually put back into service. We were able to restore only about 500 subscribers out of the 2,900. In the meantime Foreman Udell's men had succeeded in closing the Kelly Avenue bridge break on the Kokomo lead by crossing the river on the Lake Erie Railway bridge with about 2,500 feet of twisted pair in each of the four toll circuits and toll calls were offered to us faster than could be taken care of. All kinds of methods were used in an endeavor to complete these calls. As it was impossible to find anyone at a given address, at the suggestion of J. L. Wayne, traffic superintendent, a bulletin board was established in a prominent place and on it were placed names of all parties wanted for "Long Distance" as fast as received.

On Monday, foreseeing the danger from high water, Plant Chief Martin O'Brien and Wagon Foreman F. Martin, who lived in South Peru, the part of the city most affected, tried to secure safety for their families by moving them across the Wabash River to East Fifth street.

On Tuesday morning, finding that many of the company's employees could not reach the office, the big two-horse order wagon was unloaded and driven to various parts of the city, where it was possible to go with a team to bring in all that could be reached.

In the afternoon Mrs. O'Brien, Mrs. Page and Mrs. Jackson were taken from houses on East Fifth street and brought to the Telephone building. On the same afternoon all employees of the company that we could locate who had been driven from their homes by the high water, were brought to the Telephone building, where a "camp" had been established. The wives of our men appointed themselves a commissary committee and certainly did wonderfully well with the limited supplies at their disposal, as it was only possible to secure canned goods. At one time there were forty-seven people being fed from this building, this number including operators from the Home exchange.

On Wednesday night the cots, provisions, etc., that had been shipped

toll lines of any company that were available for use, that appeals for assistance were sent out. This circuit was in constant use for the next two days, or until other toll lines leading into the city were cleared, in directing the shipping of provisions, clothing, bedding, boats, etc., that were so badly needed in Peru and in trying to keep the outside world posted as to the actual conditions prevailing in the city.

Miss Gilbreth, Central Union chief operator, came back to the office at 4 a. m. Tuesday, together with Miss Faunce. The latter was carried from her home to a Wabash switch engine and brought to Broadway. From there she was carried to a point whence she could walk to the office. Miss Conyers was able to reach the office on foot. These three operators were on duty without relief, except as they were able to relieve each other, until Friday, when it became possible for other operators to get to the office.

At the Home exchange Miss Shughrue, chief operator, Miss McConnell and Miss Wolfe, who were able to walk to the office early Tuesday morning, and Miss Cassell, Miss Schrader and Miss Endsley, who were brought there in boats, were also on duty constantly until Friday under the same conditions as existed at the C. U. office.



ND., VIEW LOOKING WEST FROM WHITE RIVER.

by the South Bend exchange in charge of A. Getchell arrived and were unloaded two miles north of city, this being the nearest point that could be reached by train. Mr. Getchell stood guard over the provisions all night and until our men could reach him the next day in boats and bring the cargo to the Telephone building. At one time during the night it was necessary for him to draw a revolver to prevent their appropriation by people not entitled to them.

The question of the safety of the employees being settled and the water having started to recede, every effort was bent toward getting the exchanges back into commission, but it seemed almost a hopeless task. All of the toll leads were lost, Kokomo lead had gone out with the Kelly Avenue bridge, Logansport lead with about forty poles down, in fifteen feet of water and the Wabash lead with a ten-pole break under twelve feet of water. About 1,800 telephones had been under water and every cellar in the city had been filled with water, which in a great many cases wet the arrester and inside wiring. In the C. U. exchange we were able to restore only about 150 telephones out of the 1,000.

On Tuesday morning, not being able to secure boats in Peru, Mr. Agnew of the Rochester Home Telephone Company was appealed to for aid and he secured two boats from a club house on the lake and shipped them to Peru by express for use by the company. These boats were also used for rescue work.

By Tuesday noon all toll lines and W. U. wires had failed with the lone exception of the Peru-Rochester line, and it was over this circuit, with the aid of the Rochester Company, and from Rochester over the

The Home operators were taken care of at the Bearss Hotel and the C. U. operators in the Telephone building.

Every employee of the company in Peru has suffered loss, to greater or less extent, in furniture, clothing, etc., as water was in nearly every house to the depth of from six inches to twelve feet.

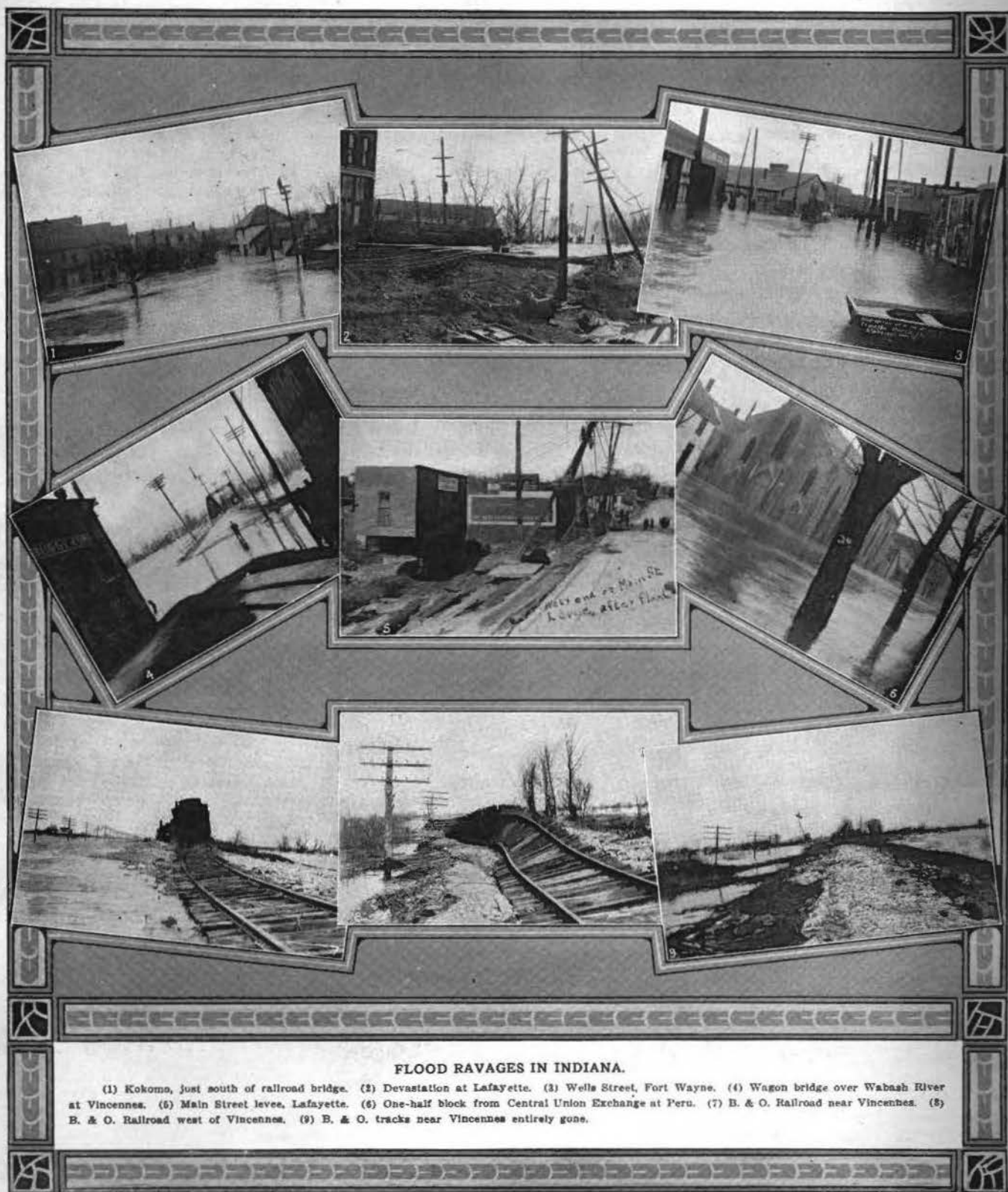
Too much praise cannot be given to all employees of the company for their untiring efforts both in behalf of the company and those who suffered from the flood. There were those who took actual part in the saving of life; others stuck to their posts until worn out, while still others busied themselves in behalf of their stricken fellow employees. Everyone did his very best.

At Logansport.

At Logansport, the water reached the entrance to the building in which the office is located about Tuesday noon. Operators' dinners were carried in to them and they were carried out to wagons Tuesday night so that they might be



MARTIN O'BRIEN.
Plant Chief, Peru, Ind.



taken home. The night operator could not reach the office, so Miss Kilborn, chief operator, stayed on duty until Wednesday noon, when on account of the swift current in the alley at the side of the building all persons were ordered to leave it, as there was danger of collapse.

It was not possible to leave by the entrance to the building, as the current was so swift in the street that boats could not be used, so a plank was thrown across the alley in the rear of the building from a fire escape on the office building to a window in the second story of the Murdock Hotel. Across this plank Miss Kilborn reached the hotel in safety,

who with their boats did such valuable rescue work. Almost all other temporary relief arrangements were made over this same circuit.

All day Tuesday and until Wednesday noon Mr. Morrill made frequent trips back and forth to the building via his cable messenger route, changing patches through panels as different circuits would fail, and on one trip built up a circuit over the telephone circuit of the Logansport *Journal-Tribune* that was used in getting out over 500 messages via Indianapolis. Mr. Morrill was the only employe at Logansport who suffered any personal loss, the water reaching six feet in his home. His



7. 19
AFTER THE CYCLONE AT TERRE HAUTE, IND.
Showing twisted pair wire hung on crossed timbers to keep toll communication open.

from whence she was taken to a point where she could reach her home, in a boat, late that afternoon. Water had receded by noon on Thursday enough to permit an examination of the building. It was found to be safe, so the operators were taken back to the exchange and service was resumed.

At the time employes were ordered from the building, C. F. Morrill, toll wire chief, patched all toll lines through the test panels so service would not be interrupted and left the building by means of a cable messenger to a point where he could wade. He then went to a subscriber's station in a part of the city not affected by the water and cut the drop onto a Kokomo-Culver circuit, which gave Logansport the only outlet to the north and south. All Western Union wires in the city had failed, as the water was in the local Western Union office to within three inches of the top of the switchboard. Our booth located in this office floated out and down the Wabash river; the top of the Western Union manager's roll top desk was found on the Market street bridge after the water had gone down.

It was from this subscriber's station that arrangements were made for sending from Culver Academy, at Culver, Ind., the naval cadets,

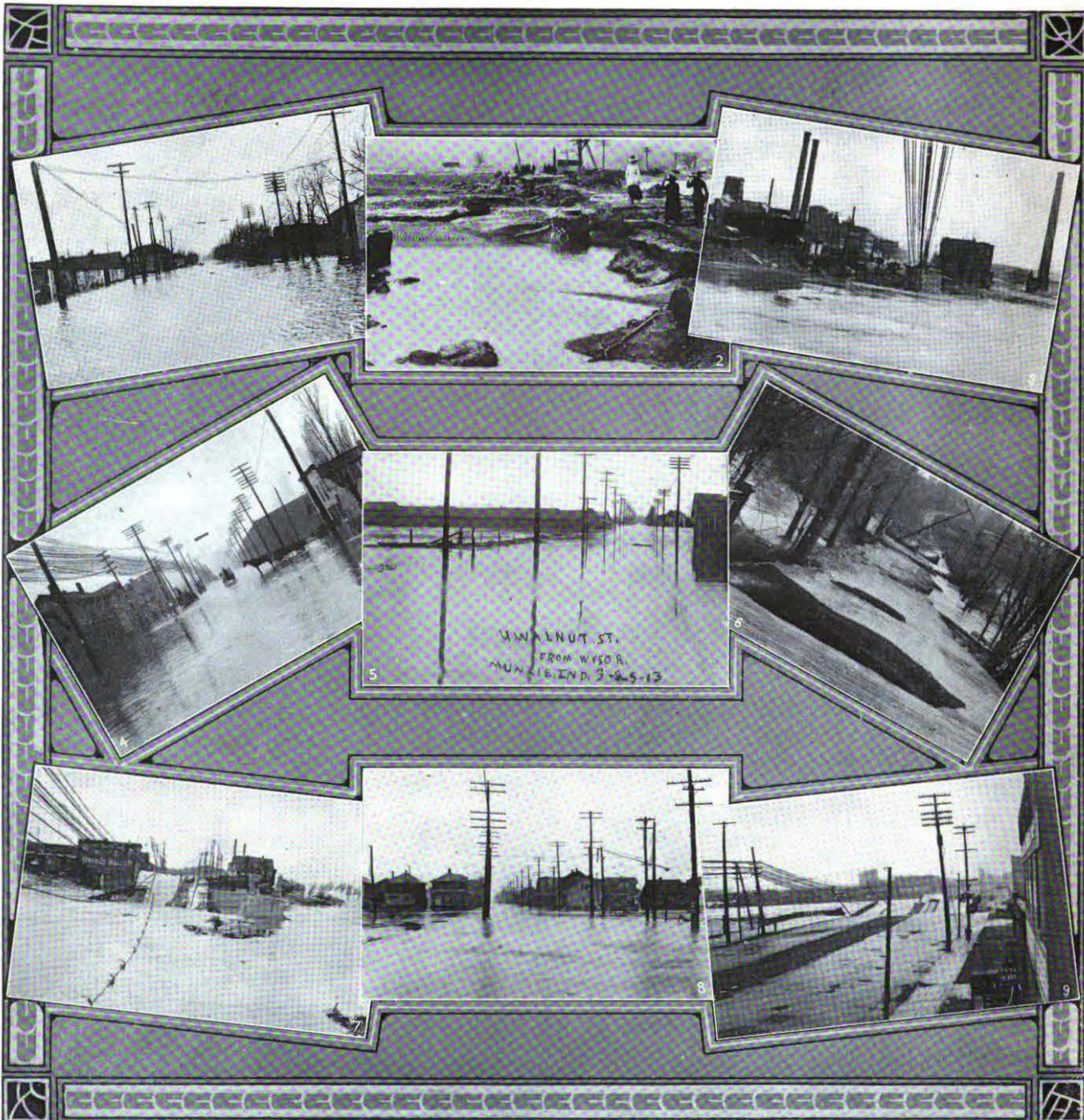
wife and family were taken out by a wagon when danger became imminent, no time being given them to save any of their effects.

TERRE HAUTE, INDIANA.

By F. D. Allen.

Within an hour after the church going citizens of Terre Haute had returned home from Easter night services on March 23rd, this city was visited by the most destructive tornado known to this part of the state. During Sunday afternoon and evening the atmosphere was very oppressive and with no other warning than this, about ten o'clock in the evening the tornado struck with all the force known to such storms and tore a path across the south part of Terre Haute about three blocks wide and twenty blocks in length. Few structures in the path of the storm escaped injury and most of the cottages, factories, and large fashionable residences were completely demolished. Sixteen people were killed and several hundred injured.

The telephone was in great demand immediately after the disaster and the lines still in service several blocks from the storm path were called upon to carry an enormous number of calls. Few poles of any



FLOOD RAVAGES IN INDIANA.

(1) Oliver Avenue, West Indianapolis. (2) West of Martinsville, where Central Union lines were entirely destroyed. (3) West Washington Street Bridge, Indianapolis; Central Union had three cables crossing this bridge. (4) West Washington Street, Indianapolis, near Belmont Exchange. (5) Walnut Street, Muncie. (6) Between Spencer and Gosport. (7) Another view of West Washington Street, Indianapolis. (8) College Avenue and Thirtieth Street, Indianapolis. (9) West Washington Street, Indianapolis, just as bridge went out.

kind were left standing and as the storm traveled from southwest to northeast diagonally across all streets running north and south, it filled these streets with an impassible barrier of telephone, telegraph, electric light and trolley wires. Leads heavily loaded with telephone cables were twisted, broken and inextricably interwoven with the debris of the storm. All telephones south of the storm section were cut off and all those within that section completely destroyed, while those a few squares north were largely out of service.

In less than an hour after the storm struck, City Plant Chief Frank Rolan had all available men in the midst of the wreck providing temporary toll lines and such local telephones as were necessary in the rescue work. By six o'clock the following morning more than sixty men under Construction Superintendent Thomas were floundering around in mud and water amid a constant downpour of rain, making every effort to rebuild the disabled telephone plant. The rain continued for about three days after the tornado making the repair work very difficult. But despite this fact the larger portion of the telephones put out of service were restored within three days with the exception, of course, of those destroyed with the houses they were in.

Almost before the horror of the tornado had reached the outside world this community was cut off on all sides by the worst flood ever experienced in the Wabash Valley. The first reports of the Dayton disaster had hardly reached this city before it was in the midst of a flood which completely inundated Taylorville, a community of 500 inhabitants, on the west bank of the river; West Terre Haute, a city of three thousand inhabitants, a short mile west of the river, and also a part of the northern section of the city of Terre Haute. Many of the Taylorville houses were washed away and all those left standing were filled with water to the roofs. In West Terre Haute few houses were washed away but many stood in three or four feet of water and were threatened with destruction at any moment. In the north part of Terre Haute a broken levee drove many families out of their homes and floated several houses blocks away from their foundations.

When the people of Terre Haute recovered enough from the shock of the disaster to think of communicating with friends and relatives out of the city, they found themselves almost cut off from the world. There were no trains out or in because the bridges and tracks were washed out. Upon the telephone and telegraph devolved the task of transmitting urgent messages to the people of Terre Haute from anxious friends elsewhere and others just as urgent from Terre Haute to those outside.

Naturally the flood had severed many toll lines. This community was especially unfortunate and had it not been for the bravery of City Plant Chief Rolan in crossing a condemned bridge and wading for more than a mile through a rushing torrent of water, flowing over the top of a railroad grade, Terre Haute would have had no service west and none north. Through his endeavor, circuits were made possible to Chicago and also to western points through a trunk line cable carrying circuits to the West Terre Haute exchange. The toll lead carrying circuits west had gone down in the flood.

But few telephone toll lines were available for use but those remaining were worth their weight in gold. Alda Shuttleworth, Chief Operator, and all of the toll operators at this exchange worked faithfully day and night, some days working eighteen hours in a vain attempt to handle the toll business offered over the few circuits intact. Many times our central office pay station was packed so full that the outside hall

had to be used to care for the waiting patrons, some of whom waited for five and six hours without even the satisfaction of a report on a call. Sometimes there were hours at a stretch when seventy or more tickets for one particular circuit or point had not been passed. This happened time and again on Indianapolis tickets, always due to lack of circuits.

Points south as far as Louisville, Ky., before the flood cut us off from the south, were making frantic appeals for toll circuits through here to Chicago and Indianapolis, but for many days we had no such circuits even for our accumulated Terre Haute business. These conditions prevailed every hour for ten days.

Quite frequently all of our toll trunks between local and toll were busy and patrons were compelled to wait in order to pass a ticket.

Tickets placed before ten o'clock in the morning were seldom passed before five or six in the evening. Four-fifths of the business received was never passed. All these things were due to an overwhelming demand for toll service with but few circuits in working order.

While the Terre Haute toll room was thus engaged, the local operating room was just as busy. Every position was filled during the entire day and the operators worked early and late at top speed in order to handle the traffic. Even then it frequently happened that two adjoining sections of switchboard would be tied up with all cords in use and calls coming in that could not be answered.

At West Terre Haute, the Citizens Telephone Company abandoned its exchange. Despite the fact that both Independent and



LOUISVILLE-BLOOMINGTON TOLL LINE NEAR TERRE HAUTE. Showing where twisted pair cable was carried under Big Four tracks to make connection with Central Union wires on the right. Twisted pair was strung on Western Union poles for about a mile. Western Union poles standing on the left.

Bell exchanges are located in the same block and on the same floor (second) our operators stuck to their posts. Proper provision was made to take our operators away from the building in a boat should it become necessary to do so, but they never felt it necessary and so remained to serve the people in the hour of need. Recognition of this loyalty was made in two Terre Haute newspapers and one in West Terre Haute.

The local traffic at West Terre Haute exchange was enormous. Many times all operators were on duty and unable to handle the demand for service. A few trunk lines were working to Terre Haute and these lines were so busy that waiting lists for West Terre Haute trunks were kept at both ends in order to help subscribers get service. Incidentally, the cable carrying these trunk lines was under water for almost a mile but the pole line held and service was never completely cut off.

It is impossible to enumerate the many instances of bravery and devotion on the part of loyal employees during the ten days of nerve-racking work which they were called upon to do. We can only say that every employee in every department did whatever was required and in many cases volunteered to do a great deal more through a desire to serve our citizens.

IN THE LAFAYETTE AND FRANKFORT TERRITORY.

On the morning of March 21st, the little army of telephone workers in the territory awoke to hear the wind howling and shrieking through the trees and to feel houses shaking on their foundations. Realizing what such a gale would mean to our plant, every man reported for duty from a half to one hour before the usual time, and to their credit be it said, without being called upon.

Of twenty-nine toll circuits radiating from LaFayette, not a single line was working. After tests were made on all circuits, men were at once detailed to drive all toll leads with instructions to report conditions as soon as possible. Fortunately, Foreman Downey and a force of men

engaged in rebuilding the city, were available and other men were started on the leads following the inspectors with instructions to get a circuit through to each exchange. These men were supplied with twisted pair and whenever poles were down and wires badly mixed up, they strung in the distributing wire and by evening of March 21st all toll lines, except four, were working temporarily.

The damage caused by the terrific wind was not confined to the toll lines alone as reports began to come in early from subscribers out of service and by evening the hospital board was filled and many additional lines plugged out on the board. Little damage was done to the pole leads in the city, but a number of bad breaks occurred on toll lines, the worst of these being at Romney, Ind., twelve miles south of LaFayette,

with Logansport. However, the service thus restored did not last long as the Wabash River was rising rapidly. Already over the banks at some points, the waters soon began to spread over the lowlands forming strong currents which washed out many telephone poles. The damage to toll lines was heaviest on this lead as during the highest water between LaFayette and Delphi about three miles of poles were entirely submerged, 180 being entirely washed out of the ground. Some of these were carried down stream but most of them were held by the wires and are now being reset. About 200 more of the poles were twisted and leaning, and required straightening. During the night of the twenty-fifth a section of the Brown Street Bridge in LaFayette was washed away, carrying with it two spans of the Fowler and Brookston toll lead.



FLOOD SCENE AT ANDERSON, IND.

there being twenty-three, forty and forty-five-foot poles broken in short pieces. The lead at this point carried toll circuits between LaFayette and Crawfordsville and Frankfort and Crawfordsville, besides forty-one local circuits of the Romney exchange.

Local service at the Romney exchange was demoralized, most of the subscribers being on rural lines and every one of these leads had poles down and wires tangled. About fifty out of 175 subscribers remained in service.

At Frankfort we were more fortunate than in the neighboring territory, since out of seventeen toll circuits, seven did not go out entirely, but it was necessary to send men over the leads as the working circuits showed swinging shorts and temporary grounds. The worst individual break caused by the wind was from a roof being blown off of an elevator, tearing out the three LaFayette circuits, the LaFayette-Indianapolis through circuits and toll circuits north from Frankfort. Service was restored on these lines temporarily by throwing in three spans of twisted pair. All toll circuits out of Frankfort were cleared up temporarily by eight o'clock in the evening.

A Worse Calamity Follows.

A check up of conditions and of material necessary to make permanent repairs had not been completed when on the morning of March 23rd, a heavy rain started in and continued falling in torrents throughout the day. All lowlands were submerged and local streams were running full. It continued to rain throughout the night and following day but no real alarm was felt for the telephone situation until Tuesday morning when three poles on the LaFayette-Logansport lead were swept away at Wildcat Creek, about two miles northeast of LaFayette. Men were sent out to restore the break, which they accomplished by stringing twisted pair on the wagon bridge and communication was again established

with Logansport. However, the service thus restored did not last long as the Wabash River was rising rapidly. Already over the banks at some points, the waters soon began to spread over the lowlands forming strong currents which washed out many telephone poles. The damage to toll lines was heaviest on this lead as during the highest water between LaFayette and Delphi about three miles of poles were entirely submerged, 180 being entirely washed out of the ground. Some of these were carried down stream but most of them were held by the wires and are now being reset. About 200 more of the poles were twisted and leaning, and required straightening. During the night of the twenty-fifth a section of the Brown Street Bridge in LaFayette was washed away, carrying with it two spans of the Fowler and Brookston toll lead.

It was impossible to attempt restoration as all traffic to the west side of the river had been discontinued the previous day on account of the perilous condition of the remaining bridges. On the morning of the twenty-sixth, Manager Blinn of Fowler, being unable to raise LaFayette, started over the lead, driving the twenty-eight miles in an automobile, and arriving in West LaFayette got in touch with the office from a local telephone which was working through cable on the Main Street Levee. He secured the services of a lineman stranded in West LaFayette and toll circuits were cut through to the office in the cable.

The American Telephone and Telegraph Company's service had been destroyed on account of poles being washed out in the river bottom



TELEPHONE MEN RESCUE PEOPLE AT KOKOMO, IND.

for a distance of about one mile, cutting off LaFayette and Indianapolis from Chicago. After re-establishing the circuits to Fowler, the LaFayette wire chief sent a man two miles east from Fowler with instructions to cut one of the Fowler-Goodland circuits on to an A. T. & T. line, plugging straight through on test panel at Fowler and LaFayette, giving Indianapolis and Chicago one working circuit.

On the morning of March 26th when the Wabash River had reached the crest of the flood it was noticed that the Main Street Bridge, the principal thoroughfare between LaFayette and West LaFayette, had begun to break up, one of the center piers being gradually destroyed. Both the Bell and LaFayette Telephone Companies had cable attachments on the bridge, the Bell occupying the top of the bridge and the LaFayette Telephone Company having attachments on the floor. Shortly after the bridge began to settle, the cable of the LaFayette Telephone Company was wrenched from the bridge, cutting off their communication with the West side and at the same time destroying service at the West side exchange, since all battery was furnished from the Main exchange.

The settling of the bridge, which eventually amounted to eight or

ten feet, placed a severe strain on the messenger of the Bell Company, and in order to prevent anyone getting injured in case the messenger should part, guys were so placed that it would break beyond the river bank. On the morning of March 27th, the water having receded considerably, passes were issued to people having business, such as telephone and light companies, permitting them to cross the river on the L. E. & W. R. R. Bridge.

In order that telephone service might be restored in the West LaFayette exchange, the LaFayette Telephone Company was permitted to use ten pairs through the Bell cable to furnish battery. Also one talking circuit in order to direct their work on that side.

As the flood receded the scene on Main Street Levee beggared description, there being five pole leads crossing at this point and practically all the poles washed out, lying on the ground or leaning into trees, light wires, telephone wires, telegraph wires and trolley circuits all mixed together.

Of about eighteen poles on the Main Street Levee, belonging to the Bell Company, eleven were entirely washed out and the balance, being protected by concrete sidewalk, were leaning in trees and against the bank.

For almost two full days the Bell Company was the only wire service out of the city and owing to the alarming reports received from other sections of the country the business far exceeded our capacity. However, no small amount of credit is due to the operators for their incessant and strenuous efforts to complete all calls under the trying conditions. People stood twenty and thirty deep at the Main exchange pay station, patiently waiting for hours their turn to talk with some one at distant points. Many commendatory remarks and expressions of gratification over the service at such a time were made by patrons who were able to communicate with other flood stricken districts, or to impart to some anxiously waiting friend or relative the fact that they were safe.

A compilation of figures showing extent of damage, is as follows:

New poles to replace those destroyed, 200; poles broken off and washed out, to be reset, 275; poles to be straightened, 800; corners to rebuild and straighten, 47; cable trouble at Frankfort, 7 cases; cable trouble at LaFayette, 14 cases; slack to pull, 150 miles.

WOMEN RESCUED BY BREECHES BUOY.

Many wonderful and heroic rescues of marooned people were undoubtedly made at many places, but we believe that the rescue of several women by telephone linemen at Kokomo, Ind., was unusual, and only duplicated by the rescue of shipwrecked persons; taking their cue from the Life Saving Service, they rigged up an arrangement similar to a breeches buoy and succeeded in transferring these women over the cable messengers from pole to pole and finally to dry land.

The Mississinewa, which in the summer time is hardly large enough for the boys of Kokomo to wade in, and at no time can be dignified with the name of river, became a rushing torrent. The people of Kokomo would not believe that any serious damage could be done by so small a stream and hundreds were caught without warning.

TOLL LINES WRECKED BY WIND AND WATER.

While the different exchanges suffered from loss by the high winds and the rains and floods immediately following, the larger part of the

damage was sustained by the toll lines. These felt the full force of the wind and, borne down with the sleet, hundreds of poles gave way and thousands of miles of toll circuits went down; dozens of poles were washed out by the furious currents, streams which had been mere creeks, suddenly assumed the proportions of mighty rivers and rivers converted themselves into inland seas, some of them reaching ten and twelve miles in width. Owing to the extent of the flood, in many cases it was several days before the scene of the breaks could be reached and temporary repairs made. The damage done to the railroads and telegraph lines by the numerous washouts and destruction of bridges caused them to suspend operations, and the telephone was the only means available to reach the stricken communities, and in an effort to get information to and relief from the outside world, heroic methods were often necessary; linemen literally took their lives in their hands, wading through water to

their waists, crossing shaky bridges and climbing poles that threatened to topple any moment, in order to get circuits through. Hundreds of miles of temporary twisted pairs were strung on anything that came handy and each day saw more circuits available for the eager public. For several days the company handled with a crippled plant, the largest traffic in its history. It became necessary at one time to limit conversations to three minutes for each call in order to give everybody a chance.

A brief outline of the more serious damage done is given below:

On the line between Indianapolis and Kokomo, ninety poles were blown down, forty broken off and twenty-five washed out by the flood. The latter occurred just north of Broad Ripple where the White River in making a new channel, assumed the right of way



FLOOD SCENE NEAR BEDFORD, IND.

The line of poles marked "X" are part of the Central Union lead between Bedford and Oolitic, Ind. Two poles which cannot be seen in the picture were entirely submerged for three days, cutting off all service to the north.

of the toll line. Between Indianapolis and Richmond twenty-three poles went down and between Indianapolis and Gosport twenty-five were down and twenty-two washed out. South of Gosport and between that point and Spencer occurred one of the most serious breaks, the river washing away 160 poles. Vincennes had twenty down and 162 broken off between there and Linton and twenty-five down on the Washington lead. North of Washington 100 went down and twenty-five were broken off and between French Lick and Bedford there were twenty-five down and 125 broken off.

The cyclone was responsible for forty-eight poles down between Terre Haute and Prairieton. The territory comprising the watershed between the White and Wabash Rivers suffered the most. Between Indianapolis and Frankfort, sixty poles went down and thirty were broken off; and between Frankfort and Flora twenty were down and 100 will have to be reset; between Frankfort and Lafayette twenty went down and thirty-five were broken off. Out of Lafayette on the Crawfordsville lead thirty went down; on the Fowler lead twenty; and ninety were washed out on the Logansport line. Between Logansport and Kokomo forty went down, and north of Logansport there was fifty down between that point and South Bend, and sixty-six broken off. Nearly the entire lead will have to be reset between Logansport and Peru. Very curiously not many poles went down here, but nearly all of them were more or less thrown out of position. In the eastern part of the State there were sixty down between Anderson and Wabash and thirty more broken off. Out of Muncie thirty were down on the New Castle lead; seventy-five down on the Union City lead and twenty down on the Marion lead. Out of Fort Wayne there were thirty down towards Wabash; twenty-

six on the Van Wert lead; twenty-seven down between there and Warsaw and eleven down on the Auburn lead. The A. T. & T. lead which carries the C. U. wires between Goshen and Elkhart had fifty-five poles down.

RACING AUTO IN TOLL REPAIR WORK.

The central part of Indiana was visited by severe wind storms, followed by heavy rains on March 20th, which caused great damage to our toll leads out of Indianapolis in all directions.

Service between Indianapolis and Kokomo was entirely gone and we could not test with Noblesville, Tipton or Kokomo, and as a result no measurements could be taken. It was necessary to have some definite knowledge of the breaks and to ascertain the number of poles that were down. The only way to obtain it was to get on the ground. Had we started from Kokomo and Indianapolis with horses it would have taken six hours to have made the drive. In order not to lose any valuable time an appeal was made to General Manager Dickson of the National Motor Vehicle Co. for a test car with a racing driver. Mr. Dickson kindly helped us out and the accompanying picture shows J. R. Hutson of District Plant Chief McMaster's staff, leaving the Main exchange at 9:35 a. m. in a racing car.

The ride was a perilous one and Mr. Hutson vouches for the speed of the "National." They arrived at Tipton at noon after a number of stops, made necessary on account of poles which were lying across the road. Five breaks were located, numbering in all twenty-nine poles. With this information gangs were sent out from Indianapolis and Noblesville and by night of the same day service was restored between Indianapolis and Kokomo.

Many unique methods have been employed to locate and clear trouble of this nature but never before has an international stock championship car of the speed type been pressed into service in such an emergency.

INDIANA HERO.

One of the heroes not to be forgotten is Wire Chief George Page of the Bell Telephone Company. For forty-eight hours he stuck to his post without sleep, getting out the only messages to the remainder of the world. To his efforts are due the one lone connection with South Bend. By heroic work he managed to keep his wire working by way of Rochester and Plymouth. His regular power gave out Monday night. Then he resorted to his storage batteries, which soon went out, and then he turned to his hand generator.—From a Peru, Ind., newspaper, April 2d.

FORT WAYNE, INDIANA.

By E. L. Taylor.

At Fort Wayne, Ind., the damage by flood was heavy, fully a thousand families being rendered homeless and six lives lost. The property loss will exceed \$100,000. The city water works and the municipal lighting plant were out of commission, and the city was without water and the streets in darkness. While from a telephone standpoint nothing spectacular happened, it was a week long to be remembered by the operators since the demands on the toll service were extremely heavy, and it was necessary to keep every toll operator who could be secured on duty as long as she could stand it, meals being brought to the exchange and no one going home. The demoralized condition of the long-

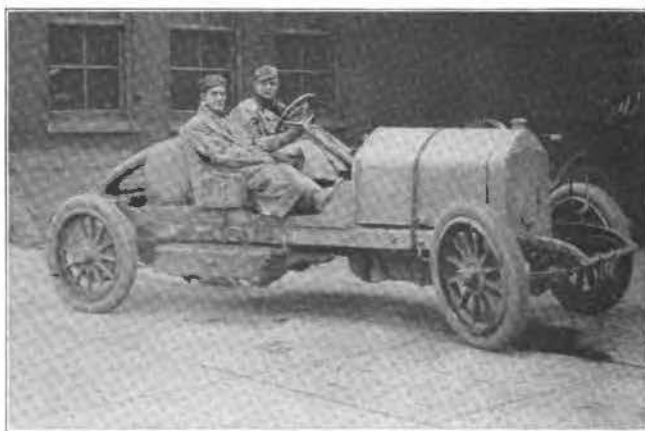
distance lines on account of the previous wind storm made it very difficult to get calls through and rendered the situation most trying for the operators.

SHELBYVILLE, INDIANA.

By B. B. Earley.

On the morning of March 25th, there came a sudden warning to the people of Shelbyville, Ind., of impending danger from high water in Blue River, a tributary of the East Fork of White River. The sudden rise due to the unprecedented rainfall about the head of the stream, created conditions which had never before been known in Shelbyville.

Business houses were closed, factories were shut down, transportation stopped and the water and light plant inundated, which latter situation left the city in total darkness and without water supply.



INDIANAPOLIS PLANT MEN STARTING FOR TIPTON IN RACING CAR.

The telephone company depends upon the electric light plant for power to charge its batteries, and with the latter plant incapacitated telephone communication would be cut off. Search for a gasoline engine was begun but at business houses visited we were unable to locate any of the merchants, and as time was precious it was decided to confiscate an engine. We entered A. J. Thurston's implement store and found an engine which we appropriated and taking it to the exchange hoisted it to the second floor, just as the service went out. For the first time in eight years there was no telephone communication in Shelbyville. In two hours from that time,

however, we were again in operation and service restored, but this was limited owing to the great loss the company suffered throughout the rural districts where leads were washed entirely away. Service on these lines was restored in a comparatively short time through energetic work on the part of our capable plant force.

Every operator available was called to work, while commercial employees were also pressed into service in the operating room that the best of attention might be shown to subscribers.

Each employee showed a loyal and willing spirit both toward the company and the public. Some of our operators were on duty for thirty-six hours, taking but a few minutes for lunch. Our lineman came on duty before daybreak and worked until late into the night. This kind of work was kept up until we had every line working either temporarily or permanently.

AN ACROSTIC

Dedicated to the Local Manager of the Central Union Telephone Company at South Bend, Indiana, for his unerring, untiring and unequalled service to an anxious public during the recent storms and floods.

Eager and earnest in humanity's cause—
Dependable in every sense of the word—

Benevolent to all regardless of flaws—
Open-hearted and as swift as a bird—
Nature's nobleman—with iron nerves—
Deserving all credit from the Company

HE SERVES.

—Frank J. Murphy.

AMERICAN TELEPHONE & TELEGRAPH CO.

Long Distance Lines in Ohio and Indiana Hard Hit by Floods

By S. J. Ewald.

On the morning of Monday, March 24th, we at Indianapolis were congratulating each other on our light losses, due to the cyclone at Terre Haute on Easter morning. With the cyclone came the rain, one continuous downpour and on Tuesday morning Fall Creek in Indianapolis was coming down Thirtieth Street and as shown in the photograph at 3:00 p. m. was about to enter the test station. Fortunately, the rise ceased at



A. T. & T. TEST STATION, INDIANAPOLIS.

about 7 p. m., although we were prepared to stand an additional twenty-four inches by plugging the sewers and banking the doors. We had no difficulty in finding volunteers among the male employees to don hip boots and carry the operators up New Jersey Street to a dry place, whence the young ladies were taken to their homes in automobiles.

By this time we had lost all communication to Chicago, Cincinnati and Louisville direct, and reports of high water and failing service from Terre Haute, Phoneton, Columbus and Cincinnati made us realize that we were up against a situation the like of which was unknown. Each lineman and each test station was completely waterbound it being impossible to move men or material to them either by railroad or automobile for several days and each man or set of men was thrown on his or their own resources, and in the days following these men showed remarkable courage, strength and strategy in the way they handled the situation.

Just what happened at Phoneton and Dayton as far as the A. T. & T. Company is concerned is a long story and I am letting Mr. Faries, the Chief Test Board Man, tell it in his own way in the article beginning on the next page. Mr. Faries, however, fails to tell of the long hours of continuous strain at the test board when after about thirty-six hours without rest his voice began to fail, and of A. C. Sinks, his assistant, who after eighty-four hours at the test board, both laughed and cried at the various news he aided in passing to the outside world.

The strain the men in the Phoneton and Cincinnati test rooms underwent can be imagined when one recalls that they handled relief messages, gave reports regarding victims of the flood in the Miami Valley, issued the reports they received (which were badly exaggerated), from various sources, of thousands drowned, besides using every means in their power to patch out circuits and to restore service.

The men in the test rooms at Indianapolis and Terre Haute while not located in such strategic positions as Phoneton and Cincinnati, were required to work long hours and, realizing that restored service meant relief for thousands of people suffering from the flood, used every means and spared no effort in patching out lines. In fact, the only circuit into Chicago for several hours was one on our Cincinnati-Chicago line which was cut to a Central Union Circuit at Lafayette, Ind., and carried from there to Fowler, Ind., and thence back to our line. This circuit was used by relief committees at Columbus, Dayton, Indianapolis and Terre Haute.

To C. W. Hawn and Harry S. Foland belong the credit of restoring service to Louisville on March 28th, using a boat carried from Indianapolis in a baggage car, and these same men with Section Linemen Miller and E. Hawn working continuously from noon, March 30th, until noon, March 31st restored service into Chicago by stringing emergency cable across the Wabash River at LaFayette.

This work was all done from boats and in water that was a veritable mill race.

At Terre Haute, Linemen Torrey and Kalb waited at Clinton, Ind., with boats and cable ready to restore the Terre Haute-Chicago line as soon as the water fell below the second crossarm. The first pair was made good at 1 p. m., March 29th, and required 1,500 feet of emergency cable laid in eighteen feet of water. Considering the amount of drift running and the swift current this was to say the least a dangerous task.

At Zanesville, Section Lineman Carey, after removing his family to a safe place, worked incessantly with the Central Union forces until service was restored on the Pittsburgh-St. Louis line and the Pittsburgh-Columbus line. At Columbus, Section Linemen Dunn and Parr with General Foreman Elmer Hertzler and Foreman Middleton did excellent



A. T. & T. FORCE AT PHONETON, OHIO.

Left to right—R. B. White, C. N. Bell, C. D. Williams, G. L. Maeger, A. C. Sinks, N. O. Anderson, W. S. Siferd, C. L. Faries, C. Hawn.

work restoring service on the Cleveland-Columbus and Pittsburgh-St. Louis lines.

We wish to mention the work done by Equipment Man N. O. Anderson in aiding Colonel Vollrath at North Dayton. As an indication of Colonel Vollrath's appreciation of Anderson's work and the aid the telephone company furnished in general the story goes that Anderson called

upon the Colonel for assistance in restoring our line into Dayton across the Mad River. "How many men do you need, fifteen? Twenty? You can have the whole d—d army if you need it," was Colonel Vollrath's reply.

At Cincinnati things were quite as busy as at Phoneton. Chief Test Board Man Slemmer's story and a clipping from the *Cincinnati Post*, the latter telling how Section Lineman Perrin made his way into Portsmouth and how Section Lineman Sampson made good two circuits into the National Cash Register Plant at Dayton, tell how the work was handled from that station.

I would like if it were possible, to tell about all of the men who did good work during this crisis, of how Chief Clerk Garner took Foreman

The Miami River continued to rise and reports of loss of life and serious flood conditions from the towns of Piqua, twenty-eight miles north of Dayton, and Troy, twenty miles north of Dayton, began to come in.

The A. T. & T. Company's line which crossed the Miami, the Still Water and the Mad Rivers began to go down.

The underground cable carrying the Maumee-Cincinnati line through the Main exchange at Dayton still held, but this line was seriously threatened at Webster Street bridge in North Dayton, and at the narrows between West Carrollton and Franklin, south of Dayton, and at 2:10 p. m. this line went down at the latter place.

At 11 a. m., Tuesday, Wire Chief M. B. Stowell, Dayton exchange, called in from a magneto telephone set he had equipped on his test board, getting A. C. Sinks and reporting the water had flooded their Main batteries and all telephone service through the Main exchange was cut off. By this magneto telephone we kept in touch with the Main exchange test board, but all communication with the rest of the city was cut off at this time. Reports kept coming from them of the water rising six, seven, ten, and fourteen feet in the main streets, of all stores being flooded, plate glass being broken by floating debris, people being marooned in buildings. The question of food and drinking water began to be seriously discussed.

Opposite the main exchange is the Y. M. C. A. building and an effort had been made to get a line across to this building to obtain a food supply for the thirty-nine people in the exchange. At about 5 p. m. Lineman Morter succeeded in casting a loaded piece of cable lacing twine from the roof of the exchange to the alley back of the Y. M. C. A. building, and it was fished up and a wire was stretched across from one building to the other, but great disappointment was experienced by the telephone people when the first basket came across, as it contained only messages to be sent to friends and not the longed for food; later trips of the basket remedied this, however, and food was brought over on this wire.

At 2:05 p. m. on the twenty-fifth, the Pittsburgh-St. Louis Eastern Division line failed south of Columbus at the Scioto River crossing, thus



A. T. & T. PLANT MEN AT INDIANAPOLIS.

Left to right—S. J. Ewald, district plant chief; M. R. Garner, chief clerk; H. S. Foland, plant engineer; C. W. Hawn, district line inspector.

Dotson and meeting Section Lineman Sampson at Harrison, Ind., worked all night restoring service into Cincinnati, giving the people at Brookfield and other lower Miami River points an opportunity to ask for relief, and of countless other notable deeds performed by foremen, clerks, linemen, testboard men, and not least by any means of the heroic manner in which the telephone operators at all our stations stood by their duties under the tremendous pressure of relief business. All the men worked uncomplainingly and gave the best they had in them. They worked in harmony with the State, the Associated Companies, the Western Union, and the relief committees, they gave all the assistance to flood sufferers within their means, and they deserve great commendation.

AT PHONETON, OHIO.

By C. L. Faries.

On Tuesday, March 25th, at 6:45 a. m., Lineman Harry Morter stationed at Dayton, Ohio, called the test board at Phoneton and reported that the "levee at Dayton had broken, water was on the streets and car service stopped." Rain had been falling almost constantly Sunday and Monday, and Monday morning the Miami River had overflowed its banks, but as this is an annual occurrence during the spring rains, no thought of serious floods was entertained.

Lineman Morter then endeavored to procure a boat and remove what tools and material he could from his storeroom which, being in a low section of the town, was soon under water; failing in this he endeavored to get back to the Central Union Telephone Company's Main exchange, encountering four to five feet of water in the main streets, and having worked his way along to the rear of the exchange, crossed an alley through about five feet of water and entered the building by way of the fire escape. He, with thirty-eight other employees of the Central Union Telephone Company, fourteen of whom were operators being in the building at that time, were held prisoners by the water in the streets.



A. T. & T. PLANT MEN, INDIANAPOLIS.

Left to right—H. E. McQuinn, chief testboard man, Terre Haute; M. R. Garner, chief clerk; Ben Hamlyn, lineman; C. W. Hawn, district line inspector; W. Nichols, lineman; Walter Brown, lineman; E. C. Hawn, lineman; S. J. Ewald, district plant chief; Fred Kalb, lineman; C. Jones, lineman; R. L. Miller, lineman; E. M. Torrey, lineman; R. B. Chapman, chief testboard man.

cutting our main circuits to Pittsburgh and the East, and reports began to come in of serious flood damage at Columbus. It was reported the whole west portion of that city was flooded.

Earlier in the day we had lost the Cleveland-Columbus and the Pittsburgh-Columbus lines, one break five miles and one twenty miles north of Columbus. The Scioto River washing out both lines at 3:30 p. m. on this day, a report came of very high water at Chillicothe and that the people were asking for help. At the same time telephone connections were cut to Portsmouth and reports from all along the Scioto River told of flooded towns.

During the night of Tuesday the water continued to rise and reports

of people being washed away, of their being rescued by boats, in all the towns along the rivers were received. It was reported that West Carrollton, Miamisburg, and Hamilton on the Miami were washed away.

We established telephone connections with these different towns in various ways. Telephone line circuits on our line were bridged on, to other companies' lines and connections made up to reach these points where people were calling for help and were in danger, putting these connections up to the Governor and Adjutant General's office in Columbus. Piqua was cut off early in the day by the loss of the Piqua loop and a connection was put up to Piqua by bridging a United States Telephone Company's circuit to our Pittsburgh-St. Louis Western Division line at Vandalia. This put us into Tippecanoe City and Troy and over a Central Union Telephone Company's circuit to Piqua. This also put us in connection with the Home Telephone Company's office at Dayton.

Two circuits of the Maumee-Cincinnati line were cut into a private branch exchange board at the National Cash Register Company's plant, South Dayton, where John H. Patterson, head of the Relief Committee, had his headquarters. These circuits were cut to a Central Union Telephone Company's line seven miles south of there and carried into Cincinnati over the City and Suburban Telephone Company's lines, thus putting South Dayton in touch with the outside world.

Middletown and Franklin were bridged on to the Maumee-Cincinnati line circuits. Two circuits were built up on trunks from the National Cash Register Company's office to Dayton Main exchange and cut to circuits on the Maumee-Cincinnati line into Phoneton, giving the National Cash Relief Headquarters an outlet into Phoneton. Later these were increased to four circuits.

Wednesday morning, G. T. Parsons, general utility man at Phoneton, after having taken care of battery charging during the night to carry the excessive load of "morse," drove with S. C. Endemeier, storekeeper at

Mr. Faries, Chief Test Board Man at Phoneton, immediately made arrangements to start N. O. Anderson, equipment man, with the necessary equipment to install a regular telephone set at this point. This was installed at 3 p. m. and Mr. Anderson was left in charge, handling all the military and relief matters from North Dayton, which was isolated from the main part of Dayton by the Miami and Mad Rivers. Mr. Anderson was kept in touch with Major Smith by messenger and was on duty Wednesday and Wednesday night, Thursday and Thursday night and Friday. This telephone, besides handling hundreds of messages to friends of the refugees, was kept in close touch with the Governor and Adjutant General's office in Columbus, Thomas Green, state wire chief, Central Union Telephone Company at Columbus, handling circuits at



INDIANAPOLIS TEST ROOM.

Left to right—W. Foster, equipment man; J. B. Forbes, testboard man; C. L. Pond, senior testboard man; W. H. Schrader, equipment man; R. B. Chapman, chief testboard man; T. H. Jeffries, repeater man; B. M. Grant, repeater man; E. C. Brown, testboard man.



A. T. & T. PLANT FORCE, TERRE HAUTE, IND.

Upper row, left to right—H. E. McQuinn, W. C. Burch, J. Bestall, F. Kalb, Cullen. Lower row, left to right—L. Ragan, J. V. Ford, E. M. Terrey, L. L. Potter, W. Nichols.

Phoneton, into North Dayton to see what help could be given as reports had reached us of people being on roofs of houses without food, water or sufficient clothing during the night. Before starting, he suggested to the Chief Test Board man, Mr. Faries, taking a test set along and reporting on conditions found, and was told to do so. When he reached North Dayton he found that Major Leon Smith of the Third Infantry, O. N. G., who lived in this part of town, was organizing a citizens relief committee and he promptly offered to put him in telephone communication with whomever he might want. This offer was eagerly accepted and the test set was cut in with jumper wires on the Maumee-Cincinnati line at Harlows Place in North Dayton. The call was answered by Testboard Man W. S. Siferd and the connection put up to the Adjutant General's office at Columbus at 12:40 p. m.

On this line the telephone arrangements were made with General Speak of the State Militia for the military forces to be sent to Dayton and for all relief measures that were put in effect.

Columbus for the state authorities and Mr. Faries and his testboard men at Phoneton getting up the connections through our own and other companies' circuits to the points where help was needed.

Circuits were put up between the Governor's office in Columbus and the Secretary of War in Washington, D. C., Wednesday night. Circuits between the National Cash Register Relief Stations and the Chamber of Commerce in Chicago were also arranged. Every available facility of the telephone companies was used to assist in the movement of relief to the stricken districts.

The troops under Colonel Vollrath of the Eighth Infantry, O. N. G., came in from the north and we kept them in close touch with the Adjutant General's office, Columbus, picking them up at Lima, Piqua, Troy, Tippecanoe City, and North Dayton, where they arrived Friday noon, having marched over the C. H. & D. Ry. tracks from Troy to West Dayton and crossed the river by boats.

The State authorities, Colonel Vollrath, Major Smith, and General Wood, who had charge of the city south of the river, appreciated the telephone service rendered and Mr. Anderson's work at the North Dayton Station, and co-operated in every way to assist the telephone companies in restoring their service; in fact, a detachment of the troops was detailed by Colonel Vollrath to assist in stringing the cable in at Webster Street bridge, thus restoring direct service, Phoneton to Main exchange, Dayton.

At 3:05 a. m., Thursday, Lineman Harry Morter, who was still marooned in the Central Union Telephone Company's Main exchange, Dayton, reported, "Big fire started on 3rd street on both sides of street east of Main. Very bad fire." This was two blocks away. While this report was being received we lost communication with the Main exchange. We decided that either the underground had gone bad or the Webster Street bridge had been washed away; the latter proved to be the case, taking the Maumee-Cincinnati line at that point. As this point is south of where we had established the telephone set in North Dayton, we were still in communication with that place. We were getting reports from Mr. Barber, wire chief for the Home Telephone Company in Day-

ton, who reported the fire was sweeping towards the south, that it was coming down Jefferson Street towards the Central Union Telephone Company's office and Home Telephone Company's building. The people in the Central Union exchange made arrangements to run a cable messenger across the wire to the Y. M. C. A. building and would have transferred the people across this messenger if it had been necessary. This fire jumped across 3rd Street, attacking Lowe Brothers' paint store and this inflammable material augmented the blaze until the flames shot a hundred feet in the air, sending burning brands over the main business portion of the city. Mr. Barber told us at one time he had decided to jump and swim, but a heavy downpour of rain at this time checked the fire and saved a good portion of the city. A number of people swam from the threatened district to safer quarters.

The situation at Columbus had been growing worse; water rising fast; at 3:30 a. m., Wednesday, the Broad Street bridge went down, carrying one of the principal cable leads of the local company; emergency cable was furnished by the A. T. & T. Company and this break was bridged in a short time. Our circuits over the West loop of the Pittsburgh-St. Louis line E. D. being aerial over this bridge, the pole on the middle abutment was swept loose but the circuits remained intact as the top was pulled out of a pole at the west end of the bridge. These circuits were soon put in shape and communication to Columbus and the State authorities not interrupted.

At 3 p. m., Wednesday, the Pittsburgh-St. Louis line E. D. went out at Zanesville. We had been receiving reports of the water getting up and that the authorities would probably have to dynamite the famous Y bridge in the center of town. Our line spans the Muskingum River just south of this bridge and went out with the bridge. Edward Carey, lineman stationed at Zanesville, at this time was being taken with his family from the second story of his home by boat. A short time after they were taken out a large house floated against his home, moving it from its foundation and tearing half of it away. Placing his family in a place of safety, Ed. Carey for the next few days was in charge of a gang working hard to restore service at the breaks at Zanesville and north of there on the Pittsburgh-Columbus line under the direction of J. W. George, district plant chief, Pittsburgh.

During Wednesday night several reports of the breaking of the Grand Reservoir at St. Mary's and the Lewiston Reservoir were received. We established telephone connection between the Governor's office and the Mayor of Lewiston and the manager of the Central Union Telephone Company at Lima, who was in communication with St. Mary's and these gentlemen kept the Governor advised of the condition of the reservoir. The Governor had telephone connection with General Wood in South Dayton and Major Smith in North Dayton and kept them also informed. The Governor was also in communication with the State employees who were working on the Lewiston Reservoir, through circuits established by us. The people in North Dayton were greatly excited by these reports but were assured by Mr. Anderson of their falseness.

Messages from all over the country came to Phoneton inquiring about friends in Dayton. A list was made of these and passed to J. A. Bell, district plant chief at the Central Union Telephone Company's Main

exchange and to Mr. Anderson at North Dayton, and at the earliest opportunity that the streets could be traveled messengers were sent out making inquiry for the persons asked for, and this information was handled both through the traffic department and by the test board at Phoneton; North Dayton telephone handled an enormous amount of these messages. Mr. Anderson had been relieved at this telephone Friday by a Mr. Ream, deputized by Colonel Vollrath for this service.

After G. Parsons had turned the telephone station in North Dayton over to Mr. Anderson he arranged to have about thirty-five refugees hauled out to Phoneton to be cared for. Some of these people were distributed among the families at Phoneton and the balance were cared for in the retiring rooms at Phoneton exchange one night. The next day a vacant house was furnished with heat and these people were cared for by the people of Phoneton for several days until they could return to

what was left of their homes at Dayton. At noon on Friday, March 28th, the Central Union restored their batteries and started business in the Main exchange under the efficient management of H. E. Allen and the energetic work of J. A. Bell. Hundreds of telephone connections have been restored each day since.

On Friday, March 28th, service was restored between Phoneton and Dayton.

On Saturday, March 29th, the Pittsburgh-St. Louis line E. D. was restored between Phoneton and Pittsburgh.

Wednesday, April 3rd, the Maumee-Cincinnati line was restored between Dayton and Cincinnati.

At 6:35 p. m., April 3rd, when the first circuit was put into Portsmouth we offered this circuit, by order of S. J. Ewald, district plant chief, to the State authorities for either toll telephone or morse service. A morse wire was built up from Columbus to Portsmouth and turned over to the

signal service, this being the first opportunity the State authorities had to get in touch with the military authorities along the Upper Ohio River. A morse wire was built up from Columbus to Hamilton, and turned over to the signal service.

All the press associations were furnished with wires to the Central Union exchange, Dayton, and offices set up for them.

Those who did the work at Phoneton were:

C. L. Faries, Chief Test Board Man.

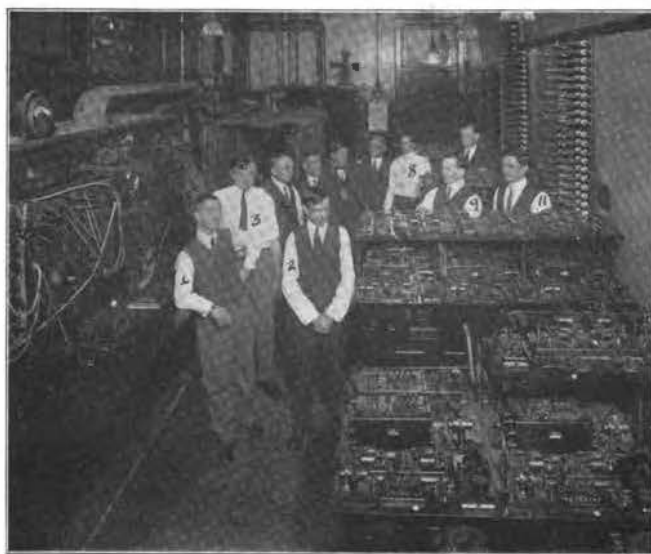
A. C. Sinks, in charge of Test Board, assisted by W. S. Siferd and C. D. Williamson.

C. W. Bell, in charge of Morse Service, assisted by G. C. Maeger and E. Eaken. After March 30th, they were ably assisted by R. F. Ledbetter, Richmond, Va., and P. W. Walker, Harrisburg, Pa.

IN THE CINCINNATI TEST ROOM.

By U. S. Slemmer.

The first news of the flood which occurred in the Scioto, Miami and Muskingum Valleys was received at Cincinnati on March 25th. Early that morning fuses began blowing in rapid succession in the test room and it was discovered that the lines of the American Telephone and Telegraph Company had become mixed with those of the Cincinnati, Lawrenceburg and Aurora Traction Company at a point about twenty-five miles west of Cincinnati. Lineman Perrin, sent to clear the trouble,



A. T. & T. TEST ROOM AT CINCINNATI.

(1) H. G. Scheffel, testboard man; (2) F. M. Hall, repeater operator; (3) F. L. Baird, testboard man; (4) U. S. Slemmer, chief testboard man; (5) William Sampson, section lineman; (6) H. Perrin, section lineman; (7) C. W. Burrows, senior equipment man; (8) C. A. Bailey, equipment man; (9) D. A. McIntosh, repeater operator; (10) R. M. Alexander, equipment man; (11) Baehr, repeater operator.

reported that it was impossible to get within several miles of it on account of the Great Miami River having spread over the entire valley, taking out all bridges. An effort was made to send linemen to the assistance of Perrin, but on application to the railroad officials for transportation it was learned that no trains were operating in that territory owing to bridges having been washed away.

Shortly after this trouble was reported on the Cincinnati-Chicago line, the Maumee-Cincinnati line began to fail and communication with Dayton and Phoneton was cut off. Phoneton was reached later, however, through the Camp Chase test station and advices were received that a great flood was sweeping down the Miami Valley. Phoneton also reported that all lines east of Camp Chase were lost.

In the evening the Little Miami carried away the Portsmouth-Cincinnati line, cutting off direct communication with Portsmouth, Ohio. A detoured message from that point stated that the river had reached an alarming stage and it was expected that all communication would be severed by morning.

On March 26th the Scioto River had left its banks and swept away portions of the Pt. Pleasant-Marion line between Chillicothe and Portsmouth.

Lineman Sampson was sent over the Maumee-Cincinnati line in the afternoon and reported all wires clear as far as Franklin, and announced his intention of reaching Dayton that night or the following morning.

At seven o'clock in the evening of the twenty-sixth a Central Union lineman and Big Four railroad telegrapher from Middletown, Ohio, after a perilous drive, reached Blue Ball, with a telephone receiver and a telegraph instrument, and communication was established with the relief committee at Middletown, Ohio.

During the day we received hundreds of requests from people anxious to learn of relatives and friends located in flood sections and every effort was made to furnish the information.

March 27th communication with Portsmouth was opened up by going through Huntington, W. Va., and Gallipolis. The Portsmouth wire chief reported that the Scioto River bridge had gone out during the night, taking the Portsmouth-Cincinnati line with it.

Lineman Sampson started from Franklin for Dayton in an automobile but was forced to abandon the machine owing to the condition of the roads, and to push forward on foot. At two o'clock in the afternoon he met Lineman DeWitt from Washington Court House, at a point six miles south of the Cash Register plant at Dayton. Here he met also Mr. King of the National Cash Register Company and a Central Union lineman who were endeavoring to get a line working into Cincinnati. Lines were found that were working to Lebanon and Cincinnati and these were coupled on to that portion of the American Telephone and Telegraph line which was still working to the Cash Register plant and over these circuits communication between Cincinnati and the Cash Register plant was opened.

The United Press Association, learning that the telephone circuits between Cincinnati and Dayton were clear, asked as to the possibility of obtaining a telegraph circuit between the two cities. A simplex coil and a telegraph set were given to their representatives who left for Dayton at seven o'clock the same evening, with the apparatus, arriving at their destination early the next morning.

At nine o'clock on the morning of March 28th we had a wire working between the offices of the Cash Register plant at Dayton and the Cincinnati Press. Messages pertaining to relief and inquiries for relatives or friends at Dayton were given precedence over all other business.

At noon on March 28th the manager of the Central Union Company at Middletown was able to complete a circuit by way of a farmer line and the Maumee-Cincinnati line, which was turned over to the relief committee at Middletown. On this date the Pt. Pleasant-Marion line between Gallipolis and Portsmouth was lost, which left Portsmouth entirely isolated as far as telephone and telegraph communication was concerned. There were rumors during the day that the Central Union office at Portsmouth had collapsed and that the town was on fire. The reports were found to be without foundation when Lineman

Perrin reached Portsmouth, which he succeeded in doing after a perilous ride in a rowboat across the Ohio River, which was two and one-half miles wide at Portsmouth, and running very swift.

March 30th as Foreman Mulcahy and his gang were working towards Dayton they saved the lives of three men who were in a rowboat which had become unmanageable and was about to be swept over the dam at West Carrollton. Foreman Mulcahy threw them a line and drew them to safety.

March 31st Lineman Sampson, working on the east side of the break at Miamisburg and Chief Clerk Garner, of the Indianapolis office, working on the west side, were able to join the ends of the cables and so put the Cincinnati-Chicago line in operation again.

On April 1st the Pt. Pleasant-Marion line was cleared between Portsmouth and Gallipolis, and on April 2nd Foreman Mulcahy succeeded in getting three circuits open between Cincinnati and the Phoneton office. On April 3rd a line was set up for the use of Major Jaqua of the U. S. Signal Corps at Columbus, for use between that point and the Armory Hall in Cincinnati.

From the beginning of the trouble the men in the test room at Cincinnati worked from thirty-six to forty-two hours straight, eating their meals in the office whenever they could take time to do so. At times, however, they were so busy they forgot to eat, while going without sleep seemed to be almost a second nature to them. All of our men, glad of an opportunity to render unusual service to the public and the company, worked hard and faithfully; none shirked and none complained. Each individual should have an equal share in any credit to which our efforts may entitle us.

WIRE EXPERTS FACE PERILS IN FLOODED CITIES.

To Harry Perrin and W. C. Sampson, employes in the Cincinnati office of the American Telephone and Telegraph Company, belongs credit for re-establishing of wire communication with Dayton and Portsmouth, Ohio, after the recent flood set in.

Perrin is the man who got into Portsmouth first after the flood began. He left Cincinnati by automobile on March 28th and eighteen miles from Portsmouth had to abandon the machine and hire a team.

Twelve miles farther on it was necessary to abandon the team and hire mules for himself and companion. Two and a half miles from the city Perrin engaged a boat and rowed into the city despite a dangerous current. Perrin's companion balked when it came to boating.

Perrin learned from the Mayor what aid from the State was necessary. Then by boat and mule he got to the nearest telephone and reported to the Cincinnati office Sunday evening on what wire conditions required.

Sampson, a lineman, worked day and night in rain and cold without food to get a line working into Dayton.

With a helper he left Cincinnati a week ago Tuesday and went to Franklin, Ohio, by auto. There he left the machine, and on foot he and his helper followed the lines and repaired them to a point six miles south of the National Cash Register Company, in Dayton. Connection was made with N. C. R. wires, and 'phones were working by two o'clock in the afternoon. It was through Sampson's work that *The Post* was able to get telegraph connection, after it gave the world the first news of the flood by telephone.—*Cincinnati Post*.

SECOND CHICAGO SLEET STORM.

Records of the Chicago weather bureau show that the sleet storm of March 21st differed from that of February 21st, mainly in the item of wind velocity and this difference fully accounts for the difference in the amount of damage to poles and wires.

On March 21st the wind reached a maximum recorded velocity of forty-three miles an hour. It was stated at the weather bureau that the actual velocity was probably greater than this as the ice formation in

the wind gauge retarded its action. On February 21st the recorded wind velocity was thirty-three miles an hour.

The following observations were recorded at the weather bureau on the days of the two storms:

February 21st.

Maximum temperature, 41; minimum temperature, 30; mean temperature, 36; normal temperature, 27.

Total precipitation for the twenty-four hours from midnight to midnight, 1.25 inches. Maximum velocity of wind, 33 miles an hour.

March 21st.

Maximum temperature, 34; minimum temperature, 19; mean temperature, 26; normal temperature, 36.

Total precipitation for the twenty-four hours from midnight to midnight, 1.01 inches. Maximum velocity of wind, 43 miles an hour.

While the weather bureau is able to measure exactly the rain or snow fall, sleet cannot be so measured as it is almost always mixed with rain or snow and often alternates with rain or snow in short periods. The total record of precipitation includes the sleet fall as rain.

Following is a summary of the damage in the Suburban Division of the Chicago Telephone Company by the sleet storm of March 21, 1913:

| Route. | No. of poles down. |
|--------------------------------------|--------------------|
| Chicago-Lake Geneva | 183 |
| Chicago-Elgin-North Line | 19 |
| Chicago-Elgin-South Line | 48 |
| Chicago-Geneva | 161 |
| Chicago-Wheaton | 47 |
| Chicago-Aurora | 211 |
| Chicago-Orland | 85 |
| Chicago-Joliet | 301 |
| Morton Grove to Main Toll Line | 42 |
| Arlington Heights-Bensenville | 28 |
| Niles Junction of Main Line | 56 |
| Palatine-Roselle | 57 |
| Arlington Heights to A. T. & T. Line | 40 |
| Deerfield-Wheeling | 18 |
| Palatine-Arlington Heights | 15 |
| Wheaton-Naperville | 112 |
| Geneva-De Kalb | 22 |
| Fox Lake-Antioch | 31 |
| McHenry-Woodstock | 12 |
| Ivanhoe-Libertyville | 19 |
| La Grange-Willow Springs | 18 |
| Downers Grove-Lemont | 20 |
| Joliet-Wilmington-Dwight | 58 |
| Joliet-Morris-La Salle | 253 |
| Aurora-Joliet | 82 |
| Minooka-Plainfield | 63 |
| Aurora-Yorkville-Plano | 162 |
| Yorkville-Plattville | 30 |
| Minooka-Plattville | 78 |
| Verona-Kinsman | 28 |
| Moson-Coal City | 15 |
| Scattered | 236 |
| | 2,559 |

Subscribers out of service on account of the storm.....14,152

Toll circuits out of service on March 22d:

| | |
|---------------------------|-----|
| Chicago Physical Circuits | 124 |
| Chicago Phantom Circuits | 38 |
| Local Physical Circuits | 129 |
| Local Phantom Circuits | 19 |

Permanent repairs to the toll line plant required:

| |
|----------------------------------|
| 2,784 poles. |
| 1,353 miles No. 104 copper wire. |
| 37 miles No. 080 copper wire. |
| 7,300 cross arms. |

Permanent repairs to the exchange plant required:

| |
|------------------------------------|
| 2,294 poles. |
| 38 miles No. 080 copper wire. |
| 708 miles No. 12 iron wire. |
| 38 miles No. 17 twisted pair wire. |
| 2,550 cross arms. |

The net cost of permanently repairing the storm damage is estimated at approximately \$194,500. It is planned to complete the work by May 30th.

SECOND SLEET STORM IN ILLINOIS.

One of the worst sleet storms ever experienced by the present employees of the telephone company visited the Galesburg district on Friday, March 21st. The district had just partially recovered from the storm of February 21st, in fact, as that storm had torn down 280 poles, there was necessarily considerable temporary work done on different toll leads so that the second storm made sad havoc of toll leads in every direction, there being a total interruption on every toll circuit coming into Galesburg. The plant department did splendid work in getting the forces organized and it was but a few hours until first one point and then another could be reached. The Galesburg city exchange withstood the storms in splendid shape, the highest number of cases of city trouble reaching thirty-four and the majority of these were caused from broken drops and were quickly cleared up. Every rural circuit was out, but this trouble was cleared and service restored to each country telephone on the third day, which is considered a good showing under the circumstances. The most damage as far as the Galesburg District was concerned centered in and about Kewanee, but District Plant Chief Conaty placed several gangs of men in the territory and service was restored within a remarkably short time considering the seriousness and extent of the storms.

Toll lines in the Galesburg District had scarcely been placed in operation after the sleet storm of February 21st until they were severed by the sleet storm of March 27th, which caused total interruptions on the following leads:

Galesburg-Peoria — 49 poles down.
Galesburg-Monmouth — 49 poles down.
Galesburg-Galva — 75 poles down.
Bushnell-Macomb 110 poles down.

Kewanee-Galva—70 poles down.
Kewanee-Princeton—50 poles down.
Monmouth-Burlington—63 poles down.

Interruptions were scattered on all the various leads. Poles down were practically the same poles that were down in the storm of February 21st, due to the soft condition of the earth.

On the 23rd of March (Sunday night) high winds caused a great deal of trouble on lines which had been repaired temporarily after the sleet storm of March 20th.

Total interruptions were experienced on all leads out of Galesburg with the exception of one circuit from Galesburg to Bushnell and one circuit from Galesburg to Monmouth.

Large crews of men were dispatched in all directions and work was pushed forward with all due haste, but it was necessary to call for additional help and Foreman Champion, of Quincy, and Foreman Johnson, of Moline, sent gangs.

About 100,000 feet of No. 17 twisted pair was used in placing circuits in operation.



RAVAGES OF ILLINOIS SLEET STORM.
Tangle of wires and broken poles in Kedzie avenue, Chicago.

WESTERN ELECTRIC COMPANY

Gave Prompt Aid to Telephone Companies in Task of Restoring Service

No story of the restoration of wire service after the Ohio and Indiana disasters would be complete without telling of the splendid work of the Western Electric Company and its loyal forces who co-operated so efficiently with the telephone officials in the hour of emergency.

At the distributing houses and pole yards of the Western Electric Company, which supplies the bulk of the material for the telephone companies of the country are immense stocks of supplies, comprising poles, cross-arms, cable and wire, which are constantly kept in readiness for just such crises. These houses are located at the principal cities and thus serve as centers of distribution to the surrounding districts. Upon them and the immense factory of the company at Hawthorne, on the outskirts of Chicago, the telephone service of the country depends largely for its material.

The test of an organization comes in such an emergency. The rise and overflow of the Ohio River made it impossible to draw to any great extent on the stocks held in reserve in Cincinnati; but the other warehouses and store yards responded to the call and shipments were started forward toward the center of the stricken districts. More than 250,000 pounds of telephone cable were shipped from New York City by express. A whole trainload of poles was shipped from the company's yards in Michigan. The large stock at the central warehouse at Hawthorne was drawn on for an enormous amount of cable and other material. Shipments being made by express, practically every train carrying its quota of telephone material. The immense factories of the company were put on a twenty-four hour schedule and the vast army of employes worked with a willing spirit to replenish the stocks that had been reduced by the emergency calls.

The rapid succession with which the sleet storm at Chicago on March 20th was followed by the tornado at Omaha on March 23rd, and then the floods in Indiana and Ohio on March 24th, left the usual sources of supply for line construction material in far from the best shape to meet the enormous demand which was to follow the recession of the waters. In fact, the supplies of wire, cross-arms, etc., were in none too good shape when the Chicago sleet storm of March 20th struck them, as it will be remembered, it was the second in that territory within a month. The Western Electric Company reports that following upon the first sleet storm of February 20th, it shipped out from Chicago over 400,000 pounds of hard drawn copper wire and much line hardware, but fortunately, it had large stocks of all these materials in its Minneapolis, Kansas City, Omaha and Des Moines warehouses to meet the demand brought about by the second sleet storm.

When the demands for material from the flood centers began to arrive, all sorts of expedients had to be resorted to to get the material where it was wanted. One entire carload of emergency line material, which the Western Electric Company endeavored to ship by express to Cincinnati, neither the express companies nor the railroads would undertake to deliver, and the car was routed from Chicago to Nashville in the hope of approaching Cincinnati from the South. Unfortunately, however, just as the car was about to arrive in Cincinnati, the flood in the

Ohio River reached that point, and several days' delay ensued. Not until April 2nd did the transportation companies accept express shipments for Ohio and Indiana points, but, anticipating this delay, the Western Electric Company forwarded from Chicago to Toledo several carloads of material intended for Columbus, Dayton, Zanesville and Springfield. They were billed to Toledo in the expectation that when traffic was opened up they might be moved forward with less delay. This expedient proved a wise one, as these cars were among the very first to get through to the districts that had been submerged. Dayton alone ordered 5,000 telephone subscriber sets, besides enormous quantities of wire for both inside and outside use. The subscriber sets were used to replace those which had been water-soaked. Along with them went forty private branch exchange switchboards for use in business offices in and around Dayton.

In the cable plant of the Western Electric Company at Hawthorne there were ready for delivery several carloads of cable, to be shipped to distant points in the United States. As the need arose, permission was secured from the telephone companies by whom this had been ordered to divert it to the emergency use where it was required. This stock formed a valuable addition to the regular emergency stocks carried at the factory, and within the space of a few days, over 500,000 feet of cable in sizes ranging from twenty-five to 400 pair were shipped out from Hawthorne. About 300,000 pounds of this went by express, and upon it the express charges aggregated over \$6,000.

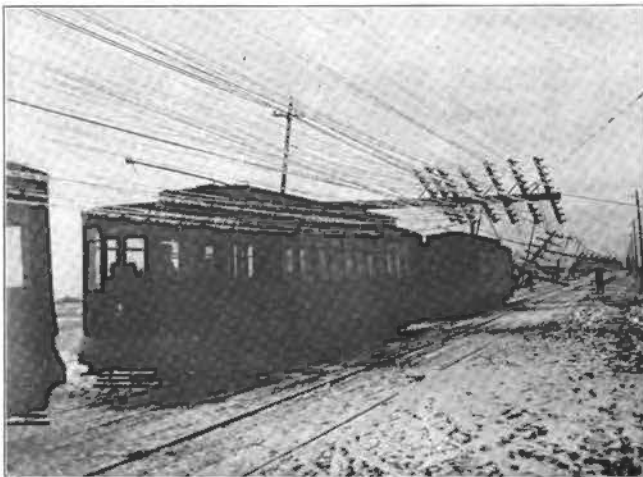
District Manager F. A. Ketcham, of the Western Electric Company's Chicago office, in speaking of the situation on April 4th, said:

"I estimate that before the entire damage is repaired we will ship out approximately 1,000,000 pounds of copper line wire, 7,000,000 or 8,000,000 feet of No. 17 drop wire, 40,000 to 50,000 cross-arms together with the associate hardware, and probably 400,000 pounds of No. 12 iron wire. I understand that the American Telegraph & Telephone Company estimate that they have lost about 4,000 poles and the Western Union

Company about 8,000. We have been shipping from our various yards from twenty to thirty carloads of poles a day, this representing not the limit of our resources but rather the transportation facilities available. The loss to the telephone companies in Ohio and Indiana will be less than was originally estimated in so far as central-office equipment is concerned. Most of the large switchboards in the flooded districts were, fortunately, located above the ground floors of the buildings and the loss to this equipment will be relatively small.

"The calls upon us for tools, construction outfits, rubber boots and rain coats have been very large. It is interesting to note that we have shipped out within the past week 600 pairs of boots and 600 rain coats.

"While it is true that our organization has been put to the severest kind of a test, many departments working on a twenty-four-hour basis, and while we are still receiving many emergency calls, we do not feel that our resources are by any means exhausted, and in general have the situation so far as material is concerned, well in hand."



RAVAGES OF ILLINOIS SLEET STORM.
A. T. & T. long-distance lines down in Kedzie avenue, Chicago.

THE OMAHA TORNADO

Brave Operators Work on, Midst Splintered Timbers and Broken Glass

By Frank C. Builta.

In the wake of the tornado that swooped down on Omaha, the evening of March 23rd, and devastated some 150 blocks in the residential section of the city, the Nebraska (Bell) Telephone Company sustained probably the largest individual loss. The company estimates its property damage at \$150,000; its loss of revenue cannot be estimated at this time.

After the storm every long-distance telephone line in the city was down, six thousand telephones severed from the exchanges, and three thousand more out of service.

Between the two extremes of the tornado's extent through Omaha,

From Twenty-fourth and Lake Streets the storm traveled north-east, and finally, at Fourteenth and Spencer Streets, went over the bluff and disappeared. Beyond the river the tornado swept down again, destroying everything in its path. For nearly four miles along the toll lines, it zigzagged, tore down telephone poles, twisted and twirled the wires about, and cut off all communication in that direction.

After the tornado followed a deep darkness, and a dense downpour of rain. Electric lights were out, street car traffic stopped, and telephone and telegraph communication out of the city was entirely cut off.

When Division Traffic Superintendent J. R. Carter reached the



LOOKING EAST FROM WEBSTER EXCHANGE, OMAHA, AFTER TORNADO.



SCENE IN OMAHA AFTER TORNADO.

stretched a path some four and one-half miles in length, and from two to six blocks in width, along which the damage to telephone property, aside from the Webster exchange building, was practically total. Poles were snapped off by the hundreds, open wire circuits twisted and snarled, and heavy aerial cables tossed about like feathers.

Entering Omaha at Fifty-fourth and Center Streets, the tornado traveled north, veering slightly to the east, to Leavenworth. Then it took a northeasterly course, passing seven blocks west of the Harney exchange building, sweeping away a dozen overhead cables, and completely destroying two hundred houses which had telephones operated from that exchange.

Still traveling a little east of north, the storm cut across Fortieth and Farnam, and covered a course from Fortieth to Thirty-fourth, devastating one of the best residential sections of the city. From Bemis Park, it turned sharply to the east, and passed down Parker and Blondo streets, tearing a path about six blocks wide.

At Twenty-fourth and Lake Streets, the tornado struck the Webster telephone exchange building squarely, blew in every window on the south and west sides of the building, lifted the roof slightly, and shattered every chandelier and light globe in the operating room. Eighteen girls at the switchboard were literally blown from their chairs, and splintered glass sent flying over the key shelves. Luckily, none of the operators was seriously hurt, the only injuries being flesh wounds from the broken glass.

Webster exchange, which had been in the very center of the tornado's course, the operators had bandaged their bleeding fingers, brushed the splintered glass from the key shelves, and though the floor was covered with glass splinters, boards and debris blown in through the open windows, were calmly working as if they had not just passed through one of the most terrible experiences of their lives. It seemed that every telephone receiver had been raised at once. The switchboard fairly blazed with signal lamps.

Radiating from the Webster exchange, two 600-pair cables and eleven of 400 pairs each, all underground, saved this exchange from being completely isolated from the rest of the city, and permitted subscribers on either side to get service after the storm. Hundreds of people rushed to this exchange, then the most substantial structure in the neighborhood. The operators' locker-room was made a hospital for the injured, and for a time the dead were there too, and the rest-room, headquarters for the regular soldiers, who were hurried to the scene of disaster.

At the Webster exchange, amidst the screaming of hysterical women, the crying of children and the moaning of the injured, the telephone operators worked on, calmly and patiently giving what information they knew and making connections as best they could, with nearly half of the lines out of service and the switchboard a maze of light from the signal globes, evidence of hundreds seeking connection at once.

General Traffic Superintendent Cotter took direct charge at the two

down-town exchanges, and Division Traffic Superintendent Kelly of Des Moines, who was in Omaha at the time, reached the Harney exchange within a few minutes after the storm. At once the work of calling in relief operators was begun. Traffic employees were sent in taxicabs, and those nearby were reached on foot, and within an hour practically every operator of the 500 in the city was on duty.

Many were the heroic sacrifices of the telephone operators for the public good that night. One young woman who had been wedged between two fallen trees so tightly that firemen had to saw the trunks in two to liberate her, after two hours of unconsciousness walked half a mile to the Harney exchange and reported for duty. Another woman who had left the telephone service two years ago, placed her four-months-old babe with relatives, and walked ten blocks to the Douglas exchange, volunteered her services and worked till Monday noon. Fully half of the operators were on their way to the exchanges when they were summoned. Walking through the torrent of rain, climbing over fallen trees, intertwined wires and piles of debris, more than a hundred groped their way in the darkness until they reached the exchanges and reported to the chief operators. Former employees and private branch exchange operators came to offer their services, and every one was needed. Only a few who had lost everything in the storm, or were too far away to be reached, were not on duty.

The people of Omaha will never know the debt of gratitude they owe the "central" girls for their dauntless work that night. Often during those dreadful hours life and death swung in the balance, and the human telephone did its part to move the weight in life's favor. Out of the darkness, women's plaintive voices implored aid for the injured and stern voices of men demanded ambulances and taxicabs for the wounded and dying. It was the greatest responsibility ever placed on the operating force in Omaha, but promptly and effectively they worked on, keeping open the lines to the hospitals, calling for doctors, summoning officers from police headquarters, asking for the delivery of drugs and bandages, and aiding the stricken people in every way they could.

Those nerve-racking hours proved the necessity of human intelligence at the switchboard. Tiny copper threads that during normal conditions had seemed but bits of mechanism, were transformed into messengers for the needy, with minds to know and hearts to feel. Rising above the classification of a machine, the central office became an instrument of human understanding, to grasp the situation and act with promptness and comprehension. No automatic device, however ingenious, could have performed the service rendered by these operators.

It was the faithful and efficient work of the operating force that enabled the company to maintain its service in the districts undamaged by the tornado through two days of unprecedented local and long-distance operating conditions. Thirty girls who had lost everything in the tornado, were given clothes and shelter; dining rooms and sleeping quarters were provided, and everything was done to make the operating force comfortable during the days of tiresome work following the storm.

Promptly after the storm, General Plant Superintendent W. B. T. Belt was at his office, organizing his forces for the reconstruction of the damaged telephone property. Men were sent in taxicabs to outline the border of the damaged area, and to measure the extent of the loss. Messengers were dispatched on the earliest trains to the nearest telephone or telegraph offices with outside communication, to call for men and materials from the various offices of the organization. Before midnight

men were on their way from Grand Island, Sioux City, and towns in the Dakotas, and early Monday morning arrived from Des Moines and other Iowa points, and that forenoon a special train was sent through from Minneapolis with men and materials. In many instances as soon as Omaha was cut off from communication, the plant men did not wait for news or instructions, but caught the first trains to Omaha.

When the plant department scouts returned from the stricken district, blueprints were brought out, the extent of the damage outlined, and plans made to establish camps and rehabilitation districts in the storm zone. The work of restoration was under the direct charge of General Plant Superintendent W. B. T. Belt, with Division Plant Superintendent E. I. Hannah, and Division Plant Superintendent A. A. Lowman, who arrived from Minneapolis Monday night, assisting him.

Thirteen camps were pitched in the storm zone, and supervisors appointed to direct the construction in each district; four cable divisions were blocked out, with a foreman directing the work of the cable splicers in each territory, and the installation of instruments and drop wire work was in charge of a general supervisor, who established seven zones, giving a district supervisor authority in each zone. By Tuesday noon, more than seven hundred men were at work, setting poles, stretching cable, stringing

wire, splicing breaks and installing telephones.

Sunday night, within an hour after the storm, work was begun repairing the toll lines, temporary repairs only being attempted then. Twisted and braided wire was run across piles of debris, through culverts, and trestled across streets and roads, bridging gaps across the storm belt. In Omaha, one hundred and twenty toll wires, on three pole lines, were down, for distances varying from ten to twenty-six pole lengths; but by eight o'clock Monday morning nine toll circuits had been re-established, and before night toll lines were in service to handle all the traffic to the east and south. Over nine working circuits, eight-hundred calls were put through Monday.

In the path of the storm east of the river, near Council Bluffs, not only were four miles of toll lines wrecked, but buildings, farm lines and everything in the path of the tornado were swept away. All day Monday, squads of men were at work there, and early Tuesday service was re-opened to the east.

Plant men from all over the Northwest Group of Bell Companies, as well as those from Connecting Companies at Sioux City, Lincoln and Des Moines responded promptly. In addition to these, prompt offers of assistance came from others, particularly from General Manager Reed of the Missouri and Kansas Telephone Company, who offered to send two hundred men.

Every office of the Western Electric Company in the west rushed through materials to Omaha by express, as quickly as they could be used. From Chicago, Minneapolis, Des Moines, Kansas City and St. Louis, material was forwarded to keep ahead of the army of men at work in the storm district.

The number of plant men at work during the ten days following the storm averaged six hundred and ran as high as seven hundred and fifty. The work of reconstruction took eleven miles of cable, about one mile of which was placed underground; two hundred new poles were set; 400,000 feet of No. 17 drop wire was used, and 4,000 pounds of No. 12 copper wire was needed to replace the damaged toll lines.



FIRST CABLE PUT UP AFTER OMAHA TORNADO.

FINANCIAL LOSSES IN GREAT FLOODS

Wire Using Corporations Hit the Hardest in Their History

There is a phase of the flood experience that has as yet played a somewhat unimportant part in the thoughts of men whose first impulse is to relieve their suffering fellows from their immediate distress. After this has been accomplished must come the day of reckoning from the standpoint of finance. The great upheaval of nature has brought many enterprises face to face with the problem, wherewith shall we find the means to go on with our business?

Amongst those who are thus perplexed are a number of the smaller telephone companies, who find their properties damaged to such an extent that an entirely new scheme of financing must be arranged for if they are to continue in business.

Rumor has it that the Home of Logansport has declared through one of its officials that the city must come to its relief with increased rates that will permit of earnings sufficient to meet the new capital charges that the repair and replacement of a wrecked plant necessitate.

A circular recently issued by the Inter-State Independent Telephone and Telegraph Company, Aurora, Ill., makes an appeal to the holders of the Company's bonds for an extension of time for the payment of the interest coupons due April 1st, 1913, "to enable the Company to take care of the situation created by the recent storms."

The Inter-State has been peculiarly unfortunate in having to face unlooked for financial losses, one of the hazards of the telephone business. The circular, from which we quote in part, tells the story of misfortune simply and frankly and is impressive in the manner in which it demonstrates the necessity for large financial reserves that will bear the burden of the storm hazard that must otherwise fall upon the shoulders of those whose money is already in, after which more money must be sent lest the whole fabric be rent asunder.

"Early in the month of February, the members of this Committee felt that the time was rapidly approaching when the stockholders and bondholders could be advised that a material improvement had been made in conditions.

Damage by Sleet Storms.

"The new organization was working smoothly and the Company was commencing to show an increase of revenue and a reduction of expense with every prospect of being able to further gradually reduce operating expenses.

"February 21st, 1913, northern Illinois was visited by a sleet storm which put practically every telephone in that district out of service. High tension wires were blown across our wires and cables, causing the destruction of our Aurora switchboard and damage to one or two other boards.

"The estimated damage caused by this sleet storm and the fires, including loss of revenue, was at least \$75,000.

"The Company had practically restored service when the same territory was visited by another and more severe sleet storm on March 21st,

which destroyed all the work done after the first storm and created much additional damage.

"The work of reconstruction was again started when a cyclone of no small proportions blew down the temporary work and added to the damage, the last two storms causing a loss, including loss of revenue, estimated at \$100,000.

"The damage to the property was unusually severe because for several years it had not been kept in the proper state of repair.

"During the time the property was in the hands of the receivers they were without funds to keep the property in proper condition and were obliged to allow it to deteriorate, with the result that when the present management took charge of the property they were confronted with the necessity of expending an extraordinary large amount of money to put the property in a normal condition.

"Respectfully submitted,
"A. T. MATHEWSON,
"J. F. HARRAL.
"A. S. CLOW,
"E. L. BARBER,"

The Inter State company was taken out of the hands of receivers last year, so that the situation in which it now finds itself is a great disappointment to its stockholders and bondholders.

THE PROBLEM OF REPLACEMENT.

Moderate estimates place the losses of railroads and other public utilities operating in Ohio and Indiana at more than \$100,000,000. Bridges are down, tracks are washed out, stations and other buildings are overturned and equipment has been injured. This flood is a dead loss; no insurance covers it.

Among the business houses which have aided in financing these corporations discussion has been active as to the position of the authorities concerning these losses. Under rulings of the legislatures and governing commissions of these states, the principle has been positively adopted that repairs and replacements cannot be capitalized. In ordinary cases this theory is correct. New capital should represent new property.

Under such rulings, however, the hardships of the present circumstances are self-evident. If the old principle is adhered to and issues of new capital are prohibited, the problem of meeting these unexpected expenses must be faced. Actual property has been destroyed which must be replaced before the earnings upon the present capitalization can be continued, before the public, which is the real party at interest, can be properly served.

These questions have been put up to Governor Cox of Ohio and other authorities and the officials are beginning to realize that the present case is one requiring a special dispensation. The governor says: "Companies serving the public should be permitted to capitalize the replacements and spread payment through a term of years." He suggests working out some plan by which this can be done.

O. H. Hughes, of the Public Service Commission, declares that the companies should not be compelled to make replacements out of surplus

AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

New York, March 31st, 1913.
751,359.

Mr. B. E. Sunny, President,
Central Union Telephone Company,
Chicago, Illinois.

My Dear Mr. Sunny:

I beg to acknowledge yours of the 29th, respecting conditions in the Ohio and Indiana flood districts.

You and your organization have had the sympathy of all of us here during the trying time through which you have been passing. We have read with great pride of the heroic conduct of all of our people.

We stand ready to aid and co-operate with you in every way possible in carrying out the reconstruction work that will necessarily have to be done.

Thanking you for your report, I am,

Yours very truly,

U. N. BETHELL,
Senior Vice President.

and future earnings, and says that if the laws of the state are not sufficiently broad to authorize such a policy the legislatures should at once adopt a special enactment. He also thinks that the commission should have the right to adjust rates so as to help make up the money losses.

While this is not a positive expression that new capital should be issued, it should be reassuring to all investors and to those houses which have financed these properties. It offers some hope that the authorities appreciate the drastic qualities of the situation and are willing to make the return to normal as easy as possible.—*Wall Street Journal*.

LEGISLATURE HONORS TELEPHONE HEROES.

Representative Smith, of Butler County, introduced the following resolution in the Ohio General Assembly:

WHEREAS, The citizens of the state of Ohio, are now in the midst of one of the greatest calamities that has ever confronted the citizenship of this state; and

WHEREAS, The spirit of humanity is today abroad in the land from the highest to the lowest of its citizenship; and

WHEREAS, Heroic work has been done and is now being done by members of the Ohio National Guard, and those in command thereof; and

WHEREAS, It has come to our knowledge that several members of the Ohio National Guard have sacrificed their lives in their devotion to the cause of humanity, and in saving the lives of others; and

WHEREAS, It has come to the knowledge of the public that Captain A. F. Nicklett, captain of the good ship *Essex*, and some of his brave sailors and companions, at the risk of their lives, left Toledo yesterday with their boats and a large amount of supplies, medical aid and clothing for the suffering citizens of Dayton, Ohio; and

WHEREAS, We are reliably informed that said relief crew have reached Dayton, Ohio, safely and are now engaged in the heroic work of saving lives and preserving the property of the citizenship thereof, caring for the hungry, sick and needy; and

WHEREAS, We have learned of the self-sacrificing devotion and heroic conduct of John A. Bell, the telephone operator at Dayton, of his undaunted courage and self-sacrificing devotion to the cause of humanity in sticking to his post of duty and thereby preserving the lives and property of many; and

WHEREAS, We have also learned of the heroic conduct of Thomas E. Green, general traffic manager of the Bell Telephone interests, in his unlimited devotion and assistance for the cause of humanity in relieving the distress of flood sufferers. And we in behalf of the whole citizenship of Ohio, as well as for ourselves, extend to the said John A. Bell and Thomas E. Green our greatest thanks for the noble, patriotic and humanitarian work done by them and each of them; therefore be it

Resolved: That the membership of this House express in the highest degree their commendation of the heroic and self-sacrificing acts of the Ohio National Guard and all members thereof, and especially of the humane, patriotic and heroic work of Captain A. F. Nicklett, and the lake marines who accompanied him on his fearless and perilous trip in their efforts to afford relief to the citizenship of the great state of Ohio, and especially the suffering humanity at Dayton, Ohio, and also to John A. Bell and Thomas E. Green.

