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BELL TELEPHONE NEWS



Vol. 5	August, 1915	No. 1
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Bell Telephones



AND CONNECTIONS

In the Territory of the Central Group of Companies

JULY 1, 1915

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	559,384	263,336	822,720
INDIANA	94,618	202,543	297,161
OHIO	189,183	205,854	395,037
MICHIGAN	218,270	73,584	291,854
WISCONSIN	<u>152,795</u>	<u>135,822</u>	<u>288,617</u>
	1,214,250	881,139	2,095,389

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 5

CHICAGO, ILL., AUGUST, 1915

Number 1

BELL TELEPHONE NEWS

Published Monthly by

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

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Issued by the PUBLICITY DEPARTMENT

AMORY T. IRWIN, *Editor*

BELL TELEPHONE BLDG. - CHICAGO, ILL.

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

Chicago's Day of Mourning

The sympathies of a horror-stricken world go out to Chicago in her hour of grief, a grief felt most keenly by the men and women of the telephone organization because of our intimate association with those of the sister organization which furnished so many of the victims.

On the morning of Saturday, July 24th, the steamship *Eastland*, loaded with carefree merrymakers bound to a picnic to be given at Michigan City, Indiana, by employes of the Western Electric Company, overturned while leaving her dock in the Chicago River, carrying to death more than 1,000 people. Almost all of the dead were employes of the Western Electric Company, members of their families or their friends.

Before the gaunt fact of a tragedy like this, mere language fails. Nothing that can be said, now or ever, can adequately express the profound sorrow and sympathy which go out from all our hearts to the saddened families and relatives of the victims of the calamity.

Chicago Telephone employes feel

with particular force the awfulness of the tragedy. They have been most closely associated with the Western Electric men. Chicago Telephone and Western Electric men have been comrades. They have been rivals, always in friendship and affection, on the athletic field and in the arena of sports. They have been fellow workers in the same endeavor—that of furnishing to the public a great service. To the Chicago forces, therefore, the grief of the tragic occurrence is personal.

The full resources of the Western Electric Company and the entire energies of the surviving portion of its organization have been pressed into the work of succor. The general officials and department heads, their hearts wrung with grief have worked unceasingly—sleeplessly to relieve the distress of the unfortunate. They are doing everything humanly possible to lighten the weight of misfortune to those who feel it most heavily. Dazed as they were by the suddenness and frightfulness of the emergency they have met the great task imposed with energy and fortitude. To them also, in their day of trial, our sympathies go out.

A Public Enterprise

When the 30,000 employes of the Bell System, who subscribed for stock in the American Telephone and Telegraph Company, graduate into full-fledged stockholders two or three years hence, the American Telephone and Telegraph Company will have the second largest number of shareholders of any corporation in the world and the largest number of any corporation in proportion to the amount of stock outstanding.

In other words, the Bell System is *publicly owned* to the extent that more than 60,000 different people hold shares in it and this number will be increased to nearly 100,000 when

the employe shareholders come into full possession of their stock under the company's plan.

"What's the Matter with Kansas?"

This question, asked and answered a few years ago in the *Emporia Gazette*, made that breezy publication and its editor, William Allen White, world famous.

What, indeed, is the matter with Kansas? Nothing to speak of, so far as prosperity goes. Reports just filed show that there is one telephone for every family in the state and a motor car for every seventh home. Whatever else may be the matter with Kansas, the people there certainly have a lot of facilities for talking and traveling.

Now comes word from the great wheat belt that in the rush of wheat cutting the farmers have found how indispensable and how valuable is the telephone as a means of getting together the forces needed to save the crop. As an agency uniting the jobless man and the manless job, the telephone has been working overtime in recent weeks in many wheat states. In Kansas there are 328,000 telephones. In the last month no machine on the Kansas farm has equalled in usefulness the telephone. When Kansas sent out a call for an army corps of harvest hands, it became suddenly necessary not to mobilize, but to distribute these thousands of workers among the fields where they were immediately and imperatively needed. The telephone did the trick with neatness and dispatch. The rural telephone solved easily the great problem of congestion of idle labor. Managers of telephone companies, cooperating with their patrons, assisted in keeping track of the supply of labor and the demand for help, and in this way the farmer was put in prompt touch with the man who sought work in the fields. The telephone managers, getting the reports from the farms, sent the facts to the state authorities who were in charge of the distribution of labor. It is said that fully 20,000 men have been distributed in Kansas this year by means of the telephone.

M—

Roar of Atlantic Ocean Heard in San Francisco

Sound of Surf at Far Rockaway Carried Over Transcontinental Telephone Line to Listeners at Panama-Pacific Exposition—Bell Exhibit Takes Grand Prize.

The Superior Jury of Awards of the Panama-Pacific Exposition at San Francisco has completed its work and the Grand Prize for Electrical Methods of Communication has been awarded to the American Telephone and Telegraph Company. The basis of the award was the company's

this exposition. With the sparkling blue of the Pacific on one side, the soft green hills across the bay, and the greener hills near by sloping down to form a great semicircular plain along the water's edge, the warm, iridescent coloring of the exposition looks like a delicate, glowing jewel

columns of the loggia, is a great map of the United States done in soft, warm colors and showing by means of an electrically controlled commutator and miniature electric lamps the transcontinental line and the main trunk circuits of the Bell System. Different soft-hued lights



VISITORS AT BELL EXHIBIT IN SAN FRANCISCO LISTENING TO TELEPHONE CONVERSATION WITH NEW YORK.

daily program of transcontinental telephony with moving pictures showing its construction and operation.

The roar of the Atlantic surf, as it dashes on the beach at Far Rockaway, near New York, is heard daily at the Bell exhibit at the fair. Moving pictures, taken at the eastern shore, are shown while the telephone transmits the sound of the waves, and the realistic effect is complete.

Warmth and harmony of color concord with the surroundings, so peculiarly adapted to the task they are performing this summer, beauty of tone, wealth of strong yet restrained colorful appeal—this has been made one of the features of the Panama-Pacific Exposition. How successfully the purpose has been achieved, the panoramic view of the fair demonstrates most convincingly. The color effects were put in charge of Jules Guerin as Director of Color, and the result of his work will be remembered as one of the most notable as well as most beautiful characteristics of

in the magic setting of sunbathed blue and green.

The exhibit building of the Bell System, designed by William Welles Bosworth, carries out the color motif of the exposition. The Bell exhibit is in the Liberal Arts building, and is a sort of pavilion, like an old Italian villa, with a concave loggia or colonnade. The style is reminiscent of the work of Vignola, the famous Italian architect of the sixteenth century; in fact, the portico in the grand court of the villa Papa Giulio, designed by Vignola, seems to be the prototype of the Bell Exhibit building. It is as if the telephone would do its best to make up to those olden days for the dearth of conveniences they suffered, by choosing a building of medieval Italian design and classic interior finish for the exhibit of the master-convenience of the twentieth century.

The walls of the building are soft gray and across the front, supported by the

represent the large cities, and the variations in shade and brilliancy make the map another harmonious expression of the color-theme of the exposition. The impression is still further enhanced by the effective tones of the wainscot and floors of the loggia and the terrace, by the bay trees in front of the columns and the verde antique bronze flag pole standards which support bright colored flags clustered in graceful folds in front of the pylons.

The Interior of the Bell Exhibit Building.

Within the building is the auditorium, with a seating capacity of over 200, and an ample stage, with curtains of cream-color and gold. Over the moving picture screen at the back of the stage is a niche containing a replica of the first telephone, which is illuminated, at the proper time, by a strong shaft of light, revealing the details of this precursor of the nine million telephones of the Bell System. When not in use, the screen is pushed back to

disclose a beautifully colored, hand-painted map of the United States, with lines of light representing the principal trunk line circuits of the Bell System.

The dominant note in the decoration of the interior is Pompeian. With its rather severe detail, somewhat Greek in character, the effect is suggestive of Alma-Tadema's water colors of the house of Coriolanus, with its blue ceiling, painted stars, and painted windows on the walls. The walls are of moonlight gray and the columns of Pompeian red below the dado. Delicate stencils in lotus-leaf patterns of blue, green and red decorate the frieze and at the dado is another simple stencil, harmonizing with the Pompeian red of the columns. In niches on either side of the proscenium arch the green tracery of graceful palms relieves the gray tone of the walls, while over the whole a system of soft indirect lighting floods the room with a gentle glow.

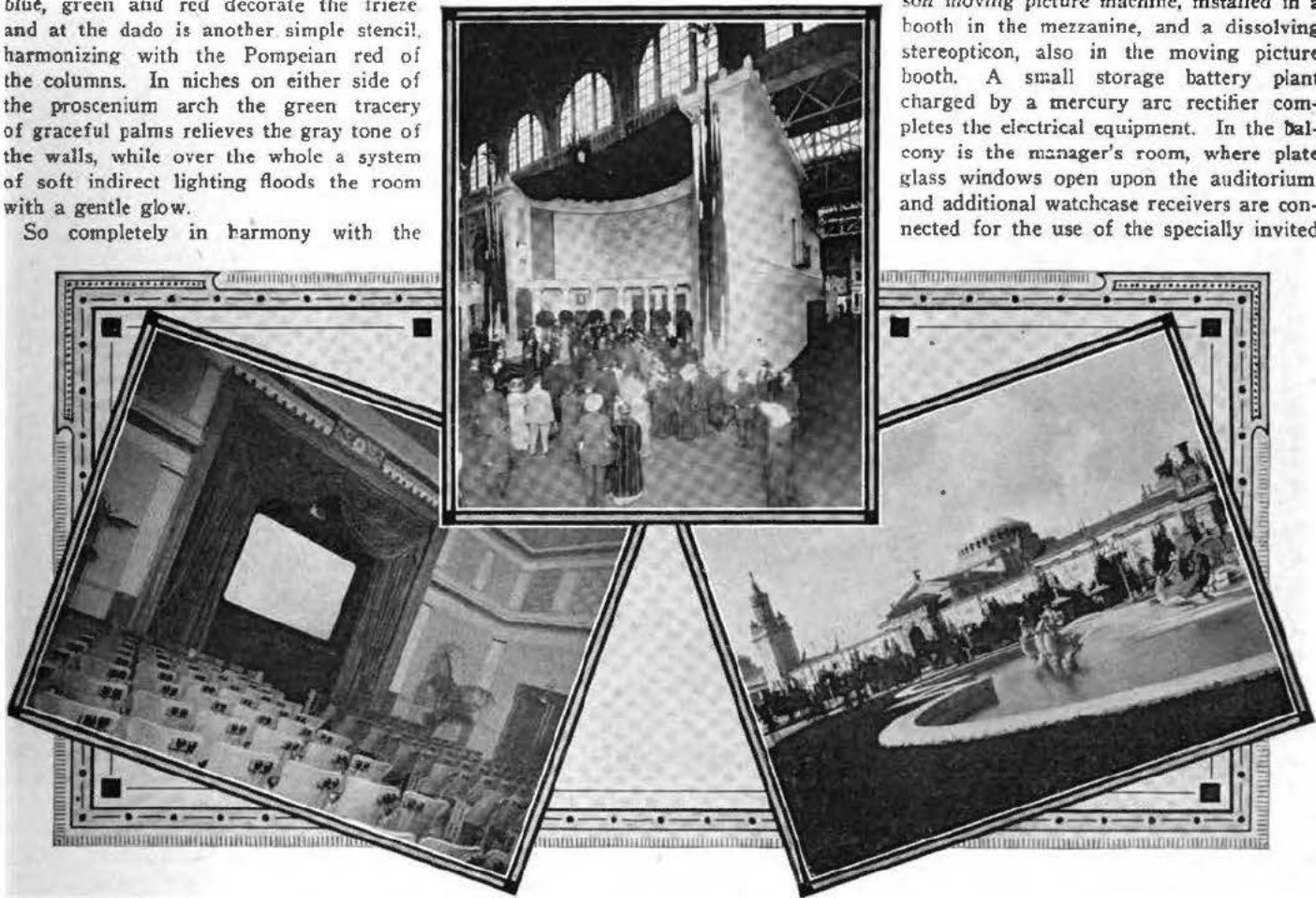
So completely in harmony with the

traverse a continent. The demonstrations of transcontinental telephony are given hourly, beginning at 11 a. m., and form part of a comprehensive program. A lecture is given on the growth and development of the telephone business; a graphic story of the birth of the telephone is told by a talking moving picture in which Thomas A. Watson is the central figure; and a series of dissolving and moving pictures present a vivid idea of the construction of the transcontinental line and show portraits of the leaders in telephone achievement.

building in New York city, where the equipment is located for transmitting the news and music. To provide for any possible emergency, duplicate equipments are installed in Chicago and Denver.

The Equipment.

The equipment used for the demonstrations and lectures in the Bell Exhibit building includes a special No. 4 test board in which terminate the long-distance trunk circuits and the local telephone circuits within the building, 356 receivers being required for the auditorium chairs; an Edison moving picture machine, installed in a booth in the mezzanine, and a dissolving stereopticon, also in the moving picture booth. A small storage battery plant charged by a mercury arc rectifier completes the electrical equipment. In the balcony is the manager's room, where plate glass windows open upon the auditorium, and additional watchcase receivers are connected for the use of the specially invited



SCENES AT PANAMA-PACIFIC EXPOSITION.

Above—American Telephone and Telegraph Company's Exhibit. Left—Audience Hall Equipped with receivers for Long-Distance Demonstrations. Right—Liberal Arts Building.

rest of the exposition in its particularly effective appeal to the eye, the telephone exhibit, nevertheless, makes its strongest appeal, as is fitting, through the sense of hearing. The charm of color, the artistic contrasts, and the delicate beauty of the building, both outside and within, are incidental and tributary to the purpose of the exhibit, which is to appeal to the mind through the ear rather than the eye

The Transcontinental Demonstration.

Each of the chairs in the auditorium is fitted with two watchcase telephone receivers, which are connected to the transcontinental line, and here every day, except Sunday, visitors to the exposition sit comfortably and hear the human voice

The illuminated replica of the first telephone and these graphic presentations of the early history of the telephone and its latest attainment build up a well-rounded conception of what has made telephone service possible and what is making it increasingly efficient. The climax of the program is reached when the news of the day, as found in the daily papers, is told from New York and heard, as if from the next room, by every person in the auditorium. Popular music is wafted over the line from the Atlantic to the Pacific, making a variety in the program and giving an added proof of the wonders of long-distance telephone possibilities. The transmitting station for this transcontinental demonstration is in the Walker-Lispensard

guests and visiting representatives of the telephone companies, for whom the room is reserved. The indispensable public telephone completes the telephone equipment of the exhibit building, two automatic pay stations being installed for the general public, on the ground floor.

Enthusiasm of the Audiences.

Over 50,000 people have already heard these lectures, and the marvel of the transcontinental demonstrations has sent them away with words of wonderment on their lips. In the opinion of many, as repeatedly expressed, the Bell System has "the best exhibit in the exposition." No more convincing proof of the general interest in the exhibit is needed than the fact that

both the auditorium and reception room have frequently been filled to capacity, and scores of times people have been unable to gain admission to the afternoon demonstrations. On several occasions, the auditorium has been filled almost exclusively with school children. Indeed a well-defined plan was apparent, on the part of the school teachers, to have the children visit the telephone exhibit of the exposition before the schools closed for the summer. The Bell exhibit is recognized as educational opportunity for these citizens of the future. They will know telephony in an even higher state of perfection and usefulness than we know it to-day, but for them, as for those who are citizens to-day, the principle of the laboratory is the most impressive, the most effective teacher. To know that words spoken 3,400 miles away can be heard, and at the instant they are uttered, is to be cognizant of one of the greatest scientific achievements of all time, but actually to hear that wonder take place with one's own ears is to change interest to enthusiasm, to turn knowledge to action, to make the telephone a vital fact in everyday experience.

Bell Men in War

Of the 2,800 male employees of the Bell Telephone Company of Canada, 123 are "with the colors," either fighting for Britain in Flanders or waiting for the call from across the sea. In addition to these a large number have joined the Home Service regiments, which correspond to our militia.

C. F. Sise, Jr., general manager of the company, is a captain in the Grenadier Guards; H. L. Hoyles, general counsel, is regimental adjutant of the Royal Highlanders of Canada; C. Sinclair, attorney, is a lieutenant in the Army service corps.

Among the Bell men in active service, eight have been disabled and five are among the missing—either prisoners with the enemy or in soldiers' graves in Flanders.

A Missouri Zephyr

A tornado struck Lamar, Mo., June 19th. The manager of the telephone plant at Lamar was talking to the Springfield wire chief when the storm approached. He declared that the worst storm he had ever seen was nearing Lamar. "It's here," he then shouted. "The roof has been torn off the building and if I do not call any more you may know why."

Honorably Discharged

"Ranged in double line at the postoffice, Eighteenth street and Clark avenue, at one o'clock yesterday afternoon, all the supervisory officials, clerks and letter carriers, headed by Postmaster Colin M. Selph, stood at salute as J. Karmody Smith, of Webster Grove, eighty-three years old and connected with the postoffice thirty-six

which they might be doomed to pass. No single individual is to be blamed, but no amount of "honor" relieves the situation. There is a great wrong here. We do not attempt to trace it to its source; it arises chiefly in an ineffective policy, due to the changing heads of a vast business enterprise, in which initiative is deadened by the lack of authority and power to get things done except through a cumbersome, slow-moving, politically swayed legislative body which unintelligently dictates the details of the administration of a great public business.

Those who have served long and well expect some time to be relieved—not discharged—but with a provision for their remaining years more tangible than any amount of empty "honor" carries with it.

The contrast between the Western Union plan and the government lack of plan is so obvious as to call for little comment. In one case provision for incapacity and old age is made as part of an honorable condition of employment; in the other J. Karmody Smith is "honorably discharged from the service" with no provision of any kind made for the security of his remaining years. — *Western Union News.*

A Good Suggestion

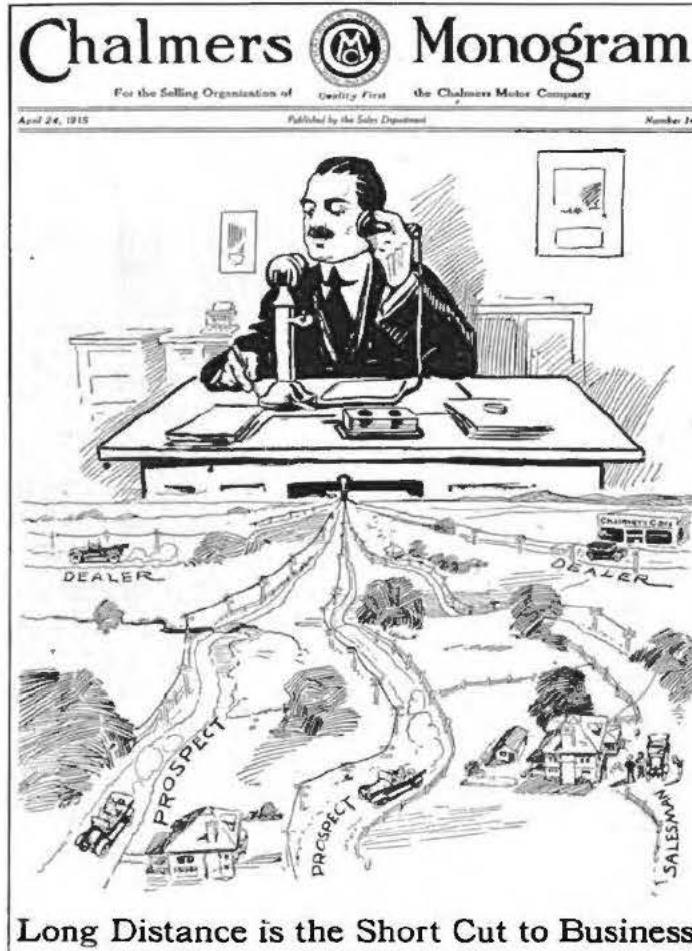
The following letter received by the editor of the BELL TELEPHONE NEWS enclosed a clipping from a daily newspaper showing that an article of interest in that district appearing in the NEWS had been reprinted in full. The letter contains a valuable suggestion to managers:

Mr. A. T. Irwin,
Editor BELL TELEPHONE NEWS,
Chicago, Ill.

Dear Sir: I enclose herewith a clipping which appeared in the _____ of June 20th which is self-explanatory.

Considerable advertising can be obtained for the company in this manner, and I am surprised that more managers are not able to get their local papers to publish articles that appear from time to time in the NEWS. We experience no difficulty in getting reading notices of this description whenever anything pertaining to our particular district is mentioned in the BELL TELEPHONE NEWS. Yours respectfully,

Manager.



FORCEFUL COVER PAGE OF CHALMERS MONOGRAM.

years, was honorably discharged from the service."—*St. Louis Republic.*

Presumably for thirty-six years J. Karmody Smith had given faithful, efficient service to the postoffice department of the United States Government because he was discharged with "honor"; he gave all he had to give and the postoffice, at the end, gave him all it had to give. There is no blame attached to the postoffice; it discharged this old employé as it was bound to do when he was no longer capable of performing his duties.

But there is really something tragic about this performance. Only one actor in it comes off the stage with any credit—*viz.*, this old man discharged, after a life devoted to public service—but do not forget—discharged with "honor."

We wonder how the members of those two lines, standing at salute, felt as this old man, bent with years, passed between them; we wonder if some of them did not picture to themselves, with some dismay, the double line standing at salute down

Kalamazoo Rotary Club Greet San Francisco Over Bell Transcontinental Telephone Line

Senator William Alden Smith Talks Over Wire to Aged Mother Living South of Los Angeles.

"Hello, mother."

"Hello, Will;" came the answer, filtered thin by space, yet clear and distinct. "Hello, Will; are you well?"

"Yes, mother. Isn't this wonderful?"

"It is beautiful," came the reply.

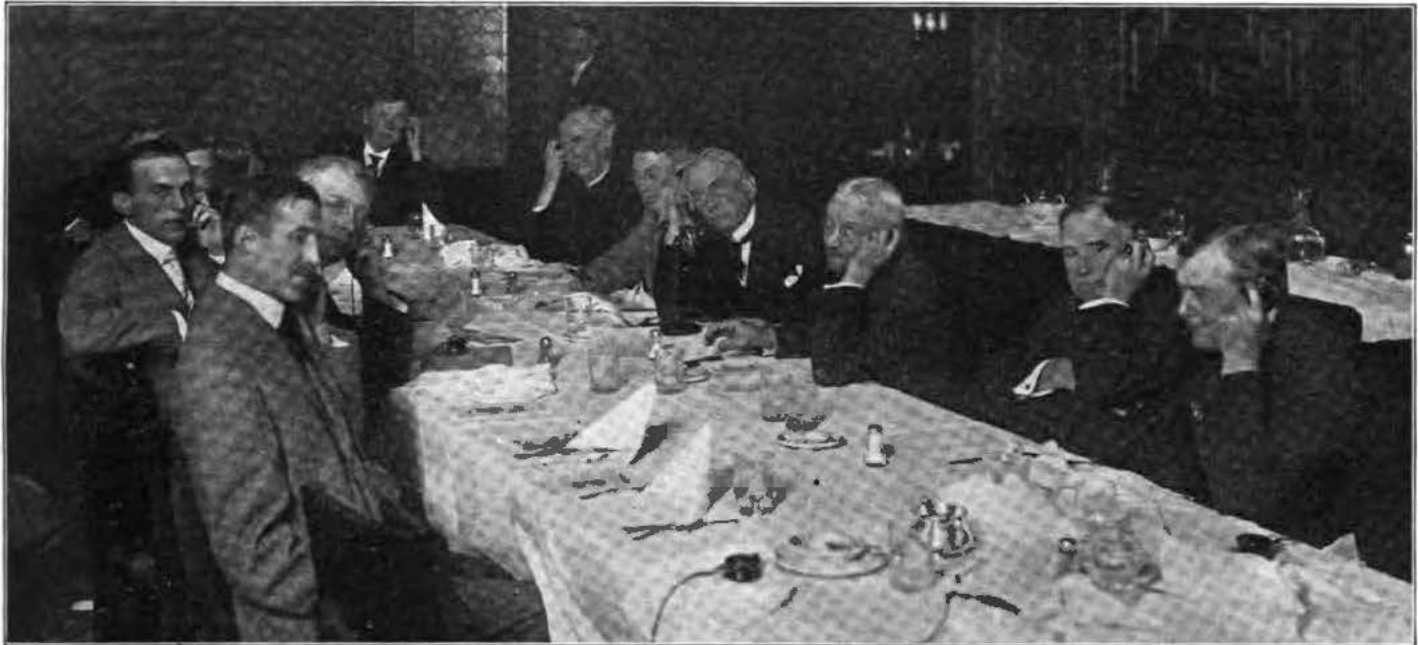
The speakers were Senator William Alden Smith, of Michigan, talking into a Bell telephone in Kalamazoo, and his

Following the luncheon, George B. Pulfer, president of the Kalamazoo Rotary Club, formally introduced over the wire, Congressman J. M. C. Smith, who talked to a representative of Governor Hiram Johnson of California. Congressman Smith conveyed to Governor Johnson the greetings of this state.

A short address was made to the visitors

the demonstration was the rendition of "I Want to Go Back to Michigan," which was sung at the far end of the wire and heard plainly by the listeners in Kalamazoo. Later this was repeated for the pleasure of Senator Smith.

President Towne of the Kalamazoo Rotary Club extended his felicitations to the president of the San Francisco Rotary



SPEAKERS' TABLE AT "KALAMAZOO DAY" ROTARY CLUB DEMONSTRATION.

United States Senator William Alden Smith is at the telephone. On his left is William E. Bell, of Chicago, district commercial superintendent of the American Telephone and Telegraph Company. Across the table leaning forward is E. P. Platt, district manager of the Michigan State Telephone Company.

mother, who is past eighty years old, talking into a similar instrument at Santa Anna, California, south of Los Angeles.

This conversation and others of equal interest were heard in Kalamazoo and San Francisco on "Kalamazoo Day" at the Panama-Pacific Exposition, which was made the occasion of a demonstration of the transcontinental telephone line for the entertainment of Kalamazoo people and Kalamazoo visitors at the big fair.

One hundred Kalamazoo men in their home city and fifty-five Kalamazoo citizens on the other end of the line in the far western city heard the conversation. At each plate in the banquet hall of the Park-American hotel a telephone attachment had been placed. During the conversation each guest heard every word spoken as plainly as though the conversation had taken place within the city limits of Kalamazoo.

Over a line 3,000 miles long the conversations were carried without an interruption of any kind. It was "Kalamazoo day" at the fair in more ways than one.

by W. E. Bell of Chicago, commercial superintendent of the American Telephone and Telegraph Company. He told of the wonderful growth of the telephone.

Dr. J. M. Ayres and his brother, A. D. Ayres, both residents of Kalamazoo, were present at the luncheon. They heard the conversations over the long-distance line to California. It was the Ayres brothers who gave to Kalamazoo the city's first telephone service in 1880, starting with only thirty-two telephones. The exchange they ran themselves.

Ruben Hale, a former Kalamazoo man, now vice-president of the San Francisco Exposition Association, talked to Mayor James B. Balch.

James A. Starkweather, who left Kalamazoo with a party of tourists, also talked with the mayor.

At the rate of \$5.45 per minute, Kalamazoo at the Rotary Club luncheon, talked exactly \$981 worth, according to the figures of Manager Robb of the Michigan State Telephone Company.

An amusing and interesting feature of

Club. Then Dr. Upjohn talked to Vice-President Lynch of the San Francisco Chamber of Commerce.

The demonstration concluded with "Dixie" coming over the wire from San Francisco.

Senator Smith, after he had talked with his mother, expressed his appreciation in an interview as follows:

"Yes, I talked with my mother over the telephone sitting in her home far away in Santa Anna about thirty miles south of Los Angeles. It was a wonderful experience and a wonderful privilege to be able to hear my mother's voice, clearly and distinctly as though she were in the same room, yet with 3,000 miles of hills, and valleys and mountains and plains intervening. It was delightful, and we were both deeply impressed and moved. There were tears in my eyes when I said: 'Hello, mother,' and in her well-known tones she replied as though she sat before me, 'Hello, my son.' Mother is eighty years of age and there was much feeling in her voice as she said:

"My son, isn't it wonderful that I can speak to you when you are so far away? I never thought I would live to be able to speak over such tremendous distances."

"I replied: 'It is perfectly wonderful, mother; I cannot tell you how much I appreciate the privilege of talking to you. Are you well, Mother?'"

"Yes, I am well and hope you are feeling well."

"Oh yes, I am feeling splendid, mother."

"When are you coming out to see me?"

"I should be there now, mother, and I hope to come in a month or so."

"Do so; come soon, son."

"Then the room was still—she had gone. I could picture her sitting there in her home with some of her friends, and it was as though I had had a moment's translation to her side."

"The connections which permitted me to talk with my mother were made from Frisco over the regular service lines to Los Angeles, about 450 miles, and then to Santa Anna, yet it was all done with promptness and clearness most remarkable."

The Panama Canal "Profit"

There was good reading in the Panama telegram declaring that the Panama Canal had earned a profit of \$250,000 for its first year. That is, the reading was good until it appeared that the "profit" was of the sort usual in government undertakings, that is, an excess of income over outgo. The exact figures were: "From July 1, last year, to July 1, this year, the total earnings were \$4,424,306, while the expenditures were approximately \$4,200,000." That is the way in which the Post Office is accustomed to reckon its profits and each year ask for larger appropriations just the same. The epitome of the treasury's operation for the same period shows an expenditure on the capital account of the Panama Canal of \$35,864,381, which the treasury statement makes a deficit of the treasury, not of the canal. Beside the profit of the railways in the manner of the

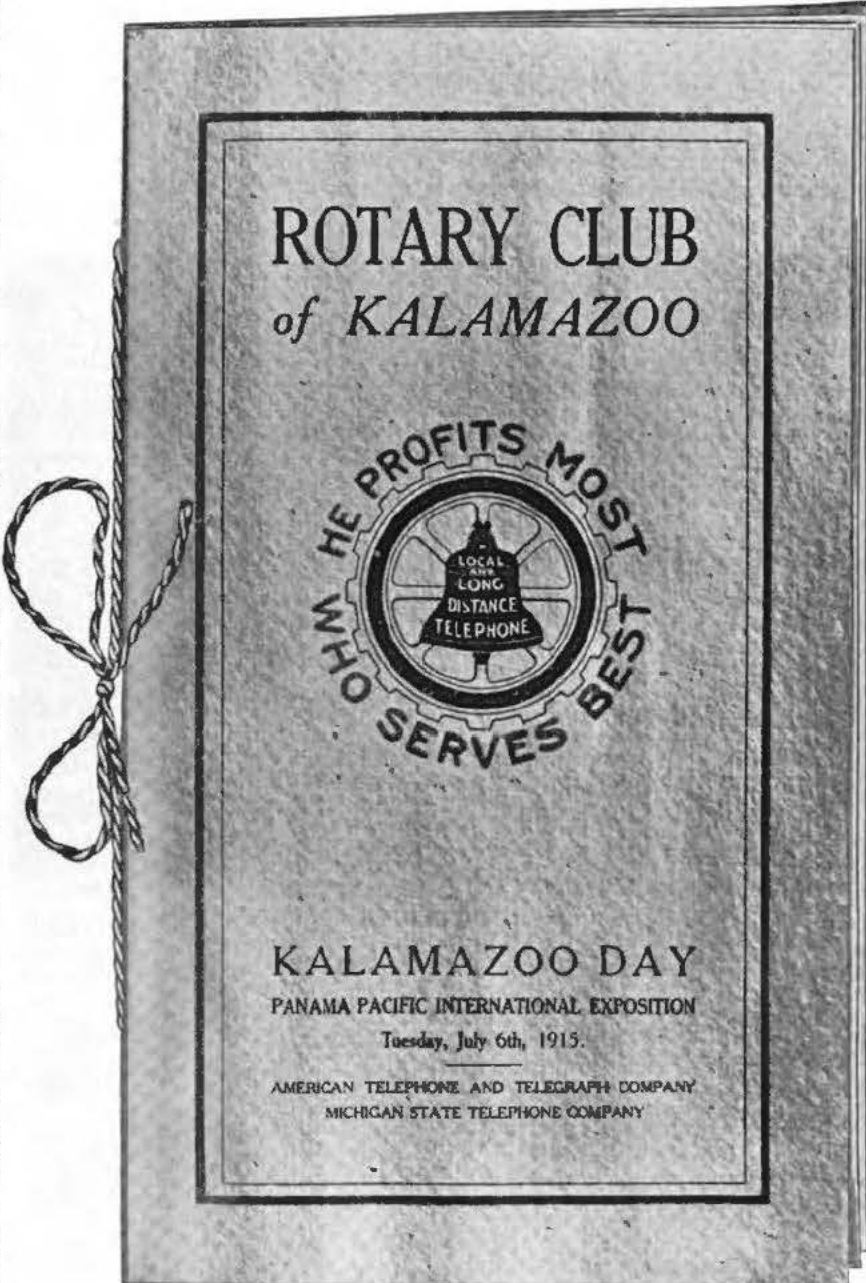
Panama Canal the "net operating revenue" for the last reported month was \$65,866,046. But the difference between the canal and the railways begins with the deductions. The railways had to pay in that month of April \$11,106,959 taxes. The railways also have to pay for the capital they use, and if they fail to do so they go

the profits in the case of the canal. Too many approve public operation of public utilities on financial showings which would make it impossible to sell either bonds or shares of any private enterprise. That is why city debts increase so enormously and why money is obtainable for public undertakings when railways go into receiverships.

Governments can borrow so long as the taxpayers will stand it. Until then shortage of credit is impossible. There is that essential difference between public and private enterprises. And yet it would be better that the financing of both should be done on the principles on which private undertakings succeed or fail. Public enterprises ought not to be pressed because it is so nearly impossible to exhaust public credit. The benefit of enterprises conducted on public money at a loss is offset by the burdens of the taxes. In other words, low taxes may be as much a benefit as accommodations supplied at a loss to taxpayers. In any case taxpayers have a right to the same information that the law requires public utilities to give. It may be well that the money should be lost, as in the case of the Panama Canal, but that is no reason for not knowing what the loss is and the exact condition of the finances of whatever the taxpayers support.—*New York Times*, July 5, 1915.

A Telephone Introduction

Many years ago when telephones were in their infancy, the "long distance" of our little town was in a very small, dark closet in my husband's store. One day the operator said to me, "Mrs. T., may I introduce you to the operator in Warren?" Upon my assurance that I would be most happy to meet the young lady, the introduction took place. But this proved the most embarrassing moment of my life, for I could not think of one word to say. I was covered with confusion, but after seconds, which seemed hours, I "came to" and managed to blurt out, "I am not dead, but speechless."—S. W. T. in *Cleveland Leader*.



INVITATION TO KALAMAZOO DAY DEMONSTRATION.

into bankruptcy. About two billions of railway capital is now in receivership on the difference between profit in public and thirty-five millions the quarter million excess of income on operation seems derisory as "profit" on the basis of private undertakings which find it necessary to pay interest and amortize capital obligations.

The application of the same principles of profit accounts for much of the rancor in the railway question. Reckoning the private undertakings. The debts are as conspicuous in the case of the railways as

Telephone in German Army

Some day technical military writers will be able to do justice to the enormous work done by the telephone in this war. No longer do heroic dispatch riders dash through the night to carry the orders of battle; no longer does a mounted orderly risk his life to deliver a message. A patient, undramatic wire does the work, and does it better.

So a lot of the melodrama of the war has been spoiled. A network of telephone wires, in many ways the most wonderful in the world, connects virtually all the soldiers in the German army, says an article by Oswald F. Schuette in the *Chicago Daily News*. The article was sent from Berlin. If need be, the front trench at Nieuport can communicate with the front trench at Libau, says the writer, which is going some for military telephony. The general staff at the great headquarters of the German army in northern France is in instant touch with every trench on the long line. So is the general staff in Berlin.

How many million feet of wire were used to establish this system, how many hundred thousand poles, how many hundred thousand instruments, how many lives were lost installing them under the enemy's fire will some day be most important statistics. Today they are secret.

There are regiments after regiments of men who do nothing except maintain these important connections, which really constitute the nerves of the army. For it is when telephone wires are under fire that they are most important, for that means that a battle is raging. So the connections must be repaired instantly, no matter what the danger. The repairers must be out there in the open behind the trenches, even though their comrades who are doing the real fighting have the shelter of their "diggings."

The German official report is given to the press at Berlin between two and three o'clock every afternoon. But the making of all this report begins somewhere about four o'clock in the morning. Here is about the way it can be observed, if you have been lucky enough to get permission to stay over night in the first line of trenches:

"R-r-r-r-ing," shouts the telephone bell.

"Here, regiment —," replies the operator.

"Here, second battalion; good morning,

please give me the exact time," says the battalion operator at the other end. For the "exact time" is important, in synchronizing—pretty good military word—

"Here, Battalion Adjutant Blank. Morning report."

The regimental adjutant gets on the telephone and the battalion officer tells what has happened in the preceding twenty-four hours.

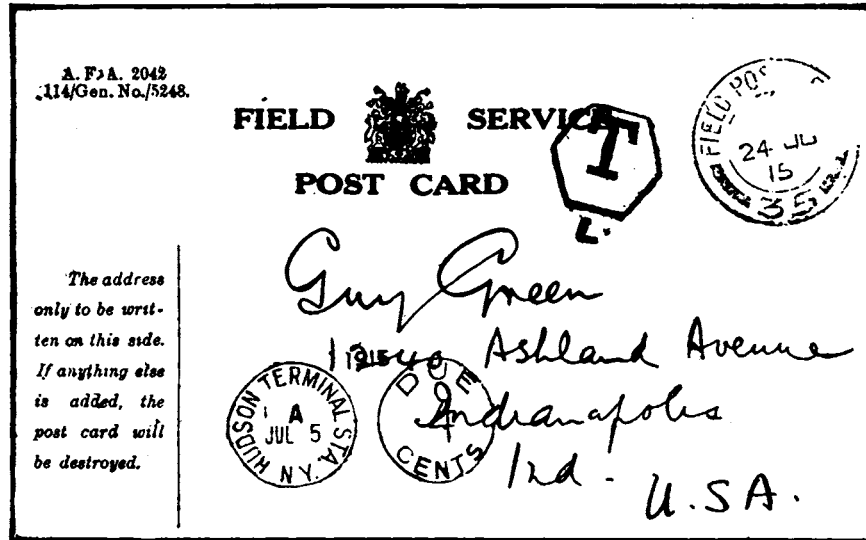
Then come the reports from the other battalions. These at hand, the regimental adjutant hurriedly briefs them into one of about eight lines and call up the brigade headquarters. There the telephone central is far more complicated, with a regulation long-distance exchange outfit equipped to handle the big and important business that falls upon it.

It does not take the brigade adjutant, a busy captain who seems to enjoy the work, very long to receive the bulletins from all regimental headquarters. He makes a new report out of this material. About six o'clock he calls up the division headquarters. By seven o'clock, the corps headquarters has received this report, with those of the other divisions, and by eight o'clock these have been summarized and transmitted to the "Armee-Ober-Kommando," the army headquarters in supreme command of this part of the front.

By 8:30 all of the various "A. O. K." adjutants have sent their reports by telephone to the great headquarters, and woe to the subordinate adjutant somewhere in this long chain whose delay in getting in his report has caused a general delay. It is not always easy to make a careful report when the enemy has been tearing up things all around you and a battle is still undecided. But the ironclad organization asserts itself and delays are few.

At the great headquarters the general staff has now been informed exactly of the status of the army on the entire front from the North sea to the Alps. Presently a similar report will be sent over from the eastern army at work in Austria and Russia. Then the highest officers of the army make up the official report to be made public.

When all this information has been boiled down to the allotted 200 or 300 words, the resulting report is sent to the general staff at Berlin, both by telephone and telegraph. There it is turned over to the Wolff Telegraph bureau, the government's official telegraphic agency for transmission to the newspapers.



The address only to be written on this side. If anything else is added, the post card will be destroyed.

NOTHING is to be written on this side except the date and signature of the sender. Sentences not required may be erased. If anything else is added the post card will be destroyed.

I am quite well

I have been admitted into hospital

~~with~~ and am going on well
~~wounded~~ and hope to be discharged soon

I am being sent down to the home

I have received your ~~letter dated~~ _____
~~telegram~~ _____
~~parcel~~ _____

Letter follows at first opportunity

I have received no letter from you
~~lately~~
~~for a long time.~~

Signature } *G. Green*
only }

Date 23-6-15

[Postage must be prepaid on any letter or post card addressed to the sender of this card.]

U.S. 114 Gen. No. 5248

ENGLISH SOLDIER'S POST CARD.

Received by Guy Green, traffic superintendent of the Central Union Telephone Company at Indianapolis, Ind., from his brother, Gabriel Green, a captain in Kitchener's army. Mr. Green has no idea whatever where his brother is and the post card offers no clue.