Be it further resolved: That this resolution be entered upon the journal of this House as an expression of the sentiment of this House, and that a copy of this resolution be transmitted by the clerk of this House to Captain A. F. Nicklett, commander of the ship *Essex*, to the commander in chief of the Ohio National Guard, and also to John A. Bell and Thomas E. Green.

The foregoing is a true copy of House Resolution No. 60, introduced by Mr. Smith, of Butler County, on March 26th and adopted by a unanimous vote of the members of April 16, 1913, as taken from the records of the House of Representatives of the Eightieth General Assembly of Ohio.

C. L. SWAIN,

Speaker of the House of Representatives.

JOHN R. CASSIDY,

Clerk of the House of Representatives.

RESOLUTIONS OF SOUTH BEND CITY COUNCIL.

On April 14th, the Common Council unanimously adopted the following committee report:

Gentlemen: Your committee appointed to prepare some suitable record of the notable part taken by our good city and her people in the recent flood disaster in Peru and other sister cities, beg leave to report:

That it is gratifying to this committee, as we are confident it is to the whole Council itself, to say that the course taken by the Executive Officers of the municipality and the support given them by our fellow citizens, is most praiseworthy, and has received merited universal commendation, not only in this city, but also throughout the State.

The quickness of action and wisdom of management of His Honor, Mayor Charles L. Goetz, would have done credit to the Governor of the State. Late in the evening of March 25th, 1913, after many of our people had retired for the night, the Mayor received the call for help from Peru. There was little time for consultation. The demand was for prompt, wise action, if life was to be saved. There was but one telephone connection left open to the stricken city, the Bell; there was but one railway communication, the Northern Indiana Interurban. The free service of both were generously placed at the disposal of the Mayor. By midnight supplies were collected and a car was on the way, in charge of City Comptroller Joyce and Captain Cassidy, with a squad of brave policemen. Before many of the citizens of South Bend had arisen the morning after, and while few of them yet knew of the disaster, the South Bend officials were distributing food and other necessities to the suffering people of Peru and rescuing many from the perils of the flood, not to say inspiring confidence and courage and aiding in bringing order out of chaos; car after car followed, with food, drinking water and clothing.

The generous hearts of our people quickly responded to the appeals of the Mayor. Food, clothing and money came freely. One of our public spirited newspapers opened a second subscription fund, and, in all, no less than twelve to fifteen thousand dollars' worth went to the relief of the flood sufferers of Peru, Ft. Wayne, Logansport and Indianapolis, in our own state, besides to Columbus, and most unhappy Dayton, in Ohio. To these must be added the strenuous work, the dangers, toil undertaken by our heroic city officials and our tireless police. Nor will we forget the telephone and railway companies, whose inestimable services, freely given, would have counted for several hundred dollars more. Such acts happily remind us that corporations are not always without hearts and souls.

Do not all of these things make a record of which South Bend and her people may well be proud, and which we may rightfully wish to hand down for the admiration of our posterity?

We have reasons to be grateful to the beneficent Providence which has placed us in this favored locality, and out of the region of dangerous storms and floods; and we may trust with the same kind protection against other dangers in the future. Yet it is matter of thankfulness that we were near enough to help when danger came to others, and that our good city—her officers and her citizens—came so quickly and so effectively to the aid of our stricken neighbors. May the like big American hearts beat for us, and the like brave hands come to our aid, should we ever be in the need of them.

(Signed)

T. E. HOWARD,

R. FINK,

M. A. BUECHNER,
Committee.

NEWSPAPER COMMENTS ON THE FLOOD AND THE TELEPHONE.

Through the hundreds of pages of newspaper space devoted to the great flood and its incidents, one fact stood out in clear relief. The telephone was the one mighty resource and dependence of the sufferers and the rescuers, the military and the police, the public officials and relief committees, the newspapers and the anxious public at large.

The newspaper extracts reproduced on this and the following pages show how the Bell telephone was the *deus ex machina* in the drama of the flood.

Governor Cox was in direct communication with Dayton, the flood stricken city, shortly before two o'clock. The young woman telephone operator told the governor that she was the last one left in the exchange.—*Chicago Daily News*, March 25th.

long distance telephone to Logansport, and thence to Indianapolis:

"Tell Governor Ralston that from 200 to 400 killed on south side. We want provisions, clothing and comas."—*Chicago Tribune*, March 25th.

At 11:50 o'clock Governor Ralston received the following message from the mayor of Peru, transmitted over

All yesterday afternoon and last night and until an early hour this morning the lone man (John Bell), who is a wire chief of the telephone

company (at Dayton), sat by the instrument and told of the terrible sights he viewed on every side.

"Here comes a frame house down the street in front of me," he said once. "A woman is on the roof of it. She is beckoning and crying for assistance. There is a small child beside her, but it is motionless. The current has caught them. They are headed for the dam. God! It's all over."

In describing the scene the man often broke in tears and begged for help. "Every one is going. The water is twenty feet deep on all sides of this building. Can't you send assistance? A few hours more and there will be no one to save."—*Chicago Inter Ocean* March 26th.

Phoneton, O., March 25.—[Via telephone to Chicago.]—From this place, which consists principally of a telephone test station and a few houses, six miles north of Dayton, it is possible to drive to the edge of the flood-stricken city, but communication beyond that point so far has proved impossible.

Telephone communication has been maintained intermittently throughout the day. The wire chief of the telephone company in Dayton, however, is penned up in the top of a four-story building and can tell only of what he sees.—*Chicago Tribune*, March 26th.

Telephone communication with Dayton was established for a few minutes tonight, then was broken again. One report said the water stood twenty to forty feet deep in some of the streets.

A telephone operator in the Dayton office, who established communication with Richmond for a few minutes, said bodies were floating past the window of the office. The operator begged the local offices to send an appeal for aid to Governor Cox of Ohio.

The telephone operator at Liberty, Ohio, a small town west of Dayton, established communication with the local exchange late today. He reiterated the story told by the Dayton operator. Just before the wire to Liberty failed the operator said the levee near the Main street bridge had just gone out and the water was pouring into the town like a tidal wave. He asked that aid be rushed to the town.—*Chicago Examiner*, March 26th.

The half hundred telephone girls in the fourth floor offices are being fed from the Y. M. C. A. building. Lines have been thrown across the street and the food is sent across in baskets.

A telephone lineman who reached the telephone building in Dayton after a struggle says the entire business section of the city is like a stormy lake.—*Chicago Tribune*, March 26th.

(By Telephone from Phoneton.)

Two employees of the American Telephone and Telegraph company, M. B. Stowell, wire chief at Dayton, and C. D. Williamson, wire chief at Phoneton, by almost unprecedented devotion to duty, have kept Dayton in touch with the outside world.

At noon today they had been on duty continuously for thirty-six hours, and although there was no prospect of their being relieved, they gave not the slightest indications of any inclination to leave their posts.

Mr. Stowell reached the Dayton office just before the flood broke in the small hours of Tuesday morning. The water came with such suddenness that all batteries and power were put out of commission before any measures could be taken to protect them. This left the wires without current and effectually cut off Dayton from the outside world.

Stowell rummaged around and found a lineman's "test set." With this he made his way to the roof of the building, "cut in" on the line to Phoneton

and reported to Williamson, whose batteries were still in condition. Over this meager equipment messages were exchanged by means of the underground wires of the company, which held up until after the noon hour Tuesday before the cable in which they were incased gave way. The break, however, was south of Dayton, and Phoneton was still in touch with the flood-stricken city.

Since then, except for brief intervals, Stowell has remained on the roof of the building, suffering the discomforts of pouring rain and low temperature in order that the waiting world might have some word from Dayton.—*Chicago Journal*, March 26th.

By the Associated Press.

Columbus, O., March 26.—Governor Cox received a message by phone from Dayton at noon today, from John Bell, the Bell telephone operator, in which it was stated that 200 bodies had been found. The bodies were located by men in patrol boats.—*Cleveland News*, March 26th.

The story published below is the story of the Dayton cataclysm as it has seeped through to the outer world up to 2:30 p. m. Wednesday. The information comes from telephone operators in Dayton and Phoneton (a suburb) direct to the state capitol at Columbus, where Governor Cox is personally collecting the news and giving it to the public.

It must be remembered that the story as it is here told is necessarily fragmentary because the telephone operators who are giving it are isolated in their exchanges and cannot leave. The streets are filled with from fifteen to thirty feet of water, so that no thorough investigation of the actual conditions is yet possible.—*Cleveland News*, March 26th.

Communication by Central Union Telephone was arranged between Governor Cox and Secretary Biggers of the Commerce Club, after several hours during which access to Columbus was, most of the time, impossible. While the state executive could give no estimate of fatalities resulting from flood conditions in his native city, because of complete isolation of Dayton by discontinuation of inter-communication services, he urged that Toledo send food, clothing, bedding and tents for relief of those made homeless and destitute by invasion of the tide.—*Toledo Blade*, March 26th.

"Telephone communication was established before the day was over with four points in the city. Bell, the intrepid Bell telephone operator, reported first that he had sent scouts into the different parts of the city by boat.—*Chicago Daily News*, March 27th.

A long distance telephone message received this forenoon from H. F. Hill, Jr., of the Central Union Telephone company at Indianapolis, by H. F. Hill, general manager of the Chicago Telephone company, stated that there is danger of a bread famine in Indianapolis, as the supply of yeast in the city has been exhausted. There is plenty of flour and other food supplies, according to Mr. Hill. General Manager Hill immediately got into telephone communication with the Fleischmann company, which agreed to furnish 240 pounds of yeast. The Lake Shore railroad arranged to take the shipment as far as Elkhart, where connection will be made with the Big Four, reaching Indianapolis by six or seven o'clock this evening.—*Chicago Daily News*, March 28th.

The line in this city was the only one in communication with the outside world from Peru for some time yesterday,

and it was for the use of Governor Ralston at any time he willed, the telephone company giving him full sway.

Late last night telephone officials gave out notice the wire was to be used for no other purpose but relief. The Associated Press and newspaper men were not allowed to use the line, being compelled to gather what details they might from the city officials using the telephone.

At 9 o'clock last night the telephone officials at Peru asked the people here not to call them any more for several hours unless necessary as the telephone girls were completely exhausted by the wearing work of the past few days. According to Mr. O'Brien, the operators have performed their duty heroically, never leaving their posts until they dropped from physical exhaustion caused by the nerve racking strain.—*Tribune*, South Bend, Ind., March 27th.

M. Blinn, manager of the Fowler branch of the Indiana Union Telephone and Telegraph Co., made a master stroke Wednesday, which deserves for him great credit from the public as well as a place of high merit by the company with whom he is affiliated. While at Lafayette he noticed one of the cable lines which crosses the Wabash over a bridge at that point to be in working condition. By the aid of the help of a lineman Mr. Blinn connected up the broken cables and cut in the various toll lines, thus permitting the resumption of telephone and telegraph service over the company's system.—*Republican Leader*, Fowler, Ind., March 28th.

The wire chief operator of the Bell Telephone Company, Ralph Jackson, reports tonight that an appeal has come from Portsmouth. Water in the Ohio is sixty-eight feet high and still rising. Report is that the business buildings are on fire. In Gallipolis the water is still rising. At last report it was sixty-two feet.

The telephone building has caved in and communication put out of commission.—*Chicago Examiner*, March 30th.

The Bell Telephone Company today opened its single wire into Peru to the public. The office at the local offices was crowded throughout the day with people who have been trying for three days to get some word of their relatives who were trapped by the waters of the Wabash. Many were the cheery faces that turned away from the receiver after a few seconds conversation with kin and friends who it was thought were dead.—*South Bend Tribune*, March 29th.

After continuously fighting since Wednesday to restore telephone communication between the two cities, the first connection between Toledo and Columbus was made early Friday morning, when *Blade* staff men at Columbus were connected with *The Blade* office in Toledo.

While the first list of names of the known dead in the Capital City was being 'phoned to *The Blade*, the wire chief of the Bell Telephone Company at Columbus was at the wire every instant to see that there was no interruption to the service and to regulate the sounding.

Telephone operators along the line assisted in getting the first message through to *The Blade* by relaying names which could not be heard plainly to the Toledo end.—*Toledo Blade*, March 28th.

The Bell Company, with a million dollar loss in Indiana alone, has spared no expense to keep its service as complete as possible, and the local

office has been swamped by the amount of business thrown upon it. The operators have been working with half the usual time for rest and meals taken at the switchboards, in an effort to put the calls through.—*Fort Wayne News*, March 28.

Thanks to the energy and ability of Superintendent Ben Earley and other employees of the Central Union Telephone Company, telephone service was speedily restored after the local exchange was put out of commission and the city was really without service only two hours.—*Democrat*, Shelbyville, Ind., March 29th.

The first definite news of the extent of the Dayton disaster reached the Cincinnati office Tuesday night, when reporters who started for the scene from there early Tuesday succeeded in getting the first brief message through. Immediately the Columbus and Cleveland offices started reporters and operators, and by Wednesday morning 15 reporters and five expert telegraph operators were in the Dayton flood area.

After penetrating as far as possible into the flood district Tuesday, a staff correspondent wrote a 2,000-word descriptive story and two other reporters started with it for Lebanon. It was a 35-mile struggle, in which an automobile was broken down and a horse and buggy left mired in the road. But they got through and by noon Wednesday United Press papers from Boston to Frisco gave their readers the first vivid story of eye witnesses.

Its transmission was made possible by the co-operation of the American Telephone & Telegraph Company. Out of the wreck left by the storm a single wire had been made good between New York and Chicago via Canada, but it touched no Ohio point. There was no way to reach the flooded area over the usual route. Wires south of Chicago were down.

The emergency was met by setting up one of the most unusual circuits in the history of telegraph press reports. This circuit was routed from New York to Buffalo, across Canada to Detroit, thence to Chicago, north to St. Paul, south to Des Moines, to Burlington and to St. Louis, and from there to Cincinnati, terminating at Columbus.

It was on this wire, worked as a continuous circuit, that the first story telephoned from Lebanon to Cincinnati was transmitted. Later the wire was made good to Phoneton, six miles north of Dayton, and finally it was carried into the office of the National Cash Register Company.—*Toledo News-Bee*, March 29th.

Columbus, March 29.—(From Portsmouth by telephone via Jackson.) The telephone operator at Jackson tonight reported to Gen. John C. Speaks, in command of troops doing duty in flood districts, that she had just received a telephone message from the telephone office at Portsmouth that the latter city is on fire and without water facilities because of the flood of the Ohio River.

The message stated that city was on fire in several different sections.—*Toledo Times*, March 30th.

Governor Ralston has publicly thanked the Central Union Company for its efficient work in serving the state of Indiana with special telephone service during the flood. Special phone service was arranged in the Governor's office, and Frank Wampler, the district commercial manager, had personal charge of the task of getting quick telephonic connection for the Governor to nearly all parts of the Indiana flood districts and with other states.—*Indianapolis News*, April 3rd.

THE WORK OF RELIEF

American National Red Cross Society and Local Committees Cooperated

Coincident with the announcement that death-dealing floods had overwhelmed a part of Ohio, offers of assistance came from every section of the country. As soon as the people learned that money was required to purchase supplies, funds were raised in every part of the land. The Ohio legislature appropriated \$250,000 and hundreds of thousands came from outside sources. The nation opened wide its pocketbook.

The big problem was to get immediate help to the stricken territory—and that work kept Governor Cox and his assistants in the harness night and day. The Governor rose to the emergency and was a tower of strength. His military aides supported him to the limit. Citizens were at hand with every kind of help. The whole state became one immense relief outfit under the command of Governor Cox.

It was a task that tried men's nerves and brawn to fight their way into the flooded communities—but fearlessness and pluck won out. The national guard, the naval militia, the federal and volunteer live-saving crews, and relief expeditions comprised of other citizens, all under direction of the state government, acquitted themselves with the highest honors.

Carloads of emergency relief supplies, under the personal charge of representatives of civic and business organizations and state and federal governments, were hurried toward the troubled localities. Notable in this work was the activities of the Chicago Association of Commerce which sent in train loads of supplies, and cash contributions aggregating thousands of dollars.

Sherman C. Kingsley was dispatched to the flood zones as the representative of the Chicago association.

The American National Red Cross Society sent its representatives into the field. They took charge of the relief work several days after the floods had receded and even now are distributing supplies to those persons who were robbed of homes and livelihood. The Red Cross work is in direct charge of Ernest P. Bicknell, National Director. But the biggest work is before the people of the devastated communities. That work is the rehabilitation of towns and families.

The state, through an Ohio Flood Relief Commission, named by Governor Cox and afterwards endorsed by the state legislature, is attempting to work out an equitable plan of rehabilitation. The state commission will work through local relief commissions. These local commissions, in some instances, were organized to give quick, temporary aid. Wherever necessary the local commissions will be continued in authority. The names of men and women who are unselfishly devoting their time to the commission work which we were able to obtain are as follows:

Ohio Flood Relief Commission.
Governor James M. Cox, Chairman.
Col. MacLee Wilson, Treasurer.
John H. Patterson, Dayton.
Homer L. Johnson, Cleveland.
Jacob Schmidlapp, Cincinnati.
S. O. Richardson, Toledo.
Geo. W. Lattimer, Columbus.
Col. James Kilbourne, Columbus.
Geo. W. Gillette, Business Manager.
Dr. Patterson, in charge of Relief.
J. L. Fieser, in charge of Registration.

Columbus, Ohio.
S. P. Bush, Chairman.
C. Ed. Born, Treasurer.
R. H. Platt, D. H. Taft, Lee M. Boda, Geo. W. Lattimer, S. M. Levy, Executive Committee.

Dayton, Ohio.
Col. John H. Patterson, Chairman.
Adam Schantz.
Col. Frank T. Huffman.
John Flotron.
Mayor Ed. Philipps.

Middletown, Ohio.
A. H. Walburg, Chairman.
C. S. Goldman, 1st Vice Chairman.
D. F. Harwiz, 2nd Vice Chairman.
R. F. Carnahan, Treasurer.
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J. B. Coonrod, Secretary.
W. E. Proctor, Treasurer.
Mrs. Geo. Zimmerman, Asst. Treasurer.
Geo. Lamme.
J. J. Lutz.
E. J. Carter.
A. E. Slessman.
W. A. Lucas.
E. C. Gast.



MAYOR CHARLES L. GOETZ, of South Bend, Ind., who was the first to respond to the call for help from stricken Peru.
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Rev. B. G. Mattson.
E. B. Cappeller.
Frank Hosler.
Rev. F. A. Schrieber.
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S. N. Ford.
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Fremont, Ohio.

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HON. JOHN J. KRUTETZ,
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V. S. Stevens, Secretary Akron Chamber of Commerce.
G. P. Atwater, President Citizens' Welfare League.
W. H. Kroeger, Secretary Citizens' Welfare League.
W. S. Bixby, President Charity Organization Society.

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J. W. Bailey.
R. G. Babcock.
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Fred Neal.**P. C. Bryson.****Crawfordsville, Ind.**

Dumont Peck.
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Sherman Cutchall, Treasurer.
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South Bend, Ind.

E. T. Bonds, Manager Central Union Telephone Co., Asst. to the Mayor.

P. Joyce, City Comptroller.
William Cassidy, Chief of Detectives.

John B. Weber, Pres. Chamber of Commerce.

Samuel Leeper, Pres. American Trust Co.
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Peter J. Krueyer.
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W. H. Dyer.
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RED CROSS SURVEY OF DAMAGE IN OHIO.

The Ohio floods cost nearly 500 lives, caused incalculable property loss and rendered approximately 100,000 homeless. From reports of field agents who have been making surveys in the various stricken communities of the state, the officials of the American Red Cross on duty at

Columbus have prepared a summary of the havoc of the floods in that state, showing the number of lives lost and the number rendered homeless and destitute in the cities and towns hit by the high waters.

Columbus and Hamilton were the greatest sufferers. Some 30,000 were made homeless in Columbus and some 22,500 in Dayton. The Columbus dead is 89, while Dayton is put down as losing 150 persons. The estimate for the Gem City includes many reported missing. Next to Columbus and Dayton the loss of life was heaviest in these cities: Hamilton, 72 dead; Piqua, 45; Tiffin, 30; Chillicothe, 17; Delaware, 18 dead; 21 missing; Middletown, 8; Franklin, 7; Troy, 6; Coshocton, 3; Miamisburg, Portsmouth and Zanesville, 2 each.

The summary is herewith given:

Belpre—15 houses destroyed, 30 families homeless.

Athalia—10 houses destroyed.

Beverly—15 or 20 houses damaged.

Chesapeake—200 persons destitute.

Chillicothe—17 dead, 500 homeless, 200 houses destroyed.

Columbus—89 lives lost, 4,474 families containing 20,000, homeless, 245 houses destroyed.

Dayton—150 dead, 22,500 homeless.

Defiance—400 homeless, 268 houses damaged.

Delaware—18 dead, 21 missing, 115 families homeless; totaling 883 persons.

Eaglesport—20 houses destroyed, 135 people affected.

Franklin—7 dead, 75 families homeless.

Fremont—4 dead, 50 houses destroyed; 1,000 people need aid in rehabilitation.

Hamilton—72 dead, 2,500 houses destroyed or wrecked; 1,000 families need continuous help; 12,500 need aid in rehabilitation.

Hanging Rock—Was under water.

Ironton—5,000 homeless.

Larue—62 houses damaged, 20 families stripped of everything.

Lowell—20 houses destroyed.

Malta—200 families homeless.

Manchester—380 families homeless.

McConnelsville—250 families homeless.

Marietta—115 houses destroyed, 500 families homeless.

Miamisburg—Two dead, 2,000 homeless.

Middletown—Eight dead, 150 homeless; 1,000 need aid.

Middleport—1,500 homeless.

Oakwood—150 families homeless.

Ottawa—12 families homeless; 25 families need help.

Piqua—45 dead, 1,100 homeless; 1,400 need help in rehabilitation.

Pomeroy—75 families homeless.

Portsmouth—Two dead; 3,500 homeless.

Proctorville—100 houses damaged.

Prospect—60 families homeless.

Sidney—25 families homeless.

Tiffin—30 dead, 46 houses destroyed, 600 families homeless; 2,000 need help in getting rehabilitated.

Troy—Six dead, three or four missing, 1,000 homeless.

Zanesville—Two dead, 450 houses destroyed, 8,150 homeless; 1,320 will need help in rehabilitation.

Warren—150 families affected; four or five houses destroyed.

Coshocton—Three dead, 15 houses destroyed; 35 families homeless.

REHABILITATION OF FLOOD SUFFERERS BY THE AMERICAN RED CROSS.

Sherman C. Kingsley, director of the Elizabeth McCormick Memorial Fund, and former superintendent of the United Charities of Chicago, went as a special representative of the Chicago Association of Commerce as soon as the gravity of the flood disaster showed the extent of the problem before the American National Red Cross Society. Mr. Kingsley spent several days in the field and on his return made a report to the association in which he said:

"Now, the second stage has come and the Red Cross, your Red Cross, is there on the job, and it is a big job. There were something like 250,000 people affected in Ohio. The governor estimates that \$90,000,000 of property was destroyed. I presume about half of that would be in houses, furniture and personal equipment. The amount of money raised to meet this in the five states, to say nothing about other states, would approximate \$2,000,000—perhaps not that much—and you can see the great, difficult job that the Red Cross has in trying to meet the situation.

The Task of Getting Up.

"The territory affected is about 2,000 miles in circumference, and to get somebody in each place to assist the local committee and help in establishing orderly procedure, was a local task; but that has been done. Now, here is the big task. The excitement has gone. The local committees of business men and others are dissolving. They are going back and starting business so that life may become normal in their communities. The excitement is over; the bread line is dissolved, and now comes the great big task of trying to gather from all of this vast number of people affected those who were most seriously affected.

Rehabilitation.

"The Red Cross has institutional members. That means that in nearly every state in the union societies like the United Charities in Chicago may be drawn upon, and something like fifty or one hundred such workers are there, scattered about in the different towns, trying to select from those affected those who are most in need. The bread line now is broken up into units and they are trying to rehabilitate the people. Perhaps a man cannot afford to put his house back on its foundation, and that is being done. Another man is given a set of tools, and a woman who had been taking care of a sick child or a sister, who had a little stock of goods in a little store that went down, is assisted in her work of rehabilitation; otherwise she would be a charge on the community.

"The excitement is over, but the Red Cross is like that good friend who goes back with the family after the funeral, after everything has quieted down and after the family, in its loneliness, realizes what is upon it and appreciates its loss.

It Is the People's Red Cross.

"Your Red Cross, ladies and gentlemen, is there on the job trying to do that thing now, trying to make this \$1,500,000 or \$2,000,000 go to the extent of \$100,000,000. You can see that there will be some dissatisfaction, because a town that lost a large number of houses and a large number of people, would like to see their loss made good; but it cannot be made good; there is not enough money to make it good. But you will have confidence, I know, in the Red Cross. It was born out of a desire on the part of the people to carry succor to the fallen on the battlefield after the battle was over.

Why National and Responsible.

"In 1905, in this country, it was reorganized with a department to deal with such emergencies as this. The president of the United States appoints six members of the board of eighteen, the original incorporators appoint six more, and the twelve elect six more; the war department, the navy department and four or five other departments of the government are represented in its management. The president of the United States names the chairman of the board, and when all of the work is over in a disaster like this, the accounts are all returned to the national treasurer of the Red Cross, and all those accounts are audited by the war department.

The Friend After the Funeral.

"The Red Cross has done the best it could. This has been one of the biggest tasks that the Society ever had. The loss of property may not equal that of San Francisco, but the area in miles covered is one of the most difficult things that the Society has had to meet. There will be a lot of lessons to be learned from this disaster, and the Red Cross will try to further the organization and try to make it more efficient."



RELIEF MAP OF WESTERN OHIO, SHOWING WATERSHED AND SOURCES OF PRINCIPAL STREAMS.

—Photograph Courtesy Chicago Commerce.

NATURAL CAUSES UNDERLYING THE GREAT DISASTER

Ohio and Indiana Floods Probably The Greatest Since Glacial Period

Can such disasters as that occasioned by the recent flood be prevented? This question has been answered in the negative by a former university instructor and geologist, who desires to withhold his name.

He says, however, that the intervals between such floods and disasters are marked by centuries, and that the flood during the latter part of March is the largest since the glacial period, before the time of the white man on this continent. He has written the following to show the magnitude of the flood, uncomprehended by the public generally:

"The recent storm in the Ohio Valley was due, as ordinarily is the case in equinoctial disturbances, to an area of low barometric pressure coming from the West. But in this instance, instead of continuing its natural course eastward and disappearing over the Atlantic Ocean, the area of low pressure encountered an extensive and persistent area of high pressure extending north and south along the Atlantic seaboard.

"It also was followed closely from the West by another wide area of clear weather. These conditions effectively hemmed in the storm area, halted it, and confined it four days chiefly over the states of Illi-

nois, Indiana, Ohio, Kentucky, Pennsylvania and western New York.

Storm Held Stationary.

"The storm could not escape, and instead of feeling its effects for

perhaps twenty-four hours while it moved eastward, as is ordinarily the case, it remained suspended above us and let loose in one comparatively small area all the elements of destruction which are commonly distributed across half a continent without doing extreme damage in any one state.

"The downfall of water, which was heaviest in Indiana and Ohio, perhaps was considerably greater than has heretofore occurred in an equal time within the same territory since the two states were occupied by the white race. So enormous was the flood that fell upon us from above, that only by considering it as one mass can we gather an adequate idea of what really happened.

"Professor W. J. Cox, head of the Weather Bureau at Pittsburgh, states from his calculations that in a strip of territory extending from St. Louis across Illinois, Indiana and



Ohio, an average of 6.26 inches of rain fell from March 23d to 27th. The precipitation at Indianapolis, I believe, was not far from six inches. Louisville, for instance, experienced 5.1 inches in twelve

hours, and several Indiana and Ohio towns recorded from 6 to 7 inches in certain periods of twenty-four hours, with a continuous heavy downpour for four days, of which the maxima mentioned were but a part.

"For purposes of safe estimate, let us consider that six inches of rain descended on Indiana and Ohio within four days. Now, what does that mean? The two states have a combined area of 77,410 square miles, or 2,158,066,944,000 square feet. On this surface descended a layer of water six inches in depth within so short a time that practically none of it disappeared from the affected area before the full effects of all of it were upon us.

"In other words the two states were overwhelmed by a mass of water containing 1,079,033,472,000 cubic feet. These figures in themselves are meaningless, but we may easily state the situation in terms that will not only be intelligible, but will show that this flood was one probably beyond the power of man to control. The number of cubic feet contained in the rainfall would constitute seven and one-third cubic miles of water. This amount would fill a river or reservoir with perpendicular sides fifty feet deep, one mile wide and 730 miles long.

"The total excavation required in the completed Panama Canal, which has demanded the labor of 30,000 men for seven or eight years, will amount to 242,000,000 cubic yards. No less than 39,964,202,666 cubic yards of water fell on Indiana and Ohio alone, or a quantity large enough to fill an excavation 165 times as great as that we are completing at Panama.

"Lake Erie has an area of 10,000 square miles. The amount of water which descended on the two states would fill a lake of that size to a depth of about four feet.

Glacial Floods Repeated.

"That, in short, was the deluge which overwhelmed us. Its effects were inevitable and irresistible. With the soil already saturated and the rivers bank full from ordinary spring rains, the waters simply rushed over the face of the land, gathering as they fell in the wide valleys through which our rivers and small streams meander; our valleys were filled from hill to hill, and the Wabash, the White River and all other water courses in Indiana and Ohio resumed before our gaze the actual appearance they presented some 10,000 years ago at the close of the glacial epoch, when they were fed by the vast layers of melting ice which covered the northern half of the continent to a depth of hundreds of thousands of feet.

"So extraordinary a deluge can not in reason be expected more than once or twice in a century. In that thought we may safely take comfort. But the hope of controlling the waters when they do descend in such quantities is vain. When we bear in mind that our little White river was in places two or three miles wide, that the Wabash was from three to ten miles wide throughout much of its course, that at one time it was an inland sea no less than thirty-five miles wide in its lower portion, and that the Ohio was fifty miles wide near Evansville, we must realize that a system of embankments or levees which could restrain such unprecedented quantities of water within the comparatively narrow and accustomed river courses would have to be impractically high and thousands of miles in length.

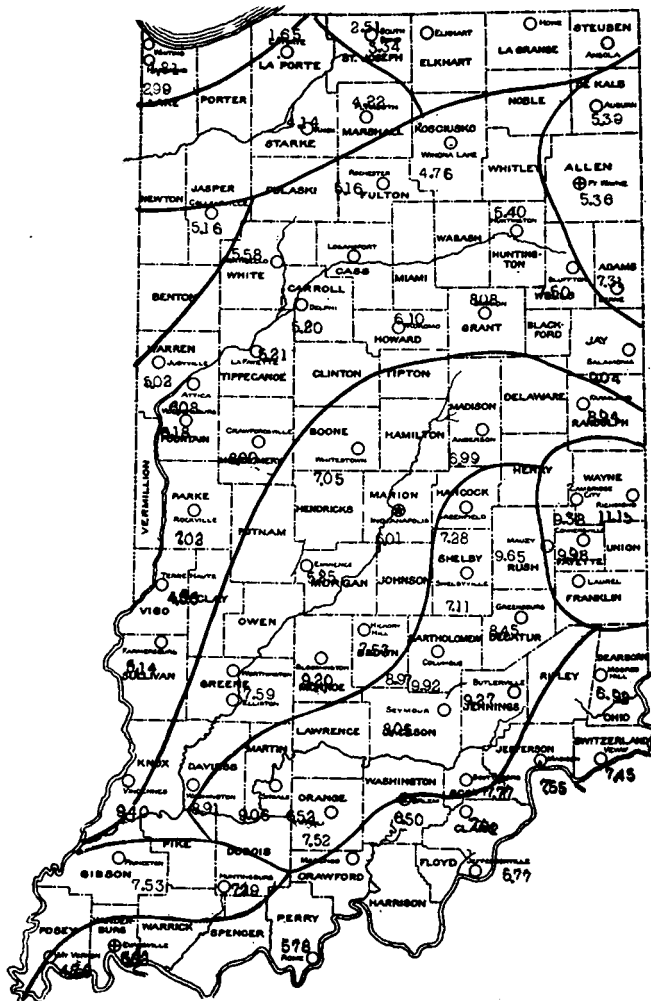
Reforestation Urged.

"Such public works would cost hundreds of millions of dollars. The

interest on the sum expended would possibly exceed in one year the damage done by one such flood in fifty years, even if the towering levees withstood the stream when the test came. If the waters which we have lately beheld in White river had been restrained by artificial banks so

that they could not inundate the lower sections of this city, they would by that restraint have been piled up far above every part of the business section. In such a case, if a break then occurred in the defenses, the flood would be many times more disastrous, both to lives and property, than it was.

"I do not mean to suggest that some further provision can not be made for the better control of ordinary spring freshets in our American rivers, for I believe such work is possible; but on rare occasions there has arisen in the past, and probably will arise in the future, a sudden condition that we are practically powerless to combat. Such a situation was that which we lately have undergone. The most sure protection against sudden devastating rushes of water down our rivers can be obtained only by reforesting the upper reaches of the streams. That will take time to accomplish, but it will be effective, and until it is done we must occasionally expect to reap, in some degree, the result of our folly in robbing the country of the natural method whereby great floods can be prevented."—*Indianapolis Star*.



MAP SHOWING INDIANA RAINFALL, MARCH 23RD TO 27TH, 1913.

(Heavy lines indicate drainage areas.) This precipitation is the heaviest for a five-day period ever recorded in Indiana within the history of the Weather Bureau and caused the highest water stages ever recorded on Indiana streams.

FLOOD STAGES OF OHIO RIVERS, MARCH, 1913.

The record breaking high water that resulted in the destructive floods, can be appreciated only by comparing the stage during this period with previous high water. The table below speaks for itself in graphic language, and shows the great depths of the water that collected in river valleys.

And at that, the table does not indicate the extent of the waters. The present record breaking floods reached the destructive high maximum after having covered scores of square miles of land with water, ranging in depth from one foot to thirty feet.

| River. | Town. | Danger Mark. | Highest Previous. | Present Flood. |
|-------------------|----------------------|--------------|-------------------|----------------|
| Sandusky..... | Upper Sandusky..... | 13 | 20.0 | 19.0 |
| | Tiffin..... | 7 | 11.4 | 18.4 |
| | Fremont..... | 10 | 16.5 | 21.5 |
| Great Miami..... | Piqua..... | 12 | 16.0 | 23.7 |
| | Dayton..... | 18 | 21.3 | 29.0 |
| | Hamilton..... | 12 | 21.0 | *25.0 |
| Scioto..... | Prospect..... | 9 | 15.5 | 20.0 |
| | Delaware..... | 9 | 16.3 | 32.0 |
| | Columbus..... | 17 | 21.3 | 22.9 |
| Little Miami..... | Circleville..... | 12 | 19.3 | 24.2 |
| | Chillicothe..... | 11.5 | 28.3 | 37.8 |
| | Kings Mills..... | 17 | 27.2 | 33.7 |
| Muskingum..... | Canal Dover..... | 8 | 12.0 | 16.1 |
| | Zanesville..... | 25 | 36.8 | 51.8 |
| | Coshocton..... | 8 | 22.0 | 30.0 |
| Maumee..... | McConnellsville..... | ? | 25.4 | 40.8 |
| | Defiance..... | 10 | 15.8 | *26.0 |
| | Youngstown..... | 5 | 15.8 | 22.9 |
| Mahoning..... | Gallipolis..... | 50 | 63.7 | 66.5 |
| | Portsmouth..... | 50 | 66.4 | 67.10 1/4 |
| | Cincinnati..... | 50 | 71.1 | 69.8 |
| Ohio..... | Marietta..... | 50 | 54.5 | 58.7 |
| | Pomeroy..... | 50 | 68.7 | 64.4 |
| | Middleport..... | 55 | 68.7 | 64.4 |
| | Ironton..... | 50 | 66.3 | 67.7 |

*Gauge washed away at 26 feet. River estimated to have risen 2 feet higher.

BELL SERVICE FINDS QUICK APPRECIATION

Hundred of Letters Received Express Thanks and Commendation

Out of hundreds of letters received by our officials from grateful subscribers we print below a few which show something of the value of our service in a great emergency like the recent floods and how this service was appreciated.

NEW YORK CENTRAL LINES,
"BIG FOUR ROUTE," PASSEN-
GER TRAFFIC DEPART-
MENT.

Indianapolis, Ind.

Mr. H. F. Hill, Jr.,
Com. Mgr. Central Union Tel. Co.,
Indianapolis, Ind.

Dear Sir—I desire to congratulate you and your operators for the good service rendered during the flood here. You were, no doubt, taxed to the limit and your operators were badly overworked, and I believe that they are deserving of a great deal of praise for the efficient work they gave the citizens of Indianapolis during the unfortunate time.

I found your operators courteous at all times and very accommodating, which speaks very well for them under such conditions, and I would be glad if you would convey to them our thanks and appreciation for the service rendered.

Yours truly,
H. R. DALY,
G. A. F. D.

THE CLEVELAND CHAMBER OF
COMMERCE.

Homer H. Johnson, president; Warren S. Hayden, first vice president; Frederick A. Henry, second vice president; George A. Coulton, treasurer; Munson Havens, secretary.

Cleveland, Ohio, April 11, 1913.
The Cleveland Telephone Co.,
Cleveland, Ohio.

Gentlemen—On behalf of the directors of this Chamber, and on behalf of the Cleveland Chapter of the Red Cross, I wish to thank you most cordially for your kind and prompt cooperation in our relief work.

It is no new thing for your company to render just such prompt and invaluable service to those who are engaged in emergency work of some character. But the fact that we are accustomed to receiving generous treatment from your company does not render our appreciation of such treatment less than on previous occasions. On the contrary, it is a constant source of surprise and gratification to us to see how large corporations give evidence in any emergency that they are not only not soulless, but that there beats within their corporate existence a big, warm, generous heart.

Very respectfully yours,
MUNSON HAVENS,
Secretary.

UNITED STATES POSTOFFICE.

Shelbyville, Ind., April 2, 1913.
Mr. B. B. Earley,
Mgr. Central Union Telephone Co.,
Shelbyville, Ind.

Dear Mr. Earley—I want to express my appreciation of your efforts and the splendid service you rendered to all of us during the recent disastrous floods. The train service being so badly demoralized and not hardly knowing what to do at times with connections we had to depend on the telephone for our information, and I am

truly appreciative of the splendid manner in which you cared for our local and long distance calls.

I am very truly,
E. SEXTON,
Postmaster.

THE TOLEDO BLADE.

Toledo, Ohio, April 2, 1913.

Mr. C. B. Abbott,
Mgr. Central Union Telephone Co.,
Toledo, Ohio.

Dear Sir—In behalf of *The Blade* I want to express our appreciation of the service rendered by your company during the trying period of last week's flood. I can imagine the difficulties under which you were working, yet I believe that we were given every consideration that we could expect, and I do know that in spite of your own troubles you made special efforts to accommodate us.

I should like in this connection to mention Mr. Moore and Mr. Green of the Columbus office, who rendered especially efficient services for our men at that end of the wire.

It is in trying times like these that we are able to appreciate what can be done for us by an organization like yours.

I trust that your losses may not be as great as now seems apparent.

Sincerely yours,
BLAQUE WILSON,
Managing Editor.

DR. E. V. ALEXANDER.

Indianapolis, Ind.

No one serving the public is due a higher commendation than you, the Central Union Telephone Co., for the continuance of your excellent service all through the trying flood period. I personally wish to thank you.

DR. E. V. ALEXANDER.

M'CORMICK BROTHERS.

Dry Goods, Carpets and Ladies' Ready-to-Wear.

Bedford, Ind., March 31, 1913.
My Dear Miss Morann,
City.

Myself and wife wish to show our appreciation for the service rendered us in getting long distance messages through to Indianapolis and Zanesville pertaining to our guest, Mr. Hines, who was water-bound here during this flood.

We wish for you the best this world may hold for those who try to serve their fellowmen, and may your efforts be greatly rewarded for so doing.

Very truly yours,
MR. AND MRS. C. B. M'CORMICK.

P. S.—If gloves are not right size and color, exchange at glove counter.

RELIEF COMMITTEE.

Ironton, Ohio, April 19, 1913.

To the Operators of the Bell Telephone Company,
City.

Dear Friends—On behalf of the Mayor, the Relief Committee, and the citizens generally, I desire to express our gratitude for the heroic manner in

which you stood at your posts and gave telephone service during the trying times of the flood.

It is said that republics are ungrateful, and in the hustle of every-day life people are too apt to forget the kind of services which you performed. Your fidelity to duty made the work of the committee less strenuous, and enabled us better to perform the arduous duties we were called upon to perform. As long as you live you can have the consciousness of having performed a high public service at a most trying time.

Yours very truly,
E. E. CORN,
Chairman Relief Committee.

THE CHICAGO RECORD-HERALD
EDITORIAL ROOMS.

April 17, 1913.

B. E. Sunny,
President Chicago Telephone Co.,
Chicago.

My Dear Mr. Sunny—During the recent flood troubles in Ohio when communication was almost entirely destroyed, your company gave us great assistance, and its employees, with whom I came in contact, were most courteous and anxious to assist.

I feel that the *Record-Herald* is particularly under obligation to Mrs. Grace Donnelly and Miss C. M. Lydiard, long distance operators in the Chicago office, and Mr. A. C. Sinks of Phoneton, Ohio, and Messrs. Padmore and White of the traffic department.

HENRY BARRETT CHAMBERLIN.

EXECUTIVE DEPARTMENT, CITY
OF SOUTH BEND, IND., OFFICE
OF THE MAYOR.

South Bend, Ind., March 29, 1913.

Mr. B. E. Sunny,
President Bell Telephone Co.,
Chicago, Ill.

Dear Sir—I feel it incumbent upon myself to express in this form my high appreciation of the splendid service rendered by the superintendent of the Central Union Telephone Co. in this city, Mr. Edgar T. Bonds, on Tuesday night, upon the first announcement of the awful calamity that befell the city of Peru in being submerged by the flood that has wrought incalculable loss of life and property in the Wabash Valley.

With rare skill and untiring energy he managed to secure telephonic connection with the stricken city, as a result of which we were enabled to ascertain the perilous condition existing there. As a result of the information thus obtained we were enabled to learn what was most needed to afford relief. Disregarding every thought of personal comfort he applied himself assiduously to the manipulation of the wires, thus rendering it possible for us to arrange for relief. His well directed efforts are worthy of the highest commendation and I would be remiss in the performance of duty if I did not make due acknowledgment of his self-sacrificing spirit on this momentous and heart-rending occasion. His conduct bears eloquent testimony to the humane spirit that actuated him and stamps him a true hearted benefactor of his fellow men.

To the general management of the Central Union Telephone Company unstinted praise is due for the readiness with which the use of its splendid service was placed at our command

throughout the time where efficiency in methods of communication was so essential.

Very truly yours,
CHARLES L. GOETZ,
Mayor of South Bend.

FIRST PRESBYTERIAN CHURCH,
Muncie, Ind., April 3, 1913.
Manager Central Union Telephone Co.,
Muncie, Ind.

Dear Mr. Springer—Now that we are settling down to normal conditions after the flood I want to say a word to you about the service you gave us in Muncie during those trying days.

As a member of our Central Relief Committee I had occasion to use the phone locally hundreds of times, and also long distance calls to Peru and other cities. I do not know how you gave us such fine service, but you did, and I want to thank you for it.

Very sincerely yours,
BENJ. M. NYCE.

TERRE HAUTE TRIBUNE.

Terre Haute, Ind., April 4, 1913.

Mr. F. D. Allen,
Mgr. Central Union Telephone Co.,
City.

Dear Sir—I wish to express to you in behalf of this company our appreciation of the service, both local and long distance rendered us following the tornado and flood disaster. Your operators were very prompt in handling our long distance calls, and especially those to Detroit and Indianapolis, which was of great importance to one of our officials.

Yours very truly,
Tribune Publishing Co.,
A. C. KEIFER,
Manager.

THE JOURNAL-TRIBUNE COMPANY.
Logansport, Ind., April 3, 1913.
Central Union Telephone Co.,
Indianapolis, Ind.

Gentlemen—Referring to your Mr. Morrill, I feel that the least return I can make for his services during the flood is to bring to your attention a mention of his loyalty to your interests during a trying time. I know of my own knowledge that he worked almost night and day under great difficulties and succeeded in keeping a Bell line working at all times. His home was in the flooded district and I learn from authoritative sources that his loss is considerable. Furthermore, he is not so constituted that he will accept aid from the relief committee, and it is probable that he will repair his loss without distress. However, I cannot forbear from impressing upon your notice that he was on the job all the time, courteously, efficiently and perseveringly.

Respectfully,
Journal-Tribune Co.,
By E. F. METZGER.

C. L. DIETZ & CO., BROKERS.
Indianapolis, March 28, 1913.
Central Union Telephone Co.,
City.

Gentlemen—We wish to thank you for the courtesy extended us today by your Commercial Superintendent in getting a call through to Chicago to Albert Miller & Co. for us. This market is badly in need of potatoes, and as a result of your service to us we were able to get several cars rolling from Chicago to Indianapolis tonight.

Yours very truly,
C. L. DIETZ & CO.

THE TELEPHONE GIRL IN THE FLOODED CITIES

Her Courage and Loyalty were Fully Equal to the Terrible Emergency

By Mrs. F. E. Dewhurst.

Again we give our tribute of appreciation to the telephone girls, who have met the emergencies of tornado and floods with characteristic bravery, intelligence and unselfish devotion to duty. Of course, we know that the girls in all of the exchanges in these five states are a great army of efficient, bright operators ready to meet, day and night, the continuous demand for service. But it takes times of stress like this, moments of danger, to show the quality of the girls at our boards. And at such times they never fail. In the last few weeks, as long as a connection could be made, the girls, with splendid courage and fine self-forgetfulness, gave service, often with such great presence of mind and quick understanding that it must have saved the lives of many, and comforted the hearts of thousands of subscribers.

In these anxious days, a word of assurance which came over the telephone and telegraph line has meant so much that many who thoughtlessly use it day after day have realized as never before how much they depend on this wonderful modern invention. To one who has heard a reassuring voice out of the darkness of the night saying, "All safe, don't worry," the telephone will, for a while at least, have a human value, and the telephone girl will receive some of the appreciation due her.

This number of the BELL TELEPHONE NEWS is full of reports of the flood, but no accounts can report the details of service rendered by the girls who were at the boards during these terrible days. In some of the offices the water arose to the second story, and the raging current threatened to sweep the buildings away, but at the board these girls were calmly making connections and working long hours where no relief force could come in. Hungry and faint from lack of sufficient food, doubtful and anxious as many were about the safety of their own families, still without complaint they gave their very best service, service that was human in its sympathy, as well as intelligent and quick.

At such times, not only does the fine courageous spirit of our girls appear, but the spirit of co-operation and of loyalty to the company's interest. The girls worked together, taking their long shifts, sometimes eighteen hours at a time, dividing the work as best they could with their pitifully small force, but always putting the service first, and girls who could not reach their posts of duty for some time struggled through all sorts of difficulty, risking their lives in reaching the exchange, where they were needed. And this spirit extended even to ex-operators, who, in some

places, realizing the need, made their way to the offices to offer their help.

No Carnegie medal may be given to any of these heroines, but heroic they were, and another glorious chapter has been added to the story of the telephone operators, a story which reveals faithfulness in danger, patience in discomfort and efficiency under prolonged strain.

The report which was sent by C. E. Hall, Vice President and

General Manager of the Nebraska Telephone Company, to C. E. Yost, the President, is a thrilling description of the effect of the storm on Webster exchange in Omaha. No one can read of the service of the brave telephone girls there without emotion.

"Webster exchange, in the center of the storm's pathway, stood the shock well. Its windows were blown in and the glass globes from the chandeliers fell on the heads of the operators and crashed on the key-shelves. The girls themselves were blown away from the board. This was only for a moment, however. They returned at once, some bruised and many cut and bleeding. Thus injured, they worked on through all the trying hours. While their locker room was filled with the dead, dying and badly injured; while the sharp, quick commands and tramping feet of the 'Regular' troops resounded through the building, as they marched in and out of the public office which they took as their headquarters; while the darkness quickly settled down o'er the unlighted town and through the broken windows came the cries of the injured, the wails of the forsaken and the hoarse shouts of the rescuers; while the knowledge and thought that possibly some



LEONA WELSH,
Telephone Employee at Dayton, Who Narrowly Escaped Death in the Flood.

of their associates would never return and that their own dear ones were lost or their homes destroyed—through it all the poor, bleeding hands nimbly flew; the question, 'Number?' rang out clear and distinct. Only when they had to say, 'They don't answer,' did their faithful voices falter. Tonight, forty-eight hours after, they are still there, some because they have no other homes now and prefer their duty to the ministrations of friendly hands and hearts, some because of the call of duty only, some because they would not be satisfied otherwise.

"The injured have all been taken away, the windows repaired, the girls all carefully attended and their wants supplied. All positions are filled. The brave little chief operator and all her girls, save four who are still missing, keep watch tonight at Webster, the most fatal spot in the long list of such places in the wake of the great tornado."

A THRILLING ESCAPE.

That women are brave and that women can stand suffering has been shown time and time again in the recent horror. Leona Welsh, in the Commercial Department in the Dayton exchange, whose home is near the Union Station, found herself hemmed in by the flood on Tuesday morning, March 25th. Little did she think that before night she would be driven from her home. The water rose rapidly in this part of the city and late in the afternoon was running into the windows on the second floor. Thence, with great difficulty, Miss Welsh was taken by rescuers to a Pullman sleeping car, which was standing on higher ground near by, and which was thought to be in a place of safety. After Miss Welsh reached the car and believed she was safe it was found that water was coming in. When it began to cover the floor, Miss Welsh, together with others who had sought the same refuge, stood on the seats. The water kept rising until it reached her waist when the situation became absolutely desperate. Efforts were then made to rescue the occupants, and in getting out of the car, Miss Welsh had to wade through water which was so deep that it was with difficulty that she kept it out of her nose and mouth. She was then drawn into a boat and by means of a ladder climbed upon the roof of the Union Station, and in that way reached the second story, which was high and dry. Here she remained, in drenched clothing from Tuesday evening until Thursday morning, with little food, no heat and no light. Miss Welsh, like thousands of others in Dayton, lost practically everything she had. This story would never have reached the BELL TELEPHONE NEWS if friends in a distant city had not sent Miss Welsh a clean, white sweater, in which she was discovered at the office a day or two after the water receded. This sweater, being one of the very few clean things in Dayton, attracted so much attention that it brought out the story.

CHICAGO OPERATORS "FIRST" AID TO OPERATORS IN THE FLOOD.



ETTA LARSEN,
Chief Operator, Webster Exchange,
Omaha, Neb.

It is said that those who give quickly give twice. If this is true the Chicago Telephone operators deserve double credit for the promptness with which they offered their help to their telephone sisters in the flooded districts of Ohio, Indiana and Illinois. To them belongs the credit of having proposed to send money before any other organization in Chicago had acted. At noon on Wednesday, March 26th, the Association of Commerce of Chicago took steps to raise a fund which was most generous, but before noon, the assurance had already been telegraphed to F. W. Whitten, traffic superintendent at Columbus, that a fund was at his disposal, raised by the Chicago operators for the operators in distress.

H. N. Foster, traffic superintendent of Chicago, acting for the young ladies who wished to make this contribution, sent out the following letter to the exchanges. Many had already given money to their Chief Operators even before they saw the letter, having learned by telephone that such a collection would be allowed.

Quite a number of our operating forces have suggested to me that in view of the unprecedented calamity, due to storms and floods in Ohio, and consequent injury and hardships necessarily suffered by a great many of the telephone operators throughout Ohio, that a fund be immediately started by the Chicago operators and supervisors for the personal relief and assistance of the Ohio operating forces.



OPERATORS ON DUTY AT OMAHA WHEN TORNADO STRUCK EXCHANGE.

Top row of three, left to right—Alice Stribling, Mary Christensen, Grace Chapman.

Third row of three—Vesta Shirley, Ruth Alright, Alice Cody.

Second row—Beulah Maxwell, Etta Larsen, chief operator; Gertrude Coe, Margaret Mengies, Addie Elliott.

First row—Anna Hansen, Cordella Boon, Irene Hough, Johanna Schneider, Gertrude Larsen, Gladys Hartman, Agnes Tienery, Beth Beasekist.

In accordance with these suggestions, and in order to facilitate matters, I have appointed a Relief Fund Committee, comprising the day, evening and night chief operators of each exchange in the city of Chicago, school principal, and Mrs. Dewhurst, Mrs. Hyatt and Miss Reuse from this office, with Mrs. Dewhurst to act as chairman of this committee and Miss Reuse treasurer.

All traffic employees in the city who would care to contribute to this fund for the relief of their fellow-workers in Ohio are asked to make small contributions for this purpose. This money can be given to your chief operator, or can be dropped into a contribution box, which will be provided at each exchange. It is not desired that anyone attempt to give large sums, and if voluntary contributions were obtained from the majority of our forces, each one contributing perhaps 25 cents, or less, a really substantial sum can be raised very quickly for relief purposes.

There is an old saying that those who give quickly give twice, and it is desirable that this fund be collected as rapidly as possible, in order to provide the maximum of help to the traffic forces in Ohio.

Mr. F. W. Whitten, formerly of Chicago, is in charge of the traffic forces in the districts in Ohio most affected by the floods, and the committee has planned on forwarding immediately such moneys as are collected for him to use for the help and relief of his traffic forces as seem most desirable from his standpoint.

The committee is communicating with Mr. Whitten in the name of the Chicago operating forces, tendering their sympathy to him and his operating people, and advising him of the fact that a fund for their help is being raised by the Chicago operating forces.

(Signed) H. N. FOSTER,
Traffic Superintendent.

The news received from the flooded districts becoming more definite and still more alarming, a second letter was sent out by the committee, as follows:

Reports this morning from the flooded districts in Ohio and Indiana indicate that the calamity is more widespread than heretofore believed. The need of relief funds for the people in both these states are great. The committee in charge of the Operators' Relief Fund make a direct appeal to the operating forces in Chicago for funds for the personal relief and assistance of the operating forces in both Ohio and Indiana.

Yesterday several hundred dollars was quickly raised. In order, however, to provide the necessary relief to our telephone co-workers in these states, many of whom have suffered personal injury and many more who have lost homes, personal belongings, etc., it is necessary that as much money be raised as possible.

A telegram from Mr. Reed, general manager at Columbus, tells the committee that Mr. Whitten is flood bound in Dayton. Mr. Reed, however, thanks the operating forces in Chicago for their expressions of sympathy and further advises that whatever relief for their operating people we can provide will be most welcome and gladly received. The need is great and the committee earnestly asks that everyone give according to their ability. It is not necessary that large sums be given by anyone, but all who feel that they can give and give as freely as circumstances will permit.

Ordinarily the telephone company does not permit the soliciting of its forces for funds for any purpose, and this rule is rigidly adhered to, with the exception of some great calamity as at present. The last time any such soliciting was permitted was at the time of the San Francisco earthquake, eight or nine years ago. Today the conditions in Indiana and Ohio are so serious that the company has authorized the Operators' Relief Fund Committee soliciting funds for this purpose.

The committee desires that the forces should bear in mind that the distribution of these funds will be handled personally by Traffic Superintendents Whitten of Ohio and Wayne of Indiana, and will be applied for the personal help and relief and assistance of their own operating forces.

M. REUSE,

Treasurer.

MRS. F. E. DEWHURST,

Chairman.

Later a letter carried the thanks of the committee for the quick responses of the girls, which had at that time produced \$1,600:

Telegrams have been received from Traffic Superintendents Whitten of Ohio and Wayne of Indiana, extending their sincere thanks for the material assistance so generously and promptly given their operating forces by the young ladies of Chicago.

Our fund now amounts to \$1,600 and is steadily increasing. This money has been sent to Mr. Whitten and Mr. Wayne, and has been of great assistance in relieving the great suffering and loss caused by the recent floods.

The committee wishes to express thanks for the hearty response of all the Chicago girls.

Operators' Relief Fund Committee for Ohio and Indiana.

Mrs. F. E. DEWURST, Chairman.

Money continued to come in from the exchanges until at this time it amounts to \$1,706.76.

Besides the sums given by the girls personally, a number of offices which had prize money for service standing voted to use this to swell the donation. Also money for their libraries which was on hand to be invested in new books was cheerfully given.

Mr. Foster asked Miss Kohlsaat, the superintendent of nurses in the Chicago Telephone Company, if any of her force would be available if help of that kind was needed. The response was heartily in the af-

what it once was. The Hoosier people were very kind and appreciative, and I left Peru with pleasant memories of my week among them.

C. THOMPSON,
Visiting Nurse, Chicago Telephone Company.

Chicago operators have the reputation of giving quick service to subscribers. They should also be known as quick in their sympathies and ready to respond to the first call of distress. Their generosity proved that there is a fine spirit of co-operation among the girls all over the States, and that the fellowship of telephone operators is close and sincere.

"CENTRAL" IS HEROINE OF MODERN LIFE PROVED BY THE OHIO FLOODS.

By Mary Boyle O'Reilly.

In the *Cleveland Press*, *Cincinnati Post*, *Columbus Citizen*, *Toledo News-Bee* and *Akron Press*.

A memorable cause for pride amidst the heartrending hardships of the western floods is the quiet courage of the telephone girls.

Where torrents unloosed by northern watersheds swept swift destruction through unprotected lowlands the plea of a stricken people could be voiced only through "central."

Telegraph companies acknowledged the worst prostration in their history, railways were paralyzed throughout the flood zone. In scores of isolated towns of the Scioto, Muskingum and Miami valleys an overwhelmed community's hope for relief centered on a lonely girl!

In time of peace the operatives who sit at the switchboard hear life sweep by—ignoring their existence. The gay greetings, the eager plans for pleasuring do not include them.

But in the hour of crisis, ah, then we consider "central"—grateful to find her clear-headed in calamity, capable of coping with catastrophe, efficient to aid victims who will escape, if at all, by fractions of minutes.

"Don't ask me who the dead are," answered "central" at Chillicothe, switching and relaying tales of destruction and desolation. "Don't ask me who the dead are. Now we must think only of the people who are still alive."

All down the Ohio valley little towns escaped Titanic tragedies because girl operators stood by their switchboards. As Logansport was cut off came a last brave word on behalf of flood refugees marooned on the hilltop. At Dayton an intrepid "central," working in the dark—for gas mains were gone—cheered the thousands trapped in business buildings with news of speedy rescue. In Peru a quick-witted "central" telephoned warning after warning against the on-rushing danger.

The brave reports give no hint of conscious self-sacrifice or heroism. Apparently each "central" was instinctively loyal to her job. Five telephone operators trapped by the crest of the flood in Zanesville's exchange worked steadily through eerie days to the detonation of falling buildings and the light of burning structures.

"The river swept like a great wind through the city," phoned Miss Arline Barnell, "but already the waters are receding. The worst is over. We are thankful to be alive. Send us medicine and food."

Girl prisoners who watched buildings collapse in torrents of unimaginable fury and victims whirled away on drifting housetops yet kept courage to voice brave news of homeless sufferers!

We know them now, unnamed but notable—the switchboard girls who think and work. Their calm in the midst of calamity promises a new element of safety and gives a new reason for considering "central."



LILLIAN HARVEY.



ARLINE BARNELL.

Bell Operators who gave news to the world of the Disaster at Zanesville, Ohio.

firmative, but it was not found necessary to send any one. Later, however, one of the nurses, Catherine Thompson, who is a Red Cross Nurse, was called to Peru, Indiana, and the following letter recording her experience will be of interest:

By being a member of the Red Cross Nursing service I was called by the local chairman of the National Red Cross Association to go to Peru, Ind. Mr. Foster very graciously gave his consent, and, with another nurse from Chicago, I arrived in Peru in the afternoon of April 4th.

Peru is 125 miles southeast of Chicago, on the Chesapeake & Ohio and Wabash Railroads and on the Wabash River. It is a city of 12,000 inhabitants. About eight of that number perished during the flood which reached its height March 24th. The water at that time was almost to the second stories of the business buildings on the main street of the city. Hundreds of people were cared for in the court house and several school buildings for days until they could either go to their own homes or rooms could be found for them. The best people of the city organized themselves into a relief committee and are dispensing food and clothing, beds and bedding, of which an abundance has been sent them. Between the hours of 1 and 7 p. m. each day, the destitute come with their baskets to the court house and they are filled with food necessities. Five hundred are fed in this way each day, besides scores who are served with coffee and sandwiches.

South Peru, where the devastation is most heartrending, has a small flood each spring and the people nearest the river bank expect it, as they do Christmas and New Year's. They move out when the water gets too high and move back when the danger is past. Consequently, when the river began to rise this spring, the people expected the usual slight rise and would not move to a place of safety until it was too late. Relief boats came from Michigan City and rafts, and even doors, were utilized for rescue work.

The militia from Frankfort, Ind., arrived the day we did and immediately took charge of the sanitation, removing debris, dead animals, etc., and instructing the people in the use of chloride of lime and disinfectants, which were given free of charge to everyone unable to buy. The water supply was necessarily polluted, and the danger from this source, and the general exposure of the people, was so great that the State Board of Health issued an order for everyone to be vaccinated against typhoid. The various local physicians gave their time at certain hours during the day and I was detailed to assist them, a duty which I found very interesting. The name vaccination is a little misleading. We naturally think of smallpox vaccination, but typhoid vaccination consists of a hypodermic injection of five hundred million killed typhoid bacteria. This is repeated twice at 10-day intervals. This inoculation immunizes against typhoid for three years.

We were quartered at the city hospital, which was opened after the flood. Here I did a little day and night duty. About fifteen patients are in the hospital and are very grateful for accommodations and attention, some of them being absolutely without any homes. In South Peru the devastation is indescribable. In many places the houses are entirely washed away, and in some instances the foundations are destroyed.

One typical Hoosier told me that his neighbor's house floated from its foundation and his own house floating away landed on the recently vacated support. "And he could prove it," he said, "because Joe Smith saw it land."

Notwithstanding the fact that many have lost all that they had, they are making the best of it and are working hard to get their city back to a semblance of

Appreciation of French Lick Operators

FRENCH LICK SPRINGS HOTEL.
French Lick, Ind.
March 31, 1913.

Mr. Frank Wampler,
District Commercial Mgr., Central
Union Telephone Co.,
Indianapolis, Ind.

Dear Sir—The inclosed letter was circulated at my request among the guests here for their signatures. I felt that such faithful service on the part of the young lady operators here was worthy of notice and some token of appreciation.

I trust you may see fit to give this letter your attention and favorable consideration.

Yours very truly,

JOHN C. SPAR.

Railway Exchange Bldg., Chicago, Ill.
Inclosed letter follows:
French Lick, Ind., March 28, 1913.

Mr. Frank Wampler,
District Commercial Mgr., Central
Union Telephone Co.,
Indianapolis, Ind.

Dear Sir—We, the undersigned, guests of the French Lick Springs Hotel during the recent flood which prevailed over the Central States, wish to express to you our appreciation of the splendid services rendered by your operators at this place—Miss

Rosie Clancy and Miss Zoe McVey.

All mail and telegraphic communication having been destroyed, the full burden was thrown upon your employees. In spite of the great difficulties under which they worked they were at all times cheerful, pleasant and accommodating, their interest and hearty co-operation making it possible for the guests to get into communication with their business associates, friends and relatives and relieve their anxiety.

Knowing the high standard of efficiency for which you are constantly striving, we believe that you will be glad to learn of the ability and resourcefulness of these two young women. We take pleasure in recommending them to your favor, feeling sure that they would fill with credit any position to which they might be appointed.

| | |
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| A. L. Stone..... | Chicago |
| I. Stanley Stone..... | Chicago |
| Nat. Stone..... | Milwaukee |
| George Olaus..... | Detroit and Toronto |
| R. B. Davison..... | New York |
| H. L. Tucker..... | Minneapolis |
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ROSE CLANCY,
Central Union operator at French Lick,
Indiana.

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| B. A. Sprague..... | Cleveland |
| Willett M. Spooner..... | Milwaukee |

FOOD

By DR. ALVAH H. DOTY
Medical Director, Employers' Benefit Fund, Bell
System, Western Union Telegraph Company and
Western Electric Company

Food very properly has been likened to the fuel which supplies the engine with motive power, but in addition to this it must also replace worn-out tissue and provide for increased growth.

Scientists have been able to determine the composition of the human body and the character of food best fitted for its nourishment, and were it possible to give directly to the various tissues the material most needed for their support, the problem of nutrition would be easily solved. But that which we eat is subjected to the process of digestion and food reaches its destination in a modified and roundabout way; however, the knowledge we now possess enables us to go a long way towards securing the desired results.

It is known that the bone is composed of animal and earthly matter, or so-called "bone earth." The animal matter consists chiefly of gelatin, and every household is familiar with the fact that very appetizing and nourishing soups may be made by boiling bones, which simply liberates the gelatin. The latter remains unchanged for a long period, for soup has been made from bones over a thousand years old.

The earthly matter is composed of phosphate of lime, and supplies bone with the necessary hardness. The bones of very young children are less compact and probably contain a relatively larger amount of animal matter than the bones of grown persons; this provides greater elasticity, and were it not for this many falls and injuries

incident to childhood would lead to more frequent fractures and deformities. Sometimes the amount of bone earth in early life is far too small, for in a form of malnutrition affecting children known as "Rickets," the bones, particularly of the legs, become bent and distorted and lime must be supplied in order that they may regain their normal composition.

The muscular system which supplies the motive power and strength to the body, unlike bone, must be capable of the freest movement, therefore a different kind of food is required to maintain its nutrition; then again the secretions must have plenty of water and certain salts properly to perform their function.

At the risk of entering into more technical grounds, a little time should be given to the consideration of the various groups of food and the terms which are used to designate them.

Food is classed as organic and inorganic; organic substances are divided into those which contain nitrogen (with which we have dealt in connection with the subject of air) and those which do not. The organic nitrogenized substances are known as "proteids," and are by far the most important articles of food, for nitrogen is required in the formation of new and the repair of old tissue and in the proper nourishment of the body, and without it we could live but a short time.

The proteids are well known to us in the forms of meat, the albumen or white of eggs, the casein of milk, the gelatin of flour, and so on, and are specially needed to supply strength and motion.

The organic non-nitrogenized substances, as the name implies, contain no nitrogen, and are recognized in the forms of fat and sugars, the latter being known as "carbohydrates;" starches are included in this class and during the process of digestion are transformed into sugar. Sugars and fats are heat producers, besides being important agents of nutrition. If they are reduced in amount below a certain point a condition of malnutrition follows and renders the person more susceptible to disease. Fat is found immediately under the skin, as well as in the deeper structure, and being a poor conductor aids in retaining the warmth of the body and protects against cold from without. Besides fat is required over parts exposed to pressure, and also aids in maintaining the symmetry of the body.

Organic substances in supplying the various tissues with nourishment lose their identity and leave the body in a changed condition or as waste matter which is eliminated largely through the intestinal tract and the kidneys.

Inorganic substances consist of water and various salts, which are necessary properly to maintain the functions of the body; they are specially needed in connection with the various secretions, such as the gastric and intestinal juices, but unlike organic substances they are eliminated from the body in the same form in which they enter it.

Having considered in a general way the composition of the body and the material required to nourish it, we are better able to understand the value of various articles of food, particularly under special conditions. For instance, an athlete while in training, does not use fat as a diet, for it would increase his weight and would add but little to his muscular power. Therefore he must eat chiefly of proteids, such as meats, eggs, etc., from which he secures additional strength and proper material to replace worn-out tissue, for there is a pressing need of this during excessive and continued exercise; however, if he were to con-

tinue his rigid or special diet too long, there would be a deficiency of fat and sugar, and his general health would be impaired. On the other hand during convalescence from fevers, or where extreme emaciation exists, as in tuberculosis and various other conditions, fatty foods are urgently called for. Aside from the temporary or special instances which have been just related a mixed diet is regarded as essential to continued health and strength, for it contributes to the support of all tissues and functions.

There is not the least doubt that those who can obtain all the food they desire eat far too much, for, like drinking and smoking, it is largely a matter of habit, which can and should be curtailed. It is commonly believed that when a large amount of food is taken the portion which is not actually required at the time is stored up for future use and becomes a protection against disease. There is not only no evidence to substantiate such a theory, but there is indisputable proof that when an excess of food is taken it remains undigested, particularly when it consists largely of meats, and fermentative and putrefactive changes occur in the intestinal tract, due to certain forms of germs or bacteria that are always present in this canal. Some of the products of putrefaction which are poisonous are commonly absorbed into the system and are responsible for many unpleasant and sometimes serious conditions; furthermore, an excess of food overworks the organs of digestion, and as a result of this continued strain degenerative changes take place, which later in life frequently lead to fatal results.

Those who will devote a little time to the study of this important subject will find that the most vigorous specimens of mankind are those who are more or less constantly in the open air and eat the simplest food. The Scotch Highlander, whose endurance is well known and whose nourishment consists largely of oat-meal, may be referred to as an illustration of this.

The table on the next page is introduced in order that there may be presented a more condensed and convenient means of ascertaining the relative amount of proteids, fats and carbohydrates in the various articles of food in common use.

A few of the more important articles referred to call for additional notice.

Milk is generally regarded as the most valuable form of nutrition, for it contains practically all of the substances necessary to existence. No other form of food is required in early life and an adult may subsist upon it for a while, although its composition, which consists of about eighty-seven per cent of water, is not sufficient to maintain a grown person continuously in good health. Many cannot digest cow's milk, for the latter is quickly curdled on reaching the stomach and may cause indigestion. In human milk this takes place more slowly, and it is therefore better adapted for the human being during infancy.

Cow's milk is easily and quickly digested by the calf, for the stomach of the latter is better prepared to break up the curd promptly. In the far East the objection to animal milk along these lines is met by fermenting it and dissolving the curd before it is taken into the stomach, thus relieving the latter organ of this part of digestion. Kumys, which is largely used in this country, is an example of this. Various other forms of fermented milk are now also extensively employed here as food. These constitute a most valuable and easily digested nourishment; besides, the lactic acid which is formed during fermentation prevents to a great extent the



ZOE McVEY,
Chief Operator, French Lick, Ind.

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putrefactive changes in the intestinal
canal already referred to. Milk thus
treated is in no way medicated and
may be taken in about the same
amount as the untreated milk.

It is needless in this article to dis-
cuss at any length the importance of
a pure milk supply, for this subject is
being constantly dealt with in detail
by the public. It is well known that
the milk transmits the germs of infec-
tious diseases, for instance, typhoid
fever, therefore each family, particu-
larly where there are children, should
pay careful attention to the source of
their supply. In large cities this is
looked after by the municipal authori-
ties; however, when we consider that
in New York City alone there are
about 2,000,000 quarts used daily and
that it comes from many different
States, and through many different
channels, there is much that the indi-
vidual can do in selecting a reputa-
ble and careful vendor of this im-
portant article of diet.

The meat eaten by human beings is
usually obtained from animals which
are vegetarians and are not obliged to
do physical work, such as cattle and
sheep. Animals which are used for
labor, the horse for instance, are given
proteids, usually in the form of
oats, to increase their muscular pow-
ers and efficiency, therefore their meat
is coarse and not as tender or as
palatable as that which is generally
used for food.

The use of impure meat is frequent-
ly followed by unpleasant or danger-
ous results, but this relates chiefly to
hog meat and occasionally veal. While
it may be due to chemical changes
under the well known name of "pto-
maine poisoning," it is usually caused
by the presence of certain forms of
bacteria. Parasites, such as tape-
worms and trichina, are often taken
into the alimentary tract, usually with
ham, and poisoning from this source
is of common occurrence in Germany,
where this form of food is eaten only
partly cooked. These unpleasant re-
sults, may as a rule, be prevented by
having the meat subjected to a suffi-
ciently high degree of heat to kill the
bacteria and parasites which may be
present. This may be effected by cook-
ing it long and well, which will secure
a temperature from 160 to 200° F.
necessary for this purpose in the center
of the meat. While this part re-
tains its redness the required degree
of temperature has not been reached.

Beef and mutton are so seldom af-
fected in this way that it should not
deter those who are fond of rare meat
of this kind to continue its use, pro-
vided care is observed in its purchase
and to be reasonably satisfied that it
has not been unduly exposed or im-
properly cared for.

Poultry is more easily digested and
less stimulating than meat, and is
therefore more acceptable to convales-
cents and weak digestions. Game,
such as quail and partridge, is tender
and also easily digested, although
the practice of keeping it for days or
weeks for the purpose of developing
certain flavors cannot be recommended
as a wholesome procedure.

While fish is more digestible and
less stimulating, and therefore less
supporting than meat, it must be eat-
en fresh, for it rapidly decomposes
and becomes absolutely unfit for use.
Oysters are nutritious and easily di-
gested, but they must also be eaten
fresh. While they are sometimes pol-
luted by sewerage, it is probable that
the danger in this direction is some-
what exaggerated, although care
should be taken to ascertain from
whence they come, for in certain sec-
tions their beds are quite free from
contamination.

Lobsters, crabs and mussels are very
palatable, but they cannot be depended

*COMPOSITION OF DIFFERENT ARTICLES OF DIET.

| | Water. | Proteids. | Fats. | Carbo- hydrates. | Salts. |
|------------------------------------|--------|-----------|-------|---------------------|--------|
| Arrowroot | 15.40 | 0.80 | ..... | 83.50 | 0.80 |
| Bacon (Letheby) | 15.00 | 9.00 | 73.00 | ..... | 2.90 |
| Barley meal (de Chaumont) | 11.30 | 12.70 | 2.00 | 71.00 | 2.00 |
| Barley pearl (Church) | 14.70 | 7.40 | 1.10 | 75.80 | 1.00 |
| Beef, best quality (König) | 72.00 | 21.00 | 6.00 | ..... | 1.00 |
| Beef as supplied to army | 75.00 | 15.00 | 8.40 | ..... | 1.60 |
| Beef, salted | 49.10 | 23.60 | 0.20 | ..... | 21.10 |
| Beef, corned or Chicago (Parkes) | 23.30 | 14.00 | ..... | ..... | 4.00 |
| Beetroot (König) | 87.00 | 1.50 | ..... | 10.50 | 1.00 |
| Biscuits | 8.00 | 15.60 | 1.30 | 73.40 | 1.70 |
| Bread (Rubner) | 39.50 | 8.00 | 1.00 | 50.00 | 1.50 |
| Bread, average wheat | 40.00 | 8.00 | 1.50 | 49.20 | 1.30 |
| Butter, English fresh (Bell) | 12.00 | 2.00 | 85.00 | ..... | 1.00 |
| Butter, very best (Bell) | 8.00 | 1.00 | 90.00 | ..... | 1.00 |
| Butter, salt (Bell) | 17.00 | ..... | 90.00 | ..... | 3.00 |
| Butter, highly salted (Bell) | 17.00 | 1.00 | 74.00 | ..... | 8.00 |
| Cabbage | 89.00 | 2.00 | 2.00 | 5.50 | 1.50 |
| Cabbage, Brussels sprouts | 85.50 | 5.00 | 0.50 | 7.80 | 1.20 |
| Carrots (König) | 87.80 | 1.00 | 0.20 | 10.00 | 1.00 |
| Cheese, Dutch (Bell) | 41.00 | 23.00 | 23.00 | 1.00 | 7.00 |
| Cheese, single (Glover) | 36.00 | 31.00 | 25.50 | ..... | 4.50 |
| Cheese, poor quality (Bell) | 48.00 | 32.00 | 9.00 | 7.00 | 4.00 |
| Cream (Letheby) | 66.00 | 2.70 | 26.70 | 2.80 | 1.80 |
| Eel (König) | 57.50 | 12.50 | 25.50 | ..... | 1.50 |
| Eggs | 73.50 | 12.50 | 11.50 | ..... | 1.40 |
| Fish, salmon (König) | 78.00 | 15.00 | 7.00 | ..... | 2.00 |
| Fish, sole (König) | 86.00 | 12.00 | 0.50 | ..... | 1.50 |
| Fish, herrings fresh (König) | 80.00 | 10.00 | 8.00 | ..... | 2.00 |
| Flour, wheat | 15.50 | 13.00 | ..... | 63.30 | 0.70 |
| Flour, wheat average | 15.00 | 11.00 | 2.00 | 71.20 | 0.80 |
| Goose (König) | 38.00 | 16.00 | 45.50 | ..... | 0.50 |
| Horse flesh (König) | 74.30 | 21.70 | 2.60 | ..... | 1.00 |
| Lentils | 12.50 | 24.80 | ..... | 58.40 | 2.50 |
| Macaroni (König) | 13.10 | 9.00 | 0.30 | 76.80 | 0.80 |
| Maize (Pozziani) | 13.50 | 10.00 | 6.70 | 64.50 | 1.40 |
| Margarine | 12.03 | 0.75 | 82.00 | ..... | 5.22 |
| Milk, average cow's | 86.90 | 4.70 | 3.50 | 4.00 | 0.70 |
| Milk, Devon preserved (Blyth) | 90.35 | 4.20 | 1.15 | 3.50 | 0.70 |
| Milk, average town | 86.00 | 5.00 | 4.00 | 4.30 | 0.70 |
| Milk, condensed English (Bell) | 27.00 | 12.00 | 8.40 | 50.80 | 2.00 |
| Milk, condensed Swiss, sweetened | 25.50 | 12.30 | 11.00 | 48.70 | 2.40 |
| Milk, condensed Swiss, unsweetened | 61.85 | 11.35 | 11.25 | 13.55 | 2.00 |
| Mutton, ordinary | 76.00 | 18.00 | 5.00 | ..... | 1.00 |
| Oat meal | 15.00 | 13.00 | 6.00 | 63.00 | 3.00 |
| Parasites (Parkes) | 82.50 | 1.30 | 0.70 | 14.50 | 1.00 |
| Peas | 15.00 | 22.00 | 2.00 | 58.00 | 2.40 |
| Pork (König) | 47.50 | 16.00 | 34.00 | ..... | 2.50 |
| Potatoes | 74.00 | 2.00 | 0.20 | 21.84 | 1.00 |
| Rice | 10.00 | 5.00 | 0.10 | 84.40 | 0.50 |
| Turnips (König) | 91.00 | 1.00 | 0.20 | 6.80 | 1.00 |
| Veal, lean (König) | 78.00 | 19.00 | 1.50 | | 1.50 |

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The Brevard County Telephone Co.
Indianola, Fla., March 29th, 1913

Mr. Claude L. Matthews,
Care of W. N. Matthews &
Brother, St. Louis, Mo.

Dear Sir:—

Replying to yours of the 22nd, ult., will state we are using an ordinary 15 pair lead encased aerial cable for crossing the Indian River at Cocoa, Fla., to Merritts Island, a distance of 7,750 feet. This cable was laid on the river bottom, which is of sand, and we have had no trouble of any kind except from sharks and sawfish which evidently take the cable for eels, biting and striking it, causing various sizes of punctures, generally small. We have had some twenty odd punctures from this cause and in nearly all cases the teeth just going through the lead case.

It was rather a difficult matter to locate these punctures with the ordinary cable testers, on account of the various amounts of moisture and the difficulty of knowing just how many feet from the shore you are, even when you have an accurate measurement of how far from the end of cable the puncture is, and often the puncture is so small it is hard to see or find with the eye.

We purchased a Matthews Tela-fault and must say it has given the very best of satisfaction. No matter how large or small a puncture it will readily locate the moisture, show amount of the cable that is wet, giving us an idea whether it is necessary to splice it in a section or if it can be dried without cutting. If we dry it, it will also show when it is dried.

We find it unsatisfactory to attempt to dry out more than six inches of water so you can readily see what a great advantage it is to know how much of the cable is wet.

On account of the rapidity of locating wet spots with this tester we seldom have to splice in a section, as in some cases we locate the moisture, dry it out and return to river bed three hours after puncture.

If the above will be of any interest, to you you are at liberty to use it to the best advantage as I appreciate the fact that the more these are used the better for the telephone business.

Yours truly,
(Signed) A. A. BUCK, General Mgr.



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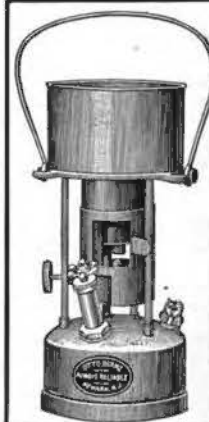
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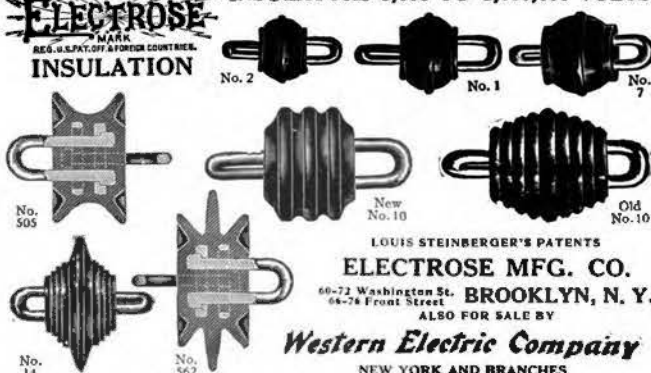
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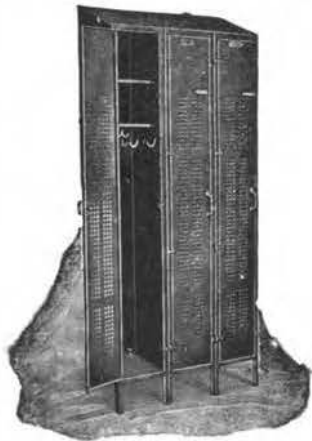
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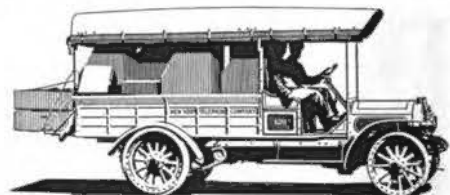


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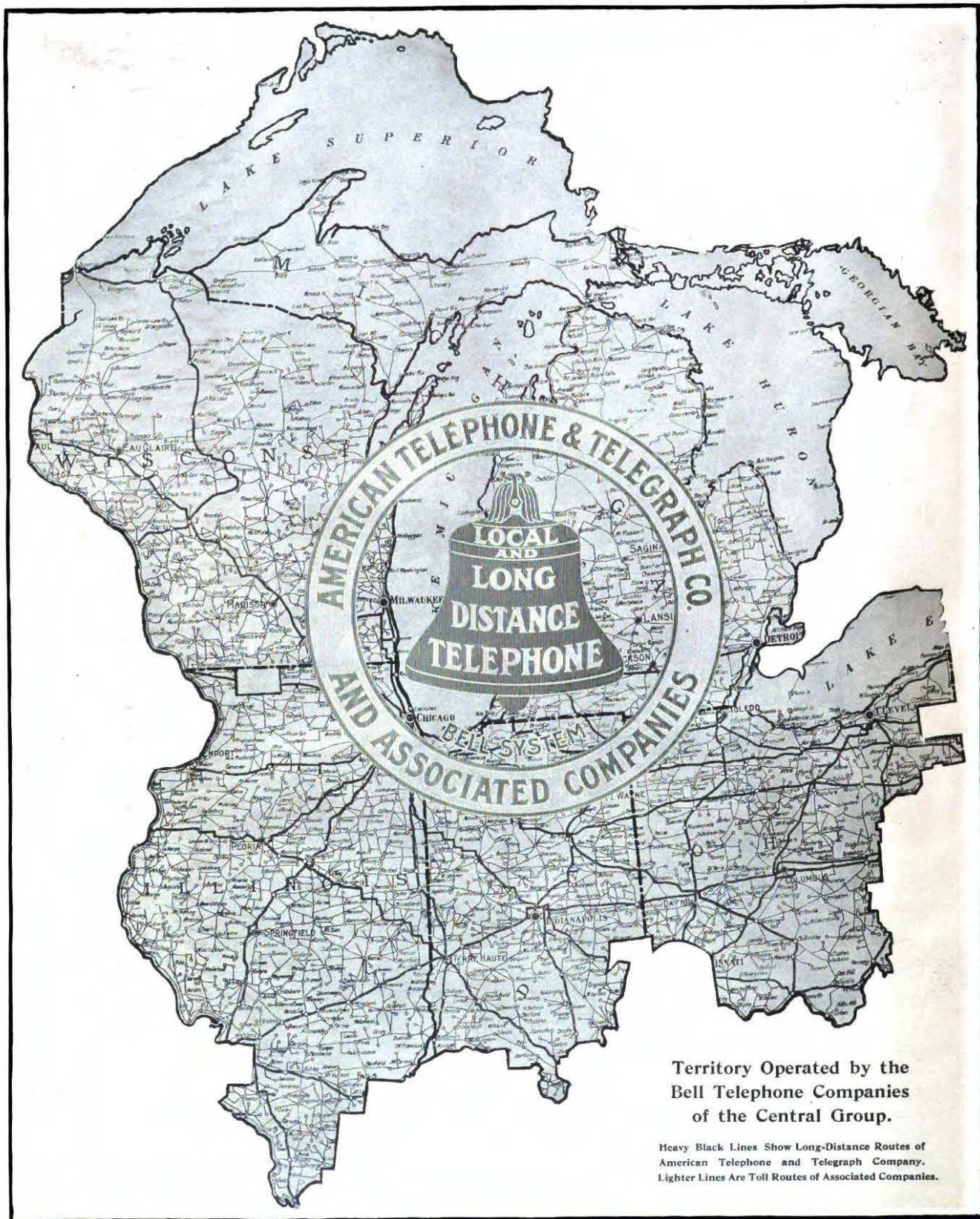
AND CONNECTIONS

In the Territory of the

Central Group of Companies

APRIL 1, 1913

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|------------------|------------------|------------------|
| ILLINOIS | 463,545 | 231,107 | 694,652 |
| INDIANA | 84,906 | 177,945 | 262,851 |
| OHIO | 166,085 | 174,139 | 340,224 |
| MICHIGAN | 190,605 | 54,410 | 245,015 |
| WISCONSIN | <u>126,502</u> | <u>107,203</u> | <u>233,705</u> |
| | 1,031,643 | 744,804 | 1,776,447 |



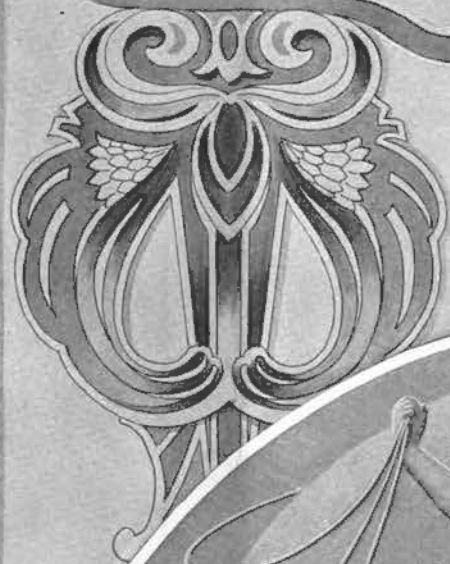
Territory Operated by the
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of the Central Group.

Heavy Black Lines Show Long-Distance Routes of
American Telephone and Telegraph Company.
Lighter Lines Are Toll Routes of Associated Companies.

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BELL TELEPHONE NEWS

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY



Volume 2

JUNE
1913

Number 11



The Power of Silent Service

If the crowd on the stock exchange kept quiet and let one man talk, that man could be heard in every corner of the room. But the shouting members produce a composite of sound, so that no one trader is understood except by a small group around a particular trading post.

If everyone were able to shout twice as loud, the result would be only a greater noise, and less intelligible.

For communication to be universal there must be silent transmission. In a noisy stock exchange where the voice, unaided, cannot be understood across the room, there are hundreds of telephones which carry speech half way across the continent.

The telephone converts the spoken words into silent electrical impulses.

In a single Bell telephone cable, a hundred conversations can be carried side by side without interference, and then distributed to as many different cities and towns throughout the land. Each conversation is led through a system of wire pathways to its proper destination, and whispers its message into a waiting ear.

Silent transmission and the inter-connecting lines of the Bell System are indispensable for universal telephone service.

Without such service, our cities would be slow of speech and the States would be less closely knit together.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

Every Bell Telephone is the Centre of the System

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 11

CHICAGO, ILLINOIS

JUNE 1913

GARY, "STEEL CITY" HAS NEW EXCHANGE

New Equipment of Chicago Telephone Company Cut Over May 24th.

Gary, Ind., the "magic city," now has one of the finest and most modern telephone exchanges in the Central Group. The new exchange was placed in service at midnight, May 24th, and all the apparatus is working smoothly and satisfactorily. Except for information gained from the newspapers, the 2,700 subscribers at Gary would not have known that a change had taken place.

The "Steel City's" short and most unique history is familiar to almost everyone. Promoted by the United States Steel Corporation, the city was started in May, 1906. Previous to that time not a house could be seen in any direction—nothing but sand, scrub oaks and tumbling weeds intersected by railroads. Today Gary boasts a population of 45,000, modern streets, buildings, parks, schools and everything essential to an active community.

The history of the Gary exchange of the Chicago Telephone Company is equally short and interesting. Eight years ago there was but one telephone in the locality, the Gary toll station. In the spring of 1907 a private branch exchange board was installed in the Gary Hotel to care for the growing toll traffic and furnish local service to a few subscribers. On December 7, 1907, an exchange with 150 subscribers was opened at 556 Broadway. This was successively enlarged until at the time of the cut-over it was giving service to 2,700 stations. In five years a central office plant which cost about \$35,000 was replaced by a new plant representing an investment of over \$100,000.

The new building is located at 725 Madison street, opposite Jefferson Park and is a handsome two-story structure of brick and reinforced concrete. The building was started in September, 1911, and was completed in June, 1912. It has a fifty-foot frontage and is seventy feet deep. The location is in a beautiful residence district.

Two years ago not a blade of grass could be seen in Jefferson Park and only a few unsightly scrub oak trees were growing around the sand dunes. The park today presents an attractive appearance from the exchange building, with its grass-covered huge mounds of sand, well selected shrubbery and trees.

The operating room is on the second floor of the new building, and contains one of the most modern switchboards in the country. Eighteen positions, of a modified No. 1 switchboard or Youngstown type, as it is generally called, extend along the west side of the operating room. The first two positions are used for incoming toll calls. The next position is a B board for trunking calls from the toll board to the subscribers' multiple. Thirteen A and one hospital and information position comprise the lay-



NEW EXCHANGE BUILDING OF CHICAGO TELEPHONE CO. AT GARY, IND.

out of the subscribers' board. Nine of these positions are filled with subscribers' lines. A six-position toll board extends along the north side of the operating room. This board is equipped with the universal cord circuit and visual busy signals.

The A board has a 9,600-line frame, with 3,200 multiple and 2,040 answering jacks equipped. Ancillary answering jacks appear every ninth panel. This enables other operators to help out if the position operator is overloaded. A special feature of the A board is the cord circuit. The operator can answer a call without opening a listening key; in fact the key is of a non-locking type. After answering a call the operator can test for "Busy" without opening the key. The ringing is automatic (that is, without ringing keys). After the connecting cord is in service the operator can supervise the connection by use of a listening key, but any tendency unnecessarily to listen is decreased by the non-locking feature of the key.

The switchboard is equipped with peg-count meter registers and the operator's count may be supervised from the monitor board at the chief operator's desk. The hospital position has sixty plugging-up lines. The chief operator's desk is of the standard type two-position chief operator and monitor's desk. The operators are provided with adjustable spring back chairs, especially designed for comfort.

The operators' retiring room is fitted with comfortable chairs and tables (mission finish), lounges, refrigerator, gas range, steel lockers, and is on the same floor as the switchboard.

L. H. Meyer, the district manager,

has his office on the first floor in the south half of the building. The apparatus room is in the north half of the first floor. The frames and coil racks in the apparatus room run parallel with the building. The test desk is a modified No. 2 two-position desk equipped with mill-ammeter circuit and a permanent signal arrangement which enables both the hospital operator and the test man to supervise lines out of order.