Both sides of the card are shown.

operations.

"Just 4:35. Say, where is your morning report?"

"Coming as soon as the adjutant arrives."

A minute later the adjutant must have arrived, for the bell is at it again, this time to announce:

Restoring Service Through Submarine Cable at Port Huron

By R. V. HURLBUT,
Plant Supervisor, Michigan State Telephone Company

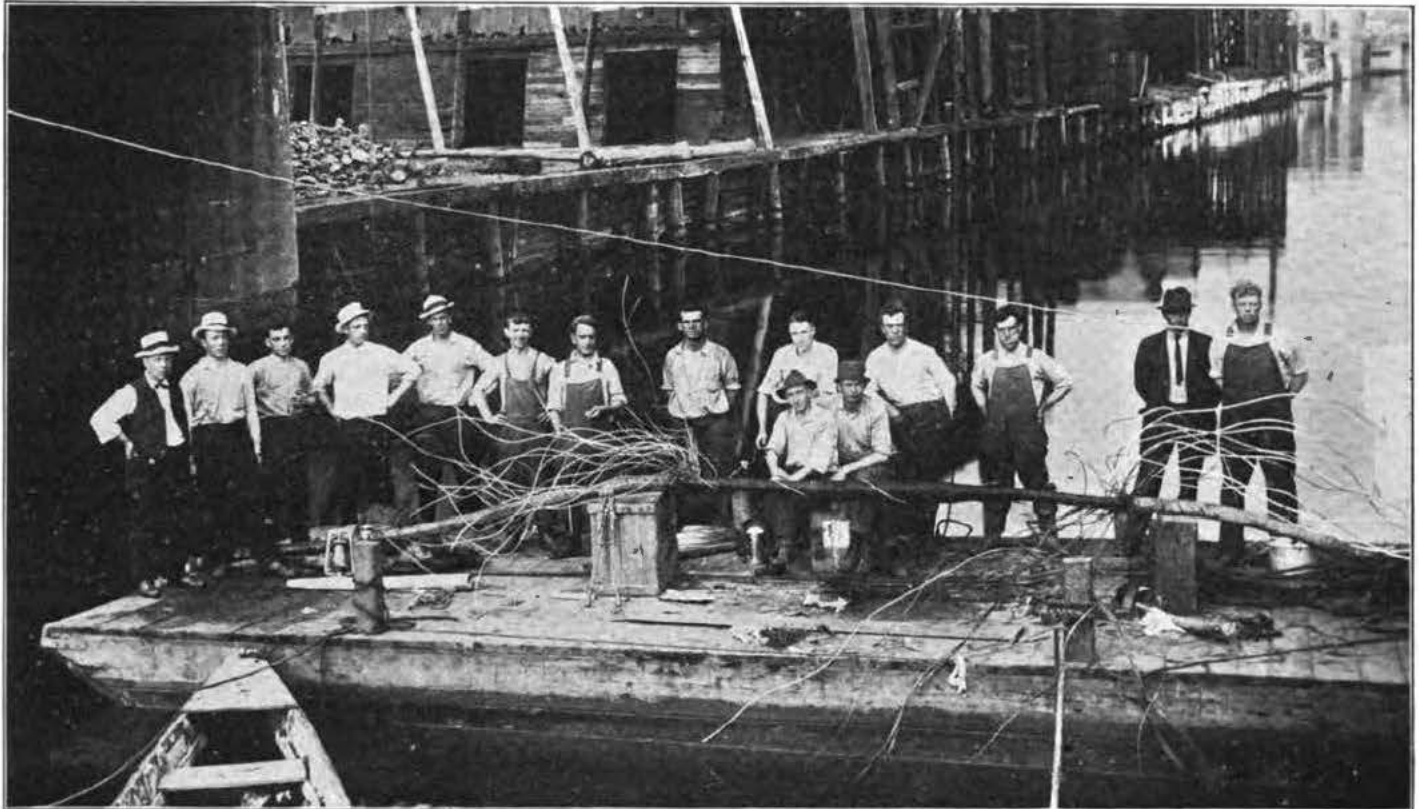
July 18th was an eventful day at Port Huron, Mich. At eight o'clock in the evening a large coal barge backing out from the dock on the Black River was dragging an anchor to steady the bow of the boat. The anchor became fouled with one of the

rious "movie" shows in order to round up his complete crew.

Not having suitable boats, or other apparatus, for raising the cable from the bed of the river, it was necessary to provide a substitute. This was found in the form of an abandoned pile driver which was immediately commandeered and pressed into service. In the meantime a portion of the shore end of the submarine on the north side of the river was uncovered. At 9:30 p. m. an improvised sling was made under the cable and a start was made for the barge in the center of the river. The trouble was soon located and the broken

and it was found necessary to cut back seven feet of the north end and seventeen feet of the south end, leaving an open span of twenty-four feet. As there was no submarine cable of that capacity on hand, the ingenuity of those in charge was again tested.

It was decided to splice a piece of ordinary lead armoured cable to the north shore end of the submarine. This would allow the submarine cable to be pooled together and the necessary splice made on the barge in the river. This was done by the following noon. The service was furnished through the cable. The accompany-



REPAIRING SUBMARINE CABLE AT PORT HURON.

Left to right: George McCoucha, wire chief; Wm. Trumveller, city foreman; A. Koltz, cableman; J. Schafer, cableman; A. Dillman, lineman; F. Dowse, lineman; L. Munro, cable helper; I. Crowder, lineman; A. Poutine, repairman; C. Phillips, lineman; A. Taylor, lineman; H. Strayer, repairman; A. McCarty, lineman.

Sitting, left to right: L. Beaudin, cable helper; A. Johnston, lineman.

Foreman Ralph Smith was on the job day and night, but he does not appear in the picture.

Michigan State Telephone Company's 400-pair submarine cables at that particular point with the result that the cable was severed. More than 625 subscribers were directly affected, being put out of service temporarily by the break.

Wire Chief McCoucha was immediately notified by the chief operator, who had at once noticed the large number of permanent line signals. Preparations were started instantly to restore the cable to service.

On account of the nature of the emergency, a call was issued to all of the exchange quarters and those of the construction crews under Foreman Ralph Smith who happened to be in Port Huron at the time.

All of the men responded to the call as quickly as possible. Foreman Smith found it necessary to make a canvass of the va-

end of the cable lashed to the barge. An attempt was made to bring up the south end of the cable in a like manner, but on account of the exploring line following innumerable piles which had been driven into the bed of the river, it was found to be almost impossible.

The crews toiled all through the night, a portion of the men stopping for a brief rest in the morning. At one o'clock that afternoon the south end of the cable was finally brought to the surface and also secured to the barge. The men who had labored so industriously throughout the night and following morning were relieved by this and the work of restoration continued.

The ends of the submarine cable were cut back to determine the extent of damage caused by the water saturating the core,

ing photograph shows the work of splicing on the barge.

Great praise is bestowed upon the workers in general for the manner in which they stuck to the job and the way in which the apparently insurmountable obstacles were overcome. Such coöperation and spirit is the background of our efficient plant organization, and I am glad to see it so manifested in our Port Huron forces under the personal direction of Wire Chief McCoucha, and the construction department forces under Foreman Ralph Smith.

A Good Guess

Operator at Appleton, Wis., reporting to party at local pay station: "Ready."

Party at L. P. S.: "Well, central, how could you tell that I am red-headed?"

Theodore N. Vail Doctor of Science

Theodore N. Vail, president of the American Telephone and Telegraph Company, has received from the University of Vermont, the honorary degree of doctor of science, awarded in recognition of his achievement in promoting the construction of the transcontinental telephone line and his other public services. The degree was conferred in the following language:

"Upon you, Theodore Newton Vail, native of Ohio, citizen of Vermont, denizen of the world, inhabitant of the universe, engineer, scientist, captain of industry, leveler of mountains and exalter of valleys, for your invaluable service to the cause of education as a member of the Vermont educational commission, for the stimulus of your generosity in advancing the cause of agricultural education in this state, for your achievements in the organization and conduct of the railway mail service in the United States, for your accomplishments in the promotion of rapid railway transit in South American countries, for your improvement of the American telegraph service, as the originator of our now indispensable day and night letters, and, above all, for your crowning performance to the benefit of mankind, in flinging the telephone across the continent so that the still small voice on the Atlantic seaboard becomes the clear word of distinct understanding on the Pacific coast, with the approval of the university senate and the corporation of the University of Vermont and State Agricultural College, by virtue of the authority vested in me by the State of Vermont, I confer the degree of Doctor of Science, *honoris causa*; in testimony whereof you are invested with the appropriate hood of your academic rank and presented with this diploma.

"Ride on, O cosmopolitan conqueror of difficulties, to the assured immortality that will enable you to speak into the hearing ears of all the countless generations of the future."

J. J. Carty Honored

At the forty-third commencement of the Stevens Institute of Technology, held in the auditorium of the Institute at Hoboken, N. J., on June 8th, the degree of Doctor of Engineering was conferred upon J. J. Carty, chief engineer of the American Telephone and Telegraph Company.

Dr. Alexander C. Humphreys, the president of Stevens Institute, in conferring the degree, delivered the following address:

"John Joseph Carty, engineer, scientist, inventor, administrator; member of many societies for the advancement of science and education; past-president of the New York Electric Society; president-elect of the Institute of Electrical Engineers.

"As a boy entering the service of the Bell Telephone Company of Boston, he has been continuously a worker in the field of telephony, rising step by step until to-day he is the chief engineer of the parent com-

pany in the United States, the American Telephone and Telegraph Company.

"He has done probably more than any other one man to make the telephone, as it is to-day, the ready and efficient servant of mankind. In answer to his persistent efforts the Atlantic and Pacific coasts have recently been linked together.

"His services to the world have been officially recognized by the award of the Longstreth Medal of the Franklin Institute and by the decorations of the Order of the Rising Sun and the Order of the Sacred Treasure of Japan.

"In recognition of his services as engineer, scientist, inventor and administrator, and as a man who has persistently employed his scientific imagination for the benefit of his fellows, the Stevens Institute of Technology desires to confer upon him the degree of Doctor of Engineering, *honoris causa*.

"John Joseph Carty,

"By virtue of the authority vested by the State of New Jersey in the trustees of the Stevens Institute of Technology, I confer upon you the degree of Doctor of Engineering."

(Diploma presented.)

"This diploma, signed by the president, the secretary and the registrar of the faculty, and by the president of the board of trustees, and bearing the seal of the Stevens Institute of Technology, will certify that this degree has been conferred upon you."

This recognition of Mr. Carty's engineering achievements gives a special pleasure to the many graduates of Stevens Institute who are employed by the telephone company, and is no less a source of gratification to other telephone men. It is another mark of the close bonds of sympathy and appreciation which exist between the leaders in technical instruction and those who lead in directing the practical application of engineering principles.

Mr. Vail was among those present to witness the conferring of the honor on Mr. Carty.

The Case of Mary

Politics is considerably outside our field of activity, but we have run across a cartoon that almost seems to sit up and beg for comment.

"Retrenching" is the caption given the picture. Uncle Sam, shirt-sleeved, is sitting at an old-fashioned roll-top desk, spectacles on nose, features drawn in worry over a lengthy statement of expenditures which he holds in his hand. Just around the corner of the desk is an impoverished-looking little scrubwoman, down on her knees with brush and bucket, painstakingly doing her stint. Uncle Sam clears his throat. "Mary," he is saying, "you must take eight days' vacation." Mary's jaw drops, her hand flies to her mouth, her despair is plain.

Thus the pencil of a newspaper cartoonist makes its keen thrust at a governmental

condition lately chronicled in the public press. The treasury department, we are told, is confronted with a \$65,000 deficiency. To prevent this shortage it was decided to furlough for eight days—without pay—the 4,578 employés of the custodians of public buildings—i. e., charwomen, assistant janitors and such. "It is expected," said a prominent official, "that by taking eight days' pay from each employé we shall have sufficient funds to carry us through, and besides avoid the necessity of boarding up new buildings, as otherwise would be necessary."

As a specific instance of the manner in which this decision works out let us simply mention that in Baltimore eighty-five men and women employed to guard and keep clean the three Federal buildings must be laid off—without pay—for the prescribed period. Eighty-five men and women in one city, in other words, may be imagined in the vividly significant attitude of Mary, the creature of a quick-thinking cartoonist.

Now that we come to our comment, what, indeed, shall it be? Shall we condemn a government? No; that isn't our province. Shall we criticize a political party? No. Shall we hark back to the wise old saying about saving at the spigot and wasting at the bung-hole? What need? Perhaps it is enough just to ask, "Is this the way political management works?"—Editorial from the *Transmitter*, Baltimore.

The Big Men

The big men dare, and the big men do; they dream great dreams, which they make come true. They bridge the rivers and link the plains, and gird the land with their railway trains; they make the desert break forth in bloom, they send the cataract through a flume to turn the wheels of a thousand mills and bring the coin to a nation's tills; the big men work, and the big men plan, and, helping themselves, help their fellow man. And the cheap men yelp at their carriage wheels, as the small dogs bark at the big dogs' heels. The big men sow while the cheap men sleep, and when they go to their fields to reap, the cheap men cry, "We must have a share, of all the grain that they harvest there! These men are pirates who sow and reap and plan and build while we are asleep! We'll legislate till they lose their hair! We'll pass new laws that will strip them bare! We'll tax them right and we'll tax them left, till of their plunder they are bereft; we'll show these men that we all despise their skill, their courage and enterprise!" So the small men yap at the big men's heels; the fake reformers with uplift spiels, the four-eyed dreamers with theories fine, which bring them maybe three cents a line, the tin-horn grafters who always yearn to collar coin that they do not earn. And the big men sigh as they go their way; they'll balk at the whole blamed thing some day!—Walt Mason, in *Pittsburg Gazette Times*.

How Managers May Increase the Toll Business

By Albert Douglas, Commercial Agent,
Michigan State Telephone Company,
Grand Rapids, Mich.

This is a subject in which every employé of the company, and the commercial managers especially, ought to be very much interested, for of all the different factors which go to make up the success or failure of a telephone company, there is none of more importance than the development of the toll revenue and none which is more often neglected or forgotten.

I have noticed many times in different parts of the country that managers worked very hard to increase the number of subscribers in their exchanges, and if they showed a good net gain at the end of the month, felt perfectly satisfied with their efforts, but overlooked the fact that a little judicious toll canvassing would have increased the company's revenue very materially. Of course, we must have exchange subscribers before we can get the toll business, but once a telephone is installed, it should be borne in mind that while the exchange revenue remains fixed (in exchanges where flat rates prevail) there is almost no limit to the amount of toll revenue it may produce.

Eight or ten years ago, before the public were as familiar with the service as they are to-day, it was much harder to get them to use it and many different plans were tried out by the Bell Companies to build up their toll business. The principal one of these was the selling of toll coupons. These were sold at various rates of discount so that the more service a subscriber used the lower rate he was able to get. While this increased the volume of business, it so lowered the net rate that it was not found profitable and was discontinued. Another scheme was to interview a subscriber and leave with him a message frank, asking him to call up a friend any time he felt like it and try the service. At the electrical shows, which were held each winter in a number of our larger cities, the telephone company used to give demonstrations of long-distance service. Several booths would be placed in the telephone company's exhibit, telephones installed in them and connected to long-distance lines running to other cities. The public would then be invited to step in and talk with out any charge, a representative of the telephone company being always at the other end of the line to talk to them. Often as many as three hundred people would talk in one evening. Many of them were skeptical and thought there was some trick about it. I remember at the Chicago show in 1907, we were demon-

strating service to New York, Minneapolis and St. Louis, I saw several men while in the New York booth pull out their watches and ask the man at the New York end the time, thinking we were trying to fool them by having them talk to someone hidden in the building and they would catch him by the hour's difference, in time between the two cities. Service between New York and Chicago is now so common that no one would think of questioning it.

All of these different methods were good in their time and served their purpose, but they are not needed now, as the long distance is in such general use that the average business man knows that he can talk almost anywhere he wants to on the lines of the Bell companies.

The Bell System is at present carrying on a very comprehensive campaign of forceful and convincing advertising in most of the leading magazines and in many of the daily papers, so that the suggestion to use the telephone is kept constantly before the public.

The first step to be taken in making a toll canvass is to prepare a list of the subscribers to be called on. This can be made up from the telephone directory or from the subscribers' card record and should include the name of every subscriber, whose business is of such a nature that he could use toll service. A card should be made for each one, giving the firm name, address, telephone number and kind of business, and, if available, the amount of service used by the subscriber during the past few months should be entered on the back of the card, together with any information that might be useful to the salesman.

Before starting out to interview subscribers, a salesman should make a study of telephone conditions in the surrounding territory. A fair knowledge of the toll lines and the manner of routing messages is helpful and furnishes him with good talking points. He should provide himself with a list of the rates to all the principal towns in the state and keep them handy to refer to. A list of the telegraph rates and railway fares to a few of the nearby cities is also useful in making comparisons. A little pocket notebook filled with various statistics and telephone information, which may be gathered from time to time from various Bell publications, will be found very convenient for reference.

Here are a few of the questions a representative is liable to be asked while he is out looking for toll business:

Why don't you people give night rates any more?

Why are your rates so much higher than the telegraph company's?

Why don't you put your toll lines in cables so they won't break down every time we have a heavy sleet storm?

Can I talk from here to Minneapolis, without having my message repeated?

Is it true that you can telephone and telegraph on the same line at the same time?

How many poles does it take to build a mile of line and how large wire do you use?

It will be seen from this that a salesman to be successful must be a pretty good diplomat and must possess not only a thorough knowledge of commercial work but must be fairly familiar with the operations of the plant and traffic departments as well.

The salesman has to use judgment and ingenuity to get the subscriber's attention and hold it. He must bear in mind that business men are usually busy, their time is valuable and they do not want to listen to any long stories. They are doing him a favor in granting him an interview and his talk should be short, concise and right to the point. He may begin by asking the subscriber if he is using toll service at all and if so if he finds it satisfactory. If he is able to get his parties with reasonable promptness and hear them well and if on the whole he does not find the long distance a profitable way of doing business. A complaint made by subscribers, perhaps more often than any other, is that they are overcharged on toll calls. By supplying himself with a few dummy toll tickets with the calculagraph stamp on them, a salesman can often give a subscriber an explanation of how time is kept and avoid any further complaints on that score. Find out if he has had any trouble with service at any time, and if so make a note of it and have it taken care of later on. Endeavor to make him feel that no matter whether he uses much or little, we appreciate his business and want to do everything possible to make the service useful and satisfactory to him.

Try and increase his interest in toll service by mentioning some of its attractive features, such as being able to make appointment calls, having a party traced from one city to another without extra charge, that no charge is made for a message if the party called is not found and that when he does get his party and talks to him he receives his answer at once and always knows just what he is doing. Find out if he is unable to reach anyone in other cities on account of their not having a Bell telephone. In that case notify the Manager at the other place and endeavor to have a telephone installed.

If the subscriber has never used toll service and you think it advisable, call up

someone he knows, talk to the party yourself and also let him talk to demonstrate to him how simple and easy it is. Call his attention to the saving in time by using it. For instance, if he send a letter to a point, say a hundred miles away, it will more than likely be two days before he receives an answer, while with the long distance it would probably not be more than fifteen minutes. If he is using the telegraph to nearby points, show him by making comparisons of rates, how he can save money by using toll service. For example, the minimum charge for a telegram is twenty-five cents and you are limited to ten words, making the cost of a message and answer fifty cents. Anyone may talk for three minutes from Grand Rapids to Grand Haven for twenty cents, to Muskegon for twenty-five cents, to Kalamazoo for thirty-five cents, to Battle Creek for forty cents and to Benton Harbor or Owosso for fifty cents. If a telegram is delayed or for any reason fails to reach the party for whom it is intended, it must be paid for just the same, where with the telephone there are no lost messages. It is a case of "No talk, no pay." When a man sends a telegram he never knows until he hears from the party to whom it was sent whether it was received or not or whether such action as he desired was taken. If he uses the long distance he knows when he hangs up the receiver just what he has or has not accomplished. There is no uncertainty about it.

A sales manager of one of our associated companies in trying out different plans to increase his toll revenue used an illustration like the following to show the difference in cost to a firm between the old way of having a traveling man call on a half dozen customers in as many different towns and the new way of calling them by telephone. The old way—railroad fare from Grand Rapids to Ionia, Owosso, Lansing, Jackson, Battle Creek, Kalamazoo and return to Grand Rapids, \$5.18; hotel, \$7.50; incidentals, \$1.50; total, \$14.18, besides three days' time for the salesman. The new way—one three-minute message Grand Rapids to Ionia, twenty-five cents; to Owosso, fifty cents; to Lansing, forty-five cents; to Jackson, sixty cents; to Battle Creek, forty cents, and to Kalamazoo, thirty-five cents; total, \$2.55. Time, one hour. This shows a difference of \$11.63 in favor of the telephone

way, besides the saving in time.

A produce commission merchant in one of our large western cities was doing a big business, but his toll bills only amounted to from \$15 to \$30 per month. A representative from the Bell company called on him to see why he did not use more service and the merchant advised him that he had three men on the road who covered their territory often and he did not need to use the toll lines more. The salesman after a number of visits induced him to try selling by telephone. At first he took one man off the road and set him at work in the office calling up customers. The plan soon proved so successful that he brought another man into the office, leaving only one man on the road to make special calls, adjust claims, etc. In a short time the merchant's toll bill amounted to over \$300 per month, but

can get out a few cars of coal or produce or machinery a day or two sooner than he could otherwise, he will turn his money that much quicker and his extra profits will more than pay for the toll.

When the business man of to-day wants to communicate with someone else in his own town he reaches for his telephone without the least hesitation and calls him up. The idea of sending a messenger or of going to see him personally would never enter his mind. If the convenience and advantages of the toll service are placed before him properly he will use that the same way. He will talk instead of travel. It should be our aim to make the toll service so attractive to him that when he wants to reach anyone in a distant town his first thought will be telephone, and Bell telephone, of course. The name Bell should suggest long distance the same as the name Bissell suggests carpet sweeper.

A manager should always keep where he can consult it easily a record of the amount of service used by his principal toll users. By referring to this each month he can tell at a glance if any subscribers' tolls are falling off and by paying him a personal call can often regain the business. The salesman before turning in his cards should note on each the result of his interview and these should be looked over occasionally by the manager in order that follow up calls may be made at the

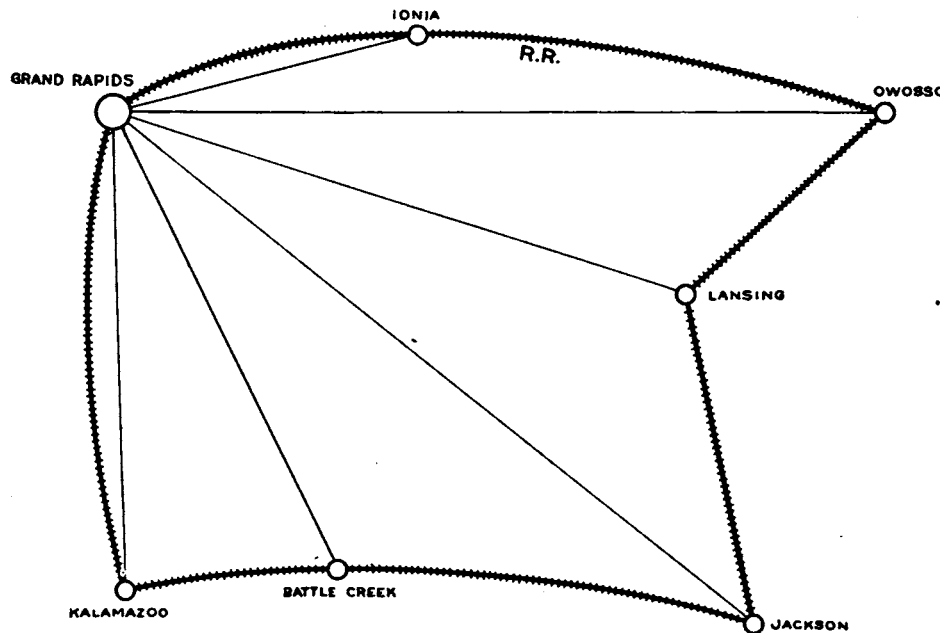


DIAGRAM CONTRASTING THE "RAILROAD WAY" AND THE "TELEPHONE WAY."

he expressed himself as well satisfied, saying it was money well spent. He said that when the men were all on the road they were continually selling something he did not have or failing to sell something he did have, on account of their stock sheets being a couple of days old when they received them. By doing the selling in the office the sheets could always be kept right up to the minute and no mistakes were made.

While interviewing the general manager of a large steamship company some time ago he told me that the time of one of their big ore boats was worth about \$450 per day during the busy season and said that they never thought of trying to direct their movements by mail or telegraph where the telephone was available, as it was so much quicker and saved so much of the boat's time, that the cost of the service cut no figure. This same principle will apply in any other line of business. If a shipper using the telephone

proper time.

We should all try in dealing with the telephone using public to impress upon their minds the fact that the Bell company is a long-distance company and that it is prepared to handle business anywhere; that we have lines running all over the country; that our equipment is the best; that our operating methods are the same everywhere, insuring uniform service, and that, with our 9,000,000 telephones, 21,000,000 miles of wire and 150,000 employes all banded into one big organization and working as a unit, we are in a position to and do furnish the best service.

Sent It "C. O. D."

A subscriber, after putting in a long-distance call, told the operator she wanted the call sent C. O. D. Call was completed O. K., charges reversed.

Address of Theodore N. Vail

At Commencement Exercises of Lyndon Institute and Lyndon School of Agriculture, at Lyndon Center, Vermont, June 18, 1915

To anyone entering upon that struggle of life, in which results depend entirely upon individual effort and accomplishment, from whatever standpoint the entry is made, all necessary or pertinent advice is contained in a few maxims or aphorisms—the precious crystals of the thought and the experience of untold ages.

There can be little or nothing said that is new, for however presented, or in whatever wording, these few crystals give value to the whole.

What I am saying to-day is but a resetting, a rearrangement, of what I have said, what others have said and what all will say on similar occasions to the end of time.

One of these crystallized thoughts that shines out of the darkness and haze of prehistoric times is: Look well to your foundations.

It matters not whether of character, fortune, prestige, position in life, whatever it may be, the foundations must be properly and thoroughly established, that they may and shall support and carry whatever superstructures may be placed upon them.

Thoroughness is the principal quality in the preparation for, and the upbuilding of the superstructure; the corner-stone should be integrity and the binding material should be unimpeachable character. These are essentials in the upbuilding and support of any lasting, desirable and successful career or structure.

A desirable or successful career can only be one which commands the respect and the approbation of the community, and above all the honest internal approbation and respect of each individual. It cannot be measured with the yard stick of material gain or accumulation, but only by the measure of real internal self-satisfaction and the happiness derived from a whole some life and from wholesome living; by doing that which is to be done in the best possible manner; by making the best of everything and turning whatever may come to the best possible advantage.

With honesty of purpose, thorough preparedness, intelligent persistent application, continuity of purpose, in the upbuilding of a career no push or pull is needed except that push and pull which comes from the dynamic force within, and from the inductive force created by it, without.

The idea that in this world there is anything due to anyone without effort is misleading, false and dangerous. There is a living due to everyone in this world, but the collecting must be done by the individual.

Ambition and ambitious effort will not achieve anything beyond that which is due

entirely to the quality and character of the effort put forth, nor will ambition, even when backed by effort, achieve all that is strived for. It never has; it never will. The paths of life are strewn with the wrecks caused by selfish unheeding ambition, for ambition and ambitious desire may degenerate into or become covetousness or selfish desire, and the intoxication of desire, the brilliancy of imagination, or the shadow of envy and covetousness, may make it impossible to see the obstacles which are sure to be met or to clearly appreciate the particular limitations with which nature has, to a greater or less extent, *endowed* every individual. The dangerous obstacles are not the ones which can be foreseen or forecast and prepared for. It is the unknown and unexpected ones that call upon the resources and reserves of strength, will, tenacity and preparation which all who succeed must possess.

Material success alone never brought that reward of unqualified comfort or satisfaction or contentment. Substantial real happiness in life is made up almost entirely of simple things within the reach of everyone; it depends upon the qualities of mind and habits; it comes from the character of the habit of thought, self-created and self-cultivated; from the habit of choosing the best interpretation of act or word; from the habit of making the most of every talent, endowment or opportunity; from making the best of those set-back and retardations in life which could easily be construed or regarded as misfortunes or disasters. While a fool's paradise may not be desirable or advised, yet even that is better than a purgatory created by distorted imagination and delusion, more than it is by misfortune.

Cunning, sharpness, trickery, misleading words or acts in business, are but the substitutes for brute force, the successor of the physical prowess of the medieval baron or the highwayman of all times. When the protection of society made force punishable and the power of the community could enforce the penalty, cunning and stratagem

were substituted, and because cunning and stratagem and tricks can and may be of such an undefinable character as keeps them within the letter of the law, it does not justify the use nor does it entirely avoid a penalty; it is bound to be followed by the loss of self-respect and the respect of the community as well as the material losses which are the inevitable ultimate result of such courses of action.

If there is a question of material gain or of self-respect and neighborly approbation, the latter should always be chosen. The best citizen is one who does his full duty towards himself, his family and the community. A really self-respecting citizen, one who does not delude himself, is always a good one.

We hear much about progressiveness, uplift, and higher ideals. Progressiveness is good when subordinated to conservative common sense and practical initiative, but it must not be overlooked that old methods and old ideas were always founded on existing conditions or on existing necessities, and were the outgrowth of existing possibilities.

Before discarding old ideas or old methods, first ascertain, and ascertain conclusively, whether old conditions and old necessities had changed or ought to be changed, whether new possibilities existed, whether or not the supposed imperfections of the old were caused by improper, unintelligent or ignorant use or operation which could be corrected by intelligent understanding and effort, or whether or not adjustments or modifications instead of radical change and destruction would not accomplish all that could be accomplished or desired. *And above all do not undertake to change undesirable methods that are controlled by undesirable conditions, before changing the conditions. Methods will always be governed by conditions.*

Promises and prophecy as to the advantages and performance of new methods, new ideas, new conditions, new and aspiring individuals, are too often based on imagination rather than experience; their

Stock Statement

Status for Quarter Ending August 31, 1915, of an Account of One Share of Stock Subscribed for Under the Plan to Aid Employees of Bell System to Become Stockholders of American Telephone and Telegraph Company.

1915.	Payments by employé.	Dividends on stock.	Interest on average unpaid balance.	Unpaid balance (end of period).
Previous quarter	.....\$ ...	\$ ...	\$ ...	\$103.06
June	..... 2.00	...	...	101.06
July	..... 2.00	2.00	...	97.06
August	..... 2.00	...	...	.....
This quarter	.....	...	.99	96.05

object is too often immediate recklessness of others. Do not any of you be the reckless one.

Your first and greatest lesson of life has been learned when your individual action is based upon a thorough understanding and recognition of these truths.

War Tax Proves Benefit

The lowly copper cent, a medium of circulation hitherto despised in a large part of the western area of the United States, is finally coming into use. The phenomenon results from an edict of the Federal government, enforced through the agency of the telephone companies.

The Pacific Coast states were settled by the intrepid "Forty-niners" and the Rocky Mountain regions a little later by those hardy emigrants who took for their slogan "Pike's Peak or Bust." In those days money was plentiful and prices high. It is said that for several years a twenty-five cent piece was the smallest coin which had any negotiable value whatever in the West. As conditions more in harmony with the rest of the country gradually established themselves, minor coins came into use. In some communities, however, particularly in the mining districts, the copper cent has never become popular, the lowest coin of general circulation being the nickel.

Now comes the European War and the resultant revenue law passed in Washington, which provides for a tax of one cent on each telephone message costing fifteen cents or over, to be paid by the user.

We have had the privilege of examining some reports on the operation of the law in some of these "penniless" districts, from which it appears that the use of the copper cent, now imperative at public telephone stations, is spreading to other lines of business. The effect of this is obviously important as it might logically bring about a readjustment of values of small articles of merchandise of all descriptions.

The manager for the Colorado Telephone Company in the Leadville District reports that one-cent peices are very scarce in every town in that district, having been kept for many years as souvenirs, "hung around the baby's neck with a string or kept as relics of penny-ante days in the East." However, the manager says, people are now beginning to carry pennies for their use and convenience rather than for their value—to drop in the slot at the pay station. When the law first went into effect many who talked at pay stations would put in a nickel instead of a cent. At Central offices many would refuse the coppers offered them in change and look at them with suspicion or curiosity. Now, however, they seem to be getting reconciled and take the pennies with a prayer that the war may end soon.

While the coppers are thus becoming more plentiful in people's pockets they are not yet accepted by the banks for deposit and bankers are said to look forward with

displeasure to the time when necessity will compel them to do so.

Traveling men and others who make regular use of pay stations are now usually supplied with pennies and no further difficulty is experienced.

Taxes are looked upon by the average person as a necessary evil, but in these western districts the war tax on telephone messages may prove to be a blessing in disguise. If an article is worth intrinsically only one or two cents and is sold for five cents because the nickel is the smallest unit of circulating medium, then any circumstance which introduces into use a smaller and more exact unit may be considered fortunate.

Your Telephone Voice

"There is more than one imagines in 'the telephone voice,'" said Edward Lyons, desk sergeant on the morning shift of the police department. "Despite the fact that I work from 11 o'clock at night until 7 in the morning, I am almost constantly using the telephone, and it is surprising how few people have a pleasing voice over the wire.

"I find the tendency of the majority of men when talking over the telephone is to speak too loudly and too fast. When one talks to perhaps 150 men in one night he is very apt to finish with a splitting headache. Then there are the men who go to the opposite extreme and mumble their words, sounding as if they were half a block from the transmitter. This type forces a man to strain himself to understand what he is saying and also induces headache.

"Most women when speaking over the telephone talk through their nose, rolling their 'r's' with great relish. They have a habit of putting their mouth fairly into the transmitter, sending over the wire a sound like roaring water. When a woman has a good 'telephone voice' it is a joy to listen to her talk.

"I should think it would be profitable for telephone companies to pay some attention to this feature in considering applicants for positions. A telephone operator can make me sore just by the way she says 'Number?' or by telling me the line is busy. Others say 'Busy' in a regretful tone, which makes you sure that they are as sorry as you are and are not telling you 'Busy' just for spite."—*Birmingham Age-Herald*.

Things They Ask

The following are a few of the unusual requests received by the Dayton (Ohio) information operator:

"Can you tell me which direction to go to get a car to Edgemont and what direction the right car will be going?"

"Who was the admiral who took the Battleship Oregon around Cape Horn during the Spanish-American War?"

"Is it too cold to set a hen today?"

"What would be the quickest route to get to Phoneton by driving?"

Debate in Verse

Find the number that you wish,
Call it very plain;
And if "Central" is asleep,
Try it yet again.

Here's a bit of good advice:
When you're at the 'phone,
Know the number that you want,
And don't forget your own.

Emma E. Koehler, a poet of Chicago, is author of the above lines. They adorn a beautiful "Hello Card" which Miss Koehler published. This card is intended as a memorandum of important telephone numbers.

A copy of the card came to the attention of Vice President H. F. Hill, who, half in jest and half in earnest, wrote to Miss Koehler protesting that the expression "if Central is asleep," is hardly fair to the girls. "Central," he wrote, "is never asleep; she is always 'on the job,' twenty-four hours every day of the week, ready and willing to attend to the wants of telephone customers." Mr. Hill suggested the following lines as a substitute:

And if your party's line is busy,
Try it yet again.

Miss Koehler replied that she had written the lines as a jest, her reference to central as "asleep" meaning lack of response for any reason. To make amends she wrote the following:

To Our Telephone Girls.

The 'phone girls are a wondrous class,
And useful every way;
The world would falter in its course
If they should miss a day.

The banks and stores would limp along,
If 'phone girls all resigned;
And groc'ries would not reach the cook,
With food of every kind.

They talk, and think, and understand,
And help all helpless folk;
And if their service chanced to stop,
All business would go broke.

Society must make its dates,
And preachers see the sick,
And every one on earth is blessed
Because the girls are quick.

When citizens are sound asleep,
The girls are at their post;
No soldier on the battlefield
Can of more courage boast.

They're simply indispensable;
They're bright, obliging, true;
To sum it up we simply say:
We can't without them do.

Remarkable Discovery of Thomas Edison, Jr.

Recently, while one of the repairmen at Hammond, Ind., was working on a pole, clearing a case of trouble, it so happened, that nearby, cablemen were working in a vault. After the repairman had descended, a little boy, in a very serious tone of voice said, "Mister, you know why your telephone won't work? I do. Some wire nippers are over here in a hole skinning some wire that I'll bet they got from that pole."



Safety First and Accident Prevention



SAFETY FIRST! THERE'S
NOTHING JUST AS GOOD

WHEN HURRY INTERFERES WITH
SAFETY, CUT OUT THE HURRY

THINK OF YOURSELF AND THE DOC-
TOR WON'T HAVE TO THINK OF YOU

Did you ever hear a man say, "It can't be done?" That statement probably has been made from the beginning of the world and it is being disproved every day. In our own line of work, it was repeatedly said that it would be impossible to talk over a wire; to make the telephone a success. We all know the outcome. The same condition exists in safety work to-day. Accidents can be prevented and the personal experience of men engaged in various lines of work and the records of large corporations prove it beyond all question. The one indispensable factor in accident prevention is the man, and although most men are quick to see the possibility of an accident to another they apparently close their eyes and take unnecessary chances themselves. No man may feel free to depend upon anyone but himself to preserve his personal safety and well-being. It has been said that Providence watches over children and fools, but none of us would willingly come under either classification and so each one must use the training he has acquired and the good sense with which he is endowed. *Help yourself to safety.*

From time to time unusual accidents are reported; accidents that do not seem to come within the ordinary rules; accidents which at first thought it seems are impossible to prevent. But the only accidents which can be truly said to be impossible of prevention are those which may be classified as due to acts of God. Some of these even, if the matter is traced down to its source, may be found to be of the kind that would not have happened or would have been much less serious in character had proper precautions been taken.

Accidents occurring to employes of the Wisconsin Telephone Company that are

somewhat unusual in character, are quoted and analyzed.

A groundman at Milwaukee was assisting in unloading a reel of cable from a wagon. The foreman placed a cross-arm on the ground so that the reel would be stopped by it and not strike a building. Upon hitting the cross-arm, the reel rolled

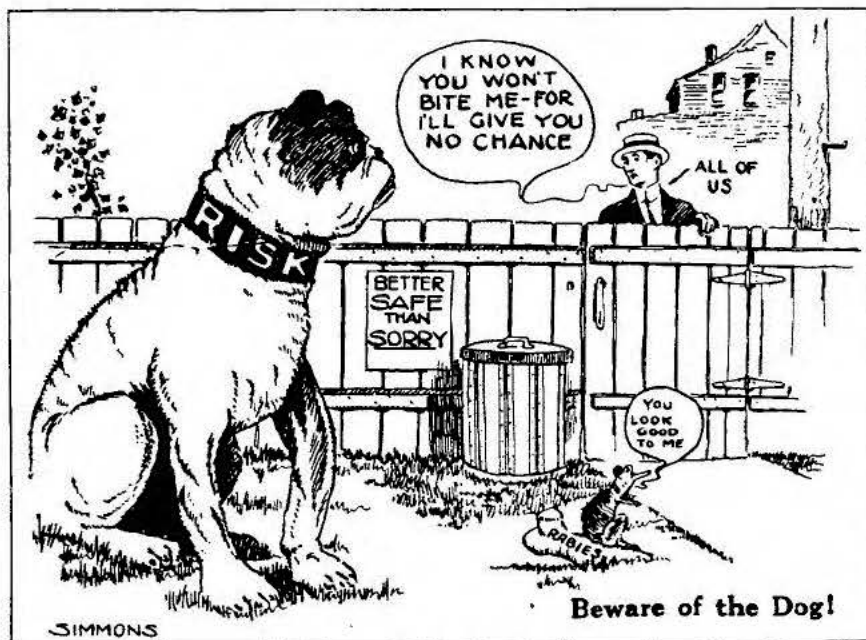
was a repairman at Milwaukee, who was assisting in re-running a drop wire through a tree. To do this, he climbed up into the tree and there leaned against a limb, which broke suddenly. Whenever it is necessary to climb a tree to trim it or do work of any kind, we must make sure that the limb on which we are standing or against which

we are leaning is strong enough to hold us up. It is always possible to test a limb in some way if it is apparently large enough and strong enough for support.

A painter in Milwaukee was cleaning paint brushes with turpentine. After he had finished, he began to whip out the brushes, when the turpentine still on them was ignited by a near-by fire. It would seem that any painter should know that painting materials are very inflammable and that paint brushes should not be handled near a flame.