The power equipment on this floor consists of one $\frac{1}{2}$ H. P. Western Electric induction motor, belted to a seventy-five volt, four ampere, 950 revolutions per minute-type P1 ringing generator; one W. E. dynamotor, type T2, for ringing power, operated by the storage batteries; one W. E. induction motor, three horsepower, 220 volts, three phase, type CL9BB, connected to a fifty ampere W. E. direct current generator, type M2, which is used to charge the forty-eight volt battery on the toll board, one $28\frac{1}{2}$ H. P. three phase induction motor, speed 750 revolutions per minute, 250 volts, seventy-two amperes, twenty-five cycle, type SL13A, connected to an 18 K. W. 600 ampere direct current generator, type M8, for charging the storage battery. In the basement is a two-cylinder thirty H. P. Nash gas engine, belted to a W. E. direct current 600 amperes 18 K. W. dynamo. This dynamo is available for charging the batteries in case of power failure. The battery room is also in the basement and contains two sets of storage batteries of eleven cells each, one of the 5E type equipped with eight plates, carrying a forty-eight volt charge to be used on

(Continued on third page.)

BELL SYSTEM PROVES EQUAL TO EMERGENCY

Former Minister to China Located by Long-Distance Operator on Slender Clue.

A most enjoyable feature of the banquet of May 16th tendered the delegates of the One Hundred Years of Peace celebration at the Congress Hotel, Chicago, by Mayor Harrison and the Association of Commerce, was the welcome extended Mr. W. J. Calhoun, former Minister to China, by President Elting, the toastmaster, and the felicitous response of Mr. Calhoun. The latter's remarks were couched in homely phrases abounding in that warmth of feeling which comes from the heart of one who, after continued wanderings, finds himself again in the midst of trusted friends, familiar scenes and those hallowed associations that cluster round the spot which men call Home.

An interesting incident in connection with the home coming of Mr. Calhoun had to do with the widespread activities of the American Telephone and Telegraph Company and demonstrates the lengths to which it is sometimes necessary for that great organization to go in the performance of its function as a universal agent of communication. On Saturday, May 10th, a call was placed for Mr. Calhoun with the Telephone Company by a Chicago subscriber at 11:27 a. m. The only information vouchsafed was that the former minister had just returned to this country and presumably had called upon Mr. Bryan, the Secretary of State. The subscriber calling was extremely anxious to reach Mr. Calhoun and appealed to the Telephone Company to use its best efforts to accomplish the desired result.

With the meager information, referred to above, the company started to work, finally locating Mr. Calhoun at Dover, Mass., and a satisfactory conversation was held at 6:14 p. m.

It will be of interest to the public to follow step by step the work involved in establishing this connection, which reflects credit upon the company and its employees.

The call was first passed to Washington, with instructions to try to locate Mr. Calhoun in care of Secretary Bryan. A report was promptly received that the Secretary of State could not be found at his office or residence, and that his office knew nothing of the whereabouts of Mr. Calhoun. Chicago then requested that the New Willard and Raleigh Hotels be tried, in the meantime giving the report to the subscriber, who then suggested that possibly some information concerning Mr. Calhoun could be obtained from a Mr. W. D. Straight, who resided at Old Westbury, Long Island. Following this suggestion Mr. Straight was reached. He stated he believed Mr. Calhoun had gone to spend Sunday with his daughter, a Mrs. Gray, in Brookline, Mass., but could not give Mrs. Gray's initials or address. There are about fifteen Grays listed in the Brookline directory, so the Chicago subscriber was again called in order to

ascertain if he could furnish the initials or address. He could not, but suggested the name of another Chicagoan who might know. An attempt to reach this man was met by a "don't answer" on his office telephone, and at his residence he was reported not in; his wife was reported to be busy at a luncheon and not to be disturbed. Another attempt to reach the office was successful, only to find that he was not there. His stenographer, however, referred the operator to a relative whom she thought might know something of Mrs. Gray. This clue was followed successfully and the information secured that the name was Mrs. William Gray, who resides in Dedham, Mass.

In the meantime Washington had not been idle and after trying the Capitol and White House had reached the Bureau of Far Eastern Affairs, where it was stated Mr. Calhoun would probably visit relatives in Dedham, Mass., before going anywhere else. These two clues coming from different sources indicated that the search had narrowed down. In addition, Washington furnished the name of a man in New York City, who was

RAILWAY TELEGRAPH MEN IN CONVENTION

Telephone Dispatching a Leading
Topic at St. Louis Conference
of Superintendents.

Unusual interest and an unusually large attendance marked the thirty-second annual convention of the Association of Railway Superintendents of Telegraph held in St. Louis, May 20th to 23d.

The Southwestern Telegraph and Telephone Company assisted in entertaining the members, and President H. J. Pettengill made an address to the convention. The Southwestern Company tendered the visiting superintendents a banquet at Cafferata's Garden on the night of May 23d.

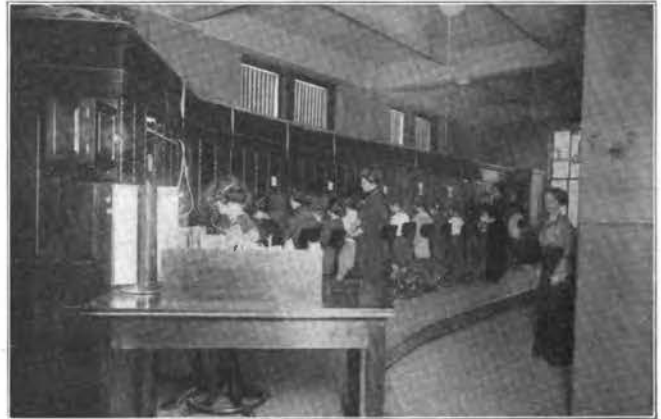
It was remarked by members of the association that the character of the discussions at these conventions has

don, superintendent of telegraph, Union Pacific Railroad, Omaha, Neb.

"Some Phases of an Organization for the Maintenance of Lines," by M. C. Allen, division plant superintendent, Western Union Telegraph Company, New York.

"Main Line Power for Selective Circuits Including Transmission and Signaling," by Richard F. Spamer, en-

by telephone was 11,632. On June 1, 1913, this had increased to 63,960. The Lake Shore system operates its entire 1,682 miles by telephone. The Santa Fe operates 6,366 out of 10,398 miles by telephone; the Canadian Pacific, 5,860 out of 11,706; the Chesapeake and Ohio, 1,333 out of 2,315; the Burlington, 2,753 out of 9,003; the St. Paul, 3,453 out of 9,359; the Rock



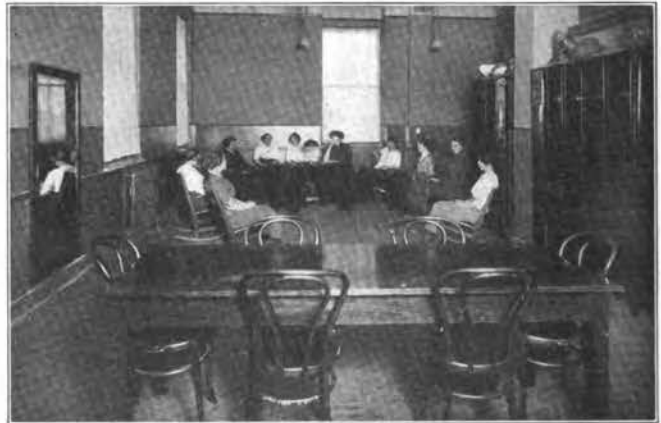
LOCAL SWITCHBOARD, NEW GARY EXCHANGE.

gineer, sales department, Western Electric Company, New York.

"Full Use of Wires," by H. D. Teed, superintendent of telegraph, St. Louis and San Francisco Railroad, Springfield, Mo.

Mr. Johnson's paper gave in succinct form the advantages and disadvantages of telephone train dispatching. It was shown that the advantages are great and that experience and the improvements in apparatus and methods are rapidly doing away with such

Island, 2,132 out of 8,445; the Big Four, 1,800 out of 2,510; the Lackawanna, its entire 978 miles; the Great Northern, 4,768 out of 7,421; the Illinois Central, 2,164 out of 4,763; the Lehigh Valley, 1,291 out of 1,453; the L. & N., 2,539 out of 4,723; the Michigan Central, 1,316 out of 1,723; the New York Central, 2,090 out of 2,829; the Norfolk and Western, 1,783 out of 2,018; the Northern Pacific, 2,320 out of 6,656; the Pennsylvania, 2,500 out of 4,700; the Seaboard Air Line,



OPERATORS' REST ROOM, NEW GARY BUILDING.

slight disadvantages as exist. Mr. Johnson concludes:

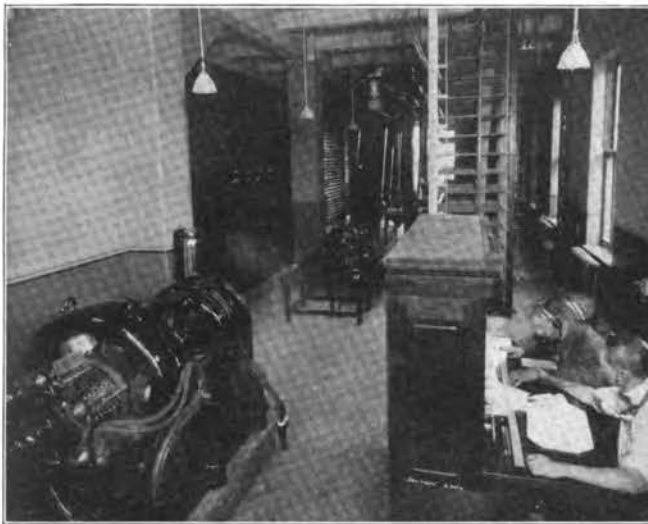
"The results of the various investigations which have been conducted all go to show that the use of the telephone for railroad operation is continually being extended, and it is not rash to predict that it will eventually supersede the telegraph entirely in this class of work, and for handling messages as well."

The mileage of railway on which the telephone is used for dispatching has increased more than 500 per cent. in four years. On June 1, 1909, the total number of miles of railroad operated

1,414 out of 3,076; the Wabash, 830 out of 2,514.

An interesting feature of this development is the fact that by far the greatest part of the apparatus used in telephone dispatching is sold by the Western Electric Company, which has made a special study of the requirements of this traffic and produced apparatus adequate to all its needs.

Among telephone men who attended the convention were A. G. Francis, of Chicago, and Iowa Smith, of Columbus, Ohio. The next convention will be held in New Orleans, beginning May 19, 1914.



APPARATUS ROOM, NEW GARY BUILDING.

related to Mr. Calhoun and might give information.

At 1:30 p. m. Dedham reported that Mr. Calhoun had been there but had gone for an automobile trip. This first definite information was secured after two hours' continuous work on the call. At 2:30 p. m. another report was received from Dedham to the effect that the automobile party intended stopping at a hotel in Dover, Mass., for dinner.

Action was again resumed on the call and Dover was reached at 5:30 p. m. and a report received that Mr. Calhoun was registered at the hotel but was out. Two more attempts were made and at 6:11 p. m. a welcome "Wh" (we have) was received by the Chicago operator and connection established.

An account of such a call does not cover the numerous little details that must receive attention in order to bring success to persistent effort. While the district traffic chief and chief operator at Chicago gave personal attention, the work at the other stations, particularly Washington, was commendable, and its accomplishment illustrates an abundance of that quality which the Telephone Company is ever striving to cultivate in its operators—resourcefulness.

largely changed during recent years. This change is due to the rapid substitution of the telephone for the telegraph for train dispatching and to the increase in the use of the telephone in all branches of the railway service. These matters are under the supervision of the superintendents of telegraph of the various roads. The following papers were read and discussed:

"Use of Telephone by Railroads for Dispatching Trains, Handling Messages, etc.," by J. C. Johnson, superintendent of telegraph, Pennsylvania Railroad, Philadelphia.

"Protection Against Lightning and High Currents for Telegraph and Telephone Equipment," by M. H. Clapp, superintendent of telegraph, Northern Pacific Railway, St. Paul, Minn.

"Some Facts Concerning Telephone Transmission," by Elam Miller and C. A. Robinson, engineering department, American Telephone and Telegraph Company, New York.

"Inductive Disturbances as Affecting Telephone and Telegraph Lines," by P. J. Howe, general plant department, The Western Union Telegraph Company, New York.

"Organization for Wire Chiefs and Telephone Inspectors," by J. B. Shel-

GARY, "STEEL CITY" HAS NEW EXCHANGE.

(Continued from first page.)

the toll board, and one of the type G51, twenty-four volt, thirteen plates, capacity fifty-one plates, 500 ampere hours, which will care for 10,000 subscribers' lines.

In the cable room are six 600-pair cables with provisions for all necessary additional cables for future growth. It is a splendid arrangement for a cable room.

A modern steam heating plant with a Kewanee box boiler will care for the heating of the building during the coldest winter weather.

The frames, relay bays and coil racks in the apparatus room are arranged to run parallel with the building in such a manner as to care for the maximum capacity, 9,600 lines. The cord relays for the A board cord circuit are all on the first floor and not back of the board, as is the usual arrangement in other offices.

Equipment Superintendent A. P. Hyatt and his old "war guard" of experts, Messrs. C. Cunard, T. E. Freeman, J. R. Hulett, Matt Hayes and Henry Banthen, were "on the job" of cutting-over. Mr. Hyatt's new cut-over scheme was again used most successfully. The plan was described in the *Wabash* cut-over in the January, 1912, issue of the *BELL TELEPHONE NEWS*. Briefly, the plan is to wire a four-volt storage battery through a suitable double-point knife switch to a short, metallic multiple plug placed in the sleeve of each multiple jack on the last section of the board, thus providing the current to hold up relays during the thorough final testing, which immediately preceded the cut. Merely opening the switch allowed the calls to come in, whereupon the heat coils were pulled at the old main frame. The multiple plugs were quickly removed by means of their conductors. All of the cables with the exception of 100 pairs were looped through the office by means of temporary cross connecting jumper wires on the main frame. These temporary jumpers were clipped in about one minute. The opening of the double-point knife switch was done by a representative of the *Gary Evening Post* at 11:08 p. m. The first business handled in the new office was a call from Gary 851—H. A. Summers—for Normal 4306 Chicago. This was a transferred call from the old office. The first local call was Gary 143; George O'Connell calling Gary 1011. The first toll call was made by M. M. Duchich, Gary 176, for Miller, Ind.

The cut-over was highly satisfactory. Only two permanents were noted and these were due to the inclement weather. The Chicago general office was represented by Mrs. A. P. Hyatt, F. A. de Peyster and F. E. Chandler of the traffic department; L. C. Jones, J. Vranek and H. N. Taylor of the plant department. O. H. Krinbill, the Hammond district manager, was an interested visitor. Mr. Krinbill was willing to predict a 100 per cent. growth in the number of stations in the Gary office within the next five years.

Every one was well pleased with the successful cut-over. Everything was planned to perfection in advance; everyone on the job proved himself capable and reliable. Business was carried on without a hitch in the service. With ideal working conditions, a labor-saving type of switchboard and a well trained operating force, no city in the country can boast of better service than Gary, Ind.

Manager Meyer served a fine "feed" at 11:30 p. m., after which the men left for their homes and a well-earned rest. Mr. Hyatt initiated his new auto-

mobile on the trip home to Gary from Chicago. Mrs. Hyatt accompanying him so as to be assured of his safe return. However, it was necessary for Mr. Vranek to pilot him home over the dark and intricate roads in the wee small hours of the morning.

The rapid development at Gary has led to the opening of a branch commercial office and joint pay station in the lobby of the Gary Hotel. Here is found an attendant and four long-distance booths, also a Western Union telegraph operator and a commercial agent of the telephone company prepared to take orders for service and accept payments of accounts. This down-town office is expected to prove more convenient to the public than the commercial office at the exchange, since the latter is located in the residence section of the city. Although Gary already has a large per capita telephone development, the popularity of the new service, together with the phenomenal growth of the city, will undoubtedly bring in many new subscribers in the next few months.

W. D. Eaton is wire chief and Catherine Doyme chief operator at Gary.

OBITUARY.

JOHN F. HAVERSTICK, manager of the Central Union exchange at Xenia, Ohio, died March 25th. Organic heart trouble, from which he had suffered for two years, was the cause of death.

Mr. Haverstick had been manager for the Central Union Telephone Company at Xenia for twelve years. He was born at Xenia, February 14, 1856. In 1882 he was appointed deputy clerk of the courts and was elected clerk in 1890. He served ten years as clerk and at the close of his last term was appointed manager for the Central Union in 1900. He was a man of great ability and the exchange was ably conducted under his management.

Mr. Haverstick leaves a widow and one married daughter. He was a member of the Knights of Pythias, Odd Fellows and Elks lodges.

CHARLES E. WILSON, president and general manager of the Keystone (independent) Telephone Company of Philadelphia, died March 26th.

THEODORE THORWARD, for several years prominent in the independent telephone movement in Northern Indiana, died at South Bend April 3rd.

ALFRED STROMBERG, organizer of the Stromberg-Carlson Telephone Manufacturing Company, died of apoplexy at his home in Chicago March 9th. He had been ill three weeks. Mr. Stromberg was born near Stockholm, Sweden, March 9, 1861. He learned the telephone business in Sweden. In 1883 he came to Chicago, identifying himself with the Chicago Telephone Company. He was employed by the Western Telephone Construction Company of Chicago, one of the first independent manufacturers, and in 1896 associated with Andrew Carlson, also a Scandinavian, and a former fellow employee of the Chicago Telephone Company, he organized the Stromberg-Carlson Telephone Manufacturing Company, of which he was made president. The company was capitalized for \$50,000, but in 1902 the business was sold out to a group of Rochester (N. Y.) capitalists. The new owners retained the services of Mr. Stromberg for three or four years, but he gradually withdrew from the business and returned to Chicago. In that city he organized several years ago the Stromberg Electric Company, which manufactures electric time stamps, and he also was largely instrumental in the organization of the Stromberg Motor

Devices Company, which makes carburetors and automobile accessories.

HORACE W. GOSSELIN, commercial agent of the Wisconsin Telephone Company, died at Green Bay March 24th. Spinal meningitis was the cause of death. Mr. Gosselin was fifty-three years old.

JOHN C. LANG, aged forty-nine, a Central Union inspector at Columbus, Ohio, was killed May 7th by an electric shock and fell from a pole. He was passing along Hanford avenue, Columbus, and noticed a child's kite caught in the telephone wires. To recover the kite for the child Mr. Lang climbed a pole. In some manner he received a current of such strength as to throw him from the pole to the ground, and he died almost instantly. He leaves a widow and one child.

Columbus employees passed the following resolution of respect and sorrow:

BETTER SOUL NEVER LIVED.

"We loved our comrade, John C. Lang. There was never better soul lived. He was kind and thoughtful of others. From the unseen force of the Golden Rule he seemed to garner power. Sudden was his death. The end came in the act of doing a happy turn for children, whom he adored intensely.

"As inspector for the telephone company he discharged his duties faithfully. Employer and employee join in glad acclaim of John C. Lang.

"As father, husband, citizen and friend he met every requirement. The widow and the son, the public all, weep at the shrine of his goodness, mercy, honesty and love.

"EMPLOYEES."

CUT-OVER AT HOWELL, MICH.

By A. Burgwin, Former Manager of the Inter-State Telephone Company, Now Bell Manager.

On April 8th at 2 o'clock in the afternoon, the Inter-State lines, connecting 524 new subscribers, were cut over to the switchboards of the Michigan State Telephone Company at Howell, Mich.

The change was made in about ten minutes, under the supervision of W. C. Kirk, plant chief; James Blisbee and L. J. Curry, also of the plant department.

The real cut-over was a short job, compared to the previous seven or eight weeks of labor by the skilled workmen, Otto Fryckman, Benjamin Aronstein, Laird Spencer, and Loyd Paine, Harry Pratt, Clare Stark and William Leet, of the commercial department, were efficient solicitors, and made nearly 600 calls.

In an hour after the cut-over was made, the traffic load was very large, but it was skillfully handled by the local operators under the supervision of Margaret Woods, traveling supervising operator.

Of the exclusive "Home" subscribers only five were lost, and one of these has since signed a contract. The farmers were visited by telephone, and not one was lost.

Two additional sections of No. 105 magneto switchboard were added, making six sections in all. On account of differences in the ringing on the two systems it was necessary to install eighty-four Bell instruments on two-party lines just before the cut.

A section of 400-pair cable 350 feet long, connects the rack rooms of both offices.

Howell now switches for 2,850 subscribers in Livingston county, a new direct connecting company being the County Line Telephone Company, with

an exchange and 216 subscribers at Cohoctah; four roadway companies, with about forty subscribers, are also added.

About twenty contracts have been received since the cut-over, showing that universal service has created business not obtainable before.

CUT-OVER AT SOUTH LYON, MICH.

By Charles Challis, Former Inter-State Manager, Now Bell Manager.

Although the cut-over at South Lyon, Mich., apparently added nothing to the exchange there, and perhaps meant nothing to some of its subscribers, it was really of untold value to them.

For the past ten years the independent company has had a large exchange in South Lyon, and covered the entire community. However, the Bell Company maintained an office there, giving the public access to its long-distance lines and making it almost necessary for business men, or those having any amount of toll business, to keep both telephones. On the other hand, the farmer, when he wished to use the Bell long-distance lines, had to go to the nearest Bell office, sometimes making a drive of several miles, or he had to bother some of his town friends to transfer the message—an arrangement which almost always gave unsatisfactory results.

On March 29th the cut-over was made at South Lyon. It gave the exchange only three new subscribers, but its 400 subscribers are now getting universal service, so that it is possible for any one of them to talk to any point from his own telephone—and that a telephone of one system only.

The office is equipped with a two-position, 300-drop capacity board, which was installed four years ago by the Inter-State Long-Distance Telephone Company. The exchange has at present thirty farm lines and six toll lines which make direct connection with all surrounding towns, and about 100 one-party local lines. The board is equipped with 205 self-restoring drops, giving the exchange plenty of room to expand.

The board is well protected by a fully equipped arresster in a cabinet which matches the board, the whole making a very neat appearance. The power is furnished by a Warner pole changer, and the toll work is efficiently handled by means of a calculagraph.

C. D. and P. T. Changes Name.

The Central District Telephone Company is the new name adopted April 1st for the Central District and Printing Telegraph Company, which is the Bell Telephone subsidiary company operating in western Pennsylvania, eastern Ohio and northern West Virginia.

The old name served the company for thirty-nine years, having been adopted when it was organized in 1874, two years before the invention of the telephone. At that time the company was organized to conduct the printing telegraph business and act as agent for the American Telegraph Company. This method of communication was made obsolete by the telephone, and the company received the Bell license to operate the telephone system in the section of which Pittsburgh is the center. The first telephone exchange was established in Pittsburgh in January, 1879.

The new name will more appropriately fit the present activities of the company.

SOUTHERN ILLINOIS IN GRIP OF FLOOD

Annual Wash-Out of Big Rivers
This Year Breaks All
Records.

By O. M. Burgess.

All southern Illinois that touches the Wabash and Ohio rivers recently experienced the greatest flood in its history. From Mount Carmel to Cairo all previous high water marks have been passed. While the floods in Ohio and Indiana resulted in greater loss of life and destruction of property, the loss in southern Illinois would have been equally great had not the people

and friends for shelter and such arrangements were made by using the toll lines of the Bell Company. The number of calls placed was far beyond the capacity of the equipment and circuits. Operators worked heroically to handle the load, and did their utmost to satisfy impatient and, in some cases, frenzied people. On March 30th it was necessary to accept all calls subject to delay.

The loss of operators made it necessary to press into service all male employees. G. A. Schmutte, manager; R. D. Wallace, district plant chief; Paul Ramer, local plant chief, and L. R. Pettus, district service inspector, helped to operate the switchboard. These were later reinforced by Traffic Chief Kennelly and Service Inspector Mc-Masters of Quincy.

An incident in connection with Mr. McMaster's transfer to Cairo is copied from the *Cairo Bulletin* of April 4th:

omnivorous maw of the river, the Central Union Telephone Exchange would be the last institution to fly the flag of distress.

Undoubtedly the prompt action of Governor Dunne in sending the Seventh Regiment and other companies of militia to Cairo saved the city. To Mayor Parsons and Sheriff Frazier is due the credit for placing the matter before the Governor in such a manner that he recognized the seriousness of the situation. Both the Mayor and the Sheriff were in constant communica-

the recent sleet storm.

It was sent to Chicago, transferred to an express car of the Illinois Central Railway, and Mr. Walsh succeeded in getting it into commission on the second floor of the Exchange Building before Cairo was cut off from train service.

Before he had completed his work, however, the tracks leading to Chicago were under water, and it was only by means of a tortuous launch trip through the flotsam of the swollen stream and a pull in a row boat over



FLOOD CONDITIONS NEAR CAIRO, ILL.

Using trolley wire to keep line boat from drifting in swift current.

been forewarned by the havoc wrought in those states. As it was Mt. Carmel, Carmi, New Palestine, Maunee, Eldorado, Ridgeway and Cairo were cut off from railroad communication. Shawneetown was abandoned, the waters of the Wabash and Ohio claimed the town and a scene of devastation marks the paths of the rivers.

Railroads have suffered millions of dollars loss. Not a train crossed from Illinois to Indiana or Kentucky for more than ten days. Traffic was demoralized. And in the face of all this disaster and devastation telephone lines, with few exceptions, remained clear and uninterrupted.

Cairo, protected by its great levees, with its streets dusty, flowers blooming and truck gardens growing, was completely surrounded by water, the crest of the Ohio and Mississippi rivers standing thirty feet above the level of the streets. It was the second great flood experienced by Cairo within a year.

Profiting by their experiences during the floods of 1912, the Central Union Company and A. T. & T. Company took every precaution to prevent interruptions to their service. When it was thought that the waters of the Ohio would flood Cairo a gasoline propelled motor was installed in the Central Union exchange for use in case the local power plant failed. On March 30th and 31st it is estimated that 5,000 people left the city. Every operator stuck to her post until the order came for the women and children to leave. Some of the operators were compelled to leave by reason of their parents leaving, but a number remained on duty, including Mrs. Fay Danforth, traffic chief.

It was necessary for the people who left Cairo to arrange with relatives

"Adjutant General Dickson wired Colonel Tripp yesterday: 'Central Union Telephone Co. is sending Mr. McMasters to Cairo via Mounds to assist in re-establishing telephone service between the two points. Arrange without fail for small boat to be at Mounds tomorrow morning about 9 o'clock to convey Mr. McMasters to Cairo.'"

Col. Tripp gave the following communication to Col. Moriarty: "I am just in receipt of a telegram from the Adjutant General relative to a river detail to Mounds, Ill. The Central Union Telephone Co. is sending McMasters to Cairo via Mounds, as it is necessary for the re-establishment of telephone service. Arrange without fail for small boat to be sent to Mounds tomorrow morning about 9 o'clock to convey McMasters to Cairo. It is urged that you cause a detail from the Illinois Naval Reserves with their naval equipment to proceed to Mounds early Friday morning, reaching there at the time indicated and carry out the provisions of the instructions contained in the above telegram."

The exchange was stocked with food. Cots were provided for the male employees in the plant room and arrangements were made to care for the female employees at the Colonial Hotel. The plant department secured a twenty-foot boat to be used in case of emergency and placed this on a platform level with the second floor of the exchange building.

A gasoline launch was provided to patrol the toll lines in the flooded district and the A. T. & T. Company cut their lines through emergency cable along the Mobile & Ohio R. R. levee. All employees were determined that if Cairo was to be swallowed by the



FLOOD CONDITIONS NEAR CAIRO.

R. D. Wallace, Paul Ramer and Lineman Lindsey on raft which was built without hammer or nails.

tion with the Governor through the use of the Bell toll service.

Chicago Man's Experience.

Larry Walsh, power foreman of the Chicago Telephone Company, reports an interesting trip to Cairo during the flood in Southern Illinois. While the Ohio river was rising rapidly towards

the interurban railway system of the flooded district between Mound City and Mounds that he achieved his prompt return.

Cut-Over at Muncie.

Since Saturday night, May 17th, Muncie, Ind., has had single telephone service. At eleven o'clock that night



FLOOD CONDITIONS NEAR CAIRO.

Stringing toll wire from Cairo to Mounds.

the top of the levee, and flooding of the town seemed imminent, the equipment department was asked to rush their emergency charging unit to the Central Union exchange in order that uninterrupted telephone service might be maintained in case the power supply was cut off by encroachment of the water.

The charging set, which consists of a twelve horse power two-cylinder gasoline engine of the marine type, connected to a fifty ampere charging generator, was being held at Elgin where it had been sent on account of interruption to the power service caused by

the heat coils were pulled from the exchange of the Delaware and Madison Counties Telephone Company and the 1,200 telephones of that company were transferred to the switchboard of the Central Union Telephone Company, on which work had been in progress for several months in preparation for the change.

The Central Union Telephone Company took over the Delaware and Madison Counties property in Muncie, Elwood and Alexandria in September, 1912. In all of these places the people welcomed a return to a single telephone system.

PERSONAL HYGIENE

By DR. ALVAH H. DOTY
Medical Director, Employers' Benefit Fund, Bell System,
Western Union Telegraph Company and Western Electric Company

Personal hygiene relates to the means by which our individual health is preserved. The most important of these are exercise, proper care of the digestive or alimentary tract, cleanliness, sleep and appropriate clothing.

Exercise is essential to health in many ways. It aids in securing good digestion, proper sleep, and helps to maintain the activity of the various functions of the body. Without it the lungs are not properly inflated, and are far less able to resist the attack of certain diseases which commonly affect these organs, for instance, tuberculosis, besides various parts of the body when not properly exercised become diminished in size and importance.

While exercise is necessary to all, it is particularly valuable to the so-called brain workers, who during the day and very often at night are engaged in work which constantly calls for increased activity on the part of this organ. To provide for this a greater supply of blood is required. If this is continued over many years the smaller vessels of the brain become dilated or stretched, and later in life may cause serious results. However, long before this change takes place a warning is given of an overtaxed brain in the form of headache, dizziness, faintness, and various forms of nervousness, which frequently affect the class of people above referred to.

Proper exercise relieves this overcharged condition of the brain by drawing from it through the activity of the muscular system the excess of blood. Other overworked organs, particularly those of the digestive tract, are similarly relieved by exercise. Upon this simple method of adjusting the circulation largely depends the preservation of our health.

Walking is the natural and proper means of obtaining exercise, and is superior to all other methods. While horseback riding, rowing, and tennis are exhilarating and healthful, and although the gymnasium and innumerable other means of exercise have their

uses, none secure the permanent benefit obtained by a daily walk in the open air, nor should they be accepted as substitutes for this.

The game of golf which in late years has become so popular in this country is practically walking made pleasant and interesting, and there is probably no method of exercise ever practiced which has contributed more to the repair of health of those who have overtaxed their brains and digestive tract than this game; furthermore, it is suitable for anyone.

The substantial benefits obtained by walking depend chiefly upon the regularity with which it is performed. A walk of from four to six miles daily may be regarded as a fair average for an adult, and the result is far more effective when the distance is covered at one time. A good even pace should be taken, although it is not needed that one should walk too fast. The shoulders should be erect, and full respiration should frequently be taken. The value of expanding the lungs and

age, for they not only impair digestion, but lead to various forms of nervous trouble which are difficult to overcome, the unpleasant results of which may be traced in after life.

Cleanliness of the person is not only necessary, but it is also pleasurable to those who practice it. The skin through its millions of little ducts is constantly discharging waste matter from the body. As a means of protection its surface is supplied with an imperceptible coating of fatty matter, and a scaly layer. If these various substances are not promptly removed they decompose and become offensive, and the skin is not only unable properly to perform its function, but may become roughened, irritated, and in some instances intractable forms of skin disease may follow.

The skin cannot be properly cleaned unless there is a free use of soap in order that the greasy substance may be saponified and the surface well cleared of all waste matter.

The frequency with which a person

culation is less active, and the supply of blood to the skin is somewhat diminished in amount, and therefore less able to protect against the sudden reduction in temperature. This may be overcome, and the shower bath rendered even more invigorating, by first using a shower of very warm water for a half a minute or so; this brings the blood quickly to the surface, then as a rule the cold water may be turned on with the most satisfactory results. This form of bath has additional value, for by keeping the superficial blood vessels of the skin well stimulated it goes far to prevent catching cold.

Turkish, Russian and various other forms of baths which are extensively recommended and advertised, are not essential to health. They are pleasurable to many, and in certain physical conditions may be of some special value, but they cannot be used with impunity and are often injurious, particularly to those who have organic trouble or who are advanced in years, besides they offer practically nothing which the simple methods of cleanliness already referred to do not provide for.

Sea and fresh water bathing are for pleasure rather than cleanliness. Those who delight in this form of bathing, commonly remain in the water too long, and in various ways suffer from it. Open air bathing is not without danger to those in feeble health or who are advanced in years, besides they should not be indulged in for at least two hours after eating. The "cramps" which often occur while bathing are probably in many instances due directly or indirectly to interference with the process of digestion which may be active at the time.

The care of the teeth is an exceedingly important factor in the preservation of health, for aside from the unpleasant odor and appearance associated with decay, imperfect or a diminished number of teeth sooner or later lead to impaired digestion. The public are not aware of the seriousness of this condition, or the frequency with which defective teeth are found. A recent report of the dental clinics in New York City show that of 1,694 children examined, only eleven of them were found to have normal teeth. If this condition occurs in children, what may be found in adult life? It at least clearly indicates the necessity for a most careful consideration of the subject.

The teeth should be thoroughly brushed upon rising and at bed time with a medium sized and moderately stiff brush, for the purpose of removing particles of food. A good powder for this purpose may be purchased for a small price at any drug store or precipitated chalk which is quite cheap may be used instead.

It is also desirable that the mouth should be rinsed at least night and morning with water, or even better, a solution of salt or bicarbonate of soda, one-quarter of a teaspoonful of either to a glass of water; this should be used more fully to dislodge any particles of organic matter. Great cleanliness of the mouth must be observed on the part of those who use artificial teeth.

The frequent use of acid substance is more or less injurious, such as lemons, grapefruit, etc.; the bad effect of these may be neutralized if the mouth is afterward rinsed with the solution of bicarbonate of soda already referred to.

The feet and hands must also be carefully looked after. In the regulations of the various armies throughout the world may be found the most minute instructions as to the care of the former, for if they are not in good shape, soldiers may become unfit for service, if their marching ability is impaired. Carelessness in this direc-



FLOOD CONDITIONS NEAR CAIRO.

Telephone line crew lunching on convenient roof of two-story building.

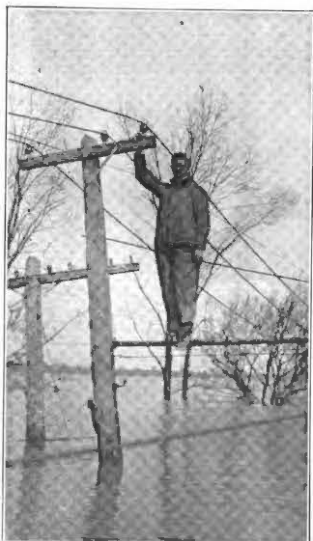
thereby insuring full ventilation has already been referred to in a previous article.

It is not proper that a long walk should be taken immediately after a full meal, for at that time an increased quantity of blood is needed for digestion, and too much exercise may interfere with this important act.

Those who are constantly under mental strain often experience a sense of fatigue. This is as a rule a mental, and not a physical condition, and the proper remedy for it is exercise in the open air and not rest.

The importance of protecting the digestive or alimentary tract from improper or too much food has already been referred to. Plain, simple, and easily digested articles of diet constitute the normal and healthy means of securing nourishment, and are without injury to the organs concerned in this important function. The value of this form of food and the absence of trouble in connection with its digestion has been clearly demonstrated. Advanced civilization has to a great extent destroyed this simple habit, and has substituted a desire for rich and fancy dishes, which is an acquired taste and is dearly paid for in more ways than one.

The subject of coffee and tea, its advantages and disadvantages is so frequently discussed that it requires no special comment here, save to state that while stimulants may be taken by adults in a reasonable amount without injury, it is neither healthful nor proper that children or young people should become addicted to their use. They are positively injurious at this



FLOOD CONDITIONS NEAR CAIRO. Repairman Ary at Work.

tion occurs largely because the feet are not exposed to view, and for the same reason cleanliness in this direction is often not practiced. Care of the feet in childhood usually insures a shapely foot in the adult. Corns, bunions, ingrowing nails, etc., should be promptly dealt with. Tight and ill-fitting shoes must be guarded against, and stockings frequently changed. The feet should be daily cleaned with soap and warm water, and then doused with cold water and very carefully dried, particularly between the toes.

No detail of personal hygiene makes so favorable an impression as clean hands and well trimmed nails. A nail file may be purchased at a very low price at any of the department stores, and the vigorous use of the nail brush two or three times during the day is all that is needed for this purpose.

produce sleep usually weaken the heart and depress the general system, and in various ways may delay a return to the normal condition of health which is the object in view; furthermore the use of drugs to produce sleep leads to a dangerous and pernicious habit, and too much cannot be said in condemnation of the innumerable remedies which are advertised for this purpose. A person who suffers from insomnia for a protracted period is not in a normal condition of health and should consult a physician, and not resort to the use of the so-called sleeping agents.

During sleep, the heart and lungs are less active, and under these conditions it is essential that the diminished amount of air taken in should be as fresh as possible, and it is for this reason that benefit is derived from open windows during sleeping

whereas if wool is used, the chilling takes place more slowly. Silk has to a lesser extent the properties of wool just referred to, and it may be used as a substitute if its added expense is not prohibitive. Furs need only be considered as an outside garment for extremely cold weather, and as a common article of clothing in sections of the world where the temperature is almost always very low, its value being due to its impermeability to cold weather and winds.

Air is also a poor conductor of heat and cold, and for this reason loosely woven fabrics which contain air in their meshes are warmer than those which are closely woven. Two or three layers of clothing are warmer than one of equal thickness, because the air which is a bad conductor is between the various layers. This will also explain why a number of sheets

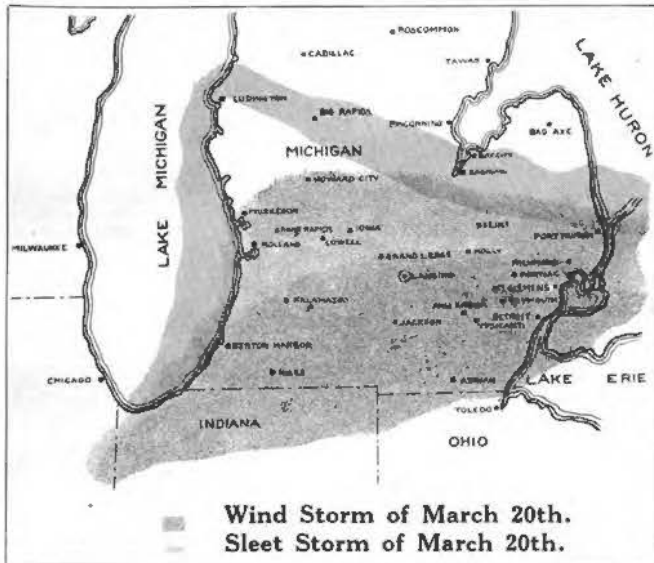
DISASTROUS WIND STORM IN MICHIGAN

Eighty-Six-Mile Gale Levels Telephone Poles on Many Lines.

By P. E. Hurston.

Early Thursday morning, March 20th, a wind storm, spreading out and gaining momentum as it went, started somewhere in the mountains of Colorado, travelling in a southeasterly direction, centered over Shreveport, La., during the day, and later moved up the Mississippi Valley.

Twenty-four hours later, after sweeping across Colorado, Kansas, and Ne-



MAP NO. 1.



MAP NO. 2.

The nails may be very satisfactorily polished with the palm of the hand upon which is placed a little powder to create friction. The care of the nails is not only for appearance sake, for if not properly attended to, they accumulate germs, and may act as media of infection.

Sleep is the natural means of securing rest, both for the body and the mind. The number of hours required for this purpose, as in other matters relating to personal hygiene, depends largely on the occupation and general condition of each person. Those who are actively engaged in brain work or physical exercise need more sleep than those of sedentary habits. No definite rule can be followed as to the time required for this purpose, although in a general way it may be said that adults should have from six to eight hours' sleep during the twenty-four hours, and children much longer. Sleep should be taken at night, and as near as possible at the same time. Sleeplessness or insomnia is a very common affection, but is far less difficult to deal with if a little study is given to its cause.

Nature will supply sleep unless there is something to prevent it in the way of ill health or some transient cause in the shape of worry or excitement. Therefore if insomnia exists it should be our object to ascertain its cause and treat it, rather than to deal with the insomnia itself. Nothing is more injurious than a resort to drugs for this purpose, for medicines which

hours, or even better, the habit of sleeping in some outside apartment, or out of doors. It may be added that while plenty of fresh air should be allowed to enter the sleeping room, draughts must be avoided in order not to catch cold, and while the head is exposed, the body should be kept warm. A hard mattress is far better to sleep upon than a soft one, and the feather bed should not find a place in any home. While the sleeping room should be freely exposed to the outside air, the dressing or bath room should, if possible, be comfortably warm, in order that the exposed surface of the skin may not be chilled.

The need of clothing is so well known that only reference will be made to the relative value of the various articles used for this purpose. The material commonly employed in the manufacture of clothing consists of linen, cotton, wool, silk and fur. Both cotton and linen are good conductors of heat, i. e., the warmth of the body passes quickly through these fabrics to the outer world. Therefore in cold weather they do not offer the protection extended by wool and silk, which are poor conductors of heat. Neither cotton nor linen are as "hygroscopic" as wool and silk, i. e., they do not absorb water and give it off as slowly, but quickly lose it by evaporation. A very familiar example of this is when cotton or linen underclothing becomes wet from perspiration in the summer, evaporation takes place so rapidly that the body becomes quite cold,

of newspaper wrapped about the body is a very valuable protection against the cold and may be used in emergencies for this purpose.

The subject of clothing must not be dismissed without reference to the dangers which follow the continued use of garments which improperly constrict various parts of the body. If those who are addicted to tight lacing could see the misplaced and distorted internal organs which are revealed by the X-Ray, and which are the result of this habit, there would undoubtedly be some reformation in this direction.

While the means above referred to are generally regarded as the most important details in the preservation of individual health, there are many other ways which a person through proper habits can contribute to his well being. Fortunately, these various measures are neither difficult nor unpleasant to carry out and are applicable to any walk of life. Therefore, the preservation of health is largely in our own hands.

Hypnotized by Long Distance.

At Moline, Ill., something unique in the vaudeville line was recently "pulled off." A hypnotist at Ottumwa, Ia., was placed in communication by long-distance telephone with a subject in Moline, the subject, for advertising purposes, being placed in a prominent window in the business part of the city. The experiment was successful, the "victim" remaining asleep for fifty hours.

braska, leveling buildings, trees, and wires, its greatest fury was spent. But Iowa, Illinois, Wisconsin, Indiana, and Michigan had yet to contribute to its toll.

Early in the morning of March 21st, word was received at the Detroit office test room that the storm was approaching from the southwest, having reached Evansville, Ind., at 8 a. m., traveling north. Another report at 8:30 a. m., from Niles, Mich., stated that the storm had reached there. A heavy lead of poles, carrying wires from Benton Harbor and points north and east, had gone down and within a minute or two damage enough had been done to keep a large force of men busy for days making temporary repairs, while weeks would be required to restore the line to its original state. Connections with the Kalamazoo office were still maintained, but with the storm traveling at the rate of 90 or 100 miles an hour, it was clear that it would not be long before that point would be reached. In fact Kalamazoo connections were lost, including all point. In the southwest section of Michigan while the conversations were going on. The Jackson office next went out at 8:50 a. m.; Ypsilanti was cut off at 9:10. Then the storm seemed to swerve, according to our observations, to a northeasterly direction between Ypsilanti and Wayne. The next line to go out was the main lead which carried the circuits of Pontiac and connected Saginaw and points north. This break occurred at 9:30 a. m.

By this time, the storm had reached Detroit with a roar, overturning automobiles and wagons, blowing down signs, breaking plate glass windows, trees, poles, and wires. The main force of the storm was yet to come, as shown by the records of the United States Weather Bureau. By 10 a. m. the velocity of the wind had reached sixty miles; between 10 and 11 a. m., seventy-one miles; between 11:10 and 11:15, the maximum of eighty-six miles per hour was attained. The average be-

Owosso-Ithaca, Monroe-Adrian, Ann Arbor-Ypsilanti, Redford-Pontiac, Holly-Fenton, Plymouth-Redford, Detroit-Wayne, Detroit-Redford, Detroit-Pontiac, Detroit-Mt. Clemens, Detroit-Monroe, Detroit-Windsor, Mt. Clemens-Algonac, Flint-Pontiac, Saginaw-Bay City, Saginaw-Port Huron, Carsonville-Port Huron, Mt. Clemens-Port Huron.

It will be noted that the storm area covered the most densely populated part of the state, and, of course, the

morning, over the southern part of the state, generally, and continued throughout the day and well into the night, retarding progress and developing new trouble in the temporary work. Another unfavorable weather condition appeared late Sunday night: Rain ceased, and, at 4 a. m., Monday, a high wind sprang up, which developed a velocity of between forty and fifty miles per hour. These continued high winds, accompanied by showers during the day, caused additional

width from three to twenty-five miles, as shown on storm map No. 2. Probably the proportion of ice formed was greater in the vicinity of Port Huron, as the heavier damage occurred in that section. The continued rain, with the temperature of 23 degrees, soon loaded the lines to a breaking strain; with the high wind blowing, heavy, well-built lines commenced to give way, about 10 a. m., and continued breaks occurred until temperature and weather conditions changed, late



BROKEN POLE BETWEEN ANN ARBOR AND YPSILANTI, MICH.

Here the apparent integrity of the wire connections in the first picture was counterbalanced by the almost complete demolition of all contacts, as seen in the second view.

tween 12 and 1 p. m. was sixty-two miles, with a gradual slackening from that time on. The storm was about five hours in passing over, and left a wide swath of wreckage in its path across the southeastern part of the state.

Storm Map No. 1 shows the section affected by the heavy wind. It also shows the territory affected by the sleet storm that formed during the night of March 20th along the eastern shore of Lake Michigan. This storm turned east between Ludington and Manistee and extended across the state to points between Saginaw and Bay City.

The wind storm following a few hours later, did not extend north with sufficient force to do great damage in that section. However, eighty poles, carrying the Clare-Harrison wires, were broken off under the strain. Other lines damaged were: Big Rapids-Stanwood, fifteen poles; Stanwood-Morley, twenty-five poles; in Tustin, five poles, carrying the main lines from Grand Rapids north to the Upper Peninsula and intermediate points; Mt. Pleasant-Alma, fifteen poles; Mt. Pleasant-Clare, twelve poles; Ithaca-Cawego, five poles; Bay City-Mt. Pleasant, twenty five poles; and Saginaw-Bay City, two poles, cutting off Saginaw and Bay City from all points west to Lake Michigan.

To enumerate all pole breaks and to show the locations, in this article, would require considerable space; however, to show the area affected and to give some idea of the damage, a few of the points where the heaviest breaks occurred may be mentioned: Niles-Berrien Springs, Kalamazoo-Benton Harbor, Muskegon-Grand Rapids, Grant-Casnovia, Cadillac-Frankfort, Kalamazoo-Three Rivers, Kalamazoo-Grand Rapids, Lake Odessa-Grand Rapids, Battle Creek-Marshall, Grand Rapids-Charlotte, Jackson-Grass Lake, Hudson-Hillsdale, Lansing-Plymouth,

most heavily wired section. Some idea may be formed from the accompanying list of the task of undertaking even temporary repairs. Much of this work was accomplished how-

breaks in the already weakened parts of the plant, and hardships to the men who were working so earnestly in the interest of the service.

During the night of March 24th, or,



LOOKING EAST TOWARDS THE JACKSON (MICH.) EXCHANGE.

Here a 200-pair lead-covered cable was torn from its supports and carried into the trolley wires.

ever, during the day of the storm, and with good weather conditions on the following day, March 22nd, it was evident that sufficient lines would be in order to establish at least partial service by the following Monday morning. Rain commenced to fall Sunday

rather early in the morning of the 25th the temperature dropped, causing the rain to freeze as it fell and ice to form on trees and wires. This sleet belt extended from Saginaw to Port Huron, via. Owosso, Ann Arbor, Detroit, and Mt. Clemens, varying in

in the afternoon. Sections of line that withstood the heavy winds of the preceding few days gave way under the load of ice though the velocity of the wind had greatly decreased. The main line extending from Detroit to Plymouth, carrying forty long-distance wires to Grand Rapids and points north and west, was broken down in five different places, the breaks ranging in length from 1,500 to 7,000 feet. The main line, carrying circuits between Detroit and Saginaw was broken in seven different sections, ranging from 700 to 10,000 feet. Twenty-five poles in the Detroit-Port Huron line gave way under the strain, between Detroit and Mt. Clemens, at a point just east of Roseville. The interurban wires were broken also at the same point, and became entangled with those of the telephone company. Another break occurred in the same line three miles west of Port Huron; the Detroit-Pontiac lines over three different routes, were out of service, numerous breaks occurring in each. The main line west, carrying circuits to Jackson, Kalamazoo, and Chicago, over which route partial service had been restored, went down again in two places, near Wayne. The Detroit office, with the exception of the Monroe and Toledo circuits, was without long-distance telephone connections for the second time within three days, and Mt. Clemens, Pontiac, and Port Huron were similarly affected.

Notwithstanding the difficulties and the heavy and sudden demands on their time and energy, our men responded nobly to the call; no matter what the time of day or night; no matter how tired they were; no matter what the weather conditions, there was no complaint, nor grumbling; they went straight to the work and did it.

In addition to the damage to the long-distance lines, all exchanges within the storm area suffered.

BELL TELEPHONE NEWS

COMPRISING

Chicago Operating Bulletin
 Wisconsin Telephone News
 Central Union News
 Cleveland Telephone News
 Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
 WISCONSIN TELEPHONE COMPANY
 CENTRAL UNION TELEPHONE COMPANY
 THE CLEVELAND TELEPHONE COMPANY
 MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year, in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is \$2,900 copies per month.

JUNE, 1913.

THE CHICAGO ORDINANCE.

The task of revising the rates to be charged by the Chicago Telephone Company for telephone service during the ensuing five years, which has been in the hands of the Gas, Oil and Electric Light Committee of the City Council for more than four years, was concluded Monday, May 26th, when the Aldermen by a vote of 55 to 8 passed the new ordinance that had been prepared by the committee, with the assistance of PROFESSOR E. W. BEMIS.

During the period which the Gas, Oil and Electric Light Committee had the ordinance under consideration the entire situation was gone into thoroughly and a mass of statistics was accumulated from the Telephone Company that was of great value to the members in their study of the rate question. While the company was obliged to make some concessions the fairness of which is at least debatable, both the city and the company approached the subject in a spirit of amity and consistently maintained that attitude throughout the entire discussion.

PROFESSOR BEMIS, in his elaborate report, paid high tribute to Mr. SUNNY for his cordial co-operation and his willingness at all times to furnish complete data to assist the expert in arriving at his conclusions.

The committee manifested a desire to perform its arduous task without prejudice, and accorded courteous treatment to the representatives of the company, to the public and to individuals, in the presentation of arguments that might have some bearing on the subject; there was an entire absence of partisan and political maneuvering.

An admirable result of the Chicago rate adjustment, that extends beyond the local situation, is the demonstrated ability of the representatives of a great city and the representatives of a great public service corporation to arrive at an equitable adjustment of their business relations, practically without friction or a resort to court proceedings. That partisan advantage, and radical (so-called) "reform" practices can be eliminated and such subjects considered with intelligence and an evident desire for justice to all parties interested, is a matter for congratulation, and proves that the greater problems of civic government can be expeditiously and satisfactorily solved, the interests of the public conserved and those of investors safeguarded when they are dealt with impartially and frankly.

When a city of two and one-half millions of people, through its administrative machinery, can arrive at an amicable settlement of differences with a corporation whose property values run to two score and ten millions, and more, and do so without unseemly wrangling or judicial intervention, the scheme of municipal regulation and control has taken a long step forward and an object lesson in governmental and managerial poise and forbearance has been furnished that may be advantageously studied by public officials generally and those to whom the interests of public utility enterprises have been confided.

The Chicago newspapers comment favorably both upon the agreement reached between the Council and the Chicago company and the attitude main-

tained by each of the parties during the investigation. The Chicago Record Herald said editorially:

Lessons of the Telephone Ordinance.

Chicago, as has been pointed out many times, is a council-governed city. It will remain such, acquiring more and more home rule and dispensing with state commissions, if it sees to it that the council governs or regulates well, grows in efficiency and strength. In recent years the council has had very difficult problems to solve, and it is not astonishing that it has made some false starts, displayed a little uncertainty and confusion here and there, and permitted politics and pull to obstruct and delay important legislation at the expense of the health and pockets of the public. The garbage scandal is one illustration of weakness and fumbling, and there are others.

In the matter of telephone regulation the council, while slow, has at any rate avoided the pitfalls of cheap politics and guesswork. There have been investigation, discussion, co-operation and debate. The ordinance just passed with but few negative votes shows in the main "how to do it." The company is expected to accept it; months ago it became evident that the company considered the BEMIS recommendations essentially reasonable. The ordinance spells a substantial saving to telephone users, actual and prospective, and it also spells substantial benefits to the employees of the company. At the same time capital and enterprise are fully safeguarded. We have, in a word, regulation with justice and intelligence. If minor defects are discovered in the ordinance, they will be remedied without serious trouble or friction.

The way to regulate efficiently, to avoid lawsuits, defeats and delays, is to employ independent experts and lay the foundation for an ordinance by thorough investigation and analysis. This is the proper policy for gas, for electric light, for traction, for electrification. Where experts are employed, their advice should, of course, be followed, regardless of partisan politics and stump temptations. With the aid and guidance of experts, the council should be equal to all its governmental and administrative tasks. And if it proves itself equal to its tasks, home rule will mean home rule, and the danger of improper meddling will disappear.

The Chicago Daily News said:

Effective Council Control.

Municipal control of local public utilities is in large measure justified by the way in which the Chicago city council has dealt with the question of telephone rate regulation. The ordinance fixing rates for a period of five years was passed Monday night by a vote of 58 to 5, with seven aldermen absent or not voting. It was a carefully prepared measure that the committee on gas, oil and electric light presented.

The reductions in telephone service rates, which have been worked out with the assistance of experts, should prove of great benefit to the company's patrons. The committee has also prepared a plan for the creation of a bureau of telephone complaints, so that grievances when reported may be given due attention by the city authorities.

It is doubtful if a state commission would have done as well by the people in the matter of regulating telephone rates as has the city council. The rational manner in which the present settlement was reached should tend to promote good feeling between the community and the Chicago Telephone Company. Fair and courteous treatment is an element of importance to both parties to the new arrangement.

TELEPHONE ENGINEERS.

Great interest attaches to a recently quoted statement of Mr. SAMUEL INSULL to the effect that he considers the engineer as important as the financier in the establishment and operation of business enterprises. Mr. Insull's tribute to the engineer follows close upon the publication of Mr. Vail's report of the telephone industry for the year 1912 in which he discusses at length the functions and value of the engineering departments of the Bell system.

We are all free to admit that the phenomenal growth of the telephone business as a commercial and social enterprise has been made possible only by its equally wonderful development as an art, along technical lines. From the very beginning its engineering has been the index and the measure of its progress; and even today, as President Vail so clearly points out in his report, the engineers of the company are the ones who enable dividends to

be maintained in spite of the fact that costs for labor and material are increasing and revenue per station is decreasing.

But the "engineers," even if we limit the term to those who have graduated from recognized technical or engineering institutions, are by no means all to be found in the various engineering departments. As has been the case with other large corporations, the telephone and telegraph companies have for many years been absorbing the graduating classes of the technical schools of the country, using the men in all departments, and especially in those traffic, plant, or commercial positions where the "engineering sense" is particularly needed to guide properly the handling of routine work. By "engineering sense" we mean the sense, born of education and training, which leads one constantly and honestly to study cause and effect, to draw correct conclusions from such study, and enthusiastically to apply such conclusions to the work in hand. Anyone who consistently and persistently follows this course is a natural born engineer regardless of his education.

The telephone and telegraph companies have drawn their men of special training from many institutions, both east and west, and every year the number of such men taken into the Bell organization is increasing rather than decreasing. Quite naturally also, the number of schools and colleges which have engineering courses and which furnish such men to enlarge and strengthen our forces is constantly increasing.

Among the first of the special engineering schools to be drawn upon were two in eastern Massachusetts, near Boston, which was up to a decade ago the engineering headquarters for the Bell system; the Massachusetts Institute of Technology in Boston, and the Worcester Polytechnic Institute, located in Worcester. In another column we give as a matter of interest a list of sixty graduates of the latter institute who are now in the employ of the Associated Bell Companies. There is no doubt that other first class technical schools have graduated many useful employees into the ranks of the Bell officials, which would be shown by similar lists if they were available.

THE CASE OF MERKLE.

As the big leagues open the baseball season it is noted that Mr. FRED MERKLE is again holding down first base for the New York Giants.

Merkle is the man who, in a critical game of the 1908 season, failed to touch second base and lost the pennant for his team. It certainly was a bonehead play and all New York joined in a solemn groan. But what did Merkle do? Did he stutter an apology and quit baseball? Not he. Read what President Lynch, of the National League, says: "You cannot find many better first basemen to-day than Merkle. Why? Simply because he realized his mistake and decided to live it down by deeds of worth. He didn't sulk. He didn't slouch. He held a high head and kept a stiff upper lip. And instead of worrying over that one mistake, as most fellows would have done, he profited by his experience and let it stand as a warning. His game improved. He was a far better first baseman in 1909 than in 1908; far better still in 1910 and 1911. Last year he was among the best in the game. I take my hat off to Merkle. He's the proper stuff. He'll be better still in 1913."

One lesson was all that Merkle needed. He will never make that mistake again. So should it be with us all. We may and will make mistakes. But we should not make the same one twice.

THE SUBSCRIBER AND THE CLAIM.

Some of the sentences which follow may have a reminiscent sound, but this should not in any degree lessen their importance.

Every telephone employee whose position puts him in contact with the public should remember that he is the agent of the company which has placed its confidence in his ability to perform his duties and that the manner of his performance of these duties will create local public opinion either favorable, unfavorable or indifferent.

We all know that the subscriber who calls by telephone and particularly the subscriber who calls at the office in person to make a complaint of poor service is naturally in a state of antagonism toward the company. The same thing is true of the subscriber who makes a claim for allowance. He is usually sincere in the belief that he has been imposed upon. Therefore, the best beginning is made when the company's agent listens to the complaint patiently, mentally putting himself in the subscriber's place. Then the subscriber should be

told that the complaint will be investigated carefully and an equitable allowance made if the complaint is found to be justified.

If, after thorough investigation, it is determined that no allowance is called for the fact should be explained to the complaining subscriber by some one in person. This usually results in the subscriber paying the bill without harboring any resentment toward the company and its service, thus making the collection of future bills easier.

If the claim is found to be just, then the agent should express the company's regret for the error or the failure of service and give assurance that the allowance will be made.

An honest effort to please the individual subscriber, no matter how small or absurd the cause of complaint may appear to be, will almost invariably make a friend for the company.

MORE ABOUT ADVANCE RENTALS.

Not long since agitation was started in the city of Grand Rapids, Mich., to abolish the practice of paying telephone rentals in advance. The Citizens Telephone Company, which operates a service in Grand Rapids, addressed a communication to the City Council, in which it said:

Does the average man pay his fire insurance after his policy has run out? Does he get on the cars and ride to his destination before he pays for his ride or his ticket? Are 'pay-as-you-enter' cars reasonable in policy? Does the government collect postage on its letters at their destination, as it did in former years? Is not the whole matter only a custom; and further, is not such a custom reasonable and justified in human experience?

It is an inexorable economic law that no business can continue which is not profitable. Bad debts and uncollectible accounts are important possible factors in nearly every business, and the margin of profit must be large enough to cover losses so incurred, besides the legitimate expenses of running the business. A cash business can be run on a smaller profit than one where credit is given, because the inevitable deduction is that people who pay their debts must also pay the losses incident to serving those who won't or don't pay. We are now renting over twelve thousand telephones to bona fide users, and have few losses. If any one could have a telephone on a promise to pay at the end of a quarter or a year, there would inevitably be vastly more service ordered by those who couldn't or wouldn't pay, and necessarily the rate of the bona fide users would have to be very considerably raised. These matters were taken into consideration in determining how much the yearly or quarterly charge should be, and rates that are adequate to earn reasonable profit on this basis would not be adequate if collections were made at the end of the quarter. The bona fide subscribers would eventually have to pay the difference in increased rentals.

But the most salient point in this regard as to public utility companies, is that the telephone companies are the only ones that pay the entire cost of investment. The subscriber orders his telephone, pays his \$6 or \$9; the company wires the house, runs conductors from the nearest cable and installs the telephone. Every dollar of the investment from the central office to the ground wire at the subscriber's station is taken care of by the telephone company.

These extracts demand no comment. The right and justice of collecting in advance is too well grounded to be successfully attacked. The arguments of the Grand Rapids Company are simply an explanation of the obvious to the mind of a fair-minded person who has given the subject any thought whatever.

ROUTINE.

MR. A. P. ALLEN's little article on Routine presents some aspects of that usually dry and lifeless subject in a very interesting and happy manner. It might be studied with profit by every reader.

The work of standardization of apparatus and methods, development of scientific efficiency and elimination of superfluous motion has been going on rapidly during the past few years and regulations, routines and rules have fallen on us like an avalanche.

However, no arbitrary action has been responsible for the development of any of these rules. All of them are the result of painstaking study and long experience. All instructions issued officially thus far represent the consensus of opinion of those in the various departments of the service, who, after careful study, have shown themselves qualified to judge and for that reason are authorized to

CHICAGO TELEPHONE COMPANY CHICAGO RATE INVESTIGATION

December 19, 1907

JACKSON & YOUNG employed by City to prepare Scheme of Accounting.

December 30, 1908

JACKSON & YOUNG'S Scheme of Accounting reported to Commissioner of Public Works and Comptroller.

May 9, 1910

JACKSON & YOUNG'S report on rates for year ending March 31, 1910, presented to Comptroller and City Council and referred to Committee on Gas, Oil and Electric Light. Four Committee hearings—on May 19, 1910; on May 20, 1910, at which the Jackson & Young Report was discredited and a Sub-committee was appointed to submit outline and cost of plan for a supplementary investigation sufficiently thorough to warrant the Committee undertaking the revision of rates; on June 2, 1910, at which Sub-committee recommended the employment of experts to check Jackson & Young's Report, and on

June 16, 1910

W. J. HAGENAH was employed to go over the Jackson & Young Report.

December 28, 1910

W. J. HAGENAH'S first report, dated December 27, 1910, presented. Nine Committee hearings, on Jan. 5, 1911, Jan. 10, 11, 12, 13, 17, 18, 19, and on

January 23, 1911

MR. HAGENAH was instructed to recommend reduction of \$216,000.

February 9, 1911

ARTHUR YOUNG & CO.'S report to City Comptroller on Toll and Miscellaneous presented to Council and referred to Committee on Gas, Oil and Electric Light.

February 16, 1911

Both JACKSON & YOUNG reports placed on file by Gas, Oil and Electric Light Committee.

May 2, 1911

W. J. HAGENAH'S second report made.

July 7, 1911

W. J. HAGENAH'S resignation as expert in Telephone and Gas cases accepted.

July 17, 1911

PROF. BEMIS engaged for full report on Telephone Service.

October 31, 1912

PROF. BEMIS' Report, dated October 25, 1912, received by Gas, Oil and Electric Light Committee. Twenty-one Committee hearings, Oct. 31 and Nov. 14 preliminary, and hearings on Nov. 21, 23, a. m. and p. m., 25, a. m. and p. m., Dec. 2, 3, 4, 5, 6, 10, a. m. and p. m., 11, 14, 19, 20, 24, Jan. 6, 1913, and

January 9, 1913

PROF. BEMIS instructed to prepare schedule of reductions.

February 8, 1913

PROF. BEMIS recommends reductions and presents Company's conditional acceptance. Seven Committee hearings on Feb. 13, 15, 20, 26, 27, March 11, and on

March 13, 1913

Corporation Counsel instructed to draft ordinance.

March 24, 1913

Ordinance presented. Eleven Committee hearings on Mar. 27, April 17, 22, 24, 26, 28, May 1, a. m. and p. m., May 5, a. m. and p. m., and on

May 8, 1913

Ordinance adopted and recommended to City Council.

May 12, 1913

Ordinance introduced into Council and made special order for May 26.

May 26, 1913

Committee adopts amendments covering both way credits on nickel service deficits and installation charges instead of rental for subscribers' station meters.

May 26, 1913

Ordinance as amended passed by Council.

decide. While this is particularly true in the traffic work it is none the less true in other departments.

Routine is not intended to discourage individuality. It is intended, as Mr. Allen says, to point out the best way of doing a thing. If any employee thinks that he knows a better way there is every opportunity for him to take the matter up in a regular way and if the method will stand the test it will assuredly be adopted.

NEWS EDUCATIONAL COURSE.

The first issue of the Educational Course covering Subscriber Station Apparatus, Protection and Wiring, sent out as a supplement to the February issue of the BELL TELEPHONE NEWS, has created a great deal of interest and seems already to have had good effect. Requests have come in for additional copies and as it is the desire to place the Educational Pamphlets in the hands of all interested, The News welcomes these requests.

Inquiries, indicating that the pamphlets are being very carefully studied, have been received, raising questions along the line of the following, to which we give answers here:

Q. Why should the protector be located seven feet from the floor?

A. In order to be out of the reach of children and as far as practicable from danger of injury by brushes, etc., in the hands of persons doing cleaning.

Q. Why is circular loom fastened to the wire by taping the ends with friction tape?

A. The reason for so doing is that the loom is held in position on the wire by the tape.

It is the desire to present this course in as non-technical a manner as practicable and to give the reasons for the practices followed. However, what may be clear to the editors may not appear so to the reader and inquiries of all kinds are invited.

The second pamphlet, which discusses Aerial Wiring, has been published and a third on Aerial and Underground Cable is ready for distribution. They cover these important subjects in sufficient detail to give every reader a good insight into principle and practice and will no doubt be received with much interest.

AND NOW LIGHTNING.

Our interest has been centered for several months on sleet storms, floods, and tornadoes, which have been the source of so much damage to telephone and telegraph property. We feel, that with the approach of summer, these are ended for awhile, and that so far as violent damage is to be expected it will be confined to the effects of lightning.

Electrical storms might be said to be almost a negligible element of worry to the telephone man compared with the sleet and flood, but lightning, nevertheless, causes frequent interruptions of service during the summer months especially in exchanges in which the outside plant is entirely aerial. The underground system is seldom affected.

In some rural communities it is necessary after every severe thunderstorm to unscrew most of the instruments from the walls of subscribers' homes and carry them to the "shop" for repairs. The Bell lines are so thoroughly protected by fuses that lightning seldom causes instrument trouble, but the damage to aerial cable is constant.

Thus every season of the year finds the telephone service confronted by some unfriendly element. In the face of these things the philosophic mind is prone to wonder how the service is kept at its high average efficiency.

THE SUMMER SLUMP.

Summer and the vacation season naturally coincide. We want our vacations in summer and we need them in summer. In fact, if the promptings of our mere nature were followed, the entire heated season would be spent by most of us on vacation.

There is a generally accepted practice among workers in all lines of "letting down" a little during the summer. Business generally is supposed to slacken. The reasons for all this are probably good. Yet, this does not relieve us as employees from a certain obligation and responsibility.

People do not stop talking during summer and therefore telephone traffic does not decrease to any appreciable extent. Interest on capital invested does not stop nor does depreciation in the plant withhold its insidious touch. In short, expenses go on just the same, albeit the summer slump is decreasing the revenue with which to meet them.

Our duty is plain. While we are privileged and urged to take and enjoy our vacations we are not privileged to enfeeble the quality of our work. A vigorous individual policy on the part of all will go far toward minimizing the summer slump.

Higher Standard of Citizenship Will Result From Better Understanding With Public Utility Concerns

Statement by President B. E. SUNNY, of The Chicago Telephone Company, Indorsing the "Chicago Plan."
Reprinted From *The Chicago Examiner*.

By B. E. Sunny.

Public service companies of Chicago have a great common interest with the average citizen in all projects which aim to improve Chicago. This fact is being recognized in increasing degree each year, and the result is that Chicago is fast coming to lead all the great cities of America in establishing and maintaining friendly relations between public service corporations and their customers. The wisdom of encouraging and fostering this spirit of mutual friendliness and forbearance is obvious and the means of doing so become the concern of all well-intentioned citizens.

For reasons which are fundamental in creating a perfect understanding between the sellers and buyers of transportation, electric light, gas and telephonic communication I am an advocate of the Plan of Chicago. I believe the working out of the Plan of Chicago will provide a strong element in developing closer relations between the municipal corporation and its stockholders, the citizens and the various corporations which serve the public needs of Chicago.

City Is Now Partner.

Chicago now maintains relations as a partner with all its public utilities. It becomes naturally desirable, therefore, in the interest of this partnership, that everything possible be done to make the partnership a success and increase the mutual profit. It is logical that a public utility can be best conducted in the most perfectly planned and most uniformly developed city, therefore work upon the Plan of Chicago is to be encouraged and welcomed by all interests.

The most direct influence for good to result from the Plan of Chicago, so far as public utilities are concerned, will be that upon our street transportation methods. To carry the plan into effect means to bring street congestion to an end. To provide new diagonal thoroughfares, directly connecting all parts of the city, will work wonders in simplifying Chicago's traction problems.

Traffic Cuts Profits.

As it is today, it is a matter of hardship for travelers to go from the North or South Side of the city to the West Side without passing through the downtown center. This involves not only tremendous losses of time and energy on the part of the public, but it throws a very heavy extra burden upon the traction companies. It cuts down the earning power of all rolling stock involved both by increasing the loads and by creating congestion, which forces many extra stops.

I believe if the people of Chicago realized how much the city's revenue from the traction companies is reduced because of the waste resulting from present street conditions they would unitedly demand the relief which the Plan of Chicago proposes. It would be good business for them to do so, as it would pay them directly a large interest on any necessary investment.

As to the practical good of city planning effort, I will point to only one mistake Chicago has made in recent years which would have been impossible had proper planning then been in vogue. When the Washington street tunnel was rebuilt its eastern terminus was retained, as in the old cable car days, at Franklin street. The better way would have been to turn

at Market street, which is a very wide street having light traffic, and if desired the tunnel could have had a terminus at Madison street and another at Lake street, to be used, respectively, by inbound and outbound cars. Then Washington street, which is now practically obstructed at Franklin street, and so avoided by hundreds of vehicles daily, would have been left open to its full width as one of our much needed east and west traffic ways. Such mistakes will not be made when the Plan of Chicago becomes effective.

Another thing with reference to public utilities, is that if we had more diagonal streets it would cost less, in excavation and material, to lay gas mains, railway tracks and electrical conduits, and thus work a saving of benefit both to the companies and the public.

It is a matter of congratulation that the people are already well awake to the benefits flowing from proper planning in the growth of Chicago. The sanity of the plan to do away with much downtown congestion by improving Michigan avenue, separating the automobile and light vehicle traffic between the North and South sides from the heavy trucking and business traffic between the dock and railway district east of the avenue and the downtown and wholesale districts.

In a similar manner the people of Chicago are supporting the movement for the widening and improvement of Twelfth street, which is bound to develop into a street of great traffic. The new Twelfth street, now avoided by automobiles, will be much used by all kinds of traffic. It will serve to relieve the burden upon Jackson boulevard, and so effect the better movement of street cars in the downtown district.

One of the greater effects of the Plan of Chicago upon the public will be to create for Chicago an even higher standard of citizenship than that which now distinguishes the city. With more and better streets, an extension of park areas, the elimination of congestion and scientific arrangement of our railway terminals and means of commerce, Chicago will produce a healthier, happier and more prosperous people.

Such a citizenship will be broad of view, and as such more keenly sensible to the duty of fairness in dealing with public utility companies. That will insure fair and square dealing between the public and the companies on franchise matters, with a corresponding mutual benefit to the companies and the people.

Public service companies exist to serve the public. Their desire is always to give the best possible service. Service in promptness and economy is always superior where the best physical conditions are present within a city, and the way to provide for the maximum of prompt and economical service by the public utilities of Chicago is to improve the physical conditions in Chicago by carrying to completion the provisions of the Plan of Chicago.

Fire at Port Clinton, Ohio.

Awakened from her sleep by smoke that filled her room in the quarters of the New Ottawa County Telephone Company's exchange at Port Clinton, Ohio, located in the rear of the second floor of the Masonic Temple building at 1:30 a. m. one night recently,

Bessie Emch, night operator, summoned the fire department and put in two other calls for assistance and then left the building thinly clad, while firemen, early on the scene, carried down her eight-year-old niece, who was sleeping with her.

The fire started at the rear of the People's Department Store on the first floor and ate its way up to the telephone exchange. Its early discovery prevented the complete destruction of the building. As it was, the flames were confined to the rear of the first and second floors. The telephone company estimates its total loss from fire, smoke and water at about \$5,000. The terminals were entirely destroyed and the switchboard damaged considerably; with nearly 1,000 local telephones out of commission the company lost no time in getting in touch with outside offices, and gladly accepted the proffered aid of Manager M. J. McCabe of the Central Union, who gave them the use of room on the Bell switchboard for their toll lines temporarily, for material, supplies, etc., and space in the office to take care of their routine work. F. E. Triebner of the Western Electric Company, Cleveland, Ohio, quickly arrived on the ground to supply them with the necessary protection, apparatus, etc., to replace that destroyed.

Newspaper Man On Operating.

A. P. Johnson, general manager of the *Chicago Record-Herald*, in a recent talk to the Monday Lunch Club at Chicago, stated that an operator, by unfailing courtesy, patience and good service can do more to establish and maintain cordial relations between the company and the public than can be accomplished by any male employe in the technical department. He quoted figures to show that one "ten-cent grouch" in each family would cost the telephone company several hundred thousand dollars per year, on account of patronage withheld, whereas the good impression that is made each day by two million calls properly handled, is of incalculable value to the corporation in both cash and good will.

BELL MAN HONORED.

A. P. Allen Elected President of Worcester Alumni Association of Worcester Polytechnic Institute.

Albert P. Allen, traffic engineer of the Central Group of Bell Telephone Companies with headquarters at Chicago, has been elected president of the Worcester Alumni Association of Worcester Polytechnic Institute, which is located at Worcester, Mass. Mr. Allen graduated from the institute in 1889.

Mr. Allen has compiled a list of the graduates of the Worcester Institute who are holding important positions in the Bell service. The list follows:

| Class. | Name and Company. |
|--------|---|
| 1889 | Albert P. Allen, Traffic Engr., Central Group. |
| | —James A. Baylis, Bell Tel. Co. of Canada. |
| 1894 | M. Clifford Allen, Western Union. |
| | —Leslie Killam, Wisconsin Tel. Co. |
| 1895 | Harry R. Barber, A. T. & T. Co., N. Y. |
| | —Clarence W. Barton, Pacific Tel. & Tel. Co., N. Y. |
| 1896 | Frank E. Condon, N. Y. Tel. Co. |
| 1899 | Albert C. Vinal, A. T. & T. Co., N. Y. |
| 1900 | Wm. J. Hoar, A. T. & T. Co., N. Y. |
| | —Earle Whaley, A. T. & T. Co., N. Y. |
| 1902 | Stephen L. Tabor, S. W. T. & T. Co., Dallas. |
| 1903 | Walter P. Brooks, A. T. & T. Co., N. Y. |
| | —Lewis E. Dickinson, W. E. Co., N. Y. |

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
212 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonso Burt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. G. Wray, Chief Engineer.
H. H. Henry, Supply Agent.
H. F. Hill, General Manager, Chicago.
E. A. Reed, General Manager, Columbus, Ohio.
H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegel, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.

1903—Thomas W. Geary, A. T. & T. Co., Atlanta, Ga.
—Edw. W. Kimball, N. E. Tel. & Tel. Co., Boston, Mass.
—Harry W. Moorhouse, W. U. Tel. Co., N. Y.
—Edward L. Stone, Jr., A. T. & T. Co., N. Y.
1904—Frederic E. Allen, A. T. & T. Co., Onondaga Valley, N. Y.
—John S. Rice, A. T. & T. Co., Chicago.
—Percy G. Sargent, A. T. & T. Co., St. Louis, Mo.
1905—Leroy S. Ford, W. E. Co., Brooklyn, N. Y.
—Charles H. Gilbert, A. T. & T. Co., N. Y.
—Arthur W. Morse, A. T. & T. Co., N. Y.
—Frederick W. Read, W. U. Tel. Co., N. Y.
—W. Chester Redding, W. U. Co., N. Y.
1906—Charles A. Buckard, Bell Tel. Co. of Canada.
—Jordayne D. Cave, W. E. Co., Staten Island, N. Y.
—Percy F. Goodrum, A. T. & T. Co., Boston, Mass.
—Charles C. Graham, Telephone Dept., M. C. Ry., Detroit.
—Harry M. Streeter, A. T. & T. Co., N. Y.
1907—Joseph T. Butterfield, W. E. Co., N. Y.
—Percy M. Hall, A. T. & T. Co., New Haven, Conn.
—Raymond A. Haskell, A. T. & T. Co., Atlanta, Ga.
—Fred Peters, A. T. & T. Co., Troy, N. Y.
—Clifton C. Quimby, A. T. & T. Co., East Orange, N. Y.
1908—John G. Truett, A. T. & T. Co., Buffalo, N. Y.
1909—David C. Bacon, Pioneer Tel. & Tel. Co., Oklahoma City.
—Roy E. Barton, New Eng. Tel. & Tel. Co., Pittsfield, Mass.
—George H. Jenkins, W. E. Co., Greenfield, Mass.
—Lebeus A. Parkhurst, A. T. & T. Co., Pawtucket, R. I.
—John A. Remon, A. T. & T. Co., Chicago.
—John Woodcock, A. T. & T. Co., New Haven, Conn.
1910—Frank W. Jackson, A. T. & T. Co., Cleveland, O.
—Oliver B. Jacobs, A. T. & T. Co., New York.
—Frank S. Twomey, A. T. & T. Co., Philadelphia, Pa.
1911—Ralph H. Bowers, W. U. Tel. Co., New York.
—Herbert E. Carrio, Bell Tel. Co. of Canada.
—Harold R. Frizzell, W. U. Tel. Co., of Philadelphia, Pa.
—Burdette J. Halligan, N. Y. Tel. Co., N. Y.
—Martin H. Jachens, N. Y. Tel. Co., New York.
—Richard C. Lancaster, A. T. & T. Co., N. Y.
—Garabed H. Paellan, W. E. Co., Cicero, Ill.
—Arvid L. Peterson, Bell Tel. Co. of Canada, Montreal.
1912—Arthur B. Anderson, N. E. Tel. & Tel. Co., Springfield, Mass.
—Merville G. Halligan, A. T. & T. Co., N. Y.
—Carleton P. Norton, W. U. Tel. Co., N. Y.
—Herbert T. Pratt, W. U. Tel. Co., Boston, Mass.
—August J. Reinhard, W. U. Tel. Co., N. Y.
—Harris Rice, N. E. Tel. & Tel. Co., Boston, Mass.
—Charles F. Stearns, W. U. Tel. Co., New York.
—Roger P. Towne, W. U. Tel. Co., Boston, Mass.

YEAR STARTING WELL WITH BELL SYSTEM

Earnings of First Four Months
Promise Expansion Even Greater Than 1912.

Earnings of the American Telephone and Telegraph Company this year, both gross and net, promise to record an expansion even more satisfactory than that of 1912. The gain in gross is running at the rate of \$22,000,000 per annum, measured by results for the first four months of the year, the period to May 1st. This compares with an actual increase for 1912 over the previous year of \$19,694,156.

Net earnings are also doing their share toward a most agreeable income showing. For the same four months after allowing for an increase of \$3,000,000 in maintenance, operation, depreciation, interest and dividends, the surplus after dividends was within \$250,000 of the same months of 1912. Of this \$3,000,000 increase maintenance and depreciation alone account for fully \$1,000,000. There is no let-up to the standard of keeping the entire Bell system in prime physical condition.

Few persons appreciate how large is the item of good will which has been completely charged off the books of the Bell system. This good will item was never as conspicuous as in the case of industrial organizations, partly for the reason that it was carried under the title of "contracts and licenses." At one time this item stood on the books at \$20,005,300. It was consistently reduced from that level until at the time the present administration took hold it had been cut in two, standing at \$9,162,000. In the six years since that date the total has been steadily whittled down, and at the end of 1912 the last vestige disappeared from the books.

The writing off of good will or contracts and licenses is shown by gradual steps very clearly in the following comparison:

| | |
|------------|--------------|
| 1895 | \$20,005,300 |
| 1906 | 9,162,000 |
| 1908 | 8,107,600 |
| 1910 | 2,943,381 |

Considering the valuable license contracts which the Bell system holds with some 2,500,000 connected telephone stations in various parts of the United States, a large good-will item would be perfectly justifiable. That the balance sheet has been made more solid and substantial without inclusion of any intangible assets requiring explanation or defense is a proof of the real strength of the bonds and stock.—*Chicago Inter Ocean.*

Western Electric's Annual Report.

Corporations' annual reports are not ordinarily selected as entertaining reading matter; but as a commentary upon conditions in an industry upon which depends to a very great extent the successful maintenance of telephone service in the United States, the annual report of the Western Electric Company for 1912 is entitled to more than casual notice.

The cold facts presented by the report are: A five and a half million dollar increase in sales over 1911; an increase in the number of orders and their average value; additions to manufacturing plants both here and abroad; the opening of new distributing houses, and an increase in the number of employees.

The sales amounting to \$71,729,329

were not made to the American Telephone & Telegraph Company, and the associate companies alone, although some people still entertain the idea that sales to these companies is the extent of Western Electric activities. The fallacy of this opinion is apparent from a statement in the report that the company has 24,000 customers other than telephone companies. This signifies wide activities in fields other than the telephone industry. The Western Electric Company "furnishes equipment for every electrical need" and sells to railroads, electric power central stations, street railways, electrical contractors and dealers, manufacturers, and now also to a limited extent through its own retail stores, to individual consumers. The line of equipment handled embraces everything electrical, from the largest generating plant to the simplest of electric household devices. The company's sales to customers other than companies of the Bell system have steadily increased during the past ten years and are in great measure responsible for the addition to the American factory at Hawthorne (Ill.) and the Antwerp and London factories abroad.

The number of employees has also increased, there now being a roll of 24,564, an increase of over 1,000 over the previous year. The report finishes with a comment on the new employees' pension and insurance system. Fifty-seven pensioners, an increase of eight during 1912, are now on the company's list, at an average annual pension of \$634.

As a whole, the report breathes a spirit of optimism and prosperity and reflects the generally satisfactory condition of the telephone and allied electrical industries.

Physical Connection Not Required.

The Oklahoma Corporation Commission has dismissed the case of George A. Davenport et al., of Soper, Okla., against the Pioneer Telephone and Telegraph Company, charging that the defendant company would not make physical connections with the Choctaw Telephone Company. It was pointed out by the Pioneer Company at a hearing of the case that connections were made by it through another company, the Citizens' Telephone Company of Soper, and the Commission held that inasmuch as the Citizens' Company was not made a party to the suit it could take no action.

Everything at Hawthorne.

It is announced that by the end of the present year the New York shops of the Western Electric Company will cease to exist, and the company manufacturing will be concentrated at Hawthorne.

NATIONAL TELEPHONE CORPORATION IS SOLD

Final Chapter Written in History of
Great Promotion Plan to Unite
Independents.

Attorney John H. Vercoe of Columbus, Ohio, said to represent a syndicate of capitalists, has purchased for \$1,000,000 the National Telephone Corporation of West Virginia. The sale took place in the federal court at Wheeling May 15th.

The sale affects several telephone lines in Pennsylvania, West Virginia and Ohio and involves capital stock of a par value of \$4,500,000. It is stated in the daily papers that bondholders will receive thirty-three cents on the dollar, as the expenses of the receivership were heavy. It is said that three new companies will be formed to take over and operate the properties owned by the National. They will be known as the Consolidated Telephone Company of Ohio, the Consolidated Telephone Company of West Virginia and the Consolidated Telephone Company of Pennsylvania. W. C. Handlan of New Jersey will be president of each.

The National Telephone Corporation was originated in 1909. Its capital stock was \$25,000,000. John A. Howard, head of the National Telephone Company of West Virginia, was the principal promoter. The new company secured ownership or control of the following smaller companies:

Belmont Telephone Company.
Chartiers Telephone Company, of Pennsylvania.
Consolidated Telephone Company, of Fairmount.
Marietta Telephone Company.
National Telephone Company of Monongahela County.
National Telephone Company, of Ohio.
National Telephone Company of Pennsylvania.
National Telephone Company, of West Virginia.
Pittsburgh and Allegheny Telephone Company.
Union Telephone Company, of Zanesville.
West Virginia and Western Company, of Sistersville.

The job of uniting all the independent telephone companies in the surrounding states into a gigantic combination proved too much for the National Corporation and, in July, 1910, it went into the hands of federal receivers. Public interest in the affairs of the company was further intensified when a few weeks later, members of the Bondholders and Stockholders' Protective Association filed a petition

in court asking for the removal of John A. Howard as president.

Affairs of the corporation have continued at low ebb. On December 28, 1910, a block of \$670,000 of the first mortgage five per cent. bonds was sold at auction in New York for \$3,350, or \$5 per bond. Half a hundred suits were filed against the company. Reports of accountants who examined the books showed that from May 7, 1909, to July 5, 1910, the company showed a profit of \$12,822 and \$187,863 was charged against it.

The recent sale is the final chapter. The bondholders will get as noted above probably thirty-three cents on the dollar. The stockholders will, of course, get nothing.

PRaises TELEPHONE AND AUTO.

Motor Company Executive Says They
Have Brought City and Farm
Into Close Touch.

"The telephone and the motor car have done more for the farmer than any other invention, with the possible exception of the reaper," recently remarked George A. Crittenden, sales manager of the A-R-I-T Motor Car Company. "We have heard a great deal of late about the necessity of a return to the farm. The telephone and the motor car have been doing a great work in solving this problem by doing just what the students of sociology and economics have asserted must be done. That is, they have revolutionized farm life by modernizing it, keeping it close in touch with the outside world and bringing the city almost to the isolated farm."—*Chicago Examiner.*

Mr. Vail on Business Conditions.

President Theodore N. Vail, of the American Telephone and Telegraph Company, in a recent interview discussing business conditions, said: "It seems to me that the fundamentals are sound. Most of our troubles are superficial, and are therefore susceptible of rapid and decisive improvement. From the security market standpoint it is entirely possible that the tendency toward depression may persist for some months more, but with underlying conditions as favorable as they are today the recovery to a more normal and happier frame of mind is merely a matter of time and patience. The railroads need an increase in freight rates; they must have it. When they get it, and I feel morally certain they will get it, then their financing credit will be re-established."—*Chicago Inter-Ocean.*

Wisconsin Commission Affairs.

The Muscoda Mutual Telephone Company has been ordered to abolish its present practice of distinguishing between stockholders and non-stockholders in the matter of rates and to substitute therefore a uniform schedule of charges as prescribed by the Commission. A switching fee of \$3 per telephone affected was granted. All free service is to be discontinued and an annual rental fee paid by the utility to all subscribers owning their own equipment.

The Antigo Telephone Company has been authorized to issue \$15,000 of six-per-cent. bonds for the purpose of making extensions to the plant.

The Oakfield Light and Power Company has been empowered to issue \$10,000 of stock, the larger part of which is to replace stock which was not issued in accordance with the provisions of the stock and bond law.

Telephone Financing Almost Quarter of a Billion Since President Vail Took Helm

To raise \$240,000,000 of capital in a half dozen years, upon advantageous terms, is no child's play. That is what President Vail has accomplished for the American Telephone and Telegraph Company. His most recent coup is fresh in mind, whereby the big company slipped in under the lee of a troubled money market with its \$67,000,000 convertible bonds. It is interesting at this time to review the telephone company's capital applications back to and including 1907, when Mr. Vail assumed the executive headship as below:

| | Amount. | Character. |
|-------------|---------------|------------------------------------|
| 1913 | \$ 67,000,000 | 4 1/2 per cent convertible bonds. |
| 1912 | 55,086,500 | Stock. |
| 1911 | 7,700,000 | 4 per cent collateral trust bonds. |
| 1910 | 22,110,400 | Treasury stock. |
| 1909 | 50,000,000 | 4 per cent convertible bonds. |
| 1908 | 21,928,200 | Stock. |
| 1907 | | |
| Total | \$241,122,100 | |

One of the striking features of this record of diversified financing is the distribution of the burden. Stockholders were called upon but twice since 1907 for new funds.—*Wall Street Journal*, New York, May 21.

WORLD'S LARGEST ELECTRICAL COMPANIES

How the Leading Organizations Compare in Net Investment and Earnings.

Of the five largest electrical companies in the world, three are located in the United States, and whereas, heretofore, the largest of the five has been in the United States, for the last year for which comparisons can be made below, a German company, the *Allgemeine*, now takes the first place, with two American companies, the General Electric and the Western Electric, as close second and third; Siemens & Halske comes fourth, and the Westinghouse Company fifth.

The three American companies in their fiscal years ending between December 31, 1911, and March 31, 1912, did a business of over \$170,000,000, while the two German companies did a business of a little over \$152,000,000.

The Siemens & Halske Company turned over their net investment twice during the year, the *Allgemeine* and the Western Electric Company once and a quarter; the General Electric Company takes a little over a year and a half to turn over their investment, and the Westinghouse Company takes almost two and a quarter years to turn over their investment.

This illustrates that to make a satisfactory net return, a company which turns over its investment more rapidly can afford to sell its goods on a smaller margin of profit, in which class are the *Allgemeine* and the Siemens & Halske Company of Germany, and the Western Electric Company in the United States.

A still further point of interest is the comparison of net earnings with the total investment:

(Expressed in thousands of dollars.)

| Name of company. | Net investment. | *Net earnings. | Per cent earned on investment. |
|-------------------------|-----------------|----------------|--------------------------------|
| <i>Allgemeine</i> | \$49,135 | \$4,751 | 9.6 |
| General Electric | 109,161 | 10,934 | 10.0 |
| Western Electric | 53,164 | 4,135 | 7.8 |
| S. & H. | 32,715 | 3,003 | 9.2 |
| Westinghouse .. | 75,895 | 3,006 | 3.9 |

*Before deducting interest.

It will be noted that the largest net return on the investment was made by the General Electric Company, the second by the *Allgemeine*, the third by the Siemens & Halske Company, the fourth by the Western Electric Company.

The three American companies have a total investment of approximately \$240,000,000, on which approximately 7½ per cent. was earned, while the two German companies have a total investment of approximately \$152,000,000, on which over 9½ per cent. was earned; and still further, if the Westinghouse Company, which is still in the reorganization period as a result of its disaster in 1907, be omitted, it will be seen that the General Electric and the Western Electric Companies, on an investment of upwards of \$162,000,000, made a return of nine and three-tenths per cent. net. In other words, our two largest and most successful American companies made a smaller return on their investment

than the two largest and most successful companies in Germany and in the world outside of the United States.

A still further analysis might be made, if the interest is deducted from the earnings shown above, and if the capital and surplus be regarded as the stockholders' investment, the following relations would obtain:

(Expressed in thousands of dollars.)

| Name of company. | Capital and surplus. | Net earnings. | Per cent earned on stockholders' investment. |
|-------------------------|----------------------|---------------|--|
| <i>Allgemeine</i> | \$49,675 | \$5,651 | 11.4 |
| General Electric | 106,355 | 10,563 | 9.9 |
| Western Electric | 53,073 | 3,280 | 6.2 |
| S. & H. | 21,638 | 2,695 | 12.4 |
| Westinghouse .. | 47,343 | 1,317 | 2.8 |

We notice in this computation that the Siemens & Halske Company and the *Allgemeine* earned the largest net return. The Western Electric Company makes the smallest return (excluding Westinghouse). The two largest German companies have a total stockholders' investment of \$71,314,000, on which they earned approximately eleven and seven-tenths per cent., and the two largest American companies, on a stockholders' investment of \$144,428,000, have made a return of nine and six-tenths per cent. on their investment.

It is further to be noted that in both of these companies the Western Electric Company, a large part of

the three most important exchanges thus far not controlled by it in the twenty-four counties included in the sweeping merger effected with the Bell company a year and a half ago.

ROUTINES

By ALBERT P. ALLEN, Traffic Engineer, Chicago

Those who wander across the country, without exact knowledge of the route, but with a definite destination in mind and a desire to lose as little time as necessary on the way, soon learn that it is dangerous always to take the path which avoids the hill climbing and which, for the short distance that lies within their limited vision, seems to present the easiest and pleasantest going.

As far as the main object of the journey is concerned, these easy-going, level by-paths lead nowhere. They may indeed lead one to a beautiful private estate, or to a fine point of vantage from which to view a grand but impassable river, a steep cliff, or a magnificent waterfall. But after such a pleasing experience has been enjoyed to the full, the steps must be retraced and the journey continued over the less attractive but actually more direct route from the point

sential to a successful completion of the journey.

The load we carry is the daily work assigned to us; and the pre-arranged route, along which we travel and on which we meet to transfer our load to the next relay, is the *Road of Routine*, established by our predecessors and plainly blazed for us by the rules, regulations and instructions set up for our information along the way.

From time to time changes in conditions may lead to changes in route. The discovery of the advantages of a new route, or the possibilities of a short cut, may be made by anyone—a raw recruit as well as by an old guide—but it will never do for those acting as first or second relays to begin the use of the new route without notifying those acting as third and fourth relays. Nor would it ever be wise to change the course of a whole army to a new road until the difficulties and advantages of that road had been carefully examined and considered in connection with the specific use required of it throughout its entire length.

Our success depends upon selecting a proper and approved routine for everything we have to do and then carefully and conscientiously following that routine until a new one has been, not simply suggested, but actually approved and established for our use. In no other way can we be sure to make proper connections along the way and reach our destination on schedule time.

Nothing Small About Him.

A rural subscriber walked into one of the smaller Indiana exchanges and announced that he wished to pay his telephone bill.

"But I'm not a-goin' to pay for the time my 'phone was out of fix," he added in a challenging tone.

"How long was it out?" asked the manager.

"From Saturday noon until Monday morning," replied the farmer.

The manager looked up the records and found that the telephone had been out of service at the time mentioned.

"You are right," said the manager, cheerfully; "you are entitled to an allowance of six cents."

Exchange Collection Rating

Exchanges in the Central Group, at which collections ranged from 95 to 100 per cent. of the total charges to be collected during March, 1913, are given below:

| City and State. | Per cent. Collected. | Station. |
|--------------------------|----------------------|----------|
| Ft. Atkinson, Wis. | 100 | 760 |
| French Lick, Ind. | 100 | 433 |
| Jefferson, Wis. | 100 | 373 |
| Horicon, Wis. | 100 | 328 |
| Danville, Ohio | 100 | 249 |
| Three Oaks, Mich. | 100 | 174 |
| Marshall, Ohio | 100 | 172 |
| Conesville, Ohio | 100 | 145 |
| Rainsboro, Ohio | 100 | 133 |
| Princeton, Wis. | 100 | 123 |
| Red Granite, Wis. | 100 | 121 |
| Cumberland, Ind. | 100 | 129 |
| Gladwin, Mich. | 100 | 119 |
| Elkhart, Wis. | 100 | 107 |
| Belfast, Ohio | 100 | 98 |
| Green Lake, Wis. | 100 | 85 |
| Brooklyn, Ind. | 100 | 71 |
| Burnett, Wis. | 100 | 70 |
| Linden, Ind. | 100 | 75 |
| Florence, Mich. | 100 | 74 |
| Richmond, Ind. | 100 | 72 |
| Manilla, Ind. | 100 | 62 |
| Smith Valley, Ind. | 100 | 59 |
| Bourneville, Ohio | 100 | 51 |
| Peru, Ohio | 100 | 38 |
| Geotone, Ill. | 100 | 30 |
| Mt. Gilead, Ohio | 100 | 23 |
| Milan, Ill. | 100 | 21 |
| Goshen, Ind. | 100 | 19 |
| Okawville, Ill. | 100 | 18 |
| Elkhart, Ind. | 100 | 13 |
| Mt. Orab, Ohio | 100 | 13 |
| Plainfield, Ind. | 99.9 | 817 |
| Columbus, Wis. | 99.9 | 133 |
| North Freedom, Wis. | 99.9 | 133 |
| Beaver Dam, Wis. | 99.7 | 1,391 |
| Berlin, Wis. | 99.6 | 394 |
| Manitowish, Wis. | 99.5 | 1,427 |
| Greenville, Mich. | 99.5 | 29 |
| Hartford, Wis. | 99.4 | 617 |
| Marquette, Wis. | 99.3 | 1,396 |
| Boyer City, Mich. | 99.3 | 395 |

Where Were the Bigelows?

Shortly after the flood disasters in Ohio, the *Ohio Journal of Commerce* printed the following:

One cannot help but be impressed with the inactivity of the agitators of the Herbert Bigelow type during these days of stress. Not so long ago this type of men rushed up and down the state telling the people how they could be saved.

That was theoretical help!

Now many people need practical help and whence does it come? Not from the Herbert Bigelows.

But from the Pattersons in Dayton; the Bushes and Borns in Columbus; the Schmidlapps and Schoeps in Cincinnati; the Hannas and Johnsons in Cleveland; the Boecklings in Sandusky; from the Pennsylvania Railroad and from the quiet grocer at Buck's Corners; from the Bell Telephone Company and the small independent home 'phone company; from the Speaks and the Weybrechts and the Critchfields and hundreds of privates in the national guard—from the very men who have been denounced by office-seeking, smooth-tongued individuals and by yellow newspapers. One cannot help but be impressed with the fact that the Herbert Bigelows are not on the job when they could do the state a real service. But the agitators are at the very front when nothing but talk is required!

whose product is sold to the Bell System, makes a smaller net return than any of the companies with the exception of the Westinghouse Company, where special conditions apply, as noted above.—*Wall Street Journal* (N. Y.).

Large Deals in Nebraska.

The Lincoln Telephone and Telegraph Company has asked the State Railway Commission of Nebraska for permission to issue \$1,100,000 in five-per cent. stock to purchase additional property in the South Platte territory. The plants to be purchased are of Hastings, Fillmore County and DeWitt. The Adams County deal will cost the company \$132,500; the Fillmore County system, \$41,330, and the DeWitt exchange \$22,000. This will add to the company practically

where the two paths diverged. The longer the journey the more complicated the country traversed and the more that speed rather than scenery is the object, then the more necessary it is that the one right route be followed. Moreover, if an army and not simply one or two companions are to make the trip, then the more necessity there is for good guides who thoroughly understand the difficulties of the way, and the more reason there is for compelling all to follow the route chosen by those guides.

Now in any undertaking, like our work in the telephone business, it makes a great deal of difference in the efficiency and speed we attain as to whether we follow our guides and stick to the shortest route, or whether each individual follows his own scheme and wanders over the paths which look easiest or most attractive to him. Moreover, in our case, the loads we carry are eventually delivered by relays, no one individual covering the entire distance; and it is evident that, under such conditions, the keeping to a pre-arranged route is not only best, but is absolutely es-

COMPARISON OF THE WORLD'S PRINCIPAL ELECTRIC COMPANIES.

(Expressed in Thousands of Dollars.)

| | <i>Allgemeine</i> . | Gen. Elec. | West. Elec. | S. & H. | Westinghouse. |
|---|---------------------|------------|-------------|----------|---------------|
| Sales | \$86,000 | \$70,384 | \$66,211 | \$66,000 | \$34,196 |
| Capital stock | 30,940 | 77,335 | 15,000 | 14,994 | 40,699 |
| Interest bearing debt | 19,459 | 2,806 | 15,091 | 11,077 | 29,547 |
| Surplus and reserves | 18,736 | 23,020 | 23,073 | 6,644 | 9,649 |
| Net investment | 69,135 | 109,161 | 53,164 | 32,715 | 76,895 |
| Relation of sales to net investment | 124% | 64% | 124% | 202% | 45% |

District and Division Collection Rating

APRIL, 1, 1913.

| | Total to be collected during March, 1913. | March collections. | Unpaid April 1. | Per cent collected. | Per cent uncollected. | Stations. |
|--|---|--------------------|-----------------|---------------------|-----------------------|-----------|
| 1. Wis. Tel. Co., Appleton Dist. | \$ 57,333 | \$ 56,191 | \$ 1,142 | 98 | 23 | 26,315 |
| 2. Wis. Tel. Co., Madison Dist. | 36,340 | 34,983 | 1,357 | 96.2 | 16 | 15,501 |
| 3. C. U. Co., Columbus Dist. | 45,563 | 46,193 | 2,370 | 95.1 | 5 | 21,041 |
| 4. Wis. Tel. Co., Milwaukee Dist. | 126,827 | 116,825 | 10,002 | 92.1 | 59 | 59,023 |
| 5. C. U. Co., (Indiana), Southern Dist. | 36,458 | 35,528 | 2,830 | 92 | 4 | 18,778 |
| 6. C. U. Co., Quincy Dist. | 7,701 | 7,049 | 852 | 91.5 | 2 | 3,143 |
| 7. Wis. Tel. Co., Janesville Dist. | 9,983 | 9,109 | 874 | 91.3 | 86 | 4,232 |
| 8. Chicago Co., Chicago Heights Dist. | 6,933 | 6,274 | 659 | 90.5 | 07 | 2,466 |
| 9. C. U. Co., Centralia Dist. | 10,468 | 9,461 | 1,007 | 90.4 | 4 | 5,012 |
| 10. C. U. Co., Champaign Dist. | 5,448 | 4,395 | 553 | 89.8 | 5 | 2,299 |
| 11. Michigan Co., Marquette Dist. | 29,412 | 26,437 | 2,975 | 89.9 | 15 | 14,859 |
| 12. C. U. Co., Jacksonville Dist. | 6,587 | 5,810 | 727 | 88.3 | 1.9 | 4,212 |
| 13. C. U. Co., LaSalle Dist. | 6,382 | 4,785 | 697 | 88.9 | 02 | 2,427 |
| 14. C. U. Co., Rock Island Dist. | 23,462 | 20,793 | 2,669 | 88.6 | 1 | 9,280 |
| 15. C. U. Co., Toledo Dist. | 58,341 | 51,613 | 6,728 | 88.5 | 2 | 25,369 |
| 16. C. U. Co., Galesburg Dist. | 6,418 | 5,612 | 806 | 87.4 | 1 | 3,271 |
| 17. C. U. Co., Peoria Dist. | 42,621 | 37,165 | 5,456 | 87.2 | 4 | 15,329 |
| 18. C. U. Co., Alton Dist. | 5,911 | 5,071 | 840 | 85.8 | 1 | 3,057 |
| 19. C. U. Co., Chillicothe Dist. | 58,341 | 51,613 | 6,728 | 88.5 | 2 | 25,369 |
| 20. Chicago Co., Chicago City Dist. | 1,370,496 | 1,148,596 | 221,810 | 83.8 | 07 | 321,950 |
| 21. Wis. Tel. Co., Eau Claire Dist. | 35,727 | 29,926 | 5,801 | 83.8 | 1.24 | 13,015 |
| 22. C. U. Co., Akron Dist. | 60,320 | 50,512 | 9,808 | 83.7 | 3 | 22,726 |
| 23. Chicago Co., Blue Island Dist. | 9,345 | 7,716 | 1,629 | 82.6 | 2 | 3,206 |
| 24. C. U. Co., Dayton Dist. | 55,176 | 45,762 | 9,414 | 82.9 | 9 | 23,620 |
| 25. C. U. Co., Kankakee Dist. | 11,362 | 9,324 | 2,038 | 82.1 | 5 | 5,632 |
| 26. C. U. Co., (Indiana), Northern Dist. | 58,282 | 47,725 | 10,557 | 81.9 | 6 | 27,200 |
| 27. C. U. Co., Springfield Dist. | 26,667 | 21,770 | 4,897 | 81.6 | 1 | 9,870 |
| 28. Michigan Co., Detroit Dist. | 335,827 | 271,530 | 61,497 | 81.5 | 9 | 104,837 |
| 29. C. U. Co., Paris Dist. | 2,006 | 1,779 | 227 | 88.6 | 1.3 | 1,587 |
| 30. Chicago Co., La Grange Dist. | 15,418 | 11,761 | 3,237 | 80.2 | 33 | 4,881 |
| 31. C. U. Co., Rockford Dist. | 16,217 | 12,660 | 3,557 | 78.1 | 6 | 7,171 |
| 32. Michigan Co., Grand Rapids Dist. | 81,575 | 65,594 | 17,981 | 79.8 | 3 | 41,936 |
| 33. Chicago Co., Oak Park Dist. | 23,206 | 25,653 | 7,553 | 77.3 | 33 | 9,284 |
| 34. Chicago Co., Evanston Dist. | 39,342 | 30,323 | 9,019 | 77.1 | 25 | 9,480 |
| 35. Michigan Co., Saginaw Dist. | 45,777 | 35,275 | 10,502 | 77 | 49 | 21,057 |
| 36. C. U. Co., Decatur Dist. | 15,200 | 11,678 | 3,522 | 76.8 | 3 | 5,406 |
| 37. Chicago Co., Joliet Dist. | 25,519 | 19,681 | 8,829 | 76.8 | 3 | 9,429 |
| 38. Chicago Co., Hammond Dist. | 19,563 | 14,858 | 4,705 | 75.9 | 15 | 5,456 |
| 39. Chicago Co., Wheaton Dist. | 10,937 | 7,232 | 2,765 | 74.9 | 03 | 3,624 |
| 40. Chicago Co., Elgin Dist. | 15,252 | 11,357 | 3,895 | 74.5 | 1 | 5,921 |
| 41. Chicago Co., Aurora Dist. | 17,341 | 12,762 | 4,579 | 73.6 | 11 | 6,213 |
| 42. C. U. Co., (Indiana), Central Dist. | 82,473 | 61,299 | 22,174 | 73.4 | 7 | 29,592 |
| 43. Chicago Co., Waukegan Dist. | 24,298 | 17,785 | 6,513 | 73.2 | 25 | 7,336 |
| 44. Chicago Co., Woodstock Dist. | 9,283 | 6,883 | 2,400 | 71.9 | 11 | 3,314 |
| 45. Chicago Co., Gary Dist. | 10,185 | 7,085 | 3,100 | 69.6 | 27 | 2,075 |
| 46. Cleveland Co., Cleveland Dist. | 118,461 | 81,248 | 37,213 | 68.6 | 1.3 | 54,698 |
| | \$3,101,952 | \$2,575,239 | \$526,713 | 83.2 | .. | 1,015,503 |

*Quarterly Rental Billing.

Division Summary.

| | | | | | | |
|------------------------|-------------|-------------|-----------|------|-----|-----------|
| Wisconsin Co., Ohio. | \$ 265,190 | \$ 247,014 | \$ 19,176 | 92.8 | 53 | 118,098 |
| C. U. Co., Ohio. | 252,958 | 220,911 | 32,047 | 87.6 | 11 | 111,751 |
| C. U. Co., Illinois. | 185,600 | 157,852 | 27,748 | 85 | 6 | 77,936 |
| Chicago Co., City. | 1,370,496 | 1,148,596 | 221,810 | 83.8 | 07 | 321,950 |
| Michigan Co., | 469,791 | 396,826 | 92,965 | 81.3 | 18 | 182,890 |
| C. U. Co., Indiana. | 178,778 | 145,562 | 33,216 | 81.6 | 6 | 76,070 |
| Chicago Co., Suburban. | 239,333 | 180,230 | 59,103 | 75.3 | 26 | 72,709 |
| Cleveland Co., | 118,461 | 81,248 | 37,213 | 68.6 | 1.3 | 54,698 |
| | \$3,101,952 | \$2,575,239 | \$526,713 | 83.2 | .. | 1,015,503 |

District and Division Collection Rating

MARCH 1, 1913.

| | Total to be collected during February, '13. | February collections. | Unpaid Mar. 1. | Per cent collected. | Per cent uncollected. | Stations. |
|--|---|-----------------------|----------------|---------------------|-----------------------|-----------|
| 1. Wisconsin Co., Appleton Dist. | \$ 57,762 | \$ 56,245 | \$ 1,517 | 97.4 | 24 | 26,211 |
| 2. C. U. Co., Columbus Dist. | 46,517 | 44,770 | 1,747 | 96.2 | 14 | 20,892 |
| 3. C. U. Co., (Indiana), Southern Dist. | 37,839 | 35,704 | 2,135 | 94.4 | 5 | 18,307 |
| 4. Wisconsin Co., Madison Dist. | 36,804 | 33,485 | 3,319 | 90.9 | 16 | 15,372 |
| 5. C. U. Co., Quincy Dist. | 7,327 | 6,648 | 679 | 90.7 | 2 | 3,137 |
| 6. C. U. Co., Centralia Dist. | 10,726 | 9,689 | 1,037 | 90.3 | 3 | 4,980 |
| 7. C. U. Co., Chillicothe Dist. | 32,234 | 28,816 | 3,418 | 89.3 | 3 | 15,877 |
| 8. Chicago Co., Chicago Heights Dist. | 6,688 | 5,938 | 750 | 88.8 | 2 | 2,447 |
| 9. C. U. Co., Dayton Dist. | 56,049 | 49,636 | 6,413 | 88.6 | 7 | 23,624 |
| 10. Wisconsin Co., Janesville Dist. | 9,980 | 8,800 | 1,180 | 88.3 | 26 | 4,162 |
| 11. C. U. Co., Toledo Dist. | 59,558 | 51,733 | 7,825 | 86.7 | 9 | 25,306 |
| 12. C. U. Co., Champaign Dist. | 5,345 | 4,689 | 656 | 87.2 | 1.2 | 2,262 |
| 13. C. U. Co., LaSalle Dist. | 5,567 | 4,804 | 763 | 86.3 | 1 | 2,415 |
| 14. C. U. Co., Galesburg Dist. | 6,840 | 5,666 | 1,174 | 82.8 | 9 | 3,233 |
| 15. C. U. Co., Peoria Dist. | 43,137 | 36,664 | 6,473 | 85 | 5 | 15,167 |
| 16. C. U. Co., Rock Island Dist. | 23,267 | 19,694 | 3,573 | 84.6 | 4 | 9,157 |
| 17. C. U. Co., Paris Dist. | 2,487 | 2,096 | 391 | 84.3 | 2 | 1,587 |
| 18. Chicago Co., Blue Island Dist. | 9,222 | 7,981 | 1,241 | 83.8 | 22 | 3,184 |
| 19. C. U. Co., (Indiana), Northern Dist. | 57,777 | 48,276 | 9,501 | 83.6 | 5 | 27,216 |
| 20. Wisconsin Co., Milwaukee Dist. | 154,811 | 128,413 | 26,398 | 83.3 | 16 | 58,245 |
| 21. C. U. Co., Jacksonville Dist. | 6,587 | 5,810 | 727 | 88.3 | 1.9 | 4,212 |
| 22. Chicago Co., Chicago City Dist. | 1,308,394 | 1,075,612 | 232,782 | 82 | 07 | 318,899 |
| 23. C. U. Co., Akron Dist. | 57,159 | 46,822 | 10,337 | 81.9 | 3 | 22,539 |
| 24. C. U. Co., Springfield Dist. | 27,844 | 22,741 | 5,103 | 81.7 | 9 | 9,782 |
| 25. Wisconsin Co., Eau Claire Dist. | 35,976 | 29,974 | 6,002 | 80.5 | 4 | 12,882 |
| 26. Chicago Co., La Grange Dist. | 12,723 | 10,072 | 2,651 | 79.2 | 11 | 4,219 |
| 27. C. U. Co., Kankakee Dist. | 11,516 | 9,087 | 2,429 | 78.9 | 8 | 5,545 |
| 28. Chicago Co., Elgin Dist. | 14,685 | 11,332 | 3,353 | 77.2 | 04 | 5,924 |
| 29. Michigan Co., Detroit Dist. | 335,235 | 258,219 | 77,020 | 77 | 003 | 98,449 |
| 30. C. U. Co., Alton Dist. | 5,911 | 4,270 | 1,641 | 72.3 | 8 | 3,057 |
| 31. Chicago Co., Evanston Dist. | 39,396 | 29,917 | 9,479 | 75.9 | 05 | 9,455 |
| 32. C. U. Co., Rockford Dist. | 15,856 | 12,033 | 3,823 | 75.9 | 2 | 7,056 |
| 33. Chicago Co., Oak Park Dist. | 25,082 | 20,600 | 4,482 | 75.8 | 03 | 8,845 |
| 34. C. U. Co., (Indiana), Central Dist. | 82,473 | 61,024 | 21,449 | 74.4 | 1 | 29,592 |
| 35. Chicago Co., Aurora Dist. | 16,572 | 12,299 | 4,273 | 74.2 | 15 | 5,129 |
| 36. Chicago Co., Woodstock Dist. | 8,856 | 6,542 | 2,314 | 73.9 | 07 | 3,382 |
| 37. Chicago Co., Hammond Dist. | 19,102 | 14,071 | 5,031 | 73.7 | 22 | 5,406 |
| 38. Chicago Co., Joliet Dist. | 25,519 | 19,681 | 5,838 | 73.5 | 07 | 9,429 |
| 39. C. U. Co., Decatur Dist. | 15,219 | 11,011 | 4,208 | 72.3 | 17 | 5,921 |
| 40. Chicago Co., Wheaton Dist. | 10,717 | 7,796 | 2,921 | 72.7 | 07 | 3,624 |
| 41. Chicago Co., Elgin Dist. | 28,879 | 20,269 | 8,610 | 70.2 | 21 | 9,429 |
| 42. C. U. Co., Cleveland Dist. | 193,491 | 127,290 | 66,201 | 65.8 | 66 | 54,141 |
| 43. Chicago Co., Gary Dist. | 10,185 | 7,085 | 3,100 | 69.6 | 27 | 2,075 |
| 44. Michigan Co., Marquette Dist. | 47,116 | 27,515 | 19,601 | 68.3 | 2 | 15,948 |
| 45. Michigan Co., Grand Rapids Dist. | 132,063 | 74,830 | 57,233 | 56.6 | 1.3 | 41,749 |
| 46. Michigan Co., Saginaw Dist. | 71,193 | 39,679 | 31,514 | 55.7 | 7 | 20,967 |
| Total | \$3,245,441 | \$2,564,024 | \$681,417 | 79 | .... | 1,001,464 |

*Quarterly Rental Billing.

Division Summary.

| | | | | | | |
|------------------------|-------------|-------------|-----------|------|------|-----------|
| C. U. Co., Ohio. | \$ 250,567 | \$ 221,777 | \$ 28,790 | 88.5 | 7 | 111,238 |
| Wisconsin Co., | 294,693 | 255,917 | 38,776 | 86.8 | 22 | 116,972 |
| C. U. Co., Illinois. | 187,695 | 155,160 | 32,535 | 82.7 | 6 | 76,887 |
| Chicago Co., city. | 1,308,394 | 1,075,612 | 232,782 | 82 | 07 | 318,899 |
| Michigan Co., | 469,791 | 396,826 | 92,965 | 81.3 | 18 | 182,890 |
| Chicago Co., suburban. | 235,804 | 176,021 | 59,783 | 74.8 | 26 | 72,709 |
| Michigan Co., | 585,811 | 400,243 | 185,568 | 68.3 | 6 | 176,113 |
| Cleveland Co., | 193,491 | 127,290 | 66,201 | 65.8 | 66 | 54,141 |
| | \$3,245,441 | \$2,564,024 | \$681,417 | 79 | .... | 1,001,464 |

EXCHANGE COLLECTION RATING.

| City and State. | Per cent collected. | Sta. tions. |
|---|---------------------|-------------|
| Bellefontaine, Ohio | 96.9 | 315 |
| New London, Wis. | 96.8 | 506 |
| St. Stephens, Ind. | 96.7 | 79 |
| Bloomington, Ind. | 96.7 | 2,180 |
| Beloit, Wis. | 96.6 | 1,673 |
| Menominee, Wis. | 96.6 | 1,129 |
| Lancaster, Wis. | 96.6 | 253 |
| Sturgis, Mich. | 96.6 | 14 |
| De Pere, Wis. | 96.5 | 887 |
| Oconto, Wis. | 96.5 | 447 |
| Kaukauna, Wis. | 96.3 | 427 |
| Shelbyville, Ind. | 96.2 | 1,917 |
| Escanaba, Mich. | 96.2 | 1,463 |
| Auburn, Ind. | 96.1 | 1,079 |
| Lake Geneva, Wis. | 96.1 | 945 |
| Nelsonville, Ohio | 95.9 | 813 |
| Hortonsville, Ind. | 95.8 | 30 |
| Pekin, Ill. | 95.8 | 149 |
| Whitewater, Wis. | 95.7 | 802 |
| Iron Mountain, Mich. | 95.6 | 14 |
| Columbus, Ohio | 95.5 | 20,405 |
| Menominee, Mich. | 95.3 | 939 |
| Elk Rapids, Mich. | 95.3 | 185 |
| Mt. Vernon, Mich. | 95.2 | 1,222 |
| New Castle, Ind. | 95.1 | 1,485 |
| Oolitic, Ind. | 95.1 | 123 |
| Mancelona, Mich. | 95.1 | 128 |
| Enon, Ohio | 95 | 64 |
| Exchanges in the Central Group at which collections ranged from 95 to 100 per cent of the total charges to be collected during February, 1913, are given below: | | |
| Ashville, Ohio | 100 | 22 |
| Banta, Ind. | 100 | 36 |
| Bellevue, Ohio | 100 | 77 |
| Boggs, Ind. | 100 | 90 |
| Brooklyn, Ind. | 100 | 73 |
| Burnett Junction, Wis. | 100 | 76 |
| Columbus, Wis. | 100 | 812 |
| Conesville, Ohio | 100 | 144 |
| Corsica, Ohio | 100 | 20 |
| Cumbarland, Ind. | 100 | 118 |
| Danville, Ohio | 100 | 236 |

| City and State. | Per cent collected. | Sta. tions. | City and State. | Per cent collected. | Sta. tions. |
|----------------------|---------------------|-------------|-----------------------|---------------------|-------------|
| Dyer, Wis. | 100 | 19 | Galva, Ill. | 98.2 | 2 |
| Elkhart, Ind. | 100 | 13 | Spencer, Ind. | 98.2 | 254 |
| French Lick, Ind. | 100 | 437 | Sturgis, Mich. | 98.2 | 14 |
| Goshen, Ind. | 100 | 19 | West Bend, Wis. | 98.1 | 412 |
| Green Lake, Wis. | 100 | 85 | Galena, Ill. | 98.1 | 487 |
| Harmony, Ohio | 100 | 36 | Enon, Ohio | 97.9 | 53 |
| Horicon, Wis. | 100 | 323 | Hillsboro, Ohio | 97.9 | 595 |
| Jefferson, Wis. | 100 | 379 | De Pere, Wis. | 97.7 | 384 |
| Keweenaw, Ill. | 100 | 391 | Bloomington, Ind. | 97.6 | 2,166 |
| Linden, Ind. | 100 | 74 | Lancaster, Wis. | 97.6 | 254 |
| Manila, Ind. | 100 | 62 | Oshtemo, Wis. | 97.6 | 435 |
| Marshall, Ohio | 100 | 163 | Stevens Point, Wis. | 97.6 | 881 |
| Milan, Ill. | 100 | 21 | Hurley, Wis. | 97.5 | 252 |
| Mt. Gilead, Ohio | 100 | 23 | Shkosh, Wis. | 97.5 | 4,123 |
| Mt. Orab, Ohio | 100 | 13 | Lancaster, Ohio | 97.3 | 2,430 |
| Oakville, Ill. | 100 | 19 | Cedarburg, Wis. | 97.2 | 185 |
| Peru, Ohio | 100 | 38 | Little Chute, Wis. | 97.2 | 63 |
| Plainfield, Ind. | 100 | 5 | Shawano, Wis. | 97.2 | 413 |
| Pitchin, Ohio | 100 | 5 | Appleton, Wis. | 97.1 | 1,114 |
| Princeton, Ind. | 100 | 72 | Greenville, Mich. | 97.1 | 40 |
| Prospect, Ohio | 100 | 21 | Keweenaw, Wis. | 97.1 | 251 |
| Rainsboro, Ohio | 100 | 137 | Burlington, Wis. | 97.1 | 745 |
| Red Granite, Wis. | 100 | 117 | Lake Geneva, Wis. | 96.9 | 140 |
| Marquette, Wis. | 100 | 72 | Port Washington, Wis. | 96.9 | 735 |
| Romney, Ind. | 100 | 154 | Sturgeon Bay, Wis. | 96.9 | 20,259 |
| Smith Valley, Ind. | 100 | 59 | Columbus, Ohio | 96.7 | 20,259 |
| Waynesburg, Ohio | 100 | 82 | Buchtel, Ind. | 96.7 | 137 |
| Wrightstown, Wis. | 100 | 115 | Beloit, Wis. | 96.5 | 1,636 |
| Edwardsville, Ill. | 99.9 | 1,129 | Baraboo, Wis. | 96.3 | 724 |
| Beecher, Ill. | 99.8 | 355 | Green Bay, Wis. | 96.1 | 3,713 |
| Beaver Dam, Wis. | 99.7 | 1,375 | Waupesa, Wis. | 96.1 | 579 |
| Oolitic, Ind. | 99.2 | 135 | N. Freedom, Wis. | 96.1 | 137 |
| Albama, Wis. | 99.1 | 248 | Nelsonville, Ohio | 95.9 | 817 |
| Stoughton, Wis. | 99.1 | 962 | Hastings, Mich. | 95.8 | 16 |
| Vincennes, Ind. | 99.1 | 2,491 | Portonville, Wis. | 95.7 | 319 |
| Delavan, Wis. | 98.9 | 886 | Piqua, Ohio | 95.7 | 99 |
| Marinette, Wis. | 98.9 | 1,386 | Pekin, Ill. | 95.6 | 144 |
| Vandalia, Ohio | 98.9 | 171 | Mt. Vernon, Ill. | 95.6 | 1,212 |
| Crawfordsville, Ind. | 98.8 | 2,927 | Menomonee, Wis. | 95.5 | 1,111 |
| Shelbyville, Ind. | 98.8 | 1,900 | Falls, Wis. | 95.4 | 95 |
| Berlin, Wis. | 98.7 | 394 | Franklin, Ind. | 95.4 | 41 |
| Fond du Lac, Wis. | 98.7 | 3,321 | Peashtigo, Wis. | 95.4 | 123 |
| Bensonville, Ill. | 98.4 | 160 | Winchester, Wis. | 95.2 | 343 |
| Dunes, Wis. | 98.3 | 172 | Tremont, Wis. | 95.1 | 32 |
| Manitowoc, Wis. | 98.3 | 1,420 | Whitewater, Wis. | 95.1 | 794 |

SECOND BOWLING SEASON IS CLOSED

Banquet Celebrates Victory of Commercial Team in Chicago League.

The second successful season of the Bell Telephone Bowling League of Chicago came to a close on the night of May 17th, with a banquet and entertainment at the Grand Pacific Hotel. While not so elaborate as the show given the previous year the entertainment was thoroughly enjoyed by the 150 bowlers and their friends present.

After the diners had disposed of the six courses provided by the banquet committee, President William J. Malden, of the league, distributed the hard-won prizes. The Commercial Team, victors in the season's play, received a handsome shield which will be hung in the club room on the eighth floor of the Telephone Building. The man on each team having the highest individual average for the season in thirty-five or more games, received a gold medal on a watch fob; the second highest man received a silver medal and the third highest man a bronze medal. These were presented to the winners with appropriate remarks. C. W. Bacon, secretary of the league, received a check for a small sum as a recognition of painstaking work in keeping the records of the league during the season without compensation.

The entertainment features of the evening were thoroughly enjoyed. The words of a number of popular songs on printed slips had been passed among the diners and when Purdy's orchestra played the airs they joined in with enthusiasm. After the presentation of prizes, President Malden resigned the chair to J. H. Riddell, who took charge of the entertainment. H. P. Wayman, of the commercial department gave several clever impersonations, Harry C. Enault, of the installation department, recited how "Busy Thinker," the Indian chief, first used the telephone. Mr. Enault was in costume as Hiawatha, and his entrance was very dramatic. His recital was illustrated by colored lantern slides. The Bell Telephone Bowling League Quartet, consisting of R. W. Sullivan, H. H. Smith, A. U. Hoefler and F. B. Rozlene, sang several selections, descriptive of bowling. Humorous stereopticon views, followed by a talk by A. P. Allen explaining various plotted curves, thrown on the screen closed the entertainment. Mr. Allen proved by graphics that the bowlers had improved over last year. He also illustrated their averages and "peaks."



A TOAST

To the Commercial Team.
Winners of the Prize Shield.

In the good old days of Rome and ancient Greece
Spartan mothers taught their sons never to yield;
Never to retreat nor sue for peace
But to come back either with, or on, their shield.

In these latter days our heroes hear the call,
Though no longer is it of a warlike sort;
Bowling ball displaces now the cannon ball,
And our heroes are the leaders of our sport.

Last year we had a team which met defeat—
To every other team it had to yield.
This year it drove them all to full retreat,
And "comes back"—A Victor—with its shield.

So here's a health to worthy Captain Flynn
And all his men who helped to win the prize;
And may their game lead others to begin
Towards next year's trophy now to turn their eyes.

A. P. A., 1913.

During the evening short talks were made by A. R. Bone, G. W. Cummings and W. H. Williamson, the last named being director of publicity for the pre-Olympic games to be held in Chicago this month.

Following is a list of the medal winners during the season just closed:

Gold Medals.

Average

W. B. Carey, Commercial..... 180

O. L. Halberg, Engineers..... 181
H. F. Love, Revenue..... 179
A. S. R. Smith, Traffic..... 168
W. B. Kingsbury, Suburban..... 172
W. Righter, A. T. & T..... 170
G. L. Adkins, Accountants..... 163
M. R. Bauer, Inspection..... 166

Silver Medals.

E. A. Stalwood, Commercial..... 176
F. R. Atwood, Engineers..... 178
O. W. Schroeder, Revenue..... 169

BELL TELEPHONE BOWLING LEAGUE

Team Standing and Individual Averages for Season of 1912-1913.

| TEAM | Games | Wins | Losses | Per Cent | Av. Pins | Total Pins |
|--------------|-------|------|--------|----------|----------|------------|
| Commercial | 58 | 22 | 728 | 844 | 86,342 | |
| Installation | 52 | 29 | 642 | 852 | 69,011 | |
| Maintenance | 52 | 29 | 642 | 834 | 67,592 | |
| Engineers | 52 | 29 | 642 | 833 | 67,486 | |
| Revenue | 45 | 36 | 556 | 824 | 65,704 | |

INDIVIDUALS.

| TEAM. | Games. | Av. | NAME. | TEAM. | Games. | Av. |
|---------------------------|--------|-----|---------------------------|-------|--------|-----|
| Welch.....Insts. | 78 | 184 | Lillis.....A. T. & T. | 78 | 155 | |
| Johnson.....Eng'rs. | 78 | 181 | Blodgett.....Insps. | 63 | 155 | |
| Carey.....Comls. | 81 | 180 | O'Halloran.....Insts. | 4 | 154 | |
| Higginson.....A. T. & T. | 3 | 139 | Riddell.....Insts. | 27 | 154 | |
| Love.....Revs. | 78 | 179 | Carney.....Tfcs. | 39 | 154 | |
| Atwood.....Comls. | 73 | 175 | Anderson.....Mfcs. | 6 | 153 | |
| Stallwood.....Comls. | 60 | 176 | Wiesenthal.....A. T. & T. | 30 | 153 | |
| Hopkins.....Insts. | 72 | 175 | Loveday.....Acc'ts. | 18 | 152 | |
| Halberg.....Mfcs. | 77 | 175 | Kast.....Revs. | 18 | 152 | |
| O'Rourke.....Mfcs. | 8 | 174 | Ebert.....Insps. | 46 | 152 | |
| Driscoll.....Insts. | 72 | 173 | Allen.....Eng'rs. | 39 | 152 | |
| Hansen.....Insts. | 50 | 173 | Margraff.....Tfcs. | 3 | 152 | |
| Kingsbury.....Subns. | 75 | 172 | Wisher.....Acc'ts. | 60 | 151 | |
| Rontemps.....Mfcs. | 77 | 171 | Alyea.....Eng'rs. | 6 | 150 | |
| Righter.....A. T. & T. | 48 | 170 | Schwander.....Revs. | 6 | 150 | |
| Schroeder.....Revs. | 60 | 169 | Riley.....Eng'rs. | 3 | 149 | |
| Fry.....Mfcs. | 42 | 169 | Deerling.....A. T. & T. | 39 | 149 | |
| Knapp.....Insps. | 6 | 163 | Flower.....Insps. | 18 | 149 | |
| Smith.....Tfcs. | 83 | 163 | Ecklund.....A. T. & T. | 3 | 149 | |
| Tracy.....Comls. | 81 | 163 | Fitzpatrick.....Insps. | 39 | 148 | |
| Lovell.....Subns. | 72 | 168 | Rigeman.....Subns. | 12 | 148 | |
| Stephan.....Insts. | 10 | 168 | Heas.....A. T. & T. | 6 | 148 | |
| Dohm.....Mfcs. | 3 | 167 | Abraham.....Revs. | 3 | 147 | |
| Smith.....Comls. | 39 | 167 | Robinson.....Insps. | 3 | 147 | |
| Neeson.....Revs. | 45 | 166 | Riley.....Insts. | 6 | 147 | |
| Bauer.....Insps. | 48 | 166 | Wilson.....Insps. | 15 | 146 | |
| Newsome.....Mfcs. | 30 | 165 | Van Voert.....Insps. | 12 | 146 | |
| Heimbach.....Mfcs. | 63 | 164 | Arnold.....Insps. | 6 | 145 | |
| Murray.....Mfcs. | 1 | 165 | Bacon.....Tfcs. | 3 | 145 | |
| Langlund.....Eng'rs. | 36 | 165 | Boylan.....Insps. | 2 | 145 | |
| Girsch.....Subns. | 33 | 165 | McMonies.....Comls. | 31 | 142 | |
| Carson.....A. T. & T. | 24 | 163 | Le Yee.....A. T. & T. | 3 | 142 | |
| Kingman.....Eng'rs. | 72 | 164 | Spalding.....Eng'rs. | 3 | 142 | |
| Jones.....Subns. | 39 | 164 | Horr.....Insps. | 15 | 140 | |
| Hicks.....Comls. | 36 | 164 | Matson.....Revs. | 12 | 140 | |
| Wendoff.....Revs. | 75 | 164 | Luther.....Revs. | 3 | 140 | |
| Foot.....Revs. | 63 | 163 | Curtis.....Insps. | 9 | 140 | |
| Adkins.....Acc'ts. | 66 | 163 | Brady.....Acc'ts. | 15 | 140 | |
| Schneider.....Eng'rs. | 42 | 162 | Joachim.....Acc'ts. | 24 | 139 | |
| Herr.....Subns. | 63 | 162 | Chapman.....Eng'rs. | 12 | 135 | |
| Moerish.....Insts. | 59 | 162 | Freedman.....Acc'ts. | 15 | 138 | |
| Savage.....Eng'rs. | 21 | 161 | Peterson.....Eng'rs. | 3 | 137 | |
| Seaholm.....Tfcs. | 60 | 161 | Schneider.....Revs. | 3 | 137 | |
| Moorehan.....Comls. | 41 | 161 | Danielson.....Insps. | 3 | 136 | |
| Starkey.....Acc'ts. | 39 | 161 | Heffner.....Tfcs. | 3 | 136 | |
| Rumney.....Comls. | 58 | 160 | Flynn, W. J.....Comls. | 15 | 136 | |
| Howard.....Mfcs. | 24 | 159 | Wilmut.....Insps. | 3 | 135 | |
| Glynn, T.....Insts. | 49 | 159 | Ireland.....A. T. & T. | 6 | 135 | |
| Donaldson.....Acc'ts. | 54 | 158 | Miller.....Acc'ts. | 3 | 134 | |
| McLaughlin.....Tfcs. | 54 | 159 | Weisert.....Insps. | 3 | 134 | |
| Fitzgerald.....A. T. & T. | 53 | 159 | McStravick.....Insts. | 3 | 134 | |
| Schwimmer.....Mfcs. | 45 | 158 | Bond.....Tfcs. | 6 | 132 | |
| Glynn, T.....Insts. | 9 | 158 | Sticks.....Acc'ts. | 9 | 131 | |
| Steldel.....Tfcs. | 59 | 158 | Delaney.....Subns. | 21 | 131 | |
| Flynn, P. M.....Comls. | 39 | 157 | Huse.....Acc'ts. | 15 | 131 | |
| Conway.....Tfcs. | 54 | 157 | Gregg.....Insps. | 3 | 129 | |
| Cleveland.....Acc'ts. | 69 | 157 | Fleming.....Revs. | 3 | 128 | |
| Donaldson.....Acc'ts. | 54 | 156 | Benson.....Revs. | 3 | 128 | |
| Benzing.....A. T. & T. | 57 | 155 | Lorman.....A. T. & T. | 4 | 125 | |
| Layton.....Tfcs. | 42 | 155 | Leekley.....Insps. | 3 | 125 | |
| Ross.....Insts. | 34 | 155 | Nelson.....Subns. | 3 | 124 | |
| | | | Chapman.....Insps. | 8 | 122 | |
| | | | Hughes.....A. T. & T. | 1 | 108 | |
| | | | Blackburn.....Insps. | 1 | 97 | |

A. G. Seaholm, Traffic..... 161
H. H. Lovell, Suburban..... 168
J. S. Fitzgerald, A. T. & T..... 159
T. J. Starkey, Accountants..... 161
E. R. Downs, Inspection..... 159

Bronze Medals.

W. H. Tracy, Commercial..... 168
F. W. Driscoll, Installation..... 173
R. Fry, Maintenance..... 169
A. A. Langlund, Engineers..... 165
H. D. Neeson, Revenue..... 166
J. B. McLaughlin, Traffic..... 159
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Three Jacks—Can You Beat Them?

At an impromptu bowling match a few nights ago at Bensingers, W. J. Welsh, J. H. Riddell, and J. B. Ebert, found themselves on the same team



TROPHY WON BY COMMERCIAL TEAM IN BELL TELEPHONE BOWLING LEAGUE.

and each rolled a creditable score. Someone called attention to the "Three Jacks" and to the fact that they were "hard to beat" in every respect.

They are all versatile athletes. Mr. Riddell excels at tennis. Mr. Ebert at baseball, while Mr. Welsh is bowling champion of the Telephone League. Each is a specialist of ability in the telephone service. Mr. Welsh is construction foreman at North Division. Mr. Riddell is Central Installation foreman and Mr. Ebert is division facilities engineer, in charge of the South side construction plans. In length of service they are also remarkable as none of them have ever worked for any other company. Their combined service amounts to sixty-nine years, as Messrs. Riddell and Welsh each have twenty-seven and Mr. Ebert fifteen years of Chicago Telephone work to their credit.

A Telephone Dog.

H. H. Forkman, editor of the Dodge County Banner of Mayville, Wis., has a water spaniel dog that is in a class by itself. The dog makes use of the telephone dial.

When "Brownie" cannot be found at home, Mrs. Forkman calls the printing office and asks to speak to him. The receiver is placed to the dog's ear and Mrs. Forkman tells him to come home, and with a bark for an answer, he immediately starts.

The first time he was spoken to over the telephone, he was a little puzzled, and ran across the street to the grocery store thinking that if he could hear his mistress' voice, that she must be near by, but he has mastered the modern convenience and knows just what to do now without any hesitation.

Commercial Baseball League—Chicago

STANDING OF THE TEAMS.

MAY 31, 1913.

| Team | W. | L. | T. | Pct. |
|--------------------|----|----|----|-------|
| West. Electric Co. | 3 | 0 | 0 | 1.000 |
| Swift & Co. | 3 | 0 | 0 | 1.000 |
| Chicago Tele. Co. | 2 | 1 | 0 | .667 |
| Ill. Steel Co. | 2 | 1 | 0 | .667 |
| People's Gas Co. | 1 | 1 | 1 | .500 |
| Fuller & Fuller | 0 | 2 | 1 | .000 |
| Kellogg Sw'd Co. | 0 | 3 | 0 | .000 |
| Comm. Edison Co. | 0 | 3 | 0 | .000 |

The Chicago Telephone Company played four practice games this spring to try out the numerous candidates for vacancies on the regular team. The scores were as follows: April 17, Fuller & Fuller, 10; Chicago Telephone, 3. April 26, 10 innings, Butler Bros., 5; Chicago Telephone, 4. May 3, Swift & Co., 8; Chicago Telephone, 3. May 10, La Grange, 11; Chicago Telephone, 3. Thirty-five candidates were tried out and seventeen were retained. The company has fitted up a locker room and shower bath in the basement of the new building, and has provided handsome new suits of telephone blue, and has arranged one of the new Mack trucks as a bus to carry the players out to the games. In return it has insisted on a hard and fast rule that only bona fide employees of the company shall be allowed to play.

The first scheduled game of the league brought out the full strength of the Telephone team and resulted in a seven inning victory over Fuller & Fuller by a score of 14 to 4. Heavy hitting by the Telephone players was the feature.

The score:

CHICAGO TELEPHONE CO.

| | R. | H. | PO. | A. | E. |
|------------------|----|----|-----|----|----|
| Wendorf, 3b. | 2 | 2 | 0 | 2 | 1 |
| H. Driscoll, 1b. | 1 | 1 | 13 | 0 | 0 |
| Shannon, cf. | 0 | 1 | 0 | 0 | 0 |
| F. Driscoll, 1b. | 2 | 3 | 2 | 0 | 1 |
| Margraf, ss. | 1 | 0 | 2 | 3 | 1 |
| Hicks, rf. | 3 | 2 | 0 | 0 | 1 |
| Kinsley, rf. | 1 | 1 | 0 | 0 | 0 |
| Hogan, 2b. | 2 | 2 | 0 | 4 | 0 |
| Delaney, c. | 1 | 1 | 4 | 2 | 0 |
| Tobin, p. | 1 | 1 | 0 | 2 | 1 |
| Thiel, p. | 0 | 1 | 0 | 0 | 0 |
| Savage, p. | 0 | 0 | 0 | 0 | 0 |
| | 14 | 15 | 21 | 13 | 5 |

FULLER & FULLER.

| | R. | H. | PO. | A. | E. |
|---------------|----|----|-----|----|----|
| Kempf, 3b. | 1 | 0 | 1 | 3 | 1 |
| Hauk, 2b. | 0 | 0 | 2 | 3 | 1 |
| McCabe, ss. | 1 | 0 | 1 | 4 | 1 |
| Corby, 1b. | 0 | 0 | 2 | 2 | 0 |
| Mitchell, 1b. | 0 | 0 | 0 | 0 | 1 |
| McKentry, rf. | 0 | 0 | 0 | 0 | 0 |
| Broll, c. | 0 | 0 | 6 | 0 | 2 |
| Lovell, p. | 1 | 0 | 0 | 2 | 1 |
| Kohn, 2b. | 1 | 0 | 0 | 1 | 0 |
| Larsen, rf. | 0 | 0 | 0 | 0 | 0 |
| Nelson, rf. | 0 | 0 | 0 | 0 | 0 |
| McKay, p. | 0 | 0 | 0 | 1 | 0 |

| | | | | | | | | |
|------------------|---|---|---|---|---|---|---|----|
| Chicago Tel. Co. | 5 | 0 | 4 | 2 | 3 | 0 | 0 | 14 |
| H. 4 | 2 | 3 | 1 | 4 | 1 | 0 | 0 | 15 |
| Fuller & Fuller | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| H. 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

Home run—Kempf. Two-base hit—Hicks. Double play—Hogan to Margraf to Driscoll. Corby to Hauk. Hauk to McCabe to Mitchell. Struck out—By Tobin, 4; by Savage, 2; by McKay, 3. First on balls—Off Tobin, 1; Off Lovell, 3; Off McKay, 2. Umpire—Kid Broad.

Swift & Co. won the game on May 24th, score 8 to 2. Our team showed a surprising reversal of form. The heavy-hitting outfield played hooky, and their places had to be filled with pitchers, of whom Savage, however, did himself credit, making three hits, and a difficult catch, while little Hooker pulled down two hard flies. Margraf and Hicks had to retire on account of injuries, further weakening the team.

The Swifts played a snappy game, Lavin getting three hits.

SWIFT.

| | R. | H. | PO. | A. | E. |
|------------------|----|----|-----|----|----|
| Welsner, ss..... | 1 | 1 | 3 | 6 | 0 |
| Griz, 2b..... | 1 | 0 | 1 | 6 | 1 |
| Lavin, rf..... | 1 | 3 | 0 | 0 | 0 |
| O'Brien, rf..... | 0 | 0 | 0 | 0 | 0 |
| Bullen, 1b..... | 0 | 0 | 13 | 0 | 0 |
| Fee, lf..... | 2 | 2 | 2 | 0 | 0 |
| Foemmel, 2b..... | 1 | 2 | 3 | 1 | 0 |

| | | | | | |
|-----------|---|---|---|---|---|
| Hart, cf. | 0 | 0 | 1 | 0 | 0 |
| Bus, c. | 1 | 0 | 3 | 0 | 0 |
| Hruda, p. | 1 | 1 | 1 | 1 | 0 |
| Totals | 2 | 1 | 5 | 1 | 0 |

CHICAGO TELEPHONE CO.

| CHICAGO TELEPHONE CO. | | | | | |
|-----------------------|----|----|------|----|----|
| | R. | H. | P.O. | A. | E. |
| Wendorf, lf.-2b.... | 0 | 1 | 0 | 1 | 0 |
| Hogan, 3b..... | 0 | 1 | 0 | 2 | 0 |
| Hicks, 2b..... | 0 | 0 | 0 | 0 | 0 |
| Brunko, lf.-ss..... | 0 | 0 | 0 | 3 | 0 |
| Driscoll, 1b..... | 1 | 1 | 12 | 1 | 2 |
| Margraf, ss..... | 0 | 0 | 0 | 0 | 1 |
| Hooker, lf..... | 0 | 0 | 2 | 0 | 0 |
| Savage, cf..... | 1 | 3 | 1 | 1 | 0 |
| Tobin, rf..... | 0 | 1 | 3 | 0 | 0 |
| Deaney, c..... | 0 | 0 | 5 | 0 | 1 |
| Thiel, p..... | 0 | 0 | 1 | 3 | 0 |

Swift & Co., 0 0 2 2 1 0 2 1 *—8
Chicago Tele., 0 0 0 0 0 0 0 2—2
Two-base hit—Lavin. Struck out—By Thiel, 4; by Hruda, 3. Bases on balls—Off Thiel, 5; off Hruda, 1. Umpire—Goelck. Time—2:15.

The Chicago Telephone Company defeated the Kellogg Switchboard & Supply Company, 18 to 15, on May 31st at 50th and Oakley streets, in a loosely played slugging match. The score:

CHICAGO TELEPHONE CO.

| | R. | H. | P. | A. | E. |
|----------------------|----|----|----|----|----|
| McInerney, 2b | 1 | 1 | 0 | 3 | 0 |
| Hogan, 3b | 3 | 2 | 0 | 2 | 2 |
| Savage, 1b | 3 | 0 | 10 | 0 | 1 |
| Wendorf, c. | 5 | 4 | 13 | 2 | 1 |
| Niesen, ss., p., rf. | 1 | 2 | 0 | 0 | 1 |
| Shannon, 1b | 1 | 2 | 0 | 0 | 0 |
| Hooker, cf. | 0 | 1 | 0 | 0 | 0 |
| Kinsley, cf. | 1 | 1 | 1 | 0 | 0 |
| Brunk, rf., p. | 2 | 2 | 0 | 1 | 0 |
| Thiel, p. | 0 | 1 | 0 | 0 | 0 |
| Margraf, ss | 1 | 0 | 0 | 0 | 1 |
| Totals | 18 | 16 | 27 | 10 | 5 |

KELLOGGS.

| | R. | H. | P. | A. | E. |
|------------------|----|----|----|----|----|
| Gelger, 1f. | 1 | 1 | 0 | 1 | 0 |
| Morse, 2b. | 5 | 3 | 1 | 0 | 1 |
| Woodbury, ss. | 2 | 3 | 3 | 2 | 1 |
| Cooley, cf. | 2 | 3 | 1 | 0 | 0 |
| Laurel, 1b. | 0 | 2 | 7 | 1 | 0 |
| Sorensen, 3b, p. | 0 | 0 | 4 | 2 | 1 |
| Cruger, c. | 2 | 2 | 3 | 3 | 1 |
| Meyers, p., 3b. | 1 | 1 | 0 | 2 | 1 |
| Erickson, p. | 0 | 0 | 0 | 0 | 0 |
| Coyne, rf. | 2 | 3 | 1 | 0 | 0 |

By innings: Chl. Tele. Co.—5 3 0 2 2 2 4 0 0—18
Kellogg's—H—6 2 0 2 1 1 3 1 0—16
Kellogg's—R—3 0 1 1 0 3 4 2 1—15
H—4 1 1 0 0 4 4 1 2—17

Two base hits—Hogan, Niesen, Kinsley, Wendorf, Shannon, Morse, Woodbury, Laurel (2).

Three base hits—Cooley (2), Woodbury, Erickson.

Home runs—Wendorf, Woodbury. Double play—Woodbury, Meyers, Laurel, Cruger.

Hit by pitcher—Gelger. Wild pitch—Sorensen. Passed ball—Wendorf. First on balls—Off Niesen, 2; Meyers, 4; Sorensen, 5. Struck out—By Thiel, 1; Niesen, 8; Brunk, 3; Meyers, 3; Sorensen, 2; Erickson, 2. Sacrifices—McInerney, 2; Morse, 1. Stolen bases—Savage, 1; Wendorf, 1; Thiel, 1; Cruger, 2. Time—2:30. Umpire—Dane.

Inter-Department League—Chicago

STANDING OF THE CLUBS.

MAY 31, 1913.

| Team | W. | L. | Pct. |
|----------------------|----|----|-------|
| Central Installation | 2 | 0 | 1.000 |
| Equipment | 2 | 0 | 1.000 |
| Auditing | 1 | 0 | 1.000 |
| Traffic | 1 | 1 | .500 |
| North Installation | 1 | 1 | .500 |
| Evanston | 0 | 1 | .000 |
| Engineering | 0 | 2 | .000 |
| Collection | 0 | 2 | .000 |

GAMES OF MAY 24, 1913.
Central Installation, 14; Evanston, 5.
Auditing, 18; Engineering, 12.
North Installation, 12; Traffic, 6.
Equipment, 10; Collection, 7.

GAMES OF MAY 31, 1913.
Traffic, 27; Engineering, 5.
Auditing, 14; North Installation, 6.
Central Installation, 16; Collection, 11.
Evanston—Auditing game postponed.

SCHEDULE FOR THE REMAINDER OF THE SEASON.
June 14th.
Evanston Plant against Equipment.
Engineering against Collection.
North Installation against Central Installation.
Traffic against Auditing.

June 21st.
Collection against Evanston Plant.
North Installation against Engineering.
Auditing against Equipment.
Central Installation against Traffic.

June 28th.
Evanston Plant against North Installation.

Engineering against Central Installation.
Equipment against Traffic.
Collection against Auditing.

July 5th.

Engineering against Evanston Plant.
Central Installation against Equipment.
Auditing against North Installation.
Traffic against Collection.

Plant Department League—Chicago

STANDING OF THE TEAMS.

MAY 31, 1913.

| Team | W. | L. | Pct. |
|---------------------|----|----|-------|
| Lincoln | 2 | 0 | 1.000 |
| Wentworth | 2 | 0 | 1.000 |
| Maintenance | 1 | 1 | .500 |
| Oakland | 1 | 1 | .500 |
| South Installations | 1 | 1 | .500 |
| Harrison | 1 | 1 | .500 |
| Nights | 0 | 2 | .000 |
| Calumet | 0 | 2 | .000 |

GAMES OF MAY 24, 1913.
Wentworth, 12; Maintenance, 9.
South Installations, 12; Nights, 6.
Lincoln, 14; Oakland, 10.
Harrison, 23; Calumet, 2.

GAMES OF MAY 31, 1913.
Maintenance, 22; Harrison, 17.
Wentworth, 19; Nights, 15.
Lincoln, 9; South Installations, 4.
Oakland, 40; Calumet, 4.

Chicago's Migration Day

By B. V. HILL, Chicago Plant Department

Chicago's May Move is again over and everyone is happy. Nearly everyone, at least, is sure he has a better place to live than he had last year. Certainly our installation department is happy and it has good cause to be. Last year the methods of carrying out this work were described in some detail in the BELL TELEPHONE NEWS. All

April 26th, there were in the hands of the working force, available for installation, 8,000 orders; 10,000 became available on April 26th, and 2,000 were not received from the subscribers till after April 26th, many of them having been received by the commercial department April 29th and the instruments in service on May 1st.

A share of the credit for this prompt work belongs to the commercial and maintenance departments. These departments co-operated throughout the season with the installation department, making possible the rapid completion of these orders.

As to the matter of efficiency, it is interesting to note that:

In April, 1910, there were completed twenty-eight orders per employee (this includes the field office and supervisory forces of the installation department); in April, 1912, there were completed twenty-eight orders per employee; in 1913 there were completed forty-three orders per employee.

For May, 1910, there were thirty-five orders completed per employee; for May, 1912, there were forty-two orders completed; and for May, 1913, there were seventy-five orders completed.

One interesting feature of the work was the delivery of instruments by special automobiles. The accompanying cut shows one of these cars, which is a Premier four-cylinder machine fitted with a special body for carrying subscribers' sets. These sets are wrapped so that the package contains the complete telephone apparatus and a directory. The car is painted with the telephone blue, the design on the side being in white and gold with the bell of blue. The car shown here delivered 150 instruments in one day.



CHICAGO INSTRUMENT DELIVERY CAR.

of this was very much the same this year but perfected by experience, and, from the subscribers' standpoint, more satisfactory results were obtained. In 1911 probably twenty-five per cent. of orders were completed on the day service was requested by the subscriber; in 1912 seventy-five per cent. were so completed; and in 1913 over ninety-five per cent.

In 1911, 9,000 orders were completed in the week of the first of May; in 1912, 17,200; and in 1913, 20,150 orders were completed during the corresponding weeks.

At the beginning of the week of

Antiquity of The Telephone.
"Then I saw in my dream that in the morning the shepherds called up Christian and Hopeful to walk with them upon the mountains."—From *The Pilgrim's Progress*, written by John Bunyan about 1675.



OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



THE WAY TO MENTAL HEALTH.

We have always contended that the training which the telephone operator gets is so valuable in developing character that it is in itself a liberal education. To learn to be courteous, patient, self-controlled; to know how to concentrate the attention, to do team work or co-operate; all these things and many others can be acquired at the board and are qualities that might not be gained in a course at college.

But here comes another suggestion as to the value of the training of our girls in mental poise. An editor comments thus:

Everybody is familiar with the choleric old gentleman who almost has apoplexy every time he tries to use the telephone, but few people are aware that he is endangering his mental health by his testiness. Yet such is the fact, if the words of a commissioner in lunacy who testified recently in a trial in Berlin are reliable. He said that even a person of equable temper might have his mental balance upset in getting "Central," and he cited the case of a well-known doctor who became "completely insane through telephone exasperation."

Yet not even the apoplectic old gentleman need worry. Life is certainly complicated, but not too complicated. Consider the case of "Central," who answers nobody knows how many calls a day, and yet contrives to keep her temper amazingly. The fact that "Central" doesn't go insane in larger numbers proves that the way to mental health is her way—restrain the wrath that rises in you, for a mild answer may cheat the sanitarium of a patient.

There is a good bit of common sense in that last sentence. "A mild answer may cheat the sanitarium of a patient." Too many girls do not realize that good nature has anything to do with good health. If the apoplectic gentleman had realized that a fit of anger would make the blood surge too strongly in his clogged arteries and that he would go insane or perhaps die from getting excited, he would be glad to change positions with the trained operator who had learned how to keep the poise which prolongs life.

It is time for people to stop saying that telephone work is nervous work. On the contrary, let us say that it is a work which properly done will cultivate and strengthen the nervous system. When a girl does not know how to do her work, whether she is a stenographer, a school teacher or an operator, she may be nervous, but when she has learned how to work and feels equal to the task, no work need be nervous work. The girl who has learned through practice to be courteous and calm, even under the provocation of an impatient subscriber, has added to her chances for a long life. For no one is going to be strong and healthful who lets her temper get the better of her, who loses control of herself. The girl who goes daily to her task with the determination to be happy about her work and to keep cool and collected no matter what happens, will have added at the end of her work day to her stock of health, rather than subtracted from it. Instead of being nervous wrecks, as people do become if they act like the apoplectic gentleman, she will attain a fine poise which will mean health as well as efficiency.

Someone has sent in a clipping from the *New York Sun*, which may be appreciated by the girls who run the boards in some places. You won't be allowed to say "Hello" here nor any



AT THE ELEANOR CAMP, LAKE GENEVA, WIS.

phrases of the kind the poet uses, but as for honey you can use all you like, if it expresses the sweetness of your dispositions. It is called "The Honey-phone" and is written to emphasize this statement:

A telephone company has contracted to give the "hello" girls lessons in voice culture and thus soothe the ire of impatient patrons.—News item.

Put some sugar in it, Mabel.
Put some treacle in your tone,
Let it drip across the cable.
In a honeyed sort of drone:
Make it sound like sparkling wine,
Liquid, soft and saccharine.
Make it thrilling, make it tender.
Fill it with a bubbling bliss.
Male subscribers must surrender
When you warble it like this:
"Oh, Hello! Hello! Hello!
Hillop—5-3-4-2-0!
Line is rather busy yet.
Won't you wait a moment, pet?
Oh, Hello! Hello! Hello!
I've been plugging for you, beau:
Ah, at last the line's astrir.
Here's your pahty, gentle, sir!"

The Eleanor Camp, Lake Geneva, Wis.

The girls from the Chicago Telephone Company who were fortunate enough to be at the Eleanor Camp last year are looking forward to even more pleasure this year, as this summer the camp will occupy its new site, a tract of more than ten acres, ideally situated on the beautiful wooded shore of Lake Geneva. This land, recently purchased by the Eleanor Association, has a frontage of 330 feet and a depth of 1,320 feet. Its close proximity to the Y. M. C. A. camp affords many opportunities to enjoy the out of door Sunday services and entertainments given there.

Steamer excursions on the lake, bathing, boating, fishing and tramping, picnics in the woods, hayrack parties, evening bonfires, marshmallow roasts and indoor games are some of the diversions of the camp life.

Camp guests may take the morning or afternoon trains via the Chicago & Northwestern or Chicago, Milwaukee & St. Paul Railroads, arriving in an hour and a half at Williams Bay or Pontana. Boats meet the trains at these points and bring guests to the camp in time for luncheon or dinner. The camp is also within walking distance from the Williams Bay station, and arrangements can be made for dress suit cases to be taken to the camp.

The cost of an outing at this camp is very small. Its location makes it available to operators in Chicago, northern Indiana and Illinois and northern Michigan and Wisconsin. Several Indiana girls are already booked. The railroad fare from Chicago is \$2.84 and boat fare across Lake Geneva twenty-five cents each way. Board and room at the camp are \$3.75 to \$4.75 per week. Arrangements may be made by addressing the Eleanor Association, 37 South Wabash avenue, Chicago.

Meetings Held at Cleveland.

The spirit of cooperation and the "get-together" idea are constantly kept before the operating employees of the Cleveland Telephone Company through the medium of frequent conferences. In addition to the meetings that are held by the chief operators and supervisors at each individual office, general meetings of the entire supervisory force of the city are conducted at the beginning of each month by Traffic Superintendent Anderson.

The day supervisory forces attend an evening meeting and are served with supper in the Main Office dining room, and the evening supervisory forces are in attendance at an afternoon meeting and are served with light refreshments. One of the groups is shown on Page 23.

After their "inner selves" have been satisfied and the table talk has placed everyone in a receptive frame of mind, the results shown by the service summary for the month just ended are gone over by the traffic superintendent. Careful consideration is given to each phase of the service and plans are made to improve those features that are not up to the required standard. Suggestions are made by the employees and an opportunity is given to all in attendance to bring before the meeting any "troubles" that may be annoying them and on which the help and co-operation of the remainder of the force is desired.

The beneficial influence these meetings have on the forces in attendance is such a helpful factor in connection with rendering the public a proper service that they are now considered an indispensable feature.

VACATION AGAIN.

Where are you going for your vacation? Does the question seem familiar and is the answer ready?

To many girls we believe suggestions in regard to a good place, not too expensive and not too far away from home, may be helpful. For this reason we invite again this year suggestions from operators all over our five states, believing that what you have found desirable may prove the same to other girls.

Our picture shows one girl enjoying the pleasure of solitude. We are sure that this was only a temporary enjoyment, possibly long enough for the snap-shot. We are assured that at the Eleanor Camp, where this picture was taken, there is no necessity for solitude unless you wish it, and our girls who went there last summer report jolly times.

In this number we are giving some details about this camp at Lake Geneva, hoping that it may help solve the vacation question for some of the Chicago operators as well as some nearby in the other divisions.

For other girls who want to know about a pleasant country place near home for vacation or week ends, we call attention to the information in another column on the Avalon Club, which opens this year a summer home on the Fox River. This has the advantage of being available from Chicago for a Sunday in the country as well as for a longer stay.

In the next number of this magazine we shall be very glad to call attention to places near some of the other cities which will appeal to girls in other parts of our larger territory.

Telephone Girl Keeps Her Head.

A few nights ago the second floor of the old State Bank building at Ladysmith caught fire. The night operator in the telephone office, Georgia Wise, was sleeping when the blaze started, and awoke to find the room filled with smoke and saw flames in the adjoining room. She did not lose her head, but called up the power house and gave the alarm. Help quickly arrived and the fire was soon extinguished with little damage. The heroine in the affair is a daughter of Elmer Wise, a former landlord of the Cliff House in Necedah.—*Republican*, Neenah, Wis., April 17th.



CHICAGO GIRLS AT ELEANOR CAMP.

Traffic Lessons Taught By Dramatic Illustrations

Unique Chief Operators' Conference Held in Chicago.

Instruction by moving pictures is now quite common and the stage has taught its lessons since the time of the old morality plays, but so far as known no traffic superintendent before has presented in dramatic form the points he wished his chief operators to consider.

H. N. Foster, traffic superintendent of the Chicago Telephone Company, conceived the unique idea of presenting in dramatic episodes some of the points in management he wished to impress on the chief operators. At Mr. Foster's suggestion Mrs. Hyatt, the traffic supervisor, wrote a number of dialogue sketches, portraying some of the situations which chief operators

over, is told to leave her rule book and locker key with the clerk, and she leaves the office without one expression of regret on the part of the chief operator, who faces the situation of asking for another student from the school, with the resignation of a much abused individual and one who is doing her duty under difficulties.

The next presentation of the same situation was cleverly performed by a transformation of Miss Haggan from a cold, unapproachable chief operator to a human, kindly, intelligent friend, who is ready to meet the discouraged student and to reason with her and give her just the help she needs, so that after ten minutes of kindly con-

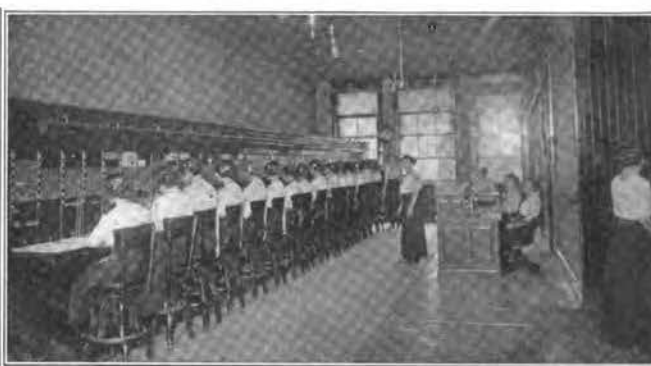
social side, which in the three gatherings held to accommodate day, evening and night chief operators, was of great value. A delightful luncheon was served at the two afternoon meetings and dinner at the evening gathering. Besides the chief operators, the division managers were also present and others of the traffic force and several guests of honor. Among these was Vice President Burt, who gave a particularly pleasant little talk, and as it was at the gathering of the evening force, he spoke in a most appreciative way of the evening and night force, who through the nature of their work have often to meet for themselves emergencies which the day does not place upon its chief operators.

Mr. Larned, general traffic superintendent, spoke of the Benefit Society, and Mr. Watterson, traffic engineer of the A. T. & T. Co., New York, gave an interesting and informal talk on the work of standardizing and improving methods and rules of service throughout the Bell system. Mr. Thomas, di-

ness girls, the Eleanor Club has done a fine service for the large company of independent, self-supporting young women of Chicago.

On the tenth floor of the Powers building, corner of Wabash and Monroe, a large reception room with adjoining rest and dressing rooms and kitchenette has been opened for the use of what is called the Central Eleanor Club. The walls are tinted, rugs laid and curtains hung in a restful harmony of green and brown. Some fine Japanese prints hang on the walls, lights are softened with Japanese shades, the long library table is heaped with all the best of the current magazines; there is a good piano, comfortable, roomy chairs scattered about invitingly, couches in the rest room and the thousand and one touches given which transform the place into a home-like living room.

If any young lady wishes to wait for a friend, instead of going to a crowded store, she may, whether she is a member or not, drop into this invit-



BEFORE AND AFTER INAUGURATION OF UNIFORM DRESS PLAN FOR OPERATORS IN WISCONSIN.
The pictures show the Operating Room at Green Bay.

have to handle. Some of these were met in a wrong way, others in an ideal way, and at the close of each episode free discussion was requested on the methods used. The vivid delineation was interesting enough to absorb the attention, and the unusual freedom of response proved that Mr. Foster's idea had accomplished what he most desired.

The stage setting was simple, merely a chief operator's desk, record books, etc. Two characters presented the various acts with the exception of one where the traffic chief, Mr. Cooper, was introduced into the situation.

The first scene was short and decisive. Miss Haggan, assistant principal of the Operator's School, who acted the part of the chief operator in the playlet, was discovered sitting at her desk. The unapproachable air which was disclosed before a word was spoken proved at once that the acting had begun, so foreign is this appearance from Miss Haggan's usual manner. Edna Grimes, a supervisor in Main office, approaches this chief operator as a discouraged and irritated student who has been at the exchange only two months and wants to resign. In this, as in the other acts, Miss Grimes proved to be a successful actress, depicting both the good and the bad moods of the operator in a most interesting manner. The first scene was very short, with no time or words wasted. The discouraged student who has dared to state her determination to leave finds no sympathy in this cold chief operator. "Business is business" with her; no waste of her time on silly young girls who don't know when they are well off. The girl, who probably half expected to be asked to think it

versation and instruction the student happily goes back to the board, ready to try again and try hard, with the assurance that the chief operator herself is taking an interest in her and will be glad to help her.

Other scenes represented two ways of meeting a girl who has been away sick and returned to work. The cold attitude leaving the girl discouraged and almost sorry she is well enough to be at the office, the other making her feel that it is lovely to get back, when the chief operator and everyone is so glad to have her in her old place again.

Perhaps the most dramatic scene was when a thoroughly exasperated operator slams up to the chief operator and demands her lunch, having by some means missed her lunch period at the usual hour. Her manner is irritating and the chief operator, of the easily irritated type, in the first act responds to the girl's overwrought condition with words that add fuel to the flame. She leaves in anger to take her complaint to the traffic chief, who meets her case with fairness and kindness, and after talking the situation over with her, showing the loss to herself in leaving a company which offers so much, for the uncertainties of work of which she knows nothing, advises her to go back to the chief operator and see if she cannot fix the matter up to the satisfaction of both. Again two ways of meeting the returning operator were shown, the latter giving the most desirable way of meeting such a situation.

Aside from the absorbing interest in these moving pictures of ways of handling business, there was the usual

vision superintendent of traffic of the A. T. & T., Chicago, was present and said a few words.

The success of this unique method of presenting ideals, and the discussion it caused, may be inferred from the remark of one of the chief operators, who said a few days later to a visitor at her exchange: "Such a meeting makes me feel that it is worth while being a chief operator and inspires me with a high ideal and a determination to do my level best."

A Central Club for Business Girls.

In opening a beautiful, quiet rest room in the heart of the city for busi-

ness girls, the Eleanor Club has done a fine service for the large company of independent, self-supporting young women of Chicago.

Another delightful feature is the opportunity to drop in for a Sunday afternoon, that lonesome time for so many business girls who board away from home. Here they may bring their men friends and have a delightfully social time, with music and other entertainment and a cup of tea.

It is also a most desirable place to wait for an escort if anyone does not care to go home before an evening engagement.

The membership in the club is only \$1 a year, but the opportunities are worth a hundred.



CENTRAL ELEANOR CLUB ROOMS.

A Chicago Telephone Girl's Trip to Europe

By ANNA SALL.
"B" Operator at Belmont Exchange.



ANNA SALL.

On June 4, 1912, I left Chicago to go to Europe all alone. I started from Chicago on the Wabash Railroad, which takes the longest route to New York and also goes through the most beautiful part of the east, the Mohawk Valley. For miles and miles, all that can be seen is forests and hills, and sometimes a little stream of water. The tracks are elevated most of the way through the State of New York and when a person stands on the platform of the observation car, and looks out over the valley and sees how beautiful nature has made this land of ours, it makes us glad we are alive, at least that was the way I felt. The fare was \$15, as it was an excursion. I arrived in New York at 11:30 at night on June 5th, and was to sail at 2 p. m. the next day. I made several friends on the train and was not the least bit afraid of New York. After crossing the Hudson on a ferry, we were escorted to the Steven's House Hotel, located on Broadway.

We were tired out but we all decided to go out and see what New York was like. We walked down to the subway and rode to Fourteenth street. After having some supper, we walked down the "Gay White Way." All I saw in New York was narrow streets, gigantic skyscrapers, automobiles and girls—the most beautiful girls I have ever seen. The men in New York are as pale as the girls are pink. We finally got back to the hotel and had a few hours of sleep. The next morning we were up at six, so as to get down to the dock in plenty of time to have our trunks checked and be all ready to sail by two o'clock.

Amidst the cheers of thousands of people, most of them in tears, we left Hoboken, N. J., June 6th, in pouring rain, for Christiania, Norway. I tried to be brave and make believe I was not afraid to cross the Atlantic, but after passing the Statue of Liberty and New York was just a mist in the distance, I was a little afraid, because everybody was talking about the Titanic disaster. I did not let that spoil my trip, however. Life on the sea is grand, but I was a poor sailor going over. Was I seasick? The second day out I began to feel dizzy and the third day found me in the ship hospital not able to raise my head. We were at sea eleven days and six hours. The fifth day out we received a wireless commanding the ship to go two days towards the south as an iceberg was in our path. When my spell of seasickness was over, I had a grand time. There is dancing, singing, story telling, playing games, cards, promenading on deck, lounging in the deck chairs, music and concerts to be enjoyed on board every day. I was a second cabin passenger, but I had a girl friend Stella—whom I had met on the train going to New York, who was second also, who had a few friends in the third cabin, so Stella and I spent the most of our time with them on the middle deck. The middle deck is the largest deck on the boat and it belongs to the third cabin passengers. The third cabin deck is an ideal place for character study. You see all types and not two alike. I remember one man especially, who I concluded was a Westerner but when he was introduced to me, I learned he was a professor in a Norwegian College down in Iowa, so you can't always tell by a man's clothes just what he is.

The sea was rough enough going over, but I was disappointed, because it wasn't anything like what I had

pictured it in my mind. I expected to see waves that were as big as mountains but instead, they were no larger than on Lake Michigan during a storm.

About four o'clock in the morning on June 17th we entered the harbor of Christiania in Norway. It is the most beautiful harbor I have ever seen. On one side was a little village of about a dozen houses and a church and lighthouse station. On the other side were mountains covered with fir trees. Our ship did not land, but a small steamer was sent out to bring in the passengers who were to land in Christiania. We set sail again in this boat and by seven o'clock, the same evening we landed in Christiania, Norway. It is a beautiful and interesting place. We visited the king's garden, which surrounds the palace, but were not fortunate enough to see the king. In one of the parks there is a beautiful statue of Abel and Cain. We also took a car ride up to a place called Humculum. It is a park, which is situated on the top of a mount. We had to pay thirty ore apiece on the car, which is about eight cents in American money.

The next morning, June 18th, I left Christiania for Gothenberg, Sweden. I arrived in Gothenberg at 3:45 p. m. I did not have much time to spend in Gothenberg, as my train was to leave at 5:30 p. m., but I visited an amusement park called the Tragorforen (meaning the garden association). I had to pay five ore for admission, which is about two cents in American money. The park was just opposite the station. I left Gothenberg at 5:30 p. m. for Uddevalla. I arrived in Uddevalla, just in time to see the train I wanted pull out so I had to stay over night. When I got off of the train, I was immediately surrounded by hotel porters, each one talking louder than the other. I was so bewildered I could not speak for a moment. There happened to be one porter among them, who could speak English, and he came over and asked me where I wanted to go, and when I told him, he informed me that my train had just left and he directed me to the Hotel Royal. I stayed until the next day and left Uddevalla for my aunt's home in Hogsater.

I had never seen any of my relatives at all, so everybody, as well as the country was new to me. I arrived in Hogsater at three o'clock in the afternoon on June 23rd. I had been just twenty days on my journey. It took me about a week to get used to the climate and also the customs of the people. The scenery is simply beautiful. Nothing but mountains and

hills, and here and there a large patch of trees. One of the things I noticed was how terribly scared the people were at thunder and lightning and it is not anything in comparison with the thunder and lightning we have in America. It rained for days when I was there and all the men wear heavy blue woolen military capes. The majority of American girls ridicule a man who carries a cane, unless he is elderly but over in Europe all men and boys and quite a number of young ladies carry canes while out walking.

I visited my aunt six weeks and also benefited my health which had been very poor for some time. After six weeks I had a genuine Scandinavian complexion and twenty-seven more pounds in weight to my credit. After seeing many things I started on my return trip going from Hogsater to Uddevalla by train and then I took a boat and went to a summer resort called Gustafsberg. I stayed there three days and from there I went back to Uddevalla and started for Gothenberg and stayed in Gothenberg a week at the Hotel DeSueda. I had to pay two kroner a night for my room which is fifty-four cents in American money.

Gothenberg is a pretty town. There is a grand canal running through the town. It is called Stora Hammkanalen. Amongst the statues that decorate the streets of Gothenberg is the statue of Gustavus Adolphus. He was one of the great kings of Sweden.

On August 8th I left Gothenberg for Christiania, Norway. After twelve hours of travel and after passing through a tunnel, which is cut through the mountains, we came into Norway. It takes twelve minutes to go through this tunnel and it is pitch dark. They don't have any lights on the train, either.

The cars are not like our modern Pullmans. They are built in the old English style. The train contains six little rooms, with a door from each room opening out into a long gangway, and a door at each end of the passage opens out to the platform. They have first, second and third class service on these trains. The first and second class cars have upholstered seats and the third class is just hard wood without any cushions. They go about fourteen Swedish miles an hour. There are three English miles in every Swedish mile. We went through some very pretty places and in some parts of Norway the tracks were laid over the roughest part of the mountains.

I traveled quite a little in both Norway and Sweden. I went through Stockholm and saw the midnight sun. It is one of the grandest sights that I ever saw. I met my friend Stella in Christiania on August 9th. We spent the morning shopping and sailed for America in the afternoon of the same day. The weather was beautiful. The North Sea was as smooth as glass. August 10th found us in the harbor at Christiania and then after a few more hours delay in taking on passengers and baggage we were once more on the Atlantic. Going home I was not a bit seasick. The weather was fine until the morning of August 18th. We were all awakened about two o'clock in the morning and told to dress as it was storming terribly. Stella and I got up and looked out of the porthole to see how it was. The sea was rolling and here was the time I was not disappointed about the size of the waves. We could hardly stand up because the boat was dipping so, but we finally managed to get out into the saloon and oh, such a sight! Men and women praying and crying and then the boat gave a sudden jerk and stopped. We had struck some old wreckage and seven portholes were smashed in the sailors' quarters. The

storm lasted about twelve hours, and then it calmed down and it was just fine again.

One morning we saw a school of whales and also quite a number of other large fish. We landed in New York August 20th and we had to go to Ellis Island to change our train tickets. It is very pretty in Ellis Island and also very interesting to see how they handle the immigrants who come to our shores. I arrived in Chicago August 22nd. Among the articles I brought home is a Swedish national costume. It is all of home spun cloth.

The fare was:
Chicago to New York excursion
(berth \$2.00) \$ 17.00
New York to Christiania, 2nd
class, one way 62.50
Christiania to Gothenberg (13
kroner 80 ore) 4.00
Gothenberg to Hogsater (3
kroner 70 ore) 1.90
\$ 84.50
2
Round trip \$169.00
Train fare coming home from
New York was three dollars
(\$3.00) extra and five dol-
lars (\$5.00) for my berth.... 8.00

This does not include tips, hotel
bills or clothes or extra trips I took
over there.

Exchange of Exchanges

North, Chicago:

One of the operators during the flood said to the Hospital operator: "The Hospital looks like a laundry." "How's that?" said the Hospital operator "There are so many lines out."

Lancaster, Ohio:

A traffic employe recently asked a plant man to replace a defective lamp, which she said was a sixty-candle power or something. The plant man said: "Sixty watt?" She said: "Sixty candle power, I guess." The man said: "No, sixty watt," and then she replied: "Sixty something." He again said: "Sixty watt." At this she said: "Oh, I don't know what (watt)."—R. H.

Waupun, Wis.:

An operator passing a call to Green Bay for a railroad man, received the following report: "U on the run." (Wonder if he ever stopped.)

Rogers Park, Chicago:

Rogers Park subscriber (to repairman on repeated case of trouble): "I know what's the matter with this line. Your other man tightened up the screws till the words won't go through. It will be all right if you just loosen it up a little."

Wabash, Chicago:

An impatient subscriber kept annoying the operator by asking for the same number. It was given to him repeatedly but no one answered. Finally it was referred to the supervisor, who, when he insisted, finally said: "I can give you the number, but I can't give you the man. I have no claim on him."

Harrison, Chicago:

A supervisor while making a connection said, "I hear some one talking." "Yes," said the subscriber, "I think Central must have her trunk open."

Main, Chicago:

At the local board the operator was asked to give a call for a man whose name the subscriber had forgotten. He was asked in which division he was and the answer was, "I don't know, but he is in a cage."

A Sincere Effort.

The wire chief was trying to locate the position number of an operator seated at the B switchboard. "Who is this?" he asked.

The operator turned to her supervisor and said: "Here's a man who wants to know who I am; shall I tell him?" The supervisor said: "Yes, that's the wire chief trying to locate your position."

"Mary Brown," promptly sang out the B operator.

"I know," the wire chief's voice came back; "but where are you?" "At the switchboard," was the prompt reply.—*The Transmitter.*

Accommodating.

It was an accommodating subscriber who offered to take the instrument home with him. He had just signed an application and wanted the service at once, but didn't want to bother the telephone man to bring the telephone out to his home.—*Telephone News.*

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST
G. W. CUMMINGS
Correspondents

Birthday Surprise.

A dozen of the friends of W. W. Hiller, supervisor of collections in the Vice President's office, surprised him with a birthday luncheon informally arranged on May 29th. Mr. Hiller was thirty years old on May 30th. M. J. Carney, on behalf of Mr. Hiller's friends, presented him a miniature sail boat named *September Morn.*

Mr. Hiller and Whit Schultz of the treasurer's office, have lately become interested in yachting and have shipped before the mast on the yacht *Deana* of Evanston, the owner whereof, a Scotchman, needing a man, posted a notice in front of the Evanston Yacht Club. This came under the observation of Hiller and Schultz on a Sunday morning stroll and they forthwith applied and were both accepted, in lieu of the one regular man required, at wages of \$0 per month. Up to this writing no cruises have been made, but the "crew" have placed the yacht in shipshape order by the use of "Dutch" cleanser and paint. Mr. Hiller having been heard to express a dislike to the name of his craft, his friends decided on presenting him one with a more artistic designation.

The Avalon Summer Club.

Between Batavia and Aurora, on the beautiful Fox River, the Avalon Club composed of a group of business girls, has opened a summer camp, which promises to be a delightful place for vacations. The cost for the round trip from Chicago is only a dollar, making it accessible for week ends, or even for a Sunday. The board is six and a half dollars and this includes the use of boats. On Sunday one can get a grand dinner for fifty cents and supper for twenty-five.

The club has taken twenty-eight acres of wooded ground on the river and arranged for lawn tennis, croquet, boating and bathing. The fishing is particularly good sport. One can be sure of a most restful, healthful vacation in the company of congenial girls at the club. The president of the club is Miss A. B. Cole, telephone Wabash 363. Miss Quinn, Monroe chief operator, is a member who

is actively engaged in opening this summer place and she will be glad to give further information.

Weddings at Toll.

Cupid seems busy at present in Toll. Emma R. McConville, who has been with the company three and a half years, resigned to be married April 9th, to G. Jameson. She was remembered with a toll operators with a cut glass water set. Mrs. Jameson is at home at 1528 South Hamlin avenue.

Clara Carpenter, toll day operator and employed five years, resigned to be married to Leo LaPointe at St. Veronica's Church, June 11th. She will reside in Irving Park. She was presented with a cut glass vase by the toll operators.

Katherine Lawrence, toll operator for three years, was married to Charles Dumas at St. Nicholas Tolentine Church, June 4th, at 4 p. m. She will be at home at Chicago Lawn. She was presented with a cut glass water set by the toll operators.

Dorothy Klanke, toll supervisor, employed seven years, resigned to be married to James J. Deegan, June 25, 1913. A cut glass vase and silver knives, forks and spoons were presented by the toll force.

Laura Gooley was recently married to Dr. H. E. Hearn, who has just graduated from Rush Medical College and expects to enter the government employ. She was given a cut glass vase and a dish by her friends.

Matrimonial.

Kedzie is having her color scheme broken into by Cupid. A while ago the ingenious poet in the force wrote the following:

"There are no Blues at Kedzie,
But on the staff you'll find
A Supervisor tinted Gray and
Then will bring to mind
The operators Black and Rose
Of Brown for Order Clerk,
A Chief in shades of Sammon Pink
And White to do more work."

And now Mary Brown, toll order clerk, has dropped out and changed her name to Creighton. Miss Brown, who has been with the company eleven years, was so well loved at Kedzie, that her resignation was accepted with regret, and there were many expressions of sincere appreciation and warm friendship. The day force presented her with a cut glass water set and reflector, and a set of butter spreads, and the evening force

gave her two beautiful water colors, and there were many other individual gifts.

Miss Brown was married to James Creighton May 21st at the Blessed Sacrament Church. She wore a white silk dress with bridal veil and carried a large bouquet of white roses and lilies of the valley. They will be at home at 1443 South Fortieth court.

Elizabeth Rogan, operator at Wabash, was married Wednesday, April 9th, to Frank Coppel, at the Holy Cross Church. The affair was a double wedding, as Miss Rogan's sister was married at the same time. The Wabash girls gave the bride a beautiful cut-glass water set and she was given a "domestic shower" by some of her friends.

Arthur Garfield Lantz, switchboard man at Main office, was married to Amy Wilson Watters on Saturday evening, March 29th. The services took place at the Kenwood Parish Hall at 8:30 p. m., followed by a dancing party. All present had a very enjoyable time. As a token of the best wishes of the Main office repair force, they presented Mrs. Lantz with two beautiful oil paintings.

John Webster Olson, chief clerk of the building department, was married to Grace Constance Hansen, on the afternoon of April 30, 1913. Every ceremony was performed in the Wicker Park Lutheran Church by the Reverend Anda and was witnessed only by relatives of the contracting parties. The office associates of Mr. Olson combined forces and presented the couple with a handsome gift. Mr. and Mrs. Olson will be at home at 3815 North Hamlin avenue after June 1st.

Death of George H. Vandervest.

George H. Vandervest, twenty-six years old, employed in the Illinois engineering department, died May 22nd at his home, 1514 North Artesian avenue, Chicago. His sickness was a complication of diphtheria and scarlet fever and lasted only four days.

Mr. Vandervest had been in the employ of the company about two years during most of which he was occupied with the work of electrolysis inspection. Recently he had been transferred to ceiling work and gave every promise of becoming an efficient man in this line.

He leaves a widow, father and mother, four brothers and two sisters. The suddenness of his death was a great shock to his fellow employees in the engineering department who joined in extending sympathy to his relatives.

Appreciation for Lakeview.

Letter from a Lakeview subscriber: "Beg leave to inform you that the telephone I recently applied for is now in service, as Graceland, and very satisfactory. I might add that during the years I had my telephone in, the service of the exchange was always very prompt, courteous and efficient."

Bouquet for Yards.

To the following communication was attached a beautiful hand-embroidered handkerchief: "Miss No. 1801: "The following compliments of meritorious service rendered Yards 869."

Service Standing.

The following is the place position of the offices for the month of March, 1913:

| City Offices. | |
|---------------|---------|
| First | Belmont |
| Second | Wabash |
| Third | Central |
| Fourth | Yards |
| *Fifth | Lincoln |
| *Fifth | Oakland |

| *Tied for fifth place, Neighborhood Offices. | |
|--|---------------|
| First | South Chicago |
| Second | West Pullman |

Suburban Promotions, April, 1913.

C. Christiansen, Elgin, assistant chief operator to chief operator.
M. Smith, Elgin, supervisor to assistant chief operator.
E. Plate, Elgin, operator to supervisor.
B. Hinsdell, Elgin, operator to supervisor.
L. Feld, Evanston, operator to supervisor.
M. McGlynn, Hammond, night operator to supervisor.
J. Murphy, Joliet, operator to night supervisor.
R. Lowry, LaGrange, transferred from Riverside and promoted to traffic clerk.

Personals.

Loretta Dempsey, stenographer in the suburban commercial department, has been confined to her home with an attack of appendicitis.

Matthew A. Young has been appointed chief clerk for the Gary Exchange District.
H. Braddick and W. R. Moran have been appointed commercial agents for the suburban commercial department.
C. C. Curtis, correspondence instructor of the Plant Department School, was

taken to the Hahnemann Hospital April 3rd, with a severe attack of pneumonia. He responded promptly to the excellent care received there and on April 14th had recovered sufficiently to be taken home.

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Traffic Superintendent Appointed.

W. A. Spencer has been appointed traffic superintendent for the State of Michigan, succeeding George E. Kerwin.

Reorganization of Districts.

Effective May 1st the territory formerly known as the Detroit District was divided into two parts, one to consist of the Detroit Exchange only and to be known as the Detroit District, the other to include all other exchange areas now in the Detroit District and to be known



W. A. SPENCER,
Newly Appointed Traffic Superintendent.

as the Eastern District with headquarters at Detroit.

The Detroit Exchange Area outside of the Detroit Exchange is to be an Exchange Area with headquarters at Detroit and will be included in the Eastern District.

C. S. Slack is appointed district commercial manager of the Detroit District. W. D. Clark is appointed district commercial manager of the Eastern District.

W. A. Spencer will act as district traffic chief of the Detroit District. B. F. Gillespie is appointed district traffic chief of the Eastern District.

W. C. Kirk is appointed district plant chief of the Detroit District. R. V. Hurlbut is appointed district plant chief of the Eastern District.

Satisfied Subscribers at Port Huron.

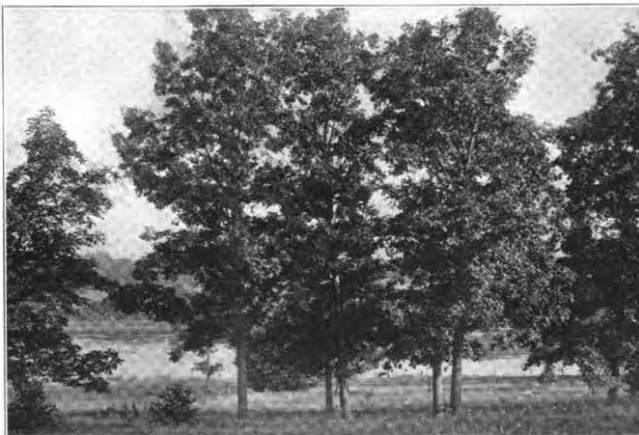
Some of the lines going into the Port Huron exchange were put out of service during the March storms, and to those subscribers who suffered from loss of service Manager E. L. Berry sent the regular allowance voucher, Form 68-1. Below are two of the replies which he received:

Michigan State Telephone Co., April 28, 1913.