Good housekeeping or orderly methods of working were involved in an accident which occurred to an installer in Milwaukee, who was re-running an inside wire in a department store. While so doing his right hand came in contact with an upturned tack that was lying on a shelf. The result was a wound in the back of his right hand. It is one of the first rules that we must see that all tools and material are properly located before starting work and that the place at which the work is to be done is clear.

The same rule would have prevented an accident to a carpenter in Milwaukee, who was repairing the floor when the hammer which he was using struck a desk and glanced off, striking him on the arm. In this case but a slight injury resulted, which, however, could readily have been avoided if the carpenter had secured a clear space in which to work before starting.



back and caught the groundman between the wagon and the reel, inflicting a severe contusion on his left leg. The injured employe was disabled for seven days. In this case, the man in charge of the work satisfied himself that proper precautions had been taken to prevent injury, but he overlooked the fact that the reel was not under full control and that the impetus given it in rolling from the wagon was great enough to cause it to rebound when it hit an obstruction.

A case of a different sort was reported by a repairman at Burlington, who was carrying wire up a pole when the free end of the wire entered his right ear, puncturing the ear drum. The safe way in this case would have been to climb the pole first and haul the end of the wire up with a rope.

A man up a tree forgot where he was and fell twenty feet to the ground. He

The use of proper tools would prevent many accidents, most of them minor but all of them causing pain and discomfort to the injured person. As an instance of this, a groundman used a cant hook in place of a tamping bar when tamping the ground around a pole that had just been set. The hook of the cant-hook flew back, striking him in the back of his right hand and inflicting a severe wound. In this case, of course, the proper tool was a tamping bar. No doubt the employé could have held the cant-hook in such a way that the hook would not have injured him, but excepting only in emergencies, there should be no excuse for not using the proper tool.

Hot solder will spread in an explosive manner if water or any substance wet with water is introduced into it. This was proved to the satisfaction of a frameman, who was burned when he added wet solder to a pot of melted metal. Steam formed instantly, causing an explosion, and the hot metal struck and burned the frameman's face.

A similar accident occurred to an employé of the Cleveland Telephone Company. He was working in the basement of an apartment house, heating solder to get it ready for another employé to wipe joints. He found he had too much solder in the pan and started to pour some off into a damp pan. As soon as the solder struck the damp pan, it exploded and flashed into his face, burning one of his eyelids. In this case, the quantity of solder in the pan should have been seen before it was heated and if this was overlooked the employé should have made sure that the receptacle into which he proposed to put the excess solder was perfectly dry before he started to pour.

During the month of April, employés of the Chicago Telephone Company figured in accidents, all of which are somewhat unusual and all of which could have been avoided by the use of ordinary care.

An employé of the Central Construction Division was attempting to adjust the water supply in a flush tank and stood on a toilet paper holder to reach the tank. His foot slipped and he fell, bruising his left leg. Toilet paper holders are usually of polished metal and naturally slippery,

which makes them poor substitutes for step-ladders.

A collector called at a subscriber's residence but did not get any response when he rang the front door bell. Ignoring the sign reading "Beware of Dog," he went around to the rear. The dog ran out and bit him. The "Beware of Dog" sign in itself should have been a warning. One of our old experienced employés has made it a rule for a number of years to ask about the dog the first thing when entering a subscriber's premises and if there is one he requests that it be locked up until he is through with his work. He has never been bitten by a dog, nor have his movements been hampered by a dog.

We all know that it is dangerous to allow tools or equipment too near the edge

Safety First

As we journey through life let us "live" by the way,
A saying of old that applies well to-day.
There is nothing so sweet as life after all,
So why take the chances that hasten "your call?"

You often save time by the "short cuts" you take,
But whenever you do your life is at stake;
For the time that you save would never repay
For the time you will lose if you "slip" on the way.

Very often the safety of others depends
On the judgment you use—it may be a friend;

Or the loved ones at home, remember them, too.
Their future depends on the things that you do.

And this is a pretty good world after all,
There are times when our spirits may crumble and fall,
But there's never a time through the night or the day
When the chances we take are worth what we pay.

The "Safety First" way may seem longer and slow,
But it leads you past dangers you never may know.
So "now" is the time to look well ahead,
"Safety First" cannot help you after you're dead.

—C. J. Byrne, in *Railroad Man's Magazine*.

DON'TS

For the Man Who Would Be Safe.

- DON'T think of anything but the work in hand.
- DON'T try to show off or play practical jokes, for in doing so you may injure yourself or others.
- DON'T swear or lose your temper when things don't go just right.
- DON'T fail to wear your goggles when drilling, chipping or grinding, or wherever there are flying particles.
- DON'T forget when you are on a job that the safety of others is just as important as your own.
- DON'T neglect your own work to watch your neighbor's.
- DON'T let your shirt sleeves hang loose or have your coat unbuttoned when working. They might catch in something and cause a fall.
- DON'T throw matches or greasy waste on the floor or scatter solder around. A dirty worker is a clumsy worker and is always a serious menace to others.
- DON'T handle or interfere with switches, motors or cables, or with anything you are told is dangerous, that is not part of your work.

REMEMBER that in safety work, as in everything else,
ACTIONS SPEAK LOUDER THAN WORDS.

of open vaults. A cable splicer was seriously burned when his helper placed a paraffine pot and furnace near the edge of a vault. The paraffine was melted and a gust of wind blew it over with the result that it splashed down into the vault, striking the cable splicer.

Another splicer was working in a vault when a cable bender was accidentally kicked into it, striking him on the head.

It will be noted that men are about the same, no matter where they work: *Your* careless habits and moments of forgetfulness are dangerous things. If you have not been injured by them, you still "have it coming to you" and in addition to that you are a menace to your fellow workmen. Forewarned is forearmed. *GET IN LINE.*

Invalid Makes Living by Telephone

A subscriber of the Central Union Telephone Company in Quincy, Ill., who has been an invalid for years and unable to leave his home, is making a good living, and has established quite a business, conducted entirely by telephone, doing all his soliciting and selling by wire. He handles household specialties exclusively, and is acquainted with almost every residence subscriber in Quincy. He makes a systematic canvass by telephone.

Operator Was Good Interpreter

Operator: "Number, please?"
Subscriber: "One dry, one dry, R."
Operator repeated one three, one three
R. She guessed correctly.

Responsibility of Individual Employes

By THEODORE N. VAIL

A Talk Before the Telephone Society of
Jacksonville, Fla.

(Reprinted from Southern Telephone News)

As I have been traveling through the South, stopping here and there, and using the telephone to some extent, it has occurred to me that there were some wrong ideas in our heads; I mean we who are up here, not you. A good many people connected and not connected with the business have an idea that Mr. Thorp, Mr. Boyd, Mr. Laird, Mr. Brown, Mr. Gentry, Mr. Bethel, Mr. Thayer, Mr. Carty or Mr. Vail made the telephone company, but I begin to realize that it is none of us; it is the instrument man, the local manager, the trouble man, the solicitor and particularly the operator and the man who adjusts the mistakes and collects the bills, and we might include your district officials like Mr. Boyd and Mr. Laird.

It is you who come in contact with the public that make or break the reputation of the company and are the ones who *cultivate, care for and grow all the laurels* that rest on the heads of our Atlanta or New York officials.

Do you realize what a great responsibility rests on your shoulders?

A short, crusty remark or answer may make an enemy, or at least start a grouch against the company. A dispute about a trifling mistake or error may change opinion and start a movement that years cannot overcome.

If the complainant is right he is entitled to considerate treatment. The less a complainant has right on his side the less he likes to be convinced of it. If he is wrong he will see it for himself, give him the chance, and do not intensify his belief in his wrongs by contradiction.

We Are the Patron's Employé.

When anyone picks up a telephone, you, at the other end of the wire, become for the moment his employé just as much as if you were in his office and on his pay roll. You are at a disadvantage over his other employés in that you are invisible and out of personal touch. You are apt not to receive the same consideration as their own personal paid employés in personal touch even from the most considerate user of the telephone. Another disadvantage is, your service is never called for except when some one wants something, wants it quick and generally wants it bad; seconds are minutes and minutes hours to those who wait. It is therefore incumbent upon all those at your end of the wire to be in voice and speech and action mild, considerate and complaisant. It helps you with your customers, it helps you with the company, and above all it helps you more with yourself.

Remember always what helps the company helps you. For good service rendered in a pleasant, agreeable and helpful way, the public will be willing to give such remuneration as will enable the company to prosper and to give you steady employment, better wages and pleasanter surroundings and opportunity.

Always remember, when you think your work is hard and constant and vexatious, that if it were not for all these features there would be no employment, and as ninety-five per cent. of the people in this world have to do some sort of work for a livelihood, and ninety-five per cent. of those have to employ their hands in the work, we all should be thankful that someone, even if they are exacting, makes employment for us.

With one word more I stop—and that is this, to those of you who work with your hands, cultivate and bring your brains into close and controlling relations with your hands, and to the extent that you do this, to that extent you can do more for the public, for the company and for yourself.

Why Do I Laugh?

By GEORGE McNICHOLS,
Accounting Department, Chicago.

When Eugene Field was running a "column" in a Chicago newspaper someone sent him a poem entitled "Why Do I Live?" Field returned it with the endorsement, "Because you mailed your poem." To answer the title question of this article with "Because it's funny," would beg the further question, "Why is it funny?" Is there, for example, something intrinsically laughable about a fat man, or is a woman making love to the man of her choice essentially a comic theme? Why does a certain sequence of words turn the corners of some mouths up and others down—for the same occurrence will move one to laughter and another to tears?

Wit, which is of words, differs from humor, which is of ideas, we are told, and both are to be distinguished from satire. Then there are clowning, pantomime, funny situations, etc., but all depend for the laugh on the possession of a sense of humor in the hearer or beholder, so our inquiry leads us to a resolving of this sense of humor into its constituent elements.

Everyone, even an Englishman, is ready to affirm that he possesses a sense of humor though he may repress it at times. In one of Barrie's plays, the hero, John Shand, boasts that he has never laughed in his life, although he admits that he possesses the faculty of humor. And he tells Maggie Eyrie that he has read somewhere, or someone told him, that it took an operation to get a joke into a Scotchman's head. What beat him, he said, was to see how you could get a joke into a man's head by an operation.

A sense of humor consists of sophistication, real or fancied, plus a pronounced point of view. We must have a knowledge of the proper sequence or congruity of events and recognize instantly and involuntarily when thoughts, words or actions depart from the order we have accepted. When a friend has been induced to call "Lawndale 2166" and ask for "Mr. Barker," we must be aware that "Lawndale 2166" is the dog pound, or there is no laugh. Then we must decide whether the situation is sufficiently incongruous to lift it out of the merely trivial and justify the laugh. It has been hinted in some quarters that woman's failure to laugh is not due to her lack of sophistication, but to the feebleness of her viewpoint. She is not entirely certain of her knowledge until someone else laughs first.

Would you acquire a sense of humor, or improve the one you have? Then take a disinterested appraisal of your own worth and works and come to a realization of their relative insignificance in the general scheme of things. Look at yourself and your affairs with sufficient perspective and above all remember how very, very few things are really serious. Next, cultivate a habit of looking for and enjoying the humorous things in your experiences.

What a weapon is laughter, both for offense and defense! Frederick the Great "Standing unafraid against a world at arms" trembled at the satire of the frail, effeminate Voltaire. A gale of laughter will blow away the clouds of almost any difficulty. And how a laugh will protect you against the uncivil, the thoughtless, the malicious—"there isn't a sting that won't take wing when we've faced it and laughed it away."

We can give life a new zest, smooth life's rough places, and serve our company better if, as one of his biographers says of Lincoln, "we have little rills of humor trickling down from the Alpine heights of our greatness."

The Smiling Operator

"The smiling operator is the ideal operator," according to Kate Coleman, chief operator at Murfreesboro, Tenn.

The reference to smiling has often been applied only to the facial expression, but in the case of the telephone operator it is the voice that must carry the smile. Unfortunately our subscribers cannot see the operator at her work, but a bright, cheerful voice gives a mental vision of a smiling, happy girl, anxious to render efficient service.

From this has evolved the slogan, "The voice with the smile wins." It is as true as it is attractive and is as successful in all other lines of endeavor as in telephone operating.—*Southern Telephone News.*

Grind From Grand Rapids

Operator: "I can't hear you lady."

Subscriber: "Look me over again, I am a full grown man."

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Baseball at Cleveland

The two baseball teams of the Cleveland Telephone Company have been making an enviable reputation on the diamonds and the baseball committee of the company and also the fans are well pleased with the showing made. On Saturday afternoon, July 10th, the Saturday team, managed by Mr. Gafney, played the Medina baseball team on the Medina grounds and carried off the honors with a score of 10 to 5. The Sunday morning team in the Sixth City League, under the management of Mr. Trunbull, has lost only one game out of seven played up to date. Each member of both teams is in the employ of the company, no outside talent being used.

The players who have signed contracts for this season are as follows: William Austin, Thos. J. Dougherty, William Finke, J. J. Gaffney, William Gimbel, David L. Hoben, J. F. Hrubec, Fred Korabek, Barth Koterba, P. R. Martz, Leslie J. O'Neill, C. Perkins, Emory C. Pruckler, T. F. Reilly, P. F. Skelly, Carroll L. Slaker, Joseph Sutton, J. L. Tierney, Shuble L. Brown, Guy Hecker.

Results at Rock Island

The Central Union Telephone Company's

team in the Rock Island City League played the first game of the season at Exposition Park, June 5th, with the Rock Island Plow Company. The Rock Island Plows defeated the Central Union team to the tune of 13 to 5. Vermillion, pitcher for the Central Union team, allowed nine hits, while Wilson of the Plow Company allowed the same number. The feature of the game was a fast double play from Vermillion to Ellinghouse.

The second game of the season was played at the Watch Tower Park, with the Modern Woodmen. The Woodmen defeated the Central Union telephone team, score being 7 to 6, Pitcher Wilson of the Central Union team and Phillips of the Woodmen team allowing six hits each. The scoring was done practically on errors, as the Central Union boys allowed twelve errors, while the opponents gave only seven.

In the third game the Central Union telephone team was again defeated by the Oil Cloth Company team at the Rock Island City League Park, the score being 9 to 5, in favor of the Oil Cloths. The game was played during a very heavy rain and was very loosely conducted. No features except rain.

In the fourth game the boys were more fortunate as well as more skillful. They

trounced the Rock Island Manufacturing club, 14 to 1. H. Hanson, the Central Union hurler, allowed the Manufacturers but three well scattered hits, while Wright, hurler for the west end aggregation, was hit hard in the sixth, seventh, eighth and ninth innings for a total of eleven hits. Costly errors, eight in number, on the part of the Manufacturing team practically gave the game to the Central Unions. Hanson retired twelve men by the "whiff" route, while Wright fanned six Central Union players.

Score by innings:
 C. U. Tel. Co. 0 0 0 1 0 4 3 3 3—14 11 1
 R. I. Mfg. Co. 0 0 1 0 0 0 0 0 0—1 3 8
 Summary: Two-base hits—McQuaid and Newcomb. Three-base hit—Ellinghouse. Stolen bases—C. U. Tel. Co., 3; R. I. Mfg. Co., 3. Double play—Abbott to Newcomb. Bases on balls—Off Hanson, 1; off Wright, 6. Struck out—By Hanson, 12; by Wright, 6.

The fifth and sixth games, played July 3rd, were written up as follows in the *Daily Union*:

"The double-header at the Exposition Park between the Cross Country and Central Union Telephone Company, was divided, the former taking first game, by the score of 11 to 4, while the latter won the second contest by a count of 8 to 2.

First game— R. H. E.
 C. U. Tel. 0 4 0 0 0 0 0 0—4 2 4
 Cross Country 1 9 0 0 2 0 1 0—11 7 1
 Summary: Two-base hits—Francks, 1; Lorenzen, 1. Stolen bases—Newcomb, 2; Littig, 1; Baumbach, 2; Lightner, 1; Larson, 1. Double plays—Newcomb to Schultze; Abbott to Newcomb to



BELL TELEPHONE CLUB, SIXTH CITY LEAGUE, CLEVELAND.

Standing, left to right—Korabek, Phillips, Tierney, Weigle, Trunbull, Gafney, Gimbel, Folsom.
 Kneeling—Hrubec, Dougherty, Hoben, O'Neill.
 Sitting—Martz, Hecker, Pruckler, Somnia, Brown, Kelly, Slaker.

Schultze. Bases on balls—Off Hanson, 1; off Lightner, 3. Wild pitches—Lightner, 2. Passed balls—C. U. Tel. Co., 2; Cross Country, 2. Struck out—By Hanson, 9; by Lightner, 10. Umpire—Stanley Taber. Scorer—Lampmann.

Second game—		R. H. E.	
C. U. Tel. Co.	2	2	4-8 5 2
Cross Country	0	1	0-2 2 2

Game called in fourth inning on account of darkness.

Summary: Two-base hits—Murphy and Ellinghouse. Stolen bases—Baumbach, 2; Francks, 1; Murphy, 1; Ellinghouse, 1; Geiger, 1; Wilhite, 1. Bases on balls—Off Wilhite, 1; off Lightner, 5; off Larson, 3. Struck out—By Lightner, 2. Umpire—Stanley Taber. Scorer—Lampmann.

Standing in the City League at the present writing follows:

	Won.	Lost.	Pct.
R. I. Plow Co.	5	1	.833
Oil Cloth Co.	4	2	.667
R. I. Mfg. Co.	4	2	.667
Central Union	2	4	.333
Cross Country	2	4	.333
Modern Woodmen	1	5	.167

Indoor Ball at Milwaukee

In a game of indoor baseball the Auditors at Milwaukee, captained by W. Clasen, defeated Herman Kroening's Plant Accountants by a score of ten to nine at Sheridan Park, on Saturday, June 26th.

Schwesinger, the demon addressograph pilot, was the individual star, his brilliant performance cutting off several runs on the Accountants.

The Auditors have been unable to convince Schwartzbeck that the right fielder plays back of first base.

Detroit Traffic Games

The Detroit Hickory operators defeated the Main team on the day of the Telephone Society Excursion. The game was extremely close all the way and was very well played. The fielding of the Hickory girls was exceedingly good, three very good catches of fly-balls being made, two by Miss Renslow and one by Miss Hungerford. Three-base hits by Miss I. McKinney and Miss Hungerford were features of the game. After Miss McKinney had tied the score in the beginning of the seventh inning by stealing home, Miss Hungerford made the winning run for the Hickory. The fourth ball pitched to Miss Fenchet went wild and enabled Miss Hungerford to score. The score follows:

MAIN.		A.B.R.H.T.B.P.O.A.				
Miss Hoffman, 2b.	3	0	0	0	0	0
Miss Deslongchamps, 1b.	2	1	0	0	8	0
Miss F. McKinney, p.	3	0	0	0	2	8
Miss I. McKinney, c.	3	3	1	3	7	0
Miss Murphy, lf.	3	0	0	0	0	0
Miss Sieber, ss.	3	0	2	2	1	0
Miss Artis, 3b.	3	0	0	0	1	0
Miss Merritt, rf.	3	0	0	0	0	1
Miss Decker, cf.	2	0	0	0	0	0
	25	4	3	5	19	9
HICKORY.		A.B.R.H.T.B.P.O.A.				
Miss Le Fevre, p.	4	1	1	1	3	3
Miss Hungerford, 1b.	4	2	2	4	6	0
Miss Feucht, lf.	3	0	0	0	0	0
Miss Goethals, ss.	3	0	1	1	0	0
Miss Fisher, cf.	3	0	0	0	0	0
Miss Renslow, 2b.	3	1	1	1	2	0
Miss Pascoe, rf.	3	0	1	1	0	0
Miss Stotz, 3b.	2	1	0	0	1	0
Miss Burkhardt, c.	3	0	1	1	9	1
	28	5	7	9	21	4

*One out when winning run was made.
Main 2 0 0 1 0 0 1-4
Hickory 0 0 3 1 0 0 1-5
Errors—Hickory, 1; Main, 2. Three-base hits—Miss I. McKinney, Miss Hungerford. Struck out—By Miss F. McKinney, 7; by Miss Le Fevre, 0. Bases on balls—By Miss Le Fevre, 1; by Miss F. McKinney, 2. Stolen bases—Hickory, 8; Main, 3. Double play—Miss Le Fevre to Miss Burkhardt to Miss Stotz.

The Hemlock girls opened their season by defeating the Long-Distance girls 10 to 8 at Bob-Lo on July 10th. Heavy hitting featured the game.

The Walnut and Cadillac operators' teams opened up the Telephone Society excursion on the morning of July 10th in an interesting game. Walnut won by a score of 12 to 10, due chiefly to a heavy lead which they secured in the first two innings, as Cadillac was very unsteady. Walnut got five runs the first inning with the aid of two bases on balls and four errors by the Cadillac girls. Later in the game the Cadillac girls settled down and were giving the Walnut girls a good race when the game ended. The batting of Miss Grulke of Cadillac was a feature. Her home run with the bases filled in the sixth inning nearly tied the game. The Walnut girls excelled at running bases but their fielding at times was rather ragged as they let many Cadillac girls get on bases by endeavoring to catch a runner already on base instead of playing for first. The Cadillac team with a little more practice will probably prove to be a big factor in the operators' games.

Suburban Bowlers Elect

At a meeting of representatives from the several teams in the Chicago Outlaw Bowling League on July 7th the following officers were elected: President, J. Vraneck, Suburban Plant; vice-president, H. B. Gates, district manager, Evanston; secretary, E. Vermilyea, Suburban traffic; treasurer, E. B. Scott, Suburban commercial.

By common consent it was agreed that the 1915-16 season should open early in October and that the games should be played at Bensinger's Alleys on Tuesday nights. There will be eight teams in the league next season, each of which will be composed of seven members. New rules and regulations will be formulated by a committee.

President Vraneck appointed the following arrangement committee: E. B. Scott, Chairman; R. J. Ardiff, H. W. Bang.

Other committees will be appointed by the president before the meeting to be called about September 1st.

Members of last year's teams are enthusiastic over the coming tournament. Other suburban employes who did not participate last year have forwarded their names as desiring to enter for next season. Following the precedent of last year, there will be neither prizes nor prize money for the winners, inasmuch as the Outlaw League was organized only to promote fellowship and good-will among those who participate.

Inter-Department League, Chicago

The Suburban baseball team in the Inter-department League promises to make a hard fight for first place. Unquestionably the Suburban team is much stronger than

last year and its prowess is shown by its success in winning five out of the first seven games.

Manager Nader is optimistic as to the future and believes he has the strongest team in the league. On July 15th the Suburban boys occupied third place, having climbed from the eighth trench where they started the season.

Twilight League, Springfield

In one of the best games staged since the opening of the Twilight League at Springfield, Ill., this season, the Central Union Telephone Company on June 19th defeated the High School by a score of 4 to 3. The game was won in the last inning after having been in doubt all through. Jones pitched a masterly game in the pinches, striking out ten men and allowing five hits. Janssen also pitched a good game, striking out five men and allowing six hits, three of which came in the last inning.

The scoring began in the first inning when Barbour, first man up for the "Hellos," walked, went to second on Fallis' bad throw, stole third and scored on an error by Adams. Another was added in the third when Lumsden hit safely over third base, went to second and third on a wild pitch and scored on Jones' timely hit over first base. In the fourth inning the Students came up determinedly, and Freidmeyer walked, stole second and scored on Bullough's error. They also added two in the fifth on hits by Ferriera and Rieffler and an error by New.

In the seventh inning, with the score three to two against them, the "Hellos" came in, and with one down, Decker poled out a single. Bullough was put in to run for him, and succeeded in stealing second and third while Barbour drew a walk, and both men scored on singles by New and Lumsden. The exhibition of base running given by Bullough, who is sarcastically referred to by his teammates as the "hitless wonder," is sufficient almost to elevate him to the class of Collins and Ty Cobb in this department of the game.

CENTRAL UNION.		A.B. R. H. T.B. P.O. A. E.					
Barbour, ss.	2	2	0	1	0	0	0
New, 1b.	4	0	1	4	0	2	0
Lumsden, c.	3	1	2	10	2	0	0
Jones, p.	3	0	1	2	3	0	0
Kane, 2b.	3	0	0	1	1	0	0
Bullough, 3b.	3	0	0	3	0	1	0
Moore, cf.	2	0	0	0	1	0	0
Sawtelle, lf.	3	0	0	0	0	0	0
Decker, rf.	3	1	2	0	0	0	0
Totals	26	4	6	21	7	3	0
HIGH SCHOOL.		A.B. R. H. T.B. P.O. A. E.					
Ferriera, ss.	3	1	1	2	2	1	0
Rieffler, 3b.	3	1	1	0	0	0	0
Sherman, 2b.	3	0	1	0	3	0	0
Freidmeyer, rf.	2	1	0	1	0	0	0
Janssen, p.	3	0	0	0	3	1	0
Fallis, c.	2	0	1	5	0	0	0
Adams, 1b.	2	0	0	6	0	1	0
Hilton, 1b.	1	0	0	2	0	0	0
De Sousa, cf.	2	0	1	0	0	0	0
Reaveley, ss.	2	0	0	3	0	0	0
Totals	23	3	5	19	8	3	0

Score by innings: R. H. E.
Central Union..... 1 0 1 0 0 0 2-4 6 3
High School..... 0 0 0 1 2 0 0-3 5 3
Summary: Double plays—Jones to Kane; Lumsden to Bullough. Struck out—By Jones, 10; by Janssen, 5. Bases on balls—Off Jones, 4; off Janssen, 3. Hit by pitcher—Reaveley. Time of game—1:15. Umpire—Donovan. Scorer—Livingstone.

Borrowing Money

The letter which follows, while written by a policeman to fellow officers and published in the *Police Bulletin* of the city of New York, contains such a vital message to all men who work on salary, that we give it space in full:

"To the Editor of *The Bulletin*:

"If you think a little advice from a cop who has been in debt most of his life and who has gotten out of the rut by determination would be of any benefit to the rest of the Force, I hope you will print these 'Don'ts':

"Don't try to live above your means. There is no use trying to throw a bluff by wearing diamonds and swell clothes; anybody who knows you knows what you are, and those who don't know you don't care.

"Don't try to indulge a champagne taste on the beer income of a cop. Necessities and luxuries can be purchased through a wide range of prices. Be sensible in spending, and

"Don't spend all of your salary.

"Don't try to compete with some family with twice your income. You may be getting more out of life on your salary than they are on their income. Comfort and happiness are conditions, and are not bettered by the display of things money can buy.

"Don't think that credit is a blessing—it's a curse to a man on a salary.

"Don't be afraid to cut down on your expenses if misfortune plunges you into debt. It can be done easier than you believe.

"Don't let your wife and family do all the economizing. Curtail your own expenses.

"Don't write or telephone a creditor when you cannot meet a payment. Go and see him and explain the situation, and you will generally find that you will be thought more of.

"He who buys what he does not need, will oftentimes need what he cannot buy."

"Respectfully,

"A FREE COP."

Pan-American Delegates Entertained

A number of the South American delegates to the Pan-American Financial Conference recently held at Washington, together with the consuls at New York of the various South American countries, were entertained by the Western Electric Company at its New York office in the latter part of June.

The delegates, after being met by the company officials, were escorted through the engineering laboratories, where they were shown some experimental work. They were then taken to the Exhibition Room, where they had an opportunity to see and examine the various kinds of apparatus the company manufactures and sells. After partaking of an electrically cooked luncheon the party talked on the

transcontinental line with consuls at San Francisco, through the courtesy of the American Telephone and Telegraph Company. The guests were visibly impressed by their experience and expressed their amazement at the enormous progress which has been made in the telephone art.

Those in the party were Dr. Garcia Leao, acting consul general, and three delegates from Brazil; R. Sanches Crux, consul general from Chile; L. Dolz, consul general, and Jose A. Torralbas, delegate, from Cuba; Luis Gil, M. Gonzales, consul general, and two delegates from Costa Rica; F. J. Peynado, delegate, from Dominican Republic; R. Bengocchia, consul general, from Guatemala; J. C. Diaz, Haydee de Portocarrero, Albert Strauss, consul general, and two delegates, from Nicaragua; H. E. Bard, secretary of the Pan-American Society of the United States; one delegate from Panama; W. W. White, consul general, and son, from Paraguay; G. Arbizu, consul general, and two delegates, Dr. Alfonso Quinonez, vice president of San Salvador, and Victor M. Escobar Allunoz, from San Salvador; Mario L. Gil, consul general, from Uruguay; N. Veloz, vice consul general, and two delegates, from Venezuela.

Everybody "Home" to Long Distance

Modern Methods with two large M's constitute the business slogan of the Chain Belt Company, of Milwaukee, Wis.

Under date of July 6th a circular letter went out to chain belt mixer salesmen over the signature of C. F. Messinger. This is the big selling season in this company's business and Mr. Messinger wished to insure that no expedient for developing a full season's business should be neglected. He said:

"There are two big questions that you have to answer right now:

"How to get to prospects from whom you are separated by impassable roads?

"How to get to prospects in out-of-the-way points?

"Long distance is the best solution of these problems.

"Even the best salesman doesn't always get an interview. People are experts at 'dodging.' Competition is keen. Methods of approaching people must be carefully considered. The mails are flooded with circulars and imitation letters.

"Everybody is 'at home' to long distance.

"The telephone is the means of approach that is not overdone. It means business of importance and gets even better attention than a telegram. You talk direct to your prospect—give and receive full explanation—get an answer on the spot.

"You have a lot of prospects right now who are just on the verge of buying. You may be too busy to see them promptly—'phone 'em. Make an appointment if you can't close at once. If you don't get them now, some other fellow will."

Education Via Vacuum Cleaner

A Western Electric vacuum cleaner is in use at Purdue University to help students who wish to earn their own way through college. Some time ago Professor Alford, of the university, who is interested in securing employment for students during their spare time, conceived the idea of purchasing a vacuum cleaner which could be loaned to the students, enabling them to do cleaning work for which the machine is adapted. The plan was approved by the university authorities, and the college Y. M. C. A. purchased one of the smaller sized Western Electric vacuum cleaners from the Indianapolis house.

A letter was sent to the families of the university faculty, announcing that the cleaner was available, with an operator, at thirty cents an hour. Twenty cents of this goes to the student for his services in running the machine, the remaining ten cents going to the association for maintenance of the equipment. By a slight change in the construction of the machine, the outfit at Purdue has been made portable in two parts. The demand for the use of the machine has been steadily growing, and, if it continues at its present rate, will necessitate the purchase of a second machine in the near future. The present cleaner is busy practically all of the time and earns about \$20 a month for the students.

Before sending out the cleaner, Professor Alford requested the department of electrical engineering at the university to test it for current consumption. This was done, and it was found that, at the prevailing price of current at Lafayette, Ind. (where Purdue University is located), the average cost per hour for running the machine is only about three-fourths of a cent.

Telephunnicks

(Clearing a party line of eavesdroppers.)

"That you, Mary?"

"Say, Mary, I've got something I want to tell you before I come home, but I suppose

the three long-eared scandal mongers that help us hold down this party line are listening for all there is—"

"I don't care! I heard 'em take down their receivers as soon as I called in. Let the

old eavesdroppers hang up if—"

"I ain't naming names, Mary! I know 'em—a lot of old tell-tales, gossips and tattlers! I never take down this phone to talk to you that the old tabbies don't glue their elephant ears to their—"

"Aw, nothing like that, Mary! I know 'em! Cackle, cackle, cackle all the time! It's a chit-chat, tittle-tattle, babble, babble—there goes one of 'em! The other two are the worst—there goes another! I—"

"Wait a minute, Mary! If I had as big an ear, and as loud a tongue and as few principles as this—there she goes! Say Mary, I got something great to tell you! I—"*Cleveland Leader.*

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

The Girl Who Is Ready

It is a significant fact that when, through some sudden tragedy, the traffic in the telephone offices, without warning rises like a great tidal wave, the girls show such calmness and poise in meeting the situation that it calls forth the unbounded praise of all who see them. Over and over we hear the managers and chief operators say: "O, our girls are great."

And great they are, and one has not far to look for the reason. *Their training has fitted them for this very hour.* That they are warm hearted and ready to give their utmost help in the hour when disaster comes is not so remarkable for they are just human, kindly girls, but no amount of sympathy could avail at the time of an emergency had they not been preparing by steady daily practice to work calmly, quickly and intelligently.

It has not been mere mechanism that these girls have learned. They have been learning to be self controlled women, ready for life's sudden surprises and emergencies.

The experience that the operator gets is of such value that it would be a splendid asset for every girl to have and would help her in many situations. For through this practice, she gets *herself* in hand. She gains through it, poise and self control.

And so when the sudden call comes to use every cord at her board, or the harder test of delaying calls that cannot be answered because everyone wants the same number, then with splendid self control and intelligent action, she shows what her training has done for her.

"Preparedness" is the great word of late in the newspapers. The girl who is ready is the product of faithful daily work, and her preparation is not only in learning the principles of operating in the school and at the practice board. It is the development of the power she has within herself—the *power of mastery over herself.* And there is no preparedness so worth while as this, for it enables one to meet life's sudden calamities with strength instead of weakness, and instead of confusion and dismay, it helps our girls to lend splendid service where it is most needed.

No one resents, more than the telephone operator, the senseless statements sometimes made by people who do not know, that "frequently the girls throw up their hands, scream and faint at the board."

With a sense of her power and glorying in her opportunity to use it, the girl at the switchboard is never finer than when with perfect self control she meets an unexpected load of traffic. Then, when if ever she would be likely to show lack of power, she reveals the character she is gaining by her daily work.

She is ready, and the public which does

not always understand or appreciate is the gainer because she is not the hysterical girl who shows a lack of training, but the well poised, calm helper, ready to aid the frantic multitudes who turn invariably to the telephone in every disaster.

Discipline in the Operating Room

By W. S. POWELL,
Manager at Stevens Point, Wisconsin

One of the most important features of the telephone business is furnishing service to the public, and to do so the operating force must be proficient, and good discipline in the operating room must be maintained at all times. The operating room must be in charge of a person who understands the kind of discipline to be maintained in an operating room and can enforce it. The discipline in a small exchange should be maintained at as high a standard as in a large exchange. It is often remarked by managers of small exchanges that they are unable to maintain good discipline on account of the exchange being small. Their ideas are wrong, for there is not an exchange too small to have good office discipline. The only thing necessary is to have a competent person in charge.

An operating force requires supervision at all times. Social conversations over the wires between operators and subscribers, "visiting" between operators should not be permitted. If this is permitted, the service becomes slow and unsatisfactory. In a quiet operating room where the operators speak in low tones, they are able to give a good grade of service and wrong-number calls and calls on which the subscriber is required to repeat the number wanted are reduced to a minimum.

Some chief operators overdo discipline by being too severe. This has a tendency to make the operators nervous and more liable to make mistakes. A good word about her work or a pleasant smile from the chief operator will make the operator do better work, and she will do her best to make the service better. To be able to give good service, the chief operator must win the coöperation of her operators and do it from the viewpoint of creating in them a love for their work.

It is to the chief operator's advantage to build up those understudies or substitutes in her organization to fill more important positions. Chief operators, assistant chief operators, supervisors and toll operators should be developed so that when there is a vacancy there is a competent person to take the position.

Informal meetings should be held frequently. At the meetings the operators

should be instructed in regard to the operating methods outlined in the rules and regulations furnished them and a general discussion of all matters pertaining to operating should be carried on, and if every operator puts her shoulder to the wheel and does her best, there is no reason why a good grade of service cannot be furnished the public.

Operator Heroine of Tornado

On the afternoon of May 7, 1915, the business section of the town of Manning, S. C., was struck by a tornado and was entirely destroyed. The operator, Sallie May Sheppard, was alone in the Southern Bell telephone office at the time, and as she was very busy did not see the clouds that had darkened the southwestern sky. Suddenly it grew so dark in the office that Miss Sheppard could not see the face of the clock and she became uneasy and shut down the windows. The tornado burst forth with a fearful roaring, grinding noise, which was impossible to describe. Branches of trees, great pieces of tin roofing and timber went pouring by the windows, then came a terrific crash, when the top of the Home Bank and Trust Company's building toppled over on the telephone office. A stream of water poured down into the office and the operator did not know what to do. She was naturally very much excited, but stuck to her post through it all.

When it was known that Manning had been swept away inquiries came pouring in and the operator was kept busy answering them. The telegraph lines were down and it was necessary for the telegraph company to use the telephone lines to get messages to Sumter. The electric lights were out of commission, and it was necessary for the operator to use a lantern to see how to work. The rain poured in torrents, but with oilcloth spread over the switchboard the operator sat there with her feet in the water and her head under cover until nearly ten o'clock.

Miss Sheppard is truly termed the "heroine of the storm."

Genealogically Speaking

Rural subscriber at Ladysmith, Mich.: "Central, get me Mr. Smith at Ogema."

Operator: "What is your number, please?"

Subscriber: "I'm the fourth in the family."

No Use

"You should have one of these bedroom telephones," said the agent. "No, thank you," replied the housewife. "Neither my husband nor I talk in our sleep."—*Detroit Free Press.*

FOR THE GIRL WHO SEWS

SMART FROCK FOR LATE SUMMER OR EARLY FALL WEAR

There are all sorts of charming materials being offered for the late summer and between-seasons time, but the crêpes, both those of all silk and of silk and wool, are especially attractive. The wide belt is lifted just a little above the normal line and the sleeves with their flaring cuffs and puffs of organdie below are exceedingly dainty and attractive. Made as it is shown here, the dress is an excellent one for all afternoon occasions. The skirt is in two pieces and it and the blouse are

joined by means of a narrow belt, the wide trimming belt being adjusted over it.

For the 16-year size will be needed 6 1/4 yds. of material 27 ins. wide, 5 yds. 36, 4 1/4 yds. 44 with 1/2 yd. of velvet for piping, 3/4 yd. 36 for the under sleeves and 2 yds. of lace 3 1/2 ins. wide for the sleeve frills and the collar, 1 1/2 yds. 27, 1 yd. 36, 3/4 yd. 44, for the band on the skirt.

The pattern No. 8717 is cut in sizes for 16 and 18 years. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon.

BLOUSE MODEL WITH OR WITHOUT FRILLS

This blouse with frills at the front is one of the newest and it is very interesting. It is prettily

and becomingly full and the collar can be adjusted to form an open neck or it can be buttoned up closely, consequently it is an exceptionally available model. Here, it is made of the fashionable organdie and the edges are finished with picot or cut hem-stitching, but the design will be found a good one for crêpe de Chine, for the tub silks, handkerchief lawn, cotton voiles and indeed for almost all waisting materials. If preferred, the frills can be omitted but they make a new feature and a smart one. In the back view, the sleeves are shorter with plain bands.

For the medium size will be required 4 yds. of material 27 ins. wide, 3 1/2 yds. 36, 2 1/2 yds. 44.

The pattern No. 8709 is cut in sizes from 34 to 42 in. bust measure. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon.

NEW COSTUME IN TRUE EMPIRE STYLE

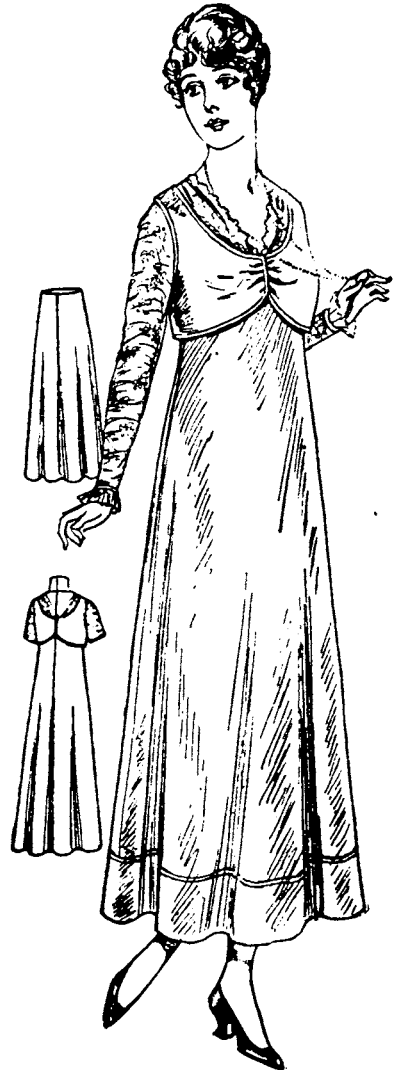
It would be hard to find a more attractive gown than this one. It gives the empire effect at its best, for while the skirt is wider than was that of the empire period, it nevertheless is not exaggeratedly so, and the lines are the prettiest, most attractive, most graceful that could be. The long sleeves of lace are most effective as well as thoroughly comfortable for the warm weather and long sleeves with open necks are delightfully reminiscent. There is a plain flaring skirt that can be made in three pieces, or in four—that is, with or without a seam in front. There is a little body lining to which the sleeves are attached and it can be made with high neck and faced to form a yoke when needed. Also the sleeves can be



8717 Yoke Dress for Misses and Small Women, 16 and 18 years.



8709 Blouse with Frills, 34 to 42 bust.



8636 Empire Gown, 34 to 42 bust.

PATTERN COUPON

Fashion Department, BELL TELEPHONE NEWS,
212 West Washington St., Chicago, Ill.

Enclosed find.....cents in 2-cent stamps for which please send me patterns listed below:

No.....Size.....

No.....Size.....

The price of each pattern shown in this issue, to employes of the Bell System, is six cents when order is accompanied by this coupon. Write name and address, and number and size of patterns plainly. Enclose six cents in 2-cent stamps for each pattern ordered.

Name

Address

City and Town

State

made short. Here the materials are soft, lustrous satin with lace sleeves and lace guimpe portions, but the model is one that can be adapted to many fabrics.

For the medium size will be needed 6¼ yards of material 27 inches wide, 5 yards 36 or 44 inches wide, and 1½ yards 18 for the sleeves, 1¼ yards of lace for the neck drapery, ½ yard 18 for the yoke when high neck is used.

The pattern 8636 is cut in sizes from 34 to 42 inches bust. It will be mailed to any address by the Fashion Department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon.

BECOMING NEGLIGEE, GIRL-LIKE IN ITS LINES

Every girl likes a becoming negligee. Here is a very charming one that is so simple that it can be made in a few hours. The neck can be finished with a frill or with a collar. The body portion and the sleeves are cut in one so there are no sleeves to be fitted and only the under-arm seams to be sewed up; the simple gathered skirt is joined to the body portion, the shirrings and ribbon regulating the size. Nothing could be prettier or daintier and nothing more simple. Lawn and voile, the soft India silks, cotton crêpes, crêpe de Chine and the slightly warmer albatross and challis, all would make charming garments of the sort. In the late summer, mornings and evenings are apt to be cool and albatross is likely to be needed, while it pro-



8724 Empire Negligee for Misses and Small Women, 16 and 18 years.

vides very charming color effects. In the picture, flowered cotton voile is finished with organdie frills and the frills are hemstitched.

For the 16-year size will be required 7 yds. of material 27 ins. wide, 5½ yds. 36 or 44 with ¾ yd. 27 ins. wide for the frills.

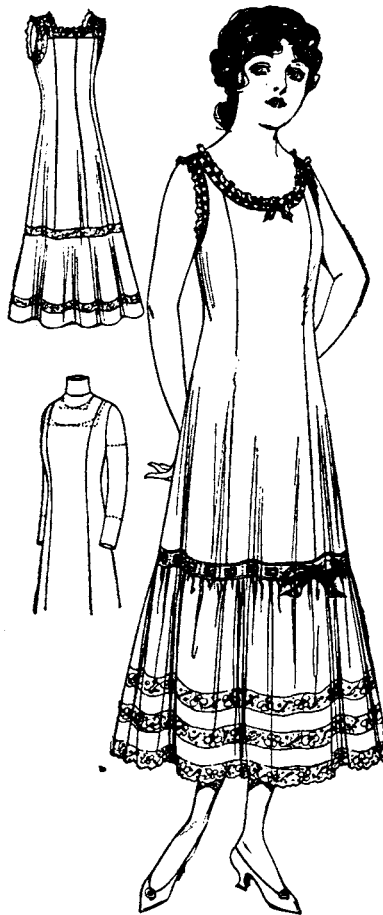
If a shorter garment is wanted, the skirt can be cut off either straight or on pointed lines. For

this shorter length will be needed 3½ yds. of material 27 ins. wide, 3¼ yds. 36 or 44.

The pattern No. 8724 is cut in sizes for 16 and 18 years. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon on this page.

SLIP WITH FLOUNCE GIVING FASHIONABLE FLARE

Here is a new garment that can be used as an under garment only or as a slip to be worn beneath transparent frocks. It is designed for small women as well as for young girls and since the neck edge can be finished on any preferred outline and the slip can be made without sleeves or with sleeves in any desired length, it is adapted to every



8736 Princesse Slip for Misses and Small Women, 16 and 18 years.

need. On the figure, it is made of fine nainsook with a gathered flounce and trimmed with lace. In the back view, it is shown made of soft finished taffeta with a circular flounce. If a more dressy effect were wanted, the silk could be used for the clip with lace for the flounce or net, chiffon or indeed any similar material. Petticoats and slips are to make an important feature of the coming season.

For the 16-year size will be needed 6¼ yds. of material 27 ins. wide, 4¼ yds. 36, 3¾ yds. 44, for the plain slip, with 3 yds. 27, 2½ yds. 36, 1½ yds. 44, for either flounce, 7 yds. of insertion, 4¼ yds. of lace, 2 yds. of wide beading, 1¼ yds. of narrow beading and 2¼ yds. of edging for neck and arm-hole edges to trim as shown in the front view. The width of the slip at the lower edge is 2½ yds. and of the circular flounce, 3 yds. and 6 ins.

The pattern No. 8736 is cut in sizes for 16 and 18 years. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon.

Jane and the Monitor

Jane made mistakes and awful breaks
When no one shadowed her;
'Twere not so rash to miss a flash
Without the monitor.

But now her ear is quick to hear,
Her eye more quick to see,
And in the town, both up and down,
None is more prompt than she.

To all who call, both great and small,
Jane gives attention brisk,
Her answers bright are worded right—
She never takes a risk.

So near and far all comments are
Quite favorable to her.
It's been for Jane a great big gain
To have the monitor.

The above was written by Nelle Saunders, chief operator, and Eleanor Kennedy, clerk, of Springfield, Ohio, commemorating the improved standing of the Springfield office.

A Telephone Courtship

When I wooed Nellie on my knees,
'Twas rather disconcerting
To hear her ask me, "Number, please?"—
Confusion thus averting.

But after I was listed, then
'Twas much a better token
To hear that welcome "Call Again,"
In accent sweetly spoken.

Till, spite of sundry ups and downs,
My courtship proved so hearty,
To Joneses, Smiths and Blacks and Browns
She calmly lisped, "Wrong party."

And when her dad with anxious brow,
Would butt in on our pleasure,
By calm reproof of "Busy now!"
Was how she'd take his measure.

And so we're wed; but 'midst our ease,
She's still as fate designed her;
For, morn and eve, a "Nickel please!"
Is mainly her reminder.

—Judge.

Fashion Notes

At Albion, Mich., the manager recently received a notice that a telephone was dead. The repairman was immediately sent out to breathe life into it. When he arrived on the job, he applied the usual tests known to telephone science, but the instrument refused to come out of its state of coma. Finally the repairman let his "eagle eye" encircle the room. He discovered that about ten feet of the interior wire was missing. The subscriber informed him that the milliner next door needed about ten feet of wire to complete a hat, which the ever-obliging subscriber had supplied.

Brief News Notes from the Field

Items of Interest to Michigan Telephone Employees Gathered from All Parts of the Territory

Julius H. Moeller, Correspondent, Detroit.

James Beamer Dead

JAMES BEAMER died June 19th at his residence in Detroit. Cause of death was uremia.

Mr. Beamer was born January 20, 1846, in Burford Township, Canada. He came to Detroit when he was twenty-one years old and entered the service of the Western Union Telegraph Company in April, 1868, as a lineman, and later became foreman. He left the Western Union Telegraph Company in 1881 and came to the Michigan State Telephone Company in the capacity of foreman of construction work.

In 1886 he was made superintendent of construction and continued as such until 1907 when he was placed on the plant department advisory board. Mr. Beamer was retired on pension in September, 1914.

His efficiency in his work and fitness in every respect led to his advancement during the years he was with this company. In July 1881, Mr. Beamer enjoyed the distinction of supervising the building of the first toll line in Michigan, that being between Detroit and Port Huron, and later on building lines between all important towns in Michigan.

Mr. Beamer was universally esteemed and everyone was his friend. His home life was most pleasant for he was greatly devoted to his family. The sympathy of a wide circle of friends goes out to the home that has been so greatly bereaved. Mr. Beamer is survived by a widow, daughter and son.

P. B. X. Development in Detroit

Among the new private branch exchanges and additional equipment installed or ordered in Detroit during the month of June were the following:

	Trunks	Terminals
McKenzie Apts. (new).....	2	31
Princess Motor Car Co. (new)...	2	6
Topping Sanders Co., ptg. (new)	2	6
Board of Poor Commissioners, hospital, additional.....	4	31
Wagner Baking Co. (new).....	2	7
The Wayne County & Home Savings Bank, additional.....	3	39
		120

The six new private branch exchange contracts obtained during June were secured by Mr. Lockwood.

These new contracts supplied a total of 120 stations for Detroit during June.

Good Service at Lansing

Manager Darling of the Lansing exchange is in receipt of the following letter, congratulating the Lansing traffic department on the class of service that is being given Lansing users of long distance service:

Lansing, Mich., July 16, 1915.

My dear Mr. Darling: The writer has just had the pleasure (note that I say pleasure) of talking over your long distance line. It has long been my intention of writing you a personal note of this kind to congratulate you upon the service rendered by your long distance department, but the matter has been unavoidably neglected.

The writer is obliged to use the long distance telephone a great deal from all parts of the state, and I wish to advise you that nowhere in the state of Michigan do I receive the courtesies and prompt service that I do over your Lansing exchange.

Mr. W. B. Cotton also wishes to join in this letter of congratulation, and we trust that the good work will continue, for it means dollars to us, and time saved and business



JAMES BEAMER.

secured. Thanking you for past favors, we beg to remain,
Yours very truly,
GENERAL ACCIDENT, FIRE AND LIFE ASSURANCE CORPORATION.

By KENNETH L. WATKINS,
Assistant Branch Manager.

Telephone Helps Club Campaign

Manager O. H. Wells of Pontiac has received the following letter from the Pontiac Board of Commerce acknowledging good service during the recent membership campaign:

Pontiac, Mich., June 17th, 1915.

Mr. O. A. Wells,

Pontiac, Mich.

Dear Mr. Wells: We have had occasion to do business with telephone companies in a great many cities, and it gives me great pleasure to say that your operators have rendered a splendid service during the membership campaign of the Board of Commerce, and aside from thanking you, I desire to express, through you, my sincere appreciation to the girls who have been so kind and courteous in handling our large number of calls during the last ten days.

I hope, if the occasion ever arises that I can be of service to you, that you will give me the opportunity to show my appreciation in a more substantial way. Yours sincerely,

D. A. REED.

Revised Toll Operating Instructions

A revision of the toll operating instructions for this group of Bell Telephone companies has been completed by the toll operating rules committee under the direction of the chief engineer, J. G. Wray. One traffic representative from each company in the group was selected to act upon this

committee. L. J. Walley, traffic supervisor, represented the Michigan Company.

The purpose of revising the instructions was to make them uniform for use in handling the A. T. & T. Co. and this company's toll traffic, and also incorporate the latest and approved methods to improve the efficiency of the service.

To present the instructions in a comprehensive manner that they may easily be acquired by the operating employes it was necessary to arrange them in two sections.

Traffic Bulletin No. 4, known as Reference Book, contains the general rules and instructions for handling the toll traffic of this company, A. T. & T. Co. and connecting companies, as well as detailed instructions pertaining to the authorized methods, and supplemented by instructions contained in other traffic bulletins, and in the tariff and route books of this company and the A. T. & T. Co.

This bulletin is furnished with a complete index on all subjects covered in the instructions. The reference notes following each subject cover places in the bulletin where such information can be found. This index is a new operating feature and if consistently used much valuable knowledge will be secured.

Traffic Bulletin No. 4-T, known as Text Book, contains the routines and exact operating steps to be followed in handling the various kinds of calls and conditions. After each operating step will be found reference notes to the Reference Book for further explanatory details. This bulletin was primarily prepared to assist new operators to become familiar with the fundamental details of toll operating, and also assist toll operators in their review work. The blank spaces in each routine should be filled out by the chief operator at each toll center which will illustrate conditions that will occur at each toll center.

This bulletin is so arranged that the operating steps can be learned very easily by operators, as the grouped conditions make it possible to concentrate and apply them in actual work at the switchboard.

It is planned to have chief operator conferences in each district by the traffic supervisory force during the month of September, 1915. At this time it will be possible to interchange ideas and secure a correct interpretation of the instructions under the various conditions.

Sufficient copies of both bulletins were sent direct to each toll center by the traffic superintendent's office and should have reached their destination not later than June 28, 1915.

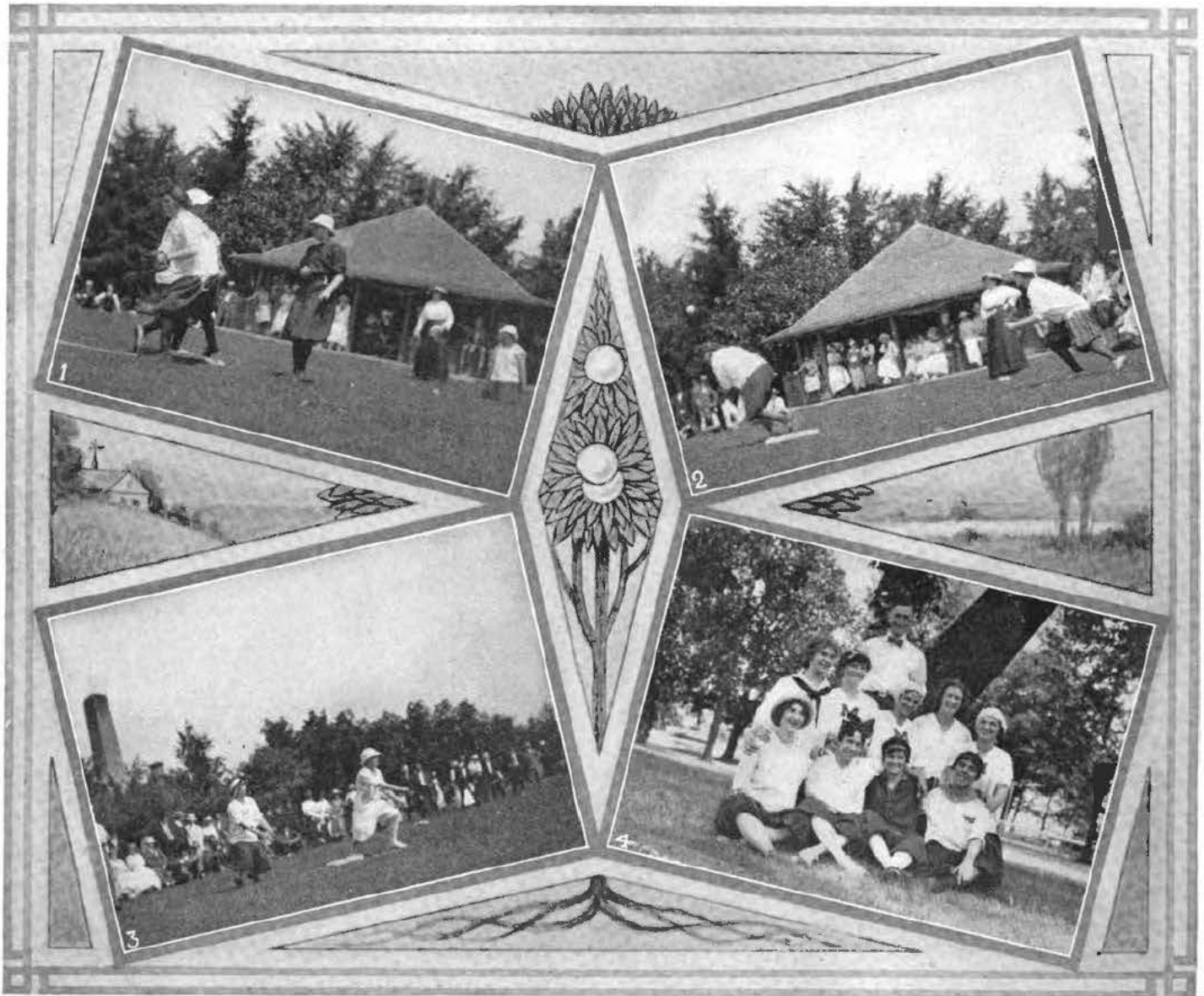
The managers and chief operators should take a special interest in these instructions and endeavor to make them effective in every detail at the earliest possible date.

Detroit Toll Cabl

The Michigan State Telephone Company has recently placed an order with the Western Electric Company for a special underground toll-line cable to be placed in Detroit from the Main exchange to the aerial wire terminals on Michigan avenue at Thirty-second street.

The cable will be 17,200 feet long consisting of fifty-four pairs of No. 13 B. and S. gauge conductors, quadded. The total capacity of the cable will be eighty-one telephone circuits.

The Jackson - Battle Creek - Kalamazoo group of toll circuits will be cut into the new cable when completed. Plans have been prepared for rerouting the Lansing-Grand Rapids circuits next year and these circuits will also be cut into the new cable, making twenty-nine physical circuits and ten phantom circuits in the new cable.



AT TELEPHONE SOCIETY OUTING.

1. Cadillac vs. Walnut; Miss Stiller scoring. 2. Cadillac vs. Walnut; Miss L. Pardy at bat; Miss Tirastle catching. 3. Main vs. Hickory; Miss Lefevre batting, Miss I. McKinney catching. 4. Main team.

Annual Detroit Picnic

The fourth annual excursion and picnic at Bob-Lo Island was held Saturday, July 10th, and a more beautiful day could not have been selected. A perfect blue sky and one of those ideal summer zephyrs greeted the early arrivals at the 8:30 boat, and a good time was assured for all. Canes with pennants attached were distributed to all those on the boat and much merriment ensued. Charlie Chaplin had many imitators. Dancing was indulged in on the down trip to the Island interspersed with popular songs by Messrs. Lovellette and Deeds. The songs were very much appreciated.

The athletic events of the day were arranged by members of the Telephone Society of Michigan, under whose auspices the picnic was held, and a very fine program was carried out. The committee on arrangements had selected Diamond No. 2 upon which to hold the morning and afternoon baseball games and no better location could have been selected.

The morning game between the North and West Areas was a real classy event, taking thirteen innings to decide the contest. The score was as follows:

By innings:

North Area.....	2	0	0	1	0	0	1	4	0	0	2	—10
West Area.....	2	0	1	0	0	2	1	1	0	0	1	—9

Umpires—McDonald and Solomonson.

Afternoon game, score by innings:

East Area.....	1	1	0	1	2	1	—6
Central Area.....	0	0	0	2	2	0	—4

Umpires—Smith and Osborne.

Immediately after the morning game luncheon was spread, and judging from the way it disappeared, everyone was well equipped with a good appetite. The get-together spirit was much in evidence, and many large luncheon parties were held in the beautiful groves in which the island abounds.

The afternoon boats from Detroit at 1:30 and

3:30 carried huge crowds to the island, and while they were somewhat late for the main events, keen pleasure was enjoyed upon the waxed floor where the crowds danced to their hearts' content.

The athletic contests started at 1:30 as scheduled and the events were run off without a hitch. The judges were: C. G. Sharpe, plant superintendent; J. W. Bisbee, West Area wire chief, and M. C. Glass of the traffic department, with R. V. Hurlbut, plant supervisor, acting as starter.

The program of the various events with their respective winners was as follows:

- Ball Throwing Contest for Ladies—1st, Grace Packard; 2nd, Miss Monette.
- Ladies' 50-Yard Dash—1st, Lillian Schulz; 2nd, Noreen Smith.
- Girls' 50-Yard Dash—1st, Mildred Loucks; 2-0, Hazel Cross.
- Child's 50-Yard Dash—1st, Vera Du Ross.
- Line Throwing Contest—1st, Ed. Davis; 2nd, M. Armitage.
- Sack Race—1st, Harry Patchett; 2nd, R. J. Murphy.
- Three-Legged Race—1st, D. H. Keyes and W. A. Bowers.
- Shoe Race—1st, Harry Patchett; 2nd, Lee Palmer.
- 100-Yard Dash—1st, J. T. McCormick; 2nd, H. A. Gustin.



LONG-DISTANCE GIRLS AT PUT-IN-BAY.

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TRAFFIC CHIEF GILKESON WITH ICE CREAM CONE.

Fat Men's Race—1st, G. C. Hazen; 2nd, M. C. Glass.

Boys' 50-Yard Dash—1st, Charley Hendershot.
Boys' 50-Yard Dash (under 8 years)—They were all winners.

Everyone arrived home safely, but tired and happy, closing one of the most enjoyable outings ever given by employes.

Operators Meet at Benton Harbor

An operators' meeting was held in Robinson Hall, Benton Harbor, on Friday night, June 11th. All the toll and local forces from Benton Harbor, St. Joseph, Coloma, Watervliet, Eau Claire, Berrien Springs, New Troy and Hartford were present. Also E. P. Platt, district manager; L. J. Walley, traffic supervisor, and Miss Swintz, traffic chief.

The meeting was called to order by Manager A. E. Huntley who acted as chairman, and the program was as follows:

Five-minute talk on "Efficient Handling of Summer Traffic," by A. E. Huntley.

Paper on "Complaints, Their Cause and Handling," by Miss Pearson, chief operator at St. Joseph.

Paper on "Coöperation," by Mrs. C. E. Vanderhoof, chief operator at Watervliet.

"Our Exchange as Observed From the Outside," by Miss Swintz, traffic chief at Kalamazoo.

Paper on "Positions, Physical and Otherwise," by Stella Lyle, supervisor, Benton Harbor.

"Lost Calls, Lost Efforts," by E. P. Platt.

Mr. Walley took up the changes in operating instructions (toll).

The papers read were very interesting as were the talks given by Mr. Platt and Mr. Walley. The open discussion brought out many interesting points.

Detroit Operators' Excursion

The first excursion of the Michigan State Telephone Company for operators was given at Tashmoo Park, June 15th. The steamer *Tashmoo* left the dock at the foot of Griswold street at 8:45 p. m. with a number of merry operators. Owing to the day being damp and cold there was not the attendance which usually greets the first excursion. The trip up the Detroit River through the St. Clair Flats and Lake St. Clair is very picturesque. On arrival at Tashmoo Park at 11:45 warm weather and sunshine were found. After lunch the afternoon was spent in games, dancing, etc. A ball game was played in which East defeated West by a score of 10 to 7. Mr. Murray, long-distance traffic chief, was umpire. At 5:45 p. m. the *Tashmoo* left the park for Detroit. All declared that they had a fine time.

Thursday, June 17th, dawned bright but cool and every hour during the day was watched closely by the operators of the Grand and Cadillac offices, for it was the occasion of their second annual "Moonlight," which must spell "success." Promptly at 8:30 p. m. the steamer *Put-In-Bay* swung from her dock at the foot of First street, carrying operators and their friends numbering about 2,000. Dancing was enjoyed and a number of musical selections were rendered by a male quartette.

The steamer *Oreana* took the second operators' excursion to Sugar Island, June 21st. Sugar Island is a beautiful island situated at the mouth of the Detroit River and is one hour and a half ride from Detroit. The steamer left Detroit at 8:30 and arrived at the island at ten o'clock. The Wal-



SCRAMBLE IN THE SHOE RACE.

nut baseball team challenged the Main to a game as soon as the girls were able to don their suits. The game resulted in a victory for Walnut by a score of 16 to 15, with part of an inning to play. Mr. Murray, long distance traffic chief, umpired the game. After lunch dancing was indulged in until 3 p. m. when the athletic events which had been arranged were pulled off. This ended the day and all made their way to the boat for the homeward trip.

Thursday, June 24th, was the day set for the third operators' excursion to Toledo. The trip was also made on the *Oreana* down the Detroit River, stopping at Sugar Island, through Lake Erie and down the Maumee River to Toledo, arriving there at 1 p. m. Seventy-five to one hundred girls visited the Main exchange of the Central Union Telephone Company where they were cordially received by the chief operator and shown through the office. Those who did not go to the office spent the time either going through the stores or



LEFT, MISS SMITH, A REAL SUMMER GIRL; RIGHT, SOME OF THE FAIR ONES FROM THE COMMERCIAL OFFICE.

taking a car ride around the city. The boat left at 2:30 p. m. for Detroit.

On the fourth operators' excursion the girls went to Put-In-Bay June 28th. The excursion was the largest of the four. The steamer *Put-In-Bay*, with its spacious dance floor, carried the party. The operators like this trip as they can dance all the way there and back. Leaving Detroit at 9 a. m. the boat arrived at the bay at noon. Lunch was the first consideration. After lunch baseball was the program. The Long-Distance girls played the Walnut team. The score was 23 to 11 in favor of Walnut. B. F. Gilkeson, Cadillac traffic chief, umpired. A second game between Cadillac and a mixed team ended with a score of 7 to 1 in favor of Cadillac. After the sports program all were prepared to make the return trip to Detroit.

Tuesday, July 13th, was surely Chatham day for the Michigan State operators. The steamer *Ossifrage* carrying about 150 operators left the foot of Randolph street at 8:30 a. m. The orchestra on the boat furnished popular music almost all the way down and back and during intermission Barbara Schwohl played several popular pieces, in which many of the girls joined. The trip is made up the Detroit River through Lake St. Clair, into the winding Thames. This river is just wide enough for the *Ossifrage*, which is a small boat, to ply up and down. The turns are very sharp and sometimes very near the edge of the bank. Drooping willows on either side reaching down to the water's edge alternate with beautiful farms. This is considered one of the prettiest trips out of Detroit. Arriving at Chatham the girls were met at the boat by Manager Laurie and taken to the office, where ice cream, cake and cherries in abundance awaited them. The lunch was served by the chief operators and supervisors, which was a great surprise and pleasure to all who visited the office. Manager Laurie placed his automobile at the disposal of the operators for a ride around the city. All had such a good time that they will await eagerly the next trip to Chatham.

Detroit Operators' Standing for June

Ridge: First, Myrtle Fisher; second, Eleanor Lenzion; third, Deila Kopsky; fourth, Rose Chicoine; fifth, Anna Kumm.

East: First, L. Brown, A. Gerhardt, A. Rettke; second, Isabel Webster; third, G. Richardson; fourth, F. Hill, M. Schafer, M. Weiss, A. King; fifth, G. Avery.

West: First, E. Bennett, L. Wehrle; second, M. McIsaac; third, F. Dilla; fourth, M. Croup, D. Sursley; fifth, M. Friendship, L. Mack.

Hickory: First, Josephine Garoner; second, D. Judson, C. Degenfelder; third, M. Golla; fourth, A. Fecteau; fifth, L. Glaser. Miss C. Degenfelder tied for May and received the highest number of points for June, winning May first prize.

East Supervisors' Standing for June

First, Miss McCormick, 100 points; second, Miss Decker, 98.3 points; third, Miss Duffy, 97.5 points; fourth, Mrs. Shaughnessy, 90.7 points; fifth, fourth section, 84.3 points; sixth, Miss MacPherson, 80.1 points.



LONG-DISTANCE OPERATORS ON STEAMER, PUT-IN-BAY.

Detroit Winning Divisions

The Main Cherry B contest for June was won by the second division Cherry, supervisor, Margaret Scharrett.

Anna Regan, supervisor, fifth division Main A, and her operators won the June contest.

Helen Boyes, second evening A section, won the North contest, and accompanied by her operators, spent a pleasant evening at the Garrick.

Lucille Coney and Clara Biescke, North B supervisors, tied for the May, also June contest, and together with their operators spent a pleasant evening on a "Moonlight" to Sugar Island.

The sixth day A division at Cadillac office won the contest for June. Mamie Hall, supervisor, brought the section up to first place before she left June 20th to take a leave of absence, and Grace Bilk, A senior, kept it there for the rest of the month. This makes three months in succession that Miss Hall's division has headed the list, each month having been in a different division.

Miss A. Kasil, supervisor, first division Cherry A, has been the winner of the contest for the past two months, and together with her operators spent Sunday, July 18th, at Cedar Point. All report a good time.

Headquarters Notes

Ella Knoepke of the plant superintendent's office spent two weeks at Lake Orion, one of Michigan's most famous inland summer resorts.

Irene McHugh, stenographer in the plant super-

intendent's office, left the services of the company to accept a position in the auditor's office of the Michigan Central Railway.

Grace Porter of the plant superintendent's office spent an enjoyable two weeks' vacation with friends and relatives at Kalamazoo and nearby points.

Flora Mittel, of the plant superintendent's office, spent two weeks at Island Lake, Mich. Judging from the coat of tan taken on, Flora spent a great deal of time out of the cottage.

Bernard Kilbride and Lillian Lovenger of the plant superintendent's office spent their vacations at Oxley, Ontario, a beautiful summer resort town on the Canadian shore of Lake Erie. It is but a coincidence that both went to the same place at the same time for their vacations.

J. J. Browne, former plant accountant, was taken completely by surprise when he was presented with a beautiful Elk emblem chain and card case by employes of the division plant department on the night of July 6th. A pleasant little smoke social had been previously arranged at the residence of O. E. Hutchinson on Baldwin avenue, and as the hour of eleven pealed forth the lights were lowered and an appropriate toast given, after which the presentation was made. Mr. Browne desires to express his appreciation of the manner in which his former associates and fellow workers remembered him.

Detroit District

The North, Hemlock, Walnut and Market girls held their season "Moonlight" on Monday evening, July 5th, on the steamer *Put In Bay*. Although the night was cold and windy, one thousand persons were present who enjoyed dancing, while three vocalists entertained those who did not care to dance. Separate parlors were reserved for the girls of the different offices. Everyone reports having spent a very enjoyable evening.

Emma Albright has been promoted from senior supervisor, Hemlock, to assistant chief operator at North.

Lorraine Stearns and Gladys Stanley have been promoted from day A operators to day A supervisors at Hemlock.

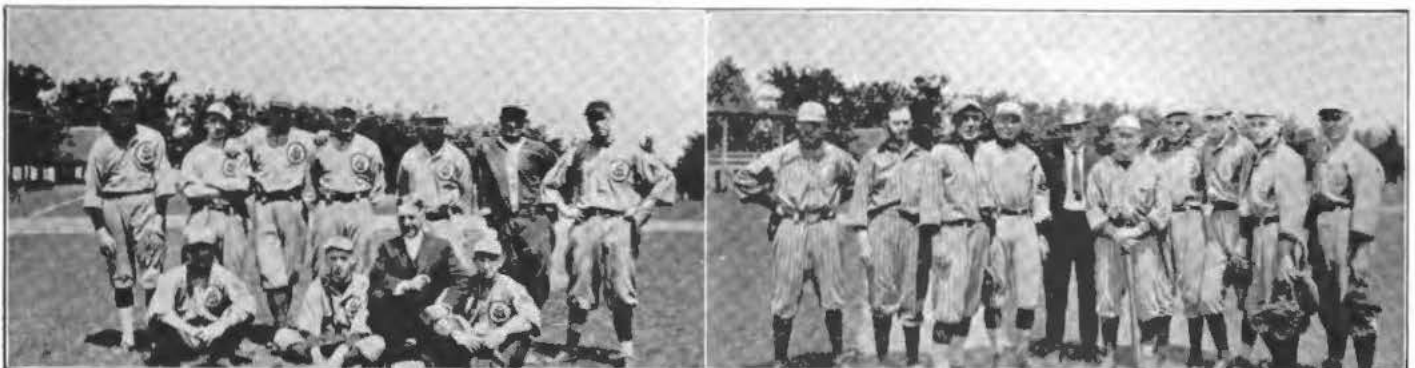
Lena Westfall, day supervisor, Hemlock, has resigned to be married.

Miss Durkin, chief operator at Hemlock, spent her vacation at Niagara Falls.

Miss Sorensen, clerk at Hemlock, took a real rest while on her vacation, by having a *surgical operation performed*, but has resumed her duties again.

Al Zimmerman, Detroit plant instructor, until recently West Area wire chief, was the recipient of a beautiful leather rocker from plant employes of the Grand, West and Cedar exchanges. A little smoker was arranged by the forty men present, which was a complete surprise to Mr. Zimmerman.

A very pleasant day was spent at Sugar Island Thursday, July 15th. This was the fifth excursion of the Michigan State Telephone Company, given for operators. The morning was cloudy and a thunder storm hovered over all day. Shortly after the ball game between Walnut and Hickory began, a light shower fell, but cleared away so that the game was finished. Then lunch was eaten.



TWO HUSTLING DETROIT TEAMS.

Left, North Area Team; Right, West Area Team.



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OPERATORS' DANCE AT MARQUETTE.

The sports which had been planned were pulled off and the remainder of the day was spent in dancing. The boat pulled in at 5:30, just in time to prevent the party from being caught in a very heavy thunder storm which followed the boat almost all the way to Detroit, clearing away in time for all to get home safely.

Irene Latimer, north supervisor, was invited to spend Thursday evening, July 8th, at the home of Miss E. Lane, 30 Medbury avenue, and instead of spending the evening with Miss Lane, a great surprise and shower had been arranged by Miss Lane, Amber Minckler and Victor Page, which awaited Miss Latimer on her arrival. The presents consisted of linen, hand-painting, cut-glass and silverware. Forty-five girls in all were present. The color scheme was carried out in pink and white. Mrs. Abraham, evening chief operator at North, decorated the bride's table, at which thirty-five girls sat down. The evening was spent in a social way and after many good wishes for the bride-to-be's future, all left for home. Miss Latimer was quietly married to H. C. Walker July 12th, only immediate friends of the bride and groom being present. The bridesmaid was Marguerite Latimer and groomsmen M. Cunningham. The decorations were carried out in pink and white. The couple will reside at 204 Bethume East. On the evening of July 12th fifteen girls from North office accompanied Mrs. Abraham to the home of the bride where a pleasant evening was spent with the newlyweds.

Mary Wilson, Cherry A supervisor, who has been with the company a number of years, resigned to be married. The operators in Cherry A presented her with a beautiful cut-glass bowl and reflector.

Miss C. Hardies, Cherry A operator, resigned to be married.

Miss McClelland, day chief operator at Cedar, has been transferred to chief operator at Cedar.

Miss McCollum, relief chief operator at West, has been transferred to relief chief at Market.

Miss Allen, relief chief operator at Cedar, has been transferred to relief chief at West.

Gladys Brown, A supervisor, and Hannah Hamlin, A operator at Grand, were transferred to the Market office.

Miss I. Logan, who was injured some time ago by a beam falling on her while she was watching the "movies," is able to resume her duties at Hickory office.

Bertha Gunther, A supervisor at Grand, who has been ill for several weeks, has recovered and resumed her duties.

Eleanor Weinand, day monitor in Cadillac, having taken a leave of absence for the last two months owing to illness, has returned for duty.

Bernice Gamble, North operator, has been promoted to record clerk at Market office.

Ellen Cahill, North supervisor, has been promoted from supervisor to day chief operator at Market office.

Margaret Ducker has been promoted from supervisor at East to day chief operator at Cedar office.

Miss Duffy, East supervisor, has been promoted to relief chief operator at Cedar office.

Olive Smith, East operator, has been promoted to supervisor.

Edith Gassmann has been promoted from senior operator at East to day supervisor.

The following promotions have been made at the Cadillac office: Margaret Calder, operator to information operator; Catherine Colismore, operator to senior B operator; Garnetta Jelinek, operator to senior B operator.

Alma Hayes has been promoted from Walnut multiple marking operator to monitor.

Eastern District

Contracts for private branch exchanges have recently been secured at Ypsilanti, as follows:

Board of Education (to be installed in new High school), No. 4, 30-line board, 2 trunks, 21 terminals.

First National Bank, No. 1 automatic, residence system.

Weidman Auto Company, No. 505 cordless system.

Agnes Rice, operator at Ypsilanti, spent a month's leave of absence in Wisconsin.

Grand Rapids District

For the first time in several years Cupid has played havoc among the Grand Rapids Main operators. His toll of victims for the few previous months has totaled six supervisors and senior operators, of whom three were married in June and July. Clara Hancock was united in marriage to H. James McKinley on June 3rd. Several showers were given in honor of Miss Hancock and for Helen McKie, who was married on June 21st to Roger Hewartson. Each of the young brides-to-be received a casserole with gold stand, a cut-glass sugar and creamer, at the Main party held at the Y. M. C. A. reception rooms. At other showers held at the different girls' homes, the prospective brides received linen and cooking utensils. Last and not least (in size, but not popularity) Hazel Gebhart left her "number, please," surroundings, and was married to Herbert Little (but not small). The wedding took place at St. Mark's Pro-Cathedral at high noon, July 3rd. A reception was given at the bride's former home in the evening, at which the guests were entertained with music by Miss Frederickson and the Kaminski sisters. The Main operators presented the bride with a beautiful writing desk, and several pieces of linen.

The long-distance day operators of Grand Rapids, under the direction of Regena Bolter, enjoyed a picnic supper at Ramona on Saturday, June 19th.

On the following Saturday, the relief operators

enjoyed a picnic dinner at Manhattan Beach, after which they enjoyed the matinee at Ramona.

Clara Howe of the long-distance department returned from a ten days' vacation which she spent at Ludington and Scottville.

Josephine Timmers, supervisor in the long-distance department, returned from her vacation which she spent at Charlotte, Mich.

Hazel Holcomb, after spending ten days' vacation at Sparta, again took up her duties as operator on July 5th.

The Grand Rapids relief supervisors and operators at the suggestion of Anna Daust and Rika Meyers, spent a very enjoyable afternoon when they took their lunch baskets and hid themselves to Reeds Lake for an outing. The picnic dinner was served in the spacious dining room of the *Major Watson* while the boat was cruising the lake. The dinner was also made enjoyable by piano music, kindly contributed by Margaret Locke and Esther Lofquist. After the steamer docked, the merry crowd took themselves to Ramona Theater where they witnessed one of the best vaudeville entertainments of the season. During the performance the girls were given many jabs by the stars of the troupe, which were enjoyed by the rest of the audience.

G. W. Johnson, traffic chief; Emma Palmer, chief operator, and Margaret Lee, chief service observer, were the guests of honor.

Jackson District

The work of rebuilding the outside plant at Battle Creek was recently completed. The estimate for this work carried authority for an expenditure of \$125,554, and the job was ably handled by Foreman Ralph Smith under the direction of C. E. Gardner, construction superintendent. Foreman Smith should feel proud of having brought to a close a construction job of this magnitude after the many trying incidents that are usually attendant upon work of this nature. The exchange forces are very well pleased with the job, and judging from prospects, a large net gain in the number of stations will be the result.

Kalamazoo District

Ten of the local operators spent the week end at Long Lake. The girls had a "wonderful time" according to their own "diagnosis" of the outing. They went swimming and boating and enjoyed the clear weather which favored them. The party included the following: Lucille Miller, Camila Hansen, Josephine Jewell, Minnie Becker, Chloe Herriek, Ethel Geny, Marie Conklin, Bertha Bayer, Florence Sliss and Cora De Wall. They were chaperoned by the mothers of two of the party, Mrs. F. J. Oliver of South Bend, Ind., and Mrs. C. W. Beck of Marcellus.

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Shuron Cement Coating

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TYPE C1-2011 Price \$60.00

Special Features

1. Impossible to make wrong setting for any test.
2. Impossible to make an error in reading results.
3. Impossible to burn out rheostat to make it useless.
4. Shunt protection for the removable galvanometer.
5. Battery renewal obtainable in any supply house.
6. The instrument is of "Thompson-Levering" manufacture.

A set the telephone world has greatly needed and desired for years, but never available until now. Its low price is the result of special design, quantity production and approved manufacturing methods.

Made, sold and guaranteed by the Thompson-Levering Company who are the producers of the highest grade testing instruments which are standard with all of the largest public service corporations in the world.

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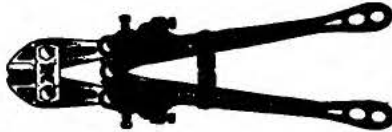
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10-Inch Clipper Cut Jaws, for 3-16-in. annealed bolts in the thread, or 3-16-in. soft rivets.
Center Cut Jaws, for 3-16-in. soft rods.

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Insulated Handles if desired.

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made from our composition give very satisfactory service under all conditions

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This composition is "seamless"—strong and highly finished and is not affected by climatic conditions. An interview or opportunity to discuss our proposition in detail to you will soon convince you that "ours" is an exceptional product.

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TELEPHONE PICNIC AT KALAMAZOO.

The first picnic of the season for employes of the Kalamazoo exchange was held at Oakwood Park July 8th. The lunch was served in the beautiful grove surrounding the lake. The chief amusement of the evening was roller skating. The first being such a success all are looking forward to those planned for the near future.

Recently a contract was executed with the Coloma Telephone Company covering the switching of farm lines at the Coloma Exchange on a roadway plan. This contract will provide for the Coloma Telephone Company to discontinue its exchange in Coloma and the subscribers not having duplicate service within the city will take Bell service. A connecting company contract was also made with the Coloma Telephone Company covering the exchange at Bainbridge. This will be connected by a trunk line with the Michigan State exchange at Watervliet. This will give all former subscribers of the Coloma Telephone Company universal service.

Work of installing an additional circuit between Benton Harbor and Kalamazoo was completed early in June by Foreman F. R. Meeker. This circuit was badly needed on account of increased business to Kalamazoo and points east.