Gentlemen: I am in receipt of yours of the 25th enclosing allowance voucher, which I herewith return unsigned, and will say that I do not care to accept anything on this, as the company is certainly not to blame for the elements. I believe it was my own fault that I was deprived of the use of my telephone for over a day. On account of the very high wind and the destruction to the telephone system I did not feel like notifying the manager that my telephone was out of condition and only until sickness compelled me to do this, and with the prompt attention of the manager my telephone was in use within two hours after he was advised. I also feel that the manager did everything in his power to have the telephones placed back in service as soon as it was possible to do so. Very truly yours,
A. D. BENNETT.

Michigan State Telephone Company, May 12, 1913.

Gentlemen: We are in receipt of your circular letter under date of April 28,



LOCATION OF AVALON CLUB.



B. F. GILKESON.

District Traffic Chief, Eastern District.

1913, offering to allow us for interrupted service during the past month. As we have made no note of this interruption and highly appreciate your efforts in giving us good service, we therefore return the voucher unfilled with thanks, and sincerely trust you will be able to give us excellent service in the future. Very truly yours,

Romeo Foundry Co.
LYMAN A. HOLMES, Manager.

Bay City's Attendance Record.

During April the operating force at Bay City, Mich., made a record for perfect attendance which is unusual. For the whole month, Bay City did not have one day absent time. It is true that each and every member of the force deliberately started out on the first of April to accomplish this result. The success obtained indicates the interest and enthusiasm which exists at Bay City in the operating work and the desire to give the best service possible. In fact, the Bay City exchange is willing to challenge any exchange to beat this record, and confidence is felt that if the record of one month is beaten, Bay City can go one better and make it two months. The operating force is made up of thirty members headed by Miss H. Seltz, chief operator, Miss B. Gates, assistant chief operator, and Miss E. Schanz, supervisor.

On May 1st, Bay City started the operation of the new toll board which has been made up of the first four positions on the A board converted for toll purposes. The old toll board will be abandoned.

The room adjacent to the operating room at Bay City is being fitted up as a retiring room so that the quarters which were formerly used by the operating peo-



C. S. SLACK.

District Commercial Manager, Detroit District.

ple can be turned over to the plant department.

P. B. X. Development in Detroit.

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of April were the following:

| | Terminals |
|---|-----------|
| Edison Illuminating Co. (new)..... | 4 |
| Edison Illuminating Co. (addit.)..... | 3 |
| McNair, J. W., Electric Co. (new)..... | 3 |
| Schroeder Bros. Hardware Co. (new)..... | 2 |
| Prentiss & Mulford, attys. (new)..... | 2 |
| Bernett, Root & Dickinson, Insurance (new)..... | 2 |
| Multi-Color Copying Co. (new)..... | 2 |
| Youngblood Cleaning Co. (new)..... | 2 |
| Central Savings Bank (change from Inter-Com. set with 1 trunk and 5 terminals to)..... | 3 |
| Baker Electric Co., automobiles (new)..... | 2 |
| Jeffery-DeWitt Co., spark plugs (change from Inter-Com. set with 1 trunk and 6 terminals to)..... | 2 |
| Harper Hospital (addit.)..... | 1 |
| Banner Laundry Co. (new)..... | 4 |
| Hueltman & Cramer Co., elect. | |

| | | |
|---|---|----|
| Netting Co., C. F., elect. and gas fixt. (new)..... | 2 | 11 |
| Grosse Pointe Lumber Co. (new)..... | 3 | 6 |
| Board of Water Commission, Detroit City (new)..... | 2 | 7 |
| Peters & Co., A., cleaners and dyers (addit.)..... | 2 | 7 |
| Board of Health, Detroit City (new)..... | 3 | 7 |
| Braun Lumber Co. (new)..... | 2 | 6 |
| Dime Savings Bank (addit.)..... | 2 | 14 |
| Brede & Schroeter, painters & decorators (new)..... | 2 | 7 |
| Vernor, James, mfr. of gin-ger ale (new)..... | 3 | 8 |
| Postal-Fair Motor Car Co. (new)..... | 2 | 6 |
| Harding Lumber Co., H. W. (addit.)..... | 1 | 1 |
| Alger Smith & Co., lumber (new)..... | 2 | 6 |
| Malcomson-Houghten Co., coal, coke, etc. (addit.)..... | 1 | 10 |
| Ehrman & Co., A. W., accounts (new)..... | 2 | 6 |
| Berry Bros., varnish (addit.)..... | 1 | 7 |
| Whitaker, McNaughton & Livingston, insurance (new)..... | 2 | 6 |

Order Table

in the Telephone Society's work and meetings. The meeting was then adjourned and a repast (very filling and satisfactory) was served in the dining room, after which the members returned to the meeting room and were entertained by Roth's orchestra, a harp, guitar and mandolin and human voice concert by C. L. Sheppard and Morrell Jones, and singing by the Broadway Four Quartet, all of which were applauded warmly. This meeting was more than usually well attended, the general opinion being that it was one of the most enjoyable ever held.

The meeting of May 7th took place in the society's room, President Dawson in the chair. The attraction was an interesting paper read by Arthur W. Lambert, Jr., entitled, "The Local and Long-Distance Telephone in Connection with Modern Business," and was listened to with marked attention. Short talks were afterwards made by W. E. Dawson, C. S. Slack, C. D. Earl, M. J. Hager, L. N. Johnston, R. M. Wilde and W. A. Cardinal.

These officers were elected at the meeting of March 19th:

President, W. E. Dawson, traffic (re-elected); vice president, C. D. Earl, plant (re-elected); secretary, C. E. Culver, com-



FLOOD RELIEF PARTY AT ANN ARBOR.

| | | |
|---|---|---|
| supplies (new)..... | 2 | 6 |
| Washington-Detroit Theatre (new)..... | 3 | 6 |
| Tuttle, Arthur J. U. S. Judge (new Inter-Com.)..... | 1 | 2 |
| Nichols, J. Brooks, residence (new Inter-Com.)..... | 1 | 7 |
| Sterling Co., J. C., hardware (addit.)..... | 3 | 2 |
| Detroit Universal Film Co. (new)..... | 2 | 3 |
| Jones Agency, Jas. A., Insurance (new)..... | 2 | 6 |
| Chittenden & Koltins, architects (new)..... | 2 | 6 |
| Motor-Foundry Co. (new)..... | 2 | 6 |
| Detroit Gear & Machine Co. (change from Inter-Com. set with 2 trunks and 5 terminals to)..... | 2 | 8 |
| Fidelity & Casualty Co., Insurance (new)..... | 2 | 6 |
| Fitzpatrick, O'Brien, Doremus & Duffy, attorneys (new Inter-Com.)..... | 2 | 5 |
| Goodenough, Luman W., attorney (new)..... | 2 | 7 |
| Bell, E. C., real estate (new)..... | 2 | 6 |
| Davis Mfg. Co., C. K., elect. mine eng. (new)..... | 2 | 6 |

Of the total of twenty-three new private branch exchange contracts obtained during April, sixteen were secured by Floyd Lockwood, six by Dare S. Burke, and one by Charles A. Querin. The new contracts and the "changes" supplied a total of 159 new stations for Detroit during April.

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of March are the following:

| | Terminals |
|---|-----------|
| Callender, Trevor & Trendle, attorneys (new)..... | 2 |
| Moon, Elmer S., real estate (new)..... | 2 |
| Drysdale, Robert M., attorney (new)..... | 2 |
| Hartwick Lumber Co. (new)..... | 3 |
| Evening News Ass'n (addit.)..... | 10 |

and new Order Table

| | | |
|---|---|----|
| Swedish Crucible Steel Co. (new)..... | 2 | 6 |
| De Grandchamp Co., Edw., real estate (new)..... | 2 | 6 |
| Manchester & Freud, attorneys (new)..... | 2 | 5 |
| Dickinson Real Estate Exchange (new)..... | 2 | 6 |
| Modern Laundry Co. (new)..... | 2 | 6 |
| Beaubien Ice & Coal Co. (new)..... | 2 | 6 |
| Dime Bank Bldg. owner of bldg. (new)..... | 2 | 9 |
| Buhl Sons & Co., whol. hardware (addit.)..... | 2 | 31 |
| Anderson Tool & Supply Co., W. M. (new)..... | 2 | 6 |
| Michigan Electric Welding Co. (new)..... | 2 | 6 |
| Bradway, Judson, real estate (new)..... | 3 | 6 |

Of the twenty-five new private exchange contracts taken during this month fourteen were taken by Floyd Lockwood and eleven by Dare S. Burke.

Telephone Society of Michigan.

The meeting of April 16th was held in the Prismatic Hall Society Building, on First street, larger space than that yielded by the Telephone Society Room being required for the entertainment planned and the installation of new officers. President W. E. Dawson was absent on telephone business at Sault Ste. Marie, so Vice-President Chester D. Earl took the chair. The Sick Committee reported Frank Floyd and Leo Johnson as sick. Resolutions were adopted regarding the death of Fred Luxford, an installer in the plant department and an employee of long standing with the company, and that a copy of said resolutions be sent to Mr. Luxford's sister, J. F. Wardle, of the Baseball Committee, reported progress. Speeches were made by C. S. Slack, Theodore Rousseau, R. J. Hall, C. E. Culver and W. A. Gibson (honorary member). It was moved and seconded that a resolution be adopted requesting Commercial Manager C. S. Slack to interview the officers of the company with a view to interesting them

mercial (re-elected); treasurer, E. H. Eyre, commercial; governor from commercial department, Robert Hall.

Benefit Party at Ann Arbor.

About 100 couples gathered at Granger's Academy, Ann Arbor, on the evening of April 10th at a dancing party given by the young ladies employed by the Michigan State Telephone Company for the benefit of the flood sufferers. The hall was donated and the Ann Arbor Girls' orchestra also furnished the music without charge. About \$50 was cleared. There were several feature dances and a number of solos sung by Lillian Given, who directs the orchestra, and the party was in every way a great success. Mr. and Mrs. Matt Max were the chaperons, and the guests from out of the city were Margaret Woods, Detroit; Frances Steele, Mary Lusty, Guthrie Huber, Mary Speurnagle, Hines, Burg, Winifred Elder, Celia Hern and Emma McKernan of Chelsea. The girls sent a bouquet of roses to Ross Granger as a token of appreciation for his kindness in donating the hall.

Detroit Operators' Meeting.

On Wednesday, April 30th, a meeting of the operators of the North, Ridge, and Hemlock exchanges was held in the Telephone Society room. W. A. Spencer, traffic superintendent, gave an interesting talk on the value of team work, graphically illustrated by means of original charts. These charts, of which there were three, showed how the greatest number of calls may be handled, when the traffic is heavy, with the least amount of waiting for the subscribers. Mr. Spencer explained them in a way that was easily grasped and understood by all, bringing out forcefully the time saved by team work.

After the meeting all present adjourned to the cafe, where refreshments were served. In addition to the regular Detroit traffic force, R. W. Sullivan, special traffic supervisor, of Chicago, and C. F. Rich and C. A. Marettette, of the local commercial department, attended the meeting.

Detroit District.

W. E. Dawson, of the traffic department, went to Sault Ste. Marie to investigate service conditions. Writing to a friend in Detroit, without any warning, he said: "After passing the Soo sea, I am here to see Soo, but not to see Sue, see. And, dropping into the French language, I may say that though I am not *sans six sous* I am *sans sou*." Under the circumstances, we shall be glad to have Mr. Dawson back with us again.

Those Michigan telephone men who have seen the April issue of *Western Electric News* observe with much pleasure that the "prize story" this month has been won by A. R. Maynard of Chicago, who was with us for about three years in the Detroit office. To read Mr. Maynard's story of how he "put one over" two rival telephone salesmen in "A" (wherever that is) is a joy.

Michigan telephone men hear, with great regret, of the death of Fred Luxford, of the Detroit plant department. Mr. Luxford was an installer, and had been with the company about twenty years, during which time he had worked in Detroit, from the days of the old

Mabel Butters, Bernice Warner, Florence McMillen, Leah Benedict and Ida Dickinson are the names of new operators recently taking positions at the Jackson office.

Ella Hillard of Jackson has been on the sick list. Kitty Snook has been compelled to resign her position at Jackson because of ill health.

A special inter-communicating system is now being installed at the Michigan Central Railroad office in Jackson by Messrs. Aronstein and Wilson. This system consists of five trunks and five terminals, and a small storage battery for local transmission.

The Jackson force has been increased temporarily by Mr. Griest and his crew. Dating from May 1st, W. L. Avery was appointed manager at the Wolf Lake toll station, in place of George Melster, this change being made on account of the opening of the season; the telephone was moved to the Casino.

On Sunday, May 4th, Charles F. Mulnix, manager for the Cement City Telephone Company, a connecting company in the Jackson Area, was taken suddenly ill with apoplexy, and passed away at 1 p. m. The death of Mr. Mulnix will be felt greatly by telephone users in that locality, as he always had their interests at heart. He had been operator and manager since the exchange was established at that point. Mr. Mulnix was also the postmaster at Cement City. E. B. Miller has been appointed to fill the vacancy.

Lena Steldie, cashier at the Union City exchange, surprised her many friends Saturday morning, May 3d, by sending out announcements of her marriage to Leo T. Robinson of Union City, which occurred August 20, 1912. All extended congratulations, and regrets that Mrs. Robinson was to leave the office on May 15th.

Louise Tyler, chief operator, at Union City, resigned her duties to accept a position as cashier, made vacant by the resignation of Lena Steldie.

Mabel Blackburn, toll operator at Union City, has been promoted to position of chief operator.

Zoe Hayner, local operator at Union City, resigned May 15th, on account of ill health.

Margaret Pepper, local operator at Union City, has been promoted to toll operator.

Genevieve Tyler and Iona Murfin have accepted positions as local operators at Union City.

At Wyandotte a No. 1 private branch exchange, with two trunks and five terminals, is being installed in the office of the Seltz Automobile Transmission Company.

C. M. Darling recently secured a contract for a No. 4 private branch exchange consisting of two trunks and six terminals, for the Glasgow Department Store, at Jackson.

All installations were discontinued at Jackson March 21st and the force began repairing the damage done by the storm of that morning. Jackson suffered the most greatly by this storm. During the night about 960 telephones were put out of service and only seven toll circuits out of forty-two were working. The local force, with the assistance of Mr. Cameron and his men and Mr. Schermerhorn and his men, began work on the several breaks in the toll circuits out of Jackson, the worst break being on the main line between the two poles within the city limits went down. A large supply of No. 17 copper steel duplex was on hand at the Jackson office and was of great help in putting the toll circuits back working order again. The breaks on the Grand Rapids, Union City, Brooklyn and Onsted leads were bridged with this No. 17.

Mr. Cline and Mr. Dykstra are now completing the installation on the new No. 12 wire chief's desk at Jackson.

Corra Sawitsky, Mr. Clemens' night operator, has resumed her duties after ten days' illness with appendicitis.

A contract has been signed with the Aurelius and Vevay Telephone Company, of March 10, 1913. This is a connecting company, with an exchange at Aurelius.

The management of Washington exchange has been transferred from J. F. Donberger to Charles J. Teeters.

Nellie Selber, local operator at Ypsilanti, has been transferred to the commercial department, to take the place of Mary B. Freeman, resigned.

Julia Bason has been added to the operating force at Ypsilanti.

On March 27th a dance was held at Ypsilanti under the auspices of Clara Kieherer, night operator. The large hall in the Masonic Temple was tastefully decorated, and excellent music was furnished by Schneider's Orchestra of Ann Arbor. The success of the parties in the past was proven that evening in the attendance of the telephone employees from Detroit, Ann Arbor, Wayne, Willis, Northville and Romulus.

During the height of the recent wind storm in Ypsilanti Troublemaker Schrepper sought temporary shelter in one of the houses along the Lower Huron River. Anything not bolted or tied down was being blown about. Suddenly the favorite washtub of the lady of the house was

picked up and carried out into the stream. Mr. Schrepper was asked to go and rescue it, but for some reason he refrained from doing so, and was called a "helpless wretch" by the lady, and, it is said, barely escaped with his life.

Robert Hall says one of the subscribers, an old German lady, came in to see him the other day to register a complaint and order out her telephone. She admitted the general service was good, but said that her telephone was practically useless to her a great part of the time because when her friends were busy she couldn't get 'em.

The exchange of the Inter State Long Distance Telephone Company April 25th Lyons became an exchange of the Michigan State Telephone Company as of April 6th.

The Milford Home Telephone Company of Milford is a new connecting company, as of April 1st. The formation of this company is the result of the merger with the independent in this area. The Bell exchange at Milford will be discontinued.

Ethel Freer has resumed her position as local operator in the Jackson office after a two week's leave of absence. She is much improved in health.

Doris Davenport, Kittie Snooks, Irene Jason and Grace Smith are new operators recently accepting positions at the Jackson office.

Madeline Fitzsimmons has resigned her position as toll operator at the Jackson office and accepted a position at the L. H. Field Company department store, as a clerk.

Bessie Wesley has resigned her position as local operator in the Jackson exchange, to accept a position in the Bugg Jewelry Store.

Commercial Agent C. M. Darling and family, of Jackson, are recovering from an attack of ptomaine poison.

The purchasing agent of the Northrop, Robertson and Carrier Company, who are sale grocers at Lansing, recently sent the following letter to the company at Lansing: "The service you are giving us, both local and long distance connections, most excellent—best I have found in any city."

A traffic meeting of the chief operators of the Mt. Clemens exchange area was held at the area headquarters April 25th. The Mt. Clemens toll operators also attended. The meeting was a very interesting one. Traffic bulletins in general were discussed and traffic supervision was gone over thoroughly. Luncheon was served at the Sherman Hotel, and in the evening a banquet was provided by Area Manager James at the Arlington Hotel. This was followed by a theatre party, after which the Arlington was again visited and a social time enjoyed. All left the area headquarters, having enjoyed the varied recreation and feeling that they were better fitted to take up the duties of the heavy work of the summer.

W. B. Ketchum, who has been manager at Mason for the past five years, has tendered his resignation. It was succeeded by G. E. Gregory as of May 3d. Mr. Gregory is well fitted to fill the position, as he was formerly manager at the Vacousta exchange. Mr. Ketchum is connected with the plant department at the Lansing and Battle Creek offices. Mr. Ketchum will very soon open up a small business of his own at Mason.

While testing on cable pole at the Grand Ledge exchange last month George Bibler, the repairman, received a shock that caused him to lose his foot. He fell from the cable pole and was ground. Several ribs were fractured and other injuries received which will take some time to heal.

Manager Marsh at Lansing reports the following private branch contracts and installations: Rec Motor Truck Co. cordless board, 2 trunks and 7 stations. Industrial Accident Commission, No. 2 P. E. X., 1 trunk and 5 stations. A No. 2 private branch exchange, with 3 trunks and 6 stations has been installed in the exchange building in order to facilitate inter-department work.

Grand Rapids District.

E. J. Holihan, manager of the Petoskey area, is referred to in one of the local papers as "aerial manager." On the strength of this Mr. Holihan wants to put in a requisition for a flying machine.

Mrs. H. Dean succeeded R. Van Norman as manager at Hopkins, April 1st.

Except from a letter from Benton Harbor giving details as to the recent storms: The wire chief at Benton Harbor claims that he actually dug holes to reset poles and that he blistered his hands in the effort. However, he was unable to furnish us with any photograph and we are not to take his word for it, so far as the shovelling is concerned.

Mrs. Lizzie Carol succeeded Mrs. E. O. Bellows as manager of the Baroda toll station.

E. A. Sprague has succeeded Sprague & Farnsworth as toll station manager at Bagnall, as of April 1st.

E. R. Cummings, toll manager of the Benzie County Telephone Company and earlier employed at Battle Creek by the Michigan State Telephone Company, has been appointed manager of the Ludington

area, succeeding J. J. Kelly, who has been transferred to Petoskey.

J. J. Kelly has been appointed manager of the Petoskey area, succeeding E. J. Holihan, who has resigned to engage in business at Detroit. Mr. Kelly has been in the employ of the Michigan State Telephone Company since 1907, and has made good in every position that he has filled, due to conscientious effort combined with energy and painstaking work in every branch of the business. The Ludington newspapers speak very highly of Mr. Kelly's work in that locality.

Ralph W. Corey, former plant man at the Lake Odessa exchange, succeeds B. H. Seagar, resigned, as manager at that exchange, as of April 1st. Mr. Corey has been connected with the company for several years, and is very popular at Lake Odessa.

Mrs. Henry Dean succeeds R. H. Van Orman as manager at the Hopkins exchange, as of April 1st. Mr. Van Orman resigns to go into the oil business. Mrs. Dean is very well liked at Hopkins, and all subscribers are well pleased with her appointment as manager.

A class 10-A joint office has been established at Albion. This is the first strictly class 10-A joint office opened in the Grand Rapids district. It has been



JOSEPH H. BRETT.

This is the new district accountant for the Grand Rapids district—not only the new one, but the first one, for the office has just been established.

"Joe" Brett has been with the Michigan State Telephone Company nearly twelve years, and so closely has his work been identified with the history of the department in which he worked that it would be impossible to write the latter without mentioning the former.

Mr. Brett came to the company December 3, 1901, as an addressograph clerk, and showed so much ability in that exciting occupation that he was promoted from it to other positions and from them onward and upward. The listing of these different positions is interesting because they show the nature of the business education obtained by him to develop him for his present work. These positions were those of counter clerk to wait on the public and explain their telephone bills; order clerk, in which he figured out the bills for new subscribers and equipment; lease record clerk; subscribers' ledgers clerk; and finally supervisor of subscribers' ledgers. In this position he was assistant to J. J. Booth, chief clerk of the local accounting department.

Upon the decision that Mr. Brett was to be the new district accountant for Grand Rapids, he was transferred to the office of C. J. Brett, division auditor of receipts, where he went into training for his new work. He is now in Grand Rapids doing it and says it's fine.

In operation a little over two months and the results are very satisfactory. Manager Cleveland has been able to increase the Western Union business very materially. Similar offices will be opened at other points soon.

A class 10-A joint office was also opened at Charlotte, March 15th. Heretofore the business at Charlotte has been handled entirely at the Michigan Central depot office, which is some distance from the business center of the town.

The severe storms experienced in the Grand Rapids district during March have taxed the capacity of the plant forces to

RAY V. HURLBUT.

District Plant Chief, Eastern District.

battery wagons. He died of pneumonia, and leaves a sister. He was a member of the Telephone Society of Michigan.

Stella McGraw, who gets out the directories of the Michigan State Telephone Company, tells us she finds her work "graceful." On being pressed for an explanation she replies that her three assistants are Grace Brodie, Grace Packard and Grace Remo.

District Commercial Manager W. D. Clark has returned from a vacation spent at Portland, Oregon.

Manager O. Angel of Milan was a visitor at Ypsilanti recently. Manager J. T. Edwards of Belleville paid a visit to Ypsilanti.

Congratulations are being extended to Mrs. Ferris, formerly Villa Janes, order clerk of the Main office, on her recent marriage.

J. R. Weeks, Michigan division cashier, reports that during the month of April the sum of \$681.94 was contributed to the fund for telephone employe victims of the recent floods.

F. J. Ellis, special agent, is interviewing persons who supply batteries in anticipation of the early emergence of his motor boat.

About 350 people attended the first informal dancing party given by the "Long Distance Girls" at Clark's dancing academy, Thursday evening, April 10th. It proved a grand success.

Eastern District.

Manager W. L. Stevens of Jackson has secured a contract for a No. 4 private branch exchange consisting of two trunks, six terminals and a sound-proof booth from the Standard Electric Car Company.

Grace Penrose resigned her position as private exchange operator at the Otaego Hotel, Jackson, May 1st, and May 3d she became the happy bride of James Germain. All employees extended heartfelt congratulations. She was succeeded at the hotel by Louise Wilcox.

an unusual degree. The succession of storms following the equinoctial cyclone of March 21st gave this department all it could handle for about ten days. However, good time was made in repairs, especially toll circuits.

One toll lead between Benton Harbor and Niles was put out of service by the breaking of poles five times within ten days.

A contract has been written for a No. 2 private branch exchange for the Graham and Morton Transportation Company at Benton Harbor.

At Benton Harbor the private exchange system for the hotel Benton is about completed. It is expected that the entire system will be installed before the resort season opens.

Estimates including a large amount of reconstruction at Benton Harbor and St. Joseph are well under way. This will provide additional cable and rerouting of toll lines between the two exchanges. When this work is completed these two exchanges will have adequate facilities to take care of expected growth in subscribers. Switchboards at Benton Harbor have recently been increased by 200 lines.

At Buchanan the equipment department has just completed the installation of No. 105 switchboards, which replace the No. 3 sections formerly in use.

Sparta offices are being remodeled and redecorated. A new stairway is to be built and the offices otherwise improved. When this work is completed this exchange will be second to none in the Grand Rapids district, so far as central office quarters are concerned.

Conferences with the idea of bettering the working relations between the different departments under the "functional" plan of organization is not limited to the department heads only, for on April 20th the first Grand Rapids office "Stenographers' Conference" was held at the Hotel Pentland. The Misses Mary Walsh, Aurelia Wurzburg, Blanche Martin and Jeannette Boldt were those in attendance at the round table. The following subjects were taken up for discussion: "The Bayliss Bill," by Miss Walsh; "Western Union Relations," by Miss Wurzburg; "Handling of Fire-calls," by Miss Martin; and "How to get Results from Woman Managers," by Miss Boldt. Misses Walsh and Wurzburg represented the district commercial manager's office, Miss Boldt the commercial manager's office, and Miss Martin the district traffic chief's office.

Edna Brower has resigned her position as clerk at the Kalamazoo exchange, in order to study to be a nurse. Miss Brower arranged to enter the U. B. A. Hospital at Grand Rapids about April 10th. She was succeeded in the office by Nellie Case.

Louis R. Dean, manager at Reed City, succeeds J. T. Dakell as manager at Hersey, as of April 23, 1913. Mr. Dean will be the manager of both exchanges. Bert F. Lambert succeeds Frank Bark as toll station manager at Sears, as of April 1, 1913.

"Once upon a time," says a Benton Harbor paper, "not so very long ago, when a pretty local telephone operator answered a most urgent call she was surprised and perhaps a little disgusted to hear on the other end of the line a wee, sweet voice answer, 'This is Cupid.' It is not known whether she engaged in conversation with the little

offices of the Wolverine Brass Works, Grand Rapids.

As a result of a three-day canvass at the Wayland exchange, Commercial Agent J. C. Fitzpatrick, Grand Rapids, secured seven new contracts, and several good prospects.

Division Auditor of Receipts, G. J. Brett, of Detroit, and Frank J. Dolan, of the Vice President's office, Chicago, were recent visitors at the Grand Rapids exchange, in connection with the new centralized accounting system to be installed at Grand Rapids.

Wallace Dyer, who has been troublesome at the Allegan exchange for the past seven years, has resigned. Lee Baldwin, of Lake Odessa, has been appointed to fill the vacancy.

About midnight of April 2d and 3d, during the most severe wind, snow, rain and sleet storm that Marquette ever ex-

perienced, fourteen forty-five and fifty-foot poles went down, carrying with them eight toll circuits and thirty-six exchange lines. The toll circuits are the ones that cross the Straits of Mackinac and connect the Upper Peninsula with Lower Michigan. When the lead went down, the district was practically isolated from the outside world except for one circuit via Escanaba, through Wisconsin and into Milwaukee and Chicago. As soon as the lead went down the district commercial manager and Frank Sullivan, district plant chief, were notified, and the first train for St. Ignace was boarded by O. Manes, district foreman, with a crew of eight linemen, consisting of A. Barrett, Ray Carr, Ben Sherwood, Steve Richardson, A. King, J. R. Macken, Geo. Voelker and William Rashleigh, all equipped with the necessary tools for repairing the damage. The toll lines were up and in service in a temporary manner by Friday morning, April 4th. Poles had to be shipped from outside points to replace the broken ones and the work of setting these poles and restoring the line to its normal condition was carried on under great difficulty. For several days the weather was very severe and there were two days on which the men could not face the storm nor hang onto the poles on account of high winds, snow and sleet, but they stuck to it and had the job completed in good time. There are 178 subscribers at St. Ignace. This storm caused 102 cases of trouble, and Local Manager P. Mulvehill had his hands full for a few days.

The Sand River toll station was discontinued, as of April 28, 1913. Lumbering operations at this point have been completed. It cannot be reached from any other point.

A toll station was opened, as of May 23, 1913, at Petrel, situated one-half mile east of Star Siding and four miles west of Shingleton, on circuit 5200. M. A. Doty, manager.

The Austin Mine toll station was closed as of April 1, 1913. This point should now be listed as Class D on Gwin.

L. C. Jacques, of the auditor-of-receipts' department, has been appointed district accountant at Marquette. Mr. Jacques had had a good deal of experience in the auditing end of telephone work, particularly in the suburban division of the Chicago Telephone Company, before he joined the Michigan

State Telephone Company, and is well fitted to occupy the new position.

Tyoga toll station was closed as of April 13, 1913. This point cannot now be reached through any other line.

A baseball team representing the Michigan State Telephone Company's plant, easily defeated a team representing the Scheuermann Brewery at Houghton, May 25th. Score: 11 to 5. The telephone team hammered the opposing pitcher for twenty-three hits while their own pitcher, Featherly, was touched up for seven. D. J. O'Leary, a former Chicago plant man, starred in the game.

The Munising Telephone and Electric Company has opened a toll station at Higgins as of March 14th. Higgins is located three miles west of Cusino and four miles east of Van Mer.

Saginaw District.

The toll station at Pike's tavern, Cheboygan county, is discontinued. This toll station was located in a hotel in the town of Topinabee.

Orpha Hayden, clerk in the commercial department at Cheboygan, was married to L. E. Berry of Detroit, at the home of the bride's sister, Mrs. Charles Meisel, April 8, at 6:30 in the evening, by the Rev. Mr. Turner of the Congregational Church. Miss Marguerite Meisel acted as bridesmaid and Clement Carter as best man. A wedding supper was served immediately after the ceremony. The bride is a very popular young lady of Cheboygan, having been with the Telephone Company for several years. Mr. Berry is well known among the telephone people of Michigan, for he has acted as plant clerk during the reconstruction at Cheboygan and later in the same capacity with Foreman Ingersoll in Detroit. Mr. and Mrs. Berry expect to make their home in Detroit later in the summer.

It was Saturday, March 22nd, the day after the great wind storm, that our Lapeer area manager, H. A. Backus, set out with horse and buggy to give whatever first aid he could to his toll lines. Those who know Mr. Backus can appreciate the story of his two days' performance. For others let it be known that he is a physical giant—a man with a huge frame which carries little more than the most compact sinew and flesh. He might also be dubbed a "freckled-faced Apollo." He started out at 7:30 in the morning of March 22nd, with a team of horses and a very light buggy. Before getting far he encountered deep mud and water, which continued all that day and the next. By almost continuous driving he managed to cover the toll leads from Lapeer to Elba, then to Hadley, back to Elba, and then to Cheboygan. All along the line he was busy exerting his great strength in getting trees off the leads, resetting poles and the lines. But, upon reaching Davidson, great was the dismay of Mr. Backus. He found the hotel minus its roof. Determined not to miss a night's sleep, he selected the most respectable looking barn in the neighborhood, where he slept on the hay, wrapped in a heavy blanket. On the following day Mr. Backus retraced his drive of Saturday, arriving in Lapeer late in the day, very tired and soiled, but with ardor in no way diminished.

The operators at Flint were very proud to receive the following letter from a subscriber:

"Michigan State Telephone Company. Dear Sirs—Allow me to compliment the Flint exchange for the excellent service that 1842 L has had. Owing to the death of a child we had occasion to use the 'phone more than usual for several days and the service was most excellent in spite of frequent calls. Trusting for the same high standard of service in the future, I remain, very respectfully yours, 'FRANK M. BEARD.'"

The Fillon toll station was discontinued, as of April 16th. This point should now be listed as Class D on Bad Axe.

Frank Sid Dudney has been appointed working manager at St. Clair, succeeding F. C. Hungerford, who resigned as of May 1, 1913.

The Mt. Forest toll station was discontinued, as of April 15th. This place will now be listed as Class D on the Bentley exchange.

Roadway Company Notes.

The Smith Creek Telephone Company, having seven subscribers, has been connected with the Lapeer exchange.

A contract has been signed with the Harcourt Roadway Company to connect with the West Branch exchange, with thirteen subscribers.

The Benton Roadway Company, No. 2, has been connected to the Cheboygan exchange, with ten subscribers.

The Town Line Roadway Company was connected with the East Tawas exchange, with fifteen subscribers, on May 13th.



GANG WHICH MADE STORM REPAIRS AT MARQUETTE.



CHARLES H. CRAMPTON.

The above picture of Charles H. Crampton in his uniform as chief of the Bay City fire department recalls the time when Mr. Crampton worked for the Michigan Telephone Company as a lineman upwards of twenty years ago. Mr. Crampton was employed in a construction gang and worked under the direct supervision of Henry McKeddy, who will be remembered by many of the old-time employees of the construction department.

After leaving the employ of the Telephone company Mr. Crampton was put in charge of the Fire Alarm Telegraph System of the city of Bay City, under former Chief T. K. Harding, and in addition to looking after the fire alarm system and doing all the line work for the city he prepared himself, under the tutelage of Mr. Harding, for his present position of fire chief.

By study and close application to his duties Mr. Crampton has acquired a national reputation as a fire fighter and has held office in the State and National Fire Fighters' Organizations.

god at that first time or not, but suffice to say he won her, whether over the wires or under them. For to-day comes the announcement of the marriage of Violet Swanson, former 'hello' girl, to Robert Jarvis on Tuesday, April 15th, in South Bend. Mr. Jarvis is the youngest son of Hon. and Mrs. Roman Jarvis. They have taken up their residence for the present at the home of the bride's parents on the corner of Britain avenue and Heck Court. The happy occasion was kept a secret until to-day. Violet Swanson was formerly operator and ticket clerk at the Benton Harbor exchange. She met her present husband five days before being married.

The Norwood toll station, Charlevoix county, was discontinued April 1st, the reason being that the present location was not suitable, and another suitable one could not be found. This toll station was located on circuit 2504. Norwood should now be listed as "Class D" on Charlevoix exchange.

A. V. Hornbeck succeeds H. Morley as manager of the Harvard toll station, as of May 1st.

Joseph Bower succeeds George Young as manager of the Pewamo toll station, as of May 1st.

Scholten & Lampen succeed P. Takken as managers of the Jamestown toll station, as of May 1st.

Ward and Harris succeed Sisson & Furner as managers of the Ada toll station, as of April 31, 1913.

Earl E. Frambes has been appointed manager of the Charlevoix exchange, succeeding Allan Campbell, acting manager, transferred. Mr. Frambes has been engaged in the telephone business some thirteen years, and has been with the plant department at Grand Rapids for the past year.

N. C. Kingsbury, Vice President of the American Telephone and Telegraph Company, was a Grand Rapids visitor May 1st. With Vice President Dudley E. Waters and General Manager A. Von Schlegel of the Michigan State Company, he made a flying trip to some of Michigan's famous trout streams along the line of the Pere Marquette railroad. Mr. Kingsbury was once President of the Michigan State Telephone Company, and has many warm friends among its officials and employees.

Grand Rapids Commercial Agent W. B. Simmons secured a contract for a private branch exchange to be installed in the

CLEVELAND DIVISION

W. K. LAWRENCE, Correspondent

Visitors at Mario Exchange.

On Tuesday evening, April 8th, 150 members of the Lakewood Chamber of Commerce met at the club rooms and walked in a body to the Mario exchange at Cleveland. At the exchange they were met by the following Cleveland Telephone

two trunk lines and seven stations. Francis R. Morrison, 406 Citizens building, a cordless switchboard, one trunk line and seven stations.

A contract was secured by I. W. McKee for a private branch exchange which will consist of a No. 2 switchboard, one trunk line and ten stations, from the Cleveland Neckwear Company, 1229 West Sixth street.

N. J. Ford secured a contract for a private branch exchange from the Schneider & Trenkamp Company, 1747 East Fortieth street, for a No. 4 switchboard, six trunk lines and fourteen stations.

switchboard, two trunk lines and eight stations was secured by P. L. Tanner from the Hascall Paint Company, 1348 West Seventieth street, N. W.

I. W. McKee secured a contract for a private branch exchange from the Cleveland Neckwear Company, 1229 West Sixth street. The equipment will consist of a No. 2 switchboard, one trunk line and ten stations.

Euclid Brick and Supply Company, 639 Leader-News Bldg., gave L. Barkhauer a contract for a private branch exchange which will consist of No. 4 switchboard, two trunk lines and six stations.

INDIANA DIVISION

D. H. WHITHAM, Correspondent, Indianapolis

Indianapolis District.

Wednesday afternoon, May 14th, was Mothers' Day at the Main Office Building. A reception was held from three to five by the Indianapolis Training School, the guests being the parents and friends of the students. The guests were first con-



EVENING SUPERVISORY FORCES, TRAFFIC SUPERINTENDENT AND CHIEF CLERK, CLEVELAND.

Company officials: P. Jensen, commercial superintendent; T. P. Cagwin, commercial manager; E. E. Ranney, plant superintendent; N. Anderson, traffic superintendent; E. J. Hanrahan, manager of the Mario and Ridge exchanges, and A. I. Lough, superintendent of the Mario exchange.

The members of the Chamber of Commerce were divided into groups and were escorted through the exchange by the officials of the telephone company. They inspected everything from the basement to the roof and were surprised at the amount of equipment and work that it takes to run an exchange.

A great deal of interest was centered in the activities of the operators on the second floor. The men wanted to know how many lines each operator took care of, and also how many calls they averaged per day. The chief operator also was an object of interest, as they wanted to know what her duties were, and when they were told they all agreed that she was one of the busiest girls in Cleveland.

After the tour of inspection all adjourned to the third floor of the building and were served with a lunch, after which they enjoyed a smoke.

As they left the building the men agreed that if there was more co-operation by the subscriber with the telephone company, there would be fewer complaints about the service.

Officials of the telephone company told the members of the Chamber of Commerce that they would be only too glad to show any one through any of the city exchanges.

With Commercial Agents.

Charles Ellert secured a contract for private branch exchange from Theodore Kundtz, Washington and Elm streets, which will consist of a No. 4 switchboard, four trunk lines and twenty-eight stations.

The following contracts for private branch exchanges were secured by L. F. Barkhauer: Tolles-Hogsett-Ginn-Morley, attorneys, twelfth floor of the Williamson building; contract calls for a No. 4 switchboard, two trunk lines and seven stations. The equipment for the Maynard H. Murch Company, tenth floor of the Leader-News building, will consist of a cordless board, one trunk line and six stations. The Wilbur Dunham Co., 1001 Hippodrome building, one cordless board,

The month of March was a banner month for G. V. Shaw, as the following contracts for private branch exchanges were secured by him: The Schneider Publishing Company, 1422 Euclid avenue, a No. 2 switchboard, three trunk lines and six stations; The General Film Company, 1002 Superior avenue, N. E., No. 4 switchboard, three trunk lines and six stations; The Globe Paper Company, 302 Central viaduct, a cordless switchboard, one trunk line and six stations; The Chandler Motor Car Company, 1105 Sweetland building, No. 4 switchboard, two trunk lines and six stations; The Universal Traneck, 2352 Euclid avenue, No. 2 switchboard, one trunk line and six stations.

March P. B. X. Contracts.

Through the efforts of G. V. Shaw the following contracts for private branch exchanges were secured:

The Crowell & Sherman Company, Euclid avenue and East One Hundred and Seventh street, a cordless switchboard, two trunk lines and six stations. The Welsbach Company, 1401 West Sixth street, a cordless switchboard, two trunk lines and six stations.

Contracts for private branch exchanges were received from the following concerns through the efforts of Charles Ellert:

Stone Bros., 1055 West Eleventh street, a cordless switchboard, one trunk line and seven stations. Paul Cassulker, 1040-48 Leader-News Building, a cordless switchboard, one trunk line and six stations. The Luna Park Amusement Company, a No. 4 switchboard, two trunk lines and 12 stations. The Cleveland Material Company, 848 Rockefeller Building, a No. 4 switchboard, two trunk lines and six stations. Housom-Grace Company, 579 The Arcade, a No. 4 switchboard, two lines and six stations.

Bert Walsh secured a contract for a private branch exchange from the Broadway Y. M. C. A., which will consist of a No. 2 switchboard, one trunk line and six stations.

The contract for a private branch exchange which will consist of a No. 4

Pay-Station Operators Meet.

Wednesday afternoon, April 9th, eleven of the twenty-five attendant pay-station operators met in the lunch room of the Main exchange. They were addressed by N. Anderson, traffic superintendent. The talk dealt on the courtesies which are to be extended to the pay-station users, and the efficient manner in which the public are to be handled.

After the talk a chicken dinner was served and all of the operators were very glad to hear that these meetings are to be frequent in the future.

P. F. Cox, pay-station agent, and his two assistants, G. R. Lawrence and L. H. Boynton, and Minnie Spencer, private branch exchange instructor, were present.

Courtesy Shown to Subscribers.

Four times a year, when the rental for telephone service comes due, the Telephone Building at West Third Street and Champlain Avenue, is the busiest place in Cleveland. A great many of the subscribers are taking advantage of the company's invitation to inspect the building when they come in.

In the lobby of the building are attendants who are familiar with the various departments and operating equipment, and who are able to answer the numerous questions of the subscribers.

After the tour of inspection the subscriber is usually of the opinion that the telephone business is a little world in itself. They also say that if more people would visit and inspect the telephone building, complaints would be few and far between.

Personals.

On Saturday, March 15th, Myrtle Hull, who has had charge of the general files for two years, was married to Stanley Roth. Miss Hull was presented with a beautiful chest of silver by her many friends and acquaintances in the commercial department.

Hazel Knapp, clerk in the collection department, resigned April 1st to take a position in Pittsburgh, Pa.

Cathryn Falk, clerk in the advertising department, resigned April 1st. Edna Vogel will take her place.

Majorie Wing, stenographer to the traffic superintendent, is rapidly recovering from her recent illness.

ducted to the school room, which was presided over by Anna Welch, assisted by Carrie Jensen, where they listened to papers prepared by students. They were then escorted through the different operating rooms, where the work done by the operators was explained to them. They visited the retiring rooms and then were conducted to the Roof Garden, where the operators spend their recreation periods and the students take their calisthenics. A flag drill by the students was held on the Roof Garden and proved to be one of the most entertaining features of the afternoon. Several musical numbers by members of the operating department closed a very pleasant afternoon.

The I. W. C. Club gave a theater party at B. F. Keith's Wednesday evening, May 7th. They were chaperoned by Mrs. Nora Jones, the Woodruff chief operator. This club also gave a dance on Wednesday evening, May 14th, at the Brookside Academy of Dancing. Mrs. McWhinney, the welfare supervisor, was the chaperon. A large crowd attended and a most enjoyable evening was spent.

A miscellaneous shower was given for Laura Parker at the home of one of the I. W. C. Club members. Miss Parker is soon to be married.

An entertainment and dance was given Wednesday evening, May 28th, by the I. W. C. Club at the Brookside Dancing Academy.

The engagement of Hazel King, one of the operators of the Prospect office, to Floyd Quickmore has been announced.

The Prospect operators gave a luncheon Tuesday, April 8th, after which they attended a theater party at English's. The guest of the occasion was Ethel Brosnan, chief operator of the Belmont office.

Nellie Jensen of the Prospect office entertained a number of friends at her home Saturday evening, May 3d. The evening was spent in games and dancing. Alma Flislett, one of the Belmont operators, has announced her engagement to C. A. Halstead of Chicago. The wedding will take place in June.

A very pretty dinner was served at the home of Lucille Stockdell in honor of Bessie Robertson of the Belmont office, who leaves for Fresno, Calif. Miss Robertson has been succeeded by Miss Stockdell as new number clerk.

Esther Stevens, one of the toll operators, was married early in May.



FOUR GANGS WORKING TO REPAIR CABLE AFTER RECENT FIRE AT BEDFORD, IND.

Mrs. Sturgeon and Grace Harkins entertained the toll supervisors at luncheon Tuesday evening, May 13th. This was the regular business meeting and after the business part of the program was over a very enjoyable social hour was spent.

Northern District.

Operators' meetings held at Muncie recently, have resulted in much good. More interest in the work is being manifested, consequently an improvement in the service is noted. Rest room committees have been appointed to look out for the quarters, and they are to be commended for their work, as the rooms have taken on a very much neater appearance.

Work has started installing the much-needed toll board at Newcastle. Part of the operators' quarters had to be used to make room for this installation; however, other quarters will be provided as soon as the arrangements can be made.

The discontinuance of free service at Auburn resulted in boosting the toll service to more than double what it formerly was, while the load on the local board was decreased very materially.

The falling of a church steeple across a lead of the United Telephone Company in Huntington, Ind., caused a temporary suspension of service to Huntington subscribers a few weeks ago. The wind overturned the steeple and brought the telephone cable into contact with a trolley wire. A stubborn fire was started in the exchange terminal room but was extinguished without the use of water. The fire occurred March 21st and all service was restored in about one week.

Southern District.

Fred H. Kissling has been appointed commercial manager at Terre Haute, succeeding F. D. Allen. Mr. Kissling was formerly manager at Elwood and later connected with the supply department in Indianapolis. For the past two years he has been chief clerk at Terre Haute. Mr. and Mrs. Allen will go to California and locate there for the benefit of Mrs. Allen's health.



FLAG DRILL DURING "MOTHERS' DAY" EXERCISES AT INDIANAPOLIS.

WISCONSIN DIVISION

F. M. McENRY, Correspondent, Milwaukee

Employees Celebrate.

Employees of the local and district offices and their friends at Madison enjoyed themselves at a dancing party on the evening of March 26th at Kehl's hall. The occasion of the festivities was the fact that the local exchange had passed the 7,000 mark in the number of subscribers, giving it the largest development in the world and the largest number of subscribers in any city outside of Milwaukee in the state of Wisconsin. About 250 were present. Dancing started at 8:30 promptly and at 10:30 luncheon was served. The hall was tastefully decorated in blue and white, colors of the telephone company; streamers, flags and bunting being used. At the end of the hall a large sign made of 200 electric lamps blazed out the number "7,000," and along the wall were large cuts of the famous blue Bell surrounded with electric lights. Each one of the tables held desk telephones, connected to one another by colored streamers, and one of the entertaining features was the "7,000" waltz, composed especially for this occasion and played by the Quin-Scherer orchestra. During this dance all lights in the hall were turned out with the exception of the large "7,000." The committees in charge were as follows: Reception: Miss Emily Wald, chairman; J. P. Brahany, L. E. Kelley, John Scherer and Hiram Nelson. Floor: Marie Felber, chairman; Alma Waldorf, Mary Heale, H. Schroeder and Joseph Schoen. Refreshments: Myrtle Crump, chairman; Clara Hartwig, Mary Callahan and Samuel Roberts.—Madison Democrat.

Waukesha Election Returns.

The local telephone exchange did excellent service last week in handling election returns, and the service was without a flaw. Returns sent by Freeman correspondents throughout the country were more complete and prompt than ever before. This service was supplied for a bulletin at the Waukesha cigar store and it was so complete that decisive results were known to all who called.—Waukesha Freeman, April 10th.

Appleton District.

Myrtle Struck, clerk at Appleton, was ill for several days last month.

Ralph Printup, collector at the Appleton exchange, was on the sick list. Fred Hemenway, toll wire chief at the Appleton exchange, has resigned and was succeeded April 1st by John Loos, former wire chief at the Fox River Valley exchange at Appleton. Mr. Sampson, wire chief at the old Wisconsin office, will succeed Mr. Loos, and C. Keefe, installer, will act as temporary wire chief at the old Wisconsin office, succeeding Mr. Sampson.

E. Sorenson, manager at Berlin, and wife spent a two weeks' vacation at New Richmond, Wis., and Minneapolis, Minn., last month.

A. D. Ostergaard, repairman at the De Pere exchange, was married to Lorraine Tuttle at the home of her parents at Fond du Lac, Saturday, March 22d. Mr. Ostergaard was formerly employed at the Fond du Lac exchange and was recently transferred to De Pere. The entire force at this exchange joins hands in wishing them a long, happy and prosperous life.

L. M. La Chappelle, commercial agent at Oshkosh, has been transferred to the Green Bay exchange permanently.

Esther Sullivan, former chief operator at the Green Bay exchange, who was absent several years on account of poor

health, has returned and is now employed as private branch exchange operator in the Beaumont Hotel.

Elmer Tennis, collector at the Green Bay exchange, who has been seriously ill in the hospital, has recovered and is again on duty.

The Manitowoc & Northern Telephone Company, a company connecting at the Manitowoc exchange, will extend its line further north to connect up about ten more subscribers. Under the efficient management of Henry Rahn, this company has made rapid strides and is furnishing excellent service to about 120 farmers north of Manitowoc. W. H. Spencer is president of the above company, John Rohdeman, treasurer, and Henry Rahn, secretary and manager.

The plant men at the Marinette exchange held a very successful meeting in March under the direction of District Plant Chief James Hobbins, assisted by Local Manager H. P. Bornheimer.

On March 21st, Alice Hart, local operator of the Neenah-Menasha exchange, entertained the operators at her home. The evening was spent in playing games, after which a delicious supper was served.

Francis Mack, local operator at the Neenah-Menasha exchange, spent a week in Chicago last month.

On March 16th a traffic meeting was held at the Neenah-Menasha exchange. The meeting was conducted by Mr. Whalen of Milwaukee.

Dwight Millard has taken the position of repairman at the Neenah-Menasha exchange in place of Louis Hanson, who was transferred to Appleton.

W. A. Sheerin, manager at New London, attended the Lebanon Farmers Telephone Company's annual meeting, March 10th. Mr. Penn, manager at Manawa, was also in attendance.

Viola Curtis, a former Omro operator, died on March 5th after undergoing an operation for tuberculosis.

Earl Hart has been employed as repairman at the Omro exchange to succeed Harvey White.

Charles Perrin, employed as solicitor at the Oshkosh exchange, is slowly recovering from a very serious operation.

Evelyn Rice, chief operator at the Oshkosh exchange for the last five years, has accepted a position as chief operator at Kallispel, Mont.

The Five Corners Telephone Company has been organized with twenty-two subscribers and will connect with the Appleton exchange. Ultimately the company will have thirty-two subscribers.

Agnes Hanley, toll operator at Berlin, was married to Tego Jensen, April 17th. Mr. Jensen is in the employ of the Pacific Coast Condensed Milk Company.

Clara Smith, night chief operator at Berlin, has accepted a position as day operator. Julia Latoske has taken the position of night chief operator.

Howard Mark, Morse operator at Berlin, resigned to take a position with the Chicago, Milwaukee & St. Paul at Pardsville. Lewis Van Sickle of Green Bay succeeds him.

The money transfer system was installed at Berlin Class 10-A office, April 20th.

Elnor Theusen, who has been Morse operator at De Pere since April 1st, has been under quarantine for scarlet fever at his home in Neenah. Edith Larson, Iron Mountain, filled the position of Morse operator beginning Monday, April 28th.

George M. Reifer, assistant wire chief, Fond du Lac, has left the service of the company to engage in other work in Battle Creek, Mich.

W. F. Londre, repairman at Fond du Lac, has left the service of the company to engage in other work.

A No. 2 private branch exchange with nine stations was recently installed in the Commercial National Bank at Fond du Lac.

A contract was closed between the Pilson Telephone Company and the Brown County Telephone Company. The latter is a connecting company of the Wisconsin Telephone Company. This contract covers connection with about sixty additional stations.

A private branch exchange was installed in Bur's Grocery Store, Green Bay, with two trunks and six stations. Collector Ralph Gee Green Bay, has resigned his position to accept a position as commercial traveler for an Iowa concern. J. B. Dockery, Green Bay, succeeds Mr. Gee.

E. P. Parish, Green Bay, succeeds the late Mr. Gosselin as commercial agent at Green Bay.

An aluminum shower was given at the home of Anna Scheibel for Ella Klinkner, local operator at the Manitowoc exchange, on the evening of April 21st. Miss Klinkner will be married in the near future to John Kunish. The home was beautifully decorated in red and white, and after a delightful luncheon was served, the operators departed leaving their best wishes with the bride-to-be.

Evelyn Hall, local operator, spent a week with friends at Amherst.

C. A. Billings, wire man for the A. T. & T. Company, is installing two more Duplex sets for emergency circuits to the Copper country. This will give the Marinette office six duplex and three single line repeaters.

George Hanson of Neenah, has returned to his regular duties after having been

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away from work for some time on account of a broken thumb.

On April 17th, after the regular operator's meeting, a lunch was served by the operators of the Neenah-Menasha exchange. The employees in the plant department were again invited to partake of the good things to eat and all had a good time.

Elnor Theuson, former messenger at Neenah, has been transferred to De Pere and promoted to the position of Morse operator. Olaf Boreson is now messenger at Neenah.

Alice Roe, operator at Omro, was confined to her home for about two weeks with an attack of appendicitis.

Edna Shaw, formerly a local operator at Oshkosh, was married on April 8th to Harry Shafter of Racine. Mr. and Mrs. Shafter will reside at Racine.

Grace Raymond, formerly toll attendant at the Athearn Hotel, has resigned and will reside at Chicago with relatives. Anna Plonsky, local operator at Oshkosh, resigned and was married on May 6th to Otto Zimmerman.

Catherine Sensenbrenner, toll operator at Oshkosh, has resigned to attend business college at Escanaba, Mich. The Winnebago County Telephone Company has increased its subscribers to such a great extent that it now employs an extra lineman to take care of its lines.

One and one-quarter miles of underground cable is being laid on the Lawson property on the Lake Shore at Green Lake.

Ruth Colburn, local operator at Shawano, has resigned on account of her health.

Rose Flescher is employed as toll operator at the Clintonville exchange, succeeding Myrtle Hoffman, who was promoted to chief operator, to fill the vacancy caused by Merle Wilmott's leaving the service.

The Anawa Telephone Company expects to build about fifteen miles of new line and hopes to secure about thirty new subscribers.

The Red River Telephone Company, which is now connected with Shawano, has forty-eight subscribers and intends to build out and connect about sixty new subscribers this summer.

The Gillett Rural Telephone Company has 132 subscribers and about twenty orders to fill. In order to fill these orders the company will have to string about ten miles of wire.

A severe electric storm passed over Sturgeon Bay and vicinity on the night of April 5th causing considerable cable trouble. Cableman Conroy was sent there and after working a couple of days has everything working nicely again. Some of our connecting companies lost several poles which were struck by lightning.

Eau Claire District.

Operators at the Menomonee exchange held their second meeting on the evening of March 18th, at the manager's office. Mott J. Thompson, formerly Morse operator, opened the meeting with an interesting talk on "Receiving Telegrams." During this meeting telegrams were written by the different operators. Florence Bird, night operator, was the prize winner of a beautiful box of initial stationery for having the nearest correct telegram. At the close of this session, candy was served by the employees of the traffic department.

The operators at the Menomonee exchange were well remembered Easter by Mrs. Horton, who pleasantly surprised the evening force by sending them a brick of ice cream. The evening was thoroughly enjoyed by all who were present.

Edna Hazen, formerly relief operator at Stanley, is now employed as local operator. Lizzie Ledede is taking up the work as relief operator at the Stanley exchange, succeeding Miss Hazen.

The material for the reconstruction and extension of lines to Altoona, a small town located three miles from Eau Claire, is now on hand. Work was started April 1st. Fifty-pair cable with several distributing centers will be run from the Eau Claire exchange to Altoona, and the present pole lines moved to the alleys.

The Rock Falls & Meridian Telephone Company, a connecting company located at Rock Falls, has purchased the necessary material to construct several trunk lines connecting the exchange with the Wisconsin Telephone Company's Eau Claire switchboard.

The dancing party given at the Grand Opera House by the Blue Bell Club of Merrill was a brilliant success. The scheme of decorations is said to have surpassed anything heretofore attempted in Merrill. The Merrill Daily Herald, describing the event, said:

"Telephone and telegraph poles greeted the couples as they entered and from one to the other of these were strung, in lieu of the usual wires, streamers of bright blue and white, which seemingly carried to the land of love and romance the many messages of cheer and affection which permeated the event until its close.

Along the railing of the balcony was a design in blue and white spelling the words, 'Blue Bell Club.' In the center of the hall, suspended from the ceiling, was

a large blue bell, illuminated by scores of electric light bulbs, and suspended in turn therefrom were a dozen smaller blue bells, similarly illuminated. Flung through the air in every direction from the big blue bell and its companions were hundreds of miniature bells in blue and white.

"Across the stage, reaching from the proscenium to the footlights, was a large spider web, also in blue and white, silently indicating that the Blue Bell Club is one of thrift and activity. A blue bell of medium size—in its center a colored electric bulb—was a mysterious voyager during the moonlight numbers, traveling mysteriously from one side of the hall to the other, apparently upon the gigantic web. The net receipts of the party will be tendered to the Women's Alliance, to further that association's work in providing playground apparatus for Merrill's youth and children.

The committee who contributed so efficiently in making this so charming a function were:

"Committee on Decorations—Messrs. Bishop, Fredericks and Hicks.

"Committee on Refreshments—Misses Fagon, St. Onge and Ruder.

"Committee on Music—Misses Braun, Fagon and Sleepy.

The Blue Bell club of Merrill realized \$61.96 from the affair. The employees of the Wisconsin Telephone Company, who make up the club, decided to donate the money to charity and sent the amount to the Women's Alliance. In acknowledging the contribution, Ella Spring-Smith, president of the Women's Alliance, said: "This is a gift to be used for a laudable public purpose, and it is an act that is appreciated not alone by the Women's Alliance, but by the people of the city. The desire to help in forwarding public work for the public good is most commendable, and the kind and public-spirited interest of the Blue Bell club and manager, Mr. Parks, has done much to show a desire not alone of the club, but also of the telephone company's management, to be of genuine service to the people of the city."

Mary Morency, operator at the Chippewa Falls exchange, resigned to be married to L. Verbrecken. She is succeeded by Miss Kleinheintz.

Miss McCulloch has been added to the operating force at Chippewa Falls to help handle the heavy loads of the summer.

H. F. Fowler, district commercial agent, and Mr. Tyson have been busy securing rural subscribers out of Chippewa Falls. All the farmers seem anxious to get the service.

Gunda Peterson, who has been ill the past six weeks, is able to resume her duties as chief operator at the Menomonee exchange.

Alfred Johnson, repairman at the Menomonee exchange, met with a painful accident last month. Although the burns were quite serious, Mr. Johnson is able to resume his duties.

A merry group of operators congregated in the manager's office at the Menomonee exchange to take part in a birthday surprise party on Mott Thompson, on the evening of April 10th. A number of games, in which all participated, were enjoyed, and prizes were carried off by Elsie Brown and Florence Bird. A delicious lunch was served and a pleasant time enjoyed by all.

Florence Bird, night operator at the Menomonee exchange, is rejoicing over the possession of a beautiful Scotch collar blue bell, which was won at a birthday spread in honor of the Morse operator, Mott Thompson.

Mott Thompson, formerly Morse operator for the Western Union Telegraph Co., at Menomonee, has accepted the position as manager of the Western Union office at Hibbing, Minn. Before departing for that place he gave the employees of the telephone company two large and delicious boxes of candy.

Foreman J. H. Richardson has completed the stringing of cable between Eau Claire and Altoona and the cutting of the Altoona subscribers in on the new class of service.

Clara Condo, local operator at Menomonee, has returned from her two weeks' vacation.

Erma Webster is substitute operator at the Menomonee office.

Alma Reitelstorf, toll operator at the Menomonee exchange, visited Eau Claire, May 11th, and while there called at the exchange.

Martha Hanson, assistant chief operator at the Menomonee exchange, enjoyed her two weeks' vacation at Colfax, Wis.

Martha Hanson and Florence Bird, employees at the Menomonee exchange, left for Barney Creek, Wis., May 12th, on a fishing trip.

The traffic department at the Menomonee exchange had a birthday spread as a surprise on Florence Bird on the evening of May 22d. Games were played and a general good time was enjoyed.

Eugene Schulthesis, formerly repairman at the Eau Claire exchange, was transferred early in June to Washburn, Wis., as manager.

A prominent business man of Chippewa Falls who is very fond of trout fishing awoke early in the morning April 15th and got ready for a day's outing along some nice creek where he knew he would be able to get some dandy trout, but at breakfast his wife told him that the telephone rent had been overlooked this month so he gave up his trip and came over to the office to pay the rent because he did not want his name to appear with the ones "behind."

Myrtle Kehnl, assistant chief operator at the Chippewa Falls exchange, spent her vacation at home resting. Eva Adams took her place.

H. F. Fowler, district commercial agent, has secured over 100 rural contracts to be connected with the Chippewa Falls exchange, and when these are connected the exchange will have reached the 1,000 mark.

Alden L. Hart, district service inspector in the Eau Claire district, was transferred to the division office at Milwaukee, May 1st. Mr. Hart has been employed in the Eau Claire district for the last year, and during his stay made many warm friends who regretted his departure.

J. V. Young, formerly district service inspector of the Madison district, has been transferred to the position of district service inspector of the Eau Claire district May 1st, with headquarters at Eau Claire. Upon leaving Madison Mr. and Mrs. Young were presented with a beautiful cut glass bowl, by members of the traffic department, as a token of esteem.

The visitors at the Menomonee exchange during the month of April were, P. J. Skolsky, district manager; A. L. Hart, district service inspector; Harry Fowler, district commercial agent; E. P. Grap, district plant chief; Lewis Zarbock, district foreman; E. E. McGibbons, auditor, and T. N. Moore, special agent. Mrs. Seymour Hanson of Spooner visited the Menomonee office the 26th of April. Mrs. Hanson formerly was assistant clerk at this exchange.

Jessie Tillison and Mrs. Anna Wike of Colfax, Wis., called at the Menomonee exchange Sunday, April 27th. Margaret Farrell, night chief operator, has been promoted to chief operator at Eau Claire. She is succeeded by Ditha Adams, formerly local operator.

Agnes Johnson, for the past four and one-half years toll operator and clerk at Eau Claire, has resigned her position to be married. On the evening of April 23rd the traffic department gave a farewell dance and luncheon in honor of Miss Johnson.

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Clayton & Lambert Mfg. Co., Detroit, Mich., U. S. A.



No. 32 Torch
Price Each, \$4.00 Net



F. L. SMILEY.

The exchange at Stoughton, Wis., has just passed 1,000 telephones and Manager F. L. Smiley is happy.

Mr. Smiley started his telephone career with the Orfordville Telephone Company at Orfordville, Wis., and later worked as repairman and lineman in the Janesville exchange. On May 1, 1909, he was appointed manager of the Jefferson exchange and on October 19th of the same year he was promoted to the management of the Stoughton exchange. During his services as manager at Stoughton the exchange has grown from 683 to 1,000 subscribers.

The first class 10-A joint office with the Western Union Telegraph Company to be established in Wisconsin was opened at Stoughton June 1, 1912.

J. H. Richardson, construction foreman, with a large crew of men, have been engaged at Eau Claire rebuilding the pole line and stringing cable to Altoona preparatory to changing the class of service at the latter place.

During the past month J. E. Bonell, manager, secured a connecting company contract from the Five Mile Creek Telephone Company, a new roadway company operating northeast of Eau Claire. A canvass has been completed in Shawtown in Eau Claire exchange with a view of changing the class of service in that section. The results obtained were very satisfactory and the exchange was completed May 1st.

M. Wheelan has been employed as commercial agent at Eau Claire.

William Snyder, city foreman at Eau Claire, has resigned his position to engage in other business. He is succeeded by A. W. Johnson, formerly of the district construction department.

William Kurtz, toll line repairman at Eau Claire, has resigned his position to engage in other business. He is succeeded by E. L. Godding, formerly repairman at Eau Claire, formerly of the state construction department, succeeds Mr. Godding.

Blanche Fritz, chief operator at the Ladysmith exchange, also Julia Nelson of Boyd, Wis., visited at the Stanley exchange one day in April.

Janesville District.

Francis Glover has been employed as operator at the Beloit exchange, succeeding Nina Park.

Emma Borkenhagen has resigned her position as stenographer in the Janesville office.

Adele Woodard, toll operator at the Janesville exchange, has returned to work after a two weeks' illness.

Edna Sykes, night local operator at the Janesville exchange, has resigned and soon leaves for South Dakota to make her home.

John Lee has resigned his position as repairman of the Evansville exchange and is succeeded by Orrie Weaver of Janesville.

Operators at the Evansville Exchange are feeling very proud of their first ball, which was a grand success from start to finish, both socially and financially. From the time that Hatches Orchestra "rang in" with the "Number Please" two step at nine o'clock until they "rang off" with the "All Through" waltz at 3 a. m., every-

one seemed to wear the smile that won't come off. The hall was decorated with blue and white crepe paper and bells, the entire hall representing a huge lattice-work lower and at intervals around the sides were hung pennants bearing the expressions used by the traffic department, such as: "The line is busy," "I'll call you," "Is the manager in, Madison wants him," "Hang up, please," "Kindly refer to your directory for numbers," and, last but not least, a large one bearing the inscription, "Girls working for the company twenty years get a pension." The reception committee wore blue pennants with "Hello" in white letters on their arms and they certainly did their best to see that everyone had a good time. Those from out of town who attended were District Plant Chief Henry Schroeder of Madison, Manager "Chet" Walker and wife of Brooklyn, and five of the young lady operators from the Rock County Telephone Company of Janesville.

J. H. Murray, manager of the Evansville exchange, has resumed his duties after having recovered from a broken leg and sprained ankle sustained when he fell from a ladder about eighteen feet into a skylight at the rear of the exchange building last January.

Mrs. Jane Turner, formerly a supervisor at Chicago, has succeeded Lillian Barton as operator at Beloit. Miss Barton was recently married to Jesse Phillips, of Beloit.

John E. Reynolds has been employed as lineman at Beloit, succeeding J. W. Dye, transferred to the Neilsville exchange.

A three by seven cordless private branch exchange has been installed for the Stewart-Warner Speedometer Corporation at Beloit.

Bert Jones, foreman at Beloit, has been confined to his bed with diphtheria.

An additional section of switchboard has been installed with the help of the Beloit force by the Winnebago County Telephone Company at its Rockton, Ill. office. This is a connecting company operating in Winnebago County, Illinois.

The centralized accounting plan has been made effective for the Janesville district, comprising the Beloit, Evansville and Janesville exchanges, effective April 1st.

Zoe Donnelly, formerly an operator in the Capitol at Washington for a number of years, has been employed at Beloit.

The Janesville office has passed the 2,000 mark. An estimate was made by the commercial agents on January 1st as to the date this point would be reached. L. H. Dodge succeeded in reaching the nearest date, April 20th.

Edna Wicks, night local operator at Janesville for the past two years, has left for her new home at Brookings, S. Dakota.

Frank Baker has taken the position of collector at Janesville which was formerly held by William Yalm, who has accepted a civil service position.

Orrie Weaver has been transferred to Evansville as repairman to fill the position made vacant by J. Lee resigning.

John Dunn, lineman for the Mineral Point Telephone Company, was electrocuted on April 11th by coming into contact with 12,200 volts. He had been in the employ of this company for the past five years and was highly respected by all of his acquaintances.

The Janesville exchange recently suffered a loss in one of the most disastrous fires in the history of Janesville. It is estimated that the loss in buildings and stock to the merchants and property owners of Janesville amounted to about one-quarter of a million dollars.

The place at which this fire occurred had been a point of interest to all visitors on their visit to Janesville, as the buildings on the south side of Milwaukee street completely obscured the view of Rock River, being constructed on piling right over the river. The bridge being of wood construction, was almost entirely burned. Two 400-pair cables of our company are suspended underneath this bridge. These cables were completely burned, nothing but the bare copper wire being left. All telephone service on the west side of the river was cut off. The fire started about 7 p. m. and at 9 p. m. material was ordered and arrangements made to commence work to restore service. Record time was made by the plant department in this work, it taking but thirty-five hours in all to get the material on the ground and complete two 400-pair straight splices and two 400-pair tag splices. The subscribers were highly gratified at the little time lost in restoring service.

J. E. Reynolds has been employed as lineman at Beloit, succeeding J. W. Dye, resigned.

A three by seven cordless private branch exchange has been installed for the Stewart-Warner Speedometer Company at Beloit.

Ethel Coleman has been employed as operator at Beloit, succeeding Mrs. Jane Turner, removed to Chicago.

Cecilia Kump has been employed as operator at Beloit, succeeding Beulah Voorhees, who resigned on account of poor health.

The Misses Beulah McPherson and Blanche Murray, operators at Beloit, spent a day at Chicago during April and were very pleasantly entertained by the Chicago Telephone Company's operating force.

Diamond N Screw Anchors

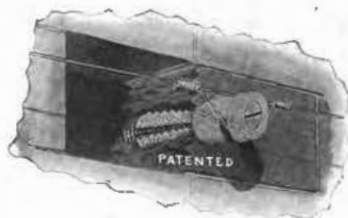


Fit any standard wood screw No. 5 to No. 30.

Easy to Use

When the anchor is in the wall it's like turning the screw in wood.

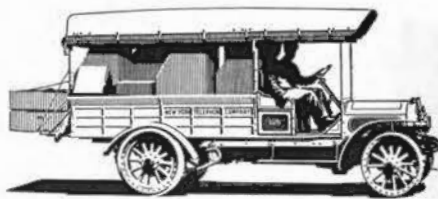
They make quick and permanent fastenings for light electrical equipment, insulators, brackets, clamps, conduit and wiring.



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Manufacturers of Diamond Specialties

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The Bell Telephone Company's Philadelphia plant uses one of our 1 1/2-ton trucks to supply stations within 25 miles.

The saving over express delivery is 74.3%.

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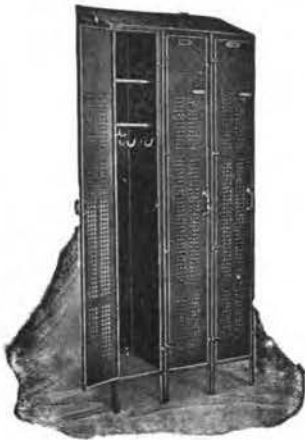
Have you any delivery problems? We place 18 years accumulated experience at your service without obligations.

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DURAND STEEL LOCKERS

Telephone employees are intelligent as a class, therefore, take an interest in their personal appearance.

They can not keep their clothing neat without lockers.

Durand Steel Lockers have been standardized by telephone companies all over the country. Because, being made of heavier and finer steel than any other, they are fire resisting, clean, neat appearing, highly finished and, above all, are sold at prices as low as any locker made.

These reasons should force you to send us your inquiries and orders.

We also make Steel Shop Racks, Bins, Shelving and Tables.

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TELEPHONE WIRE

We Guarantee
Greatest Efficiency
Longest Life
Most Satisfactory Service
Lowest Cost of Up-keep
In the Use of our wire.

Write for FREE SAMPLE Make Test and Comparison

Approved by Leading Institutions of Technology and Telephonic Science. Handled by most representative Jobbers and Supply Houses.

Indiana Steel & Wire Co.
Muncie, Indiana



Madison District.

The operators and clerks at the Baraboo exchange forwarded a large box of clothing to the Red Cross society at Dayton, Ohio, for the help of the flood sufferers.

A. C. Johnson, solicitor at the Fort Atkinson exchange, has been transferred to the Appleton district.

Frank Anderson, former troubleman at the Fort Atkinson exchange, has been promoted to the position of manager at Lancaster. Mr. Abernethy, former manager at Lancaster, has been transferred to the plant department.

A contract has been secured from the Denmark Construction Company at Madison by district commercial agent Schoen for the installation of a cordless private branch exchange equipped for seven stations.

A contract has been secured from Alexander Kornhauser & Company, Madison, covering the installation of a No. 1 private exchange, calling for two trunks and six stations.

District plant chief Schroeder has completed the inspection of all exchanges in the Janesville and Madison districts, and the inspections on the toll lines are well under way.

Contracts for fifteen rural subscribers in the vicinity of Juneau have been secured and an estimate is being prepared. A new rural line for nine rural subscribers running around Lake Mendota will be started shortly by the Madison force.

A contract has been secured from the Moline Plow Company at Stoughton calling for the installation of a cordless private exchange, consisting of two trunks and six stations.

Arthur Bohn has succeeded Oliver Tella as residential foreman.

The Waupun exchange has reached the 600 mark in the number of instruments installed at the present time, an increase of 200 under three years of Manager Dexter's management.

Milwaukee District.

Erna Van Ham, clerk at main office, died on March 15th, after having been ill for ten months. Interment was made at Calvary Cemetery from St. Bonifas Church. Miss Van Ham was in the employ of the Wisconsin Company for ten years, during which time she held positions of operator, supervisor and clerk. She was unusually faithful in her work, which was always an example to others. Her many friends deeply mourn her loss.

Mildred Jarvis, formerly temporary operator at the Mayville exchange, has been assigned to a position as regular operator to succeed Viva Anger, who resigned her position to accept one with the Northwestern Iron Company.

Gertrude Schuchnet and Marie Buchner have been appointed temporary operators at Mayville to fill vacancies.

Equipment Foreman E. A. Peterson has recently completed work on an estimate which involved the installation of a new sixty-line position recently added to the switchboard at Mayville.

Elsie Schmichen, who has been in the employ of the company as an operator at the Main office since 1909, resigned her position to be married. On March 2nd the operators at Main office presented her with a beautiful set of linens, and sent with her wishes for good luck and a bright future.

A pretty luncheon was given for Emma Pierlys, supervisor, Grand office, who resigned her position to be married. The affair was given by the supervisors of Grand office and was attractive in every respect. The table was decorated with flowers and ribbons, the color scheme being red and white. The supervisors presented Miss Pierlys with a beautiful cut glass compote sending with it good wishes for a happy future. Miss Pierlys will be missed by the many friends that she leaves behind at the office.

Hazel Parks, supervisor at Lake office, resigned her position February 28th, as she changes the location of her home to San Francisco. At the time of her departure on March 3d, when the train left Milwaukee to start Miss Parks on her journey, ten operators from the Lake exchange accompanied her to the depot and presented her with a beautiful pearl ring as a mark of their affection. Miss Parks, during her six years of employment, made many friends among the operators.

Norma Rowe, formerly an operator of the Farmers' New Era Telephone Company of Hebron, Ill., has been appointed night operator at the Burlington exchange to succeed Ned Arnold, who resigned earlier in the year to be married.

Rosalie Hirschboeck, chief operator at West Bend, celebrated her birthday on Monday, March 10th, by entertaining her friends.

On February 12th the district wire chief's force finished installing sixty additional drops, jacks and equipment additions to the Fort Washington exchange switchboard.

During the past month central-office equipment for twenty additional rural lines has been added to the Oconomowoc switchboard by the Milwaukee district wire chief's force.

The manager at Mayville installed a large new private branch exchange

switchboard in the Northwestern Malleable Iron Company's new office within the past month.

Machine is coming to the front rapidly as a city with many private exchange switchboards. During the months of February and March eight additional switchboards were installed; some were changed to larger capacity.

The Wisconsin School of Engineering, Milwaukee, has been furnished with a seven-panel switchboard equipped with one operator's position, with cord circuits, jacks, lamps, etc., all the equipment necessary for a No. 1 board and also a No. 4 lamp private exchange switchboard, together with blueprints and all instructions for the operation and maintenance of this equipment. This was installed for the purpose of instruction and as a part of their electrical course so that when the Wisconsin Telephone Company is in need of men it will be able to draw on these scholars.

The Western Electric Company has a large force of men engaged in putting in additional sections of switchboards and multiple answering jacks in the Grand exchange and also at the Main exchange. Another monthly plant work meeting for the discussion of codes was held on the night of March 7th. All the wire chiefs attended and listened to instructions from Plant Superintendent Killiam and Plant Accountant Schroeder.

Manager Ben Chase has been transferred from the managership at Waukesha to the Milwaukee district plant chief's force on estimate work. Manager Johnson has been transferred from Delavan to succeed Manager Chase at Waukesha. Manager Fred Manthel, West Bend, has been transferred to succeed Manager Johnson at Delavan. J. Jensen of the Kenosha maintenance force has been transferred to succeed Manager Manthel at West Bend.

ILLINOIS DIVISION

A. J. PARSONS, Correspondent, Springfield

Illinois Division Office.

F. J. Dolan, formerly chief commercial agent, has been transferred to the office of the Vice President, reporting to W. W. Fuller. Mr. Dolan has been in the commercial department in Illinois for the past seven years and has been a very efficient worker. His many friends in Illinois regret to have him leave this division, but are happy to learn of his promotion. The work of the chief commercial agent and agent for connecting companies has been consolidated and is now being handled by A. J. Parsons. Mr. Parsons has also been appointed Illinois correspondent of the BELL TELEPHONE NEWS, succeeding Mr. Dolan.

C. W. Romine, formerly chief clerk in the commercial superintendent's office, has assumed the duties of special agent.

W. E. Farney has been promoted to the position of Chief Clerk.

Viola Snigg, formerly stenographer in the commercial superintendent's office, has resigned and is preparing to go to New York City for an extended visit.

Rule Blount, formerly stenographer in the district commercial manager's office at Springfield, underwent a serious operation at her home in Normal, Ill., during January, since which time she has been unable to resume her duties. Her friends will be pleased to learn that she is convalescent and expects to take up employment in the commercial superintendent's office on May 1st.

J. W. Shanahan, formerly advertising agent in the Illinois division, has resigned to accept the agency of the White Automobile Company in Missouri and Kansas. He is succeeded by Hubert W. Simmons, formerly a road salesman for the C. E. Wheelock Company, Peoria, Ill.

Rest Room at Canton.

The young ladies employed in the Bell telephone office are much pleased over the thoughtful kindness of the company, who have, through the traffic and plant managers, furnished a rest room which is a great comfort and convenience. The room is supplied with curtains, a rug, library table, davenport, pictures and rocking chairs. A new locker, in latest style, has been provided for each of the fourteen employees. The girls are making pillows for the couch, and have already made a "tatami" runner for the table, and are very proud of their pretty room and its complete furnishings. — Canton Register.

Alton District.

An estimate has been approved and assigned to the plant department covering additional toll circuits between Jacksonville and the St. Louis boundary line.

J. G. Zoller, repairman at Alton, has resigned and is succeeded by C. L. Sheff.

Anna Monk, traffic chief at Alton, attended the Traffic school at Springfield in the month of April. Sixteen traffic chiefs were present.

The Alhambra Telephone Company of Alhambra has finished rebuilding its plant which was destroyed by the sleet storm of January 20th.

The Second Annual Excursion of the Bell Telephone operators of the Alton and Wood River exchanges will be held on Tuesday evening, July 8th, on the Steamer *St. Paul*. This is the largest and finest boat now on the Mississippi River, having five decks, and will take care of 2,500 people easily. So prepare your vacations so that you will not miss this boat trip. Last year the excursion was a success, with about 1,500 people on the boat, but 2,500 are expected this year. One of the pleasing and noticeable features of last year's excursion was the number of out-of-town guests. This year it is hoped to have representatives from every exchange, both Bell and connecting, within a radius of 100 miles.

Lena Tribout, former toll operator at Highland, was married to Eugene Gruenfelder on April 22nd.

Charles Hald, repairman at Highland, was recently married to Grace Herman. About twelve operators of the Alton exchange enjoyed an outing in the woods Sunday, April 27th. They started about 1 p. m. and journeyed a half mile above Hop Hollow. When they arrived at their destination they built a fire and roasted "weiners," which were certainly enjoyed, as the day was cool and the girls had walked up a good appetite. After lunch the twelve girls and two boys and their friends arrived at the home of Julia Hale, where Mrs. Hale had prepared a lunch of cherry phosphate and cake.

The operators of the Alton exchange tendered a very pleasant surprise to Julia Hale at her home, 1323 State street, May 5th in honor of her birthday. About twenty couples were present. The surprise was worked up in the woods and every article in the parlors and hall. When the guest reached his destination there was a prize at the end of each strip. Instrumental and vocal solos and other games furnished the evening's entertainment. Miss Hale received a beautiful emerald ring as a token of affection from the operators. Refreshments were served and all departed at a late hour, having spent a most enjoyable evening and wishing Miss Hale many happy returns of the day.

The operators at Alton and Mrs. Florence White's girls surprised Cora Tibbitt, supervisor of the Central Union Telephone Company April 24th at her home, 817 Belle street. The occasion was that of her birthday. Everything was well arranged in order to carry out a complete surprise. Emma Sullivan invited Miss Tibbitt to attend the Hippodrome theater. During their absence the double parlors were decorated in blue and white, Central Union colors. The operators and their friends met at the telephone exchange at 9 p. m. and arrived at the residence before Miss Tibbitt. The home was darkened, as usual, and Miss Tibbitt was greatly surprised upon finding her friends ready for a jolly time. She received numerous presents among them a very pretty silk umbrella from the operators and a handsome lavender from Mrs. White's girls; also a comic hat and a pair of slippers, which pleased Miss Tibbitt very much. Twenty-eight couples were present. Musical and vocal selections and various games furnished the evening's entertainment.

Arrangements have been made with the Western Union Telegraph Company to establish a Class 10-A office in Centralia. Quarters have been secured in the Harding building at the corner of East Broadway and Tate avenue. The local commercial department will vacate the quarters now occupied in the exchange building and with the district commercial department, will be located in the Harding Building. The district traffic department will occupy the rooms in the exchange building now occupied by the local commercial department.

Manager J. T. Turner of Mt. Vernon was confined to his home several days during the early part of May with a severe case of tonsillitis.

Conditions at Cairo are again becoming normal. The waters of both the Ohio and Mississippi rivers are now below the danger line, and preparations are being made to rebuild and strengthen the levees around the Drainage District and also raise the levees around the city of Cairo. Although all manufacturing plants in the Drainage District suffered heavy loss, which has seriously affected business in the city, the Cairo exchange showed an increase in stations and toll traffic for the month of May.

H. H. Knipe, president of the South-eastern Illinois Long-Distance Telephone & Telegraph Company, of Robinson, and his associates have organized and incorporated the Commercial Telephone &

Telegraph Company with headquarters at Olney. The Commercial company will take over and operate the properties of the Southeastern company, the Wayne County Telephone Company of Fairfield, the Hull Telephone Company of Salem, and the Citizens' Telephone Company of Clinton County, the last named having recently been acquired by Mr. Knipe.

Decatur District.

Gertrude Alice Young of the Decatur exchange and Rolla W. Disney were married at Decatur, March 22d.

Virgil Cade has taken a position as collector at Decatur, succeeding E. R. Goreham, who resigned to accept a position in Powers Brothers' garage.

Mrs. Mayme Varner, traffic chief at Decatur, attended school for traffic chiefs at Springfield, Ill., April 21st to 26th and at Chicago, May 5th to 8th.

Dora Padgett, formerly toll clerk at Decatur, has taken a position in the accounting department at Springfield.

Morehouse & Wells Company has installed a private branch exchange at Decatur including two trunks and seven stations.

Maurene Leonard, bookkeeper at Decatur, was married on March 24th to Leonard L. Schneider of St. Louis, Mo. Besse Etheridge, cashier at Decatur, has returned from a week's vacation spent in Chicago.

V. H. Barber of Springfield has been appointed district line foreman at Decatur.

Helen L. Wetz, pay station attendant at Decatur, and William E. Mucker of Loganport, were married at St. Patrick's Church, Decatur, on May 27th.

Galesburg District.

Emma Lathrop, local operator, has been transferred to the toll board.

Gertrude Kinney is a new local operator.

The plant department has been extremely busy the past two weeks repairing damages caused by the sleet storm. C. B. Dunn, lineman, has been transferred to Illinois.

Viva Cowell, night operator, has been changed to day operator.

Neli Wilcox, lineman, has been promoted to toll repairs.

W. C. Childs, wire chief at Kewanee, has been transferred to Galesburg as repairman.

W. H. Price, general manager of the Stark County Telephone Company at Toulon, Ill., was a caller at the Galesburg exchange. He states that his company suffered considerable damage from the sleet storm.

An estimate has been approved and assigned to the plant department for work on the Peoria-Galesburg toll route. This includes a special high grade toll cable at Peoria, general repairs and rebuilding of the toll line, and installation of a phantom circuit from Galesburg to Peoria, phantom circuit Peoria to Elmwood, No. 9 iron circuit, Peoria to Edwards toll station, No. 9 iron circuit, Norris to Farmington, and No. 12 copper circuit, Elmwood to Knoxville.

Pearl Rany, Bertha Olson, Klella Caves and Ruby Burns are new local operators at Galesburg.

Ollie Kinsel has resumed her duties as toll operator at Galesburg after taking a leave of absence of nearly three months.

Anna Mitchell and Miss Hufmeister of the Quincy Telephone Company spent a few hours visiting at the Galesburg exchange enroute to Rock Island.

Mabel Miller, supervisor at Galesburg, visited relatives in Cedar Rapids, Iowa, recently.

Ethel Perry, who has been a local operator at Galesburg for the past two years, has resigned.

C. B. Dunn has resigned his position as repairman at Kewanee and J. E. Pettigill has accepted the position.

New plates are being installed in the storage batteries at Kewanee.

The Monmouth Telephone Company has purchased of the Western Electric Company a new three-position toll board. Owing to the steady increase in business in Monmouth and throughout Warren county, the business outgrew the old equipment.

A franchise was granted the Central Union Telephone Company by the city board of East Galesburg, Ill., giving the privilege of erecting poles and placing wire and cables on any street or alley in the city of East Galesburg.

On April 25th three of the officials of the Lima Home Telephone Company visited the Galesburg exchange and inspected the switchboard and office equipment. They all expressed themselves as being well pleased with the apparatus and they also made a number of service tests which proved the service to be first class.

E. S. Sterritt and C. B. Cheadle have been spending several days in Abington perfecting the plans for the rebuilding of the plant of the Mutual Union Telephone Company recently purchased by their company. The plans provide for a new exchange building, several blocks

Ask the Man That Owns A TELEFAULT

WHAT SOME OF THEM SAY:

An Ohio man writes under date of April 16, 1913:

"Enclosed find check for \$34.30 in payment of your invoice of the 14th, \$35.00 less 2 per cent.

"This invoice covers the purchase of one Matthews Telefault. We received the instrument yesterday and today put it in use on a case of trouble in a 50 pair cable.

"We did not have a single vacant pair in the cable and six pairs developed a short last week. We were unable to find anything wrong on a close inspection of the sheath of the cable, but when we put the Telefault on it the tone led us to a point just outside the underground. Upon opening the cable at that point we found the six pairs burned together clear in the inner layer of the cable where they could not touch the sheath and cause a ground."

Here is what a Lafayette, Ind., man wrote on March 1, 1913:

"The Matthews Telefault was received at Francesville last Tuesday and on Wednesday my linemen made a test with it on a cable that was both crossed and grounded and he got very satisfactory results from it in every way. He had never used one before, and yet he was able to locate the trouble exactly. We are sure pleased with our introduction to your Telefault and so am sending check to balance account."

On April 25, 1913, a man in Hopkingsville, Ky., wrote:

"Answering yours of the 23d in regard to the Matthews Telefault. This instrument certainly does accomplish all that is claimed for it. I have been using a tone test and exploring coil for several years in locating crosses between conductors and between conductors and the cable armor, but have experienced a great deal of trouble in locating wet spots.

"A few days ago your representative called on me just at a time when I was troubled with a damp cable. I explained to him that the conductors were not sufficiently crossed for me

to locate the trouble with the apparatus I was using. He kindly agreed to lend me his sample. The trouble was located exactly in a very short time, much to my surprise, on account of the cable only being slightly damp. I am now using the Matthews Telefault in my cable department."

On April 9, 1913, the following letter was written by a man in Sayre, Pa.:

"Received Matthews Telefault which you shipped us Saturday, April 5th, and Monday morning we used it on a case of lightning trouble in a 200 pair cable. The trouble was a cross in the core of the cable and was found 1 1/2 miles from the office. The exploring coil was used and the trouble was found by a trouble man who had never used a tone of any kind before in clearing cable."

When asked why he had selected the Matthews Telefault from the three different instruments he was trying out, an Iowa man wrote us on February 4, 1913, as follows:

"In reply to yours of the first asking if I would care to state why I selected the Matthews Telefault in preference to the two other instruments I was testing at the same time, will say, that the principal one was that because it was the only one that would locate 'dead shorts' and wet spots and 'grounds'."

"Your exploring coil is also far superior to those of the other two. It will not make false locations when hunting out grounds."

"I figured that if I was going to buy a fault-finding instrument I had just as well buy one that would do all that the others would do and a few other little things besides. I am mighty well pleased with it."

The Central Union Telephone Co., the Michigan State Telephone Co., the Wisconsin Telephone Co., and the Cleveland Telephone Co. have purchased 50 Matthews Telefaults up to May 15, 1913.

You can get them from the Western Electric Company.



MATTHEWS TELEFAULT

3728 Forest Park Boulevard, St. Louis

of underground, new pole lines and practically an all-cable plant and replacing the present magneto switchboard with a new common-battery board.

The Bell Telephone Employees' Association of the Galesburg District is having splendid meetings each week and a great deal of interest is being shown. On Monday evening, May 5, 1913, the traffic department employees were invited to meet with the employees of the commercial and plant departments and several interesting papers were read. J. H. Barlow, district traffic chief read an interesting paper on the handling of trouble from a traffic standpoint and explained the system in use at the larger exchanges. F. W. Kelly, district commercial manager, had a paper on "Public Relations," which included statistics showing the growth of the telephone business. Harry Moslin, switchboard man, read a paper on "Fire Protection." Each paper was followed by a general discussion and at the close of the meeting lunch was served in the operators' rest room. All present thoroughly enjoyed the meeting.

Jacksonville District.

A private branch exchange of six stations has been installed at the flour mill of Schultz, Daughan and Company, Beardstown.

O. D. Barnett has been appointed commercial agent at Roodhouse.

W. C. Murphy of St. Clair, Mo., has taken the position of wire chief at Carrollton, made vacant by the resignation of Aloa Smith.

Oscar Hanson, clerk to District Plant Chief Miller at Jacksonville, has resigned and is succeeded by J. H. Hoppers, formerly manager's clerk at Beardstown.

Marie Hardscoe has been appointed Miss Hoppers' successor.

Lucile Bowyer has accepted a position as toll operator at Beardstown.

Anna Saeger has resigned her position as toll operator at Jacksonville, and accepted a similar one in Beardstown.

Kankakee District.

On Saturday afternoon, April 13th, the Central Union ball team played a friendly game with the local independent company's team, resulting in a score of 12 to 6 in favor of the Central Union team. This resulted in a match game for April 26th. The independent company's team practiced vigorously during the week, but the Blue Bell was again victorious with a score of 24 to 12.

Clifford C. Forbes resigned his position as plant chief's clerk to accept a position with the master mechanic of the Big Four railroad. C. E. Vaughn was transferred from the plant superintendent's office to succeed Mr. Forbes.

Work on two estimates covering underground and aerial cable extensions of the Kankakee exchange is in progress under the direction of Fred Merrill, district foreman.

Earl Hancock, formerly wire chief of the Eastern Illinois Independent Telephone Company has accepted the position of switchboardman at Kankakee, succeeding George Thompson, who was transferred to the position of sub-station installer.

Mary Gray, toll operator at Kankakee, resigned to get married. She is succeeded by Juliet La Gue, from Marshall, Minn.

Earl Hancock resigned the position of wire chief with the Eastern Illinois Independent Telephone Company to accept the position of switchboardman at Kankakee. Mr. Hancock is an old timer and a valuable addition to the Kankakee plant force.

Estimates for the extension of underground and aerial cable at Kankakee have been assigned to the construction department. Material is on the ground and work will proceed at once.

The placing of sheet metal stock-bins and shelving has been completed, and Kankakee has now the most modern material and apparatus store-room in the state.

A trouble clerk's equipment has been constructed and installed at the Kankakee exchange by the local exchange force. The Manteno exchange has been wired for electric light service, and the use of oil lamps has been discontinued.

George Thompson has been transferred from switchboardman to installer at Kankakee.

Fred Erfft has accepted the position of repairman at Momence, replacing Edward Entwistle.

Morris Vane has accepted the position of repairman No. 2 at Momence, replacing Fred Kille.

The plant employees of the Kankakee district attended a fried chicken stag at the Kankakee exchange. Thomas Brown, district commercial manager; George H. Cooley, manager at Herscher, and a number of employees of Momence, Grant Park, Gilman, Onarga and Herscher were invited guests. Mr. Cooley acted as toastmaster.

E. R. Millard has accepted a position as lineman at Kankakee.

F. W. Marshall, traffic chief; Roy Davis, foreman, and Clifford Forbes, plant clerk at Kankakee, had a pleasant but very disastrous duck hunt up the Kankakee river on Sunday, March 23d. They

were returning home after a successful hunt and were about four miles up the river when the boat hit a snag and capsized, giving the occupants a chilly morning plunge, also losing all the game and guns, and very near losing the boat as well as their lives. None of them feel any the worse for the ducking, and will probably try it over again next season, hoping that the water will be just a little bit warmer.

La Salle District.

Esther Hall, ticket clerk in the commercial department at La Salle, has resigned and is succeeded by Gertrude Gannin.

Olga Hellstedt, former ticket clerk at La Salle, has been made stenographer to District Commercial Manager F. W. Atkins.

Paris District.

Alma Highshoe, chief operator at Paris for the past three years, was given a farewell reception on the night of March 20th in the office of the district commercial manager. Miss Highshoe took up her duties as district traffic instructor April 1st, reporting to C. G. Seytzer with headquarters at Centralia. The plant, commercial and traffic employees united in presenting her with a beautiful traveling bag and a suit case as an expression of their good will and regret at her departure. Refreshments of ice cream, cake and candies were served. The napkins were made especially for the occasion and were plain white with the cut used some time back in newspaper advertising showing a row of operators at the switchboard with an instructor standing with pointer in hand while just below was printed, "Miss Alma Highshoe, District Service Inspector, Nuff said." Miss Highshoe leaves with the best wishes of all employees for her success in her new position.

Ruth Filson has accepted the position of clerk to District Plant Chief W. L. Parrish at Paris.

Manager Wright of Paris has secured a contract for a seven-station private branch exchange to be installed in the plant of the McGuire-Cummings Car Manufacturing Company. This will be the first private exchange for Paris.

Maude Beam has been appointed chief operator at Paris to succeed Miss Highshoe.

Beiva Cummins has been transferred from the traffic to the commercial department to take the position of ticket clerk made vacant by transferring Miss Beam to the position of chief operator. Beas Hemphill succeeds Miss Cummins as local operator.

L. R. Pettus, district service inspector, installed the new card trouble record at Paris the latter part of March.

On account of the heavy floods in this vicinity the hotels of Paris were filled to overflowing with traveling men who were unable to get away and who were very anxious to hear from their families. Many of whom were in the flooded districts. On the night of March 27th the office was kept open with extra toll operators and Morse operator in attendance until midnight handling the extra volume of business.

The Coles County Telephone and Telegraph Company of Mattoon is putting in about 2,500 feet of new underground cable and 7,000 feet of aerial cable. The company has also bought a new automobile truck for the construction department.

Maude Parker of the Mattoon exchange who resigned some time ago to accept a position in Ohio, has returned to her old duties at Mattoon.

The Coles County Telephone and Telegraph Company of Mattoon is installing a 140-line private branch exchange at the Hotel Byers. Work has been completed on the installation of a six trunk twenty-five line private exchange for the Central Illinois Public Service Company and a No. 2 private exchange with six stations is to be installed for Andrews Brothers, lumber merchants.

Hattie Spaulding and Gladys McCoy, of the Mattoon exchange, have just returned to work after undergoing operations for appendicitis.

Bess Hemphill, of the Paris exchange, has resigned her position on account of poor health.

Peoria District.

A private branch exchange has just been installed for the Emerson-Brantingham Company, Peoria, consisting of a cordless switchboard, two trunks and six sub-stations.

The plant department has been assigned an estimate covering the removal of poles from South Washington Street, Peoria, and the providing of facilities south of the Main office along the river section and Garden street, and also includes the completion of the Bartonville No. 19 gauge cable. The amount of the estimate is \$50,000.

An estimate has been approved and assigned to the plant department covering the work of extending a 400-pair cable out of Bluffs office, Peoria, together with extensions of the existing 400-pair cable on Nebraska avenue to afford relief to the long 400-pair cable.

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Western Electric No. 84 Type Interrupters

by furnishing ringing current for the switchboard will save time and conserve the energies of the operators.

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EDNA THOMAS.

Edna Thomas, a Central Union traffic employee at Rock Island, Ill., recently won a \$125 piano given away by a music dealer there. Miss Thomas was successful in solving correctly a prize puzzle put out by the dealer.

Contracts have been secured from Joseph Szold & Sons, at Peoria, for a No. 4 private branch exchange consisting of two trunks, one switchboard and twelve sub-stations.

A private branch exchange, consisting of cordless switchboard, one trunk and five sub-stations, has just been installed for the American Milling Company at Peoria.

An estimate has been approved and assigned to the plant department for the work of rebuilding and repairing the Peoria-Lewistown toll route from Bartonville through Canton to Lewistown. The work will be started as soon as the material can be secured.

An estimate has been approved and assigned to the plant department for the work of placing a No. 12 copper metallic circuit from Lewistown to Peoria and also from Canton to Lewistown and a center checking circuit from Peoria to Kingston, together with the substitution of copper for the larger part of the iron on this Peoria-Canton-Lewistown route.

An estimate for the Peoria exchange in the amount of \$62,784 has been approved and assigned to the plant department covering the placing of underground, pole line and cable work in the northeast part of the city.

Work of removing the poles and wires on South Washington street, Peoria, from Oak street to Western avenue, which is covered by an estimate, together with the completion of a nineteen-gauge cable to Bartonville, total cost \$50,288, is to be started at once.

Additional conduit is being put in on South Adams street, Peoria, which will relieve the aerial construction between Oak street and Lincoln avenue. The work is being done in order to comply with the city's wishes in connection with the repaving of South Adams street.

John Bradley Knoche has taken a position as collector at the Peoria exchange. He succeeds John Butler, resigned.

A traffic conference was held at Peoria during the week of April 21st to 26th.

Quincy District.

J. W. Eakins, collector at the Quincy exchange, resigned to take up truck farming, as he thought life as a collector during the reconstruction at Quincy was too strenuous for him.

The operators of the Quincy exchange gave another of their popular dancing parties, at the Knights of Columbus Hall, on the evening of April 16th.

Foreman Champion has completed the new 90-box Police and Fire Alarm System for the city of Quincy, which consists of a 100-drop private exchange board with ninety independent lines covering the entire city, which will assist the police department very materially.

The Quincy employees have organized two baseball teams, one from the linemen with Foreman Ramsey as captain, the other of inside men with L. L. McMasters as captain. They have already played two games, of which Foreman Ramsey's team has won both.

The Misses Mitchell and Hofmeister, chief operators of the two Quincy exchanges, attended a chief operators' conference at Rock Island from April 21st to 27th, which was very instructive.

They came back with many new ideas and expect to help improve the service at their respective exchanges.

The operators of the Central Union and Home Telephone exchanges gave a steamer boat excursion on the steamer Sidney, on the evening of June 11th. Visiting operators from other cities were expected to be present. This is the first time the operators of the two exchanges have joined in such an affair.

Rock Island District.

An estimate has been approved and assigned to the plant department covering the rebuilding of the Galena-Savanna toll line through Elizabeth and Hanover.

An estimate has been approved and assigned to the plant superintendent for rebuilding the Dixon-La Salle toll line, comprising forty-five miles of new pole line, also rebuilding one No. 12 iron metallic circuit with one No. 12 copper metallic circuit.

Work is now in progress at Rockford covering the removal of poles and aerial cable from Harlem avenue and building a new pole line through private property; also the installation of one mile of underground conduit system, and the laying of 400-pair underground cable with one mile of additional aerial cable.

The Western Electric Company has completed the installation at Rockford of three sections of No. 1 eight-panel subscribers' switchboard; 2,800 subscribers' multiple jacks; 1,770 subscribers' answering jacks and 5,300 subscribers' multiple answering jacks. Three hundred numbers have been assigned since this work was completed April 25th.

An estimate has been approved for Rockford and assigned to the plant superintendent covering the installation of three miles of underground cable; four miles of aerial cable; ten miles of aerial conduit and two miles of dismantling of thirty miles of open wire.

During the month of April, Rockford made a net gain of 209 subscribers and 187 new subscribers.

Isabel Hotchkiss has resigned after thirteen years' service with the Central Union Telephone Company at Rock Island. She has certainly a wonderful record from the fact that during the entire period she has neither been late nor absent except on two occasions, they being the death of her father and mother. She has held positions in both the traffic and commercial departments.

A lot has been purchased for a new building to be erected this year. The new business which is being secured in Rock Island by the efforts of the commercial agents at that place necessitates the removal to larger quarters.

An estimate covering the installation of two sections of No. 1 seven-panel board, 520 answering jacks, 720 multiple answering jacks and 900 subscribers' multiple at the Moline exchange has been completed by the Western Electric Company.

Lillian Ward, formerly of the Missouri & Kansas Telephone Company at Topeka, Kan., has accepted the position of stenographer and clerk in the district plant chief's office at Moline.

An estimate covering additional cable extensions from Rock Island to Sears has been approved and assigned to the plant department.

Joe B. Wilson, formerly wire chief for the Union Electric & Telegraph Company, has accepted the position of private exchange repairman at the Rock Island exchange.

An estimate covering the installation of one section of No. 8 switchboard and equipment for 200 additional subscribers' lines, and forty-eight volt battery for toll switching trunks has been approved and assigned to the equipment department.

Installation of a No. 4 private exchange board and twenty-five stations, at the Deere Harvester Company, East Moline, has been completed under the direction of E. F. Redenbaugh.

An estimate covering the installation of 1,700 subscribers' multiple, 640 subscribers' answering jacks and other miscellaneous equipment at Rock Island has been approved and assigned to the equipment department.

H. A. Clark, formerly of Centralla, has accepted the position of foreman at Moline.

An estimate covering the repairing of pole lead from Hillsdale to Morrison Junction and rebuilding lead from Morrison to Sterling has been approved and assigned to the plant department.

Floyd Wilson, formerly private exchange repairman at the Rock Island exchange, has accepted the position of assistant foreman at Moline.

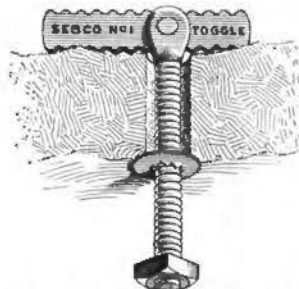
Irving O. Schultze, foreman at the Rock Island exchange, who has been confined for the past three months with typhoid fever, is getting along very nicely and expects to be back to work in a few weeks.

H. A. Anderson, formerly of the Kansas Telephone Company, has taken the position of frameman at Moline.

J. A. Williamson, formerly of the state equipment department, has accepted the

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position of installer at the Moline exchange.

Fred Hemenway, formerly switchboardman at Moline, late of the Western Electric Company, has accepted the position of private branch exchange repairman at Moline. Francis Chittendon of Galesburg exchange has accepted the position of installer at Moline.

Springfield District.

Laura Bullough, cashier at Springfield, resigned May 15th. Miss Bullough expects to spend the summer in the east, and will return some time in the fall. Miss Bullough was appointed cashier at Springfield on May 15, 1906, and has held that position for seven years. Nonie Duggan, bookkeeper in the district accountant's office, and formerly bookkeeper at the Springfield exchange, will fill the position made vacant by Miss Bullough.

The Macoupin County Telephone Company, on Friday, May 24, moved into its new building at Carlinville. The Macoupin County Telephone Company has built a fine exchange at this point, and made excellent arrangements for the care and convenience of the operators. The company is to be congratulated at this time, for with the beginning of business in the new exchange, the subscribers from the two companies formerly operating at Carlinville were consolidated into the one exchange, and the service will be very greatly improved. The outside plant has been rebuilt throughout, and neither time nor money has been spared in trying to make the service at Carlinville as good as the best.

Fred Sawtell, collector at the Springfield exchange, has been transferred from that position to the position of mail messenger for the commercial superintendent's office.

On March 1st, William Edgar assumed his new duties as district accountant at Springfield. The Springfield area was turned over to the district accountant as of March 1st.

Nonie Duggan, Mae Duggan, Pearl Hendron, Margaret Davis and Catherine Beaghen, employees of the commercial department at Springfield, were transferred from that department to the district accountant's office on March 1st, when the district office took over the Springfield books.

The following is a list of records from the Illinois National Guards, by the Springfield manager:

March 14, 1913.

My dear Cogswell:

I am leaving this evening for the scene of the riot, at Salem, but before I go I want to take this opportunity of commending to your favorable attention the long-distance operator who handled the riot calls this afternoon from about 3:30 to 5:30.

I, of course, do not know who she was, but the service was most excellent. In fact, it was easily discernible that she did more than her part in securing such early responses as made possible necessary train and troop arrangements.

Sincerely yours,

(Signed) F. S. DICKSON.

Mr. E. P. Cogswell,
Manager, Central Union Telephone Company,
Springfield, Illinois.

This letter refers to the service rendered to General Dickson in connection with the riot at Salem.

The Bell Telephone Society held a meeting at the Leland Hotel on March 20th. The meeting was called by the secretary for the purpose of discussing the future organization of the society. A committee consisting of the following members was appointed by the president for the purpose of formulating plans for carrying on the society and enlarging and broadening out into the field: C. H. Rottger, H. B. Lewis, N. R. Harrison, A. J. Parsons, E. F. Morrill and F. A. de Feyster, with the president, O. M. Burgess, as chairman. This committee was instructed to report back at the next regular meeting.

The commercial department has secured contracts for a private branch exchange for the new home of the Sangamo Club, Springfield.

Contracts have been secured covering the installation of 26 in the private branch exchange in the state treasurer's office, at the Capitol Building.

The Springfield manager is in receipt of the following letter, which is very gratifying:

Springfield, Ill., April 4, 1913.

Central Union Telephone Company:

Gentlemen: We are enclosing a check for \$2.45 which is to be credited as follows: \$5 for our office telephone; \$2 for the house telephone of Chas. S. Andrus; \$1.15 toll from our office and \$0.30 toll from Mr. Andrus's residence.

We appreciate your new system of sending bills by mail, as your collectors are an intolerable nuisance. We trust that you will continue this system and ask for collectors to kindly keep out of the office.

Yours truly,
(Signed) ANDRUS & TRUTTER.
The plan of allowing subscribers to

remit by mail or pay at the office has met with general good favor among the subscribers at Springfield.

OHIO DIVISION

B. T. CALAWAY, Correspondent, Columbus

Akron District.

Jennie Jacobs has been promoted to supervisor at Youngstown, succeeding Bessie Darrow, who takes a position as toll instructor.

Jessie Black has been transferred from Youngstown to Struthers, succeeding Bessie McConville.

Gertrude Straley has resigned her position as operator at Struthers, to be married. Miss Straley is succeeded by Ruth Meade of Youngstown.

Nelle Carlson, former employee of the Central Union Telephone Company at Akron, has been appointed chief operator of the B. F. Goodrich Company's private branch exchange.

Mary Robinson and Myrie Huff, former local operators at Akron, have been promoted to local supervisors.

Clara Brillhart and Lottie Berger have been promoted to toll positions at Akron. Irene Eager, Agnes Miller, Marie Christenson, Anna De Shon, Florence Workman and Hazel Webb are new employees in the traffic department at Akron.

Jeanette Pearson, former local operator at Akron, was married April 12th to Mr. Pollack, a former employee of the Portage Hotel Company. Mr. and Mrs. Pollack have left for Detroit, Mich., where they will make their future home.

R. Cookson, former manager at Elyria, has been transferred to Youngstown, as chief clerk, succeeding E. R. Woolf, who has taken a position as switchboard man at the A. T. & T. Company at Cleveland.

Henrietta Kulow has taken a position as clerk at the Youngstown exchange.

Anna McGrover has taken a position as clerk at Youngstown, and is in charge of the commercial office located in the Wick Building in connection with the Western Union Telegraph Company.

The Youngstown exchange reports the following private branch exchange contracts during the month of May:

East Ohio Gas Company, cordless.
1 trunk, 5 stations.
Jacobs Lumber Company, cordless.
1 trunk, 5 stations.
Iron City Lumber Company, No. 4 P. B. X., 3 trunks, 10 stations.
Automatic Sprinkler Company, cordless, 2 trunks, 6 stations.
N. McManus Company, No. 2 P. B. X. 1 trunk and 5 stations.
Wells Mutual Insurance Company, No. 2, 1 trunk and 5 stations.

The Western Electric Company has just completed the installation of six additional positions 600 multiple, and an observation board at Youngstown. This additional multiple completes the ultimate capacity of the present switchboard. Local architects, Stanley & Scheible are working on plans for extending the building fifty feet, and when this work is completed, arrangements are being made to install a new 9,600 line board.

Foreman L. W. Bailey is in charge of an estimate covering installation of additional underground cable in Bryson street, Youngstown.

The Akron plant chief and his assistants have moved into their new quarters on the first floor.

The work covering additional facilities at the B. F. Goodrich Company private branch exchange at Akron has been completed by Frank Harbaugh, former switchboardman at Mansfield, Ohio.

Bud Harley has accepted a position as cross-cut man in the Akron wire chief's office.

Fred Harley has been appointed clerk in the Akron wire chief's office.

Fred Martin has been appointed assistant to L. A. Wetmore, private branch exchange repairman at Akron. Jesse Lambright, senior clerk at Akron, has been appointed location man and Fred Bean, lineman, has been appointed stock clerk.

N. Fred Mitchell is serving as temporary switchboardman at the Akron office. Mr. Mitchell is from the Pacific Coast and expects to return shortly. L. A. Wetmore will take Mr. Mitchell's place, temporarily, when he leaves.

Claire Diffendorfer, switchboardman at Akron, has resigned to go to Syracuse, N. Y. Mr. Diffendorfer will accept a position with the New York Telephone Company at that place.

M. B. Stowell has been appointed district toll wire chief for the Akron District, with headquarters at Akron. Mr. Stowell came from Dayton and was one of the employees who was marooned in the telephone building at that place during the flood.

Minnie Moss, local operator at Mansfield, was married April 16th to Ival Bolster. A very pretty wedding was solemnized at St. Paul's Lutheran Church. Miss Moss will be succeeded by May Mannaweller.

Chillicothe District.

An estimate covering new cable and outside plant at Nelsonville has been approved and work started.

O. D. McClain, manager at Logan, has been transferred to the plant department, and the Logan exchange placed under the Lancaster exchange management.

C. E. Kean, manager at Portsmouth, has been appointed collector and the exchange placed under the Ironton exchange management.

Emma Kern has succeeded Glenna Stout as clerk at Lancaster. Miss Stout has been transferred to the plant department.

Barbara Ball, clerk at Winchester, has resigned and is succeeded by Mabel Long. Sue D. Wilson has been appointed stenographer in the district commercial department, succeeding Bernice Plummer, resigned.

Cathryn Stocklin has accepted the collector's position at Chillicothe.

A Class 11-B Western Union Office has been established at Ripley.

Margaret Brennen, local operator at Chillicothe, was taken ill March 1st and was operated on in the local hospital for appendicitis. She is still confined to her home. Her place is filled by Stett Eyth.

W. H. Kitchen, who has been local lineman at Coshocton, has been transferred to Chillicothe as lineman.

J. Herbert Mattox, wire chief at Chillicothe, was transferred to Zanesville March 15th. His place was filled by City Foreman E. W. Wolf.

Glenna Stout, former toll clerk at Lancaster exchange, has accepted a position as clerk in the plant department and has been succeeded by Emma Kirm.

Dorthea Boersler has resigned her position as local operator at Lancaster exchange and is succeeded by Viola Osborne.

Helen Schneider has accepted a position as local operator at Lancaster exchange.

R. E. Wolf has been transferred from plant chief at Lancaster to district plant foreman. H. Johnston, former wire chief at Zanesville, has succeeded R. E. Wolf as plant chief.

O. D. McClain, former manager at Logan, Ohio, has been transferred to the plant department, and the Logan exchange management is now in charge of Lancaster exchange.

Edith Lindsey, toll operator at Hillsboro for the past three years, resigned on March 1st and was married to Horace Barrett, proprietor of Barrett's Mills, near Rainsboro, Ohio, on March 22nd. They will make their home near Rainsboro.

Priscilla Cline of New Vienna, Ohio, has been employed as toll operator at Hillsboro to succeed Ethel Carr, resigned.

Maude Duckwall has been promoted to fill the position as toll operator at Hillsboro, succeeding Edith Lindsey. Anna Tolle succeeds Maude Duckwall as local operator.

Idella Kidd has been employed as night operator at Hillsboro to succeed Marguerite Calvert, resigned.

Stella Eyth has been put on as local operator at Chillicothe to succeed Margaret Brennan who died April 25th.

Carrie Greishelmer, local operator at Chillicothe, has succeeded Mildred Stillwell, who resigned.

Ernest Wolf has succeeded J. Herbert Mattox as wire chief at Chillicothe.

Robert Brehrer and Mary McCrady, manager and chief operator respectively at Circleville, were the guests of Manager Lou Green at the ball game May 8th, opening day. Manager Green was also host to all the local operating force who could be spared from their duties, at the opening ball game.

Dayton District.

The Central Union Telephone Company entertained several operators from the Germantown (Ohio) exchange on March 20th. After visiting both Main and East exchanges, the local chief operator, Belle Grant, escorted the young ladies to Rike-Kumler's for luncheon, which was followed by a "box party" at the Colonial Theater.

W. J. Eade, who has been in the employ of the company for the past eight years as chief clerk to District Commercial Manager Allen, has resigned to enter the electrical business in Newark, Ohio. Several entertainments were given in his honor, chief among which was a farewell party given at the Central Union Club. Mr. Eade's friends wish him a prosperous and happy future. He is succeeded in his former position by W. H. Thompson, formerly cashier of the Main exchange.

Sixty-two members of the Rotary Club made a visit to the Dayton exchange on March 21st and were entertained by District Commercial Manager Allen, who showed them over the Main exchange. They manifested considerable interest in the operation of the switchboard and left with a high appreciation of the courteous reception accorded them.

Toledo District.

Valma Callahan, operator at Lima, Ohio, resigned on March 1st to study music.

Vera Athelston, formerly evening chief

operator at the Toledo Main office, has been appointed day chief operator at the Main office. Miss Athelston has been succeeded by Nellie Goodridge, formerly a main supervisor.

Lucy Keller and Sophia Marshall have been appointed supervisors at the Toledo Main office, and Clara Garber at Collingwood has been promoted to supervisor.

Helen Dailey has been appointed night chief operator at the Toledo Forest office, and Pearl Danner as night relief operator for the branch offices.

Mary Petsulls, operator at Bowling Green, has resigned and is succeeded by Florence Whitacre.

Bessie Maley, operator at Findlay, resigned on April 15th, and has moved to Philadelphia, Pa.

Edna Cook, operator at Lima, resigned in April and expected to be married June 1st to Zeal Bedford of Lima. Miss Cook was succeeded by Lena Smith.

G. W. Woodward, manager of the Sandusky Theater, entertained the operators of the Sandusky exchange at a matinee on Monday, April 7th, and again on Monday, April 14th.

Ella McMahon has been transferred from Toledo Main to Collingwood as supervisor.

Mayme McLaughlin, one of Toledo's most popular supervisors, resigned May 16th, on account of matrimony. Miss McLaughlin is one of the best supervisors at the Toledo exchange and her departure is regretted by all who know her.

Carrie Gatesman and Irma Graalman have been appointed supervisors at Toledo Main exchange.

Margaret Hyland and Lillian Tegtmeier have charge of the new centralized repair desk which has just been put into operation at Toledo Main exchange.

Florence Watson has been appointed clerk at Toledo, to take the place of Lulu Brundage, resigned on account of leaving the city.

The following private branch exchange contracts have been secured at the Toledo, Ohio, exchange:

Ohio Savings Bank & Trust Company, one trunk, one switchboard and four stations.

Deisel Wemmer Company, one trunk, one initial station and four sub-stations.

Hotel Madison, hotel system private branch exchange, two trunks, one switchboard and fifty-eight stations.

Fred J. Conrad, material clerk at Toledo, resigned to accept a position with Berdan & Company, wholesale grocers.

F. A. Farley succeeds Mr. Conrad as material clerk.

James Gillman, lineman at Toledo, Ohio, resigned and will make his home in California.

Dorothy Rentsch, clerk in the plant chief's office at Toledo, resigned and was married to George Sanger of Sandusky, Ohio, where they will make their future home. Helen Otterbach succeeds Miss Rentsch as clerk in the plant chief's office.

On April 8th the plant department completed work under the estimate which provided for new cable across the Cherry street bridge. The following lengths of cable were used: 1,431 feet of 400-pair cable, 241 feet of 200-pair cable, 135 feet of 100-pair cable and 21 feet of 50-pair cable. The 200, 100 and 50 pair cable is of a temporary nature and will be removed as soon as a new submarine cable is laid across the river channel.

The Big Four railroad is installing telephone instruments on its branch lines between Findlay and Carey, Ohio, to replace the telegraph.

On the night of March 27th Garnet Klefer, night chief operator at Findlay, Ohio, relayed a long-distance message to the Toledo Blade from its correspondent at Columbus, Ohio, which was necessary on account of noisy line due to flood conditions. The message consisted of a large list of names of flood victims.

The Blade appreciated this help very much and Miss Klefer received a very nice letter from them a copy of which is printed below and she has also received the gift referred to, which consisted of a check for \$5.

TOLEDO BLADE.

Toledo, Ohio, March 28, 1913.
Miss Garnet Klefer, Findlay, Ohio.
My Dear Miss Klefer:

The story of your great help to the Blade in relaying the list of Columbus victims was a picture squarely told to Editor of said newspaper, who has the matter of recognition in hand, and promised to see that the Blade would not forget you. As soon as the rush of work which has kept nearly all busy day and night is over, he will find time to send his gift.

I promised to send you the paper with list of names and am doing so under separate cover. I wish to again thank you for your help and kindness, and if I can be of any service to you at any time, just shout.

Yours truly,

BEN BAUN.

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We make all kinds of Telephone Cords—Silk, Cotton, Belden-amel, Silkenamel and Cotenamel Magnet and Resistance Wires—Coil Windings—Cord Tips and Terminals.

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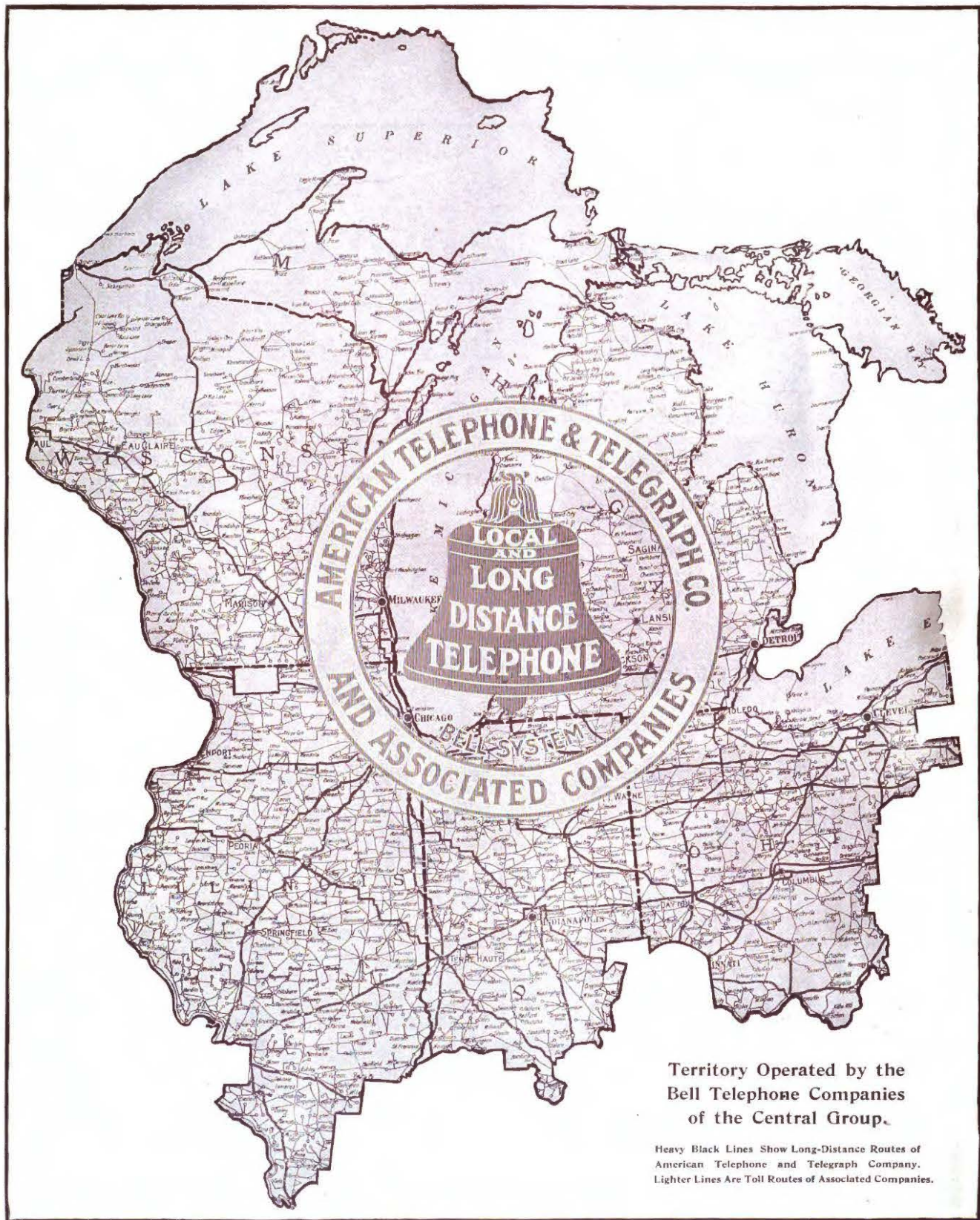
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

MAY 1, 1913

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 469,403 | 232,248 | 701,651 |
| INDIANA | 84,774 | 178,323 | 263,097 |
| OHIO | 166,885 | 171,543 | 338,428 |
| MICHIGAN | 196,742 | 55,702 | 252,444 |
| WISCONSIN | <u>128,297</u> | <u>108,021</u> | <u>236,318</u> |
| | 1,046,101 | 745,837 | 1,791,938 |



Territory Operated by the
Bell Telephone Companies
of the Central Group.

Heavy Black Lines Show Long-Distance Routes of
American Telephone and Telegraph Company.
Lighter Lines Are Toll Routes of Associated Companies.

BELL TELEPHONE NEWS

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY THE CLEVELAND TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY MICHIGAN STATE TELEPHONE COMPANY

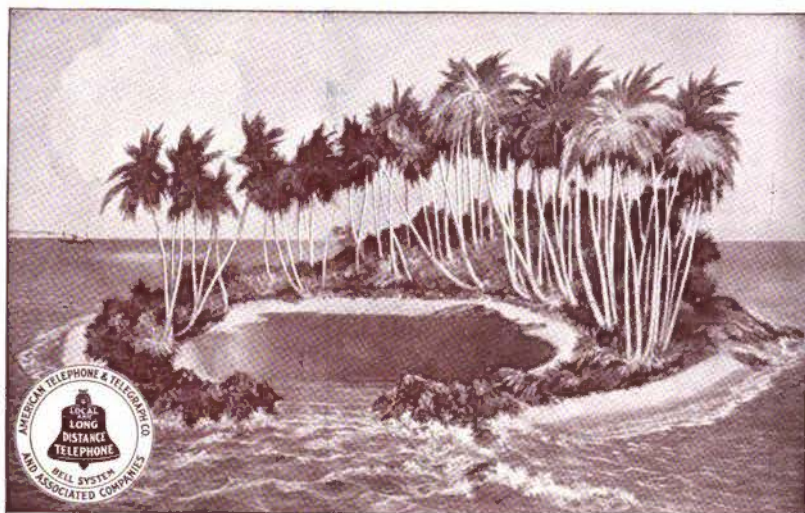
1784



Volume 2

JULY
1913

Number 12



Coral Builders and the Bell System

In the depths of tropical seas the coral polyps are at work. They are nourished by the ocean, and they grow and multiply because they cannot help it.

Finally a coral island emerges from the ocean. It collects sand and seeds, until it becomes a fit home for birds, beasts and men.

In the same way the telephone system has grown, gradually at first, but steadily and irresistibly. It could not stop growing. To stop would mean disaster.

The Bell System, starting with a few scattered exchanges, was carried forward by an increasing public demand.

Each new connection disclosed a need for other new connections, and millions of dollars had to be poured into the business to provide the 7,500,000 telephones now connected.

And the end is not yet, for the growth of the Bell System is still irresistible, because the needs of the people will not be satisfied except by universal communication. The system is large because the country is large.

**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS

ONE POLICY

ONE SYSTEM

UNIVERSAL SERVICE

Volume 2, No. 12

CHICAGO, ILLINOIS

JULY, 1913

DISCONTENT AMONG BRITISH EMPLOYEES

Telephone Conditions Described as
Less Favorable Now Than Under
Private Ownership.

As an example of nationalization the State operation of the telephone system in Britain is not a conspicuous success.

The public have not reaped the benefit in an improved service—rather the contrary; and while the figures relating to complaints, as given by the Postmaster-General, do not indicate a very pronounced state of popular dissatisfaction, it is not too much to say that individual subscribers in an overwhelming majority consider the telephone purchase a "bad deal."

It has least merit, to judge from the expressions of opinion at the Glasgow Conference of the Amalgamated Society of Telephone Employees, from the telephone workers' point of view. During the two days' proceedings of the conference many bitter complaints have been made against the service conditions, the methods of working, the unbusinesslike codes of rules. The telephone employees do not relish the change of masters. They may not have had ideal conditions under the regime of the National Telephone Company, but they were justified, as every advocate of nationalization would admit, in expecting that improvement would coincide with the advent of national ownership.

These anticipations have not been realized. On the contrary, the telephone employees have been rudely disillusioned. They have been exalted into the dignity of state servants, to find that the disadvantages of state service are more material, more irritating, and in some directions more manifestly unjust than the much-lauded but very superficial advantages.

From the resolutions passed at the conference the public will gain some idea of the grievances which agitate the minds of the latest recruits to the great army of government servants. Three dealt directly with the conditions of service. Strong indignation was expressed at the action of the department in bringing in unskilled men at a higher rate of wages than that paid to officers who are called upon to train them. There is no need to labor this point. It reveals a paradoxical state of things which would only be tolerated, and is only likely to exist, in a government department.

It is at least unique in the annals of any profession to find the pupil more highly paid than the teacher. It may be good for the encouragement of the pupil, though that is doubtful when the results of the underpaid tuition are analyzed. It is certainly bad for the teacher, who has worked long and hard to gain the experience which has fitted him to impart knowledge to others, only to find that his services are valued on a lower scale than those of the raw, untrained learners whom he is called upon to initiate into the first elements of the work. Anything more likely to spread



ENTRANCES TO BELL TELEPHONE BUILDING, CHICAGO.

Photograph showing outlines of twin doorways opening into the main lobby. These entrances are considered to be among the most handsome in Chicago.

The doors and the ornamental grates above are of bronze and glass. The bas-reliefs, showing the two hemispheres, are of terra cotta. The lamps and panels showing the name of the building and street number are of bronze.

discontent amongst members of the telephone staff could not easily be imagined.

The reduction of the supervising staff by comparison is a minor grievance, though it implies a very material loss to senior telephonists, whose prospects of promotion are thus seriously diminished. The nation's pocket can be well spared the expense of a superabundance of superior officials, and there may be some justification for the reduction in the conjunction of the telegraphic and telephone systems under one authority. The closed door of promotion is not a pleasant phrase, and the feeling of men who realize that "the object of the service is to keep men who started at the bottom at the bottom" must be bitter indeed. If this be the ruling principle of the service, the complaints of the employees are well founded. Mr. Samuel should be asked to what extent promotion has been banned by the transfer of the telephone system into his charge; and if he replies as in the case of Eastern Scotland and the underground telegraphs, that economic reasons are the root cause, if the pruning-knife has not been wielded with undue haste and lack of consideration.

The employment of unskilled men is

a matter in which the public has a more direct and intimate interest. The infusion of men who have no practical training cannot result in an efficient service, nor in the end to the success and profit of the telephone undertaking. According to a Manchester delegate, the apparent economy of cheap outside labor is in reality a costly proceeding. In one case by destroying a piano and in another by boring a hole through a mirror the department was made liable in damages exceeding the yearly telephone rents. These are only specimen cases; the system of employing inefficient labor results in unending complaints and claims for reimbursement. — *Courier*, Dundee, Scotland.

TELEPHONE'S GROWTH.

Variety and Orderly Character Dominant Features of Bell Telephone Financing.

In the physical world growth and life are interchangeable terms. In the world of finance and corporate affairs the synonymous character of these two phrases is still largely preserved.

A growing corporation is a vital one

Continued on Page Eighteen.

BELL SERVICE ON FELLOWSHIP TRAIN

Chicago Association of Commerce
Men Keep in Touch with Home
While on Tour.

A delegation of the Chicago Association of Commerce recently made a fellowship pilgrimage through the state of Illinois traveling in its own special train consisting of a combination library and baggage car, a diner, three compartment cars and a combination compartment and observation car.

Through the courtesy of the Chicago Telephone Company and the Bell System, represented by A. G. Francis, connections were made with the observation car at all night stops, and the members were placed in telephone communication with any city in the United States. Telephone directories of each of the cities visited were at hand so that the delegation was in touch with the cities visited both before and after the stops were made.

This courtesy was especially appreciated by the members as it enabled them to communicate with their homes and offices daily, without leaving the train.

The telephone service was arranged so that the members might have the advantage of communication with their homes at some convenient hour each day and throughout the evening. At points where the travelers stopped for an hour or two during the day no provision was made for service on the train. Special connections were made at the following cities, where the members spent the night: Paris, Cairo, Murphysboro, Pana, Decatur, Springfield, Peoria, Davenport, Kewanee and Bloomington. The train made stops at the following additional places: Hoopston, Danville, Mt. Carmel, Harrisburg, Metropolis, Marlon, Mt. Vernon, Centralia, Pana, Mattoon, Champaign-Urbana, Litchfield, East St. Louis, St. Louis, Belleville, Alton, Jacksonville, Quincy, Keokuk, Macomb, Canton, Rock Island, Moline, Monmouth, Galesburg and Streator. The route of the train is shown on the map on Page Two.

Every day during the trip a "news paper," styled the *Pilgrims' (Daily) Progress*, was issued. As may be imagined, this little sheet was largely made up of merry quips and quibs at the expense of the members of the party. Mr. Francis, the telephone representative, did not escape his share. Under the heading, "Exposure of Men Higher Up," were the alleged Bertillon records with thumb marks of a number of members. Mr. Francis was "identified" as follows:

"Tall, handsome; long on dignity; tie-wire mustache; record good except for connection with public service corporation; member glee club; otherwise is practically respectable."



Fingerprint
Signature of
A. G. Francis.

WESTERN ELECTRIC INVADES TURKEY

Constantinople System of American Made Telephones Almost Finished.

By August of this year it is expected that the city of Constantinople will be fitted out with a complete telephone service, over a system which has been under construction for the last year. The service will cover both the European and Asiatic sides of the Bosphorus and of the Marmora as far as Pendic on the Asiatic coast, and will also include the Princess Islands in the Marmora, some ten miles from Constantinople.

The concession for the Constantinople system was adjudicated in 1909, and the fourteen competing syndicates were eliminated one by one until only the Anglo-American group was left. This is composed of the Western Electric Company, the British Insulated and Helsby Cables Company, the Thomson-Houston Company of Paris, and the National Telephone Company. The company's own name will occupy a large space in the subscribers' directory. It is to be called the Societe Anonyme Ottomane des Telephones de Constantinople. American-made instruments will be largely used.

The Anglo-American group obtained a concession in April, 1911, after it had been accepted by the government. It was proposed for some time for the government to build and operate its own system, but it was finally decided that it would be more practicable to grant the concession to a group of foreign companies, with the privilege of purchasing the property at a later date.

The concession is for thirty years from the date of the signing of the contract. Under its terms the government grants to the concessionaires the exclusive right to construct and operate telephone lines within certain districts, with the exception of state, municipal, and lines entirely within private property, which have already been installed. All materials to be used in the original construction work are allowed to enter free of duty, after examination by a government commission as to their quality and adaptability. As soon as the system is in operation the government will proceed with the preliminary inspection, and after it has been in operation for one year the inspection to determine the government's final acceptance will take place.

In return for granting the concession the Ottoman government will receive fifteen per cent. of the gross profits of the operating company. A feature not hitherto a part of concessions granted by the Turkish government is that, besides participating in the gross profits, the government will also receive from the telephone company \$3.35 a year for each mile over which lines are operated and \$4.06 for each square yard of property occupied by the company buildings.

The Turkish government has the right to purchase the property ten years after the signing of the agreement. If, however, the government has not taken it over at the end of thirty years, the concession will be prolonged for another ten years under the original conditions of the contract. The company will have the right to employ foreign technical experts in the first ten years of the concession, but it will be required to send Ottoman subjects to Europe for technical

instruction, and, furthermore, to establish a telephone school at Constantinople to be maintained for the same purpose. The technical staff of the company, which now consists of thirty men, all of whom are foreigners, will be replaced by natives as soon as the system is in good working order.

Up to the present 2,900 subscribers have been obtained, of whom twenty-five per cent. are Turkish householders. Another interesting feature of the

The Means By Which Infection Is Transmitted

By DR. ALVAH H. DOTY
Medical Director, Employes' Benefit Fund Committee, Bell System, Western Union Telegraph Company and Western Electric Company.

No subject relating to the protection of health is more generally misunderstood by the public than that which deals with infectious diseases and the

whereas the truth is that these articles transmit disease only in rare instances. This belief has in the past been very generally accepted although but little scientific evidence has been presented to uphold it, and its chief support lies in the fact that it offers a ready and plausible explanation for outbreaks of infectious disease which at the time cannot otherwise be explained.

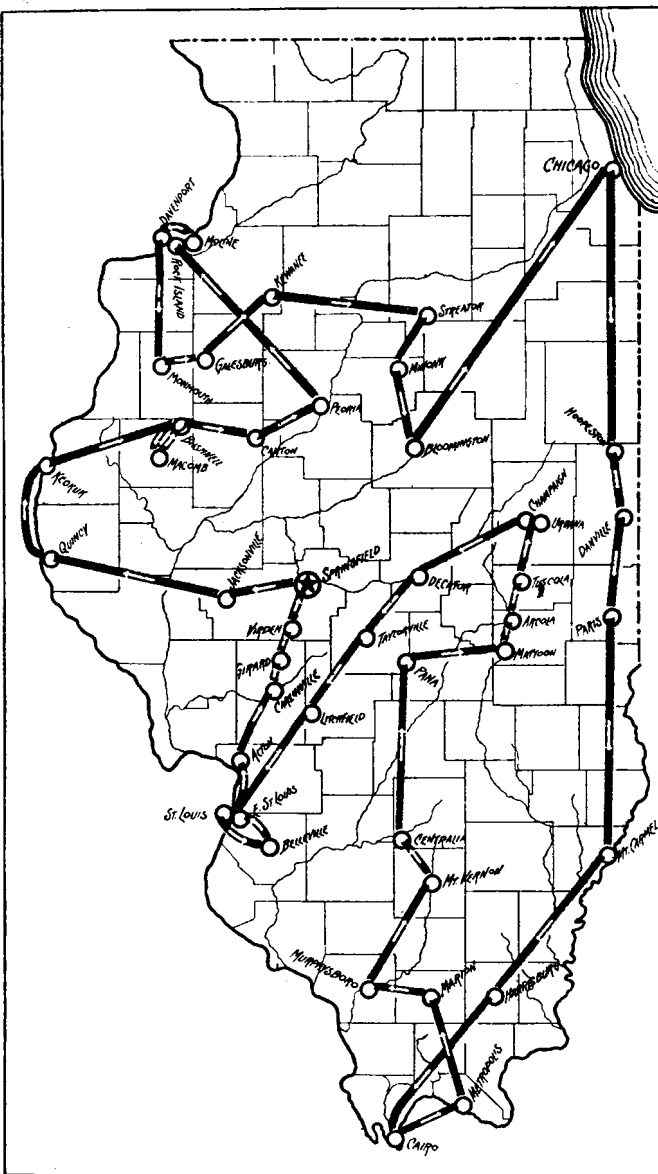
As the result of this belief the public are harassed lest they become infected through the medium of clothing of those they meet who have been in contact with a case of infectious disease, or who may themselves have been directly exposed and fear they may transmit infection in the same manner to members of their family or others. The alleged danger from this source has been responsible for many unnecessary and illogical practices, for instance, some persons handle car straps very cautiously for fear of contracting disease, although those who are timid in this direction will handle the rail of a public stairway and many other exposed surfaces with impunity, still one offers the same possibility of transmitting infection as the other. It is true that these exposed surfaces contain many germs, but as a rule they are harmless ones and exist everywhere, and will be found on our hands, the linen we wear, etc. While it is possible in some uncommon instances that "pathogenic" organisms, i. e., the germs which cause infectious diseases, may be transmitted from one person to another by clothing, etc., the danger from this source is so very remote that it need cause no apprehension. Even if some of the infectious organisms were deposited upon our clothing, they would probably soon become inactive from exposure and from the fact they are separated from the substance which had provided them with nourishment.

Old and filthy paper money is looked upon as a fruitful source of infection, although there is but little truth in this belief. While it is advisable and proper that money in this condition be removed from circulation, it should be understood that it is for appearance's sake rather than because it is a medium of infection.

It is also believed that infection is transmitted over long distances through the air, for a mile or more. There is not only no definite scientific proof of this, but in the light of our present knowledge this theory is not entitled to respectful consideration.

There are innumerable other popular theories of this kind which have long been cherished by the public, but in recent years have been proven to be without substantial foundation, therefore it is of interest to know what are the true media of infection. Fortunately, we now have very extended and definite information on this subject.

Infectious diseases are transmitted directly from one person to another through the medium of various discharges from the body which contain infectious germs or organisms. These germs may also be transmitted from one person to another indirectly through the medium of food or drink or by certain insects. If all cases of infectious disease were well marked and could be promptly and easily identified the danger of their extension would be greatly diminished, for we could then better guard against infected discharges and eruptions, but unfortunately these diseases very often appear in a mild, irregular or unrecognized form and are overlooked or



ROUTE OF SPECIAL TRAIN OF CHICAGO ASSOCIATION OF COMMERCE.

Constantinople telephone service is the fact that owing to the many tongues spoken in the city, all of the operators will be required to know at least three languages—French, Turkish and Greek—and there will be in each of the sixteen central exchanges operators who speak German, English, Armenian, Spanish and the Slav languages.—*New York Times.*

way they are transmitted from one person to another. Certain theories connected with this subject which have been long and universally accepted are now known to be largely wrong. The most notable among them being the so-called "fomites" theory which maintains that clothing, baggage, cargoes of vessels, various textile fabrics, money, etc., are common agents of infection.

mistaken for some simple malady and probably treated with home remedies.

Another very common and dangerous means of infection along these same lines and which more recently has been fully recognized is the transmission of disease by what are known as "Carriers," i. e., persons who contain actively infectious organisms within their body, but present no evidence of disease themselves and apparently are well, yet through the medium of their discharges may infect water, milk, food, etc., and thus transmit disease to others. This very frequently occurs in connection with typhoid fever and cholera and also in other diseases.

Certain insects transmit disease, for we have indisputable evidence that malaria and yellow fever are contracted by the bite of certain varieties of the mosquito, and so far as we know at the present time, there are no other means by which these diseases are transmitted. The danger of the fly as a medium of infection is also known to sanitarians. The flea that infests the rat is a common means of infection in Bubonic plague, and it has recently been proven that the body louse transmits typhus fever from one person to another. Both plague and typhus fever are referred to in the earliest medical literature and in the past have caused great loss of life. For instance, during the Fourteenth Century plague invaded Western Europe and it is estimated that during a period of twenty years or more under the name of the "Black Death," it destroyed one-fourth of the population of that section of the globe. Such a condition could not occur today, for the infectious organisms of plague, as well as the germs which cause other infectious diseases, have been discovered and the means by which they are transmitted is known, therefore we can now deal promptly and successfully with outbreaks which in the past were followed by very serious consequences. This exceedingly important advance in our knowledge of this subject is largely due to the work of Pasteur and Koch, respectively a French and a German bacteriologist, who, working independently of each other, gave to the world, about the year 1880, the first definite and satisfactory information regarding the germ origin of infectious diseases. This was followed by active and extended investigation of this subject and has led to the identification of the specific organism of tuberculosis or consumption, typhoid fever, cholera, diphtheria, Bubonic plague and other infectious diseases. It would be difficult to estimate the importance of this discovery, for it means that never again will outbreaks of infectious diseases be followed by the devastation which has occurred in the past, provided modern sanitary methods are employed.

Infectious diseases thrive best where there is filth, overcrowding, bad air, etc. As an illustration, during the outbreak of typhus fever which occurred in New York City during the winter of 1893-1894, there were over 700 cases, and all but two or three of them were among the tenement and lodging house population, where uncleanness and overcrowding were markedly present.

The prompt detection of infectious disease is very important, for it not only offers to the one affected a better chance of recovery, but the proper isolation of those who are sick, which is an exceedingly important factor in protection, goes far to prevent the extension of the disease. The value of this may be illustrated as follows: Typhoid fever (which must not be confused with typhus fever already referred to) is slowly ushered in and may excite little or no attention, particularly if the case is very mild or what is commonly known as "walking" or "ambulant" typhoid. This type of the disease is dangerous because the patient may re-

ceive no treatment or care until some serious complication occurs, whereas if prompt medical advice had been secured, not only might the patient's life have been saved, but the early detection of the disease would probably have led to the discovery of an infected water or milk supply, and through this knowledge further sickness or death may have been prevented.

Tuberculosis exists almost everywhere and its early recognition is also of great importance; unfortunately, cases of this disease frequently reach an advanced stage before they are detected, then but little can be done for the patient and in the meantime infection has been very generously distributed. Smallpox often appears in a mild form and may be mistaken for some condition which is not infectious and through this error a serious outbreak may follow.

Diphtheria, measles and scarlet fever, which are so constantly with us, are frequently unrecognized, and there

mon practice of treating those who are only slightly ill with domestic remedies. While this, in some instances, may answer the purpose, there are many times when the lack of prompt medical treatment has not only been responsible for loss of life, but has led to serious and extended outbreaks of infectious diseases. Proper care in this direction must be regarded as an economical factor as well as a greater protection to the patient and to the public health.

We now deal with facts which have been established as the result of exhaustive scientific investigation and practical experience and the erroneous theories of the past have been replaced by definite knowledge regarding the true means by which infectious diseases are transmitted.

The modern method of protecting the public health is by prevention rather than treatment. The basis of this is cleanliness, the proper care of one's person, his household, and the aid he may extend to others in this di-



BELL FLOAT IN PARADE AT ANDERSON, IND.

is no doubt that the increased number of cases of these diseases which occur at the beginning of school year is due to their transmission through the medium of discharges from undetected cases and not from infected clothing as it was formerly supposed.

In tuberculosis it is the sputum or expectoration that contains the infectious organism, and this may be transmitted in many ways, particularly where uncleanness and overcrowding exists, for in such instances less care is taken against the danger from this source. Besides, under these conditions many things are used in common which act as media of infection. In typhoid fever and cholera it is the intestinal discharges which transmit the infectious organisms and through this source water, milk, and food supplies may become contaminated. In diphtheria it is the discharge from the nose and throat we must fear, and in measles and scarlet fever the discharges from the ears as well as from the nose and throat contain actively infectious organisms.

The great frequency with which diphtheria, scarlet fever, and measles occur, particularly among children, is due largely to carelessness in dealing with the discharges, for in measles and scarlet fever the danger from the latter is far greater than the eruption which is present, although this is not generally known. Children keep close to each other and cough and sneeze in each other's faces, and there is but little wonder that infection is commonly transmitted, particularly when so many of these cases are either unrecognized or are not under proper medical supervision. One factor which favors this condition is the very com-

mon practice of treating those who are only slightly ill with domestic remedies. This is very clearly demonstrated, particularly in connection with typhoid fever and tuberculosis, for these diseases usually select for their victims those who are in impaired health and whose resisting power is weakened.

Preventive measures if practically applied offer not only valuable means for improving the public health, but will go far towards eliminating infectious diseases. These measures are not difficult or unpleasant to carry out, however, success depends upon the cooperation of the public, and for this reason it is important and necessary that the means by which infectious diseases are transmitted and the methods to be employed in dealing with them should be properly understood.

Before concluding this subject a word must be said in reference to the mosquito and the fly, for their extermination is an important preventive measure. While we have more definite scientific information regarding the propagation of the former and its danger as a medium of infection, there is ample proof that the fly also transmits disease.

Those who live in mosquito infested districts are familiar with the little squirming bodies known as "wigglers," about a quarter of an inch long, which are found in stagnant pools of water, rain water barrels, old tinware, broken roof leaders, crotches of trees and almost any place that water may be collected. These are mosquito larvae and represent the second stage in the propagation of this insect.

Mosquitoes breed only in water, upon the surface of which they deposit their eggs—usually at night time, for it is then that the mosquitoes are most active as we well know; generally after twenty-four hours the eggs hatch and the larvae, to which we have just referred, drop into the water. After a period usually of seven or eight days, sometimes longer, they pass to the pupal stage, which is of short duration—not more than two or three days and is preliminary to the birth of the full-grown mosquito.

As the common inland mosquito will lay three or four hundred eggs at one time, and as these become winged insects in about two weeks, it is not difficult to understand the rapidity with which these insects propagate. Mosquitoes do not as a rule breed in large bodies of water, but prefer small quiet pools where there is a large amount of organic matter, therefore filth contributes to the propagation of the mosquito as it does with the fly.

It is of great interest to watch the larvae or "wigglers" for they are voracious eaters and may be seen darting about the water in quest of food, which they find in abundance in filthy pools. Curiously enough, while a larva cannot live out of water it must also have air, and if carefully watched it will be seen every minute or so to come to the surface above which it extends its tail containing the opening of the respiratory tract. The knowledge of this is taken advantage of in the extermination of the mosquito, for if the receptacle containing larvae cannot be removed or destroyed, a small amount of semi-crude petroleum oil is sprinkled over the surface of the water in the proportion of about half a pint of oil to an estimated water space of about ten feet in diameter. When the larva extends its tail above the surface, which is covered with oil, the minute opening of the respiratory tract is plugged up and the larva dies of suffocation within fifteen or twenty minutes.

This article does not admit of a full description of the propagation and extermination of the mosquito or the fly, but it will be sufficient for the present purpose to state that mosquitoes breed only in water and that success in exterminating them depends chiefly upon the care and patience which is observed in detecting their breeding places. Efforts to exterminate either the mosquito or the fly by destroying the winged insects, except for personal comfort, is worse than useless, for it does no good and is misleading, as it detracts attention from the only means of successfully exterminating these insects, and this is by destroying their breeding places.

Flies breed wherever there is filth, their favorite breeding place being the stable, therefore, while their extermination is for various reasons more difficult than the mosquito, the most satisfactory results are obtained by the strict observance of cleanliness and other proper sanitary measures.

OBITUARY.

A. MARTIN ALLEN, superintendent of mailing in the department of archives of the American Telephone and Telegraph Company at Wilmington, Del., died May 23rd. He had been in the telephone service thirty-three years.

E. A. MILLER, vice president of the Central Wisconsin Telephone Company, which is a connecting company of the Wisconsin Telephone Company, died at his home in Hixton, Wis., May 28th, after a sickness of several months. Mr. Miller was an old resident of that vicinity and had been an active and prosperous business man. He had a large acquaintance over the state generally, particularly among the telephone people, and his death will be universally regretted.

The Bell System—Its Constituent Companies And Their Relations To Each Other

By CHARLES G. DUBOIS

Comptroller American Telephone and Telegraph Company—Reprinted from *Western Electric News*.

The Bell Telephone System gives a national telephone service throughout the United States, reaching and connecting 7,500,000 telephones in 70,000 communities. The extent and national character of this telephone service can be best appreciated by comparison with the 65,000 post offices and 60,000 railroad stations in the country. The 2,500,000 miles of toll wire connecting these 70,000 communities appear on even a large wall map as a fine network over the entire country, with white spaces only where there are mountain ranges or deserts.

This national telephone service is furnished through the co-operative efforts of many different companies, each working in its own territory or on its own functions for the whole country, and the purpose of this article is to show briefly how these companies are related to each other. Some of the companies that furnish telephone service in the large cities or other thickly settled parts of the country are of themselves very large corporations, with thousands of employees and millions of dollars invested in telephone equipment.

Each company manages its own affairs. But national service naturally presents many problems which must be worked out under the supervision of one responsible agency, in order to secure to the public the best results in constantly extending the service and increasing its efficiency.

The American Telephone and Telegraph Company.

The agency through which the problems of the whole system are worked out is the American Telephone and Telegraph Company, sometimes called the parent company.

This company has three great functions or responsibilities, viz.:

The central administration of the whole system.

The development of the system as a unit, including the supply of money for the new construction which this involves.

The operation of long distance lines. While all these functions are really directed to the one purpose of maintaining and developing the different parts as one comprehensive and efficient whole, we can perhaps understand this purpose most easily by considering these functions separately.

CENTRAL ADMINISTRATION.

For the purpose of dealing in an orderly and systematic fashion with the problems of the telephone business as a whole, and the problems of the various companies that have some relation to the whole system, there are various departments in the parent company, each having its own duties and responsibilities.

The Engineering Department has charge of the design and standardization of apparatus, the methods of plant engineering and construction, and the methods of handling telephone traffic. It is intimately concerned with and generally responsible for the development of the art of transmitting messages over wires by electricity, and the protection of the apparatus and wires from outside electrical interferences, such as lightning or the high-tension electric currents of nearby electric light and power wires.

The Legal Department advises all the departments and companies on legal questions. It compiles and distributes information as to the laws and decisions throughout the country which may be pertinent to the telephone business or any branch of it.



CHARLES G. DUBOIS.

(Cut courtesy of Western Electric News.)

The Accounting Department has charge of the methods by which the accounts are kept in the various companies. It audits the books of the companies and sums up the results of the whole system in various reports, statistical tables and charts.

The Financial Department receives and pays out the money of the parent company and supervises the general financial transactions of the whole system. It also has charge of stocks and bonds issued and the transfer of these as they pass from one owner to another.

The Information Department conducts the advertising and publicity work of the whole Bell System. Examples of its work may be found from month to month in the magazines.

While these departments are made up chiefly of specialists, as is necessary for the complicated problems that have to be worked out, yet the general point of view is maintained by an intimate personal relationship among the heads of the different departments, and by the practice of referring all questions of major importance to the President or Senior Vice President, accompanied by the recommendations of the department heads.

Thus the central administration of the whole Bell System deals only with general, as distinguished from local questions, and applies to such general questions both the special skill of experts and the broad judgment of executive officers.

THE SUPPLY OF MONEY.

Hundreds of millions of dollars have been invested in the Bell System, and as the use of the telephone is steadily growing, several millions of dollars have to be spent every year to extend the telephone plant.

This money has come and must continue to come from those people who by thrift or good fortune have money in large or small amounts from which they want to get some income and at the same time feel that their principal is safe.

It is estimated that there are about 100,000 people who have directly invested money in the Bell System—many of them only \$100 to \$500 each. There are also thousands of indirect

investors—those, for instance, who have put money in savings banks which in turn have bought Bell bonds. These thousands of investors are the real owners of the Bell System. Some of them own bonds of the parent company; some own bonds of the different associated companies; a few own stock of certain associated companies. The great majority, however, own American Telephone and Telegraph Company stock. This stock is known to investors all over the world as a "gilt-edged" stock investment. Its market price at this writing (May 8th) is about \$128 per share, so that the dividend of \$8 per share per year (which rate has been paid for several years) pays the present purchaser over six per cent. on his investment.

The parent company owns about ninety per cent. of the stock of the Associated Bell Companies, and the financial unity of the whole Bell System is maintained by the responsibility which the parent company takes for supplying money to each associated company according to the needs of the territory each serves.

No single associated company has, or could have, the broad and continuous markets for its securities that the parent company has. In fact, the connection with the American Telephone and Telegraph Company is one of the chief elements of value in such associated company securities as are marketed.

When toward the end of each year the needs of each associated company are determined for the coming year, they are summed up by the parent company and the supply of money is arranged for. Thereafter the construction work of each company can proceed evenly, with the certainty that the money to pay men and to buy material will be at hand when needed.

Another function of the American Telephone and Telegraph Company, which contributes in no small degree to the unity of the whole system, is the ownership and operation of the so-called long distance telephone lines. These are the lines which connect the principal cities of the country together, and are the main routes of telephone communication between places in the territories of different associated companies.

As they are thus used more especially for service between distant points, these lines are constructed according to the highest standards known to the art. They are most efficiently maintained, and no expense is spared to give first-class service over them, even to very great distances. Commercial telephone service is now given from New York as far west as Denver, and plans have been completed for the extension of four heavy copper wires from Denver to San Francisco.

It is these long distance lines that unite the associated companies into a national system and thus make universal service possible. Every Bell telephone connects directly with the local exchange operated by an associated company. The associated company may operate in only a few counties or in a single state, but anyone who wishes to speak from his telephone to a person in a distant village or city, far beyond the territory of that associated company, has only to express his wish and the through connection is established over the long distance lines. The service is not limited to the community nor confined within the boundaries of the associated company, but is nation-wide.

The Associated Bell Operating Companies.

In the early days of the telephone many individuals, firms and companies were given licenses to use the instruments, each within a certain defined territory. At first only local ex-

changes were operated; then lines between nearby exchanges; and, as time went by and the distance increased over which telephone conversations could be held, companies occupying adjacent territories tended to consolidate. This tendency greatly reduced the number of licensees, so that there are now only twenty-five companies having direct licenses, although these licenses in the aggregate cover the entire United States. The companies holding these licenses are commonly known as the Associated Bell Operating Companies.

For operating purposes, they are generally grouped in eight territorial divisions, the boundaries of which are determined by the commercial and geographical conditions.

The names of these divisions are derived from their geographical locations, and the licensee companies included in each division are as follows:

- NEW ENGLAND DIVISION.
 1. New England Telephone and Telegraph Company.
 2. Southern New England Telephone Company.
 3. Providence Telephone Company.
- EASTERN DIVISION.
 4. New York Telephone Company.
 5. Bell Telephone Company of Pennsylvania.
 6. Central District Telephone Company.
 7. Chesapeake and Potomac Telephone Company.
- CENTRAL DIVISION.
 8. Chicago Telephone Company.
 9. Central Union Telephone Company.
 10. Cleveland Telephone Company.
 11. Cincinnati and Suburban Bell Telephone Company.
 12. Freeport Telephone Exchange Company.
 13. Michigan State Telephone Company.
 14. Wisconsin Telephone Company.
- SOUTHERN DIVISION.
 15. Southern Bell Telephone and Telegraph Company.
 16. Cumberland Telephone and Telegraph Company.
- NORTHWESTERN DIVISION.
 17. Northwestern Telephone Exchange Company.
 18. Nebraska Telephone Company.
 19. Iowa Telephone Company.
- SOUTHWESTERN DIVISION.
 20. Southwestern Telegraph and Telephone Company (of Missouri).
 21. Missouri and Kansas Telephone Company.
 22. Pioneer Telephone and Telegraph Company.
 23. Southwestern Telegraph and Telephone Company.
- MOUNTAIN DIVISION.
 24. Mountain States Telephone and Telegraph Company.
- PACIFIC DIVISION.
 25. Pacific Telephone and Telegraph Company.

Each company has its own Board of Directors and its own administrative officers. Generally—but to this there are some exceptions—all the companies in one group have one headquarters and the same President, Treasurer, General Auditor, General Counsel and other principal officers.

These Associated Bell Operating Companies own and operate nearly 5,000,000 telephone stations and 1,700,000 miles of toll wire, and thus come in daily personal contact with the public all over the country.

The Connecting Companies.

After the fundamental patents on telephone instruments expired, many individuals and companies entered the telephone business—some by more or less distant alliance with the Bell System; others with no alliance but with the object of rendering a local service where the Bell service was not available; and still others with the avowed purpose of starting exchanges where the Bell System was already giving service.

The policy of the Bell System is to extend the toll line service to the widest limits, doing this through its own facilities wherever it has such facilities, but at any points where it has not such facilities utilizing the facilities of other companies at fair and agreed rates, thus giving to the public the widest service, and at the same time avoiding duplication of

plant with the waste and expense to the public which duplication entails.

In pursuance of this policy several thousand companies owning and operating over 2,500,000 telephone stations are connected, under various contract arrangements, to the toll lines of the Associated Bell Operating Companies, and exchange traffic with them, the effect of which is to extend Bell toll facilities to many towns and rural sections where the Bell Companies do not directly operate.

The Western Union Telegraph Company.

Perhaps no corporation in the country is more generally and widely known by name than the Western Union Telegraph Company, which has been furnishing a general telegraph service throughout the country for more than fifty years. In 1909 the American Telephone and Telegraph Company purchased a substantial interest in this company, and thereby established relations between the telegraph and the telephone which have several important advantages to the public. In the first place, there is the convenience of sending and receiving telegrams and cablegrams by telephone. This is not only of daily convenience in the cities, but an even greater benefit is that the telegraph service is thus extended to many rural communities which it never reached before. In the next place, since wires can be used for both telephone and telegraph messages at the same time, a greater joint traffic can be carried over present lines, and as new lines are built they have a greater capacity because of their joint use for both telephone and telegraph purposes.

Western Electric Company.

The manufacturing and supply department of this whole telephone and telegraph system is the Western Electric Company.

The purpose is to foster and maintain relations between the Western Electric Company the other companies in the Bell System as thoroughly co-operative as the relations that prevail within the organization of any well managed single company.

The American Telephone and Telegraph Company establishes the types and quality of material required in the service of the Associated Bell companies, and at the end of each year makes for the Western Electric Company a general statement showing the quantities of the principal materials that will be required in the following year. The Associated Companies depend on the Western Electric Company to furnish the apparatus and material they need at the proper times and places, and the basis of prices is fixed in contracts which are alike for all companies and are fair to both supplier and purchaser.

In carrying out its responsibilities to the other companies of the Bell System, the Western Electric Company has established—first, its manufacturing plant and central warehouse at Hawthorne; second, many sources of supply for articles not manufactured at Hawthorne; and third, its divisional and local warehouses at various points throughout the country.

It is not necessary, for the purposes of this article, to describe here the other important activities of the Western Electric Company—such as its business in electrical supplies and its foreign telephone business. But mention should be made of the assistance that the Western Electric Company's foreign telephone business gives the Bell System by keeping constantly before us the technical developments in other countries.

One System—One Policy—Universal Service.

The well defined and widely known purpose animating the owners, the managers and the employees of this

aggregation of companies, is to give an efficient and universal telephone and telegraph service throughout this country. It is their sincere conviction that nothing short of such a universal service can be adequate to the needs of the country. It is their firm belief that there is no way of getting this service efficiently except through one System conducted under American business methods and subject at all times and all places to the scrutiny and control of the public authorities. It is their earnest intention that the Bell System shall meet all the exacting requirements of such a service, alike in the daily routine and in the great emergencies.

The ideal is a high one, but it is not unattainable. The effort to reach it is full of struggle and hard work, but it is inspiring work because it has a great purpose.

Doubtless everyone will agree to

NEW EXCHANGE AT BARRINGTON.

Suburban Point, Equipped With Up-to-date Common-Battery Equipment.

The Barrington, Ill., exchange of the Chicago Telephone Company has been cut over in the new building erected by the company. The new switchboard is the first of the No. 9 type to be installed in the Chicago Suburban Division. Connected with it are eleven toll lines, ninety common-battery subscribers' lines and twenty-three magneto farmer lines. None of the common-battery lines extend to the residences of farmers, who pay a mileage charge in addition to the regular rates for service.

Barrington is located in the Woodstock district, in charge of District Manager J. H. Conrath. Rose Kam-



NEW EXCHANGE BUILDING, BARRINGTON, ILL.

these three fundamental propositions: The public is entitled to an efficient service at fair rates; the employees are entitled to good working conditions and fair wages; and the investors are entitled to a fair return on their money. But in their specific application, everyone must contribute clear thinking, hard work and loyal cooperation, as between individuals, departments and companies.

Commercial Agents Meet.

The last of the season's "get together" meetings was held by the Chicago commercial agents at the Grand Pacific Hotel May 5th.

G. W. Cummings, chief instructor in the Plant Department School, who has given several interesting talks, was presented with a handsome book as a token of appreciation.

During the series of meetings talks have been made by Mr. Bone, Mr. Peirce, Mr. McNichols, Mr. Cummings and Mr. Clark. The commercial agents feel that the little monthly gatherings have been of great value. Meetings will be resumed in October.

Telephone Men Address Club.

At the regular luncheon of the Chicago Engineers' Club June 4th at 314 Federal street, A. R. Bone, commercial superintendent, and H. N. Foster, traffic superintendent of the Chicago Telephone Company, were the speakers. Mr. Bone gave an outline of telephone work in Chicago from the commercial standpoint and Mr. Foster talked on operating and service conditions.

a call is made, received and transmitted to the party called.

The manipulation of local and long-distance calls may be watched by the visitor, who will be shown round through the installation by competent guides provided by the company.

The exposition will be equipped with the most perfect telephone and telegraph system that has ever been used in an international exposition. The three main sections of the exposition, the exhibit palaces and gardens, the section of states and foreign nations special pavilions, and the section for amusement concessions will be connected as would different districts of a live city.

The telephone company will pay the exposition a commission for the franchise and the whole system will be conducted as a concession.

At various points in the grounds, and in every exhibit palace, there will be plenty of public booths for the use of intercommunication and outside connections.

Expert declare that the system which is to be installed for the Panama-Pacific International Exposition will be the most complete and perfected ever attempted at any world's fair.

EVEN IN THOSE DAYS

Attempts Were Being Made to Abolish Use of "Hello" in Answering Telephone.

From T. D. L.: The telephone is of man's invention, and that on the whole it is a useful invention is manifest; and is proved by the fact that over 250,000 are now in use in the United States. Instead of hanging up their telephones when they finish talking, and giving no sign, a large majority of subscribers now, as soon as they finish and hang up the telephone, send in a short ring, which drops the central office annunciator and notifies the operator to straighten the lines. If all subscribers would do this the "hello" nuisance would be by magic cease. If those who daily use the telephone had, in the early days of the telegraph, been brought into equally intimate contact with it, they would be more patient. But, unlike the telegraph—which has, for its practical operation, always been in the hands of specialists and experts—the telephone has, from its inception, been in the hands of the public itself, and has, perhaps, proved to be the most efficient popular lecturer on electrical science that has ever approached the subject. Therefore, on this account, if no other, let us possess our souls in patience, and he that is without imperfection among us, let him be the first to throw impatient words at the telephone operator.—From the *Electrical Review*, May 10, 1883.

EXPOSITION SERVICE PLANNED.

Pacific Telephone and Telegraph Company to Install Complete Exchange at Panama Canal Fair.

Thirty operators working at one switchboard, connecting with 2,000 stations, is the very attractive exhibit which will be installed by the Pacific Telephone and Telegraph company at the Panama-Pacific International Exposition at San Francisco in 1915 to celebrate the completion of the Panama Canal.

The switchboard will serve as the central telephone station for the entire exposition grounds, and will at the same time prove one of the most interesting exhibits of "Electrical Methods of Communication" in the Palace of Liberal Arts.

A novelty in connection with the installation which has not been introduced before in exposition stations is that the whole plant will be enclosed in a huge glass case, so that visitors to the exposition may see exactly how

A LITTLE LEARNING IS A DANGEROUS THING.

If your telephone balks or works poorly, you may be able to fix it without waiting for the repair man. If you have difficulty in hearing over the line, make sure that the nuts on the end of the receiver are tight. The tightening of other visible connections often improves the working of the phone. If the person at the other end can not hear you, the transmitter often can be improved by gently clapping your palm over the mouthpiece; or, if it is a desk phone, in inverting the entire instrument, and shaking it gently, several times. This loosens the particles of carbon in the transmitter, and makes them more responsive.—J. M. B., Philadelphia, Pa. in Sunday Magazine of *Chicago Tribune*.

Newspaper Comments on "Flood Edition" of The BELL TELEPHONE NEWS

Not without good reason, does the Bell Telephone Company, in its monthly paper just issued, give special praise to its operators who gave heroic service in the flood districts of Ohio and Indiana recently.

In the great situation of danger and destruction the operators continued in their positions, attending to their duties regardless of their own comfort and safety. President B. E. Sunny calls the recent work the "Crowning Achievement," and others, including the Governor of Ohio and the mayors of many cities, unite in thanks to the employees in the various cities for the splendid devotion to duty, shown at these trying times.—*Star Courier*, Kewanee, Ill.

The BELL TELEPHONE NEWS for May, a tremendously interesting number of a unique monthly magazine, has been received and gives the best and most amply illustrated history of the recent great floods that has been seen in any publication.

This magazine has seventy-two pages and is a model of editorial excellence and mechanical beauty. The Bell Company has special interest in the story of the floods because Bell telephone employees, both men and women, performed heroic feats of valor for the sake of humanity and for the public good during that terrible period.—*Dunlap Dispatch*, Chicago, Ill.

The nerve function of the telephone to the community is depicted in a special "flood edition" of the BELL TELEPHONE NEWS, just published and containing the record of the March storms and floods from Omaha to Marietta. Without intending to do so, the edition shows as no other document could the vital part of the telephone in the happenings and accidents. It demonstrates the performance of a function like that of the nervous system of the human body. It was the first time that the telephone system came into wide-spread life and death touch with the people to serve the masses to the utmost impartially. In reporting the incidents, reproducing scenes, presenting the reports of wire and circuit men, construction squads, rescuers, telling the human interest stories of sacrifice and suffering by employees and many other details, the special edition shows how the telephone "made good." In the compilation and reporting of most of the record of the floods in this state, R. R. Stevens, commercial superintendent of the Central Union company, has further demonstrated his versatility and qualifies splendidly as an editor.—*Ohio State Journal*, Columbus.

The current number of the BELL TELEPHONE NEWS, published by the Central Union Telephone company in the interest of its employees, contains a great story of the flood disasters which swept the country a few weeks ago. The camera man was on the job and the NEWS takes advantage of his activities and publishes dozens of half tones showing the destruction left in the wake of the flood.

Views are reproduced of the various places in Indiana wrecked by the waters, as is a letter from Governor Raiston to General Manager Whitney expressing his thanks for the service rendered by the company in the time of need. Space is given to Frank Wampler, well known here, because of his work in getting connections for the governor to the relief committees in various parts of the state. A good

half tone of Mr. Wampler is used in connection with the governor's story.

In many places employees of the company took great risks of life in order to be of service to the public while the waters raged in and about the switchboards; linemen put out over the waters to repair lines and the like, and to these employees the writers in the NEWS give an unusual amount of space. The number is one that will undoubtedly be laid away by employees

the heroism of an army of loyal workers—men and women—who stuck to their posts in innumerable telephone exchanges while the flood was at its height. These operators in many cases performed acts of heroism as splendid as any imagined by fiction-writers. In a series of well written articles, the NEWS sets forth some of the more notable of these instances of well-nigh unparalleled devotion to duty.—*Canadian American*, Chicago, Ill.

ployes played such a prominent part in the relief work.—*News*, Menominee, Wis.

The BELL TELEPHONE NEWS for May has been designated as a flood edition. The NEWS is a monthly publication, and, as its name indicates, is issued in the interest of the telephone system. In its May issue it contains what is probably the most complete account of the great floods that swept down through portions of Ohio, Indiana and Illinois, that has been, or ever will be, contained within the two covers of a magazine. The narrative is profusely illustrated from photographs. Naturally and properly, considerable space is devoted to the aid and assistance rendered the stricken towns by the telephone system and its operatives. This feature, however, has not been overdrawn; it would take a highly imaginative pen to exaggerate the prompt and efficient work performed by the telephone system throughout the flooded districts. As it was, hundreds of lives were lost and many millions of dollars worth of property was washed away or otherwise ruined; without the system to send timely warnings ahead and to report actual conditions at different cities, villages and hamlets throughout the vast area affected by the unprecedented rush of waters, the loss of life and property would have been multiplied many times. And so if the telephone people are in a mood to indulge in self congratulations over the good work accomplished they have ample justification for the condition of mind in which they find themselves.—*Journal*, Stevens Point, Wis.

The May edition of the BELL TELEPHONE NEWS, published monthly by the Central Union Telephone Company, is a flood number and contains much valuable illustrated information concerning the recent floods in these parts and the splendid work accomplished by the Bell company in the trying times with hundreds of poles and many miles of wires down.

The entire issue is most interesting and is valuable as a souvenir. The book also contains much information concerning the progress of repair work.—*Daily News*, Fremont, Ohio.

The May issue of the BELL TELEPHONE NEWS, a magazine devoted to the interests of that company and its employees, in Ohio, Indiana, Illinois, Wisconsin and Michigan, is just out and is made up as a special flood edition, showing the extent of the flood in Ohio and Indiana.

This magazine will have a historical value, containing as it does news and photos of the flooded condition in a great many parts of the state.—*Telegram*, Youngstown, Ohio.

The May number of the BELL TELEPHONE NEWS is a "flood" edition, and while the matter is compiled from the position of the telephone company, it gives a valuable history of the recent eventful flood period in Ohio and Indiana, and the destruction of Omaha by cyclone.—*Leader*, Charlotte, Mich.

A recent issue of the BELL TELEPHONE NEWS gives a splendid description of conditions in and about Dayton at the time of the flood. Among other things touched upon was the taking of photographs, the company officials themselves doing some excellent work in this respect.—*Mail*, Moline, Ill.

The May number of the BELL TELEPHONE NEWS is very interesting, seventy-two pages in all. Forty of these pages have very good illustrations of the flood in Indiana and Ohio; also the damage done in Omaha and Illinois. This issue is highly interesting, and would be worth keeping a lifetime.—*Das Wochenblatt*, Chicago, Ill.

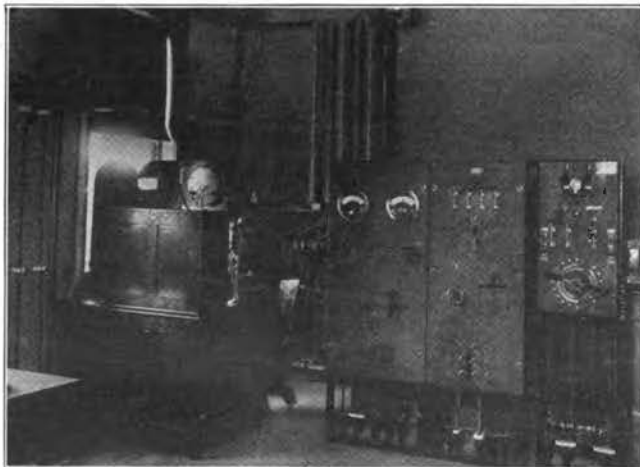


OPERATING ROOM, BARRINGTON, ILL.

to be referred to in after years when like times are at hand.—*Herald*, Washington, Ind.

A unique example of enterprise is displayed by the Bell Telephone Company in the publication of a superbly illustrated edition of the BELL TELEPHONE NEWS. The authentic history of the recent disastrous deluge in

The Dunn County News is in receipt of a copy of the special flood edition of the BELL TELEPHONE NEWS, a large magazine of seventy-two pages, containing many remarkable illustrations and descriptions of the recent flood in Indiana and Ohio. The pictures and descriptions of the recent flood are the best that have been seen and show the enterprise of the company, whose em-



APPARATUS ROOM, BARRINGTON, ILL.

COMMERCIAL SUCCESS

By W. F. HALLFRISCH, Manager at Ashland, Wisconsin

A great deal has been said in connection with commercial success. From the writer's point of view it would seem that the real close co-operation that can be established at the smaller offices is to a large extent lost sight of. Each individual must be made to feel that the success of the office is to a large extent dependent upon him, and his efforts in this direction should never be overlooked.

The person in charge must not permit his relation with any employee to be too distant; it is well to exercise such care as will hold the respect of all toward a superior. Let each person in charge make the walls of his office barriers of discontent and the results will be harmony within. Co-operation can never be attained unless complete harmony prevails. An ancient saying about a school teacher is to the effect that each day she would have all pupils repeat the words "We love our teacher." This was repeated so often that it eventually had the desired effect. This same feeling should and can be had in every office if those who give instructions desire to have it so. Let it be borne in mind that the above is the keynote for commercial success; inasmuch as without co-operation the best results can never be attained; however, there is much else which must be considered. When good feeling is general each will be interested in the upbuilding of the exchange; no opportunities of a good prospect will be lost sight of and friends of employees can be encouraged to boost for us.

Let each individual think of new ideas, and when he does so, try and work them out. When once a good suggestion has been made, hang on to it; do not let your enthusiasm be worked up and then be forgotten a short time after, for success only comes from repeated efforts; the beginning may be poor, but in the end we are bound to win. Good results are obtained only after untiring efforts have been made. Never pass up a good suggestion until you are certain it has been fully tried out. Prospects who think they do not need our service can in a great many cases be changed to think our way by our keeping its usefulness and necessity before them until they realize the convenience and importance of the service. So often good business is lost on account of giving up too soon. Never approach a good prospect unless you feel confident that you are master of the situation and know just what you are going to talk about; make your personality of equal strength to his; a weakness in this direction will in a great many cases lose business when dealing with the more intelligent class.

Each prospect must be dealt with according to the disposition of the individual; that is to say jokes and hearty laughs with those who are inclined to be jolly, all seriousness with those who are inclined to be serious and sober, and so on down the line. Managers and commercial agents should make it a point to extend their acquaintance as far as possible, for their appearance in any vicinity keeps before the public the service they represent and refreshes their minds on the subject of telephone.

One of the most important factors in the securing of new business is good service. This in itself gives the commercial department one of its most forceful arguments and has a strong tendency to place absolute confidence in every agent. To obtain this

we must look to the co-operation of the plant and traffic departments—from the plant department prompt attention on installs and charges, troubles taken care of when reported, and general good order of the plant at all times; from the traffic department courteous, prompt and efficient service. Every effort should be made to hold the business when once secured; the remarks just made in connection with the plant and traffic departments



W. F. HALLFRISCH.

are of the most vital importance in this direction. Every complaint should be followed up by inquiries to ascertain the cause; personal calls by the manager or commercial agent should in every case be made on disconnects ordered by subscribers; for in a great many cases it will be found that their grievance is caused by some minor fault in operation or something which can very easily be remedied to the satisfaction of the subscriber, who will in the end retain our service.

Collections must not be lost sight of; for experience has taught us that general dissatisfaction is always found among delinquent subscribers, who not only discontinue our service but try to avoid the payment of their bills. Our most satisfied subscribers are always those whose payments are kept up.

Did She Get It?

"Halloa, there, Central? Is this Central? It is? I thought it was, but I couldn't be quite sure. The other day I supposed I was talking to Central, and it was only my grocer. I do think there are some queer mix-ups in the telephone service. What I want now is to find out the telephone number of a Mrs. John Smith—S-M-I-T-H, Smith. I find that there are more than one hundred persons of that name in the book, and I don't know which one is the husband of the lady I want. She is a large lady with a florid face and prematurely white hair, and I think her husband is a traveling man, a brother-in-law of hers, named Jones, lives somewhere on M street, a stoutish, elderly gentleman, with side-whiskers. Kindly let me have Mrs. Smith's number at once. I had it on a slip of paper that I can't find. Seems to me it was two-four-sixteen ring three, or nine-two-sixty-four ring two. You know how confusing telephone numbers are. Let me have Mrs. Smith's number right away, please."—Pittsfield Republican.

"WHY BE A PIKER?" ASKS THIS EDITOR

Vernacular Philosophy of Man Who Would Give Square Deal to Company.

In the city of Port Huron, Mich., an agitation was recently started to secure a lower telephone rate for summer residents at the beaches near the city on the water front. The Business Men's Association took the matter up and discussion waxed warm. The manager of the Michigan State Telephone Company very frankly stated that the company could not afford to give service at any less than the prevailing rate.

But the sentiment in favor of attempting to force the rate below a paying basis was not unanimous, as the following extracts from a characteristic article in the Port Huron Sunday News will show:

"We have listened with a good deal of amusement and some pity to the ravings of the municipal chamber of intelligence. The News has been the only paper that has sassed the telephone company in the forgotten past, but we went into the swellest saloon in town the other evening, not to lubricate but just to visit, and the main squeeze says, 'Well, the telephone company has bought you off, haven't they?' We smiled a real, nice, sweet, smile, of pure sherry, towards the gentleman who made the remark and then we said 'No,' says we. 'We have been waiting until the bunch have got over the rabies, come to their senses and got it through their noodles what they were talking about and the time has arrived.'

"We have repeatedly said that what Port Huron needed was some men big enough to see things as they are and should be. Men who could look on both sides of a question before falling into a vat and then wanting to fight. Now let us just for a minute stop and consider one or two things. First, do we want telephone service? Do we want good service? Second, do we want it for nothing or do we want to pay for it the same as the members of the chamber of commerce want pay for their labor or profit in their business?

"It is conceded that the general opinion is that corporations have no souls, and want a lot for nothing, but say, Mr. Chamber of Commerce, are you doing anything for nothing? Are you giving your flowers and plants away to anybody that comes along? Are you giving four quarts of string beans for ten cents? Now perhaps you may be a banker; a man comes in and wants to borrow a hundred; you don't say 'sure you can have it; I won't charge you any interest.' You may be a hardware man and you charge a man ten cents for a paper of tacks, which makes thirty-six hundred dollars a ton for tacks, and a ton of iron at the factory for those tacks costs five dollars and thirty-eight cents. The telephone company have about 2,800 'phones in this city and as low a rate as any city in the United States. They have about forty 'phones at the beach. Now John and Steve and Charley, you are all good fellows; sit down a minute and take a chair; I want to talk to you. You have a one-party line at your residence down town, which is \$24 for a year. We have heard few, if any, kicks at that price. You are able to own a cottage at the beach; you go up in the spring or May and then you are there about four months and you want your 'phone up there. It is taken out

of your house and taken up there. While it is away from your downtown home you are not paying any rent for it. In four months you save eight dollars. And the company asks you \$15 altogether, which includes \$8 that you are saving or net \$7, so that your 'phone service at the beach costs you \$1.75 a month. Now, say, boys, men, citizens, wait a minute until I shut the door. Now, on the square, when you realize that the telephone company has to maintain the lines at the beaches all the year around, make repairs after cyclones, wind storms and other wreckage, chase two or three men from the city up to the beach, taking a half a day or more, now really do you think that the charge is the least bit out of the way? Now just between us here, it won't go outside at all, not for publication, ought you not be ashamed of yourselves? What is the use of being a piker? If there is anybody that can afford to pay for the beach service it is the people that can afford to live at the beaches and there is no reason why they shouldn't.

"Now this line of dope is just exactly what we've been talking about for three or four years. We want some big men in Port Huron, and we are surprised that a chamber of commerce that could do some valuable service to the city should take up such a measly little matter because they were touched for \$1.75 a month for telephone service at their summer home, when there are so many other matters where they would not lose \$1.75 a month that they could take up that would be some benefit to Port Huron. They might ask that Gratiot avenue be open so that teams could get through and funerals might pass; they might ask why Military street south has been blockaded for a year and a half; or they might look out for better shipping facilities instead of acting like a lot of kids over so trifling a matter that they didn't understand, and we don't know as they do yet."

HEAR WEDDING OVER WIRES.

Parents in Decatur Listen to Marriage Vows of Children Spoken in Chicago.

Though a good many miles away members of the family of A. S. Blakeney, Decatur, Ill., heard the marriage ceremony for Frank Blakeney, formerly of that city, and Miss Reinhart of Chicago, Sunday morning, June 15th, at 9:15. When the ceremony took place the Decatur family was called up by telephone and listened to the proceedings. They heard fairly well.

The ceremony took place at the home of the bride in Chicago. The couple will make their home in Chicago.

A. T. & T. Stockholders.

The American Telephone & Telegraph Company now has the largest list of stockholders in its history, the total being not far from 54,000, as compared with 50,000 on January 1st and 47,000 at the beginning of 1912. About 60,000 shares are held in France, the number being somewhat larger than the English holdings.

Mr. Francis Shines.

The cabaret show and smoker given by the Indoor Entertainment Committee of the Chicago Traffic Club on the evening of May 14th, was one of the most successful entertainments in the history of the club. Over 400 members and guests turned out for the occasion, and all agreed that Chairman A. G. Francis and his assistants are to be congratulated on the success of their efforts to please. Mr. Francis is subscribers' agent for railways and transportation for the Chicago Telephone Company.

BELL TELEPHONE NEWS

COMPRISING



Chicago Operating Bulletin
Wisconsin Telephone News
Central Union News
Cleveland Telephone News
Michigan State Gazette



ISSUED MONTHLY BY

CHICAGO TELEPHONE COMPANY
WISCONSIN TELEPHONE COMPANY
CENTRAL UNION TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

AMORY T. IRWIN, Editor

BELL TELEPHONE BUILDING

CHICAGO, ILL.

SUBSCRIPTION PRICE—Two Dollars per Year in advance, to all persons except employees of the above named Telephone Companies.

The circulation of this publication is 32,900 copies per month.

JULY, 1913.

NEW YORK—A HALF MILLION.

New York City, metropolis of the Western World and telephone metropolis of the whole world, has just passed the half-million mark in number of telephones in service. The fact was announced to the public by the New York Telephone Company in advertisements, which contrasted New York and London, with 235,000; Berlin with 210,000, and Paris with 92,000.

New York and the New York Telephone Company and its employees all have reason to feel proud of this gigantic development of a useful public service all within the limits of one city. The figure 500,000 exceeds the total telephone development of the United States only fifteen years ago and to-day exceeds the combined totals of half a dozen European countries. The economic condition which has made this possible and one of the weird outgrowths of the condition are interestingly discussed in an editorial in the *New York Times* of May 27th. The *Times* said:

Mr. Vail's combination in restraint of trade, as the United States prosecutor alleges, asserts that it is operating 500,000 telephones in this city and is advertising for more. Governments never advertise to increase business, because it is no advantage to managers of public utilities to increase business. Their support is by taxes, and it is easier for incompetents to get a vote of taxes than to increase their efficiency.

How remarkable is the efficiency of this combination in restraint of trade appears from the fact that New York, the smaller city at present, has a half million telephones against 235,000 for London. Berlin has 210,000 and Paris has 92,000. Roughly speaking, the efficiency of the respective governments is the measure of the efficiency of the telephone systems they operate, and nothing could be surer than that New York City would not have a half million telephones if they gave no better service than is given under the foreign systems. There was a distinct deterioration in the British service when taken over from the private owners, and the German system was crippled when the needs of the budget shortened the telephone credits. The French system is so far below comparison with the American that nothing need be said about it.

Nothing is more interesting as an example of the difference between public and private efficiency than the history of the telephone development. Germany is the leading example of government efficiency and ranks next to the United States, which is the leading example of the private telephone. The United States has seven times as many stations as Germany, and 15,649,000 miles of wire against Germany's 2,733,700. There are nineteen billion telephone conversations in the world each year, and the United States contributes 13,229,900,000. With but five per cent. of the world's population, the United States possesses sixty-nine per cent. of the world's telephones and sixty-five per cent. of the telephone mileage.

This disparity does not exist in the case of the mails, which are on a uniform basis of pub-

lic ownership. Leaving out the uncivilized countries and confining the comparison to the nations most nearly comparable with the United States, that is Europe, the development of Europe is one-twelfth that of the United States. Yet Mr. Vail is not altogether sure that he will not have to go to jail as a conspirator in restraint of the telephone trade.

When the subject of telephone development comes up we in the Middle West naturally think of Chicago. Roughly speaking, London is twice the size of New York and New York is twice the size of Chicago. Yet Chicago has more telephones than London and more than sixty per cent. as many as New York. Chicago's telephonic growth is one of the remarkable developments of the city whose slogan is "I will." Vice-President Burt, in a recent talk to the Electric Club, predicted that in a few years Chicago will have one million telephones. It will indeed be a race between Father Knickerbocker and Father Dearborn for the goal of one million. It is of course too early to prophesy the result.

NEWS EDUCATIONAL COURSE.

There is probably nothing in all human experience more humiliating and discouraging than to be conscious of possessing ability and yet to be tied to an inferior position because of the lack of training or education.

For a human being to be absolutely sure that he has ability and that he should be able to realize a high percentage of his possibilities and yet, because of poor training be able to bring out but a miserable fraction of these possibilities is certainly a most trying predicament. But everywhere we see just such men.

The Parable of the Talents illustrates one of nature's stern laws: "To him that hath shall be given; from him that hath not shall be taken away even that which he hath." Scientists call this law the survival of the fittest. The fittest are those who, by use of their powers, gain strength and survive by development beyond their fellows.

This is the era of the educated man and woman. By this is not meant the education of which the university graduates offer documentary evidence in the shape of diplomas. But this is essentially the age of the man and woman with the trained mind and the trained hand. These to-day are the fittest and these are the ones which will survive.