Lansing District

Bernice N. Gilleo, toll supervisor at Grand Rapids, has been appointed chief operator of the Lansing exchange, effective July 15, 1915.

Mrs. Leona B. Crostic, chief operator at Lansing, has been appointed service observer of that exchange, effective July 15, 1915.

Lois Cook, chief operator at Mason, resigned in June and was married to E. L. Otis, ticket agent for the Michigan United Traction Company. Maude DeCamp succeeds Miss Cook as chief operator.

Operators of the Clinton Telephone Company enjoyed a day of outing at Round Lake Monday, May 31st. The party consisted of Winnie Flynn, Carl Wakelin, Ruby Ralston, William Wekenman, Gladys McKenzie, Mark Dewitt, Zoa Cranston, Roy Lake, Mrs. Alice Havens, Bernice Havens, Nellie Cordray, Mr. and Mrs. A. L. Tripp and daughter Helen, Mr. and Mrs. Henry Lindsey, Mr. and Mrs. Leslie G. Brown and children, Wilbur and Lois. The trip was made in automobiles and the usual "time" was reported. It is expected this event will be made an annual affair by the company.

Ruby Ralston, employed by the Clinton Telephone Company, resigned June 5th to become the bride of William Wekenman. She was succeeded by Hazel Eckhart, formerly with the Union Telephone Company of St. Johns.

Petoskey District

On June 29th and 30th a conference of chief operators was held at the Cushman House at Petoskey. The new Toll Operating Bulletins No. 4 and No. 4-T were studied for the two days. The following were present: L. J. Walley and H. V.

Weed, traffic supervisors from Detroit; R. T. White, district manager, Sault Ste. Marie; A. J. Peckham, district manager, Petoskey, and the following chief operators: M. McGrath, St. Ignace; C. Guetchow, Cheboygan; Mabel Parrish, Petoskey; Frances Todd, Charlevoix; Bertha Bohls, Traverse City; Augusta Peterson, Manistee; Sadie Wallin, Cadillac; Georgia Adams, Boyne City; Maud Snook, East Jordan; M. E. Moroney, Manicelona; Gertrude Lybolt, Kalkaska, and Mrs. Blanch Bryant, Fife Lake.

A special apparatus has been installed at Petoskey in order to amplify transmission on long haul connections put up over the No. 8 copper circuit extending between Grand Rapids and Mackinac City. Connections between Mackinac Island and Omaha, between Marquette and Boston, between Houghton and Boston, and various other long connections have been talked over successfully. The greatest point to be avoided is the tendency of operators along the line to supervise the connections, which, of course, greatly reduces the transmission.

The toll patrol has covered overhead repairs and tree trimming along that part of the Mackinac City-Grand Rapids lead between Ashton and Mackinac City. From Petoskey to Harbor Springs and from Petoskey to Charlevoix, similar work has been done.

Helen Smith, chief operator at Kalkaska, has resigned in order to join her parents in Seattle. She is succeeded by Gertrude Lybolt.

Petoskey, Harbor Springs and Charlevoix have to-day a greater number of telephones in use than at the same time last year, although the toll traffic is not quite as heavy.

Port Huron District

Work of installing two new submarine cables across the Black River and several aerial cable extensions at Port Huron, has been started by Foreman Ralph Smith. This estimate calls for an expenditure of over \$15,000, and will provide additional facilities at South Park and Huronia.



KALAMAZOO GIRLS AT LONG LAKE.

Saginaw District

Commercial Manager Evans reports 163 new farm line subscribers connected with the Saginaw exchange within the last four months.

Private branch exchanges connected with the Saginaw exchange during July, 1915: Franklin Hotel, 106 terminals and three trunk lines; Mertz Hotel, twenty-six terminals and two trunk lines. Contracts have also been secured for the following, which have not as yet been installed: Stag Hotel, twenty-six terminals and two trunk lines; Weichmann's Department Store, six terminals; Saginaw General Hospital, nine terminals; H. J. Gilbert's residence, Inter-Phones, seven terminals.

Clare exchange has made a net gain of seventy-one telephones in the last five months.

Pauline Neininger, evening toll supervisor at the Saginaw East exchange, was recently injured in an automobile accident.

Elsie Warren, assistant chief operator at the Saginaw West exchange, entertained the "R. L." girls at a luncheon at the Y. W. C. A. Helen Seltz, chief operator at Flint, was the guest of honor.

Cupid has been busy at Saginaw. Florence Weichmann, former service observer at East office, was quietly married on July 10th to Norman H. Henny of Saginaw. Mr. Henny is connected with the Melze Alderton Shoe Company. The affair was kept so quiet by the bride that the employes of the Saginaw offices were unable to give her the customary "send-off," much to their regret. Mr. and Mrs. Henry will be at home after August 1st, at 115 North Jefferson avenue.

The "R. L." girls held a very enjoyable meeting on the evening of July 5th at the home of Mrs. Orva Rockwell, chief operator's clerk. Mrs. Rockwell was presented with a handsome bob-o-link bracelet.

The Misses Dupraw and Willis gave a picnic dinner at Riverside Park on June 28th, in honor of the twenty-fourth birthday of Pauline Neininger, toll supervisor. Barring encounters with mosquitoes, all enjoyed a very good time.

Edith Tanner of Saginaw West office has returned after a two weeks' visit "down on the farm."

Margaret McFaddin, who sometime ago left Saginaw to enter the supply of the Mountain States Telephone & Telegraph Company, has returned to Saginaw, and is employed in the local commercial office.

Sault Ste. Marie District

Bessie Strang, local operator at Sault Ste. Marie, spent her vacation at Howard City.

Alice Arnott, toll operator at Sault Ste. Marie, has returned from her vacation.

Eunice Campbell, operator at Sault Ste. Marie, spent her vacation at De Tour, Mich.

R. E. Parent, toll repairman at Newberry, was married to Eva Willette at Hermansville, Mich., on June 3rd. They are now keeping house at Newberry.

As a courtesy to the 600 members of the Detroit Board of Commerce, who took their annual cruise on the steamer *City of Detroit III*, free telephone service between the steamer and Detroit was arranged by the Michigan State Telephone Company. When the steamer reached Mackinac Island at eight o'clock Sunday morning, June 13th, the special circuits were immediately connected and about 150 calls were made before 12:30 when the boat pulled out for Detroit. Manager Mulvehill, of St. Ignace, had charge of the loops on the boat, and Miss Hoban, manager at Mackinac Island, handled the calls. G. M. Welch, commercial superintendent, and C. S. Slack, commercial manager, of Detroit, were members of the cruise party. R. T. White, district manager at Sault Ste. Marie, was down to keep an eye on the operation of the special service.

BIERCE

That's the name to remember when you make out your next requisition for anchors. They have been standardized by the A. T. & T. Co.



Pat. Aug. 19, 1913

Your Jobber has them. Ask him

The Specialty Device Co.
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If you want the greatest efficiency together with the greatest economy this is the anchor to use. It is simple and easy to install and will hold more than any anchor made. Let us prove it to you.



The Right Kind of Toast
is the only kind you get with a
**Western Electric
TOASTER**

Make your toast right at the table with one of these toasters and enjoy it as toast should be — fresh, crisp, brown and piping hot. A good way to start the day right.

Write for prices of this
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Chicago—Indianapolis—Cleveland—Milwaukee—Detroit

"Beldenite"

TRADE MARK

Rubber Insulated Telephone Wires



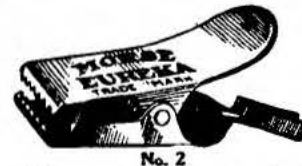
We make all kinds of Telephone Cords—Silk, Cotton, Belden-amel, Silkenamel and Cotenamel Magnet and Resistance Wires—Coil Windings—Cord Tips and Terminals.

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Morse Eureka Testing Clips

Sure Grip
Every
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Price per 100
\$6.00
If Insulated
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Best and Lowest Price on the Market

WRITE FOR DISCOUNTS.

Manufactured by

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Apex Multi-Kartridge Electric Soldering Iron No. 5

Infinitely superior to old-time gas-heated irons. Only one soldering iron is used, and is kept at the right heat all the time. No waiting; no reheating; simple in construction and operation; economical; absolutely safe and heat is all in tip where wanted.

Interchangeable Heating Elements enable the user to use the iron at different heats by merely changing the "KARTRIDGE"—a very simple operation. Kartridges supplied for any heat desired.

The Non-Corrosive Sleeve protects the copper tip and assists in maintaining a steady heat at the point. Tips are interchangeable and can be furnished in any style to suit your requirements.

Guarantee: Every iron kept in perfect condition for six months. All defective parts replaced without charge.

Write for Catalogue and Free Trial Offer.

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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	26c
No. 2531
Doz. lots 12 1/2
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Frankel Display Fixture Co.
Hudson and Vestry Sta.
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No. 17-E torch illustrated here is a very good torch for telephone workers. It is fitted with a quick generating burner, PATENTED "Never Leak" pump and "One Piece" soldering iron rest.

No. 17E. Qt. Comb.
No. 18E Pt. Comb.

We make all kinds of torches and furnaces for all trades. Write for catalogue.

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Largest Stocks
Finest Quality
Promptest Shipments

Yards from Maine
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MANUFACTURERS OF

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WOOD SCREWS

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The telephone line
that lasts
and keeps down
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"Thomas Quality" Porcelain Insulators

Wherever service conditions
are unusually severe these
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The Light Construc-
tion Anchor with the
BIG value.



Made from High Carbon Steel with FLUKE 4 x 12 inches.


The ONE DOLLAR Anchor. Drives EASY Holds Hard.

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Double Tube Copper Connectors

are accurately made. They give less trouble and longer service than other types.



National Signifies Quality in Connectors.

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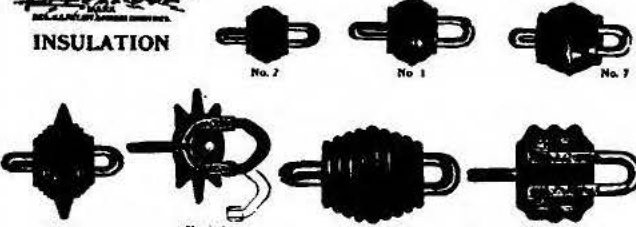


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ADVERTISING

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WHEN YOU BUY

OKONITE

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You don't just expect Good Service — YOU GET IT!

**OKONITE TAPE
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**The F. D. Lawrence Electric Co.
CINCINNATI**

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

**THE EVERSTICK ANCHOR CO.
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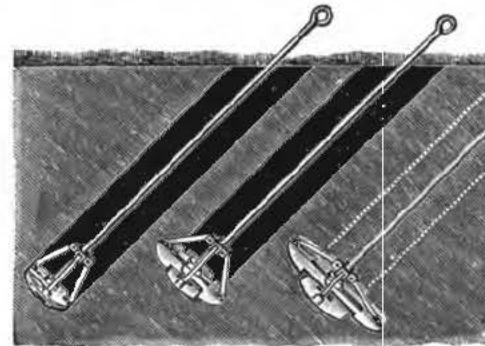


Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

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Company
PITTSBURGH, PA.**

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**SHOVELS
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Chicago Telephone Company is a consistent user of MACK trucks, 27 MACK General Utility vehicles, Winch trucks and Post Hole Diggers make up their present fleet.

The Associated Bell Telephone Companies have 141 International Motor Company trucks of various sizes in daily operation in all kinds of weather, and under extreme conditions of service.

Your transportation problem can be solved by us. Let us serve you.

International Motor Company

West End Ave. and 64th St. NEW YORK

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If a Giant Cut the Wires

Suppose all telephones were silent, and that for forty-eight hours you could not even call a telephone exchange anywhere in the Bell System to ask what the trouble was!

Imagine the confusion which would prevail—with personal visits and messengers substituted for direct, instant communication; with sidewalks, street cars and elevators jammed; with every old-fashioned means of communication pressed into service and all of them combined unable to carry the load.

The instant contact of merchant with customer, of physician with patient, of friend with friend, would be severed; the business man and the housewife would lose the minutes and hours the telephone saves them. The economic loss would be incalculable.

There would not be time enough to do the things we are accustomed to do, and social as well as business life would be paralyzed.

Such a condition is almost inconceivable. The Bell System has developed telephone service to the highest degree of usefulness and made it so reliable that its availability is never questioned. It has connected cities, towns and the remotest places from coast to coast, and has taught the people the advantages of nation-wide telephone facilities.

Plans are made, buildings built and businesses run with Bell Service taken for granted, and yet we have to imagine what it would mean to be entirely without telephones before the great value of this ever-present service can really be appreciated.

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AND ASSOCIATED COMPANIES**

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One System

Universal Service

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BELL TELEPHONE NEWS



Vol. 5 September, 1915 No. 2

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

AUGUST 1, 1915

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	560,831	263,570	824,401
INDIANA	94,579	206,596	301,175
OHIO	189,769	206,253	396,022
MICHIGAN	219,252	73,584	292,836
WISCONSIN	<u>152,994</u>	<u>136,290</u>	<u>289,284</u>
	1,217,425	886,293	2,103,718

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 5

CHICAGO, ILL., SEPTEMBER, 1915

Number 2

BELL TELEPHONE NEWS

Published Monthly by

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WISCONSIN TELEPHONE COMPANY
THE CLEVELAND TELEPHONE COMPANY
MICHIGAN STATE TELEPHONE COMPANY

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Inspect the "Human Machine"

We would impress upon men and women actively engaged in rendering telephone service to the public these important facts:

Your bodily health, your muscular development, your general mental equipment comprise your assets and capital. It is your duty to prize them, protect them and safeguard them with the utmost care. Your body is one of the most complicated machines in existence. It must needs be renewed and lubricated and, like other machinery, it should be inspected and overhauled from time to time lest some of its parts become rusty, or some foreign matter gets into the gear. Inspections and overhauling of the human machine should be made by men who understand its intricate and complicated nature; men capable of detecting symptoms which, in their incipiency, may seem almost unworthy of note, but which if allowed to grow into definite forms of illness will not only impair your commercial worth, but endanger your life. Therefore, take no chances with other than competent medical advisers where your bodily health is concerned. Avoid patent medicines, pills and mixtures that may be recommended to you as having been efficacious with others. When slightly indisposed or af-

fectured with that tired feeling, go to the doctor or to a dispensary and find out the cause of the trouble and the best alternative for it.

Some physical defects may signify nothing more than that you are unfitted for certain kinds of work; a hernia may be comparatively harmless to the clerk or bookkeeper, but very dangerous to a groundman or a line-man.

Never hesitate about undergoing a physical examination before taking a new position. One who knows, upon making an examination of your body, may discover some slight defect which might possibly make the duties of the position dangerous to your future health, in which case you would be the principal sufferer. Even though your tenure in your present position has been long, and there is no probability of change, you should take a physical examination from time to time, say, about twice a year. Bear in mind that your value and worth to your employer, to your family, to society and to yourself are in direct ratio to the condition of your health and strength.

Do you ever consult a physician on this subject?

"Every Employee a Potential Contributor"

"It would be a very simple matter for an editor, with a board of associates and with special correspondents located in the various divisions of the company's territory, to produce a publication that would present the general policy of the company, contain articles on the various departments and their work, reports of the various social, athletic and other activities of the employes, and be at once educational and newsy. I doubt if that would please everybody, but if we were merely trying to get out a good magazine from the standpoint of magazine making, possibly this is the way we would do it. We have inaugurated an entirely new departure in the field of magazines, however, by constituting every official and employe a contributor without partiality.

"It follows, inevitably, then, doesn't it, that if you want to see something in the magazine that isn't there, it is

very apt to be because you didn't send it in?"

The above paragraphs are from an address before telephone societies of Buffalo, Rochester, Albany and Syracuse, by John D. Newman, editor of the *Telephone Review*, published by the New York Telephone Company. Let their reproduction here be considered a message from the BELL TELEPHONE NEWS to its readers.

The Market Basket and the Telephone

"Basket Store, No Telephone, No Delivery," is a sign sometimes seen on the front of a mercantile establishment. This system is guaranteed by the man behind the sign to reduce the high cost of living.

Let us analyze the proposition and see how the patron of stores of this type fares as compared with the telephone user.

Mrs. Black with a market basket does the day's shopping in person because she has no telephone service, or thinks she can do better by shopping in person. She requires half a dozen articles, but on her tour many other things find their way into her basket that she had no intention of buying when she left home. She is bumped and jostled and several times makes purchases against her better judgment because other customers are waiting at the counter. She knows she could have purchased a better steak at Blank's, but his place is two miles away and the morning is gone. To add to the discomfort, it has started to rain.

Mrs. White in the quiet of her own home sits down at the telephone and in the course of ten minutes she has ordered a half-dozen articles without being tempted to buy a dozen. As the telephone is no respecter of distances, she has not been confined to one shopping center but has distributed her order among several stores, so widely separated that a half day's travel would be required to visit them in person. Each article has been ordered from the store handling the best line of that particular goods.

Moral: Shop by telephone; save the basket to carry picnic lunches.

New Hyde Park Office Almost Completed

What will be one of the largest telephone exchanges in the world is now being completed by the Chicago telephone Company at 6041 Kenwood avenue. It will take the place of the present Hyde Park exchange located at 5723 Dorchester avenue.

The original equipment will be adequate to serve more than 25,000 telephones, which is a larger number of telephones than has whole city of New Orleans, or Jersey City, New Jersey, and more telephones than are in service in the countries of Greece, Portugal, Serbia and Bulgaria combined.

The A switchboard of the exchange, where all incoming calls are received, will have positions for nearly 100 operators and extend in a continuous line as long as half a city block. The distributing frame, where the cables containing the wires that connect subscribers' telephones terminate, is the largest frame of its kind ever installed.

Three separate exchanges will be housed in the new office building—Hyde Park, Midway and Blackstone—and the structure is large enough to care for three additional exchanges, which it is expected will be required in this territory ultimately.

The property on which the new building is located has a frontage of 126 feet on Kenwood avenue. The building itself has a frontage of sixty-eight feet and a depth of 177 feet. It is four stories in height, of brick and reinforced concrete, and, like all other exchanges of the Chicago Telephone Company, thoroughly fireproof—affording the greatest measure of protection to operators and other employes. In design the building is Italian Renaissance, of a semi-public character. Massive stone columns adorn the main entrance, while large ornate bronze lanterns hung on either side add to the architectural beauty of the whole.

The basement of the building contains the cable vaults where the large telephone cables enter the exchange, the storage batteries and boiler rooms, also a large ice cooling plant, through which drinking water passes and is cooled before it reaches the floors above. By means of this system, the building is always furnished with cold

water, accessible at bubbling fountains placed at convenient locations.

The first floor, in addition to providing space for the huge distributing frame mentioned above, will be used for power machinery, testing apparatus, repair department and the wire chief's quarters.

There are two operating rooms in the building, one located on the second floor and the other on the fourth floor. In Chicago exchanges each telephone call is handled by at least two operators. An operator at the A switchboard answers the sub-

rapid growth of this territory had changed the wire center to a point some distance south of the present exchange. The wire center of a given exchange district is the point from which subscribers' circuits can be distributed to the best advantage; the new location on Kenwood avenue is the wire center of the Hyde Park district. The present Hyde Park office was placed in service in 1902 to relieve the Oakland office. Since that time the district has grown rapidly and the present exchange building has reached its capacity.



NEW HYDE PARK OFFICE, CHICAGO.

scriber when a number is called, and then transfers the call to an operator at the B switchboard who completes the connection. The B board will be on the second floor and the A board on the fourth.

The third floor is given up entirely to operators' quarters—being subdivided, as is usual in all Chicago exchanges—into rest room, dining room and kitchen. The rest room will be furnished with comfortable chairs and couches; here the operators may spend their rest periods, which occur at intervals during the time they are on duty. For operators who wish to enjoy the open air a large space at the side of the building is to be planted with grass seed and ornamental shrubs and trees, and will furnish an ideal recreation place during relief periods in the summer.

When the plans were made for the new Hyde Park building, it developed that the

boy, and the stout man looked at a dime fondly and then gave it to him and walked over to the 'phone.

"Number, please?" said the operator.

"Would you mind telling me the time?" whispered the stout man.

Then, nodding importantly, he hung up and went back around the corner to his banana stand.—*Chicago Daily News.*

A Call for Royalty

A Milwaukee subscriber recently placed a call for "King George the Thirtieth."

The little girl who placed the call insisted on getting "King George the Thirtieth." Finally her mother came to the telephone and explained that it was George King on Thirtieth street that the girl wanted.

A Grand Life

"Mr. Whiskitts, Mr. Whiskitts," droned the bellboy.

The foyer of the Rockabiltor hotel was crowded with youth and beauty, not to say health and wealth and bustle and confusion.

The stout man with the leather shoelaces lolled back languidly blowing rings of cigar smoke into the air and recklessly letting them escape.

"Mr. Whiskitts, Mr. Whiskitts," droned the bellboy.

After watching the boy lazily for five minutes, the stout man sat up with a jerk, for the first time aware, apparently, that he was being paged. He held up one finger of one hand.

"Here, boy," he said loudly.

"Wanted on the 'phone, Mr. Whiskitts," said the boy.

"Bell phone or Bell?" asked the stout man.

"Bell," replied the

Chicago Forces Face Sudden and Unexpected Traffic Load Following Eastland Disaster

Emergency Is Squarely Met and Telephone, as Usual, Gives Vital Assistance in Relief Work.

When the big excursion steamer *Eastland* sank sidewise in the Chicago river on the morning of July 24th, 812 people went to their death. This is the final figure as reported by the coroner of Cook County. Of these dead, 468, more than half, were employes of the Western Electric Company. Of the remainder, the greater part were members of the families of employes or their friends.

The details of the tragedy are known to all. The Chicago newspapers devoted more space to the "story" than any ever chronicled in their columns. The great fire of 1871, the Iroquois Theater fire, the *Eastland* disaster—these three events make up the main chapter of horrors in the history of Chicago.

It would serve no useful purpose to repeat the general details of the catastrophe. There are features, however, not so thoroughly covered in the newspapers, which are of more than ordinary interest to telephone people. The special articles occupying the next few pages are devoted to these features. For a part of this material we are indebted to the *Western Electric News*. This publication issued its August number as a Memorial Edition, devoting the entire issue to the *Eastland* story.

Sudden Increase in Traffic Follows Disaster

Not since the afternoon of the great Iroquois Theater fire twelve years ago, had the telephone service of Chicago been called upon to bear such a sudden and unexpected strain as fell upon some of the offices the

first few hours after the *Eastland* tragedy.

The boat went down at 7:31 a. m. In a very few minutes traffic began to increase. At 7:40 a Main supervisor learned of the catastrophe. She at once communicated the information to her senior supervisor.

was summoned. Operators understand that they are engaged in a service that is of a public nature, and when those who were away on vacations and were in the city heard of the awful catastrophe, many called up and asked if their services were needed. Offers of assistance also came

from former operating employes who were free to help out if needed. In a large number of cases employes stuck to their posts when they were positive that near relatives and friends had planned to take this outing and go on this boat. A Lawndale supervisor who was sure that her sister was on the boat and probably lost, broke down for a few moments when she heard the news, but quickly regained her self control and remained in her division. She worked under this strain until almost noon when her sister called and said that while she had gone on board the *Eastland* she had immediately left it because she feared the crowd. An evening operator, who had responded to the call for help and arrived at the exchange before hearing of the reason for her being called, told her supervisor that she had a sister on the boat. When asked if she wished to be relieved, she said, "Just let me cry a minute and I will be all right." She remained in her position until relieved some

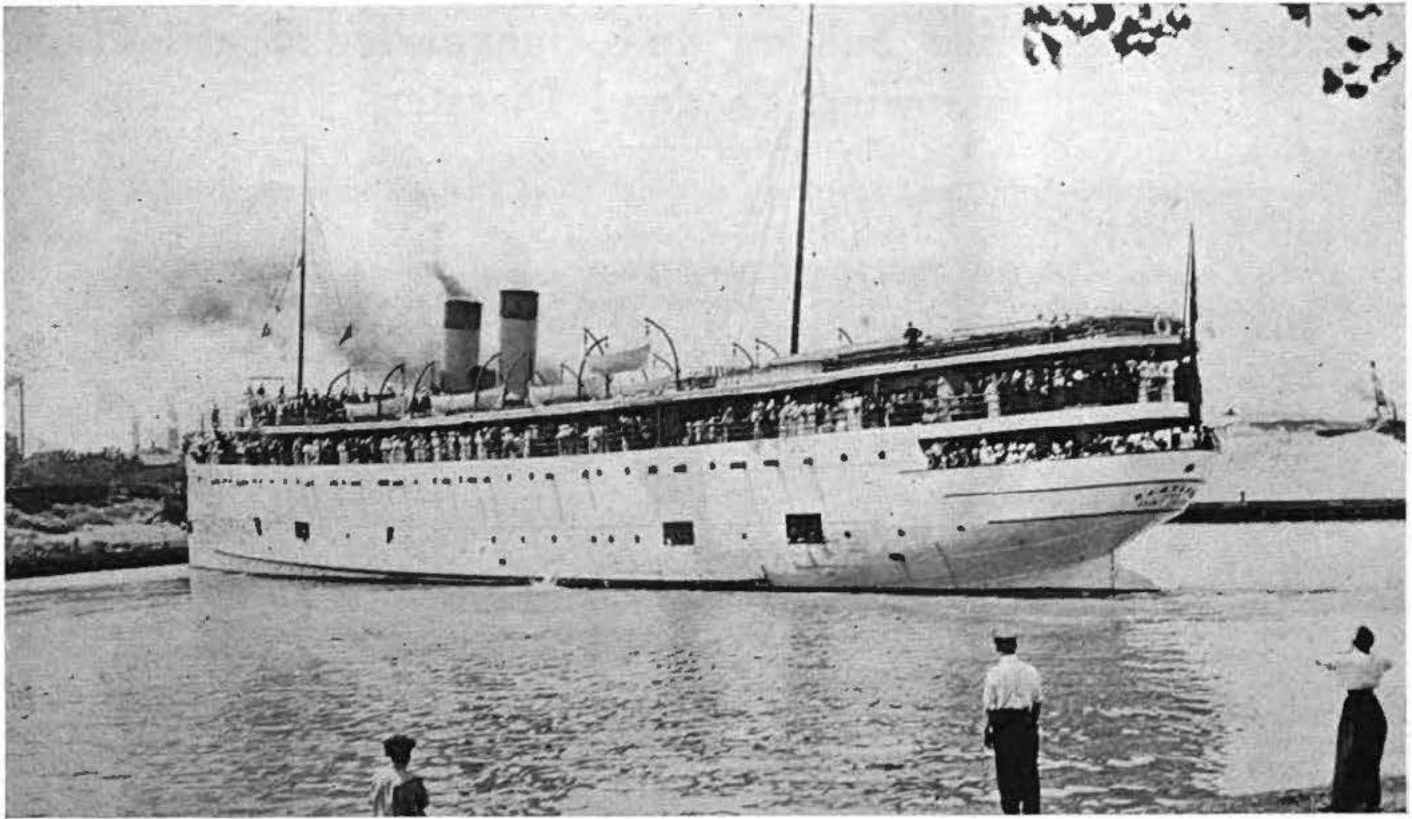


TELEPHONE ON HULL OF OVERTURNED "EASTLAND."

Preparations were immediately begun to get every available operating employe to the central offices as soon as possible, particularly in the downtown and West side districts where the greater part of the load was expected. Every day operator who had been excused for the day and every evening operator and every evening supervisor who could be reached by telephone

time later. She heard later in the day that her sister had been saved. Many other supervisors and operators in the exchange knew that relatives and close friends were going on this outing but they made no mention of it at the time and worked as if they had no other thought than the rendering of service during the time of great calamity.

The Western Electric private exchange



THE "EASTLAND" DOCKING AT MICHIGAN CITY, JULY 25, 1914.

This Photograph of the "Eastland," as it appeared at the 1914 Picnic, was taken by C. W. Robbins of the Western Electric Cable Plant Department.

lines were so busy that there were 1,500 busies reported hourly for a considerable period. The Western Electric board was operated during the entire twenty-four hours every day from Saturday morning until the following Thursday.

Naturally the heaviest traffic was in the down-town offices, but fortunately for the service the accident occurred on a Saturday morning when heavy traffic is expected. On Saturday the forces are on duty earlier than on other days, which made it possible for the telephone company to meet the emergency most effectively. The supervisors and clerks in the service inspection, private branch exchange departments and operators' school helped in operating the boards and assisted materially in handling the traffic. At Main office the nickel telephones were so busy that it was necessary to make a temporary arrangement whereby calls could be switched by means of switching trunks from the regular positions into vacant flat-rate positions. While this was not a satisfactory plan, it made it possible to handle a few more calls and gave a somewhat quicker service. It is estimated that 100 per cent. more calls were han-

dled than at any previous time, with the possible exception of the time of the Iroquois fire.

The Chicago operating forces lost one

member in the accident. Anna Cummerford, of Kedzie office, was on board the boat when it overturned and was lost. Two north side operators lost their fathers and one her brother. Three lost sisters, so that this disaster, which cost so many Western Electric employes their lives, came close home to the operating department of the Chicago Telephone Company as well.

The general public, of course, could not be expected to understand the effect of the increase in telephone traffic and some exhibitions of impatience when lines were repeatedly reported as busy were natural. It is pleasant, however, to know that this lack of appreciation of the difficulties of the situation was not universal, as was shown by the following letter from a patron:

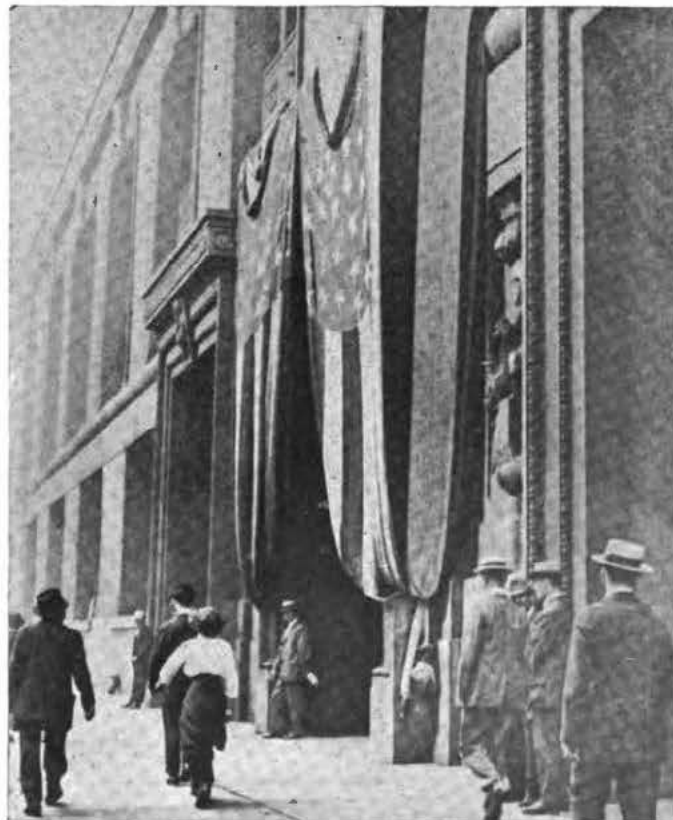
July 26, 1915.

Chicago Telephone Company,

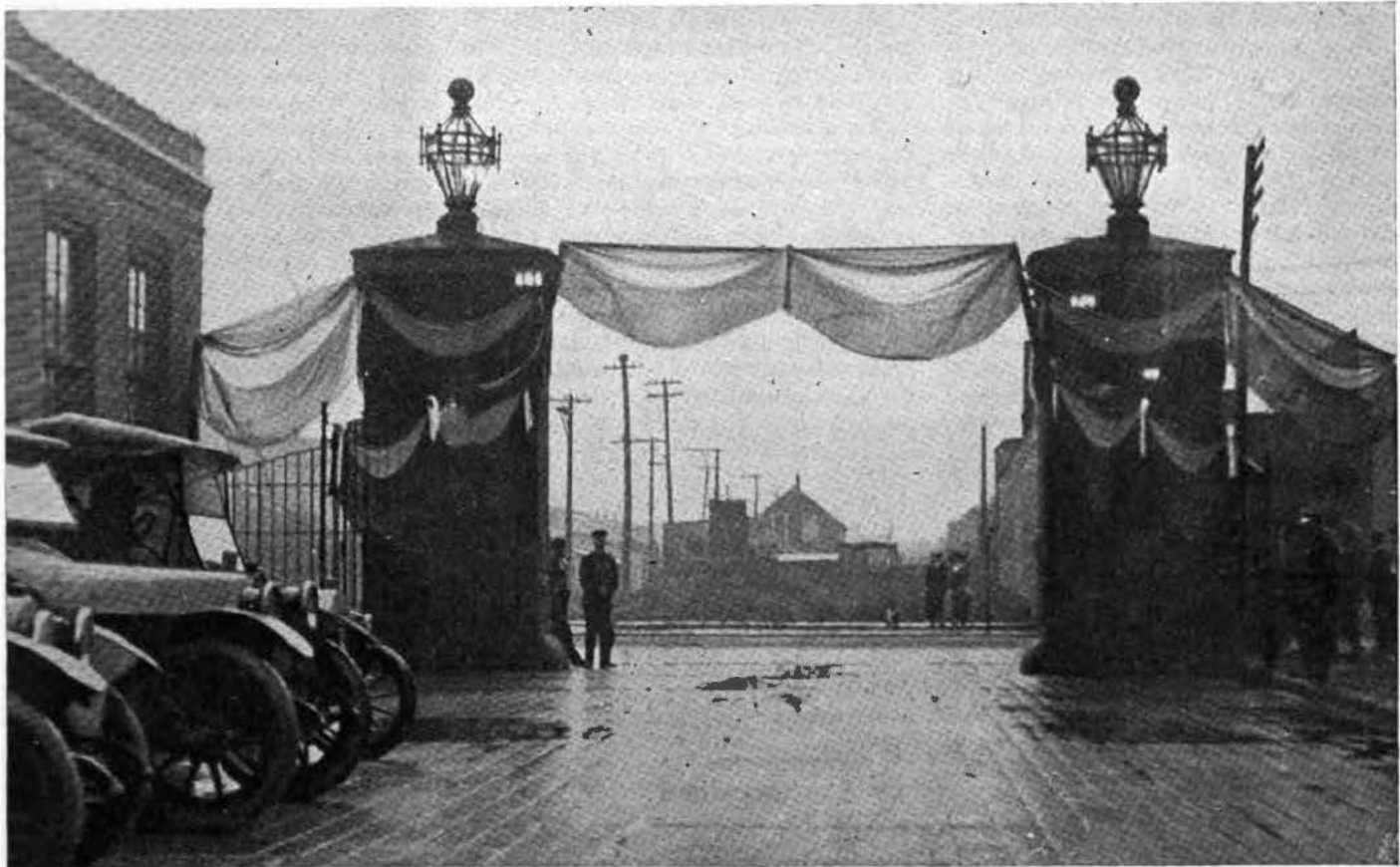
Mr. W. H. Dudley,
Chicago, Illinois.

Dear Sir: At an unfortunate moment on Saturday morning I registered a complaint regarding delay in securing operator at the Central Exchange.

I want to offer my apologies with the explanation that the news of the horrible disaster in the Chicago River had not worked itself into my compre-



DOORS OF THE CHICAGO CITY HALL DRAPED IN MOURNING IN HONOR OF THE "EASTLAND" VICTIMS.



LOOKING OUT THROUGH THE HAWTHORNE GATES. THE ENTIRE WEEK FOLLOWING THE DISASTER WAS ONE OF RAIN AND MIST.

hension, and I can realize that a complaint of ordinary service delay at such a time was entirely out of order. It was not until later in the day when I had opportunity to read the papers that I realized the enormity of the catastrophe, which, of course, choked your wires with business, and I want to make this explanation to you. Very truly yours,

(Signed) CHARLES RIDDELL.
Western Rep. Baldwin Locomotive Works.

Information and Relief Measures

The news of the *Eastland* catastrophe spread with great rapidity and soon the Chicago loop district was jammed with enormous crowds. Many of these people were of course drawn by curiosity, but there were hundreds who had relatives or friends in the vessel and were trying frantically to get some news of them. It was imperative that some means be found for collecting and distributing information concerning the passengers. The Western Electric and Chicago Telephone Company information stations which met the need were established on the spur of the moment, rather than as the result of any plan.

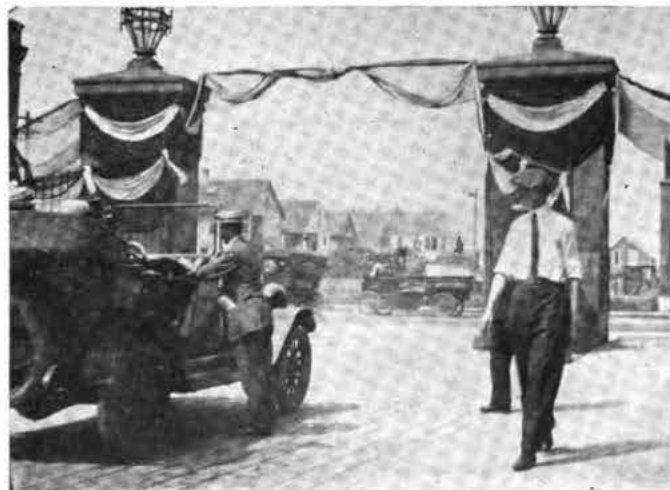
The first of these organizations was formed at Sprague, Warner and Company's big grocery warehouse at West Clark and Water streets. The lower floor had been thrown open for the reception of survivors, and the room in which they happened to be sheltered, the order department, contained dozens of telephones. Within fifteen minutes of the accident, Western Electric employes were busy collecting the names of what survivors they could, and telephoning to friends and relatives.

It soon became evident that the large numbers of people involved would be too much for such a makeshift solution of the

problem, and a number of the employes, who had taken some of the survivors to the large downtown hotels for temporary shelter, decided to establish some sort of immediate information bureau, where information could be collected and given out concerning the dead and the saved. There was a vacant store at 214 North Clark street, less than a hundred yards from the dock, and after trying vainly to find the owner, the men broke the lock on the door and took possession.

Speed was the first requisite, and a remarkable amount of work was accomplished within a very short time. The room was heaped up with old furniture and rubbish of all sorts. This was hastily swept into one corner, and chairs and tables were brought in from a neighboring saloon. Meanwhile one of the employes ran down the street to a stationery store and bought a thousand index cards. By half-past nine, about half an hour after the inception of the idea, the Clark Street information bureau was in full swing.

The bureau started with a nucleus of twenty-five names, which had been collected at Sprague-Warner's. These were hastily written out on sheets of paper in alphabetical order, and pinned to the wall, for the benefit of those making inquiries.



RELIEF AUTOMOBILE LEAVING HAWTHORNE.

Another employé went down near the dock with a megaphone, and as the survivors came out on the street requested them to register at the information bureau. The rescued were also asked to give the names of any others whom they knew definitely either to have been saved or to be dead.

As the list of names grew, the pressure on the information bureau grew correspondingly greater. At first, one man had been assigned to preside over the sheets containing the names of those rescued or dead. But this plan had to be modified. The letters of the alphabet were hastily chalked on the wall in a row extending the entire length of the room. Under each letter an information worker was stationed

young women worked, four at a time, at the Reid-Murdoch switchboard from 10:30 a. m. until 8 p. m., when the Red Cross concluded its work at that point.

The excitement and confusion attending the bringing of bodies in such large numbers as almost to surround the switchboard made the girls' work very trying, but they continued without hesitation and worked on through the day and evening amid surroundings which must have been harassing to their sensibilities to the utmost limit.

The roll of dead and injured was steadily growing, and as the various warehouses in the neighborhood opened their doors for the reception of the victims, Western Electric employes were sent down to collect the

Whenever a name was reported upon definitely, it would be looked up in the card index before posting. If the name did not appear, it was immediately given a card, and posted as well. If it did appear, the bureau was able to telephone the information to the person whose inquiry appeared on the card. This information was also added to the name where it appeared in the lists along the side of the room.

By noon it was found that many people were asking where the bodies of the dead had been taken. The bureau accordingly secured from the police a list of the temporary morgues. This list was hurried to a printer, who set it up as it was read off to him. By two o'clock, 3,000 cards had

WESTERN ELECTRIC INFORMATION BUREAU

214 No. Clark St.

TELEPHONE
FRANKLIN 188

BODIES TAKEN TO
88 E. RANDOLPH ST.
316 FEDERAL ST.
502 N. DEARBORN ST.
164 MICHIGAN AVE.
50 S. DEARBORN ST.

CLARK ST. NORTH OF BRIDGE (Ahrenson's Undertaking Establishment)

THE "COPY" FOR THIS CARD WAS READ OFF TO THE PRINTER AT NOON ON SATURDAY, JULY 24TH. BY 2 O'CLOCK 3,000 HAD BEEN PRINTED AND WERE BEING DISTRIBUTED BY THE CLARK STREET INFORMATION BUREAU.

to handle the names beginning with his letter.

Meanwhile the Chicago Telephone Company had been doing some very quick work, and by ten o'clock had made an emergency installation of telephones. These, of course, greatly increased the efficiency of the work of the bureau. The bureau was also assigned a number, "Franklin 188."

There were twenty-five of these telephones and they were installed on the docks and on the hull of the boat. Local and toll service was given without restriction or charge.

Shortly after the accident, the Red Cross opened an emergency station in Reid, Murdoch and Company's big building just across the river. The Reid-Murdoch Company placed its building and telephone equipment entirely at the disposal of the Red Cross organization. The Chicago Telephone Company supplied four operators from the private exchange department and two from the toll department. These

names of the living and of the identified dead. Other workers visited the Iroquois Memorial Hospital, the Franklin Emergency Hospital and the Sherman Hotel, where an aggregate of about 150 people had been taken. These new names were telephoned to Clark street.

By noon the telephone company had installed about twenty telephones for the use of the bureau, as well as others for the use of those who wished to telephone home or make inquiries about the missing. The owner of a vacant store next door offered the use of his place also, and a dozen additional telephones were installed there for public use.

In the meantime a card index file of all names received had been made, in addition to the alphabetical lists. As soon as an inquiry was received, the name of the person inquired for was put on a card, together with the name and nearest telephone number of the person inquiring.

been printed and were being distributed as widely as possible.

By Saturday afternoon the inquiries had begun to pour in at Hawthorne in such numbers that an additional information bureau was obviously necessary there. The Chicago Telephone Company made another rush installation, and established a battery of extra telephones in the employment department at Hawthorne, just inside the Forty-eighth avenue gates. A partial list of the names on file at Clark street was hastily secured, and another group of Western Electric employes started a bureau at the works. When they arrived they found a crowd of several hundred anxious inquirers gathered at the gate. The bureau was in operation by half-past two, when the waiting crowd was admitted and given all information as fast as it came in. The Clark street bureau was in constant communication with the Hawthorne bureau, and telephoned fresh information as soon as it was received.

The telephone company also completed an arrangement whereby it received duplicates of all information that came in at Clark street. Many of the telephone inquiries were then diverted by the company, who gave out information direct from the exchange, thus helping materially to lessen the burden upon the Clark street bureau. This bureau was opened in the commercial department offices in the Telephone Building.

On Saturday afternoon the Second Regiment Armory had been established as a morgue to receive the bodies of the uniden-

of identified dead to the other bureaus. The telephone equipment installed at the armory consisted of an incoming and outgoing group, working on a double-track basis. Employees of the maintenance, commercial and traffic departments were on duty practically all the time from Sunday morning until the morgue was closed.

About 9:30 Sunday morning an information stand was established outside the armory, on a street corner. This station was a taxi-cab, attended by Western Electric employees, and with a telephone installed in it. The line of people waiting to get into

the information work would have to go on night and day for some time. The crowds at the Clark street bureau on Sunday and Monday were enormous. There were great crowds at the Hawthorne bureau, also, and in addition, such an avalanche of telephone inquiries that there was not even an attempt at keeping track of their number. There are ten trunk lines connecting the Hawthorne private branch exchange board with the Lawndale exchange, a large number for a private branch. Yet on Monday night the calls were coming in so fast that the Lawndale operators were putting them



INTERIOR OF THE CLARK STREET BUREAU AT ITS BUSIEST, FROM A PHOTOGRAPH TAKEN ON SUNDAY AFTERNOON, JULY 26TH.

tified dead. By Sunday morning the telephone company had installed twelve telephones in the bandstand gallery. A third information bureau was accordingly organized at the armory. This bureau kept in constant communication with the Clark street and Hawthorne bureaus. Its organization was similar to theirs, except that it did not operate a card index system.

The armory bureau obviated a great deal of unnecessary suffering and suspense among those who visited the morgue, as it was able, in many cases, to give good news that had come over the telephone from Clark street and Hawthorne. It was also of great service in transmitting the names

the armory had to pass this stand. About a dozen employees kept going up and down the line, questioning the people, and giving information to them as telephoned from Clark street. In this way many people obtained definite news of those for whom they were looking and were spared the ordeal of searching through the bodies in the armory.

The information work was fully organized by Sunday afternoon, and it was then and on Sunday and Monday nights that the heaviest work of the week was done. Both the Clark street and Hawthorne bureaus kept open all Saturday night, and by Sunday it was obvious that

through three to a trunk. In other words, while one inquirer was talking to Hawthorne, two other calls were connected up on the same trunk line, waiting their turn. Temporary additional trunk lines were installed later in the week, and relieved the congestion.

The information stand outside the armory was discontinued about the middle of the week. The work of tabulating the articles at the custodian's office was completed by Thursday. The armory bureau was discontinued on Friday, when the last of the bodies had been identified. The Clark street bureau was open night and day until Saturday at 6 p. m., when it was

closed permanently. The bureau at Hawthorne finished its work on Sunday, August 1st. In the course of the week it succeeded in determining the fate of every Western Electric employé except one. The body of this victim was found during the following week.

Thirty-Four Hours at the Switchboard

Not all of the heroes—and heroines—of the *Eastland* disaster were at the docks. In

be here, to answer inquiries and make connections, and see that the other girls did their work smoothly; so I stayed. That was all there was to it.

"You see, I was expecting to go to the picnic. I got down to the dock at exactly 7:30 a. m., just as the *Eastland* went over. I stayed down for a while, watching the rescue work until finally, seeing that there was nothing I could do, I started home. The crowds were so dense that it took me an hour and a half to get there. When I reached the house, at 12:30 my sister met me at the door and said, 'The Western

eight to-night. To-morrow? Yes, I'll be here at 7:30 in the morning.

"Why have I been on duty so long? Well, it was up to somebody to see that the telephone service here is maintained, and I was the one. Ordinarily, you see, our supervisor, Miss Brett, would relieve me; but she's away. Poor girl! What I've done is nothing to what she did. Her sister went down on the boat, yet she was one of the first to respond when I called for volunteers. She came here Saturday afternoon and worked for three hours *after she had had word that her sister's body had been*



MAIN GATES AT HAWTHORNE DRAPED IN MOURNING FOR "EASTLAND" VICTIMS.

fact, one of the finest feats of the terrible week of July 24th was performed by a telephone operator miles away from the scene of the disaster. She is Margaret Condon, chief operator of the Western Electric Company's private branch exchange at Hawthorne. She remained on duty at the switchboard from noon of July 24th until late at night July 25th—thirty-four hours of continuous service.

When Miss Condon was seen at the exchange on Wednesday night, July 28th, she had been on duty for a total of nearly seventy-four hours out of the past 103—more than three whole days out of five; she looked surprisingly fresh after her ordeal, although it was obvious that she had been under a severe strain; and she was expecting to go on duty again early the following morning.

"There wasn't anything particularly heroic about it that I can see," she said, in a lull between calls. "Somebody had to

have been trying to get you on the 'phone. They want you to get down to the plant as soon as you can.'

"I reached Hawthorne at 1 p. m. Saturday, and went right to work, calling up all the girls I could think of, to help out in the rush that I knew was coming. They came on at all sorts of hours and worked all sorts of hours. Miss O'Reilly, for instance, who is here now, went on at 3 p. m. Saturday and worked through until 7:30 Sunday morning. Another operator, Miss Schumacher, went on at 4:30 Sunday afternoon, worked until 7:30 Monday morning, and then went on again from 12 to 3 Monday afternoon.

"I was on duty all day Saturday, from 1 p. m. on, all Saturday night, all day Sunday, and Sunday night until eleven o'clock. I came back at 6:30 Monday morning and stayed until 8:45 that night. Tuesday I was on from 6:45 a. m. until 8 p. m. I came on to-day at 7:30 a. m. and leave at

identified. It was heartbreaking! And she called me up on Sunday and offered to go to work again to help me out. 'Margaret,' she said, 'I'm useless here at home. I can't sleep. I can't think. I can't do anything. Isn't there something I can do?'

"How could I let her take my place?"

"Busy?" Miss Condon smiled. "I've answered more calls here during the past five days than I'd get ordinarily in a month. Most of them come from the poor people who are trying to get news of friends and relatives who are missing. Some of them are so distracted that they can't even remember the name of the people they're trying to find. It's terrible to sit here and hear them crying for their dead.

"A great many calls, of course, come from inside, from the relief and information committees. Look here"—she opened a drawer in the supervisor's desk and pulled out a thick bundle of little paper slips. "These are slips for the long-dis-

tance calls alone that I've had to make since Saturday. There must be over 200 of them. I haven't even had time yet to check them and copy them in duplicate. That will have to be done later.

"This board of ours is an eighteen-position multiple—that is, it has room for eighteen operators. Well, on Monday night, our heaviest night, we had every position at the board occupied, two extra girls operating at the supervisor's desk, and one on the floor! Even then we had all we could do to keep up with the calls. You couldn't hear yourself think."

Miss Condon stopped to make a connection, then leaned back with a sigh of relief. "Well, the heaviest part of the work is over, I think. The calls have been slackening up to-day. Before long we can probably get back to something like a normal schedule. Yes, I've been working pretty hard. But so have the other girls. So has everybody. You see, we don't any of us feel that we're working for ourselves, or even for the company. We're doing what we can to be of some use to the people who were hit by the *Eastland* disaster. And we're grateful for being able to do even that much."—*Western Electric News*.

Distribution of Relief by Red Cross

By the time this article reaches the reader the distribution of relief by the Red Cross will have begun.

Chicago contributed about \$360,000 to aid the *Eastland* sufferers. The distribution of this fund by the Red Cross affects about 3,500 people.

In going over the final figures it was found that twenty-five families were entirely wiped out in the disaster—mother, father and children drowned.

The Sindelar family was the largest single tragedy. The father, mother and their five children were drowned. The Red Cross took charge of the funerals of this one family, which cost \$1,333.

There are nearly 200 widows who will be taken care of.

There will be some relief afforded in each of the more than 800 cases, although where a young daughter was lost and the bread-earning ability of the family was not thereby affected smaller apportionments will be made.

In some cases where a young wife was left absolutely penniless and helpless, with two or three small children, the largest allotments will be made.

The entire fund is to be distributed, but in the cases of the widows and minor children, it will be held in trust or invested and paid out in installments, both principal and interest.

A typical case serves as an illustration. A husband was drowned, leaving a widow and three children. The children ranged in ages from six to twelve years. It will be four years before the oldest boy can

be considered a breadwinner for the little family. In such a case at least \$2,000 is set aside, \$400 of which is paid at once. The \$1,600 will be paid, with the interest earned, in four annual installments, so that the widow will have had the \$400 principal and the interest each year until the children are old enough to aid in supporting the family.

The insurance fund maintained by the Western Electric Company has aided the committee greatly in taking care of the whole situation. It was found that the funeral expenses alone of the victims totaled about \$200,000. This was more than half of the entire fund raised for relief. But the Western Electric Company's relief funds came in here and cut the amount more than half.

Heroic Work of Two Telephone Men

Two employes of the Chicago Telephone Company, Fred J. Lippert and George Spiegelhauer, both connected with the power and light branch of the equipment department, did heroic work in the rescue and recovery of bodies after the *Eastland* disaster.

Lippert was at the Main office when he first heard of the accident. Being an expert swimmer and hoping that he might be of some assistance, he immediately started for the Clark street dock. On this way, he met Sergeant Frank, of the First Illinois Cavalry, of which Lippert is regimental color sergeant. They both were able to get through the police lines, Lippert using his telephone identification card.

Reaching the overturned boat about eight o'clock he recognized an old friend, Art. McDonald, fireman on the tug *Kenosha* which had the *Eastland* in tow. Lippert went into the fire room of the tug boat, and took off his outer garments. He had put on his bathing suit before leaving home in the morning expecting to take a swim in the lake that afternoon after finishing his work.

Clad in his bathing suit, Lippert walked up the sloping side of the *Eastland*. He made a dive into the water off the edge of the boat and brought a man's body to the surface. With the body over his shoulder, head downward, water was taken from the lungs by methods used in resuscitating persons apparently drowned. Dr. Springer, who was also working on the body, said that a spark of life still remained. The body was then handed over to those who were using the pulmotors.

Lippert made his second dive but did not succeed in bringing up a body. The third dive resulted in the recovery of a woman's body, which still seemed to have life in it. This body was handled in the same manner as the one previously recovered.

The city firemen would not permit Lippert to do any more diving on account of

the danger from floating wreckage, and the numerous pike poles that were then being used to bring up bodies.

Lippert went back into the tug boat and put on his outer garments as he was beginning to feel the chill of the air. Returning to the *Eastland*, he crawled through a hole in the side of the boat in company with a fireman of Truck No. 9, landing on the side of an inner cabin. From this point Lippert and the fireman recovered numerous bodies, mostly women and children, by the use of pike poles. Lippert says that the horror of this work cannot be described. No life remained in any of the bodies recovered in this manner. Lippert continued to recover bodies until 1:30 p. m. and from then until 3 p. m. he helped carry bodies from the ship *Theodore Roosevelt* to the Reid-Murdoch Building. Unable to be of any more assistance in rescuing he then went home.

On the morning of July 24th, a few minutes after the *Eastland* had overturned, George Spiegelhauer was walking across the Fifth avenue bridge which was a short distance from the scene of the accident. Seeing many people struggling in the water he rushed over to the north shore of the river, going directly to the LaSalle street dock, and helped take the rescued people out of the small boats.

From the north shore of the river he could see rescuers taking nearly drowned people from the river, and laying them out on the side of the overturned ship, with not enough men to give them the proper attention. Having had some training in reviving near drowned persons, and thinking he could be of some assistance on the side of the ship, he penetrated the police lines by explaining his mission.

He went to work at once assisting a Red Cross surgeon to get the water out of the lungs of a young girl who had just been taken from the river. By artificial respiration, and the use of the pulmotor, in about fifteen minutes the girl began to show signs of life. She was then taken away to a hospital by order of the physician.

During the time Spiegelhauer was there, he worked on six bodies, with the assistance of others. They never gave up a case as hopeless until advised by the surgeon that there was no life left in the body.

Mr. Spiegelhauer says that several pulmotors were useless on account of lack of knowledge on the part of those who were attempting to operate them.

Telephone Boatman Gives Aid

H. N. Haberstroh, of the plant accounting department, Chicago Telephone Company, was on his vacation at the time of the *Eastland* accident. With a number of other young men, Haberstroh was cruising

in a large motor boat, in and out of the surrounding park lagoons, the lake and the river. Their craft was in the river near the *Eastland* when it went down. They went immediately to the rescue. Their boat was pressed into service by the police and they worked with the rescuers until late that night.

Plant Man's Presence of Mind

One Chicago Telephone Company plant department man showed rare presence of mind during one period of excitement following the *Eastland* disaster. He had been taking care of telephone equipment in connection with service rendered at the Second Regiment Armory and was in the rear of the armory in an alley when he noticed a small volume of smoke coming out of the crack in a door of a small building nearby. At first he thought some one was smoking in the building, but instead of letting it go at that he investigated and found it was a cooper shop and that a fire had started in some shavings on the floor. He realized that if he turned in an alarm in the regular way it might start a panic in the armory among the hundreds of people there. Therefore, he ran to the fire house a short distance away and gave the alarm verbally saying that it was not necessary to bring the engines. The fire was put out quietly with a hand extinguisher, thus avoiding what might have been a serious panic.

Western Electric's Tribute to the Telephone

(From the *Western Electric News*)

It would be hard to overestimate the value of the results accomplished through the splendid coöperation of the Chicago Telephone Company. Working at lightning speed, its installers put in dozens of emergency telephones. At the Clark street bureau the men had to do their work in the midst of a frantic, jostling crowd that jammed the entire room. Yet they completed an installation of nearly forty telephones in three hours. Without the help of the telephone company the efficiency of our information bureaus would have been lowered one-half.

Telephone Service at Life Saving Station

The Life Saving Station for Chicago is on the end of the breakwater at the mouth of the Chicago River, and in order that

other stations, telephone service is maintained at the coast guard station. A three-conductor submarine cable crosses the harbor for this purpose. The substation equipment consists of a No. 50-A protector and two desk sets, the main instrument being located at the Life Saving Station and the extension about 150 feet away in the quarters of the United States Engineers.

The extension instrument was installed only a few days ago and the work was done under very unusual conditions. In order to protect the wiring a No. 18 bridle wire was placed underneath the structure of heavy beams and spiles on which the buildings rest. As it is not possible to get a rowboat inside of this spile work, it was necessary for Installer Carney to swim about 100 feet in the semi-darkness with the wire. Installer Osborne paid out the wire from a temporary plat-

form built of planks as Mr. Carney swam. The life savers were interested spectators. A small hole was made in the flooring above and a porcelain knob fastened near the top of the spile near the center of the span, thus supporting the wire from the center well out of reach of the waves, except in the most extreme weather.



INSTALLER CARNEY (IN BATHING SUIT) AND CHICAGO PLANT MEN READY TO INSTALL EXTENSION SERVICE AT LIFE SAVING STATION.

Captain Carland and his life guards may communicate quickly with the city and



INSTALLER CARNEY CARRYING LINE UNDER LIFE SAVING STATION.

Right to Print Advertising

Ohio courts have upheld the right of telephone companies to accept pay for inserting advertising in their directories. A Cleveland man asked for an injunction to prevent the Cleveland Telephone Company from using its directory as an advertising medium. He asserted that the telephone company was usurping a function which did not belong to it in doing an advertising business; but all the courts, including the supreme court, ruled against him, and the companies will go right along getting a revenue from the advertisements in their directories.—*Wall Street Journal*.

The "Silent" Number

Milwaukee Information had a call for a subscriber who has a silent number. The party said he wanted Mr.— who used to have an open telephone and now had a quiet one.

Data on Purchase of A. T. & T. Co. Stock

By Employees of the Bell System as Per Plan Dated January 1, 1915

\$110.00 Per Share

TERMS: Payments, \$2.00 Per Month; Dividend, 8% Per Year; Interest, 4% Per Year

Designed and Prepared by P. A. Dunne, Traffic Department, New York Telephone Co., for "The Telephone Review"

			1 share	2 shares	3 shares	4 shares	5 shares	6 shares	7 shares	8 shares	9 shares	10 shares		
Total Cash Paid	End of Quarter	1915	May 31....	\$ 6.00	\$ 12.00	\$ 18.00	\$ 24.00	\$ 30.00	\$ 36.00	\$ 42.00	\$ 48.00	\$ 54.00	\$ 60.00	
			Aug. 31....	12.00	24.00	36.00	48.00	60.00	72.00	84.00	96.00	108.00	120.00	132.00
			Nov. 30....	18.00	36.00	54.00	72.00	90.00	108.00	126.00	144.00	162.00	180.00	200.00
		1916	Feb. 29....	24.00	48.00	72.00	96.00	120.00	144.00	168.00	192.00	216.00	240.00	270.00
			May 31....	30.00	60.00	90.00	120.00	150.00	180.00	210.00	240.00	270.00	300.00	330.00
			Aug. 31....	36.00	72.00	108.00	144.00	180.00	216.00	252.00	288.00	324.00	360.00	390.00
		1917	Nov. 30....	42.00	84.00	126.00	168.00	210.00	252.00	294.00	336.00	378.00	420.00	460.00
			Feb. 28....	48.00	96.00	144.00	192.00	240.00	288.00	336.00	384.00	432.00	480.00	520.00
			May 31....	54.00	108.00	162.00	216.00	270.00	324.00	378.00	432.00	486.00	540.00	590.00
		1918	Aug. 31....	60.00	120.00	180.00	240.00	300.00	360.00	420.00	480.00	540.00	600.00	660.00
			Nov. 30....	66.00	132.00	198.00	264.00	330.00	396.00	462.00	528.00	594.00	660.00	720.00
			Feb. 28....	72.00	144.00	216.00	288.00	360.00	432.00	504.00	576.00	648.00	720.00	790.00
1919	May 31....	78.00	156.00	234.00	312.00	390.00	468.00	546.00	624.00	702.00	780.00	850.00		
	Aug. 31....	84.00	168.00	252.00	336.00	420.00	504.00	588.00	672.00	756.00	840.00	910.00		
	Nov. 30....	88.30	176.59	264.89	353.16	441.47	529.74	618.04	706.35	794.65	882.92	971.20		
Total Dividends Rec'd †	End of Quarter	1915	May 31....	\$ 2.00	\$ 4.00	\$ 6.00	\$ 8.00	\$ 10.00	\$ 12.00	\$ 14.00	\$ 16.00	\$ 18.00	\$ 20.00	
			Aug. 31....	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00	40.00	
			Nov. 30....	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00	60.00	
		1916	Feb. 29....	8.00	16.00	24.00	32.00	40.00	48.00	56.00	64.00	72.00	80.00	88.00
			May 31....	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00
			Aug. 31....	12.00	24.00	36.00	48.00	60.00	72.00	84.00	96.00	108.00	120.00	130.00
		1917	Nov. 30....	14.00	28.00	42.00	56.00	70.00	84.00	98.00	112.00	126.00	140.00	150.00
			Feb. 28....	16.00	32.00	48.00	64.00	80.00	96.00	112.00	128.00	144.00	160.00	170.00
			May 31....	18.00	36.00	54.00	72.00	90.00	108.00	126.00	144.00	162.00	180.00	190.00
		1918	Aug. 31....	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	210.00
			Nov. 30....	22.00	44.00	66.00	88.00	110.00	132.00	154.00	176.00	198.00	220.00	230.00
			Feb. 28....	24.00	48.00	72.00	96.00	120.00	144.00	168.00	192.00	216.00	240.00	250.00
1919	May 31....	26.00	52.00	78.00	104.00	130.00	156.00	182.00	208.00	234.00	260.00	270.00		
	Aug. 31....	28.00	56.00	84.00	112.00	140.00	168.00	196.00	224.00	252.00	280.00	290.00		
	Nov. 30....	30.00	60.00	90.00	120.00	150.00	180.00	210.00	240.00	270.00	300.00	310.00		
Total Interest Paid	End of Quarter	1915	May 31....	\$ 1.06	\$ 2.12	\$ 3.18	\$ 4.24	\$ 5.30	\$ 6.36	\$ 7.42	\$ 8.48	\$ 9.54	\$ 10.60	
			Aug. 31....	2.05	4.10	6.15	8.20	10.25	12.30	14.35	16.41	18.46	20.51	
			Nov. 30....	2.97	5.94	8.91	11.88	14.85	17.82	20.79	23.77	26.75	29.72	
		1916	Feb. 29....	3.82	7.64	11.46	15.28	19.10	22.92	26.74	30.57	34.40	38.22	42.05
			May 31....	4.60	9.20	13.80	18.39	22.99	27.59	32.19	36.80	41.40	46.00	50.60
			Aug. 31....	5.31	10.61	15.92	21.21	26.52	31.83	37.13	42.45	47.75	53.06	58.37
		1917	Nov. 30....	5.94	11.88	17.82	23.74	29.69	35.63	41.56	47.52	53.45	59.39	65.33
			Feb. 28....	6.50	13.00	19.50	25.98	32.49	38.99	45.48	52.00	58.49	64.98	71.47
			May 31....	6.99	13.97	20.96	27.92	34.92	41.90	48.88	55.88	62.86	69.83	76.81
		1918	Aug. 31....	7.40	14.79	22.19	29.56	36.97	44.36	51.75	59.16	66.55	73.93	81.32
			Nov. 30....	7.73	15.46	23.19	30.90	38.64	46.36	54.09	61.83	69.56	77.27	85.00
			Feb. 28....	7.99	15.98	23.96	31.93	39.93	47.90	55.89	63.89	71.88	79.84	87.81
1919	May 31....	8.17	16.34	24.50	32.65	40.83	48.98	57.15	65.33	73.50	81.64	89.81		
	Aug. 31....	8.27	16.54	24.81	33.06	41.34	49.59	57.86	66.14	74.42	82.66	90.91		
	Nov. 30....	8.30	16.59	24.89	33.16	41.47	49.74	58.04	66.35	74.65	82.92	91.20		
Total Equity	End of Quarter	1915	May 31....	\$ 6.94	\$ 13.88	\$ 20.82	\$ 27.76	\$ 34.70	\$ 41.64	\$ 48.58	\$ 55.52	\$ 62.46	\$ 69.40	
			Aug. 31....	13.95	27.90	41.85	55.80	69.75	83.70	97.65	111.59	125.54	139.49	
			Nov. 30....	21.03	42.06	63.09	84.12	105.15	126.18	147.21	168.23	189.25	210.28	
		1916	Feb. 29....	28.18	56.36	84.54	112.72	140.90	169.08	197.26	225.43	253.60	281.78	310.00
			May 31....	35.40	70.80	106.20	141.61	177.01	212.41	247.81	283.20	318.60	354.00	389.40
			Aug. 31....	42.69	85.39	128.08	170.79	213.48	256.17	298.87	341.55	384.25	426.94	469.64
		1917	Nov. 30....	50.06	100.12	150.18	200.26	250.31	300.37	350.44	400.48	450.55	500.61	550.68
			Feb. 28....	57.50	115.00	172.50	230.02	287.51	345.01	402.52	460.00	517.51	575.02	632.54
			May 31....	65.01	130.03	195.04	260.08	325.08	390.10	455.12	520.12	585.14	650.17	715.20
		1918	Aug. 31....	72.60	145.21	217.81	290.44	363.03	435.64	508.25	580.84	653.45	726.07	798.68
			Nov. 30....	80.27	160.54	240.81	321.10	401.36	481.64	561.91	642.17	722.44	802.73	883.02
			Feb. 28....	88.01	176.02	264.04	352.07	440.07	528.10	616.11	704.11	792.12	880.16	968.20
1919	May 31....	95.83	191.66	287.50	383.35	479.17	575.02	670.85	766.67	862.50	958.36	1054.22		
	Aug. 31....	103.73	207.46	311.19	414.94	518.66	622.41	726.14	829.86	933.58	1037.34	1141.10		
	Nov. 30....	110.00	220.00	330.00	440.00	550.00	660.00	770.00	880.00	990.00	1100.00	1210.00		
Tot. Amt. to be Paid on Stock	End of Quarter	1915	May 31....	\$ 103.06	\$ 206.12	\$ 309.18	\$ 412.24	\$ 515.30	\$ 618.36	\$ 721.42	\$ 824.48	\$ 927.54	\$ 1030.60	
			Aug. 31....	192.10	384.20	576.30	768.40	960.50	1152.60	1344.70	1536.80	1728.90	1921.00	
			Nov. 30....	281.16	562.32	843.48	1124.64	1405.80	1686.96	1968.12	2249.28	2530.44	2811.60	
		1916	Feb. 29....	81.82	163.64	245.46	327.28	409.10	490.92	572.74	654.57	736.40	818.22	900.04
			May 31....	149.20	298.39	447.59	596.79	745.99	895.19	1044.39	1193.59	1342.79	1491.99	1641.19
			Aug. 31....	216.58	433.16	649.74	866.32	1082.88	1300.00	1517.60	1732.80	1948.00	2163.20	2378.40
		1917	Nov. 30....	283.96	567.92	851.88	1135.84	1420.00	1704.32	1988.64	2273.00	2557.36	2841.72	3126.08
			Feb. 28....	351.34	702.68	1054.02	1405.36	1756.70	2108.04	2459.38	2810.72	3162.06	3513.40	3864.74
			May 31....	418.72	837.44	1256.16	1674.88	2093.60	2512.32	2931.04	3349.76	3768.48	4187.20	4605.92
		1918	Aug. 31....	486.10	972.20	1458.30	1944.40	2330.50	2716.60	3102.70	3488.80	3874.90	4261.00	4647.10
			Nov. 30....	553.48	1106.96	1660.44	2212.00	2698.10	3184.20	3570.30	3956.40	4342.50	4728.60	5114.70
			Feb. 28....	620.86	1241.72	1862.58	2473.62	2959.74	3445.86	3832.00	4218.14	4604.28	4990.42	5376.56
1919	May 31....	688.24	1376.48	2064.72	2752.96	3239.10	3725.24	4111.38	4497.52	4883.66	5269.80	5655.94		
	Aug. 31....	755.62	1511.24	2276.86	3031.10	3517.24	4003.38	4389.52	4775.66	5161.80	5547.94	5934.08		
	Nov. 30....	823.00	1646.00	2487.00	3301.20	3787.34	4273.48	4659.62	5045.76	5431.90	5818.04	6204.18		

*Balance due on stock March 1, 1917.

†These figures are based on 8% dividends being declared.

Note: These figures are based on the official rates of interest as charged by the A. T. & T. Co.

"Bully for Old Purdue!" Heard Across the Continent

As a fitting way to celebrate "Purdue Day" at the Panama-Pacific Exposition, the Purdue University Alumni Association located at New York, Chicago, Omaha and San Francisco, took part in a "talk" over the Bell transcontinental line on Friday evening, August 20th.

Arrangements were made by R. M. Bennett '05, assistant maintenance superintendent

The conversation started at 8 p. m., central standard time, with C. W. Morey, president of the Chicago Alumni Association, talking from Chicago to V. D. Cousins, president of the San Francisco section, and E. C. Geither, president of the New York Association. Prominent members of the Purdue faculty then extended greetings to the associations to each other, Winthrop E. Stone, president of University, Professor "Mike" Golden and Mrs. Kate Golden Bitting talking from San Francisco; Professor T. G. Alford from Chi-

August 21, 1915.
Chicago Telephone Company,
Chicago, Illinois.

Att. Mr. R. M. Bennett.

Dear Sir: As president of the Purdue Association of Chicago, I desire in behalf of the Association to extend to you our thanks and appreciation for the courtesy you extended to us last evening. I talked with most of the one hundred and fifty Purdue men present, and there was a universal opinion that this was a most instruc-



MEMBERS OF PURDUE ALUMNI ASSOCIATION AT CHICAGO LISTENING TO CONVERSATION BETWEEN NEW YORK AND SAN FRANCISCO.

ent of the Chicago Telephone Company, to have the Chicago Alumni Association meet on the eighth floor of the Bell Telephone Building, where tables were equipped with receivers so that every one present could hear the voices of the Purdue men talking from coast to coast.

At 7:30 p. m., 150 members of the Chicago Alumni Association had gathered in the assembly room on the eighth floor and were entertained with music furnished by the Chicago Telephone Company Band, and a monologue in Swedish dialect and solo by D. Seaholm, a member of the Telephone Company's Players Club. The university men also sang a number of their college songs, accompanied by the band.

While the entertainment was going on most of those present sat with a receiver glued to one ear, very much interested in hearing the plant men at Chicago, San Francisco and New York make a final test of the transcontinental circuit.

cago and Professor W. E. Goldsborough from New York.

A short time after the conversation started everyone was pleasantly surprised to have members of the "Omaha" association announce that they were in on the connection and wanted to be heard from.

After the greetings were over "rahs" for the speakers were given by each association, which could be plainly heard by every one. Then the famous "Bully for Old Purdue" yell was given, sending a thrill across the continent to the heart of every Purdue man who heard it.

At the conclusion of the regular program conversations were held between class mates and friends, "Sammy" Fleager, C. C. Bradbury, L. J. Kirby and several others talking to both the Pacific and Atlantic coasts.

Mr. Bennett received the following letter of thanks:

tive and entertaining affair. The transmission seemed to be perfect.

Every word from all of the speakers in San Francisco, New York and Omaha could be easily heard and understood. This I think is very remarkable and I am sure was beyond the expectation of all the men present.

Please be assured that Purdue men feel under obligations to you in bringing about this very enjoyable and instructive affair. Very truly yours,

(Signed) C. W. MOREY,
Pres. Purdue Association of Chicago.

Results

Manager—"I'll hire you on one condition. You must get results."

New Office Boy—"Say, I'll get them and the batteries and the hits and the errors within half an hour after every game."

Passing of Old Harrison Office

Eighteen thousand telephones changed from one exchange to another in the twinkling of an eye and without an instant's interruption in the service. This is what was accomplished recently when the Harrison office of the Chicago Telephone Company, which takes care of a large part of the loop's telephone traffic and which has occupied quarters on the seventh floor of the Manhattan building for several years, was cut over to the Wabash exchange building at 520 Federal street. The change in location which has just been made was necessary in order to meet the telephone company's requirements, due to the rapid increase in the number of telephones centering in the Harrison office, which the company believes can be handled to better advantage in the Wabash building, which is new and built expressly for telephone exchange purposes.

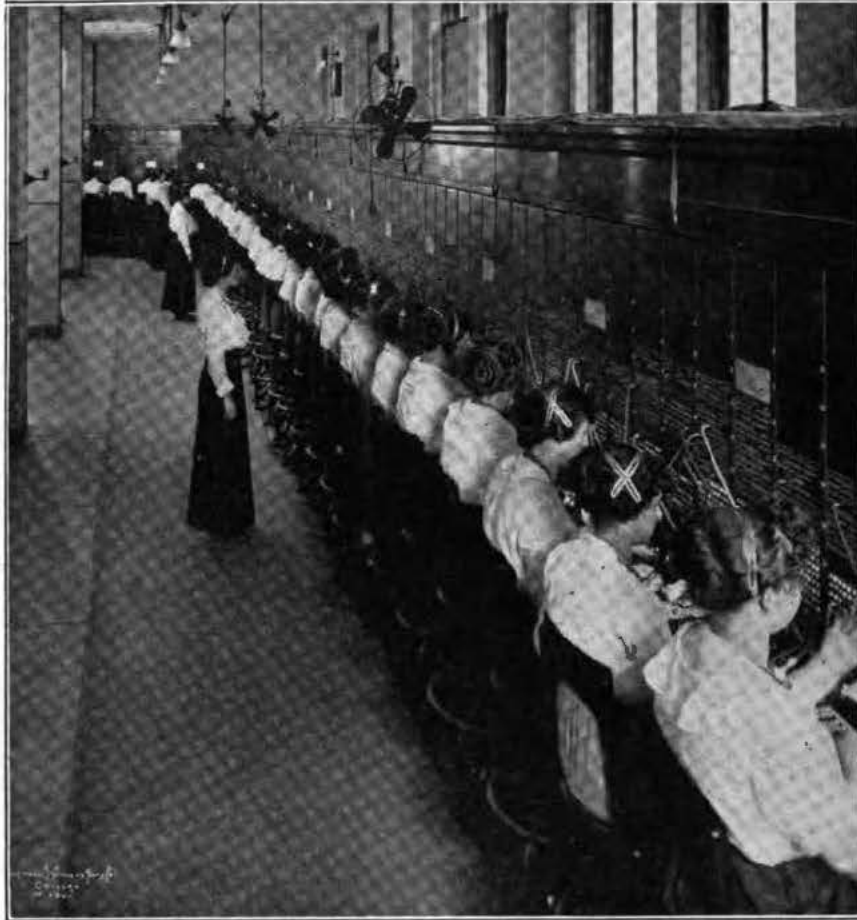
The Harrison-Wabash exchange is one of the biggest and busiest telephone offices in the world. Besides the 18,000 telephones that center in the Harrison switchboards, there are 14,000 telephones connected with the Wabash switchboards, making a total of 32,000 telephones. The traffic over these telephones averages approximately 250,000 calls daily and is handled by the Harrison-Wabash force of 500 operators. The Wabash building was remodeled throughout to care for the additional equipment, all of which is new and embraces all of the latest improvements.

Harrison exchange is one of the oldest telephone exchanges in Chicago. It was opened in 1892 to relieve the telephone company's Main office during the World's Fair. The original Harrison office was a little three-story frame building opposite the old police station on Harrison street. Seven operators handled the entire traffic of the Harrison office district in those days and less than 500 telephones were connected with the office. Some of these first Harrison operators are still with the telephone company.

In 1899 the Harrison office was moved to the Manhattan building. At that time about 2,000 telephones were connected and the exchange was handling approximately

35,000 telephone calls a day. At that time also the Harrison office was changed from the old type of magneto or ringing-crank system, to the common battery system which is now in universal use in Chicago.

An interesting feature in the history of the Harrison exchange is the fact that it was the first exchange in Chicago and one of the first in the United States to have a hotel telephone system connected with it. The hotel in this case was the Auditorium and it had 1,000 telephones. At that time a telephone in every room of a hotel was



ONE OF THE BIG SWITCHBOARDS IN THE NEW HARRISON OFFICE, CHICAGO.

quite a novelty to patrons and the general public. To-day, a telephone in every room is considered a necessity in all first-class hotels.

Closely following the inauguration of hotel telephone systems came the public pay stations. The hotels were the first to have such stations. Many amusing stories are told of the early days of the telephone pay stations, one of which is related by an old telephone man of the pay station at De Jonghe's, on Monroe street. When the representative of the telephone company called to make his usual collections from the coin boxes, the proprietor of the hotel, believing he was a thief, locked the collector in a telephone booth. Fortunately the telephone man was in a position to communicate with the exchange, which he did, asking that aid be sent him immediately.

Another telephone employé had to go to the hotel and vouch for the collector in order to secure his release from the telephone booth where he had almost suffocated.

The photograph on this page shows the big A switchboard on the seventh floor. This board, as may be seen, is one of the largest in the country. The picture shows one side of the room only.

The Wabash building is second only to the Main building on West Washington street in the amount of switching apparatus contained. The building, of course, is equipped with every modern provision for the comfort of the more than 500 people who are employed within its walls in the various departments of the work.

Demonstration for Bankers

A transcontinental telephone demonstration was tendered the delegates attending the convention of the Michigan Bankers' Association, at Grand Rapids, Mich., Tuesday, July 27th, at a luncheon given in the main dining room of the Morton House, by the Grand Rapids bankers.

The line was cleared at 1:10 p. m. and for an hour the men of Michigan made merry over the telephone with friends in San Francisco, 2,500 miles away. Dudley E. Waters, vice president of the Michigan State Telephone

Co. and former president of the Michigan Bankers' Association, talked with James K. Lynch, vice president of the American Bankers' Association, San Francisco, following which various members of the party passed the time of day with men at the other end of the line. The orchestra on the exposition grounds at San Francisco played "I Want to Go Back to Michigan" as a finale to the demonstration.

The line was in perfect working order, all conversation being as clear as though it were being conducted with parties but a few blocks away. The demonstration was pronounced a success in every detail and Mr. Waters was the recipient of warm congratulations from the bankers and other guests present who had spent such a pleasant hour communicating with friends on the far away Pacific Coast.

The Telephone and the Street Car Strike

(Reprinted from *The Gateway*)

The Chicago Telephone Company, at this particular time of business paralysis, proved that its policy of "service to the people," meant exactly what it said.

Despite the business and social dislocation caused by the stoppage of transportation facilities in Chicago, the telephone company met the changed conditions promptly and efficiently. Without the slightest jar or friction, and working as smoothly as a Howard watch, this highly efficient human organization had its full force of operators at work promptly on time to care for the enormous 100 per cent. increase in telephone calls that quickly resulted.

Chicago was thereby saved from an impending calamity by the remarkable foresight and business acumen of H. F. Hill, vice-president of the Chicago Telephone Company. No Chicago newspaper gave the telephone company credit for this marvelous feat, but the editor of *The Gateway*, who was in Chicago during the strike and knows the situation, is not so indifferent.

The telephone company could have done what other large institutions, both private and public, did, that is—nothing.

But Mr. Hill evidently believed in the enlightened view that public service means rendering service to the public at all times and under all conditions.

Moreover, he realized that practically the only means of communication for the people of Chicago, lay in the use of the telephone.

Without the telephone, Chicago would be dead; with it operating under part service, business would be congested—it must be capable of the enormous extra demand made on it during the strike! With this thought in mind, he at once prepared for all contingencies.

Calling in experienced assistants, Chicago was at once mapped out in sections and every one of the 7,000 employees of the company, was notified in advance, to be

at a certain corner every morning, where automobiles would be sent to take them to telephone offices throughout the city.

Rooms and meals were also engaged in the La Salle Hotel, one of the best in the city, for the 1,600 down-town operators, all at the expense of the company.

Matrons were placed in charge of the girls and tickets for theaters and other amusements, were given them free during the strike.

All this meant many thousands of dollars in expense. The Chicago Telephone Company, however, never hesitated. It recognized its duty to the public and willingly shouldered the extra burden because, "It

ing in the suffrage cause, used the telephone to ascertain the sentiments for or against suffrage, of as many as possible of their fellow citizens of the masculine persuasion. The day was a success.

It would be impossible to estimate how many hundreds of telephone calls were sent or how many hundreds of men received the messages. Mary Garrett Hay, head of the Woman Suffrage Party, which is organized throughout the city in Assembly and election districts like a regular political party, said there were probably 400 women in Manhattan who sent telephone messages to the specially prominent men of that borough, officials, business and professional men.

In addition to this, every suffragist was to telephone personally to five men. There are nearly 100,000 women in the Suffrage Party alone. The Assembly District Chairmen of the party were to telephone to the Assembly district officers of the different political parties and the election district captains of the party to the election district officers.