To say that employers—those who purchase from the worker the product of his brain or his hand—realize the value of training and education, is but to express a platitude. But it has only been in recent years that systematic efforts have been made by heads of the larger industries to provide substitutes for the lack of training and education. It is true that vocational training has been introduced in many public schools, but this opportunity is closed to the man who is past his school days and out in the world earning a living.

The Bell Telephone Companies have been among the foremost to encourage a higher standard of service for employees and adopt systematic methods to develop these standards in all departments. Of course it is too much to expect that an employer shall attempt to provide means for an employee to receive a so-called liberal education. The training provided must necessarily be along the line of work. But in this the Bell companies have been unusually provident. In the larger exchanges traffic school's graduate students to the switchboards. Smaller exchanges receive the benefit of visits by traveling supervisors. While from the Company's immediate standpoint the purpose of this instruction is to maintain a supply of trained operators for the benefit of the service, its value to the individual student cannot be overlooked. The same is true of the more recent measures adopted to extend instruction to plant employees of the Central Group of Companies.

The Plant Department School in Chicago gives a valuable preliminary training to men about to enter the service of the Chicago Telephone Company. A correspondence course conducted in connection with this school extended the benefits of the instruction to a considerable number of men already in the service in Chicago territory. To supply plant instruction to the larger body of men in the 600 or more exchanges in the Central Group is the object of the BELL TELEPHONE NEWS Educational Course started last spring.

As was stated at the beginning, this course has been prepared with the utmost care by men of knowledge and experience, and the four leaflets already issued entirely fulfill the predictions and promises then made. The leaflets are in demand by men who have long since passed the student stage, and many applications have come in from engineering and plant officials—pretty good evidence of the value of the course.

The leaflets are being issued about one month

apart, giving ample time for the study of each one.

While as before stated, this course is designed to assist in raising and maintaining a high standard in plant work, it offers an unusual educational opportunity to the employee himself—an opportunity which, if properly improved, will qualify him for higher positions and better pay.

THE BATTLE OF GETTYSBURG.

Americans are just now celebrating the fiftieth anniversary of the most sanguinary battle ever fought on the Western Hemisphere and the hardest won victory ever achieved by the Stars and Stripes.

History has recorded most minutely the details of the awful three days' fight at Gettysburg, which was the turning point of the Civil War.

The bold Confederate leader determined upon an invasion of Northern free soil, which, if successful, might enable him to dictate terms of peace in the Capitol at Washington. GENERAL MEADE and an army of Northern veterans met him at Gettysburg and the shock made the world tremble. Three days the stubborn commanders hurled their fast thinning battalions at each other and then GENERAL LEE began to retreat. The North was saved and the South placed on the defensive. While it was a drawn battle it presaged the final result of the war would be a victory for the North.

Great as was the victory of GENERAL MEADE, its value for the time was only negative for the simple reason that it was not properly followed up. Never were conditions better for closing the war. On the same day that GENERAL LEE began his retreat, GENERAL GRANT, in the West, captured Vicksburg. The Confederates in the East were discouraged; in the West they were beaten. A vigorous attack by the Union forces on the retreating army of LEE would in all probability have rendered the victory of Gettysburg decisive, and forced the government at Richmond to terms. But the moment of opportunity passed. GENERAL LEE, great in defeat, reorganized and reanimated his exhausted army and the bloody war went on almost two years longer, costing thousands of lives and millions of treasure.

The lesson of Gettysburg is not only to the soldier. It is to all of us in our daily lives. It is not enough to rest on our laurels. If something is accomplished, something more is always to be done before our success is complete. We must follow up our advantages.

THE BASEBALL SEASON.

Elsewhere in this issue we print pictures of a number of baseball teams organized by Bell employees in different parts of our five states. Accompanying the pictures is news—some good, some bad—of the work of the teams.

While our companies have always encouraged the social and athletic features promoted by the employees within the organization, more interest is probably taken in the summer sports this year than ever before, both by the employees themselves and among the officials in Chicago alone eighteen telephone teams are now playing every Saturday afternoon, while the Chicago Telephone Company and Western Electric Company teams in the strong Commercial League are upholding the athletic honor of the Blue Bell against representatives of six outside industries. The telephone players recently demonstrated their mettle by giving a bad scare to the Maroons, of Chicago University, who are among the strongest collegiate players in the country.

We are by nature partisans. Particularly are we baseball partisans. We are invariably partial to the "home team," although no member thereof may actually be a home boy. But if he wears "our" uniform he is the natural and proper object of our affection and sympathies. This spirit of good-natured partisanship is found in the rivalries of the telephone leagues and teams. This is as it should be and is commendable.

Root, therefore, for your department team. If it wins you helped by your encouragement; if it loses you have at least the chest expansion you got from shouting. Personally, you cannot lose in any event.

DR. DOTY'S HEALTH ARTICLES.

The splendid series of articles on health and hygiene by Dr. Alvah H. Doty, now running in the BELL TELEPHONE NEWS, are fulfilling in the largest measure the promises made when the series started.

The article on "Personal Hygiene," in last month's issue is particularly timely at the beginning of the hot season. It is well worth re-reading and will be found to contain several valuable suggestions appropriate to the torrid weather through which we have been passing.

The current article discussing transmission of infectious diseases is also timely and should prompt us to look carefully into our water and milk supply and surroundings generally.

Chicago Telephone Company
Wisconsin Telephone Company
Central Union Telephone Company
The Cleveland Telephone Company
Michigan State Telephone Company

General Headquarters
212 West Washington Street
CHICAGO

B. E. Sunny, President.
Alonzo Burt, Vice President.
W. I. Mizner, Secretary.
C. E. Mosley, Treasurer.
L. G. Richardson, General Counsel.
B. S. Garvey, General Auditor.
Clifford Arrick, Manager Publicity Department.
J. G. Wray, Chief Engineer.
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H. F. Hill, General Manager, Chicago.
E. A. Reed, General Manager, Columbus, Ohio.
H. O. Seymour, General Manager, Milwaukee, Wis.
A. von Schlegel, General Manager, Detroit, Mich.
L. N. Whitney, General Manager, Indianapolis, Ind.

Mr. Burt Tells of Telephone Growth

A good form of organization is the first factor in the formula of success of a corporation, according to Alonzo Burt, Vice President of the Chicago Telephone Company, who addressed the Electric club at its weekly luncheon at the Hotel Sherman June 19th. Mr. Burt also pointed out the enormous increase in the number of telephones since they were first installed in Chicago in 1877. He prophesied that in a few years there would be a million telephones operated by the company in Chicago.

"Pick out any one of a few good types," said Mr. Burt, "when you incorporate your company, see that you have proper coordination of the various units, teach the units what they should do, and you are on the high road to success. Capitalization is important, and without sufficient funds any company will fail. But many companies with poor organization fail, even if they have unlimited funds at their command."

Mr. Burt then gave a brief sketch of the organization of the Bell Telephone Company and showed how the systems of five states were operated from Chicago.

"In a few years there will be a million telephones operated by us in Chicago," said Mr. Burt. "There are now about 400,000, including the suburbs. The increase will come about through the increased uses which are being discovered for the telephone."

"Chicago has a larger development of telephones per capita than New York. The territory covered by the two systems is the same, but New York has only 100,000 more telephones than Chicago. The first telephone was installed in this city in 1877, but it was not put to any practical use until 1882. From that time the number of Bell telephones increased rapidly."

"There are 8,000,000 telephones operated by this system in the country,"—
Chicago Tribune.

UNIQUE CONTEST.

Surprising Number of Words Possible to Be Formed From Letters in "Bell Phone."

We who work every day with and for the "Bell Phone" might be supposed to know something about it. But it is a safe wager that few if any of us know the orthographical possibilities contained in the letters which go to make up the two words.

To stimulate interest in its electric

page published each Wednesday, the Ohio State Journal, a leading newspaper of Columbus, Ohio, has been offering prizes to the person forming the largest number of words from the letters contained in certain words. One Wednesday last month the words chosen were "Bell Phone."

The prize for this contest was won by J. W. Swank, of Bowerstown, Ohio, vice president of the board of school examiners of Harrison County. Mr. Swank's list contained 198 words, as follows:

B heel nol
be hee nol
been hel nol
behen hebch nolp
behn hee nope
beh hell O
behelp helle ob
bel hello obe
bele hellen obie
bell hen o
belle hene oe
bellon heo ol
beloe heele oh
belone hep ole
ben hepe olen
bene hene oel
beno ho ollen
beo hob olp
beoh hobelen olpe
beon hoble ol
beppen hoe one
bles hol ope
blene hole open
blo hol open
blone hollow opne
blor holl P
bo hon pe
boel hope peol
boen L peen
boh le pee
bole lee pehen
boile loll phoebe
bolle leen pie
bollen leep pelle
boin lele pelmel
boine lele pel
bon jene pelon
bone len pen
E leo pene
ebone lion phenol
ebon lob pheon
eb lobe phebe
ee lone phone
een lop phoebe
epe lopp phone
eh N ple
eh re plebe
el neb pleb
ell nebel ple
ele neble pleen
elope peene pio
ellen neh po
elin nehe pob
ene nel poe
elp nede poh
en nelle pol
ene nep pole
enol nep polen
eon nepe polle
H nob polle
he nobell pone
heben nobel pun
noel

NEW TROUBLE UNEARTHED.

Poor Ringing Caused by Sauerkraut Cooking Conducted in Basement.

The Cleveland Telephone Company received a letter from a subscriber requesting the company to find out the cause of the intermittent ringing of his telephone.

After repair men had made repeated tests on this line and could not locate the trouble the telephone company sent out a man to look over the different taps one of which he found very damp due to boiling sauerkraut in the basement. An order was issued to change the location of the box and the subscriber has had no further trouble since the change.

Anglo-Dutch Telephone.

The Dutch Government proposes to establish telephonic communication between Holland and Great Britain by September. The length of the proposed cable will be 165 kilometers (102 miles), and the cost, which is estimated at £62,000 (\$310,000), will be equally shared by the British and Dutch Post Offices.

District and Division Collection Rating

MAY 1, 1913.

| | Total to be collected during Apr. 1913. | April collections. | Unpaid May 1. | Pct. collected. | Pct. uncollected. | Stations |
|-----------------------------------|---|--------------------|---------------|-----------------|-------------------|-----------|
| 1. Wis. Co., Appleton Dist. | 60,678 | 59,816 | 1,368 | 97.7 | .18 | 26,479 |
| 2. C. U. Co. (Ind.) So. Dist. | 54,649 | 50,996 | 3,653 | 93.3 | .7 | 18,991 |
| 3. C. U. Co., Paris Dist. | 4,420 | 8,899 | 5,221 | 91.8 | .1 | 1,614 |
| 4. C. U. Co., Columbus Dist. | 73,891 | 67,455 | 6,436 | 91.3 | .04 | 21,179 |
| 5. Wis. Co., Madison Dist. | 37,312 | 33,916 | 3,396 | 90.4 | .29 | 15,641 |
| 6. C. U. Co., Alton Dist. | 11,118 | 9,940 | 1,178 | 89.4 | .1 | 3,068 |
| 7. C. U. Co., Champaign Dist. | 7,124 | 6,367 | 757 | 89.4 | .3 | 2,307 |
| 8. Wis. Co., Janesville Dist. | 10,056 | 8,561 | 1,095 | 89 | .08 | 4,282 |
| 9. C. U. Co., Toledo Dist. | 75,366 | 66,750 | 8,616 | 88.6 | .5 | 25,511 |
| 10. Chicago Co., Ch. Hts. Dist. | 6,866 | 6,001 | 865 | 87.4 | .12 | 2,483 |
| 11. C. U. Co., Centralia Dist. | 11,590 | 10,171 | 1,519 | 87 | .2 | 5,026 |
| 12. C. U. Co., Quincy Dist. | 8,504 | 7,351 | 1,153 | 86.4 | .1 | 3,157 |
| 13. C. U. Co., Akron Dist. | 89,609 | 77,045 | 12,564 | 86 | .8 | 22,911 |
| 14. C. U. Co., Peoria Dist. | 48,737 | 41,952 | 6,885 | 85.9 | .2 | 15,470 |
| 15. C. U. Co., Galesburg Dist. | 6,893 | 5,883 | 1,010 | 85.3 | .1 | 3,307 |
| 16. Wis. Co., Eau Claire Dist. | 36,970 | 31,239 | 5,731 | 84.5 | 1.77 | 13,099 |
| 17. Chicago Co., Chicago Dist. | 1,366,894 | 1,154,013 | 212,881 | 84.4 | .05 | 326,014 |
| 18. C. U. Co., Rock Island Dist. | 25,269 | 21,232 | 3,937 | 84.4 | .1 | 9,588 |
| 19. Wis. Co., Milwaukee Dist. | 304,753 | 307,142 | 57,611 | 84.2 | .12 | 59,446 |
| 20. Chicago Co., Blue Is. Dist. | 9,225 | 7,614 | 1,611 | 82.5 | .06 | 3,252 |
| 21. C. U. Co., LaSalle Dist. | 6,516 | 5,516 | 1,251 | 80.9 | .03 | 2,449 |
| 22. C. U. Co., Kankakee Dist. | 14,911 | 11,967 | 2,544 | 80.3 | .3 | 5,650 |
| 23. C. U. Co., Jacksonville Dist. | 11,475 | 9,220 | 2,255 | 80.3 | .1 | 4,230 |
| 24. C. U. Co. (Ind.), No. Dist. | 77,469 | 62,152 | 15,317 | 80.2 | .3 | 27,085 |
| 25. Chicago Co., Gary Dist. | 32,438 | 26,099 | 2,014 | 80 | .06 | 2,100 |
| 26. Chgo. Co., La Grange Dist. | 15,021 | 11,687 | 3,334 | 77.8 | .28 | 4,921 |
| 27. C. U. Co., Chillicothe Dist. | 53,632 | 41,218 | 12,414 | 76.9 | .3 | 18,913 |
| 28. C. U. Co. (Ind.), Central D. | 143,874 | 109,618 | 34,256 | 76.2 | .2 | 29,773 |
| 29. Chgo. Co., Woodstock Dist. | 9,565 | 7,137 | 2,228 | 76.2 | .14 | 3,955 |
| 30. Chgo. Co., Evanston Dist. | 33,640 | 25,371 | 9,269 | 76 | .18 | 9,559 |
| 31. Chgo. Co., Waukegan Dist. | 24,166 | 18,346 | 5,820 | 75.9 | .38 | 7,481 |
| 32. C. U. Co., Rockford Dist. | 19,776 | 14,360 | 4,816 | 75.6 | .5 | 7,284 |
| 33. C. U. Co., Hammond Dist. | 14,399 | 10,688 | 3,711 | 75.4 | .2 | 6,560 |
| 34. Chgo. Co., Oak Park Dist. | 32,438 | 24,269 | 8,169 | 74.8 | .09 | 9,410 |
| 35. Mich. Co., Detroit Dist. | 496,328 | 366,719 | 123,609 | 74.7 | .4 | 110,407 |
| 36. Chicago Co., Aurora Dist. | 17,344 | 12,335 | 4,309 | 74 | .01 | 6,316 |
| 37. C. U. Co., Springfield Dist. | 33,972 | 25,654 | 8,318 | 73.7 | .6 | 9,922 |
| 38. Chicago Co., Wheaton Dist. | 10,617 | 7,773 | 2,844 | 73.2 | .12 | 3,696 |
| 39. Chicago Co., Elgin Dist. | 15,341 | 11,135 | 4,206 | 72.6 | .11 | 5,953 |
| 40. Cleveland Co., Cleve. Dist. | 482,999 | 350,539 | 132,460 | 72.5 | .16 | 54,896 |
| 41. Chicago Co., Collet Dist. | 28,078 | 19,655 | 8,323 | 70.1 | .66 | 9,506 |
| 42. C. U. Co., Decatur Dist. | 16,557 | 10,561 | 5,996 | 63.8 | .8 | 5,451 |
| 43. Mich. Co., Marquette Dist. | 93,262 | 49,328 | 43,934 | 53.4 | .1 | 14,992 |
| 44. Mich. Co., Gd. Rapids Dist. | 221,797 | 119,815 | 104,982 | 53.2 | .3 | 42,189 |
| 45. Mich. Co., Saginaw Dist. | 122,675 | 64,588 | 58,087 | 52.2 | .1 | 21,070 |
| 46. C. U. Co., Dayton Dist. | 72,732 | 24,687 | 48,045 | 33.9 | .3 | 23,664 |
| | \$4,393,558 | \$3,410,329 | \$988,229 | 77.5 | ... | 1,028,402 |

* Quarterly rental billing.

DIVISION SUMMARY.

| | | | | | | |
|----------------------|-------------|-------------|-----------|------|-----|-----------|
| Wisconsin Co. | \$ 509,969 | \$ 440,568 | \$ 69,401 | 86.4 | .24 | 118,941 |
| Chicago Co., City. | 1,366,894 | 1,154,013 | 212,881 | 84.4 | .05 | 326,014 |
| C. U. Co., Illinois. | 229,112 | 185,967 | 43,145 | 81.2 | .2 | 78,643 |
| C. U. Co., Indiana. | 226,992 | 152,766 | 74,226 | 67.3 | .7 | 75,000 |
| C. U. Co., Michigan. | 368,230 | 277,135 | 88,095 | 75.9 | .4 | 9,506 |
| Chicago Co., Sub. | 236,300 | 175,361 | 67,939 | 75.4 | .23 | 73,640 |
| Cleveland Co. | 482,999 | 350,539 | 132,460 | 72.6 | .16 | 54,896 |
| Michigan Co. | 932,062 | 600,980 | 331,082 | 64.4 | .3 | 188,298 |
| | \$4,393,558 | \$3,410,329 | \$988,229 | 77.5 | ... | 1,028,402 |

Exchange Collection Rating

Exchanges in the Central group at which collections range from 95 to 100 per cent. of the total charges for collection during April, 1913, are given below:

| City and state. | Per cent collected. | Stations. |
|--------------------------|---------------------|-----------|
| Columbus, Wis. | 100 | 325 |
| Barnett, Wis. | 100 | 335 |
| Danville, Ohio | 100 | 238 |
| Marshall, Ohio | 100 | 170 |
| No. Freedom, Wis. | 100 | 141 |
| Rainbow, Ohio | 100 | 137 |
| Princeton, Wis. | 100 | 122 |
| Red Granite, Wis. | 100 | 118 |
| Balfast, Ohio | 100 | 97 |
| Green Lake, Wis. | 100 | 96 |
| Burnett, Ind. | 100 | 77 |
| Brooklyn, Ind. | 100 | 71 |
| Linden, Ind. | 100 | 76 |
| Richmond, Ind. | 100 | 69 |
| Manilla, Ind. | 100 | 62 |
| Bourneville, Ohio | 100 | 59 |
| Okawville, Ill. | 100 | 19 |
| Goshen, Ind. | 100 | 18 |
| Elkhart, Ind. | 100 | 13 |
| Atira, Ohio | 100 | 12 |
| Plainfield, Ind. | 100 | 6 |
| Jefferson, Wis. | 99.7 | 387 |
| Burlington, Wis. | 99.6 | 725 |
| Little Chute, Wis. | 99.6 | 51 |
| Hartford, Wis. | 99.5 | 62 |
| Omro, Wis. | 99.5 | 542 |
| Juneau, Wis. | 99.5 | 172 |
| St. Atkinson, Wis. | 99.4 | 771 |
| Baraboo, Wis. | 99.4 | 769 |
| Watertown, Wis. | 99.3 | 899 |
| Boggs, Ind. | 99.3 | 86 |
| Keweenaw, Ill. | 99.2 | 397 |
| Marion, Wis. | 99.1 | 1,446 |
| Marquette, Wis. | 99.1 | 1,406 |
| Fairland, Ind. | 99.1 | 54 |
| Neenah and Menasha, Wis. | 99 | 1,463 |
| Beaver Dam, Wis. | 99 | 1,401 |
| French Lick, Ind. | 98.9 | 438 |
| Algoma, Wis. | 98.8 | 251 |
| Edwardsville, Ill. | 98.7 | 1,145 |
| Hillsboro, Ohio | 98.7 | 611 |
| Crawfordsville, Ind. | 98.6 | 2,940 |
| Vincennes, Ind. | 98.6 | 2,513 |
| Appleton, Wis. | 98.5 | 1,113 |

| | | |
|------------------------|------|-------|
| Oakhosh, Wis. | 98.4 | 4,211 |
| Loganport, Ind. | 98.4 | 64 |
| Berlin, Wis. | 98.2 | 103 |
| Galva, Ill. | 98.2 | 8 |
| Stevens Point, Wis. | 98.1 | 899 |
| Whitewater, Wis. | 98.1 | 805 |
| Spencer, Ind. | 98.1 | 281 |
| Fond du Lac, Wis. | 98 | 3,411 |
| Sheetsville, Ind. | 97.9 | 1,927 |
| Pt. Washington, Wis. | 97.9 | 384 |
| Boecher, Ill. | 97.9 | 152 |
| Canal Winchester, Ohio | 97.9 | 152 |
| Sturgeon Bay, Wis. | 97.8 | 710 |
| Lewistown, Ill. | 97.6 | 717 |
| Winchester, Ohio | 97.5 | 956 |
| West Bend, Wis. | 97.4 | 423 |
| Milan, Ill. | 97.4 | 21 |
| Oconto, Wis. | 97.3 | 459 |
| Shawano, Wis. | 97.3 | 423 |
| Cedarburg, Wis. | 97.3 | 181 |
| De Pere, Wis. | 97.2 | 1,050 |
| Stoughton, Wis. | 97.2 | 1,007 |
| Kaukauna, Wis. | 97.2 | 431 |
| Mt. Gilead, Ohio | 97.1 | 23 |
| Waupaca, Wis. | 97 | 465 |
| Waukesha, Wis. | 96.9 | 1,752 |
| New London, Wis. | 96.9 | 501 |
| Mayville, Wis. | 96.9 | 445 |
| Winneconne, Wis. | 96.7 | 133 |
| Cumberland, Ind. | 96.6 | 122 |
| Green Bay, Wis. | 96.4 | 3,776 |
| Gladwin, Mich. | 96.4 | 342 |
| Newark, Ill. | 96.4 | 199 |
| Kewaunee, Wis. | 96 | 235 |
| Mt. Vernon, Ill. | 95.9 | 1,232 |
| Alexandria, Wis. | 95.6 | 387 |
| Nelsonville, Ohio | 95.4 | 311 |
| Hudson, Wis. | 95.4 | 565 |
| Buchtel, Ohio | 95.1 | 176 |

One System in Two Counties.

The physical consolidation of the Cumberland (Bell) Telephone and Telegraph Company and the Old Kentucky Telephone and Telegraph Company was completed June 15th, thus eliminating the dual telephone system in Winchester and Clark counties, Kentucky. There are exchanges at Winchester, Pilot View, Becknerville, Ford and Wade's Hill.

EXCHANGES COMBINED AT ADRIAN, MICH.

Cut-Over of New Equipment of Lenawee County Telephone Company.

The merger of the two telephone plants at Adrian, Mich., formerly owned by the Bell and Adrian Telephone Companies has been consummated and the people are now given an opportunity to enjoy unified service.

In the rack room are located the main frame of 2,000 lines capacity, the intermediate distributing frame, relay rack, coil rack, and fuse panel.

The new equipment replaces eleven sections of No. 3 standard switchboard, located in the old Bell office, and eight sections of American Electric Company board, located in the former Citizens' office.

In the installation of some of the party-line service, where it was necessary to put a Bell and Citizens' telephone on the same line, a difficulty was encountered on account of the different styles of instruments in use. To overcome this, it was deemed advisable to allow these subscribers to continue on the old board and handle them temporarily through a "bumper" operator,

POLES AND POLE PRESERVATION

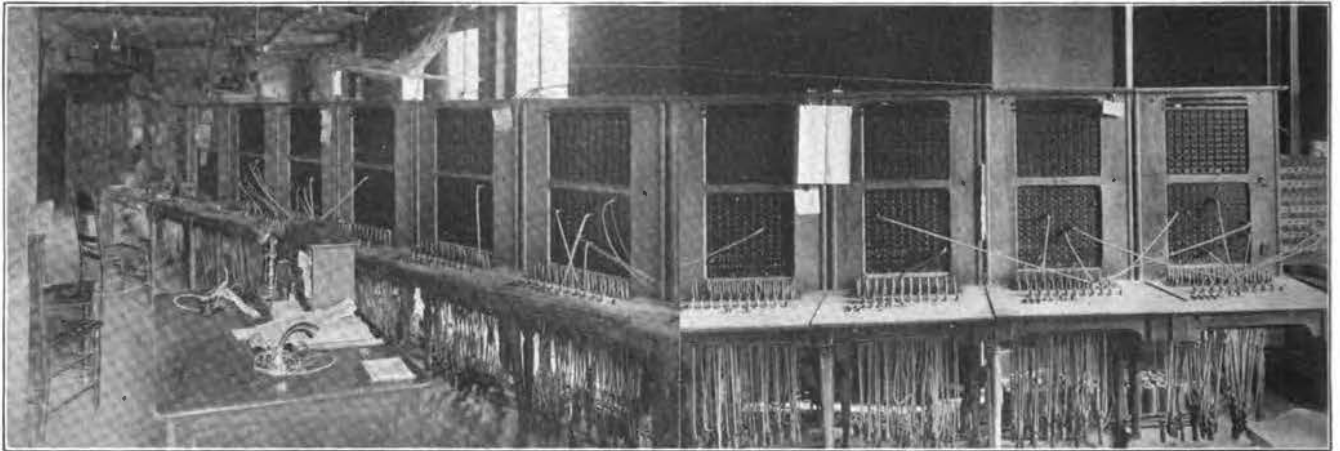
By RUSSELL A. GRIFFIN

Read Before Thirty-Sixth Convention of National Electric Light Association at Chicago, June 2-6, 1913.

The subject of Poles and Pole Preservation is a subject in which I have been particularly interested for some twenty years; first through my connection with the American Telephone and Telegraph Company, and since 1904 as manager of the pole department of the Western Electric Company, and I can appreciate that it is a subject in which your companies now take an active interest as a result of the marvelous growth of your industry

order that you may the better appreciate the drain on our forests and the consequent necessity for immediate careful consideration of the best methods for preserving your pole lines. Four million poles a year, at say an average of \$3 each, is an annual investment of \$12,000,000.

At the end of the year 1912 the Bell Telephone System owned 315,000 miles of pole line, or at forty poles to the mile, 12,600,000 poles. Add to this approximately 225,000 miles of pole



OLD BELL SWITCHBOARD AT ADRIAN, MICH.

Old switchboard and tollboard at Adrian, Mich., before the cut-over from a magneto system to a central battery system. These two photographs (joined in the middle and thus producing a slightly false foreshortening effect) show the position of the old board while the new boards were being installed. The old tollboard may be seen at the left end of the switchboard. The new tollboard is back of the old boards, about where cable run and old cables are. All partitions were put in after the cut-over.

The new exchange of the Lenawee County Telephone Company is located in what was formerly the Bell building. To take care of the new equipment, it was necessary to enlarge the building and take out and change the partitions.

Under the new arrangement the commercial department, rack and power rooms are located on the first floor, while the second floor contains the rest room, coat room, toll room, local operating room and store room. A part of the basement will be fitted up for the use of the men, while the balance will be used for storage and the heating plant.

While all these changes were being made, the operators were obliged to work under all kinds of difficulties. In addition, to make room for the new equipment, the old boards had to be moved, being crowded as near the wall as possible, there being just room enough to enable the operators to work.

The new boards, which were installed by the Western Electric Company under the supervision of H. Miller, consist of a No. 1 common-battery type with ultimate capacity of 5,000 lines, equipped for 1,300 lines, two rural positions equipped for eighty lines and toll trunks, also a four-position toll board as well as a chief operator's desk.

A fifty-ampere mercury arc rectifier is used for charging the two sets of storage batteries, while a four horsepower gas engine connected with a fifty-ampere direct current generator was installed for emergency purposes. The seventy-five volt ringing machines furnish the current for ringing purposes, one of which is run by a motor, the other from the batteries.

which worked fairly well, but was eliminated as soon as possible.

The cut-over was made last winter and was very satisfactory. The night before H. E. Harrington, equipment supervisor, made a final test, after the battery was cut off from the line side of relay, by inserting celluloid strips, establishing the final link by placing the heat coils on the new frame. When everything was ready, the half-taps were cut away, the current turned on the lines releasing the relays, which caused the celluloid strips to drop out and the new service was established.

The following were present and assisted at the cut-over; Margaret Woods, traveling supervisor, C. H. Adler, manager, H. E. Harrington, equipment supervisor, F. McFarland, wire chief, L. A. Patten, R. E. Putnam and Mr. Mc Bainbridge.

Under the new arrangement Myrtle Skinner assumed the duties of day chief operator, and Lillian Jacobs those of night chief.

A peculiar coincidence in connection with the cut-over was that the first call answered on the new toll position was a message announcing the death of an operator in one of the smaller exchanges.

Large Deals in New York.

The New York Telephone Company has notified the Public Service Commission that it has purchased the Auburn Telephone Company of Auburn, N. Y., for \$300,000. The Olean Interstate Telephone Company, a Bell subsidiary, has acquired the Hinsdale Mutual Telephone Company of Hinsdale; the George U. Saxton Telephone Company of Delavan, and the Machlas Telephone Company of Machlas.

In recent years, and your consequent heavy investment in pole lines.

To those interested, few subjects in recent years have received closer or more careful and earnest study and research than that pertaining to the proper building of pole lines and to the preservation of those lines after they are built. Of primary importance is the selection of the best woods to use for poles and then the determination of the size of poles to insure the necessary strength for a required capacity. Finally, and quite as essential to the interests of the operating companies, is the question of the preservation from decay of the poles in their lines, in order to insure the maximum life at a minimum investment. This latter question is one that may also properly be classified as a feature of the great question of the conservation of the country's timber supply in which our government is so vitally and properly interested at the present time.

The demand for wooden poles during the past few years by the telephone and telegraph companies, the electric light and power companies and by the railroads, has been enormous. The latest census report shows that in 1910 approximately 3,870,000 poles were purchased—this means a similar number of trees, for ordinarily but one pole is made from a tree. The consumption in 1911 and 1912 was unquestionably greater, though no census figures have been furnished. My company alone, which distributes throughout the entire United States, in 1912 sold, handled and shipped considerably over a million poles, and our shipments this year are being made at the rate of over one and one-quarter of a million poles. I cite these figures in

line in the plant of the Western Union Telegraph Company and we find over 20,500,000 poles standing today in the lines of these two great systems; sufficient to build a continuous pole line twenty-one and one-half times around the world. To reproduce this plant would, on a basis of an average of forty poles to the acre, which is a fair approximate production, require a forest of 800 square miles. In addition, the electric light and power companies are purchasing wooden poles now at the rate of approximately 700,000 poles a year. Within a very short time we shall unquestionably see an annual demand in this country for maintenance and replacements alone of 2,500,000 poles. We can figure the average life of an untreated cedar or chestnut pole, set in the ground, as twelve to fifteen years. It requires an average of about sixty years for a tree to attain a growth suitable for poles; it is seen, therefore, that the production takes place at about one-fifth the rate of consumption. The actual amount of available timber is constantly decreasing, but we see no corresponding decrease in the demand, but rather an increase, and the actual supply today is being greatly taxed to meet the great demands upon it. It would therefore seem to be essential:

(1) That even better attention be given to the preservation of our forests.

(2) That better care be given the economical utilization of our present timber supply.

(3) That the large users of poles should at once make preparation for the preservative treatment of their permanent lines by artificial methods.

The timber resources of this country have been so vast that we have without thought wasted them, until now we are facing the vital necessity of greater care and thought for the future.

The problem of increasing the life and service of wood is one which is of the greatest general interest to every consumer of timber to-day. It is the problem in its application to poles that I wish particularly to treat.

The trees of this country are divided into three classes:

- (1) The needle-leaved or conifers, such as cedars, pines, etc.
- (2) The broad-leaved trees, such as maple, hickory, elm, oak, chestnut, etc., and
- (3) The palms.

The broad-leaved trees are deciduous, i. e., they shed their leaves annually, while the conifers are known as evergreens. In the lumber trade the broad-leaved trees are generally known as "hardwood," while the conifers, or evergreens, are known as "softwoods."

Wood is composed of a multitude of cells or tubes, closed at the ends, and which are firmly united and which lie up together to form the wood structure. The wood cells are not uniform, but differ in their diameter and length and the thickness of their walls. A new layer of wood is formed each year on a living tree, covering the entire trunk and all the branches. Each layer forms a complete casing around its inner neighbor so that the whole tree is built up of a series of cylinders, or cones. It is the outermost rings of the wood in a tree that carry the sap and constitute the living elements. It is in them that the circulation of water takes place. As the center of the trunk is approached the wood cells gradually lose their contents and become filled with air; it is this part of the tree that is known as the heart. The heartwood in most trees is easily distinguished from the sapwood by its darker color. The heartwood has no part in the life of the tree and no sap is carried through the heart. The depth to which the living elements extend depends on the nature of the tree. In some trees it extends through some thirty rings, or thirty years of growth, while on others, such as red cedar, through but fifteen rings. The heartwood contains less of water and starches than the sapwood and the walls of these mature cells are filled with coloring matter, such as resins and gums, making the heartwood heavier, harder and more durable than the sapwood; consequently the greater the proportion of heartwood, the more durable is the wood.

Only those woods which are the most durable after the trees are cut are used for poles—durability in wood meaning the length of time which it remains serviceable as a consequence of the sound condition of its fiber and its freedom from decay. Timber is classified as long-lived and short-lived, in proportion to its ability to resist decay. Hardness and density apparently have no bearing one way or the other on its durability; white oak, for example, though a very hard and strong wood, decays very rapidly in the ground, and consequently is not suitable for poles, whereas the light, porous and in some respects, defective swamp cedar, resists decay and is a comparatively long-lived timber. Chestnut wood is stronger and heavier than cedar and makes an excellent pole, though the process of decay is somewhat more rapid than in the cedars. Cedar (both Northern and Western) is used more extensively for poles than any other wood, over sixty per cent. of the consumption at present being of that wood. At present by far the largest part of the cedar poles are produced in Minnesota, Wisconsin and Michigan, but the Northwest (Washington and

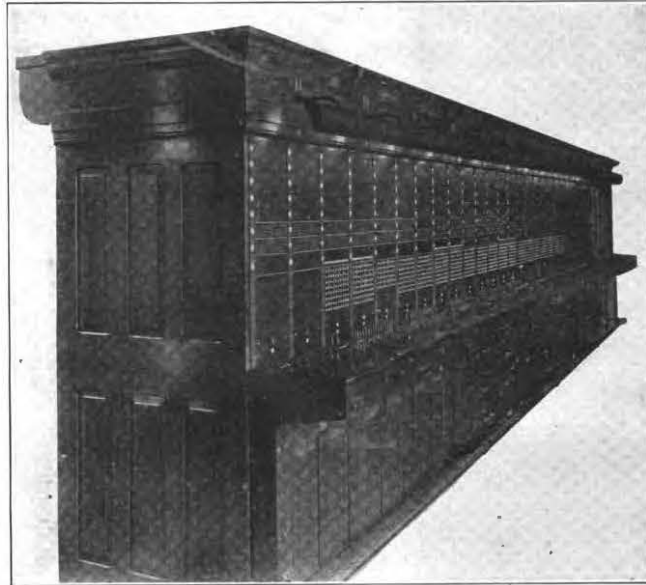
Idaho, as well as British Columbia) is being called upon for a constantly increasing supply. A highly organized system of producing and distributing cedar poles by modern lumbering methods has been developed, in which my company has become very much interested in the past ten years.

Next in importance to cedar for use as poles is chestnut, grown in the Eastern States. This wood supplies approximately twenty per cent. of the poles used. The chestnut is rapidly disappearing in consequence of a very serious blight which has affected very wide areas. Even though dead at the time of cutting, if the wood is sound,

- (1) Organic food materials,
- (2) Air,
- (3) Water,
- (4) Heat.

If one or more of these essential requirements is lacking the fungi cannot thrive and the decay of the timber will be prevented. Wood continually submerged in water will not rot because of insufficient supply of air, nor will decay occur where the wood is not subjected to moisture. No fungus growth will take place under water or in the ground at a depth of two feet or more.

The decay of a pole takes place principally at the ground line. The



NEW LOCAL SWITCHBOARD AT ADRIAN, MICH.

the tree is entirely suitable for use as poles. Government investigations show that this blight, which is a bark disease, kills the tree by girdling the trunk and that unsound or rotten wood is not a consequence of the disease. Strength tests made upon chestnut killed by the bark disease show that sound wood from dead trees is as strong as the green wood of the same species, seasoned to the same dryness.

By the decay of timber we mean the change from the sound, or perfect condition, to an inferior state. It is now known that decay is caused by the activity of lower forms of animal and plant life. The living organisms which cause the decay of wood may be insects, bacteria or fungi. Insects bore into the sound wood and sometimes so riddle it that it falls to pieces. These insects, such as beetles and white ants, are particularly active in the hot climates, and the teredo abound in Southern waters; but decay in the sense in which it is usually understood is caused by bacteria or fungi. These fungi are so minute that they can be seen only by the aid of a powerful microscope, but the fruiting bodies of these fungi, commonly called toadstools, are familiar objects to you all. They are a lower class of plant life which obtain their food by breaking up the chemical compounds of which wood is composed. They bring about changes in the wood by excreting chemical substances known as ferments, which exert a soluble action on the wood cells. The conditions necessary for, and favoring the development of the wood-destroying fungi, are:

upper part of the pole, permanently in the air, and exposed to little or no water, except rain from which it rapidly dries, is rarely found decayed. The deeply buried part of the butt, though permanently damp, does not decay, because it is devoid of air. The maximum decay in a pole, therefore, occurs at the point where it is subject to the combination of air, moisture and heat, the ground holding the moisture keeping the timber constantly in an environment of air. Even under the best conditions we can get but a short life out of our poles, notwithstanding that they are selected from the long-lived timbers. It is for this reason that recourse has been taken, in many instances, to chemical means to make these poles immune to decay.

Chemical preservation involves the injection into the wood of some substance which will poison the fungi which cause the decay. There are a large number of so-called wood preservatives on the market of which but a few have been found worthy of the name, or of much consideration. The ideal preservative should conform to the following conditions:

- (1) It should be highly preservative; that is, poisonous to bacteria and other destroying agencies.
- (2) It should be of a character to penetrate the wood easily and deeply.
- (3) It should remain in the wood and not be soluble or volatile.
- (4) It should be cheap.

Experience here and abroad has shown that the best timber preservative is coal tar creosote, though other preservatives, such as chloride of zinc,

copper sulphate and bichloride of mercury, have been used with varying degrees of success, but the coal tar creosotes combine the essentials above enumerated to a greater degree than any other preservative yet discovered or introduced.

Many methods for the preservation of timber have been tried, but with no gratifying results. I will refer to some of them briefly.

Charring.

This method has been practiced from the earliest times. It is of some value, but has its limitations and must be considered at best as only of temporary benefit. Its disadvantage consists in the fact that it is liable to make large checks through which the germ of decay may pass into the body of the wood. Charring is really a detriment unless the wood is absolutely dry; if green or wet wood is charred, a more or less impervious layer is formed on the outside of the wood, which prevents evaporation from the interior of the poles and consequently tends to hasten rather than retard decay.

Concrete or Loose Stone Setting.

The practice of setting poles in concrete or broken stone has been often followed. The broken stone has given fair results, as it allows ventilation and prevents the collection of water. If poles are set in concrete, sufficient air is sure to get in between the pole and the jacket to permit the development of the decay producing fungi.

Tar or Asphalt Coating.

These substances have no penetration or antiseptic properties and therefore merely act as a protective jacket. Sufficient air and moisture, however, will work in between the surface of the pole and its covering to permit decay.

Painting.

Painting hinders the entrance of fungus germs and in consequence tends to act as a preservative, but again if the wood is painted while green, the effect is only to hasten decay as the excess moisture is held in the wood.

Creosoting.

Unquestionably the most perfect method of timber preservation at the present time is the injection of coal tar creosote or dead oil of coal tar into the timber. In commercial practice this is done in three ways:

- (1) By the closed tank pressure method
- (2) By the open tank method, and
- (3) By application with a brush.

I shall attempt to treat these three methods briefly and cite you some of the results which have thus far been obtained in this country. This process of treatment of poles is the only one known at present which will not only prevent the decay of timber, but which will resist the attack of timber-destroying insects. The work, however, must be honestly and efficiently done; this is of primary importance—unfortunately much fraud has been practiced at various treating plants in this country by the substitution of inferior or adulterated oil, or by injecting into the timber less oil than the quantity specified.

Dead oil of coal tar, or coal tar creosote, is one of the by-products of the manufacture of coal gas. It is not known absolutely as to just what components of the oil the preservative process is due, but the efficiency of dead oil of coal tar and carbolineum (which is practically dead oil of coal tar with many of its lighter distilling constituents removed) has been amply proven, not only in this country, but abroad, and they are now generally recognized as the most effective timber preservatives and best adapted to the treatment of poles. We know that poles treated by this process in England fifty years ago are still in service and in sound condition, and complete government records in Germany for the past fifty years demon-

strate the superiority of this preservative over all others. American practice and opinion coincide with these results, though our experience has not extended over so many years.

In 1897, while in the service of the American Telephone and Telegraph Company, I arranged for the purchase of some 10,000 creosoted yellow pine poles for a line which was built in that year from Washington, D. C., to Norfolk, Va. These poles were treated their entire length by the closed cylinder pressure process at the works of the Norfolk Creosoting Company under a specification requiring the injection of twelve pounds of dead oil of coal tar to the cubic foot. A recent inspection of this line showed it to be in practically a perfect state of preservation. It is safe to say that these same poles, untreated, would have served their usefulness in about four years, as yellow pine rots very rapidly in the ground.

Closed Cylinder Pressure Treatment.

I shall not attempt to describe in detail the method of treatment by the closed cylinder pressure process, as this method, as well as the specification for dead oil of coal tar, was thoroughly covered in the report of your Committee on "Preservative Treatment on Poles and Cross-Arms," submitted and approved at your meeting in New York in 1911, and to which I refer you, but the experiments and investigations which have been conducted by the American Telephone and Telegraph Company during the past ten years or more have indicated that yellow pine can be economically utilized for poles when thus treated, in a large section of this country, many experiments in the partial treatment of poles by the open tank and brush method have been conducted, and I am glad to say that the results thus far obtained have been most gratifying, and even better than at first anticipated.

It is not practical, even with the best method of treatment, to impregnate the wood throughout, nor is such a penetration necessary. The value of the treatment consists in forming an outer protective envelope around the untreated heart; the thickness necessary for this envelope depending on the use to which the timber is to be put, as well as the character of the wood, and the character of the soil in which it is placed. In general, the antiseptic preservative should penetrate deep enough to prevent exposure of the untreated interior by abrasions, checking, etc.

In spite of the excellent results that have been obtained both here and abroad by the full cylinder treatment, such as was used on the Washington-Norfolk line referred to before, the proportion of poles thus treated, as compared to the total number of poles in use, has been relatively small. This method has been resorted to principally in the South, where, on account of the climate and soil conditions, exceptionally rapid decay makes a preservative treatment almost essential. The chief hindrances to a more general adoption of this method for treatment of poles have been the high cost of the treatment and the expense of the transportation of the poles to a treating plant. Recent investigations have therefore been conducted mostly with cheaper and simpler methods, and with treatments which could be applied locally by the consumer, or at the large cedar consuming pole yards. It should be remembered that approximately sixty per cent. of the poles in use are cedar, and about twenty per cent. chestnut, and these woods lend themselves readily to the method of partial treatment, which I shall describe.

Brush Treatment.

The brush treatment consists in painting the pole with a preservative,

preferably creosote oil. As it is conceded that the portion of the pole most subject to decay is just below and just above the ground line, that is the part selected for treatment; for that part falls when the balance of the pole is still in a good state of preservation and consequently the usefulness of the pole depends upon the length of time that this part can be kept in a state of preservation. The pole should, therefore, be painted about two feet below and two feet above the ground line, or over that section between four and eight feet from the butt. I would particularly emphasize the fact that only seasoned poles should be treated and that care should be taken to see that the wood is thoroughly dry before the treatment is applied.

It is decidedly preferable that the preservative should be heated to a temperature of 150 to 175 degrees Fahrenheit, and distinctly better results

will be substantially exceeded, if not doubled. The depth of penetration is comparatively slight, but experience has shown that the protection afforded by the brush treatment is usually destroyed through mechanical impairment, rather than through loss of the preservative by volatilization or leaching, provided always that the material used for treatment is one of the oils known to possess good antiseptic properties.

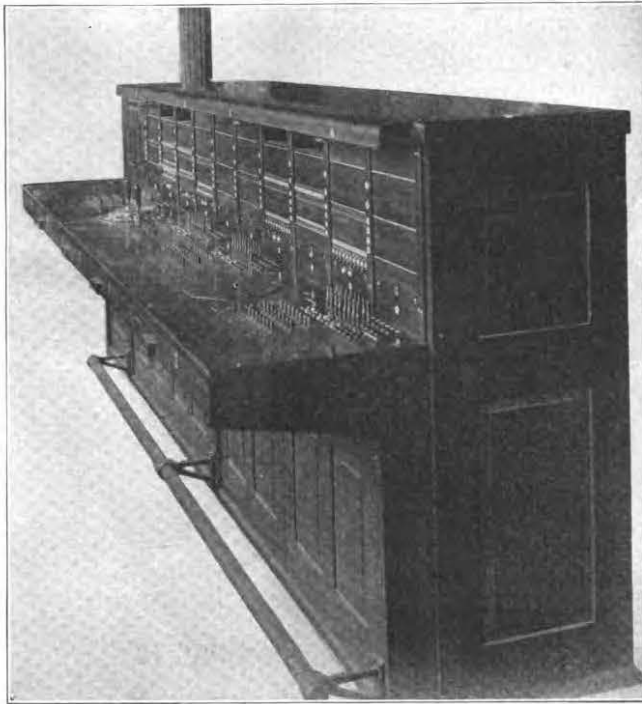
Open Tank Treatment.

Treatment by this method consists in placing the butt end of the pole in a tank into which an antiseptic preservative, preferably dead oil of coal tar or carbolineum, is poured until the poles are covered for a distance of about eight feet, or from the butt end to a point equivalent to two feet above the ground line. The oil should then be heated to a temperature above the boiling point of water. The best prac-

treated, part green and part seasoned. The treatment was made in conjunction with representatives of the Government Forestry Department, and various preservatives were used. An inspection of this line made three years ago, five years subsequent to its erection, again in conjunction with the Forestry Department representatives, developed the fact that 100 per cent. of the green, untreated poles showed an average loss of circumference at the ground line from decay of 1.16 inches, ninety-nine per cent. of the seasoned, untreated poles showed an average loss of one inch. Of the brush-treated poles, decidedly the best results were obtained from those treated with coal tar creosote and carbolineum. Decay had commenced sooner and developed much more rapidly in the poles brush-treated with other preservatives. Only fourteen per cent. of the poles brush-treated with the coal tar creosote oils showed any sign of decay and the average loss in circumference of those in which decay had started was from 0.02 to 0.04 of an inch. You will thus see that though the untreated poles had decayed to the extent of from one inch to 1.16 inches, the poles which received a two-coat brush treatment of coal tar creosote had been held in a perfect state of preservation for nearly five years and had only just begun to show signs of decay at the time the inspection was made. The inspection further disclosed the fact that every pole which had received the open-tank treatment, which I have described, was in a perfect state of preservation. This would seem to be an ample demonstration of the efficiency of the open-tank treatment. The greater depth of penetration obtained in the open-tank treatment (approximately two to four times the depth obtained in the best and most careful brush treatment) justifies the expectation that mechanical impairment and damage from checks will not play so important a part in connection with the initiation of decay as in the case of brush-treated poles. It should be thoroughly understood, however, that the results from an open-tank treatment, such as I have described and from which a thorough impregnation is secured, will unquestionably be much superior to the results which may be expected from a short period dipping treatment, which has been, and is still, frequently advertised as an "open-tank treatment." If not properly performed the open-tank treatment will not give a penetration appreciably different from that obtained in a two-coat brush treatment, and it may safely be considered that a short period dipping treatment can be ranked only as about equivalent to brush treatments, rather than as in any way comparable with what I should call the true open-tank treatment, and which was originally developed in the co-operative work undertaken by the Engineering Department of the American Telephone and Telegraph Company and the Forest Service of the United States Government.

Tests have shown that an average thirty-foot Northern cedar pole will absorb when treated by this method about forty-eight pounds of creosote oil, or about six gallons and chestnut about half as much as the Northern cedar. On this basis the Northern cedar is the most expensive to treat of the more largely used woods, but as it absorbs more oil with a consequent greater penetration, the results should justify the somewhat higher cost. For the sake of comparison we may say that a thirty-foot chestnut pole can be treated for seventy-five cents, whereas on account of the greater quantity of oil consumed, it will cost approximately \$1 to treat a cedar pole of the same size.

Western yellow pine will absorb twenty per cent. more oil than Northern cedar.



NEW TOLL SWITCHBOARD AT ADRIAN, MICH.

will be obtained from two, rather than one coat. Particular attention should be paid to the filling of all checks and knot holes, and to working the preservatives well into the wood. An average thirty-foot pole will absorb, by this treatment, about four pounds of oil, or one-half gallon, and if treated under proper conditions a penetration ranging from one-sixteenth to one-eighth of an inch can be secured. The method of brush treating has an advantage that it can be applied with ease in any locality, or along the route of a line in the process of construction. It is also a very economical method. In the year 1911 the American Telephone and Telegraph Company treated 12,000 poles with creosote oil by this method in Nebraska, at a cost of approximately twenty-five cents per pole; this cost included the cost of the oil and labor. Previous reports of experiments in brush treating estimated an increased life of from two to three years as a result of this treatment, but access to as yet unpublished data, which it has been my privilege to review, indicates that in actual service these es-

timates would seem to indicate that this temperature should be maintained until the air in the wood has been expanded and the water in the outer layers vaporized and both driven out as far as possible. In other words, the high temperature should be maintained until bubbles cease to appear on the surface of the oil. The oil should then be permitted to cool, or else the poles to be transferred to another tank containing cold oil; a partial vacuum is thus produced by the contraction of the air and the condensation of the moisture remaining in the wood, the preservative, as a result, is forced under atmospheric pressure into the wood. A treatment by the method described consumes about twenty-four hours, during which the pole is subjected to the hot oil from eight to nine hours. In 1905 the American Telephone and Telegraph Company treated by this method and by the brush method 600 chestnut poles, which were set that same year in their toll lines between Warren, Pa., and Buffalo, N. Y. The balance of the poles in this line were un-

CUT-OVER TO HUGE CLEVELAND BUILDING

About 1500 Subscribers in Service Within Forty-Eight Hours.

The latest addition to the "Sixth City's" skyscrapers is the fourteen-story Leader News Building at the corner of East Sixth street and Superior avenue, N. E., Cleveland, Ohio. This building has as its neighbors the Hollenden Hotel on the Southeast corner of East Sixth street and the Plain Dealer Building across the street on Superior avenue.

The two newspaper publications, the *Leader* and the *News*, will occupy the rear of the building on the first floor, the rear of the second floor and all of the fourteenth floor. The first floor facing Superior avenue, N. E., and East Sixth street will be occupied principally by stores. The remainder of the building will be devoted to offices.

The contract for Bell Service for the *Leader News Publishing Company* calls for thirteen trunk lines, sixty-nine stations and two eighty-line switch boards.

Want-Ad Table.

The *Leader News* will have a want-ad table similar to the one which was installed in the Press Building. It is a long table with a continuous double-sided turret on top, and is divided by glass partitions into twelve positions, seven on one side and five on the other. The turret is built for two panels per position, one panel for Bell equipment and the other for Cuyahoga equipment. Bell equipment is provided on each position for a multiple of twenty ring-down lines from the private branch exchange. At present twelve lines are in service. Each line terminates on a lamp and associated therewith is a red "busy" lamp, an answering key and a holding key. Of the No. 92-B type. A desk standard with hand receiver is installed on each position. On a supervisor's desk a short distance from the want-ad table is a turret containing a multiple of the want-ad lines.

The Cut-Over.

The cut-over to the *Leader News Building* was made Monday morning, March 24th, under record-breaking conditions. Twenty-eight cable men were used on the job. A 600-pair cable was installed from the Main exchange, Champlain and West Third street, to the *Leader News Building*, Superior avenue, and East Sixth street, a distance of 2,070 feet. Twelve splices were made in the cable, in which 14,400 pairs of wire were banded. After testing the 600-pair cable it was hooked up on the main frame, in the main exchange.

Inside the building four 200-pair cables were installed in each of four shafts from the basement to the fourteenth floor. This required testing and splicing 11,500 pairs of wire in twenty-four splices. These splices include two straights, two three-way, six four-way, ten five-way and four six-way splices; also hooking up and testing fifty-three No. 38 terminals and twenty-one No. 60 terminals. Just 2,240 feet of various size cable were used in the building. The cable was cut in without a single case of trouble or error in testing, splicing or hooking up of the various terminals. Forty-eight hours after the cable was brought into the building approximately 1,500 subscribers were furnished with service.

This job was certainly a record breaker, considering the time consumed, character of work, efficiency of equipment and the number of men who worked on the job. The supervisory force and the men who worked on this job are to be very highly commended as it is very doubtful if a feat of this kind has ever been equaled.

He Got His "Party" All Right.

Hotel telephone operators who jerk the switchboard plugs on the public telephones have any number of petty

Telephone Communication the Means of Control of Central Stations

By ANGUS S. HIBBARD

Read Before Thirty-Sixth Convention of National Electric Light Association at Chicago, June 2-6, 1913.

Where one brain and one pair of hands best fitted to any task may be put in control of all its elements, we may look for the most highly finished product. In science, in the arts, in literature or invention, the best things

state fully the condition of any business, there must be available full knowledge of just what is going on. In many businesses information relating to existing conditions may be gathered more or less at leisure or as may best suit those who are in charge. A store may be closed to take inventory, or a factory shut down for some general overhauling. Both may control their methods and quantity of output, while the public, broadly speaking, is not affected. Not so are the public service businesses, the railways and carriers of all kinds, the water, gas, electric light and power companies, the telegraph or telephone companies, all of whom must render service, not when and as they choose, but when, and, to a controlling extent, as their customers, the public, may choose.

Railways must provide trains at such times as people wish to travel—they cannot make them travel at times most efficient from the point of view of railway operations. Electric light, power and gas companies, telephone and telegraph companies must provide facilities to fit a load line, which is established by the public and is something over which the companies, themselves, have no control.

In the public service business, we have, therefore, conditions constantly changing because of demands which are practically uncontrollable, requiring not only the best kind of organization and management to insure success, but the best and most comprehensive means of knowing just what is going on, not from day to day, but constantly from minute to minute, during what may be called a continuous performance, and there can be no closing down for inventory, or repairs, or anything else. The wheels must continue to go round, and the public, without previous notice, determines just how fast they shall go. Under these inevitable circumstances, it may be said that the best service is rendered by those who keep in the closest and most necessary touch with the fluctuating conditions of this public demand, and in turn have the best and most immediate control of the means of meeting it, so that, as nearly as possible, some one officer in charge may observe and direct operations.

All utilities are expected to be so designed that they may provide for average maximum demands for service. Probably no utility could be either well or profitably managed if designed to provide for the extreme possibilities of service. No railway, for example, could suddenly carry all the inhabitants of a large city at one time, or even in a day. In no telephone exchange could all of the subscribers talk at one time. Indeed, it has been said that if all subscribers should call at once, everybody would get nobody, and nobody would get anybody. The average maximum demand, therefore, is studied and provided for; but even in this, not all utilities are affected alike in case of overload. In railway or street-car service, sudden emergencies are met by carrying as many passengers as possible, but the demands of those who are not carried may not seriously interfere with the successful transportation of those who are provided for. Sudden demands for gas are supplied from the storage reservoirs of gas companies, and, if not too long continued, may not interfere with the general service. Sudden demands for



LEADER-NEWS BUILDING, CLEVELAND, OHIO.

annoyances that make their salaries well earned, but perhaps the chief difficulty is the person who forgets the necessary nickel. The operators, of course, are instructed to give offense at no time and there are many diplomatic ways of reminding the absent-minded guest of his failure to pay for his call. One of the most popular of these is to ask the 'phone user, as he is walking away, if he got his number.

Ninety-nine times out of a hundred this brings them to their purses and often means a tip to cover embarrassment. The young chap who stands the early watch at the board over in the Congress hotel found the one hundredth man a day or so ago. He was a genial party, with a suggestion of the rural. He telephoned and walked away.

"Get your party, sir?" asked the young operator.

"What's that son?" asked the departing one.

"Did you get your party?" asked the operator.

"Yes, thankie, son," responded the man, smiling and waving his hand good naturedly as he walked away. Then he remarked to a stranger standing by: "That young man certainly is darned polite."—*Chicago Daily News*.

have nearly always been those accomplished by some one individual. Such personal accomplishments may represent an ideal in quality, but this ideal cannot well apply in quantitative undertakings involving a large number of people or elements and the man who thinks he knows it all and tries to do it all is rarely successful or popular in matters of any considerable size. Organized effort, however, shows its appreciation of the personal ideal by endeavoring to set up conditions whereby some one master mind at the top may give out the plan and policy to be pursued, and, through established channels, direct the efforts of all concerned. The same thing is true down the line where heads of departments and sub-departments, all inter-related, direct personally those things for which they are accountable.

It has been said that a business is at its very best when its purposes are best accomplished and the management has the least to do. Some one put it more tersely, saying: "If the bosses can ever truly say that they have nothing to do, it will be time to raise their salaries." Such statements, however, must be accompanied by equally convincing statements of conditions as they actually exist, and to

telephone service, although complicated by the fact that two patrons instead of one enter into the problem of handling each telephone call, may be taken care of to the full limits of the system.

In electric light and power service the problem seems to be quite different, because in case of excessive overload the entire service is affected. In large communities it is the practice to provide a considerable margin of supply over and above the average maximum demand which may be reasonably anticipated, but in such a case if this maximum demand suddenly doubled the system would break down and no service could be rendered to any patron. Moreover, electric light service seems to be subject to, perhaps, more sudden demands than other services. The load line running between minimum and maximum averages is, under normal conditions, fairly regular, but chang-

tween all elements of the business have been supplied. An outline of what has been done by the lighting and power companies in a few of the larger cities will illustrate present conditions, showing the endeavor to centralize the control of their great systems so that one brain and as nearly as possible one pair of hands, may best direct operations. As the relative capacities of the various plants are well known, they need not be referred to in detail.

In the City of New York, the two Waterside Plants of the New York Edison Company constitute the producing center, at which an officer called the "System Operator" directs the operations of the entire system. It is his duty to keep in service at all times sufficient generating, transmission and transforming apparatus and to take care of any demand on the system, and no apparatus is put in or taken out of service except by his di-

rector and current records show the existing output of boilers and generators for the two stations. On the face of the board the districts of each of the substations are subdivided into small panels, indicating the oil-switches by numbers given to the feeder leads. The conditions throughout this distributing system are shown by small electric lamps. A red lamp lighted shows that a switch is closed, a green lamp lighted shows that a switch is open, and these lamps are controlled automatically by the switches themselves. At each end of this pilot board the instruments which indicate at all times the total load carried by each station show how the load is divided as between twenty-five-cycle and sixty-cycle systems, the voltage and frequency of each system, and the current, if any, which is flowing from one station to another. In any emergency, therefore, by a glance at these instruments and the pilot

emergency service. For example, "2 2, trouble at Waterside; 2 4, system grounded, look over your apparatus and promptly report conditions to System Operator; 4 7, conditions normal; 6 6 (time signal). Correct time is 12 o'clock noon." This latter is used as a daily signal to test out the system, which, as indicated, is designed to care for unusual emergencies.

Adjacent to this signalling system is the city fire-alarm signalling apparatus, by means of which all alarms turned in on Manhattan Island are received by the System Operator. This apparatus was installed in connection with the city high-pressure pumping stations, current for which is supplied direct from the Waterside Plants. As these high-pressure stations use current only when there is a fire, the System Operator, by receiving all fire alarms, knows just when the pumping motor may be expected to start, and is



MEN WHO MADE QUICK CUT-OVER AT LEADER-NEWS BUILDING, CLEVELAND, OHIO.

Bottom row, left to right: E. Hamilton, F. Orsen, F. Wise, M. Wise, T. Hunt, E. Kubu, C. Lewis, C. Schaar, A. Mulhern, E. Nunney, J. Meyers, M. Fitzharris. Second row, left to right: J. J. McCarty, superintendent; P. Shiel, foreman; J. J. Dally, P. Sindelar, R. Haggerty, E. McNamara, F. Hall, C. McCann, W. Thornton, J. Woolcott, E. Fortune, W. Church, J. Dew, J. Dally, C. Bohunek. Back row, left to right: E. Kiozar, W. Paskert, H. Rojanaky, G. Carlin, J. Connor, G. Hunter, J. Gabriel, C. Busch.

ing conditions bring about sudden and violent variations. A sudden storm, bringing about a temporary condition of partial darkness, may in ten minutes increase the lighting load 100 per cent., requiring the services of additional boilers, engines, dynamos, storage batteries, and all the sources of output, as well as a rearrangement of the facilities of distribution.

It is not surprising to find, therefore, that electric light and power companies, realizing these conditions, stand in the lead in providing unusual facilities for intercommunication and centralization of control, and, by extensive and well-engineered systems of telephones and supplementary appliances, have installed most efficient and up-to-date means of knowing just what is going on and for directing their service.

The time seems to have gone by where, even in small light and power installations, the management is satisfied to start up the machines and let them run along without regard to rate of use or volume of output. With the growth of these plants and the consequent needs of greater efficiencies and economies, it has been necessary to secure more immediate and extended knowledge of operating conditions and a more centralized control, and these results have been obtained in the greatest degree where the best means of communication be-

rection. He is provided with a telephone switchboard, from which lines run to forty-two substations; also trunk lines to the city exchange. The switchboard is ordinarily used by two operators (the equipment being in duplicate throughout), but is so arranged that during emergencies six operators are afforded facilities without interference. To this switchboard there are duplicate battery and signaling leads from two separate telephone exchanges. The building wiring is divided and led through separate building conduits to provide against local interruptions, and all of the substations are equipped not only with direct trunk lines from this operating center, but from the city exchanges, and the wires are led in through separate cables, and, where possible, from different streets, to avoid interruption from fire or other causes.

From this operating switchboard pneumatic tubes extend to the telephone switchboards at each of the Waterside Stations, and through these tubes all routine instructions of the System Operator at the switchboard are sent in writing, confirming telephone instructions.

Directly in front of this board and in full view of the System Operator is being installed the so-called "pilot board," designed to show automatically the operating conditions of the entire plant. At each end of this board,

the System Operator is as conversant with the conditions at each station as though he were standing before all of the switchboards at the same time. Consequently he is instantly in a position to direct by telephone the resumption of normal conditions without the delay heretofore necessary awaiting reports from switchboard operators as to their conditions, these conditions now being displayed automatically before him.

Previous to the use of the pilot board, the System Operator received all reports of outside conditions by telephone, and indicated operating conditions throughout the city by the use of colored tags, suitably numbered, and placed upon a large operating board representing the distributing system.

To still further safeguard the service during emergencies, the New York Company has installed a signalling system consisting of standard fire-alarm apparatus comprising circuits reaching substations, so arranged that the System Operator may send signals over all or any combination of the circuits at one time, such signals being recorded on paper tape and time stamped. For each signal there is provided a small brass wheel with notches corresponding to the signal number cut into its periphery. The signal numbers represent a predetermined code of instructions for this

kept in touch with the situation during the progress of any fire.

Located at the side of the switchboard are boiler signalling switches, by means of which the System Operator signals to the boiler rooms the number of boilers required to carry the load. All routine communications between switchboards and the turbine rooms are carried on by means of lamp signals, and attention is called to them by means of electrically operated steam whistles. As weather conditions affect to a very large extent the demand on the stations, an outlook is stationed on the roof of the Waterside Building every day in the year except Sundays, with a direct telephone line to the System Operator, to report any unfavorable weather conditions.

During the winter months, the load of the Waterside Stations increases from four to five o'clock in the afternoon about 90,000 kw., or at the rate of 1,500 kw. per minute, and during thunderstorms in summer it may increase 50,000 or 60,000 kw. in from five to ten minutes, or at the rate of 5,000 to 12,000 kw. per minute. To take care of these peak loads, reserve boilers are carried under steam during the entire year.

When there are indications of a storm, the boiler rooms are signalled for the reserve boilers and additional turbines are started, connected to the

bus-bars. During the approach of the storm, steam is shut off from these turbines and they are run as motors, in this way being available to take their share of the demand in about ten seconds. With the coming of partial darkness, the load advances so rapidly that it is practically impossible to so control the substations as to keep the load divided between the Waterside Stations as apportioned, and during such periods the flexibility of the system, due to the parallel operation of the two stations, is apparent, excessive loads of one station being relieved by the other. At times, from 10,000 to 20,000 kw. may be going from one station to another in one minute, and a few minutes later this condition may be entirely reversed. Successful operation under these extreme conditions is evidently made possible by the centralization of control which has been described, and this in turn is made possible by the systems of inter-communication which bring to the one official in charge knowledge of what is going on and furnish the means of carrying out all possible directions.

In the switch-rooms of each of the Waterside Plants there are installed telephone switchboards, with lines extending to the board of the System Operator, the turbine-room, the exciter switchboard and the company's operating department branch exchange. There is also an intercommunicating telephone system with from twenty to thirty stations, located in various parts of the switchboard galleries. In each of the Waterside Stations, telautographs are also used between the high-tension switchboard and the exciter switchboard, so that instructions may be recorded. Here, again, we find that one directing head in each power station may control by telephone all parts of his plant as directed by the System Operator, the endeavor being to provide a completely centralized system of information and control. In the substations telephone switchboards are located, connected by trunk lines with the switchboards of the System Operator, the Plant and Service Departments, the General Offices and the Telephone Exchange.

For the plant and service operations of the company, a four-position switchboard is installed in the Supply Department, Forty-fifth street, with 26 trunk lines connecting with telephone exchange, and 116 extensions and trunk lines reaching the general offices, the district headquarters, branch stations, contract offices, etc., there being eleven trunk lines to the general offices, five to the Second District, two to the Third, etc. None of these trunk lines or extensions are listed in the telephone directories, and it is not expected that the public, through the general telephone system, will at any time be brought into communication with the company through this system, which is provided for the exclusive use of the company's employees, upon its business between various offices and branches throughout the city, and for these purposes is carrying a traffic of about 5,000 calls per day at the present time.

A special telephone directory is printed by the company giving locations and telephone numbers of offices and stations, and names and numbers of officials and departments, both for regular service, and for night, Sunday and holiday calls, the residence telephones being used to call out the forces at such times.

In Chicago, the Commonwealth Edison Company, in addition to a twelve-position switchboard operated as a main exchange and connected with all operating plants and branches of the company, has what is termed a Load Dispatcher's Board, with outside trunk

lines and eighty terminals or extensions used for operating purposes, which gives the Load Dispatcher's office direct communication with all the power plants and distributing centers. Each of the large generating stations is provided with a switchboard with outside trunks and connecting trunks to the company's main switchboard, and terminal stations throughout the plant. In addition each of the generating stations is provided with an intercommunicating telephone system reaching ten different points. The Load Dispatcher's switchboard of four positions is independent of the company's main switchboard, and as nearly as possible, wires are conducted over separate routes to avoid interruption of service. These telephone facilities are supplemented by appliances indicating automatically at each station the output of the other stations, making possible, to a certain extent, the operation of different stations according to predetermined schedules.

In Boston the lighting and power system is controlled and centralized by means of a principal supervisory telephone exchange, with five tie lines to the company's main exchange, two trunk lines to the South Exchange and forty-two circuits to outside power plants. The company's principal exchange is a six-position switchboard, with thirty-six trunk lines and 193 stations, and in addition a special supervisory switchboard in the commercial department—an elaborate system for reaching customers and the general public.

These telephone installations and the elaborate supplementary systems installed in few of the larger cities certainly indicate the value of such service, and show particularly the advantage of separating from the service essential to the company's own operations, within itself, the public telephone service connected with customers and the general telephone exchange. The introduction of such special and separated service and its successful use over a considerable period seem to show that it is well worth while.

From the very nature of electric light service, it is essential that there should be means for the quickest kind of communication between the company and its customers, and the telephone is naturally used for that purpose. Here, again, it is interesting to find that the companies in many cities have specialized on the telephone and developed methods which not only increase the efficiency of their own service, but which, to some extent, have been followed by other corporations, and might well be followed by all telephone users.

We find, in Chicago, in the offices of the Commonwealth Edison Company, a main private branch exchange of twelve operating positions, with 100 trunk lines and connecting trunks, and 475 terminals and extension telephones. Traffic reports show that about 17,000 messages are handled daily, or upwards of 5,000,000 calls each year. In connection with this main switchboard, there are two subsidiary boards in the Testing and Contract Departments, and also about thirty so-called key cabinets, or intercommunicating switches of from two to ten line capacity, each used in lieu of a subsidiary switchboard, the principal installations being in repair and renewal departments where a great many customers' calls are received by clerks trained for this purpose.

In the plans being made for the removal to another building of the general offices of the Commonwealth Edison Company in 1914, a thirty-position telephone switchboard is being provided for. In the commercial work of the company telephones are provided for

solicitors, the lines of which are connected to a Monitor switchboard, so that, in the absence of a particular solicitor, the Monitor board operator may answer calls, insuring prompt attention to the customer. Applications for electric service are accepted by telephone as a part of the regular commercial work. During 1912, 13,609 such applications were recorded, together with about 5,500 orders regarding meter service. During the last five months of 1912, there were 8,149 telephone inquiries regarding service and 12,672 requests for solicitors to call.

The Commonwealth Company was, perhaps, one of the first to extend its telephone facilities largely into this public relation. The second edition of its book of instructions, entitled "About Telephones" is dated November, 1911, and states that "the telephone, which was a relatively unimportant adjunct to our business sixteen years ago, is now the principal medium of communication with our customers. For this reason it is a matter of the most vital importance that our telephone service, which we aim to make the best in the city, should be characterized by unfailing promptness, courtesy and accuracy." There follow brief instructions relating to promptness in answering calls, how to answer them, and inviting an avoidance of the word "hello." These and various other points are further elaborated in the "Employees' Hand Book" of the Commonwealth Company, and the company's idea of the A B C of telephoning has been particularly indicated by an attachment to each telephone transmitter, to which, I feel sure, no telephone company will object, and upon which is printed, in large letters, the words "ACCURACY, BREVITY, COURTESY."

The New York Edison Company has also provided comprehensively for communication from and to the public, having installed in its general offices a private branch exchange with fifty-one trunk lines and 267 telephone instruments. There are, in addition, nineteen private branch exchanges in various offices of the company throughout the city, having seventy-nine trunk lines and 378 telephones. The full telephone equipment of the New York Company at the present time is twenty-four branch exchanges, 750 telephone extensions, 161 trunk lines, sixty-six tie lines, connecting various switchboards of the company, 446 miles of telephone circuits, twenty-five direct exchange lines, and a traffic running about 20,000 calls per day.

The 1911 edition of the company's pamphlet concerning telephone service states: "A large part of our business is now transacted over the telephone. The public deals with us by telephone—we deal with ourselves. The telephone is the chief means of communication between our many departments and employees scattered over the city. Our commodity, electric current, is distributed by a system that resembles train dispatching, done over a special telephone system. Now, as the telephone is so very important to us, and becoming more so each year, we want to develop it as actively and intelligently as any other department of the Edison Service."

It would probably be just as difficult to find an electric light or power company without a telephone as to find a telephone exchange without electric light where it is possible to get it. This reciprocity may also be stated in terms of bills paid for service, and in this, the two cities of New York and Chicago will be found to be fairly representative of the entire country. For the year 1912, the amount paid to the New York Edison Company and the Commonwealth Edison Company for service was \$162,821. The

amount paid by these companies for telephone service was \$107,320.

The classes of customers of the two interests are very much alike, and the distributing plants for both services cover very nearly the same areas. It is natural, therefore, that the relations between the two interests should each year become reciprocal to an increasing extent. Joint pole lines for the distribution of wires have come into more general use. Construction details for necessary crossings and for paralleling routes are now generally matters of agreement between engineers. Telephone companies are relying on your services increasingly each year for power and light, finding with the growing stability of the plants less of a requirement for duplication in the way of local installations.

For both services, lighting and telephone, so closely related and interdependent, I think it may be said that the officers in charge are endeavoring in the conduct of the business to serve the public efficiently in the spirit that they and all employees are directly accountable to the communities in which they operate for good and dependable results. The appreciation of these conditions by the public is indicated in the continued growth of the business. Both interests have been constant in the endeavor to increase the efficiencies of plant and organization, and have made this possible by highly developed systems of communication, as a constant means of knowing what is going on and for the control of the services rendered.

Someone at some point put forth the undisputed maxim "Knowledge is power." In connection with the value to your business of this knowledge of what is going on, which I have endeavored to demonstrate, it seems fair to stretch the old maxim a little, and to say, in this case, that knowledge is not only "power," but "light" also.

SERVICE RESTORED IN JUST ONE HOUR

After Fire Had Burned Out Important Private Exchange in
Akron.

Energy and resourcefulness on the part of three plant men at Akron, Ohio, combined to establish a most unique and probably unparalleled record for quick restoration when an important branch exchange in that city was put out of service.

At 4:10 Saturday afternoon, May 31st, a report came to the switchboard department of the Akron exchange of the Central Union Telephone Company that the office of the Goodyear Tire & Rubber Company was on fire. Switchboardman L. A. Wetmore started at once for the Goodyear plant, which is about two and a half miles from the telephone exchange. Wire Chief Starns fortunately happened to be in the vicinity of the Goodyear office when the fire started. The main trunk cable burned off at 4:30 and the two men, with Lineman Hauger, proceeded at once to restore service. Duplex lines were run in on the cable pole and Mr. Wetmore cut these into the private branch exchange board at 5:10, just one hour after the fire was reported. Ten private branch exchange stations were put out of order, but were in working order by seven o'clock Monday morning.

The officers of the rubber company were very much pleased with the prompt work of the men in restoring service.

Cut-Over at Wyandotte and Trenton, Mich.

By J. P. HAMILL, Manager

The cut-over at Wyandotte and Trenton, which was to have been completed by March 31st, was delayed on account of the storms and took place April 12th.

This cut-over transfers to the Bell System the subscribers of the Detroit River Telephone Company, formerly independent, and one of the several companies in the Detroit district, which the Michigan State Railroad

the changes which were about to take place.

The force of plant men from Detroit, consisting of Chester D. Earl, who had immediate charge of the work, H. G. Jillson, C. L. Hartsell, J. Vigar and P. Kelly, together with a force of twelve installers, have been under the supervision of Martin Ewald, whose efficiency and experience were made manifest by the quick but thorough manner in which all plant work was completed.

A force of solicitors, consisting of J. F. Bacharach, A. Craig, E. N. Hardy, F. L. McCumber, N. J. Murphy, H. E. Rotert, H. Smith, W. E. Van Gorder, F. O. Whipple and B. S. Wil-

Chicago Telephone Company's City Exchanges

IV.—NORTH

By W. J. PLASKETT, North Wire Chief

North Office, the fifth exchange to be cut-over to common battery in Chicago, is located at 54-58 West Chicago avenue. It was moved from the second floor of the building on the northwest corner of Clark street and Chicago avenue, April 14th, 1900, and cut to common battery at the same time.

The exchange was originally installed with about fifty stations in 1881 in a small store at 247 North Clark street and in 1885 was moved to the second floor of the building at the northwest corner of North Clark street and Chicago avenue, which is now occupied by the Bush Temple. At the time it was cut over to common battery and moved to the present address there were approximately 2,700 stations in the exchange, which had for its boundaries Diversey boulevard on the north, Illinois street on the south, Lake Michigan on the east, and the north branch of the Chicago River on the west.

The first underground trunk lines were connected up through cables running from North Office to Central Office, which at that date were known as No. 3 and No. 2 offices.

On April 18, 1908, Lincoln Office was cut in service, taking about 2,900 stations from North and all the territory north of Carl and Blackhawk streets.

The building is owned by the company. It is fireproof, and has a basement under the front half with two

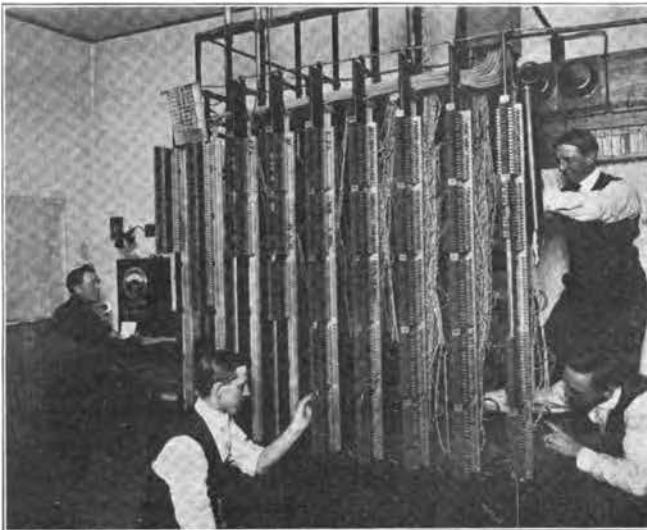
trunks, installed for the opening of the office. In February, 1907, the multiple of the B board was increased to 7,500; keyless trunks were installed and the office was cut to jack-per-station. At the present time there are fifty-four A positions and twenty-four B positions equipped with forty-eight keyless trunks per position. The B board is 10,500 multiple type equipped with 8,400 multiple. There are 630 outgoing trunks and 530 incoming trunks.

The four-party residence service was first tried out in 1895 at North office, a number of these circuits being in service when the office was cut to common battery in June, 1900.

The ten-party nickel service also was first tried out at North Office. "Black" and "White" were the prefixes used for this class of service. The instruments were No. 85 sets equipped with No. 5 nickel automatic coin collectors wired up nickel-first, and cut directly on the line side of the circuit. Battery was sent out on the line side.

To signal the operator the subscriber dropped a nickel in the slot, as is done at the present time on nickel-first service, but we did not have ticker battery and could not deposit or return more than one nickel at a time; the consequence was that these circuits were continually in trouble due to more than one nickel being dropped in the slot.

Our circuits were not confined to blocks or even nine or ten blocks, and it was not an unusual thing for an inspector to have to go over a circuit three times before getting all the slots clear. Circuit No. 4 started on Chicago avenue right opposite the ex-



TERMINAL ROOM AT WYANDOTTE, MICH.

From left to right: P. Kelly, wire chief; Chester D. Earl, H. G. Jillson and C. L. Hartsell standing. Mr. Kelly comes to the Bell office at Wyandotte from the Detroit River Telephone Company.

Commission recently consented to allow to be merged with the Michigan State Telephone Company.

Needless to say, there is general satisfaction in the two towns at being no longer subjected to the dual telephone system nuisance. This in no way reflects on the local service furnished by the Detroit River Telephone Company, which was satisfactory to its patrons, but the feeling had grown here, as it has done in so many other communities all over the country, that there should only be one telephone system, as there is only one United States mail.

The figures below show the number of subscribers added by the cut-over at both exchanges:

| | Present station lines. | Net increase station lines |
|--------------|------------------------|----------------------------|
| Wyandotte .. | 408 233 | 592 241 |
| Trenton | 163 90 | 218 50 |
| Total | 571 323 | 814 294 |

The people of Wyandotte and Trenton appreciate the advantage of the Bell System's "universality," and those who did not have our service before the merger are cheerfully taking it now. This is shown by the fact that at Wyandotte only thirteen "exclusive" independent subscribers failed to sign contracts on first approach by our solicitors, and at Trenton there was only one such subscriber. These fourteen subscribers will doubtless have telephones before long, as we shall keep on their trail and show them how they are missing a good thing.

The newspapers have been very friendly also, and have from time to time kept the public well informed of

liams, and headed by I. W. Ward, attended to the duty of visiting all the former Detroit River subscribers. They made about 1,000 visits. The plant men made 1,500 more.

Concerning our operators, I need say nothing except that they are always good. Indeed, I know that the excellent service they are giving is appreciated by our citizens.

The new sections at the Wyandotte board are now completed. There are three such sections, although in the picture but two are seen. The new operators are: Tillie Hoffman, Ruth Sullivan, Maud Stoddard, Abby Cramer, Sadie Hogan, Meda Pardo and Mrs. Nellie Webb.

Changes in Accounting Department.

On April 1st the general bookkeeping division of the accounting department of the five companies at Chicago was merged with the disbursement division, and Allan B. Crunden, former general bookkeeper, appointed assistant auditor of disbursements.

The new arrangement divides the work of the disbursement division into five sections, each in charge of a supervisor, as follows:

| Section. | Supervisor. |
|--------------------------|------------------|
| General Bookkeeping..... | W. R. Hearn |
| Auditing..... | F. H. Richardson |
| Estimate..... | W. L. Wisniewski |
| Statistical..... | R. H. Kroening |
| Stenographic..... | Jeanette Bailey |

William Donaldson is transferred to the receipts division and Thomas R. Keyes to the traveling auditor's division.



OPERATING ROOM, NEW EXCHANGE, WYANDOTTE, MICH.

Reading from left to right the names are as follows: Maud Tucker, chief operator; Ethel McLaughlin, cashier; Lizzie Montheil, No. 1 operator; Eva Tucker, Western Union operator; Inez Burgess, No. 2 operator; Eliza Greytag, relief operator; Mary Courtney, No. 4 operator, and J. P. Hamill, manager.

stories and an attic above. It is fifty-five feet wide by ninety feet deep.

When first cut into service the operating room was fifty-three feet by fifty-one feet three inches, the remainder of the second floor being used for the operators' dining and rest rooms. In the fall of 1912 the operators' quarters were moved to the first floor and the size of the operating room increased to eighty-seven feet six inches by fifty-one feet three inches, taking up the whole of the second floor.

There were twenty-one A positions and eight (4,900 multiple) B positions with 150 incoming and 180 outgoing

change, ran west to Larrabee street and had one party on Division street, a little over a mile and a half from the exchange. There were nine saloons and one second-hand bottle dealer on this circuit. In going over the circuit to clear the slots the inspector would ask each subscriber not to put a nickel in the slot until he was called by the testman, but it was no uncommon thing for him to find when he reached the last station on Division street that two or more nickels had been dropped in the slots, and find the same thing when he got back again to the first station opposite the office. J. J. O'Connell soon had a ticker in-



CONNECTING CABLES OF THE MERGED COMPANIES AT WYANDOTTE, MICH.

The men on the pole are William Parson, at the edge of the platform; C. L. Hartsell, next to the pole, and William Armstrong at the cable box.

stalled, but this did not prevent users of the telephone from dropping in nickels when the circuit was in use. If the original calling nickel had been deposited of course the other nickels would be deposited after the other parties hung up.

Claims for refunds were frequent, in fact so frequent that one man was kept busy going around with a pocket full of nickels and vouchers to refund to parties claiming to have deposited nickels and receiving no service for them. But the crowning calamity was the night of the presidential election in 1900. Returns were given out to subscribers by keeping the lines plugged up all night. There was no battery on the line. A ten-party subscriber to get this service had to secure the consent of the majority of the subscribers on the circuit. In spite of the fact that there was no ticker on the line sufficient nickels were dropped into the slots to keep thirty-eight inspectors very busy the whole of Wednesday after election day doing nothing else but clear nickels out of slots. Soon after this the service was changed.

In 1900 the traffic department had a force of ninety and the maintenance department a force of twelve. At the present time the traffic department employs 156 and the maintenance department sixteen to care for 10,526 stations, which are divided as follows: 2,857 single lines, 1,933 two-party stations, 2,237 four-party line stations and 2,499 branch exchange stations. There are 101 branch exchange switchboards in the district, nine of these being hotel systems with a total of 997 stations.

The power plant at North Office consists of two type G. M. No. 10 250-ampere, thirty-volt Western Electric generators, one direct-current 220-volt, forty-ampere, ten-horse-power motor, direct-connected to one of these generators and arranged so that it can be belted to the other; one twelve-horse-power Otto gas engine which can be belted to either of the generators; two ringing generators belted to two Hawthorne type I. L. 8, 220-volt, one-horse-power motors. One of these

generators is used as the office generator and the other is used exclusively to test with installers on the 48,000-ohm shunt belt circuit. There is also one type P-2 ringing generator direct-connected to a type I. L. 9, nineteen to twenty-four volts, shunt wound, Hawthorne motor, which is used as an emergency ringing set. The nickel coin collectors are operated with Commonwealth Edison current, but we have two sets of dry batteries which may be used for this purpose in case of interruption to the Edison current.

The storage-battery plant consists of eleven cells of twenty-five G elements, one set of booster battery used on long branch-exchange terminals, and two sets of ticker batteries.

Recently 1,400 message registers were installed and will be put into service as soon as the thirty-six-volt generators are installed.

Cut-over at Burlington, Wis.

The Burlington exchange of the Wisconsin Telephone Company has been cut-over from a magneto to a common-battery exchange with no interruptions whatever to the service.



MANAGER'S OFFICE, BURLINGTON, WIS.

the official working of the management of one of the largest public utility corporations of this country. While we know in a general way the

tail work of the Wisconsin Telephone Company.

Perhaps the principal thing that was most noticeable to us was the attitude of the entire management from the superintendent down toward the work which he had in hand and which it was their business to carry on in a successful manner. Apparently it seemed to be the one great desire of the entire force to convince the public and every citizen that the corporation desired to give such service to the public that the entire community would be thoroughly satisfied with the treatment they were receiving.

Many of our public officers can gain much by observing and studying the conduct of the managing officers of such a company. There is no fulsome flattery, no unnecessary, meddlesome, officious conduct, no disagreeable, overdone courtesy. There is prevalent, however, an apparently sincere desire of all of the head officials most competent superintendent to thoroughly convince all with whom they have any business or with whom they come in contact that they are in their positions to serve the public in the most efficient manner possible and that they desire the public to understand thoroughly as much of the details of the business of the company as possible so that their patrons will know the difficulties of handling that kind of a business, what the company must expect of its patrons and what the patrons have a right to expect in the way of service. The officers believe that from such a thorough understanding much of the apparent difficulties and trouble in operating a telephone business will eventually disappear.—Herald, Merrill, Wis.



BUILDING IN WHICH EXCHANGE IS LOCATED, BURLINGTON, WIS.

After months of preparation, during which time extensive construction work was done and a new switchboard installed, a modern and up-to-date plant in every respect was ready for use.

The Burlington exchange has been moved to new quarters in the Bank of Burlington building, which is one of the best office buildings in that city. The quarters consist of the manager's office, the operators' room and the operators' rest room, all located on the main floor, and the terminal room and wire chief's quarters in the basement.

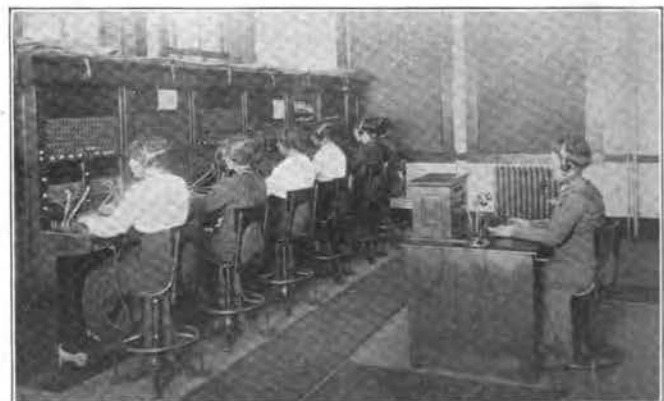
The switchboard is a No. 9 type, consisting of two toll, two rural and two local positions.

The new service is at this time giving entire satisfaction. The operators have rapidly accustomed themselves to the new board and operating method, and the subscribers are well pleased with the improved equipment. The Burlington exchange had on March 1st, 745 subscribers.

Private vs. Public Officers.

It was the good fortune of the writer together with the president of the common council of this city to observe

features of the management of such corporations, we, nevertheless, were very much impressed with the thorough and the efficient manner which characterized the management and de-



OPERATING ROOM, BURLINGTON, WIS.

TELEPHONE FLOAT IN "SHINE PARADE"

The Chicago Company Contributes
Beautifully Decorated Auto
to Celebration.

By general consent first honors were awarded to the float of the Chicago Telephone Company in the "Shine" parade at West Pullman on Saturday afternoon, June 14th.

The "Shine" parade—characteristically named—was arranged by the business men of West Pullman to celebrate the completion of the new electric lighting system. More than sixty automobiles were in line, all of them attractively decorated.

The float of the Chicago Telephone Company was designed by the Publicity Department. It was a large automobile truck almost entirely covered with white and blue artificial flowers. In the front of the truck was a globe of white flowers, with the continents mapped in blue. Above it was a telephone desk set, also of flowers. Ribbon streamers from this telephone were held by twelve young ladies seated on raised seats in the rear of the car. Worked in blue flowers on the body of the float were the words, "The Greatest Thing on Earth." The young ladies were employees of the West Pullman exchange, as follows: Anna Tarduff, Nina Patrick, Bessie Debeling, Cora Leach, Anna Edwards, Lena Arndt, Minnie Johnson, Violet Delmarter, Jennie Cook, Rose Skaglund, Freda Imick and Lydia Kunis.

The West Pullman business men were delighted with the success of the celebration and especially with the Chicago Telephone Company's float. The following letter of appreciation was received:

West Pullman, Chicago, June 17, 1913.
Chicago Telephone Company,
Chicago, Illinois.

Gentlemen—Attention of Mr. Pratt and Mr. Bickel.

As chairman of the committee for the arrangement of the automobile parade which took place in our district last Saturday afternoon, I have been requested by the business men of West Pullman and the improvement association to write you for the purpose of manifesting our appreciation and gratitude, and sincerely thank you for the consideration which you gave us in going to so much expense and trouble in preparing the beautiful float which you entered in our parade.

I might say that all the business men and people in this community who were able to witness the parade are of one opinion, and all expressed the sentiment that we should always feel that there is nothing too good for the Chicago Telephone Company. Your float was nicely designed and very elaborately decorated and I might add that the young ladies who were fortunate enough to ride in it presented a very pleasing appearance. If there was some way that we could repay you, we feel that we would be glad to do so and we want you to realize that our appreciation is of such a nature that if any opportunity presents itself we would gladly reciprocate for the kind act in our behalf on the part of your company.

Sincerely yours,
O. M. Orr,
Chairman of the Committee.

TELEPHONE'S GROWTH.

(Continued from Page One.)

and if the growth be along sound and sane lines and in accord with the highest public policy, it should be welcomed and is to be regarded as evidence of gathering virility.

But different corporations finance their growth very differently. There are a few of the great industrials which have been able to take care of their physical and business expansion through prudent use of surplus earnings.

But in the great public service cor-

poration group in which American Telephone holds a pre-eminent place, such a method of providing the money to finance growth is largely out of the question.

This is because of the very rapidity of this growth, the enormous proportions it assumes and also because of the fact that public service corporations, while enjoying great stability of income, do not possess that margin of surplus which an industrial or manufacturing corporation may at times attain. The public service company is regulated by public authority and its rates are limited to figures which provide a fair margin of profit. The industrial charges for its products all that the traffic will bear, but of course assumes a proportionally greater business risk.

There was a time, and not so many years ago, when the patient New England stockholder grumbled a bit because of the amount and frequency of American Telephone financing.

the new money is expended will not be productive of any additional revenue, whereas, on the contrary, the proceeds of the bonds will undoubtedly earn more than the interest on them.

That the capital expansion of the Bell system has been much more than equalled by the growth in earnings and property is a fact which few might care to dispute, but which fewer still appreciate in a specific way. The figures of growth under the Vail administration, when so much of a formative and creative nature has been accomplished, are little short of extraordinary.

Take, for example, the income account. In the five years since December 31, 1907, gross earnings of the system have increased from \$128,579,800 to \$199,300,000 for the late year to December 31st, an expansion of fifty-five per cent. Net revenue has grown from \$41,184,800 to \$58,000,000, or 40.8 per cent., but this was after providing for a most remarkable increase in de-

In other words, while the Bell system has issued \$192,115,300 of new capital obligations since 1907 it has added \$296,398,600 of new property in the interval. Capital has increased thirty-six per cent. and new property nearly fifty-four per cent. This is a unique record. It shows an uncaptialized increment of liberal proportions and is a powerful bulwark of protection behind the eight per cent. dividend rate.—Boston News Bureau.