Each of the different boroughs handled Telephone Day in its own way, and there were no general returns, as it was impossible to get the machinery in motion without too great trouble and expense.

Up-State Telephone Day was also observed, and tele-

grams were received from Governors and Mayors of the different Western States and cities. These came under the head of telephone messages, but, because of the matter of expense of the long-distance telephone, Western women were asked to get their officials to send telegrams to Mrs. Norman de R. Whitehouse "collect."

To Teach Operating to Blind

The Michigan Employment Institution for the Blind, of Saginaw, will try the experiment of teaching blind people how to handle a telephone switchboard, if a sufficient number of the members of the institution express a wish to try the venture. In that event, a five station switchboard will be installed. It is said that many blind people follow the calling of the telephone operator in the east and very successfully.



CHICAGO TELEPHONE COMPANY'S DISPLAY DURING MARKET WEEK.

This was shown in a number of drug-store windows. It was designed by the Publicity Department.

was for the good of Chicago."

Its ready to serve ability, was the principal agency for keeping alive, the business of the city, which had been paralyzed by the action of the street car men's union. The immense department stores and other business institutions were kept open and were able to care for the business coming in over the telephone. Although the telephone calls increased 100 per cent. during those days, the efficiency of this corporation was so nearly perfect, that hardly a murmur of complaint was heard.

The telephone company saved the day. It deserves well of the people of Chicago.

"Telephone" Suffrage Day

July 19th was "telephone day" for the suffragists of New York state. On that day the women of the state, who are work-



Safety First and Accident Prevention



TAKE TIME TO BE CAREFUL.
BE CAREFUL ALL THE TIME.

THE SAFE COURSE IS ALWAYS THE BEST
AND QUICKEST IN THE LONG RUN.

CAREFULNESS COSTS YOU NOTHING
AND ITS VALUE CANNOT BE MEASURED

Safety in the home is a subject that has received but little attention heretofore, probably due to the fact that the accidents in individual households occur infrequently. Only a small percentage of these accidents are reported to the police department, the balance being known only to the members of the family and the physician. In one year in the county in which Chicago is located, 2,023 accidents in and around the home, not in the office or factory, were reported to the coroner and 541 of them resulted fatally.

As all of these were accidents of a serious nature, it is fair to say that the number of accidents reported represents but about five per cent. of those which actually occurred. It is true that the other ninety-five per cent. did not result fatally, but who knows how many of them resulted in permanent deformities or physical weaknesses covering long periods of time. Not one of us but can remember at least one serious accident which occurred to someone in his own family at one time or another. Nearly every accident of this kind was due either to an act of carelessness on the part of someone at the time of the accident or to lack of proper attention to things in need of repair.

It is a law of nature that each generation profits by the experience of those preceding, adopting improvements based on knowledge derived from the experience of those going before. A community of careless, thoughtless persons will have a large number of accidents, whereas a community of careful, thoughtful people who teach "Safety First" to their offspring from childhood up and observe it themselves, will have a much smaller percentage of accidents. This kind of education must be carried on in the home as well as in the

school and it must be lived by the parents, that their example may supplement their teaching.

Let us each one do our part to free coming generations from the accidents and suffering due to carelessness and wrong living. We all have a definite work to perform and when working are under a strain. When the strain of work is over, we re-

Gas is a splendid servant but tricky. It is generally recognized that it is unsafe to connect gas stoves and gas lights with rubber tubes. A metal pipe should always be used and where the gas is burned in a very small room, such as in connection with the water heater in a bathroom, some means of ventilation direct from the flames should be provided. Instantaneous gas water

heaters should never be used without a vent pipe leading out of doors. Great care should be taken to see that the gas is turned off when not needed so that there may be no possibility of gas escaping.

Right here a word must be said about the hanging of garments on gas fixtures. A gas fixture makes a poor substitute for a clothes hanger and its use in this manner has accidentally turned on the gas and resulted fatally to the occupants of the

room. In other cases the weight of the garment has broken the connection, allowing the gas to escape into the room with serious results.

Fire arms should not be kept in the house where there are children and if they must be kept, they should be put away unloaded and kept in a locked receptacle. It is against the law to carry fire arms and the violation of this law subjects the guilty person to a heavy fine. In addition to this such weapons are a constant menace not only to the owner but to everyone else in his vicinity. As a protection against burglary, they are of small value and in most cases of injury by burglars, had the victims been unarmed, they would not have been injured.

Little children, with their natural desire to learn and to experiment, are very often seriously injured because dangerous articles are left within their reach. It is needless

Who Am I ?

I am more powerful than the combined armies of the world.
I have destroyed more men than all the wars of the world.
I am more deadly than bullets, and I have wrecked more homes than the mightiest of siege guns.
I steal in the United States alone, over \$300,000,000.00 each year.
I spare no one, and I find my victims among the rich and poor alike; the young and old; the strong and weak; widows and orphans know me.
I loom up to such proportions that I cast my shadow over every field of labor from the turning of the grindstone to the movement of railroad trains.
I menace thousands upon thousands of wage-earners in a year.
I lurk in unseen places, and do most of my work silently. You are warned against me, but you heed not.
I am relentless. I am everywhere; in the home, on the streets, in the factory, at railroad crossings, and on the sea.
I bring sickness, degradation and death, and yet few seek to avoid me.
I destroy, crush, or maim; I give nothing, but take all.
I am your worst enemy.
My name is CARELESSNESS.

lax and too often forget the habits of caution which we observe when working. *Don't take a chance when you are off duty that you would not take when working.*

Most of us thoroughly enjoy a joke but no one desires to have any one injured as the result of a joke. As a general thing it may be said that practical jokes are dangerous and should not be indulged in. Practical jokers are often as dangerous as "the man who rocks the boat."

For one reason or another, poisonous substances are often kept in the house. If it is necessary to have such things in the house; they should be kept in special receptacles, such as bottles of peculiar shape or in sealed boxes, so that when felt in handling in the dark they may be recognized. Many serious accidents have resulted from the great similarity in appearance of poisonous tablets to other tablets of an innocent nature.

to say that sharp knives, pins and needles, matches, and heavy objects are not fit articles for them to play with. Neither should children be allowed around hot stoves or hot liquids. A large number of accidents have occurred in which severe burns and scalds have been the direct result of permitting children to get in the way. In one case a mother cooked a very small amount of starch and having done so placed it in a pan on the floor outside of the door to cool. As she turned away to do something else, her small daughter upset the starch and fell into it sustaining severe burns. In another case the mother placed a vessel containing a small quantity of scalding hot water on the kitchen sink within the reach of the children. One of them reached up and pulled the pan over spilling the contents down on her shoulder causing intense pain.

In the majority of homes nowadays we find cats, dogs and other domestic animals. A large proportion of these are watch dogs although in many cases these animals are kept as companions and playmates for children. This is really an excellent idea as it tends to teach them lessons of kindness and thoughtfulness. Such animals, however, because of improper diet or unusual conditions contract diseases that are fatal to human beings. A case in point occurred some time ago in which an eleven-year-old girl was found to have a very high fever. Her condition became so serious that a physician was called and within an hour after the physician arrived, the child died. At the coroner's inquest it developed that the little girl had been seen kissing the mouth of her spaniel and in so doing had contracted a disease which, while not dangerous to the dog, is fatal to human beings. Many other cases are on record in which such animals have gone mad and bitten children or others within reach. Many cases have occurred in which children have been allowed to play with dogs not thoroughly domesticated and in some manner have hurt them, and as a result the animals, in a natural desire to protect themselves, have bitten or scratched those whom they thought were maliciously tormenting them. Let us take this as a warning, not to prohibit the keeping of such animals in the home but to exercise a reasonable caution. Care in the selection of food for the animals and a watchfulness over their physical condition, together with the proper instructions to the children and others as to the treatment of the animals, will prevent what is really a blessing from becoming a menace.

A considerable number of people are injured each year in falls from open windows. The majority of these accidents occur to children and it is a safe rule that where children are allowed to play all open windows should be barricaded or barred in some way so that the children cannot fall out of them. Screens are of course very necessary, but they are never strong enough to keep even a child from falling

out of the window. The records of the coroner's office show that in one year fifty per cent. of the falls from open windows in Chicago resulted fatally.

Fire insurance companies and state and municipal laws prohibit the storage and use of gasoline, benzene and other similar highly explosive and inflammable substances in dwelling houses except under very rigid rules. Nevertheless, each year there are a number of serious accidents resulting from the use of these inflammable substances. Gasoline is particularly favored for cleaning purposes. However, substances of this kind are absolutely unsafe for use except under ideal conditions not usually found in our homes. There are non-explosive and non-inflammable substances which are just as efficient and not any more expensive. The same explosive and inflammable substances very often are component parts of stove polishes and severe burns have been the result of using such polishes. If such polishes must be used, they should be used only with the greatest care; better not at all.

Very often in the home as well as in the office or factory, in our haste we overburden ourselves and in so doing there is very great danger of severe strains or of tripping and falling, precipitating whatever we are carrying onto ourselves or someone else nearby. An illustration of this is the case of a mother who was hurrying up her work and in coming downstairs carried an infant child and a pail of hot water. In some unknown manner her foot slipped and she fell, precipitating the scalding hot water over the child.

Injuries sustained in the home should receive just as prompt and careful attention as those occurring in the office or shops. Minor cuts should be treated promptly with iodine applied directly to the cut and surrounding skin. Burns and scalds should be bathed with oils, such as sweet oil, castor oil or linseed oil. The methods given in the First Aid Hints and published in the June issue of the BELL TELEPHONE NEWS, if followed carefully, will, in the majority of cases, prevent serious results.

The lack of calmness and presence of mind in an emergency is a frequent cause of injury. The first consideration in every case should be SAFETY. In every community, discipline of mind is needed. Every adult member of society should take warning at this time, so that each home may be a center of education for "Safety First."

Let us do everything we can to prevent accidents at home as well as at work, and where accidents have already occurred let us take every step to alleviate the suffering of the injured person. "Home" has been said to be the sweetest word in any language. We can make it "Home Safe Home" as well as "Home Sweet Home."

Injury to B. S. Garvey

B. S. Garvey, general auditor of the Central Group of Bell Telephone Companies, met with a painful accident on the night of August 27th. Going down stairs to answer a telephone call he slipped and fell, breaking some of the small bones in



B. S. GARVEY.
Who Was Painfully Injured By Fall.

his right foot and spraining his left ankle. Mr. Garvey will probably be confined to the house for a fortnight. As his auditing apparatus is housed in the bombproof at the opposite end of the plant from that in which the damage occurred, there will be no interruption in the work of the department.

Electric Candy Shops

Electric confectionery shops are to be found in St. Paul and Minneapolis. The owner of these shops is a great believer in electricity, and he has equipped his tables with candle lamps and desk telephone sets. A customer seats himself at the table, looks at a handy table directory or menu, finds the number of the particular dainty he desires, and gives his order by telephone. A minute later the order is placed on his table by a waiter.

The system, says the owner, saves a great deal of time because the waiters do not have to make a trip to the table to find out what the customer wants, nor do they have to wait while the customer is deliberating over his choice.—*Chicago Herald.*

The Unsentimental Telegraph

The following telegram was presented at a telegraph office:

"I announce with grief death of Uncle James. We are his heirs."

"There are two words over the ten," said the clerk.

"All right," said the customer. "Cut out 'with grief.'"—*Telegraph and Telephone Age.*

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Plant Department League, Chicago

STANDING OF THE TEAMS
AUG. 28, 1915.

	Won.	Lost.	Per cent.
Oakland	9	1	.900
Wentworth	9	2	.819
Stewart	6	3	.667
Long Lines	5	3	.625
Construction	3	3	.500
Nights	4	6	.400
Harrison	1	10	.091
Main	1	10	.091

GAMES OF AUGUST 28TH

Oakland, 6; Main, 5.
Oakland, 20; Main, 1.
Nights, 2; Long Lines, 1.
Long Lines, 11; Nights, 7.
Wentworth, 15; Harrison, 4.
Wentworth, 8; Harrison, 3.

GAMES OF AUGUST 14TH

Nights, 8; Harrison, 7.

GAMES OF AUGUST 7TH

Wentworth, 3; Oakland, 2.
Stewart, 26; Main, 1.

GAMES OF JULY 17TH

Oakland, 17; Harrison, 2.
Stewart, 5; Long Lines, 4.
Wentworth, 16; Construction, 10.
Nights, 20; Main, 6.

GAMES OF JULY 2ND

Oakland, 14; Nights, 10.

Rain, rain and more rain! Wind and drizzle—these have followed the Chicago

baseball leagues throughout the summer and the season approaches its end with many postponed games yet to play, most of which will never be reached. The Plant Department League has been unfortunate in being compelled to sit idle for Saturday afternoons during July and August. The same ill luck has followed the other teams.

While the date is not certain, it is expected to hold the annual field day September 25th at the American Giants' Park, Thirty-ninth street and Wentworth avenue. The Plant Department League season officially closes on that day.

Tennis at Detroit

With the construction of two tennis courts by the Michigan State Telephone Company, one on the grounds of the Detroit Athletic Club and the other at the Market exchange, tennis has become a favorite form of diversion for many of the Detroit employes of the company.

The courts are under the direction of a committee made up of representatives of the various departments. They are open to all employes. The committee will arrange schedules for those who wish to use the courts and also, will arrange tournaments to be held during the fall. Tennis bids fair to become a very popular form of recreation among the employes of the Michigan State.

Tennis at Springfield

On Monday evening, August 9th, at 5:30 p. m., the Inter-Department Tennis Tournament of the telephone employes, Springfield, Ill., opened at the Washington Park Tennis Courts. A. J. Parsons, commercial superintendent Central Union Telephone Company, served the first ball. There were thirty entrants listed, and with the enthusiasm manifested, the Tournament promises to be a success.

Chicago Tennis Tournament

The first tournament of the season proved that the interest of the girls of the Chicago Telephone organization in tennis is steadily rising and the enthusiasm shown in the contests was hearty enough to gratify



ENTRANTS IN TENNIS TOURNAMENT AT SPRINGFIELD, ILL.

Bottom Row—Sitting, Left to Right—R. F. Sharpe, G. W. Decker, R. C. Rottger, A. J. Parsons, E. F. Morrill, E. R. Cogswell, H. R. Lee, Ed. Winters.
Middle Row—Miss Clark, L. G. Bischoff, Miss Helenthal, H. Rauston, T. T. Thomas, Miss Kelly, Miss Wiley, Miss Hendron, Miss O'Brien, Miss Herzog, Miss Fisher, Miss McCutcheon, Miss Parsons, Miss Fox, Miss Colin, Miss McGinnis, F. T. Shaw, H. O. Saunders.
Top Row—Miss Leonard, Miss Highshoe, Miss Tierney, Miss White, F. H. Sawtell, Louis Kochendorfer, H. H. Doocy, Miss Hall, Miss Dirksen, E. B. Moore, I. I. Andrews, William Wignall.

the most ardent advocates of tennis, as a good adjunct to telephone operating. This year there were about 180 entrants, representing nearly every office. The bad weather of this unusually wet season and the difficulty of finding leisure time for practice were handicaps which the girls showed great pluck in surmounting. At Superior office twenty girls clubbed together and bought nets and rackets, and plan to enter the next tournament.

The four girls who played at the semi-finals at Oakland, Tuesday, August 6th, were the representatives of their respective divisions, having beaten all of the opponents in their districts. It showed consistent good playing on the part of these young ladies to appear again this year as champions of their districts.

Miss Cikanek of Kedzie made a remarkable record, as she began playing only this year. She surprised every one by the poise and self-possession with which she played, in the excitement of a tournament.

The Oakland tennis court was in fine condition as a result of Mr. Judson's careful grooming, and the day was bright, a fact that in itself made every one happy—after the postponement on account of rain. The enthusiasm was high and a friendly rivalry kept up the cheering and attracted a large crowd of spectators.

While the result had to be disappointing to two of the players, it was not allowed to dampen the enthusiasm of either of the losers, for they, as well as Miss Long and Miss Noyes, were presented with an umbrella by Mr. Larned, who assured them that they all deserved something to lay up for a rainy day, admitting, however, that so far this summer there had not been so many opportunities to lay up as one could wish.

At Edgewater on Wednesday afternoon, August 11th, the great game of the season was played before a splendid host of rooters. Miss Long, of the plant department, had the disadvantage of playing before a most devoted group of Edgewater



FINALS IN WOMEN'S TENNIS TOURNAMENT AT CHICAGO.

Mr. Foster presenting racket, the first prize, to Miss Long, the winner. Miss Noyes, runner-up, is also in the picture.

fans, for not only the office, but all Edgewater's younger population seemed to have gathered to express in no subdued tones their loyalty to Edgewater. Children on the roofs and behind the fences kept up a lively clatter, while the girls of the office ably seconded therein, demonstrations for their own Miss Noyes. The traffic department being much the largest in attendance, naturally evinced great interest in Miss Noyes' winning. But Miss Long is as great in mind as in physical strength, and took everything with fine good nature. The game was superb and of intense interest. Miss Noyes has improved 100 per cent. in her game since last year, and especially, in her back court volley and back hand return, she won much praise. She gave Miss Long a hard battle and Edgewater has reason to be proud of her.

Here are the details of the most interesting match in which Miss Long again proved her title as the champion woman

until the score was 4-4. On the ninth game Miss Noyes broke through Miss Long's serve, but was unable to hold the advantage for Miss Long took Miss Noyes' serve—score 5-5. Again in the eleventh game, Miss Noyes won Miss Long's serve, but again lost on her own serve, score 6-6. Then in the thirteenth game, Miss Long, after a hard deuce fight and by fine playing, took her serve, making it 7-6 in her favor, and shortly after, in another hard-fought deuce game, took Miss Noyes' serve into camp and won the set, 8-6. This final game went to deuce and ad many times before finally decided.

The second set started off with Miss Long taking the first two games. Miss Noyes then took the third and Miss Long the fourth, leading 3-1. The next two games alternated, Miss Long still leading, 4-2, and with good prospects of the set and match. But Miss Noyes decided differently, and she started one of the prettiest and pluckiest volleys ever seen in the Chicago Telephone tennis matches, and completely swept Miss Long off her feet, winning the next four games and the set, 6-4. Score, a set apiece.

The match was an even break at the start of the third and deciding set. Miss Long serving, took her game, and then broke through Miss Noyes' serve and took the second game; score, 2-0 in Miss Long's favor. Then Miss Noyes rallied and took Miss Long's serve twice and her own, making it 3 games to 2



SEMI-FINALS IN WOMEN'S TENNIS TOURNAMENT, CHICAGO.

Mr. Larned presenting an umbrella to each of the contestants.

and with bright prospects for the set and match. But that pluckiness that Miss Long always has in reserve now showed. (Miss Long always plays better when she is behind in the score.) She took the next game, a deuce affair, and then ran out the final two games to a 6-3 finish. Score:

Miss Long.....8 4 6
Miss Noyes....6 6 3

Miss Long was presented with a tennis racket by Mr. Foster.

Baseball at Rock Island

The ninth game of baseball which was played at the Ninth street grounds, Rock Island, July 31st, between the Central Union Telephone Company and the Rock Island Manufacturing Company resulted in defeat for the Telephone Company, the score being 13 to 4 in favor of the Manufacturing Company. The score by innings:

R. I. Mfg. Co.... 2 0 0 0 1 6 4 0—13 14 1
C. U. Tel Co.... 0 0 0 0 1 3 0 0—4 9 4
Batteries—Wright and Whistler; Branmon and Ellinghouse.

The Telephone boys hit hard, but lost the game by wild throws. Pitcher Branmon of the Telephone Company team struck out sixteen men, while Wright struck out nine of the Telephone boys. Vermillion of the C. U. T.'s featured the game with a three-base and a two-base hit out of three times at bat, while Catcher Ellinghouse got two two-base hits and a single out of four times up. A remarkable feature of this game, seldom heard of in baseball, was that Pitcher Branmon was credited with five strike-outs in one inning, three of which were made after two men were out. However, Ellinghouse failed to hold the third strike, allowing the man a base. Then stolen bases and timely hits resulted in six scores.

Bell Telephone Rod and Gun Club

On August 20th the club held its regular monthly meeting in the club room at 321 W. Washington street, second floor. This was opening night of the rifle gallery and presentation of cups and



CENTRAL TEAM IN JUNIOR LEAGUE, CHICAGO. WINNERS OF 1915 CHAMPIONSHIP.

medals won by the rifle team at the White City tournament. The committee on the club emblem is preparing a design for a button, a sketch of which will be shown in the next issue of the BELL TELEPHONE NEWS. The price of buttons ranges from thirty-five to sixty cents, and for the fob a little more.

At the beginners' shoot held on August 14th at the Chicago Gun club grounds J. J. Cleary carried off the honors of the day with a total of twenty-one out of a possible twenty-five. This was only for beginners who have never shot at clay pigeons before.

On August 28th J. A. Rose won by a total of fourteen out of a possible twenty-five.

September 11th the club will have another beginners' shoot and give those that have not shot a chance to make a better score than fourteen, which is exceptionally good for a beginner.

The Du Pont Powder Company is giving cups to 100 clubs sending in a list of the most beginners. The Bell club has fourteen who have already shot and it is hoped to swell the list to sufficient size to get a cup for a big trap shooting event which will be held later in the season.

Members and prospective members are urged to be on the grounds at One Hundred and Twenty-third street and Michigan

avenue on September 11th at 3 p. m. Rain will not interfere with the sport.

The rifle gallery is now in working order and according to reports is one of the best in the state.

The following are the results of an indoor rifle match September 2nd for the inter-department championship:

First team.	Kneelng.	Sitting.	Pronc.	Total.
V. C. Campbell...	22	24	43	89
J. Schriver.....	20	21	42	83
C. J. Radack.....	21	15	41	77
				249
Second team.				
L. R. Birdsall....	21	24	46	91
R. H. Burns.....	18	18	40	76
A. McGee.....	19	20	41	80
				247

These results show the work of the first two teams. The match was won by the Estimate and Order Division with a total score of 249, with the Right of Way Department as runner-up, with a score of 247. Mr. Birdsall was high man of the shoot with a score of 91 out of a possible 100.

In the near future there will be a "Ladies' Night," as there have been several inquiries from fair "shooters." However, no one seems to want to "break the ice." Judging from the scores made by some of the lady trap shooters, some good rifle scores are to be expected, and the men may have to look carefully to their laurels.



BELL TELEPHONE ROD AND GUN CLUB OF CHICAGO. AT OPENING OF NEW RIFLE GALLERY, AUGUST 20TH.

Chicago Tennis League

The table below shows the standing of the Chicago Commercial Tennis League on August 21st. The teams represent Sears, Roebuck & Company, Western Electric Company, Peoples Gas Company, Chicago Telephone Company and Commonwealth Edison Company:

	S. R. Co.	W. E. Co.	P. G. Co.	C. T. Co.	C. E. Co.
S. R. Co.	10	15	7	15	47
W. E. Co.	8	11	..	9	28
P. G. Co.	3	7	..	13	32
C. T. Co.	2	..	5	..	16
C. E. Co.	3	..	..	9	12
Lost	16	17	31	29	135

Junior League, Chicago

FINAL STANDING OF THE TEAMS
AUGUST 28, 1915.

	Won.	Lost.	Per cent.
Central	8	3	.793
Franklin	6	3	.667
Main	4	3	.572
Wabash	3	4	.429
P. B. X.	1	2	.333
Monroe	2	4	.333

Central team in the Junior Baseball League, of Chicago, won the pennant, or its equivalent, the championship, in the final game of the season played August 28th. The Franklin youngsters were at the mercy of the fast Central boys and the score was decisive, 16 to 8.

The season in the Junior League has suffered from bad weather which has spoiled playing so many Saturday afternoons.

Detroit Traffic Games

The Detroit Walnut girls defeated the Cadillac girls at Bob-Lo on Friday, August 13th, by a score of 11 to 8. Friday the thirteenth proved to be an unlucky day for the Cadillac team, as it had one bad inning, in which the Walnut team got seven runs. The pitching of Miss Villmont baffled the Cadillac girls.

The features of the game were a fine catch by Miss Grulke with two out and a runner on third base, in the third inning, and a put out on first base by Miss Schultz on a hard grounder for third base. The score follows:

WALNUT.		AB.	R.	H.	PO.	A.
Miss L. Pardy, c.	4	1	1	15	1	
Miss Villmont, p.	4	1	1	0	3	
Miss Williams, lf.	4	1	1	0	0	
Miss M. Pardy, cf.	4	1	1	0	0	
Miss Schneider, 1b.	4	2	2	5	0	
Miss Schultz, 3b.	4	3	3	1	1	
Miss Murray, ss.	4	0	2	0	0	
Miss Foster, 2b.	3	1	0	0	0	
Miss Keller, rf.	3	1	1	0	0	
	34	11	12	21	5	

CADILLAC.		AB.	R.	H.	PO.	A.
Miss Ferstle, c.	3	0	1	7	0	
Miss Poole, 3b.	3	1	1	0	0	
Miss Kruger, lf.	3	0	0	0	0	
Miss Grulke, p.	2	1	0	1	5	
Miss Heiden, ss.	2	0	0	1	0	
Miss Rudasill, ss.	1	0	1	0	1	
Miss Bahner, 1b.	3	1	0	8	0	
Miss Harris, 2b.	3	0	1	1	2	
Miss Zentgraf, cf.	3	0	0	0	1	
Miss Stiller, rf.	3	0	0	0	0	
	26	3	4	18	9	

Errors—Cadillac 8, Walnut 1. Struck out—by Miss Villmont, 15, by Miss Grulke, 5. Base on balls—by Miss Villmont 1. Left on bases—Cadillac 3, Walnut 5.

At Tashmo, on August 6th, the Main girls beat the Cadillac girls in a well played game by a last inning rally. The Cadillacs



F. R. KASPAREK,
Chairman, Chicago Players' Club.

had held the Main score down for five innings and were leading by a score of 4 to 2, when, in the last inning, the Mains made eight runs, with the aid of bases on balls, three errors and six hits. The fielding of the Main team and the pitching of Miss Grulke were the features. The score follows:

MAIN.		AB.	R.	H.	PO.	A.
Miss Artis, 3b.	3	2	2	0	0	
Miss Deslongchamps, 1b, p.	4	2	2	6	0	
Miss Wall, cf.	4	1	2	3	2	
Miss McKinney, p, c.	4	1	1	4	5	
Miss Johnson, ss.	4	1	1	0	0	
Miss Sieber, ab.	4	1	3	0	5	
Miss Burkhardt, c, 1b.	4	1	0	8	0	
Miss Brickman, rf.	3	1	0	0	0	
Miss Murphy, lf.	3	0	0	0	0	
	33	10	11	21	12	

CADILLAC.		AB.	R.	H.	PO.	A.
Miss Ferstle, c.	4	2	3	14	0	
Miss Poole, 3b.	3	0	2	0	0	
Miss Harris, 2b.	3	1	0	0	1	
Miss Grulke, p.	2	0	0	2	3	
Miss Hoffman, ss.	3	1	1	0	0	
Miss Heiden, cf.	2	0	0	1	0	
Miss Delage, lf.	2	0	0	0	0	
Miss Bauer, 1b.	3	0	1	4	0	
Miss Kruger, rf.	3	0	0	0	0	
	25	4	7	21	4	

Main	20	0	0	0	8	10
Cadillac	20	0	1	1	0	4

Errors—Main 1, Cadillac 3. Bases on balls—by Miss Grulke 1, by Miss McKinney 2, by Miss Deslongchamps 2. Struck out—by Miss Grulke 14, by Miss McKinney 6, by Miss Deslongchamps 2. Double plays—Miss Wall to Miss McKinney; Miss McKinney to Miss Wall. Miss Grulke to Miss Bauer. Left on bases—Main 3, Cadillac 5.

The same day the East girls beat the West girls by a score of 11 to 6. The teams were very equal and the game was closely fought until the Easts had a rally in the last inning. The score follows:

EAST		AB.	R.	H.	PO.	A.
Miss Brown, c.	4	2	1	10	0	
Miss Hill, 3b.	4	3	3	0	0	
Miss McCormick, cf., 2b.	4	2	2	1	1	
Miss I. Meyers, 1b.	4	2	2	5	0	
Miss Mette, lf.	3	1	0	0	0	
Miss Schenk, 2b.	2	0	0	0	0	
Miss Pryce, ss.	1	0	0	1	0	
Miss Gassman, p.	2	1	0	1	2	

Miss E. Meyers, ss, cf.	3	0	0	0	0
Miss Brotz, rf.	3	0	0	0	0
	30	11	8	18	3

WEST.		AB.	R.	H.	PO.	A.
Miss Monette, p.	4	1	2	0	6	
Miss E. De Pugh, c.	4	1	0	11	0	
Miss Dillon, cf.	4	0	1	0	0	
Miss Ingram, 2b.	3	1	1	1	0	
Miss Missig, 1b.	3	1	1	6	0	
Miss Burke, 3b.	4	0	2	0	0	
Miss M. DePugh, ss.	3	1	3	0	0	
Miss Sachs, rf.	3	0	0	0	0	
Miss Ward, lf.	2	1	0	0	0	
Miss Croul, rf.	0	0	0	0	0	
	30	6	10	18	6	

East	30	3	0	1	4	11
West	30	0	0	2	0	6

Errors—East 5, West 4. Bases on balls—by Miss Gassman 2, by Miss Monette 2. Struck out—by Miss Gassman 10, by Miss Monette 10. Left on bases—East 2, West 9.

Players' Club

The Players' Club of the Chicago Telephone Company furnishes the following interesting announcement of its coming activities:

"On April 15, 1915, the Chicago Telephone Company Bowling Association held its fourth annual dinner at the Sherman House. The entertainment was furnished by the then newly formed Players' Club. Was it successful? Well, we will leave that to you. We know it was—we even admit it. Shortly after the club adjourned for the summer months, but now that we have put away our Palm Beaches, straw hats, fishing tackle, etc., we are going to get busy again. Therefore our secretary, H. G. Levrett, has called a meeting for September 14th, at 5:15 on the eighth floor of the Telephone Building.

"Through the earnest endeavors of Mr. Atwater we have received the privilege of using the ground floor of the building at 321 West Washington street for our rehearsals. We are going to build a stage ourselves.

"So, my dear reader, if you have any talent or if you can swing an ax, come join us; we need you.

"Don't forget the above mentioned date of the next meeting.

"Officers: F. R. Kasperek, chairman; R. M. Bennett, vice chairman; G. H. Leverett, secretary and treasurer; T. J. Hardy, director; A. P. Hyatt, master of properties.

"All music under personal direction of E. B. Moebius."

New Portland Quarters for Western Electric

Expansive business growth has caused the Western Electric Company to give up its old quarters at Portland, Ore. Since 1910 the company has been located on Fifth street, but has now moved into a new two-story brick and concrete building which has been made ready at East Ash and Union streets. The building with efficiently designed shipping, receiving and warehousing facilities is one of the most modern of its kind in the Northwest. It has been planned to facilitate the quick handling of large stocks which will insure first-class service.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

Position Physical and Otherwise

By STELLA LYLE,
Toll Supervisor, Kalamazoo, Mich.

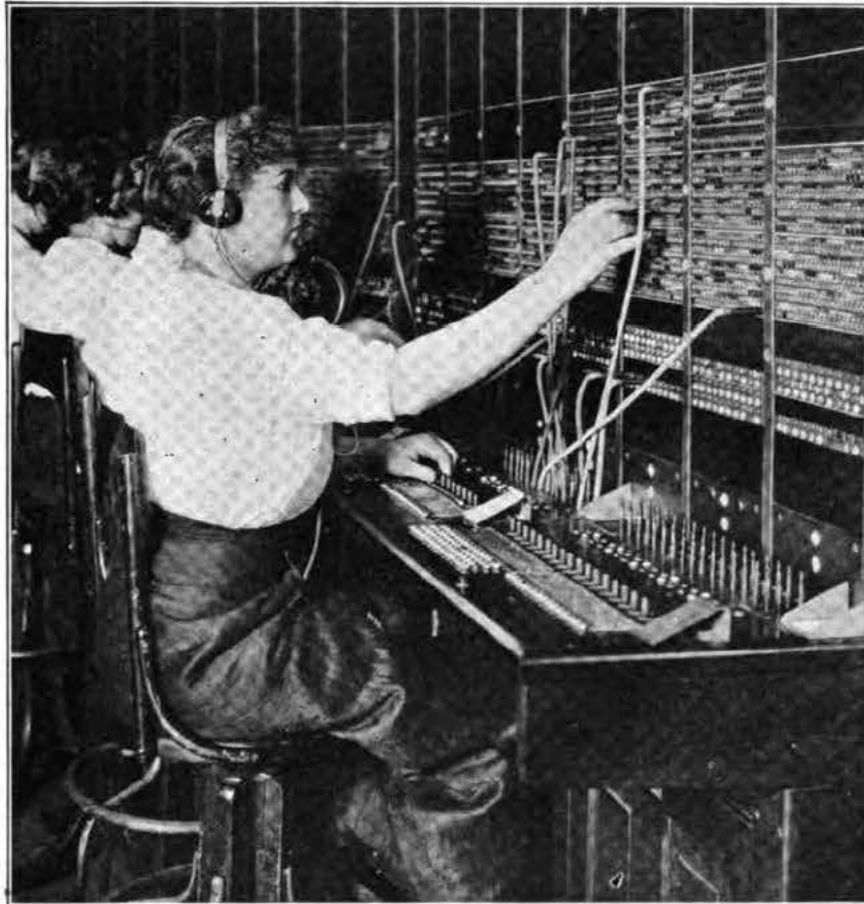
Much has been written and said about every phase of operating a telephone exchange, without, so far as I know, mentioning the most vital thing necessary to the health, comfort and efficiency of the operator. I refer to her position at the switchboard while on duty, either actively at work or waiting for calls. The public schools are, I think, largely responsible for the unhygienic and often lackadaisical positions assumed by a student who for the first time enters the business world after leaving the school-room. If proper attitudes in the schools were not only required, but insisted upon during the formative periods of the girl's life, when habits are easily molded, the business institution would not have to spend so much time and energy training beginners in such things as should be already part of their personal business equipment. I think few girls realize, until it is brought to their attention, sometimes in an unpleasant way, that a slow, indolent, shuffling way of coming into the operating room possibly swinging the plug from one hand, is to an onlooker a most unpleasant sight. In one instance, I remember while working as an operator, we had a young lady in the exchange, who while worthy in every way, was unanimously dubbed "Trailing Arbutus," solely because of her trailing way of entering the operating room and of operating.

I am going to tell you briefly of the wrong way of sitting at the switchboard first, and then show you the difference between right and wrong attitudes.

The average operator likes her chair adjusted so low that at least three or four

inches space is accorded between the switchboard and her knees. She can then place her chair as near the switchboard as the iron railing below will permit, and lean back *comfortably*—this provided she does not anticipate having to answer any calls or perform any other work. If she does, it is necessary for her to bring her entire body from the hips upward, forward to answer one call and then sink restfully back into a position of ease again, until the next effort must be made. I say "effort" because every call that she answers during the day is a conscious effort, the necessary number of movements of her

every call, therefore, she is not tired out at the end of her day, for she has learned to make every move count. She is far enough back from the switchboard so that when she has a reach to the highest multiple she can raise herself out of her chair with her feet on the rounds of her chair. She can take proper busy tests because of her ability to reach any number. She is not settled down and back in her chair as if settled for the day. She is alert, business like, pleasant voiced and sweet tempered—why—simply because she is not abusing her body by placing it in the wrong relation to her work.



CORRECT POSITION FOR TELEPHONE OPERATING.

body have been quadrupled and the end of her day finds her exhausted physically, and wondering why she is so tired, when the girl next to her, who has, by actual count handled 100 calls an hour more than she, is still fresh and uncomplaining.

Do you know why this is? I will show you that other girl. She sits erect in her chair adjusted so high that she looks *down* on her supervisory signals instead of *across* at them. Her body is well back in the chair but erect and in its working position all the time. It is not necessary for her to bring her *whole body* forward on

Can you see the difference, girls? This is the girl who, when advancements and opportunities come, is always remembered. She is a perfect working part of the organization—proud of her ability, proud of her efficiency and, most of all, not a tired out girl—fit for nothing, not even recreation at the end of her day. Her work is a joy, and her interest and business-like application a happy contrast to the easy going, almost apathetic operator next to her who does what work is absolutely necessary, tiring herself out to do it, and longing for pay day and the advancement which does not come. Think it over, girls.

Telephoning in French

The French language is said to have been found much better adapted to long-distance telephoning than the English, and operators in Paris have succeeded in transmitting messages to London at the rate of 190 words a minute.

Easy!

Waukegan subscriber, who had a single line and extension, to repairman: "I don't like the girl who answers my downstairs 'phone, but the one who answers my upstairs 'phone is awfully sweet; can't you fix it so she will answer my downstairs 'phone, too?"

FOR THE GIRL WHO SEWS

SMOOTH-FITTING BODICE FOR DAY OR EVENING

The smooth fitting bodice is unquestionably a feature of the latest styles. Here is one that can be utilized both for evening and for daytime occasions, for the full under portion or chemisette can be made with round or high neck and the sleeves can be made in three-quarter length or cut to the wrists and finished in bishop style. On the figure, the bodice is made of charmeuse satin with sleeves and trimming of flowered taffeta matching the skirt and with the full chemisette of silk voile.

For the medium size will be needed 1 1/4 yards of material 27 inches wide, 3/4 yard 36 or 44 for



8753 Fitted Bodice, 34 to 44 bust.

the pointed bodice, 3/4 yard 36 inches wide for the sleeves and revers, 3/4 yard 36 for the chemisette.

The pattern 8753 is cut in sizes from 34 to 44 inches, bust measure. It will be mailed to any address by the Fashion Department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon.

A NEW AND VERY GRACEFUL SKIRT

Here is one of the newest and prettiest of the season's skirts. It is eminently graceful and attractive and can be put to many uses. There is a plain foundation skirt over which is arranged the flounce and this flounce can be plaited or gathered as the material may render desirable. The pointed tunic is graceful in the extreme, gives most becoming lines and is a well deserved favorite. Here, the tunic is made of white taffeta and the flounce is of lace, but it would be pretty to use crepe, accordion plaited for the flounce, with taffeta or faille for the tunic.



8746 Tunic Skirt, 24 to 32 waist.

For the medium size will be needed 2 3/4 yards of material 36 inches wide for the foundation skirt; 4 yards of lace 18 inches wide for the gathered flounce, 2 1/2 yards of material 44 inches wide for the plaited flounce, 8 1/4 yards of material 27 inches wide, 5 yards 36 or 44 for the tunic.

The pattern No. 8746 is cut in sizes from 24 to 32 inches bust measure. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon.

ATTRACTIVE GOWN WITH THREE-PIECE SKIRT

This attractive and at the same time practical costume for the fall embraces some of the newest features in garments of this character. The model is shown with the natural waist line, the return to which is a tendency of the fall fashions. This gown may be made with round neck and chemisette or with V-shaped neck and revers. The sleeves may be either long or short as desired. The model lends itself to almost any of the seasonable materials.

For the medium size will be required 7 1/4 yards of material 27 inches wide, 5 1/4 yards 36, 4 1/4 yards 44, with 1/2 yard 27 for chemisette, 10 yards of banding; or 1 yard of material 27 inches wide, 2 1/4 yards of lace 3 inches wide to make as shown in small view. Width of skirt at lower edge, 3 yards and 14 inches.

The pattern 8725 is cut in sizes from 34 to 42 bust measure. It will be mailed to any address by the fashion department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon.



8725 Gown with Three-Piece Skirt, 34 to 42 bust.

PATTERN COUPON

Fashion Department, BELL TELEPHONE NEWS,
212 West Washington St., Chicago, Ill.

Enclosed find cents in 2-cent stamps for which please send me patterns listed below:

No. Size.

No. Size.

The price of each pattern shown in this issue, to employes of the Bell System, is six cents when order is accompanied by this coupon. Write name and address, and number and size of patterns plainly. Enclose six cents in 2-cent stamps for each pattern ordered.

Name
Address
City or Town
State

Brief News Notes from the Field

Items of Interest to Michigan Telephone Employees Gathered from All Parts of the Territory

Julius H. Moeller, Correspondent, Detroit.

Death of Thomas J. Keech

THOMAS J. KEECH of Ann Arbor, oldest employé of the Michigan State Telephone Company in length of service, died Tuesday morning, August 10th, at his home, after an illness of three days.

Although seventy-five years of age, Mr. Keech enjoyed excellent health and had been as active as usual until three days before his death when he suffered a paralytic shock and remained unconscious until the end.

Mr. Keech was born in Buffalo, N. Y., in 1840, and his early life was passed there and in Cleveland, Ohio. In 1869 he went to Ann Arbor and engaged in the lumber business. A man of large vision, Mr. Keech at once saw the possibilities of the telephone when he witnessed a demonstration of Dr. Bell's invention and immediately became interested in bringing the telephone to Ann Arbor. He predicted that it was destined to become an important factor in business life. Accordingly, he installed the first telephone in Ann Arbor for the Bell company in 1881, operating the line between his lumber office and an old mill on Main street.