MUST PROTECT FROM HIGH TENSION WIRES

Court Defines Duties of Traction Company and Rights of Telephone Company at Crossing.

Traction companies using high-tension electric currents must so construct their lines and provide such protection thereon as to do away with danger to adjacent telephone lines. This is the substance of a decision of the Circuit Court of Logan County, Ill., announced by Judge Harris during the May term.

The suit was brought by the American Telephone and Telegraph Company against the Springfield and Northeastern Traction Company and grew out of a high-tension crossing installed by the traction company on Chicago street in the city of Lincoln, Ill. It was charged by the telephone company that six sixty-five foot wooden poles were being erected between and in direct line with the telephone poles and that these poles were thrust upward through and in some cases in direct physical contact with the telephone wires. On these six poles, for a distance of 700 feet, and fourteen feet above the telephone wires, the traction company had erected its power transmission wires intending, as was alleged, to transmit current at a pressure of 33,000 volts—a pressure highly dangerous to life and property. An injunction was asked restraining the railway company from introducing any current into its wires until it removed its transmission line to some safe place or installed and made operative such protective devices as would securely protect the employees, patrons and property of the telephone company.

The court granted the injunction, expressing the opinion that the railroad company had not used the best and most approved safeguards and devices on the high-tension line over the telephone lines and wires and had no right to interfere with, invade or endanger the telephone company's construction. The court also held that the location of the high-tension line constituted a distinct invasion of the telephone company's prior rights.

The decision is important as establishing the rights of corporations using electric currents of low tension as against those employing dangerous high voltage currents.

Telephone Pioneers.

At a meeting of the executive committee of the Telephone Pioneers of America, held in New York, C. R. Truex, H. S. Brooks and C. E. Scribner were appointed a committee on membership, and John J. Carty, H. F. Thurber and E. F. Sherwood a committee to consider and recommend changes in the constitution and by-laws. B. E. Sunny of Chicago, and Gerard Swope and A. S. Hibbard of New York were appointed a committee on plan and scope for the entertainment to be provided for the Pioneers at the Chicago meeting, October 16th and 17th.



CHICAGO TELEPHONE COMPANY'S FLOAT IN "SHINE" PARADE AT WEST PULLMAN.

But for the past five or six years the story has been radically different. The dominant features of telephone financing under the present management have been its variety, and orderly character. About once in every two years the company has either sold bonds or offered stock to its shareholders. Considering the fact that property additions average \$55,000,000 per annum, or \$110,000,000 in two years the sale every other year of half that amount of parent company new securities, or \$50,000,000 to \$60,000,000 of bonds or stock does not impose any unusual or undue strain either upon the company's 50,000 stockholders or the general investing public.

Furthermore, the sale of securities for but fifty per cent. of the cash cost of new property additions shows the commendable progress the company has made in the direction of taking care of part of its growth out of earnings. It is doubtful if there is a railroad in the United States which is financing anything like forty per cent. of its growth without issuance of additional capital obligations.

American Telephone earnings will easily stand the additional charge carried by these bonds which are, broadly speaking, merely a deferred issue of stock. The interest on the \$65,000,000 bonds amounts to \$2,900,000 yearly and the surplus above dividends of the Bell system for the year to December 31st last was approximately \$14,400,000, or five times the interest on the new securities. And this, of course, assumes that the purposes for which

preciation allowances of a full 100 per cent.

The figures, however, tell their own story:

| | 1912. | 1907. | Inc. | % Inc. |
|--------------|-----------|-----------|----------|--------|
| Total gross | \$199,300 | \$128,579 | \$70,720 | 55.0 |
| Depreciation | 107,300 | 70,395 | 36,905 | 52.4 |
| Net | 141,300 | 87,395 | 53,905 | 61.7 |
| Int. & divs. | 58,000 | 41,184 | 16,815 | 40.8 |
| Surplus | 43,600 | 28,560 | 14,939 | 52.1 |
| | 14,400 | 12,524 | 1,875 | 15.0 |

(Units, tens and hundreds omitted, each amount being millions.)

Measured in terms of physical property and scope of service rendered the story of growth under the Vail administration has been even more striking. Witness the following figures of stations, miles of wire and telephone companies connected with the Bell lines:

| | 1912. | 1907. | Inc. | % Inc. |
|-------------|--------|-------|-------|--------|
| Stations: | | | | |
| Owned | 4,750 | 3,024 | 1,666 | 54.0 |
| Connecting | 2,700 | 755 | 1,945 | 257.6 |
| Total | 7,450 | 3,829 | 3,611 | 94.1 |
| Total miles | | | | |
| wire | 14,590 | 6,946 | 7,643 | 110.0 |

No. companies connected. 24 6 18 300.0

(Units, tens and hundreds omitted.)

But there has been nothing of the mushroom character about this splendid forward march in physical equipment and earning capacity of the Bell system. On the contrary, the increase in property in the five years has actually been over \$100,000,000 greater than the gain in capitalization.

| | 1912. | 1907. | Inc. | % Inc. |
|----------------------------|-----------|-----------|-----------|--------|
| Securities owned by public | \$724,500 | \$532,384 | \$192,115 | 36.1 |
| Total property of system | 846,000 | 549,601 | 296,398 | 53.9 |

(Units, tens and hundreds omitted.)

Commercial Baseball League—Chicago

STANDING OF THE TEAMS
JUNE 28, 1913.

| | Won. | Lost. | Tied. | Pct. |
|-----------------------|------|-------|-------|------|
| Western Electric..... | 3 | 1 | 0 | .833 |
| Peoples Gas..... | 3 | 1 | 0 | .667 |
| Swift & Co..... | 3 | 2 | 0 | .667 |
| Chl. Tel. Co..... | 3 | 3 | 0 | .500 |
| Com. Ed. Co..... | 3 | 3 | 0 | .500 |
| Kellogg..... | 2 | 3 | 0 | .400 |
| Ill. Steel Co..... | 2 | 4 | 0 | .333 |
| Fuller & Fuller..... | 1 | 4 | 1 | .200 |

Chicago University defeated the Chicago Telephone Company 2-0 in an exceptionally brilliant and hard-fought game on June 20th at Marshall Field. Several telephone officials were on hand to support the team.

Of all the hard-luck stories, the loss of this game is the worst. Brunke opened the third with a single. Harold Smith followed with a drive past first. Two men were on and none out. Bates lifted a Texas Leaguer over short which looked perfectly good, but Wilson came in fast, picked it off his shoe tops and made a triple play. Next inning we started with a single and a base on balls, only to be nipped again by a double play. In the sixth another double play spoiled our chances, when Willard grabbed a liner and jumped on the bag. When an apparently similar situation arose in the seventh with the Maroons at bat the liner was just an inch too high for McConnell to hold and went for a hit.

The Maroons scored Liborati in the sixth after he had been caught off first and tagged beyond question by the clever work of Bates, Marggraf and Christofek.

McInerney made a nice double to center in the fifth, but was caught stealing third. The team showed improvement and gives promise of rounding into form. Christofek looks to be a real first baseman. Bates and Bradshaw pitched masterly ball.

The Chicago Telephone Company was ingloriously defeated on June 7th by the Commonwealth Edison Company's nine on the Kedzie and Elston grounds, the score being 15 to 2. The game was called at the end of the seventh inning, as the weather was bitterly cold. Aldous had the Telephone batters at his mercy, and was well supported, while the Telephone men made eleven inexcusable errors. The score:

| CHICAGO TELEPHONE COMPANY. | | | | |
|----------------------------|----|----|-----|----|
| | R. | H. | PO. | A. |
| McConnell, 2b..... | 2 | 1 | 1 | 2 |
| McInerney, ss..... | 0 | 1 | 0 | 2 |
| Wendorf, ss..... | 0 | 0 | 1 | 0 |
| Kinsley, rf..... | 0 | 1 | 0 | 1 |
| Driscoll, cf..... | 0 | 1 | 6 | 0 |
| Hogan, 3b..... | 0 | 1 | 2 | 1 |
| Thierney, 1b..... | 0 | 0 | 6 | 0 |
| Shannon, lf..... | 0 | 1 | 2 | 0 |
| Delaney, c..... | 0 | 1 | 1 | 2 |
| Tobin, p..... | 0 | 0 | 1 | 3 |
| Hooker, p..... | 0 | 0 | 0 | 2 |
| Parks, p..... | 0 | 0 | 0 | 0 |
| Totals..... | 2 | 7 | 21 | 9 |

| COMMONWEALTH EDISON COMPANY. | | | | |
|------------------------------|----|----|-----|----|
| | R. | H. | PO. | A. |
| Schwand, ss..... | 0 | 0 | 0 | 0 |

| | | | | | |
|----------------------|---|---|----|---|---|
| Egane, 2b..... | 2 | 0 | 2 | 3 | 0 |
| Maney, 3b..... | 2 | 1 | 0 | 1 | 1 |
| Peckhaus, 2b-ss..... | 1 | 2 | 1 | 2 | 0 |
| Scheenka, lf..... | 1 | 2 | 1 | 1 | 0 |
| Lavin, cf..... | 2 | 1 | 0 | 0 | 0 |
| Jedlicka, 1b..... | 2 | 2 | 0 | 0 | 0 |
| Enler, cf..... | 1 | 1 | 0 | 0 | 0 |
| Breman, c..... | 2 | 1 | 10 | 0 | 0 |
| Aldous, p..... | 2 | 2 | 0 | 2 | 2 |

| | | | | | |
|-------------------|----|----|----|---|---|
| Totals..... | 15 | 13 | 21 | 9 | 3 |
| By innings: | | | | | |
| Chl. Tel. Co..... | 0 | 0 | 0 | 0 | 1 |
| Hits— | 1 | 0 | 1 | 2 | 1 |
| Com. Ed. Co..... | 0 | 1 | 4 | 3 | 2 |
| Hits— | 1 | 3 | 4 | 3 | 0 |

Two-base hits—Hicks, Hogan, Peckhaus, Schwenke, Lavin. Passed ball—Delaney. Double plays—Tobin to Thierney; Aldous to Peckhaus to Jedlicka. Hit by pitcher—Kinsley. Wild pitches—Tobin 2.

| | | | | | |
|---------------|---|---|----|----|---|
| Parks, p..... | 0 | 2 | 1 | 2 | 1 |
| Totals..... | 3 | 7 | 27 | 20 | 6 |

PEOPLES GAS COMPANY.

| | R. | H. | PO. | A. | E. |
|----------------------|----|----|-----|----|----|
| Reedy, ss..... | 3 | 3 | 2 | 1 | 1 |
| Clark, cf-p..... | 1 | 1 | 2 | 2 | 0 |
| Cross, 2b..... | 2 | 0 | 3 | 1 | 1 |
| J. Weiss, 1b..... | 1 | 2 | 10 | 0 | 0 |
| Faunt, 3b..... | 1 | 2 | 1 | 5 | 0 |
| A. Weiss, lf..... | 1 | 2 | 1 | 0 | 0 |
| Moore, rf..... | 0 | 1 | 0 | 0 | 0 |
| McCarthy, c..... | 1 | 1 | 7 | 1 | 0 |
| Soder, p..... | 0 | 0 | 0 | 1 | 0 |
| Christopher, cf..... | 0 | 0 | 1 | 0 | 0 |
| Totals..... | 10 | 12 | 27 | 11 | 2 |

| | | | | | |
|-------------------|---|---|---|---|---|
| By innings: | | | | | |
| Chl. Tel. Co..... | 0 | 0 | 0 | 0 | 1 |
| Hits— | 0 | 0 | 1 | 2 | 0 |



CHICAGO TELEPHONE TEAM IN COMMERCIAL LEAGUE AS IT APPEARED ON MARSHALL FIELD, CHICAGO UNIVERSITY.

Top row, left to right: Bates, p., Shannon, cf., Atwater, mgr., Bradshaw, p., Dillon, p.
Middle row: Smith, c., Tobin, p.; Savage, p.; Marggraf, capt., Schuler, ss., Parks, p., Kinsley, lf.
Bottom row: McInerney, 1b, McConnell, 2b, Brunke, lf., Hooker, p., Hogan, 3b.

Parks 1. Struck out—By Tobin, 1; by Aldous, 9. Time of game—2 hours. Umpire—Dan Boland.
The People's Gas Company defeated the Telephone nine 10 to 3 on June 14th at the Kedzie and Elston grounds. Thiel was hit hard in the first four innings, but with Parks in the box the Telephone men braced up and held their own. Delaney made three hits, including a two-bagger which scored Savage after his double. The score:

| CHICAGO TELEPHONE COMPANY. | | | | |
|----------------------------|----|----|-----|----|
| | R. | H. | PO. | A. |
| McConnell, 2b..... | 0 | 0 | 3 | 2 |
| McInerney, 1b-rf..... | 0 | 0 | 4 | 0 |
| Hogan, 3b..... | 0 | 0 | 1 | 4 |
| Shannon, cf..... | 0 | 0 | 2 | 1 |
| Marggraf, ss..... | 0 | 1 | 1 | 6 |
| Savage, cf..... | 1 | 1 | 0 | 0 |
| Niesen, rf-c..... | 1 | 0 | 3 | 2 |
| Delaney, c-lb..... | 1 | 3 | 12 | 1 |
| Thiel, p..... | 0 | 0 | 1 | 2 |

Peo. Gas Co. 2 2 0 0 3 1 0 2 0—10
Hits—3 4 0 1 2 0 2 1 1—12
Two-base hits—Savage, Delaney. Passed balls—McCarthy 1, Niesen 1. Double play—Thiel to McInerney. Bases on balls—Off Thiel, 3; off Parks, 1; off Soder, 1; off Clark, 2. Struck out—By Thiel, 3; by Soder, 4; by Clark, 2. Hit by pitcher—Shannon, Niesen, by Soder; Cross, Soder, by Parks. Time of game—2 hours. Umpire—Kid Broad.

Plant Department League—Chicago

STANDING OF THE TEAMS
June 14, 1913.

| | Won. | Lost. | Pct. |
|------------------------|------|-------|-------|
| Lincoln..... | 3 | 0 | 1.000 |
| So. Installations..... | 2 | 1 | .750 |
| Wentworth..... | 2 | 1 | .667 |
| Oakland..... | 2 | 2 | .500 |

| | | | |
|------------------|---|---|------|
| Nights..... | 2 | 2 | .500 |
| Maintenance..... | 1 | 3 | .250 |
| Harrison..... | 0 | 4 | .000 |

GAMES JUNE 7, 1913.

South Installations, 17; Oakland, 12.
Nights, 16; Harrison, 5.
Maintenance, 13; Calumet, 12.
Lincoln-Wentworth, no game.

GAMES JUNE 14, 1913.

Nights, 10; Maintenance, 3.
So. Installations, 10; Calumet, 9.
Oakland, 26; Wentworth, 12.
Lincoln, 14; Harrison, 4.

Inter-Department League—Chicago

STANDING OF THE TEAMS JUNE 14, 1913.

| | Won. | Lost. | Pct. |
|---------------------------|------|-------|-------|
| Central Installation..... | 4 | 0 | 1.000 |
| Equipment..... | 4 | 0 | 1.000 |
| Traffic..... | 3 | 1 | .750 |
| North Installation..... | 1 | 2 | .333 |
| Auditing..... | 1 | 2 | .333 |
| Collection..... | 1 | 2 | .333 |
| Evanston..... | 0 | 3 | .000 |
| Engineering..... | 0 | 4 | .000 |

GAMES JUNE 7, 1913.

Traffic, 19; Evanston, 13.
Equipment, 20; Engineering, 15.
Collection vs. North Installation; postponed.

GAMES JUNE 14, 1913.

Traffic, 8; Auditing, 7.
Central Installation, 5; North Installation, 0.
Equipment, 12; Evanston, 4.
Collection, 13; Engineering, 5.

Cleveland Telephone League

STANDING OF THE TEAMS.

| | Played. | Won. | Lost. | Pct. |
|-------------------|---------|------|-------|-------|
| Installation..... | 4 | 4 | 0 | 1.000 |
| Equipment..... | 4 | 4 | 0 | 1.000 |
| Supply..... | 4 | 2 | 2 | .500 |
| Commercial..... | 4 | 1 | 3 | .250 |
| Assigning..... | 4 | 0 | 4 | .000 |

The following departments of the Cleveland Telephone Company held a meeting and reorganized for the baseball season of 1913: Installation, Equipment, Supply, Commercial and Assigning. The managers for the above departments were elected and are as follows: Installation, A. Dombrosky; Equipment, R. Chambers; Supply, W. C. Kelly; Commercial, A. E. Bodner; Assigning, W. Andrews.

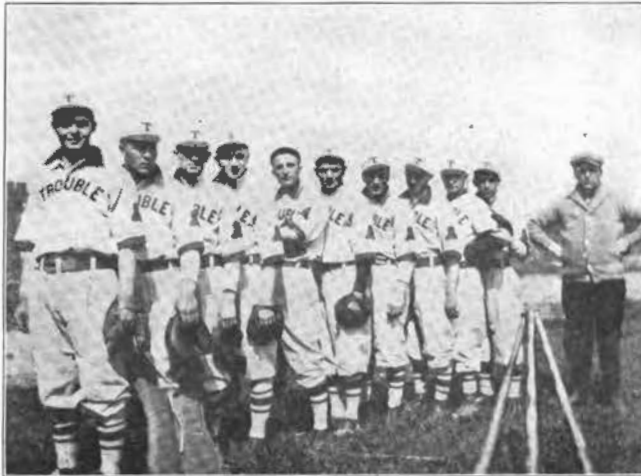
The officials of the league are: J. Davis, president; W. C. Kelly, vice-president; P. R. Martz, secretary; William Cullen, treasurer.

The arbitration committee is composed of the following members: T. P. Cagwin, J. J. McCarthy, E. E. Ranney, G. P. Weigel.

The material of the league is composed of a large number of promising players, men who have represented their colleges and high schools in the past and who have regained some of their old-time form in the last few weeks. Several stars in the major leagues today are players who worked for the Cleveland Telephone Company and played in the Telephone League. In fact, Jack Davis, president, has had a great deal of experience in managing amateur baseball teams and is



FOUR TEAMS IN BASEBALL LEAGUE ORGANIZED AMONG BELL EMPLOYEES AT CLEVELAND, OHIO.



TROUBLE TEAM, WISCONSIN TELEPHONE BASEBALL LEAGUE.

Left to right: F. Herold, D. Christie, W. Skelton, George Euler, J. Holub, C. Burkhardt, M. Baerecke, L. Partington, A. Krueger, N. McDermott, H. Kornitz, manager.



COMMERCIAL TEAM, WISCONSIN TELEPHONE BASEBALL LEAGUE.

Upper row, left to right: A. Krueger, J. Mischic, W. Clausen, J. O'Day, J. Herr. Lower row: H. Healy, W. Moore, P. Herr, G. Bahr.

also an ex-player of the Cleveland baseball club. Mr. Davis issues a challenge on behalf of the league to any other amateur telephone team in the Central group.

SCHEDULE FOR THE REMAINDER OF THE SEASON.

July 12th, Commercial vs. Installation.
Installation vs. Equipment.
July 19th, Supply vs. Installation.
Assigning vs. Equipment.
July 26th, Commercial vs. Supply, Installation vs. Assigning.
August 2d, Commercial vs. Installation, Supply vs. Equipment.
August 9th, Commercial vs. Equipment, Supply vs. Assigning.
August 16th, Commercial vs. Assigning, Installation vs. Equipment.
August 23d, Supply vs. Installation, Assigning vs. Equipment.
August 30th, postponed games.
September 6th, postponed games.
September 13th, postponed games.
All postponed games must be played on dates scheduled for same.

PLAN OF FINDLAY MERCHANTS.

Unite in Advertising That They Will Give Special Attention to Telephone Orders.

Forty-one merchants of Findlay, Ohio, advertise that they will give particular attention to telephone calls.

The plan was devised by the *Findlay Courier*, which began by making a demonstration on its own account of the possibilities of such a service. Every one of the forty-one orders for advertising was solicited and taken over the telephone. The average time occupied in the calling, solicitation and details was ninety seconds. It was another proof of the value of the telephone in lightening the labors of everyday life, said the *Courier*.

The advertisements were published in a special display headed "Easy Ordering by Telephone." In all cases the Central Union Telephone is indicated in the ad. The plan attracted a great deal of attention and worked well.

The Crank.

"Is Jinks a confirmed pessimist?" "Yes; he will never try to talk over a telephone because he says that the one of the 9,000,000 in the United States which would be of service to him is sure to be in use."

LEAGUE AT MILWAUKEE.

Telephone Men Organize Four Teams to Compete for Baseball Honors.

Employees of the Wisconsin Telephone Company at Milwaukee have organized the Wisconsin Telephone Baseball League, electing the following officers: President, Oscar Bellinghausen; vice president and secretary, F. H. Townner; treasurer, Harvey Owen. The league consists of four teams, as follows:

Installers—Oscar Winnige, manager; Ed. Barsch, captain.

Trouble—H. J. Koraltz, manager; A. Krueger, captain.

Commercial—Leo Lehn, manager; H. F. Hamann, captain.

Engineers—Chas. Bierman, manager; E. F. Brennan, captain.

The teams are fully uniformed and equipped. The North Side Park has been secured for the season, where

two games will be played every Saturday afternoon, beginning May 17th and ending October 4th.

The league stands ready to play any team composed of telephone employees in the Bell System.

UMPIRED BY TELEPHONE.

Ball Game Settled by Verdict Delivered by Wire After Contest Was Over.

"Being a resident of Kansas, it is natural that the funniest baseball tale I ever heard should have its setting in that state," said Walter Johnson, of the Washington American league team recently.

"The incident dates back seven or eight years and an umpire played the leading role. I wasn't a big leaguer when the stunt was pulled off, and I didn't appreciate the affair as I do now.

"If my memory serves me correctly, Independence and Parsons were playing. Two games were played on the Fourth of July in the latter city. The umpire in the morning game was Gorman. Around him centered the trouble of the morning.

"That Gorman didn't like the way the fans treated him was proved when he didn't show up for the afternoon game. I am told he never held an indicator in another game, his lone experience causing him to lose any love he might have had for the job.

"At the end of the ninth inning the score was a tie and the crowd was wrought up over the extra inning. Neither club scored in the tenth. In the first of the eleventh Independence got a man as far as third, with two down, and the next batter hit a ball to deep short.

"The umpire's first impression, as well as decision, was that the batter was safe, and that Independence had put over the run that looked big enough to win the game.

"The captain and the manager of the home team, seeing that the umpire had waved the batter safe, made a rush for the official. All the Parsons players followed. About this time Umpire Gorman was thinking how much pleasanter it would be back with the home folks. Seeing the home athletes on the rush, he proclaimed the batter out.

"The home team halted, but Independence took up the charge. In a minute Gorman was giving an imitation of a rear brakeman on a freight train, alternately making motions that he had declared the runner out and safe.

"The crowd then took up the affair and started to make things pleasant for Gorman. About this time that official took it on the run, beating the crowd to safety by a good margin.

"After reaching his hotel, Gorman telephoned the ball park, got the manager of the home team on the phone, and informed him that he had called the runner out and that the run didn't score.

"I am sure this is the only case on record where the umpire telephoned his decision, and it stood. The contest was declared a tie and played over.

"A new umpire worked in the afternoon game."—*Detroit Free Press*.



INSTALLERS' TEAM, WISCONSIN TELEPHONE BASEBALL LEAGUE.

Top row, left to right: E. Smith, F. Ott, W. Neutzel, E. Raniske, E. Grey. Middle row: G. Belter, J. Schoenecker. Bottom row: A. Fritz, T. Maukause, E. Barsch, captain.



OF INTEREST TO OUR GIRLS

CONDUCTED BY MRS. F. E. DEWHURST



WABASH EVENING OPERATORS ENJOYING PICNIC DINNER AT LINCOLN PARK, CHICAGO, JUNE 27TH.

AS ONE GIRL SEES HER WORK.

We are glad to give some of the editorial space on this page to one of the operators who has written such an interesting paper on work for girls.

This young lady is a recent graduate from the Chicago Telephone School, and since beginning work at an exchange she has been attending high school while working evenings.

When she was given the topic at high school, "What Can the Grammar School Graduate Do," she was ready to write from experience, for she had already solved the problem for herself.

In these days, when the question of vocational schools is being discussed so extensively, it is timely enough to have the telephone profession presented, as an already established vocation, with a well equipped vocational school. From this school thousands go to all parts of our cities trained for a work which is so universal that a graduate from this school need never fear that she will lack a position.

There is one point that is worth thinking about in connection with this article. The writer is observing and appreciative. She has noticed the advantages in the surroundings in which she works and is willing loyally to acknowledge these advantages. She will be much more successful in her work because she enters it with this spirit. The girl who looks for trouble may find it in any profession, but the one who goes happily to work, looking for the "many blessings" of which she speaks, will make a success of her

vocation. It is this kind of a girl who advances step by step, always doing her work with enthusiasm and making herself so valuable that she will be wanted in more places than she can fill.

It is interest in one's work that makes enthusiasm, and it is enthusiasm that is needed and valued in every office.

Wabash Evening Girls at Lincoln Park.

"They're the finest and the brightest that there are,

The loveliest and rightest near or far;

They are all so brave and witty, good looking if not pretty;

They're the brightest in the city, each a star."

That is what it said on the rosebud napkins which served as place cards at the picnic dinner at Lincoln Park, Chicago, Friday, June 27th, and looking at the happy faces, we were sure that it was not all partiality on the part of Miss Richford, who was the presiding genius of the happy outing. Not even the rain which fell on Thursday, the day planned for the picnic, could dampen the enthusiasm of Miss Richford, or the girls, some of whom went both days.

Our picture gives some idea of the feast which was spread, but the festoons of red, white and blue and the flags picketed about the ground, gave color to the scene which we cannot reproduce. Old fashioned games followed the dinner and bathing later, and at five o'clock the boards at Wa-

bash were filled with a force of girls whose cheeks were well burned, but whose eyes were bright with happy memories of a jolly day.

What Can the Grammar School Graduate Do?

By THERESA WHITTAL, a Student at Murray F. Tuley High School, Chicago.

Among the beings who by the sweat of their brows must earn their daily bread (and a few other things), one of the most handicapped is the girl grammar school graduate. I do not mean by this statement that she cannot manage to make a living, but that a bare living, devoid of the little luxuries which tend to bring pleasure, is all that she can earn.

In view of this fact, I shall endeavor to point out the difficulty of the average grammar school graduate in obtaining suitable employment, and I shall also aim to present a position for her inspection which, I think, will be pleasant and well paying work.

It would be well here to note who the "A-1" grammar school graduate is. Generally speaking, she is the fourteen or fifteen-year-old girl who must get to work as soon as possible, a fact which shows that she needs money. Also, she is the half-grown woman who must learn self-control in a day, as it were, and shoulder responsibilities which, only yesterday, seemed too great for her. On the other hand, she is the child whose "mind's eye"

has only partly opened to gaze upon the important views of life, and she possesses only a poorly defined idea of what is expected of her. Notwithstanding, she is the brave little creature who, ignorant of her shortcomings, is eager, yes, determined, to plunge into an active world, the business world, and do her part. She is like the baby reaching for the pretty moon. Far off in the distance she sees, through her unappreciative eyes, a well-paying position, dimly outlined, yet attractive. Her one thought is to reach for it and grasp it within her weak hands. But, just as the baby will some day give up the pleasant delusion of the nearness of the moon, so will the girl when she has met with many a disappointment realize her incompetency, and abandon her ambition, unless, of course, she is the kind of person whose motto is "Never say die!"

To return to the subject on hand, what has her discipline done for her in the way of fitting her to fulfill her desire? It has taken place during the years when "though she has eyes, she sees not" the opportunities and the possibilities for attaining something that is better than her lot. Her mind, then, is not alert. She would not be able to become master of an extraordinary situation, should her life in the labor field demand this. Moreover, since she has been confined to home-life, where there is always mother to go to for help in settling questions, she has not developed that sense of solving for herself problems

which might arise in her new position.

Although the foregoing deficiencies are important enough to influence her success, still, more weighty than these is the fact that she has not been taught a definite vocation which she could practice immediately upon leaving school. She has acquired skill in no line. "But," perhaps you will say, "with the attention paid to writing lessons in the public school, she certainly ought to have gained enough experience to make it possible for her to get a modest little position in some office." All business houses of any account, in these days, have a stenographer for this sort of work. There is the heavier manual labor only left for her, and she usually resorts to the factory, or store, with the hope that it is only a stepping stone to something better.

Now the "something better" is what, at this point, I should like to suggest. For the girl of no definite training, who is ambitious and industrious, a position in the Chicago Telephone Company is both pleasant and remunerative. The company undertakes the business training of the girls at a well equipped school, located at Franklin and Washington streets, and it does this at its own expense, so that a girl is paid for being taught! After graduating from the "school" she is assigned to a position at the exchange nearest her home, another advantage of being a telephone-worker!

Besides, consider the conditions which surround her while at the telephone office. In the first place, the building is built to meet the demand of comfort while at work or off duty, for lunch or rest. Pretty rest rooms are fitted up for the use of the operators. A large, cheerful dining room, in which the young women are served their lunches, free of charge, by a good, kind, motherly matron, who looks after the welfare of the girls, is one of the "many blessings."

Therefore, if the girl grammar school graduate, or any other graduate, will look her shortcomings in the face, and then consider that the Telephone Company is willing to teach her to overcome these, and to place her in a position where she can rapidly work her way up, there is no doubt that she can satisfactorily answer the question, "What shall I do?"

Miss Whittall is attending the Murray F. Tuley High School. This is the school which won the prize for the best marching in the contest before the superintendent, Mrs. Ella Flagg Young.

HER SERVICES RECOGNIZED.

Operator Who Sent Message to Police Receives Gift of Half Eagle.

Tillie Orloff, the Interstate telephone operator who heard the cry for help come faintly over the wire when Manager Tennery of the Banner Furniture Company was left bound and gagged in his place of business at Peoria, Ill., on Decoration Day, received a recognition of her services in the shape of \$5 from Mr. Tennery.

Mr. Tennery, alone in the store and preparing to close for the afternoon, was bound and gagged by two men who stole \$137 and left him helpless and smothering in the locked store. The gag was of waste paper and after it softened Mr. Tennery was able to spit it out, then reached the telephone cord dangling from the desk and pulled the instrument to the floor.

Miss Orloff's quick understanding of the situation and speedy help she sent in the shape of the automobile patrol wagon crew is appreciated.—Peoria Star, June 8th.

Chicago Telephone Company's Shack at Naperville

Jane Addams at the opening of the McCormick Open-Air School said that whenever she saw a particularly rosy-cheeked, plump child in the neighborhood of the Hull House she was sure it was one of the anaemic tubercular children who attended a fresh air

ing the public recognize the situation.

In 1906 the first permanent institution near Chicago for the treatment of tuberculosis was established at Naperville. Before this time it had been thought necessary for patients to go far away to a higher altitude and the attendant expense had prevented many from attempting the cure. In many cases also the homesickness from going so far away among strangers often prevented the patient from recovering.



CHICAGO TELEPHONE COMPANY'S SHACK AT NAPERVILLE, ILL.

school. So sometimes when in our Chicago exchanges we meet an operator whose face looks particularly healthful, and whose eyes are bright and her cheeks ruddy as if she had been on a fine vacation, we sometimes find that she has been out at Naperville at the Edward Sanatorium.

There was a time when the mere

while the return to this climate sometimes proved disastrous.

The Edward Sanatorium at Naperville was founded by Mrs. Kelth Spaulding, of Chicago. The cornerstone was laid in the spring of 1906 and on January 15, 1907, the doors of the sanatorium were opened for admission of patients.



INTERIOR OF CHICAGO TELEPHONE COMPANY'S SHACK AT NAPERVILLE.

supposition that a person had tuberculosis, or consumption as it used to be called, was almost equal to a sentence of death. In the last few years a great crusade has been carried on which, while warning against the dangers of the disease, held out a new hope and promise of cure, if it could be caught in its incipient stages. Publicity was given to the character of the disease and the contagion possible from ignorant and careless sufferers. While this was not agreeable to think about, it proved a most efficient aid in mak-

The initial accommodations of the institution were for sixteen patients. On May 27, 1908, the Sanatorium was presented by Mrs. Spaulding to the Chicago Tuberculosis Institute. It is located just outside the city limits of Naperville, DuPage County, Ill. Communication from Chicago is by Chicago Burlington & Quincy Railway suburban trains, leaving the Union Depot every two to three hours, and reaching Naperville in fifty to sixty minutes.

The site is a farm of forty acres.

The ground is elevated, affording an unobstructed view of picturesque scenery for miles around. Across the roadway is the Du Page River, with numerous groves of trees east of it; south and west of the institution is the boundless stretch of sloping ground and fertile farm land.

The east section of the ground is occupied by an orchard and a large lawn; around it in a semi-circle are the medical building with the infirmary, the service building and the day shacks so placed that the patients are under the constant observation of the central office.

West of this group of buildings are two rows of sleeping shacks (one for men and one for women), with a large lawn between them; several hundred evergreens were placed around this part of the grounds for protection from the prevailing winds.

Cement walks connect the various buildings of the institution and lead to the main entrance of the sanatorium.

About thirty acres of rich soil, lying west of the sanatorium proper comprise the farm. The group of buildings, situated here, consists of a farmhouse, several barns, three poultry houses, water tower, engine house, refuse crematory and ice house.

The shack which the Chicago Telephone Company has recently erected is one of a group of similar shacks built by other firms in the city. The building was delayed for some time after the plans had been approved and money had been given by the Company. It has been occupied now for about three months. The shack is a structure eighteen by thirty-three feet, with the west section including the recreation and dressing room; this part projects six feet beyond the front line. The sleeping porch is thirty-seven feet long, a continuous line of windows extending over the entire north wall; the entire front facing southeast is open, canvas curtains being used in stormy weather; a large door, occupying one-half of the east wall, affords additional ventilation. The roof is provided with two skylight ventilators. The dressing room is twelve by fifteen feet; a section of it is given to individual lockers, toilet and lavatory facilities. The recreation room is eleven by fifteen feet, with large windows extending along the south and north sides and glass doors leading to the porch and dressing room. The porch is large enough to accommodate the beds and the reclining chairs.

The shack is very pleasantly located as there is open space for miles at the northwest, and a few trees at the corner of the recreation room make a very attractive setting for the building. Here the meadow larks and song sparrows at this season are singing and the girls have watched the plowing and planting of the great corn field which adjoins their temporary home. Flowers are growing in the window boxes and along the front of all the shacks a great profusion of nasturtiums and scarlet geraniums make a cheerful foreground and afford much pleasure to the girls who gather bouquets for their friends.

The interior of the recreation room is made attractive with handsome rugs and mission furniture and the rose colored draperies give a most cheerful light to the room. But this room is used little compared with the porch, where the girls sleep in the open air or recline by day in the steamer chairs.

Although the shack was built by the Chicago Telephone Company, that does not indicate that the girls are sent to the sanatorium free of expense. The regular rate of ten dollars a week is paid by everyone who goes, and the expense of nursing, nourishing food and constant medical supervision is not covered by this moderate price. The

institution is supported by private benevolence, the sale of red cross stamps and the contribution of the services of Dr. Theodore B. Sachs, who is the medical director and the most active promoter of this work of detecting and curing incipient cases of tuberculosis. It is he who examines all patients who are entered at the sanatorium and every Saturday he goes to Naperville and spends Sunday, when he examines and prescribes further treatment for the patients.

The interest which the Chicago Telephone Company has taken in the young ladies who are employed in the city exchanges is appreciated and there are some very loyal girls at our boards who are grateful for the opportunity they have had to be at the Edward Sanatorium. Some of these know well that they owe their lives to the weeks spent there.

Not the least advantage of a stay at Naperville is the opportunity it gives of learning how to live. Necessary rest after work, proper food and plenty of sleep, sunshine in the home and fresh air always, both day and night. These are some of the essentials which all girls need to learn the value of, and at the sanatorium the truth gets emphasized so that it cannot be forgotten easily.

GIRLS WORK UNDER CANVAS.

To Keep Dry While Water Plays On Burning Building Next Door.

About three o'clock in the morning of May 30th the building in which the First State Bank of Ludington is located was found to be on fire. The blaze quickly communicated to the hardware store of H. V. Houston, adjoining the exchange building of the Michigan State Telephone Company, with the result that for a time it seemed certain that the exchange building would be destroyed.

However, a four-foot space between the building and the adjoining one prevented anything more serious than the wall of the burning building falling on the exchange roof. This flooded the operating room with water.

Prompt action on the part of the Ludington employees resulted in the switchboard and equipment being kept dry, so that service was not interrupted. At the time of the fire the only operator on duty was Leta Culver, but within a short time Miss Potvin, chief operator, and several others reported for duty. Canvas was temporarily placed over the switchboards and the chief operator's desk. This was done to prevent damage from water falling through the skylight. The operators worked heroically underneath this canvas until ordered to leave by the firemen. The girls expected any moment to see the west wall of the Houston block fall through the skylight of the telephone building. The operators were out of the building a short time, but they returned as soon as the danger from the falling wall was over.

Repairs will be made immediately. The interior of the building will be redecorated throughout, and a new roof added.

Call Comes High.

Recently a commercial agent in the Milwaukee District called on a doctor for the purpose of changing his class of service.

Two weeks elapsed when he received a bill from the doctor, which stated: "One Call, Medical Service, \$2." The solicitor was somewhat dismayed to receive this bill, and upon investigation it was found that when he had passed in his card to the attendant in charge she had put him down for one call at \$2 without inquiring the nature of his business.



BACK TO HEALTH.

A Chicago operator who was saved from tuberculosis by a few weeks' treatment at the company's cottage at Naperville.

Versatile Central.

An information operator at South office, Milwaukee, was asked the other day whether she could tell how to make potato pancakes. The young lady at information happened to know



SLEEPING PORCH OF THE CHICAGO TELEPHONE COMPANY'S BUNGALOW AT NAPERVILLE, ILL.

a few things about domestic science and gave the directions.

A few days later the subscriber called and informed information that her directions were followed carefully and splendid success was the result.

Conventional.

"How is the new telephone operator getting on?"

"Oh, she left as soon as I explained the work to her."

"Refused to stay, eh?"

"Yes."

"What was the trouble?"

"She says she couldn't think of calling people up and talking to them without a formal introduction."

GIRLS ARE WELL TREATED.

Madison Humane Officer Commends Conditions at Wisconsin Telephone Exchange.

Madison telephone girls are not driven to death with work according to the view of Dr. J. W. Quinn, humane officer. At least they are not enslaved to the degree that an anonymous letter received by him would indicate. Some days ago the doctor received a letter asking him to look into conditions at the local telephone exchange or it would be made "interesting" for him.

"This threat amused me," said Dr. Quinn, "but aware that a woman with a threat carried around with her is dangerous, I thought I would comply with her request to go to the telephone company and see for myself the awful conditions that there existed."

Dr. Quinn was rather surprised at the pleasant conditions he found prevailing there rather than otherwise. He found a rest room and kitchen maintained for the girls with a matron in charge to look after their health and comfort, and that all conveniences were furnished.

"The manager also informed me," said Mr. Quinn, "that they had let the contract to place another story on the building. This story will be used entirely for the girls employed by the company. In it will be a large rest room and a separate room for lunches, together with a small hall for receptions or entertainments. In fact this upper story will be conducted in such a manner that it will not be second to any of its kind in the state."

though she had been in the habit of going to the desk 'phone and holding extended conversations with real or imaginary people. One day she rushed from the room, wild-eyed and screaming at the top of her voice—"Mamma! Mamma! Central bit me!"—Popular Electricity.

Exchange of Exchanges

North, Chicago:

A North subscriber asked for the manager's office. She said: "Say, there's a man who comes in here and says that he is a telephone man, but I don't believe it. I think he must be crazy, looney or something is wrong with him, because he took the receiver down and said to the operator, 'Give me the hospital, take North 3331 down and ring on it.' Did you ever hear anything like that before? The man is sure crazy." After explaining what the repairman meant subscriber said "Oh," and disconnected.

The operator said, "Number, please." Calling party said, "The lady told me to let you hold my nickel while I look up the number."

A "B" operator completed a call O. K., when a few seconds later, receiving a disconnect signal, the operator cut in on the line saying, "What is it, please?" Subscriber responded proudly, "It's a boy."

Belmont, Chicago:

A subscriber who had put a nickel in on a busy line was questioned as to whether she had put the nickel in. The subscriber said, "Oh, yes; this is a 'pay as you enter' telephone."

A subscriber who wished to get Official 100 asked for "Efficiency 100." Another made it "Officelal 100." At Main office a call was made for "Mr. Fisher 100."

Princeton, Wis.:

Subscriber—Say, central, please give one long ring on this line at 11:30 o'clock, because I want to put my potatoes on the stove at that time.

Eau Claire, Wis.:

A subscriber was calling for Black 318 and as 318 was a single line the operator told him there was no such number and referred him to the information operator, who told him to call B-1118, as they had no such number as Black 318. As soon as the operator went in on the line again the subscriber once more told her he wanted Black 318 and on being informed by the operator that there was no such number, he said: "Vell, give me black three straight vones and an eight."

Ypsilanti, Mich.:

A subscriber who asked for a number was told by the operator that that line was "out of order."

"Oh, he's out in an auto, is he? Well, I'll wait till he gets back. Thanks."

Detroit:

Subscriber—I want to talk to Gray Gables, at Grosse Isle.

Long distance operator—If Gray Gables is not there, will you talk to anyone else?

Subscriber—I hardly think so. Gray Gables is a cottage.

Operator—Oh!

Manitowoc, Wis.:

Operator to party on rural line—Are you a subscriber?

Party—No, I am a carpenter by trade.

Vicious Central.

When one has the telephone receiver down, if central turns on the "ringing juice," a smart shock may be received. Two-year-old "Billie" Harvey was not aware of this painful possibility, al-

"SEBCO"

The quickest, easiest, cleanest and most substantial way of fastening all kinds of electrical apparatus to walls, floors or ceilings of any hard substance such as brick, stone and concrete. Drill a hole, insert a SEBCO Expansion Bolt or Screw Anchor, attach your fixture and tighten the bolt or screw; your fixture is up to stay unless it is purposely removed.



SEBCO Screw Anchors, made of a non-rusting composition metal for use with ordinary wood screws are especially adapted to work around marble, tile, and placed where it is necessary that no rust stains shall appear. For fastening small fixtures such as bridle rings, cable clamps, insulators, lamps, telephone sets, small switchboards, etc.



SEBCO Expansion Bolts, made of malleable iron for use with either lag screw or machine bolt. The construction of the shield allows no give, play or movement of any kind after the bolt and lag screw is tightened. They are used for fastening motors, large switch boards, insulator brackets, cable hangers, etc.

FREE Samples and catalog will be sent on request.

STAR EXPANSION BOLT CO.
147-149 Cedar St. New York

News Educational Course

The plan for issuing leaflets relating to the different branches of work outlined in the February issue of the BELL TELEPHONE NEWS is progressing satisfactorily. Five leaflets have been issued, covering the following subjects:

Subscriber Station Apparatus,
Aerial Wire,
Aerial and Underground Cable,
Pole Lines,
Central Office Equipment.
Leaflets covering other interesting subjects are in preparation.

The following are answers to criticisms of leaflets that have been made since the last answers to questions were printed in the June issue of the NEWS:

In the March issue of the leaflet, Page 11, splicing line wires, it is stated that the ends of the line wires projecting beyond the sleeve, should be turned over, and the sleeves then given the proper number of twists. The criticism is that with the wires turned back, a groove would be liable to be cut in the line wire.

The answer to the criticism is that the idea intended in the leaflet is that the wires, after being inserted in the sleeve, should be turned over just enough to hold them in place while getting the connectors in position for twisting, the final turning over and cutting off of any excess length to be done after the twisting.

On Page 17 of the April leaflet it is

stated that toll lines entering a central office through cable or by open wire, should be protected by the No. 67 heat coil, and that in addition to this protection the No. 69-A heat coil should be installed in the drop or signal circuit.

The paragraph in question should have read as follows:

"Toll lines entering common battery offices, whether through cable or open wire, shall be protected by No. 67 heat coils. In addition to these protectors No. 69-A heat coils shall be installed in the drop or signal circuit to protect the drop and any associated apparatus."

On Page 16 of the leaflet for April, it is stated that open space cut-outs, equipped with copper blocks and No. 10 mica, should be used at the outer end of underground or aerial cable, also, that the No. 10 mica is twice the thickness of the mica used in the Central office protector.

The criticism is that the No. 10 mica is not twice the thickness of the usual central office mica, and that the No. 11 mica should be used at aerial cable heads. The criticism is correct, and the No. 11 mica was intended to be specified.

Golf Match Scheduled.

Chicago telephone golfers will meet a team from the Western Electric Company at the Westward Ho course Sunday, July 13th. This is an annual event. The 1911 match was won by the Western Electric team 21 to 18. In 1912 the Western Electric again won 28 to 11.

As a cup is being played for, it is up to the Chicago Telephone Company stalwarts to win the coming match, for a defeat will mean that the trophy will become the permanent property of the Western Electric team.

BRIEF NOTES FROM THE FIELD

ITEMS OF INTEREST TO BELL TELEPHONE EMPLOYEES
GATHERED FROM ALL PARTS OF THE TERRITORY

CHICAGO DIVISION

MRS. F. E. DEWHURST G. W. CUMMINGS
Correspondents

K. M. Mitchell's Appointment.

Karl M. Mitchell has been appointed superintendent in the modern business government of River Forest. He will have general supervision of all employees. Mr. Mitchell was a division manager of the plant department of the Chicago Telephone Company, and his selection over seventy applicants is a testimonial favorable to the efficient corporation where he was trained in business methods.—*Manufacturers' News*, Chicago.

Outing at Starved Rock.

Some of the young ladies at Hyde Park report a very delightful outing at Starved Rock. They took the interurban at one o'clock Saturday, arriving about five o'clock. The round trip costs \$2.10. There were fourteen in the party, and they took a cottage and got their meals at Rock Hotel. The entire cost of the delightful week-end party was \$4.50 apiece. The wonderful picturesque scenery makes this a most attractive spot for a vacation.

O. J. Holbrook Married.

Orrin J. Holbrook, commercial superintendent of the suburban division of the Chicago Telephone Company, was married June 14th at Chicago. The bride was Miss Lydia Theresa Kramer. Mr. and Mrs. Holbrook will be at home after September 1st at 525 Deming place.

Dinner for Miss Rogers.

Priscilla Rogers, clerk at Lincoln, who has been transferred to Mr. Foster's office, was entertained at dinner by the clerks of the district at the Mission Tea Room, Sheridan road, Monday evening, June 8th. It was a complete surprise to Miss Rogers. Nine young ladies sat down to the table, which was beautifully decorated with pink peonies.

JUNE WEDDINGS

The "society columns" of the BELL TELEPHONE NEWS would be crowded were one able to get full information regarding all of the weddings in June, Cupid's favorite month. To all the girls who go from the service of the Chicago Telephone Company to the higher service of home making we give our hearty congratulations and best wishes. Among these brides are many who have for a good many years worked faithfully and loyally for our Company. They go carrying the best wishes of the girls who have been associated with them, and the appreciation of their employers.

Yards.

On Wednesday, June 18th, four young ladies from Yards exchange were married. At five o'clock at St. Gabriel's Church, Mary O'Brien, supervisor at the ceremony.

Yards, and who has worked for fifteen years for the Company, was married to James Carroll. She was attended by Nora Quinlan. The bride wore a white silk crepe, trimmed with venetian lace, with a picture hat of white trimmed with white maline and roses. She carried a shower bouquet of white roses and lilies of the valley. Miss Quinlan wore white voile trimmed with shadow lace, her hat being trimmed with pale pink maline, and she carried a large bouquet of pink roses. As the wedding party entered the church Celia McAdams sang a beautiful Ave Maria, and again sang as the party left the altar. Miss McAdams has a beautiful



MR. AND MRS. EDWARD PENROSE.

Snapped by a friend as they left the church after their marriage, June 10th. Mrs. Penrose was Alice O'Malley, operator at Kedzie.

voice and this unique feature of the wedding added much to the beauty of the service. Many of the Yards force attended the marriage. Mrs. Carroll was presented with a gift of flat silver from the force, by whom she was so highly esteemed. The wedding cake which was sent to the girls was appreciated fully, and some are wondering "when dreams come true."

On the same afternoon at four o'clock Tess Dillon, supervisor at Yards, and Frank Einhorn were married at St. David's Church. Both Miss Dillon and Mr. Einhorn have been connected with the Chicago Telephone Company. The bride wore a dress of white embroidery with a veil and carried a shower bouquet of lilies of the valley. Miss Dillon was presented with a cut glass bowl and reflector and sugar and cream set. She had the congratulations and hearty good wishes of all the girls, many of whom witnessed

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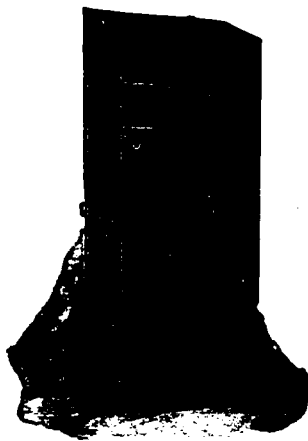
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At six o'clock the same day Mary Meehan, operator at Yards, was married to James Faldouna at St. Astor's Church. The bride wore a white embroidery dress and a veil. She was attended by Anna Carly of Yards office. Many of the girls were at the church and showered the bride with good wishes, mingled with large quantities of rice. Miss Meehan was presented with a cut glass bowl and reflector and olive dish.

Oakland.

Oakland office has been invaded by Cupid, and June brides are alarmingly plenty.

Margaret Rahe, senior supervisor, was married on June 11th at three o'clock to William J. Kelly at St. Rose de Lima's Church. The following item appeared in the morning paper. As the abductors carried the happy couple to their train, the police did not interfere.

"A wedding dinner at the home of John Rahe, 5024 Elizabeth street, was interrupted last night when the bride and bridegroom were seized and abducted in an automobile which was followed by two others. The abductors are believed to have been county employees and friends of the bridegroom, William J. Kelly, an employee in the office of County Treasurer William L. O'Connell. His bride was Miss Margaret Rahe."

Miss Rahe had been with the Company nine years and has won many friends in that time, and will be greatly missed by the force.

Mary Jarvis, supervisor at Oakland, was married to Michael Derry, June 4th, at five o'clock at St. Brendan's Church, and on the same day at four o'clock Miss K. V. O'Malley, operator at the same exchange, was married to Charles Roper at St. Lawrence Church. Each of the brides was presented with a chafing dish by the girls at the office.

Maude Rolston, supervisor at Oakland, was married to Alvin Kelly, June 18th at St. Bridget's Church. The wedding was a very pretty one and largely attended. The bride wore a white crepe de chine and a bonnet veil. She carried a shower bouquet of white sweet peas. She was attended by Rose Carolan, who wore pink crepe meteor and pink cap and carried pink sweet peas. The friends at the office presented Miss Rolston with a beautiful chafing dish. The bride and groom left for an extended trip through the east. Mr. and Mrs. Kelly will be at home after July 10th at 6821 Peoria street.

Mac Walsh, instructress at Oakland, resigned to be married to Martin Collins June 25th at 7:30 a. m. at St. Leo's Church. The girls of her office gave her a chafing dish.

Molly Gray, operator at Oakland, resigned to be married to George Pettit June 18th. After an extended trip they will make their home in Mississippi.

Nellie O'Donnell, operator at Oakland, resigned to be married to James McGuire June 25th at St. Gabriel's Church. She will live in Brighton Park.

Hyde Park.

Hyde Park, not to be outdone by the other South Side offices, sent the following report:

Anna Bathe, clerk at Hyde Park, was married to Will Mathews of the maintenance department at Douglas June 4th at St. Alban's Church. She wore white crepe de chine with a veil and orange blossoms and carried lilacs and white orchids. Quite a number of the girls attended the ceremony, which was followed by a reception at the bride's home. Miss Bathe, who had been with the Company eleven years, had endeared herself to all by her amiable and genial disposition. The forces combined and presented her with a complete set of silverware. The maintenance department gave her a laundry outfit, decorated with pink ribbon and significant placards. Douglas maintenance presented a handsome clock.

Mae Keating, day supervisor, was married to John Nolan June 25th at Visitation Church. A linen shower was given her by the supervisors. Among those attending were a number of former Hyde Park girls who are now matrons. The force presented her with a beautiful cut glass vase.

Emma Kunde, day supervisor, was married to Herbert Thoendal May 28th. The bride was the recipient of a number of showers. The Hyde Park girls gave her a cut glass bowl and compote.

Wabash.

On Wednesday morning, June 25th, at nine o'clock Catherine Howe, day supervisor at Wabash exchange, was married to Peter P. Callan. The wedding was solemnized at the Nativity Church and was attended by many friends. The bride wore a white silk meteor gown with large white hat, and carried a shower bouquet of lilacs and white orchids. The Wabash day force gave her a supper at the office Friday evening, June 13th, which was a delightful expression of the esteem which is felt for Miss Howe. She was presented with a set of table silver. The

evening force gave her a beautiful bouquet and a wedding record book.

Stella Swanson, Wabash operator, was married June 7th to Harold Gardner. The friends at the exchange gave her a cut glass water set.

Lincoln.

At the home of the bride's parents at three o'clock, June 18th, Anna Ziehm of Lincoln was married to Alfred Biehl. The bride wore a gown of shadow lace over crepe de chine, with a veil and bridil bonnet, and carried white roses with shower of lilacs of the valley. She was attended by two bridesmaids who were dressed in pink and carried pink roses. Miss Ziehm has many friends at the office and she received a cut glass fern dish and bowl with many good wishes from the operating force.

Mary Stieber, supervisor at Lincoln exchange, gave a delightful party for Caroline Aifasser, who has resigned to be married to Garnett Watkins. Miss Stieber entertained at her home and the house was beautifully decorated in green and white. The tables were most appropriate for a wedding party. The place cards were heart-shaped and little green chiffon bags full of rice for each one except the prospective bride, who had a tiny bride at her place. Cupids and hearts were everywhere. The party marched to the table to the wedding march, and later the prize games were appropriate to the event. The supervisors presented Miss Aifasser with a cut glass vase.

Central.

Clara Nicholaus of Central was united in marriage to Paul Pavelchick on June 4th in St. Paul's Catholic Church at 9 a. m. high mass. The wedding breakfast was served in the dining room of the rectory. Four priests, besides a number of guests, attended the breakfast. At eight o'clock the same evening dinner was served to 200 guests. The Central Knights of Columbus, of whom the groom is director, furnished the music for the entire evening. The bride was gowned in white charmeuse satin with a train of shadowed point lace. The veil was held with a wreath of lilacs of the valley and the bride carried a shower bouquet of the same. She was attended by Gertrude Nicholaus, her sister, and Rose Pavelchick, a sister of the groom, who is an operator at Wabash exchange. They wore gowns of pink taffeta silk and carried shower bouquets of Killarney roses. Friends of the bride at Central presented her with a cut glass water set, a Battenberg lunch cloth, and a silver salad set. Mr. and Mrs. Pavelchick are now residing at 3417 South Wood street and hope to see all their friends in the near future.

Hattie E. Marriott, supervisor at Central, was married June 4th to Harry P. Ottis. The ceremony was performed at the home of the bride's mother by the Rev. Carson Shaw of St. Peter's Episcopal Church. As a token of good wishes the girls of Central presented the bride with a beautiful chest of silver.

Margaret Berner, an operator at Central, was united in marriage to Clarence J. Johnson on the evening of June 18th, 1913, at five o'clock at St. Basil's Catholic Church. The bride was attired in a gown of white crepe meteor, trimmed in seed pearls and having a court train. The veil was held with a wreath of lilacs of the valley and the bride carried a shower bouquet of the same. She was attended by her sister, Jennie Berner, also an operator at Central, who wore a gown of pink crepe de chine and carried a shower bouquet of sweet peas. A reception was given and dinner served to fifty guests, a number of them being friends of the bride at the office. The couple left for a trip to South Haven and on their return will be at home to all their friends at 3259 Justine street. Friends of the bride at Central presented her with a cut glass bowl, sugar and creamer, and a miscellaneous shower was also given in honor of the bride at her home.

Vera Hoff, Central operator, was married to Will Wheeler Thursday, June 5th. Elizabeth Oshatz was married Wednesday, June 25th, to Albert Johnson.

Oliver Tessman was married June 17th to Mr. Miller.

Kedzie.

Operator Alice O'Malley, of Kedzie, was married June 10th at St. Michael's Church to Edward Penrose. Gifts of cut glass were presented with best wishes of her associates.

Operator Laura Allen was married to Edward Kedingler at the home of the bride. A beautiful picture accompanied the best wishes of Kedzie.

Kedzie evening supervisors gave a seven-course dinner at the Boston Oyster House Saturday afternoon, June 21st, in honor of Birdie Ruthenberg, evening supervisor, who has resigned to be married in August to Arthur Devers. Covers were laid for ten, the decorations being green and white. The entertainment afforded by the "ten" made the occasion most enjoyable and one long to be remembered. The evening force presented Miss Ruthenberg with a cut glass water set and reflector. The best wishes of all attended her.

ILLINOIS DIVISION

A. J. PARSONS, Correspondent, Springfield

Boatride at Quincy.

The river excursion given by the telephone operators at Quincy on the night of June 11th was a tremendous success. The steamer *Sidney* was patronized by about 150 friends of the girls, the crowd being the largest at any moonlight excursion this year.

The affair was given by the operators of both the Home and Central Union exchanges. Before this year the girls did not unite in giving excursions but because of the consolidation of the telephone companies it was decided to give one excursion under the auspices of the girls of the Central Union Company.

The boat left Quincy at 8:25 o'clock and when it steamed out all three of the large decks were lined with people. A fifteen-mile trip down the river was taken.

Dancing was the chief diversion but because of the large crowd the cabin would not accommodate one-third of those on board and hundreds did not so much as enter the dance pavilion.

Centralia District.

Since May 15th the commercial department at Centralia has quarters on the first floor in the Harding Building at the corner of East Broadway and Tate avenue. Both the district and exchange commercial departments have quarters at the new location, and arrangements have also been made for the establishment of a Class 10-A joint telephone and telegraph office.

Manager J. T. Turner, of Mt. Vernon, was recently confined to his home for several days with a severe case of tonsillitis.

The Centralia Exchange Area has been extended so as to take in the territory adjoining the new million-dollar yards of the Illinois Central Railroad, which are located about two miles south of the city. The new district is building up rapidly, and there is quite a demand for telephone service.

Champaign District.

H. McDonald has taken the position of installer in the plant department at Champaign.

Marie Maxfield has resigned her position as toll operator at Champaign and was married June 4th to Noah Bacon.

Marie Capps has been promoted to the position of traffic chief at Champaign, succeeding L. Smith, who has been transferred to the district traffic chief's office at Peoria. L. Hawkins has been appointed supervisor, succeeding M. Capps. E. M. Knox has been promoted to the position of chief clerk at Champaign, succeeding M. C. Barr, resigned.

W. Sullivan has been appointed toll operator at Champaign, succeeding E. Padgett, resigned.

Work at Champaign has been completed which gives the exchange 400 multiple and 300 answering jacks, one additional position and one additional combination A and B position.

Decatur District.

H. W. Linaburry, construction foreman at Decatur, has resigned and is now engaged in the automobile and taxi-cab business at Joliet.

Foreman D. H. Hayes of the construction department, at Decatur, has been assigned to work at Havana, Ill.

Flo Bartsch of the traffic department at Decatur is on duty again after a short illness.

Cora Braden of the traffic department at Decatur has resigned her position and moved to Taylorville, Ill.

Orville Horton, frameman at Decatur, was married June 4th to Christina Fleckenstein.

Galesburg District.

Minnie Truelson, toll operator at Galesburg, returned to work June 1st after enjoying a two weeks' vacation.

On Sunday, June 1st, several employees of the Galesburg exchange enjoyed a picnic at Spoon River and all report a splendid time. A. E. Eddy, of the line exchange, and H. C. Upton, of the Rockford exchange, were the out-of-town guests.

New Western Electric switchboards have been purchased by the Farmers' Telephone Company at Prairie City, also by the companies at Bushnell and Victor.

J. E. Pettingill has taken a position as wire chief at Kewanee.

Harry Hamrick has taken a position as repairman at Kewanee.

Gertrude Kinney resigned her position as an operator at Galesburg on account of poor health but her friends hope to see her return in the near future.

Vera Hammond, formerly operator at the Oquawka exchange, has been transferred to the Galesburg exchange.

E. S. Slusher, manager of the Macomb Telephone Company, is in the hospital recovering from an operation for appendicitis and from all reports he is getting along nicely and will soon return to resume his duties.

The plant department is erecting a new warehouse on the lot adjoining the exchange at Galesburg which, when completed, will give considerable more storage room.

Employees and heads of departments at Galesburg went picnicking June 15th at Lincoln park. The conveyances were hay racks and autos, the company starting out at ten o'clock in the morning. A splendid time was enjoyed by all on the arrival at the picnic grounds. At dinner time places had been set at the tables for seventy-four people, but it was necessary to add another table and arrange for eighty plates. The dinner had been thoughtfully planned and the menu included sandwiches of many different kinds, salads, baked beans, pickles, olives, deviled eggs, lemonade, coffee, and for dessert, ice cream and cake. A ball game was an exciting item of the afternoon's program of sports and was played by F. W. Kelly's team and by James Conaty's team. Mr. Kelly's team won by a score of 13 to 9. Other sports, running races, peanut races and horse-shoe pitching contests helped make the picnic a big success, and swings and hammocks in shady retreats proved comfortable for those who did not care for the more strenuous recreation. Visitors were present from Monmouth.

Jacksonville District.

Augusta Carlson has been employed as stenographer in the commercial department at Jacksonville.

Ethel Wetzel, toll operator at Beards-town, has resigned and is succeeded by Anna Saeger.

Viola Duncan has been appointed collector at Jacksonville, to succeed Mabel Mason, who has resigned to take up other work.

Laura Hatfield, formerly relief operator at Jacksonville, has accepted a position as stenographer with J. Capps and Sons.

Kankakee District.

Charles Murphy, of Kankakee exchange, has resigned and left for Denver, Colo. He was succeeded by Mr. Bernier, formerly toll line repairman, who was succeeded in turn by Jesse Butler.

George Schaffer, formerly repairman with the Eastern Illinois Independent Telephone Company, has accepted a similar position with the Central Union Telephone Company.

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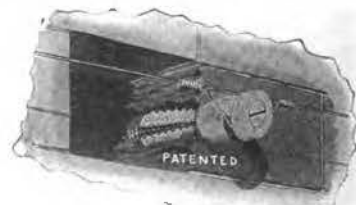


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PLANT FORCE UNDER FOREMAN C. E. JOHNSON, WHICH HAS BEEN WORKING ON OUTSIDE IMPROVEMENTS AT MOLINE, ILL.

This force has been busy for several months rebuilding and extending the Moline plant. At the present time the outside work is nearly completed and sections of Moline which have been without facilities are now receiving service and orders are coming in rapidly.

In addition to the work at Moline, this same gang under Foreman Johnson is handling a large estimate for the extension of pole line and aerial cable system into all parts of the City of East Moline, and settlements known as Silvis and Watertown, and is also caring for the extension of a fifty-pair, nineteen-gauge cable from Rock Island to the settlement known as Sears, and will, as soon as the estimates are approved, handle a very considerable extension of the present underground and aerial cable plant in Rock Island proper.

Grace Clark, toll attendant at Kankakee, has resigned, and is succeeded by Laura O'Hara, formerly toll operator.

The underground cable estimate at Kankakee has been completed and cut over.

The male employees of the Central Union Telephone Company gave a stag party in honor of Charles Murphy, who resigned to leave the city on account of the ill health of his wife. The party was held in Longtin's grove, five miles east of the city on the Kankakee River. Toward evening a noise was heard, similar to that made by Barney Oldfield in his "Biltzen Benz," and after the dust had blown away Rush Huff, the fire chief, unloaded from a motorcycle and reported that half the town was on fire. The first mile of the return trip was made in nothing, but as the pace was too strenuous, the remaining four miles were made in forty minutes. On arrival in the city, the fire was found to be nothing but a barn.

La Salle District.

Material for the Oglesby cable estimate has arrived. Foreman Owens having completed storm repairs at La Salle has gone to Peoria to take charge of estimate work there.

Howard Lane, clerk of the plant chief at La Salle, has been succeeded by Lee Berryman. Mr. Lane resigned.

Florist George Winters, of La Salle, in appreciation of excellent local and long-distance service received during the past year, sent to every lady employee and the manager, a dozen and a half of peonies.

Olga Helstedt, stenographer to district commercial manager, F. W. Atkins, at La Salle, resigned May 22d, and was succeeded by Mrs. Taylor.

Paris District.

Ellis Parker, local operator at Paris, has been granted a month's leave of absence on account of poor health.

W. L. Parrish, district plant chief, Floyd Nickell, wire chief, and Otto Ohmart, repairman at Terre Haute, Ind., attended the plant meeting at Terre Haute, Ind.

Ruth Herrington, local operator at Kansas, Ill., resigned her position June 28th and will be married to W. Moody.

Mrs. Tom Orndorff, operator at Marshall, spent her vacation at Chicago.

Peoria District.

The Western Electric Company has completed the installation of equipment consisting of 3-A sections, 6,300 multiple, and 1,100 answering jacks, at the Main exchange, Peoria, and the equipment is now ready for service.

An estimate has been approved and assigned to the Engineering Department covering the installation of three trunk sections with 2,600 subscribers' multiple in existing sections, 260 subscribers' answering jacks and rearrangement of existing answering jacks at the Bluffs exchange, Peoria. The work is expected to provide enough equipment to last until June 30, 1915. The work will be done by the Western Electric Company.

The Peoria exchange is represented in baseball this season by one of the best commercial teams in the city, the team having won all the games played so far. The showing made by the boys has been of league-team calibre. On the evening of June 6th an enthusiastic meeting was held by the exchange employees for the purpose of organizing a base ball club further to promote and assist in making the team one of the best in the state. At this meeting it was voted to purchase new suits for the team. A schedule of games has been arranged with a number of surrounding towns, but a few dates have been left open so that arrangements may be made with any other Central Union team that feels inclined to cross bats. The following is a list of the officials of the club: President, George Brandes; directors, G. C. Treadway, T. E. Keltner, George B. Davenport; official scorer, Henry Vogel; manager, Percy A. Lindsay; captain, Harry Sharpe; official umpire, F. F. Schlink.

J. H. Vogel has accepted the position of material clerk at Peoria.

Robert Manning, formerly clerk to the district plant chief at Peoria, has accepted a position as warrant clerk in the state treasurer's office in the Capitol building at Springfield.

Charles Huey has accepted the position of stenographer in the plant department at Peoria.

Foreman L. Owen has started work on re-building the Peoria-Galesburg toll line.

Foreman Fred Merrill is working on re-building the Peoria-Watseka toll line. Fred Beckman, plant chief at Bloomington, attended a convention of the plant department at Springfield, on May 16th and 17th.

Cora Keenan, traffic chief at Bloomington, visited in Jacksonville May 20th to 22d.

Manager Takacs, of the Chatterton Opera House, gave a theater party to the traffic and commercial employees of the Bloomington local office on May 20th.

Charles Richardson from the engineering department, Chicago, has been in Bloomington making up an estimate for one additional copper circuit and one phantom circuit between Bloomington and Decatur.

J. Sidlow, Western Electric foreman, and installers have arrived in Bloomington and are installing four sections of No. 1 toll board, one toll service-observing section and one toll chief operator's desk and additional power equipment.

Due to certain street and sidewalk improvements done by the city of Lewistown, it was necessary to move several poles carrying toll lines and cable in the main section of the city. The work was handled by J. F. Roseman, plant chief for Canton and Lewistown exchanges.

Quincy District.

The Western Electric Company has almost completed the new ten-position toll board and new two-position wire chiefs desk at Quincy.

H. A. Christy made a transfer of the Quincy Home Telephone Company accounts to the Central Union Telephone Company as of June 1st, combining the two companies as far as the commercial departments are concerned.

G. A. Robinson, right-of-way agent at Quincy, has been transferred to Peoria.

W. B. Tompkins has taken a position as right-of-way agent at Quincy under Mr. Champion. Mr. Tompkins is an ex-telephone manager and also ex-city comptroller.

Estimates has been approved for an additional copper metallic circuit between Quincy and Beardstown, and Quincy and Galesburg, also iron metallic circuits between Quincy and Carthage.

Rockford District.

On the evening of May 7th the Central Union Club gave an entertainment in the rest rooms at the exchange building in Rockford, which was attended by fifty-one employees. The following program was rendered: Violin solo, Dorothy Gee; reading, Gladys Marston; vocal solo, Mary Burke, accompanied by Miss Gee;

quartet, Plant Men Gibbons, Cashman, Blaesbaum and Bastian, rendering several appropriate selections; vocal solo, Miss Loneragan, accompanied by Miss Burke; duet, Miss Loneragan and Mr. McMaren. After the program, refreshments were served by the club ladies.

A score of girls of the Rockford exchange surprised Mrs. J. Andrews, a former supervisor, at her home Wednesday, June 8th. Musical numbers were the diversion of the evening after which refreshments were served.

Helen Bullock has returned to her position as operator at Rockford, after a month's stay at Colorado Springs, greatly improved in health.

Adah Kennedy, local operator at Rockford, resigned and was married to Ralph Giles, June 1st.

Emma Olson of toll operating force at Rockford, who resigned recently, was married June 4th to Dr. Pfeiffer. Ruth Peterson takes the position vacated by Miss Olson.

Repairman M. E. Cashman has resigned to accept a position with the Iowa Telephone Company at Davenport, Ia. Installer William Blaesbaum succeeds Mr. Cashman and Bruce Barrickman takes the position vacated by Mr. Blaesbaum.

Vera Ryan, chief operator at Rockford, has resigned. Miss Ryan will soon be taken away from her friends in Rockford as when she becomes Mrs. Clair Sheldon her home will be in Minneapolis, Minn. Miss Ryan is succeeded by Stena Munthe, former supervisor.

A No. 2 private branch exchange consisting of trunk lines and subtractions has been ordered by the International Harvester of Rockford.

A No. 2 private branch exchange consisting of two trunk lines and eight subtractions has been ordered by Dr. R. I. Shanklin, of Rockford, to be placed in his dental parlors.

On June 8th the Central Union base ball team defeated the Burson Knitting team at South Park, Rockford. Score, Central Union, 15; Bursons, 11. Line up for the Central Union as follows: Upton, catcher; Blaesbaum, shortstop; Maesta, pitcher; Bastian, first base; Giboney, second base; Mills, third base; Sammons, left field; Smucker, right field; Randerson, center field; Leonard, substitute.

Rock Island District.

Employees of the Bell telephone companies in the tri-cities, 400 to 500 in number, enjoyed themselves to the limit in the annual outing held on Suburban



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WISCONSIN DIVISION

F. M. McENIRY, Correspondent, Milwaukee

Appleton District.

Eleanor Damas, half-time operator at Algoma, resigned her position April 1st, to accept a position with the *LaFollette Weekly*, of Madison.

Grace Hilton, toll operator at Algoma, resigned June 1st. She will be married to James Hall, of Algoma. The Algoma operators gave a miscellaneous shower at the home of Charles Bedecker, in honor of Miss Hilton.

Libbie Horeschovsky, night operator at Algoma, succeeds Grace Hilton, and Lydia Donovan, half-time operator, has taken Miss Horeschovsky's place.

Dora Kuethe, assistant chief operator at the Fox River Valley exchange, Appleton, has been promoted to chief operator at the local Wisconsin office to succeed Hilda Arndt.

Anna Kirk, private exchange operator at the Sherman House at Appleton, spent a two-weeks' vacation with relatives at Madison.

Theresa Mollen, formerly operator at Little Chute, has been transferred to the Appleton exchange.

The Fox River Valley exchange has been cut over into the switchboard in the new exchange building at Appleton. This cut over is preliminary to combining the two exchanges at Appleton. The directory cut which is being made will include the Wisconsin Telephone Company subscribers, also the regrouping of the former Fox River Valley subscribers.

L. La Chappelle, commercial agent at Green Bay, has been transferred to the Oshkosh exchange.

Private exchange contracts were secured for the Thomas Produce Company, Green Bay, covering three lines and seven stations. One was secured from John Baum, Clothing and Dry Goods Store, Green Bay, for one line and four stations.

Lillian Hogan, operator at Green Bay, has resigned on account of her health.

Dwight Millard, repairman at the Neenah-Menasha exchange, accepted a position with the Larson Telephone Company on May 1st. Harvey Witte, former repairman at Omro, has taken the position of repairman at Neenah.

Lenore Klopfel, clerk at Neenah, enjoyed a week's vacation.

Ethel Coon and Pearl Remmel, local operators at Neenah, have returned to work, after having enjoyed a week's vacation.

Myra Nelson, assistant chief operator, Neenah, entertained at a linen shower at her home in honor of Alice Hart, local operator, who is to be married soon. A delicious luncheon was served and all had a fine time.—Neenah item in *Milwaukee Sentinel*.

Mable Marshall, operator at Omro, spent a week's vacation at Eureka.

The following letter was received by Nellie Rice, chief operator at Oshkosh:

Miss Nellie Rice, chief operator, Wisconsin Telephone Company, City.
Dear Miss Rice: We take this occasion to express to you our thanks for the way in which our calls are taken care of for this office. The service has been exceptionally fine and especially so on our long distance calls, the same having had very prompt attention from your operators.

The writer has occasion to visit a number of cities and towns and in none of them does he find the prompt and courteous service that he receives from the operators under you.

Again thanking you for this up-to-the-minute service, we are yours truly,

Central Lumber Company.

F. A. FULLER, Secy.-Treas.

The city of Oshkosh is erecting a new \$118,000 bridge over the Fox River at West Algoma street and a temporary cable of 1,200 feet was laid at this point.

Later a permanent cable will be laid.

Charles Perrin, commercial agent at Oshkosh, is slowly recovering from a serious operation to his face.

The Gillett Rural Telephone Company, connecting with the Shawano exchange, began giving service to four new telephones last month, bringing the total in service up to 136.

The Bonduel Telephone Company, connecting with the Shawano exchange, put in service ten telephones during May which bring the total to 200. The company built five miles of new line this spring and will build a number of miles more this summer.

The Anawa Telephone Company started work in June to connect thirty new subscribers. This company connects with the Shawano exchange.

Eau Claire District.

Myrtle Kehn, assistant chief operator at Chippewa Falls, spent her vacation of two weeks at home and Eva Adams spent her's at Onalaska visiting her uncle.

Lillian Lavoll resigned her position as

Don't Forget The Date —AUGUST 9—

Third Annual Outing of the Telephone Society of Michigan. Boats
Leave 8:45 a. m. and 3:00 p. m., at foot of Bates Street.

Tickets: 35 cents each.

toll operator at Chippewa Falls, to take up a course at the Eau Claire Business College. Myrtle Payson was promoted to the toll board and Miss McCulloch fills the vacancy at the local board.

Helen Ranscher of Chippewa Falls spent her vacation at Stevens Point.

that during the summer the society meet only once a month.

Fire at Maple City.

On May 29th the building in which the Michigan State Telephone Company's switchboard is located in Maple City was burned and the switchboard with all other equipment was destroyed.

At 5:30 in the morning the Traverse City office was notified. Three men left on the 7 o'clock train, arriving at Maple City at half-past nine. At noon they had the seventy-eight subscribers working on a temporary switchboard which they were able to devise with equipment carried with them. The seventy-eight subscribers were out of service just one-half day. This is prompt work and shows the enterprise

MICHIGAN DIVISION

DAVID H. DODGE, Correspondent, Detroit

Telephone Society of Michigan.

At the meeting of May 22d the excursion committee reported everything in



MAIN OFFICE SUPERVISORY STAFF, GRAND RAPIDS.

Standing: Margaret Lee, supervisor; Gladys Moon, supervisor; Anna Daus, supervisor; Olga Christensen, desk supervisor; Hazel Scott, supervisor; Margaret Collins, night chief operator; Rika Myers, supervisor.

Sitting: Margaret Mingo, supervisor; Irene Fitzgerald, desk supervisor; Emma Palmer, chief operator; Mable Kintz, supervisor; Florence Culver, evening chief operator.

good shape for the annual excursion to Bois Blanc Island—otherwise East Lo—for August 9th. Lionel M. Chincine was appointed librarian of the society. The paper of the evening was read by Walter Dakin, inventory and appraisal engineer of the Central Group of Bell Telephone companies, who was at that time working in Detroit.

Mr. Dakin's paper, describing his experience as a railroad construction engineer in Nicaragua, was partly read and partly given as a talk. It was intensely interesting all the way through, those present keeping him answering questions until 11 o'clock. It has been decided

manifested by the management and employees of the Traverse City area.

Chief Operators and Supervisors Meet.

A meeting for the chief operators and supervisors of the various Detroit offices was held in the Telephone Society room on the evening of May 28th. The great interest taken in these meetings was manifested by the large attendance.

Mr. Spencer, traffic superintendent, spoke of the great improvement in the telephone service throughout the city, the standing probably being the highest ever attained here. This, he stated, was due mainly to the good work of the supervisors, and the interest displayed by them

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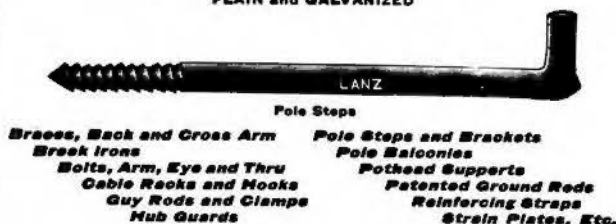
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In gaining the co-operation of their operators. He urged them to continue the good work, and to further this interest added that a premium would be offered to the supervisors in the five offices which attained the highest standing for the month of June. The following month a similar premium will be offered to the senior operators.

Mr. Spencer also called attention to the various points most essential in giving good service. One of the most important is the work on the call circuit. By various diagrams on the blackboard he demonstrated just what harm could be done by crowding on the circuit, and also by poor passing.

Mr. Laskey, traffic chief of the Main and Cherry offices, had prepared a short program. This included a vocal solo by Miss Stevens, chief operator of the Walnut office, accompanied by Miss Middleton, chief operator of the East. Some recitations by Miss McPherson of the Hickory and Miss Horn of the East followed, and last, but not least, the funny stories of Mr. Laskey, which are always greatly appreciated.

Refreshments were served in the café, and dancing followed. Mr. Scott, Mr. Belanger, and Mr. Parent, traffic chiefs of the various offices, were among those present.

Traffic Meeting of Main and Cherry Exchanges.

A meeting of Main and Cherry traffic employees was held in the Telephone Society room on June 24, and was conducted by Superintendent of Traffic W. A. Spencer, and E. C. Laskey, traffic chief.

Mr. Spencer, on this occasion, as on all

cut down a slow wait, and possibly a black mark against the office. He also spoke of the passing known as the style-strip, stating that slow accurate passing was one of the chief things in avoiding errors; for example, when a number is called over a calling circuit to a B operator, she naturally has a chance to distinguish the numerals to be selected by her, and nine out of ten times a mistake is avoided by slow accurate passing and splitting of the stile strip by the A operator.

Mr. Laskey particularly cautioned the operators about "visiting" at their boards with neighboring operators, showing how many embarrassing mistakes could arise from the operator being careless and talking to the operator next to her. In such a case, when a subscriber calls a certain number, perhaps of a doctor or a minister, the operator may go in a jack above or below at the right or left by mistake, and he gets the jail, police headquarters, or anything but the number asked for.

Another subject of great importance was the supervision. Mr. Laskey stated that he has noticed at different times how operators, when not busy, were apt to fold their hands over the keyboard. As the keyboards in the Main office were arranged so that they slant downward this has a tendency to cover up the supervisory signals; he asked the operators to try and remember to avoid this feature.

He also spoke of the Windsor tickets, asking them to be careful in writing them up, thus avoiding mistakes and loss of tolls. Mr. Laskey mentioned that the vacations had been started and he asked for the co-operation of all the girls in helping to maintain the schedule that had



SOUTH OFFICE SUPERVISORY STAFF, GRAND RAPIDS.

Standing: Martha Johnson, supervisor; Mable Waidelich, supervisor; Ellen Reagan, evening chief operator.

Sitting: Mary Osborne, chief operator.

others was, welcomed with applause. The girls always enjoy hearing an address from the traffic superintendent. He gave an address on the office standings in each exchange, and illustrated in detail on a blackboard chart the average standing of all the exchange offices in Detroit. He explained to the operators just which place their office was in, and how by concentrating their minds on their work and by working just a little bit harder all might achieve places nearer the top each month. He mentioned a contest which was to take place for the month of July, between the various offices and asked for the earnest co-operation of the operators in the race. He closed by thanking the girls for what they had done in bringing up the offices in the past and hoped they would still continue to try to do their very best.

Mr. Laskey was also received with applause. He stated that as this meeting was the last one to be held until the last of September or the first of October, one of the objects in bringing the operators together was to make a few comments on the service as a whole, and what might be done to make some improvement during the coming summer months.

He stated that the percentage of errors was good in Main and Cherry, but that one of the weakest spots in the service was the number of tests answered in over ten seconds, this being altogether too high. He explained to them how to eliminate this error by carefully answering each subscriber in turn, thus not answering the call of the subscriber first whose signal came in last, thus making the one who called first wait to be answered last. This would result in the first call being answered in two or three seconds and the last call in 10 or 12 seconds, whereas each one could have been answered in about four or five seconds. This would

been drawn up for the vacation time by being present each day. After thanking the operators for their co-operation in the improvement of the service he announced a short program as follows:

Barbara Schurl, Main A, piano solo; Edith Polliamus, Main A, vocal solo, accompanied by Miss Kunze, Cherry chief operator; Hazel McCabe, Main B, recitation; Thelma Alvord, Cherry A, piano solo; and Nellie Mains, Main A, vocal solo, accompanied by Miss Kunze.

Refreshments were served, followed by dancing. Music was furnished by Mr. Rath.

A Detroit Appreciation.

June 6, 1913.

Mr. C. S. Slack,
Care Michigan State Telephone Co.
Dear Mr. Slack: In moving our offices from 294 Woodward avenue to the Washington Arcade building, the thing that worried the writer most was the removal of our switchboard without interruption of our service.

As you no doubt know, we have a great many trunk lines, private lines and a large number of office terminals, necessitating quite a job in making all these connections, and I am more than pleased to report that when we arrived in our office Friday morning everything was in good order; all of our lines connected and ready to do business as though nothing had happened.

Without knowing the technic of your business, we are inclined to believe that this was rather a fine piece of work on the part of your company and we wish to express our appreciation in handling us so well.

Yours truly,
General Ice Delivery Co.
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Detroit District.

The young ladies of the auditing department gave a "miscellaneous shower" for Cecil Prud'Homme, May 28th, at the home of Fern Dresselhouse. The guest of honor received many beautiful gifts, and everybody spent an enjoyable evening. Miss Prud'Homme was married June 18th to James McKeow, a Detroit business man. She has always been very popular and leaves with the best wishes of every one in the auditing department.

Mabel Farnacht, chief stenographer in the accounting department, resigned May 1st to be married to Arthur Kuhn, also of the accounting department. The wedding took place on the evening of June 11th at the home of the bride's parents and was followed by a reception. Mr. and Mrs. Kuhn left that evening for a trip to the East. They will be at home to their friends after September 1st on Hamilton avenue.

Eastern District.

The Camden Rural Telephone Company, a connecting company with exchanges at Camden and Montgomery, takes over, as of July 1st, the plant of P. L. Hagner, at Frontier. This adds about 110 in-

The rest room quarters at Cadillac have been provided and furnished complete in every detail. The operators are taking lessons in good housekeeping, as is evident from the "Good Housekeeping" magazines that can be seen among the reading material.

At Charlevoix three sections of No. 105 magneto type toll equipment has been cut into service. This equipment is necessary to handle the increased summer outgoing traffic.

On May 24th the public was invited to inspect the exchange quarters at Niles. There were approximately 400 visitors. The booklet entitled "Welfare Work in Behalf of Telephone Operators" was given as a souvenir to the ladies.

There are ten joint Western Union offices in operation in the Grand Rapids district; as of June 1st classified as follows: Class 10-A: Albion, Charlotte; Class 10-B: Berrien Springs, Marshall; Class 11-B: Eau Claire, East Jordan, Frankfort, Galesburg, Onekema, Richland.

On June 1st work was started on an extensive cable estimate at Niles, total amount to be expended approximately \$23,000. This estimate covers the recabling of a good per cent. of the Niles exchange, and replacing of nearly all of

**LONG DISTANCE SUPERVISORY STAFF, GRAND RAPIDS.**

Standing: Bernice Gillico, evening chief toll operator; Sadie Nell, chief toll operator; Mary Peters, toll supervisor.

Sitting: Nellie Currott, senior toll operator; Josephine Fogarty, toll supervisor; Bertha Kruger, route and tariff clerk; Alma Mason, toll supervisor.

struments to the Camden Rural Telephone Company.

George F. Gibbs has succeeded R. C. Tucker as manager at Grand Ledge.

Addalide Cross, a clerk in the Ypsilanti office, recently resigned to accept a position in one of the local stores. She was succeeded by Nellie Sieber.

Edna Huttling, Ypsilanti, assistant chief operator, has been transferred to the commercial department. Her place as assistant chief operator is now filled by former toll operator Bessie Green.

Line Foreman A. P. Smith and his crew have left Ypsilanti, after adding a goodly number of farm subscribers to the list.

L. Green and crew have started work reconstructing the outside plant at Manchester. The estimate provides for placing 18,000 feet of cable.

One additional switchboard section and a new wall-type main frame have been installed at Manchester by Equipment Supervisor H. E. Harrington and installers Mercer and Bridges.

Marquette District.

The Woolworth Land and Lumber Company were succeeded May 1st by the Chicago Mill and Lumber Company as managers of the Woolworth toll station.

The Sand River toll station was reopened June 5th, lumbering operations having started. It is between Marquette and Dorais Siding; M. A. Doty, manager.

The Walsh Siding toll station has been opened, lumbering operations having started. It is thirteen miles east of Shingleton and two miles west of Ducey's Siding; Goodman Cedar Company, managers.

Grand Rapids District.

The Charlevoix, Ionia and Petoskey chief operators have each spent a week at Grand Rapids, taking a training course in general supervisory duties.

Mable Parish, chief operator at Kalkaska, has been transferred to Petoskey as chief operator.

Leah McOmber, supervisor at Benton Harbor, has been appointed evening chief operator in place of Dolly Phillips, resigned.

At Cadillac a dancing party was given by the operators on April 14th. It was a very successful and enjoyable affair.

the open wires. The necessity of this work has arisen largely on account of inductive influences from electric light currents. When this work is completed the Niles exchange will be second to none in the state from outside construction standpoint.

On June 1st, centralized accounting was made effective in the Grand Rapids exchange area. J. H. Brett, of Detroit, district accountant, has already opened quarters in the Shepherd building, on Long avenue, Grand Rapids, immediately across the street from the Main exchange building, and has a force of employees engaged on this work. The Grand Rapids area includes fifteen exchanges. It is the intention to continue the centralizing until all of the seventy-seven exchanges in the Grand Rapids district are included on this plan.

Charles Renner has succeeded Fred Cummings as manager of the toll station at Neahawanta.

Saginaw District.

The Wadsworth Toll Station was discontinued, as of May 1st. This point should be listed as Class D on Uby.

A very delightful granite shower was tendered Florence Weichmann, on the evening of May 26th. Miss Weichmann is assistant chief operator of the East exchange in Saginaw and will be married this summer. Among those present were the Misses Bollis, chief operator, Fedder, Rockford and E. Weichmann, Saginaw, and Miss Seltz, chief operator, Bay City.

Emma Mantekowski, toll operator at the Port Huron exchange, resigned her position May 5th, to be married May 20th to Charles Amiel of Detroit.

Florence Taylor, local operator at the Port Huron exchange, resigned her position May 1st to be married June 3d to Fred Harriek of Parkhill, Ont.

Theresa Bingham, toll supervisor at the Port Huron exchange, who has been ill since February 26th, is slowly recovering.

Sadie Needham, toll operator at the Port Huron exchange, was promoted to toll supervisor May 1st.

The toll station at Clio has been transferred to the waiting room of the East Saginaw and Flint Railway Company, whose ticket agent, Martha Bundt, will act as toll station manager.

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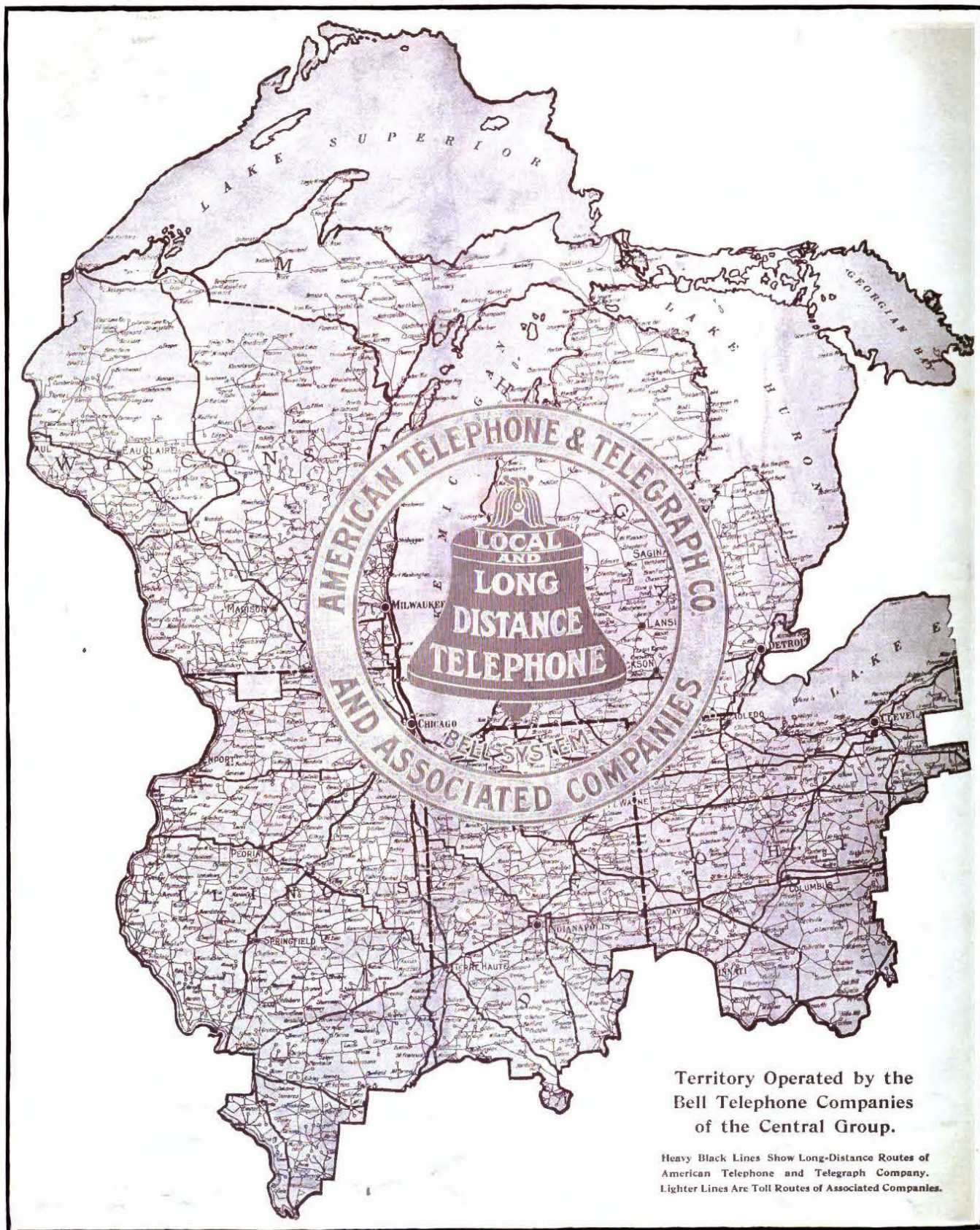
Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

JUNE 1, 1913

| <u>STATES</u> | <u>Regular</u> | <u>Connected</u> | <u>Total</u> |
|---------------|----------------|------------------|----------------|
| ILLINOIS | 473,718 | 232,233 | 705,951 |
| INDIANA | 85,103 | 178,354 | 263,457 |
| OHIO | 167,668 | 171,543 | 339,211 |
| MICHIGAN | 198,293 | 55,699 | 253,992 |
| WISCONSIN | <u>129,504</u> | <u>108,749</u> | <u>238,253</u> |
| | 1,054,286 | 746,578 | 1,800,864 |



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