The efforts of Mr. Keech and associates in establishing telephone service in Ann Arbor and vicinity, though crude compared with the modern method, were very successful and soon the construction of exchanges at Ypsilanti and Ann Arbor were being considered. The first real step toward establishing an exchange at Ann Arbor was taken in the fall of 1880 and Mr. Keech took a prominent part in the movement. W. A. Jackson, then general manager of the Telephone and Telegraph Construction Company of Detroit, was invited to visit Ann Arbor and to confer with a number of business men. Mr. Keech was one of those present at the meeting. The Ann Arbor men were given to understand that if twenty-five subscribers could be secured, an exchange would be built.

Upon Mr. Keech fell much of the responsibility of making the proposition a success. With the assistance of two associates, he made a careful canvass. The result was that the required number of subscribers to telephone service was obtained and the Ann Arbor men were able to carry out their part of the agreement. The exchange was completed and ready for service on New Year's morning, 1881. Largely because of the efforts of Mr. Keech, Ann Arbor people were able to send good wishes for a prosperous new year that first day of 1881 through the new means of communication which Mr. Keech had been able to foresee would wholly transform modern commercial, industrial and social life.

But this is only one illustration of the public service he rendered. Always active in municipal affairs, the people of Ann Arbor remember Thomas Keech as one of their foremost citizens, who had the welfare and advancement of the community at heart.

In April, 1881, Mr. Keech accepted the management of the Ann Arbor exchange. Business grew rapidly under his direction. He met obstacles that interfered with the newly established service as they appeared, determined always to overcome them. His ready ingenuity and fine executive ability enabled him to dispose of them successfully and the satisfactory results he obtained gave him high rank in the estimation of his superiors.

Until 1903, Mr. Keech served as both local and district manager for the Bell company. Failing health compelled him to withdraw for a time from active service, in 1903. Upon his return, the duties of local manager were assigned to H. R. Mason and Mr. Keech became district manager. He continued in this position until 1910 when the



THOMAS J. KEECH.

advance of years and impairment of health compelled him to allow younger shoulders to carry the burdens and cares of management. Accordingly, he became subscribers' representative. In 1913 when the pension system of the Michigan State Telephone company became effective, Mr. Keech retired from active service, rounding out a career of thirty-two years in the telephone business, which had been marked by efficient and faithful performance of duty.

Mr. Keech was married in 1864 to Miss Augusta Clapp of Buffalo, who died in 1903. In 1905 he married Miss Jennie Moore of Ypsilanti, who survives him. Always active in the affairs of the community, he served several terms as alderman and president of the board of public works. He was a member of Fraternity lodge, F. & A. M. and other Masonic bodies.

A simple funeral service was held from his late residence, 525 East University avenue, Ann Arbor, Wednesday afternoon, August 11th at four o'clock. The interment was in Forest Lawn cemetery, Buffalo, N. Y.

P. B. X. Development in Detroit

Among the new private branch exchange and additional equipment installed or ordered in Detroit during the month of July were the following:

	Trunks.	Terminals.
T. B. Rayl Co. (new) hardware.....	2	10
James S. Holden Co. (additional) real estate	2	2
Remy Electric Co. (new).....	2	14
Nelson-Blanc Mfg. Co. (new) machines	2	6
Wayne County Realty Co. (new).....	2	6
Beckenstein & Wiener (new) attorneys	2	6
Cadillac Wall Paper Co. (new).....	2	6
Henry Ford Hospital (additional)....	23	6
Vincent Steel Process Co. (new)....	2	6
		79

Of the total nine new private branch exchange contracts secured during July six were secured by Floyd H. Lockwood and three by the office.

These new contracts supplied a total of seventy-nine stations for Detroit during July, 1915.

Growth in Detroit

The area served by the Detroit telephone exchange contains 747,000 people, basing the estimate on the ratio of 12.9 telephones for every 100 population. This is a gain of 59,000 since last December.

The December issue of the telephone directory showed that Detroit then had 89,066 stations, July 12th company records showed 96,379 stations, which gives Detroit 747,000 population as compared with 688,000 January 1, 1915.

Between March 1st and July 12th the company installed 7,707 new telephones in Detroit and took out 4,196, leaving a net gain of 3,511. The July directory shows that 13,789 Detroiters changed their place of residence since last December. About 110,000 copies of the directory comprised the last issue, which was the largest in the history of the company and about 10,000 larger than the issue of last December.

Lansing Improvements Complete

The rebuilding of the Lansing lines of the Michigan State Telephone Company has been completed. Work was begun a year ago last June under the direction of Ben R. Marsh, superintendent of the district. The company appropriated \$90,000. Of this amount, \$80,000 was for outside improvements and \$10,000 for inside work.

Lansing appreciated the help thus rendered by the company during the recent financial depression. The work brought fifty men and their families to the city and in addition the regular force of thirty-five men frequently was pressed into service.

The capital city now has a telephone equipment and service embodying all the latest improvements. Cables and twisted-pair wires were used in the rebuilding, eliminating all open wire work. An inside improvement was the erection of an eight-section toll-board.

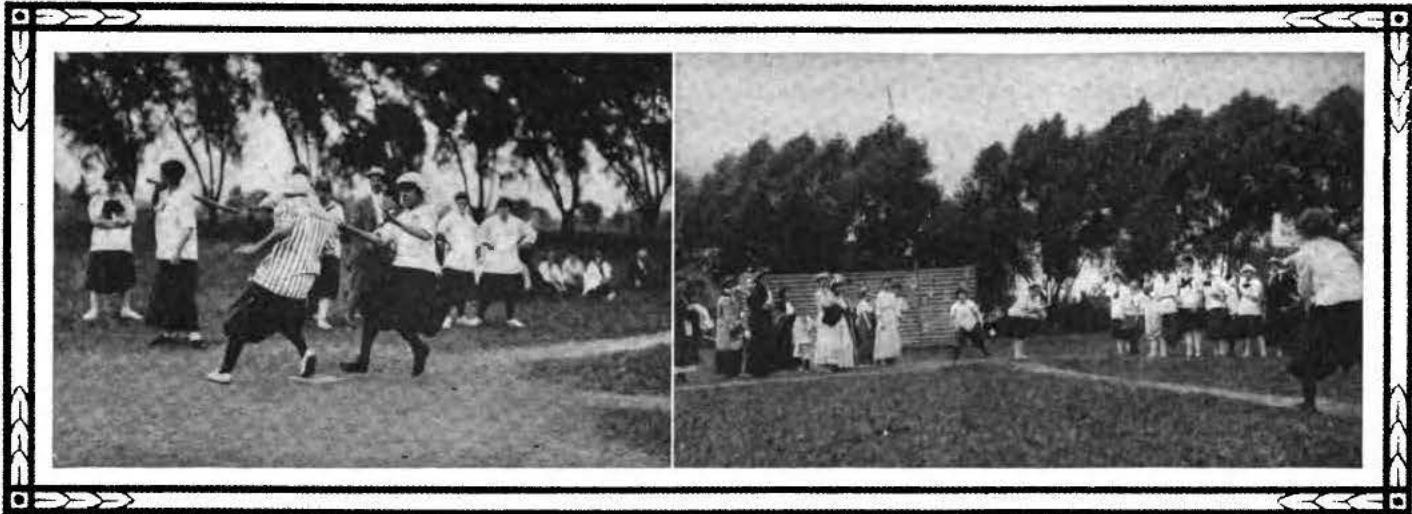
Development Study at Grand Rapids

C. N. Rowley and E. A. Plumer, engineers who have been making a development study in Grand Rapids for the last four months report to C. E. Wilde, district manager, that according to the data they have gathered, Grand Rapids will be a city of 230,000 population by 1935.

Since the census of 1910, Grand Rapids has made a population gain of 15.1 per cent., which is a greater gain than for any five-year period since 1890 and raises the Furniture City from 112,571 in population to a total of 129,531. In fact, the figures given out by the company's experts, indicate that this five-year period will go down in history as the highest percentage gain in the life of the city. It is estimated that the population of the present area of the city will be 143,800 by 1920, giving the city a gain of 27.7 per cent. for the decade 1910-1920 compared with 28.5 per cent. for the period from 1890 to 1910.

Detroit Wedding Bells

The marriage of Agatha Gerhard, senior operator at East exchange, to Carl Hill, an employé of the Ford Motor Company, was solemnized Monday, August 2nd, at the home of the bride's mother. Following the ceremony, the bridal pair left for a week's trip to Virginia. Mr. and Mrs. Hill will reside at 342 Dubois street. Mrs. Hill had been very popular with the East operators and Saturday evening, July 31st, they tendered her a farewell surprise in the retiring room. As the bride-elect entered the room, the Victrola played Mendelssohn's Wedding March. Games helped to fill the hours with merriment. Several vocal selections by Miss E. Barger and some



TENSE MOMENTS IN DETROIT TRAFFIC GAMES.

Left—Main vs. Cadillac. Miss Artis scoring on a passed ball.

Right—East vs. West. Miss Dillon knocking a liner to Miss Gasman.

readings by Miss Richardson were thoroughly appreciated. Refreshments, consisting of ice cream and cake were served. In token of their esteem for Mrs. Hill, the girls presented her with a pretty cut-glass sugar and cream set. Besides the bride-elect, special guests of the occasion were Miss McClellan of West, Miss Decker of Cedar, Mrs. D. Ealer, formerly Adell Bach, of East, and Mrs. Gerhard, mother of the bride-to-be.

Clara Watnoski, operator third division, Main B, was quietly married to Joseph Tranched, Thursday, August 5th. Miss Watnoski was the fifth girl of this division to be married this year.

Miss M. Seiber, operator at Main A, was quietly married to S. Cunkle early last December, but kept it a secret until she was transferred to Main B. Here, all the married girls wear wedding rings. Mrs. Cunkle announced her marriage by following suit.

Laura Shriner, Cadillac senior operator, was quietly married to L. Kramhout, Saturday, July 24th. The Cadillac operators presented her with a cut-glass water set.

Clara Grewe, North senior B operator, who has been in the employ of the Michigan State Telephone Company for the last three years, was married to Fred Knatel, Wednesday morning, August 4th, at Holy Rosary church. Following the ceremony, a dainty wedding breakfast was served at which twenty-five friends of the bridal pair were present. The newly wedded pair left later in the day on a two weeks' honeymoon trip to Duluth.

Evelyn Saxton, who has been in the long-dis-

tance department of the Detroit exchange for the last ten years, resigned her position July 20th to become the bride of Wilmer Flowers. The ceremony took place at St. Vincent's church, Saturday, July 24th, at 7:30 a. m., following which the bridal pair left for an extended honeymoon trip. Mr. and Mrs. Flowers are residing at 377 Clairmont avenue. The long-distance girls presented the bride with a handsome brass lamp.

Florence Fry, supervisor at Cherry A, became the bride of L. Keiffer, Wednesday, August 18th. Honoring Miss Fry, twelve of her friends gave her a pleasant surprise, Wednesday evening, August 4th. A very merry evening was spent in a social way and a dainty lunch was served. The honored guest was presented with many tokens of esteem and expressions of the best wishes which her friends bear her.

Detroit Operators' Excursions

The rainy, gloomy weather that prevailed throughout July and early August interfered somewhat with the annual outings of Detroit operators, but despite the handicap of clouded skies the excursions were run as scheduled and with much success.

Thursday, July 22d, dawned bright and clear—an ideal day for an outing. It was the day set for the invasion of Bob-lo, and a good-sized crowd appeared at the docks in time to take in the cruise.

Arrived at the island, the girls had one of the merriest times of the season. Baseball was a

sport of the day that proved of absorbing interest. The West team challenged the Hemlock nine. The game was gotten under way soon after the arrival of the party at Bob-lo. It resulted in a victory for the West aggregation by a score of 17 to 4.

The Hemlock girls were not willing to return without having the scalp of some other team dangling from their belts. Defeated by the West girls, they immediately challenged the Ridge baseballers and managed to defeat them by a score of 10 to 8.

Following a hearty lunch bathing and dancing were the order of the early part of the afternoon, till the arrival of the 3:30 boat brought W. A. Spencer, traffic superintendent, who immediately set the program of athletic events in motion. This consisted of a fifty-yard dash, bean-bag race, hoop race, shoe race, rolling hoops with peanuts, baseball throwing contest, and bean race, all of which were entered with spirit by the girls and provided no end of amusement. The serving of lunch ended the day's events on the island and brought to a conclusion one of the most successful excursions of the season.

The following Monday, July 26th, the operators turned their attention to Cedar Point, Ohio, sometimes called the "Coney Island of the West." Because of the fame of the place, its well-known bathing beach reputed to be the finest in the country, and other facilities for having a good time, the excursion was well patronized. When the palatial steamer *Put-in-Bay* left her moor-



TENSE MOMENTS IN DETROIT TRAFFIC GAMES.

Left—East vs. West. Miss Ingram pops up fly; Miss Brown catching. Right—Cadillac vs. Hemlock. Miss Grulke batting; Miss Salisbury catching.

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ALWAYS IN DEMAND

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BELL TELEPHONE NEWS

112 West Washington Street . . . CHICAGO

ings and headed for the noted Lake Erie resort 250 operators and their friends, a total of about 450, were aboard the ship, ready to make the day one long to be remembered by all who were fortunate enough to participate. As the gong sounded for "steam ahead" the orchestra struck up a merry tune which set the feet of dancers going and began a revelry ended only when the steamer was again fastened to its first street moorings many hours later.

Arriving at the Point at 1:30 the girls scampered in every direction to take advantage of the few hours' stay to enjoy their favorite sports. Many hastily sought the bathing beach, which, entirely free from stones and abounding in rich yellow sand, is the delight of thousands who annually seek this particular spot on Erie's shores in quest of an outing which never fails to please. Others took advantage of the endless variety of amusements that the place affords, providing a merry time to satisfy every whim and fancy.

A five-hour ride across Lake Erie and up the Detroit River was a happy climax to a delightful day that had been filled brimful with pleasure. When the party dispersed at the Detroit dock at 10:30 it was the common sentiment that it was the "grandest trip that one could possibly have."

A baseball game and other athletic events were the order of the day, Friday, July 31st, when the operators went to Sugar Island for the tenth outing of the season. Cadillac and Hemlock baseball teams took their turn at giving an exhibition of America's favorite sport and did it in creditable fashion. The presence of the two opposing traffic chiefs on the side lines to coach their respective teams on to victory added much interest to the contest. After many thrilling exhibitions of the game as played by the gentle sex the Cadillac girls succeeded in trouncing the Hemlock lassies to the tune of 6 to 5.

After lunch had been disposed of with a relish the regular athletic program was made the order of the afternoon, with dancing the feature during the later hours and till the time for mak-

ing the return trip had arrived. The day further increased the list of successful operators' excursions of the season.

Jupiter Pluvius battled "Old Sol" successfully on Tuesday, August 3d; Friday, August 6th, and Monday, August 9th, doing his best to spoil the excursions to Put-in-Bay, Tashmoo and Sugar Island. As the steamer *Put-in-Bay* pulled away from the Detroit dock for the resort of the same name August 3d the rain descended in regular torrents. As the excursionists neared their destination "Old Sol" managed to peer through the clouds long enough to permit the girls to enjoy a picnic lunch; but, that over, he again darted back to his hiding place and again it seemed that oceans of water were streaming from the sky. Undismayed, some of the girls donned bathing suits and thoroughly enjoyed a plunge into the dashing waves of the bay. Others dodged the rain drops to visit the caves and other places of interest. They were in danger of being forced to take a long "hike" through the drenching rain or to spend the night on the island when the storm put the street cars, operating between the dock and the caves, out of commission. With rain still steadily pouring, the girls boarded the boat at 4:30, glad to return to Detroit and to conclude a day on which the weather man had done his best to spoil their pleasure.

The cool and unseasonable weather of Friday, August 6th, kept many from taking the trip to Tashmoo scheduled for that day. Conditions had so far improved, however, by the time the excursionists had arrived at their destination that the day proved to be one of the truly delightful ones of the season. Lunch was the first thing on the program. That disposed of, the Walnut and Cedar baseball teams got into action; at the same time the East and West teams cavorted around another diamond. Walnut defeated Cedar 7 to 5. East won from West by 11 to 6. The Main and Cadillac teams likewise matched strength, the former winning by a score of 10 to 4.

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The program of athletic events was carried out under the direction of W. A. Spencer, traffic superintendent, assisted by A. E. Van Hagan of Chicago; E. C. Laskey, main traffic chief, and F. Clark, traffic engineer.

Threatening skies portending the daily rain that had characterized the previous two weeks doubtless dampened the ardor of the excursionists Monday, August 9th, for few of them appeared at the dock to take the boat to Sugar Island. All who went reported a splendid time, with bathing, dancing and the usual athletic events making up a day's program of interesting variety.

Friday, August 13th, proved a genuine hoodoo so far as the excursion scheduled for that day was concerned. But few were brave enough to take a chance and take in the trip to Bob-lo. It was the smallest crowd carried on any of the excursions this summer. Nevertheless the occasion was as thoroughly enjoyed as any this season by those who were in attendance. Cadillac and Walnut baseball aggregations opened the day's



SCENES AT SUGAR ISLAND.

Left—Ball Throwing Contest, Miss Dillon throwing; Mr. Van Hogen of Chicago in left background. Right—Final Heat of Nailing Contest.

program with an exhibition on the diamond. Walnut was victor by 11 to 3. F. L. Johnson, Walnut traffic chief, and B. F. Gilkeson, Cadillac traffic chief, were on the side lines to coach their respective teams to victory. Bathing, dancing and the usual program of athletic events helped make the day merry.

Detroit Winning Divisions

The second day A section, Hemlock, won the July contest, and together with their supervisor, Miss G. Stanley, saw "Nearly Married" at the Garrick.

Pauline Salisbury, supervisor, first evening B, won the July contest at Hemlock. Miss Salisbury and operators enjoyed an outing on Belle Isle.

The Cadillac July contest was won by Kathleen Tomes, supervisor of the seventh day A section, and her operators.

A very pleasant evening was spent August 11th at the Garrick Theater by Etta Black, supervisor first Main B division, and her operators, winners of the July contest.

The Main A contest for July was won by the third day section. Miss J. Keiffer is supervisor of this section.

The third day A section won the Cherry A contest for July and, together with their supervisor, Miss L. Sexton, saw "Nearly Married" at the Garrick Theater Friday, August 15th.

Hazel Critchett, supervisor sixth day A section, and operators won the July contest at North exchange.

Lucille Comey, second day B section; Marie Nielson, first day B section, and Mildred McLean, first evening B section, were tied for honors in the July contest at North exchange. Each won 100 points.

Detroit "Moonlights"

The Detroit long-distance girls gave their second annual "moonlight" Thursday evening, July 22d.

Although it was not as big a financial success as the excursion a year ago, the party was voted a decided success. By actual count 640 of the long-distance girls and their friends were aboard the steamer *Put-in-Bay* when it left the First street dock for a run up Detroit River to the head of Lake St. Clair.

The night was ideal for the occasion. A clear sky with its myriads of glistening stars and a fine full moon which sent its rays across the sparkling waters created a setting that left nothing to be desired. The rather low temperature, made even more cool by the gentle lake breezes, added greatly to the satisfaction of the dancers.

The trip was made in two runs of about one and one-half hours each, the one taking the party up the river to Lake St. Clair and the other down the river to Lake Erie. Dancing was the feature of the evening, the excellent singing of Jack La Follette and Jack Deeds, accompanied by the orchestra, adding much to the zest and enthusiasm of the revelers. Mr. La Follette and Mr. Deeds provided further entertainment during an intermission of fifteen minutes by a pleasing rendition

of a number of character songs. A couple of solos by Minnie Webber were much enjoyed.

Credit for the success of the event is due to Miss M. Kopp, long-distance chief operator; W. A. Spencer, traffic superintendent, and C. J. Murray, toll traffic chief, and to all the long-distance girls who cooperated in fine fashion with those in charge. The girls cleared about \$40.

The Main and Cherry girls were fortunate in choosing Tuesday evening, August 10th, for their second "moonlight." It was the one perfect evening in weeks, and ideal for the occasion.

About 850 of the girls and their friends took advantage of the opportunity to make merry once more aboard the *Put-in-Bay*. It was a strictly invitational affair and none was admitted without the proper credentials. Dancing was the feature of the evening.

Vocal selections by Messrs. La Follette and Deeds gave the program a pleasing variety. The famous Hawaiian Orchestra wended its way through the crowd, playing late popular airs, and provided entertainment for those who did not care to dance. Their work was much appreciated.

The occasion was pronounced a very successful event, E. C. Laskey, traffic chief, and assistants in charge being showered with compliments.

Detroit District

With forty-six prizes apiece to their credit Hickory and Walnut exchanges lead the other Detroit offices by good margins in the number of



TENSE MOMENTS IN DETROIT TRAFFIC GAMES.

Left—East vs. West. Miss Brown singling. Right—Walnut vs. Cedar. Miss Ackerman at bat.



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awards they have taken in the contests held on the excursions this summer. Mr. Spencer, traffic superintendent, urges the smaller offices to contend vigorously for the prizes and not to let them go by default to the larger exchanges. A big picture for the retiring room will be given to the winning office, as well as individual prizes to the three girls winning the most prizes. The number of prizes won by the other offices is as follows: Main, twenty-six; Hemlock, eleven; Cadillac, eleven; Ridge, nine; West, eight; North, two; East, one. The remaining offices are not represented in the list of prize winners. Miss M. Burkhard, Hickory, who has won twenty-three prizes, leads the list of those who have taken individual awards. Others have made the following record: The Misses L. Schultz, Walnut, sixteen; L. Villmonte, Walnut, sixteen; C. Artia, Main, fourteen; L. Renslow, Hickory, eleven; L. Fisher, Hickory, seven; M. Keller, Walnut, seven; L. Grulke, Cadillac, seven; F. Missig, West, six; E. Ackerman, Hemlock, four; M. Pardy, Walnut, four; G. Feucht, Hickory, three; E. Wilde, Ridge, three. Only those winning three prizes or more are shown on the list.

Miss M. Hamlin has been promoted from senior operator at the Grand exchange to supervisor.

Miss E. Geavons, senior operator at the Grand exchange, has been promoted to supervisor.

Miss E. Sullivan and Mabel Mercier, relief supervisors at the Grand office, have been promoted to all-day supervisors.

The following promotions have been made at the North exchange: Eunice Livernois, evening supervisor, to senior supervisor; Bertha Johnson, operator, to senior operator; Nellie Sodergren, operator, to senior operator.

Edna Huck, senior operator at the Market exchange, has been promoted to evening supervisor.

Marie Spittler, evening chief operator at the Main office, was the object of a pleasant surprise given her Friday evening, July 9th, by eighteen of her girl friends. The occasion was her birthday. She was handsomely remembered with many pretty and useful gifts, chief among which was a gold ring on which was mounted her birth stone. Games formed a pleasing diversion. Each girl was given some crêpe paper with which to make a hat to wear for supper. Pearl Shaw excelled in the contest and was awarded a pretty crêpe de Chine tie as first prize. Margaret Woods took the "boobie," which was a rattle in the shape of a bell. The serving of a bountiful supper was by no means one of the least of the events of the evening that made it a decided success.

An estimate for a third-story addition to Walnut exchange, Detroit, has been approved, which, together with outside extensions, will involve the expenditure of approximately \$50,000 by the company in northwestern Detroit. The third floor will be devoted wholly to the welfare and convenience of the operators. Equipment for extending the service will be installed on the second floor in rooms now occupied by the girls. On the third floor will be a kitchen, café, reading and rest rooms. The building is a two-story brick, measuring 31 by 125 feet. Service will be extended in Walnut exchange for the third time since it was opened in 1909. The area covered by Walnut exchange has increased approximately 475 per cent. in the last six years and prospects are that it will increase another 110 per cent. by 1930. This is considered one of the most rapidly growing sections of Detroit.

Miss E. Gaasman, B supervisor, East, spent a two weeks' vacation at Roseville.

Miss McIlwain, East order clerk, has returned from her vacation.

Miss McClelland, West chief operator, and Miss Gannon, evening chief operator, East, have returned from a two weeks' vacation spent at Allenton, St. Clair county.

Miss Lozelle, "13,000" operator at Cadillac, spent a two weeks' vacation at her home in Milwaukee.

Miss MacPherson, East A supervisor, spent her vacation at Walledlake, Oakland county.

Miss O. Smith has been promoted to A supervisor at East.

Miss E. Spratt has been promoted from senior



MARGARET DECKER.

The Cedar Chief Operator is here caught posing behind a vase of flowers presented by admirers.

operator at West to evening supervisor. Miss Burke of West was promoted in the same manner.

M. Parent, traffic chief at the East office, presented the operators with a beautiful basket of flowers as an evidence of his appreciation of their good work which made them first in office standing for June.

Miss I. Hayes, assistant chief operator at the East office, entertained the eleven o'clock girls of that exchange Tuesday evening, August 3d. Ice cream and cake were served.

Miss Duffy, recently promoted from East evening supervisor to relief chief at Cedar, was presented with a silk umbrella by her fellow workers when she retired from the East office as a token of esteem and evidence of best wishes.

Margaret Decker, recently promoted from day supervisor at East to day chief operator at Cedar, received a beautiful gold bracelet from her associates as an expression of their best wishes for a successful career in her new position.

Miss Middleton, East chief operator, and Miss Stevens, Walnut chief operator, spent a two weeks' vacation at Cedar Point.

Margaret Decker, Cedar chief operator, spent a delightful vacation at Buffalo and Niagara Falls.

A course in swimming was started for Detroit operators in the various high schools of the city on July 28th and met with a good degree of success from the outset. About 100 girls have taken advantage of the opportunity to learn how to swim. Arrangements were made to get the use of high school swimming pools until Labor day, but the course may be extended beyond that date if there is sufficient interest and if the swimming pools are available. Classes are in charge of competent instructors connected with the Detroit public schools. Lessons are given at stipulated hours mornings, afternoons and evenings, each class meeting once a week. Lessons continue for an hour. They promise to become a popular form of diversion offered by the company.

On August 1st the Michigan State Telephone Company took over the exchange at Belleville, a small station near Ypsilanti. The exchange was formerly operated by Mr. and Mrs. J. F. Edwards. About eight years ago they undertook to develop the territory and obtained 130 subscribers. Prior to that time there was only a pay station at Belleville. The exchange will now be operated by A. T. Baker, manager of the Ypsilanti ex-

Eastern District

Members of the Manchester exchange spent their vacations as follows: Amanda Brown at Ann Arbor; Emma Sloat at Adrian; Flavah Bailey at Jackson and Brooklyn; Mrs. Barbara Holmes at Dowagiac and Wolf Lake; Amanda Haarer at Ann Arbor.

There never was such a time—not in the whole world—as was enjoyed by the operators of the Ann Arbor exchange at Washtenaw county's famous summer resort, Whitmore Lake, during the third week in July and the first week in August. The folks of this community cannot do without telephone service even for a day, and so it became necessary to divide the crew of fifty-two operators into two parties, one-half doing the work at the exchange while the other half was having a good time. The commercial girls were there, too. Mrs. May Stevens, chief operator, was along as chaperon, but she forgot her duties as overseer and was counted among the most indulgent of the party. Landlord James Burke of the Lake View Hotel and Mrs. Burke outdid themselves to entertain, and a banquet was put up that would have cost anybody but telephone operators three times what it really did per plate. Then, too, there were a lot of extras. Music was secured and a dance was given in the hotel. The girls were met at the depot by the genial host with automobiles and taken to the hotel, although the distance was but a nice little walk. After the banquet an auto ride was enjoyed and in addition to this Mr. Burke wanted to take them all over to the ice cream parlors and buy them a round, but the girls didn't have the heart to accept after the generous way in which they had been treated. It was a great summer outing.

Helen Oelke, toll operator at Ypsilanti, spent her vacation at Erie, Pa.

Sarah Mosher, toll operator at Ypsilanti, enjoyed a two weeks' vacation in August. She has not been absent for three years.

Hazel Palmer, clerk in the Ypsilanti commercial department, has returned from a two weeks' vacation spent in Detroit.

Robert Schrepper and Don Stockdale, repairmen, attended the state military encampment at Grayling August 12th to August 21st.

Grand Rapids District

The underground conduit system for the Grand Rapids Madison avenue improvement has been completed, ready for cable, under the supervision of District Foreman Morris, with Foreman Monce on the ground. This required the laying of about 1,000 feet of main and 700 feet of lateral.

District Foreman Morris, with Foreman Maier, has completed the moving of thirteen forty-foot poles on Cottage Grove avenue, Grand Rapids, carrying local and toll circuits from the north to the south side of the street, to clear the way for the Grand Rapids and Indiana Railroad to build a new crossing at Division avenue South.

District Manager C. E. Wilde spent a two weeks' vacation at his summer home, Highland View, Comstock Park, Mich.

Aurelia Wurzburg, stenographer in the commercial department, spent the week of July 25th to 31st at Gunn Lake.

W. B. Simmons, commercial agent, Grand Rapids exchange, spent the week of July 25th to 31st at Grand Haven.

S. L. Pierce, commercial agent at Grand Rapids, spent the week of July 11th to 17th at Detroit.

Blancie Christiansen, directory clerk at Grand Rapids, returned July 18th from a week's vacation at Macatawa Park and Ottawa Beach.

Fred Saunders, chief commercial agent at the Grand Rapids exchange, is spending the week-ends with his family at their summer cottage at Highland Park.

J. H. Brett, district accountant, spent his vacation in Detroit.

Ursa Moran was promoted from summer operator at Muskegon to first local operator on July 1st. Leona Grolean succeeds Miss Moran.

On July 23d the entire operating force at Mus-

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10-Inch Clipper Cut Jaws, for 3-16-in. annealed bolts in the thread, or 3-16-in. soft rivets.
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Insulated Handles if desired.

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kegon rented a camp for two weeks' enjoyment at Lake Michigan Park, Muskegon. Fishing, swimming, dancing, etc., were the principal amusements. Marshmallow roasts and fish fries were given.

Edna Wilkinson, local operator at Ludington, returned to her duties July 15th after spending a month visiting relatives at Detroit, Mich., and Leamington, Canada.

Louise Meissner, local operator at Ludington, returned to her duties July 26th after spending a week visiting friends and relatives at Two Rivers, Wis.

Carrie Seeba, toll operator at Ludington, has returned to work after a five weeks' leave of absence. Miss Seeba visited at Detroit and Monroe, Mich., but was called home unexpectedly on account of the serious illness of her father. Mr. Seeba died within a week after his daughter's return.

The operators of the Grand Rapids long-distance department gave a picnic supper Wednesday evening, July 13th, at Ramona Park in honor of Bernice Gilleo, who has been promoted to chief operator at Lansing, Mich. Miss Gilleo was presented with a handsome leather bag, George W. Johnson of the traffic department making the presentation.

Cora Kingsbury, toll supervisor at Grand Rapids, has returned from a vacation spent at Detroit, Buffalo and Niagara Falls.

Ethel Scott, toll supervisor, has returned from her vacation which she spent at Camp Resto, Hess Lake. "Scotty" returned with a fine coat of tan.

Dorothy La Brenz returned to take up her duties as toll operator after spending ten days' vacation at Saginaw and Bay City.

John Gebraad, installer at Grand Rapids, was married June 30th to Marie Schuiling.

Edward Johnson, installer at Grand Rapids, was married July 3d to Florence Harrington.

Jackson District

Just to show the operators at Jackson how much they think of them the Michigan Seating Company presented a "too sweet for words" basket for waste paper. We are willing to admit that it is a pretty nice looking basket, and the incident goes to show what brand of service we are giving at Jackson.

Joe Cunningham, who recently took to traveling in the double harness, has been promoted to district foreman of the Jackson district. He was formerly toll repairman at Battle Creek. Mr. Cunningham's specialty is obtaining trimming rights.

Manager Ellwood of Marshall took his vacation enjoying the ozone at Alpena, Mich.

J. E. Bridges, formerly district equipment installer for the Jackson district, has been appointed to the position of wire chief of the Jackson exchange. Mr. Bridges takes the place of Minor Mitchell, who resigned to accept a position with the Southern Bell Company.

On Wednesday, July 28th, A. W. Leet gathered about him the commercial force of the entire Jackson district to a conference at the Otsego Hotel at Jackson. Mr. Brett of Grand Rapids and Mr. Booth of Detroit were both present and helped greatly to liven the sessions. A lunch was served at the hotel.

Lansing District

Marie Cetus, chief clerk at the Lansing district office, spent two weeks in Youngstown and other Ohio points.

Max Ismay spent his vacation at Long Lake.

Earl Edington took a two weeks' vacation in August.

Bernice Gilleo, chief operator at Lansing, spent her vacation at Grand Haven.

Mabel Ribby, supervisor at Lansing, spent her vacation in Rochester, N. Y.

Bertha Tierson, clerk of the Lansing exchange, returned from her vacation at Muskegon.

Augusta Sabrowsky, toll operator at Lansing, spent her vacation in Detroit.

The operators of the Mulliken exchange enter-

tained Alma Bryan, toll operator at Lansing, Sunday, August 8th.

Josephine Paddock, operator at Mulliken, has returned from her vacation in New York City.

Louise Potter will fill the vacancy caused by the resignation of Florence Frayer, who will attend school.

Mae Pierce, night operator at Mulliken, has resigned. Eunice Hovey will fill her place.

Pearl Gruesbeck, chief operator at Eaton Rapids, has resigned and Mrs. May Laird has been secured to fill the vacancy. Mrs. Laird was formerly chief operator at Eaton Rapids.

Eileen Robinson and Mrs. Edith Wilbur have been recently employed as local operators at Eaton Rapids.

On July 10th Elsie Jessel, operator at Mulliken, met with a serious accident. While she was riding with a friend on a motorcycle her foot became entangled in the rear wheel, crushing it to the extent that part of the bones had to be removed.

P. E. Ganson, manager at Grand Ledge, spent a few days' vacation at Battle Creek and Niles.

Marian Canfield, chief operator, and Edith Canfield, local operator at Grand Ledge, returned July 31st from a two weeks' vacation at Crystal Lake and Rose City.

Julia Abramson, chief operator at Howell, has been granted a leave of absence for two months. Zetta Rayton has been appointed to perform her duties.

Edith Dickerson has been appointed as cashier at Howell, succeeding Bertha Trainor, who resigned.

Shirley Cook, assistant chief operator at Howell, spent her vacation at Flint.

Marquette District

A conference was held at Escanaba August 12th and 13th which was attended by all check center chief operators of both Menominee and Marquette districts. Traffic Bulletins No. 4 and 4-T were discussed. Messrs. Clarke and Weed of Detroit were in charge of the meeting. A very pleasant evening was spent August 12th by all those who attended the conference. An automobile ride was taken from Escanaba to Rapid River.

James Cleary of the Ishpeming commercial department spent his vacation in Duluth.

Mary James, local operator at Ishpeming, has resigned and is succeeded by Treasa Murphy.

Anna Johnson, operator at Marquette, spent her vacation at Big Bay.

Marjorie Munro, local operator at Marquette, who recently had an operation performed for appendicitis, is recovering rapidly.

Theodore Dawson of the commercial department at Marquette spent his vacation in camp.

Miss A. Bloomquist and Ellen Stromquist, operators of the Ironwood exchange, spent their vacations at Mercer Lakes.

Miss Shea of the Ironwood commercial department entertained some of the traffic department employees at her home the evening of July 21st.

Misses E. and A. Hoese, operators of Bessemer exchange, spent their vacations in Ashland, Wis.

Miss A. Carlson of the Bessemer exchange visited in Chicago and Cleveland early in August.

On July 21st "The Blue Bell Social Club" and guests numbering about forty enjoyed a "moonlight" from Houghton to the canal, followed by a dancing party and refreshments. They returned about 3 a. m.

Miss Stone, toll operator, and Miss De Marce, supervisor of the Houghton exchange, took a vacation the latter part of July and the first part of August.

Miss Wroboliski, toll operator, and Miss Wilmers, chief operator at the Calumet exchange, enjoyed vacations the latter part of July.

Miss G. Doherty of the Ishpeming exchange spent two weeks' vacation visiting friends at Iron Mountain.

Agnes Calligan of Negaunee exchange spent her vacation at Escanaba.

Bertha McComber, operator of Negaunee exchange, who suffered an attack of smallpox, has returned to her duties entirely recovered.

Lillian Pepin, operator at Gwinn exchange, spent one week's vacation at camp.

Marion Marcotte, toll operator at Marquette, spent her vacation at Lake Linden, Houghton and Calumet.

Myrtle Schrandt, service inspector at Marquette, spent her vacation at the Emblegaard farm.

The death of Margaret Quarters, a former operator of the Marquette exchange, occurred at St. Mary's Hospital July 10th following three months' illness. Up to the time of her illness Miss Quarters was private operator for the Marquette and Southeastern Railway offices.

Miss Robillard, operator at Houghton exchange, spent a week at White City.

Anna Malvey, assistant chief operator at Calumet, spent her vacation visiting friends at Houghton.

Menominee District

While at work at Iron River W. E. Badden, clerk for L. Green, construction foreman, was taken seriously ill with pneumonia. He has fully recovered and is able to be out.

Iron River exchange is to be provided with additional cable facilities. Work began about July 1st and since that date nineteen new telephones have been installed at the Iron River exchange. Many more contracts are awaiting attention.

Clara Stauber, Menominee operator, was the successful contender for the diamond ring awarded in a contest recently held in Menominee. She led her nearest competitor by over 6,000 votes. She received a total of 114,714 votes.

Petoskey District

On August 2d Charles W. McCallum, repairman at Cheboygan, was married to Louise Grim.

A connecting company contract has been signed with the Cadillac and Pine River Telephone Company located at Hoxeyville, Wexford county.

Special apparatus similar to that installed in Petoskey is being installed at Cadillac for the purpose of amplifying transmission on calls from points north.

Port Huron District

Hazel Elsey, toll operator at Mt. Clemens, has returned to her duties after a two weeks' vacation.

Grace Devantier, local operator at Mt. Clemens, spent a two weeks' vacation at Lansing, Mich.

Jerry Thome is the new wire chief at the Mt. Clemens exchange.

Rex Teeters, son of Manager Teeters of the Washington exchange, is a new repairman at Mt. Clemens.

Sault Ste Marie District

Lee Porter is again at his duties as lineman at Mackinac Island this summer. Mr. Porter is a student at the engineering department of the U. of M. and for the past few summers has been at the Island.

Mary Kitchen, operator at Trout Lake, and a party of friends recently had what might be termed an "endurance" party. Miss Kitchen took them in her automobile to the warehouse on Lake Michigan, about eighteen miles away. On their return journey the automobile broke down and the members of the party had to take turns riding in a small farm wagon from 10:30 p. m. till seven o'clock the next morning, when they arrived home safe but very tired.

A number of girls from the Sault Ste. Marie exchange enjoyed an outing at The Shallows Sunday, August 1st. The entire expense of the trip was paid out of the little "reserve fund" which the girls maintain. Those attending the outing were Lottie Gerrie, Matilda Bernier, Hazel Kennell, Esther Hines, Jettie Gerrie and Lucile Ripley.

On July 1st Alice Arnott, toll operator at Sault Ste. Marie, resigned. She was married to Clifford Barnes on the 29th at the home of her mother, Mrs. Andrew Arnott.

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Pat. Aug. 19, 1913

If you want the greatest efficiency together with the greatest economy this is the anchor to use. It is simple and easy to install and will hold more than any anchor made. Let us prove it to you.

Your Jobber has them. Ask him

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stands for unusual serviceability and reliability.

Nearly forty years experience in the design and manufacture of telephone apparatus that has become the standard for telephone companies everywhere—that is the assurance of satisfaction we have to offer the telephone people in your territory.

We are also prepared to furnish everything for the line—nothing but the best.

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We make all kinds of Telephone Cords—Silk, Cotton, Beldenamel, Silkenamel and Cotenamel Magnet and Resistance Wire—Coil Windings—Cord Tips and Terminals.

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Sure Grip
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Price per 100
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ELECTRIC SOLDERING IRONS

PAY FOR THEMSELVES IN A FEW WEEKS,
IN THE TIME THEY SAVE.



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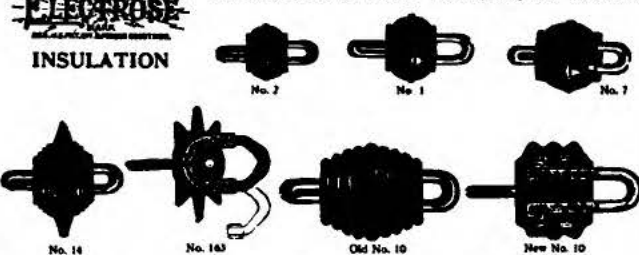
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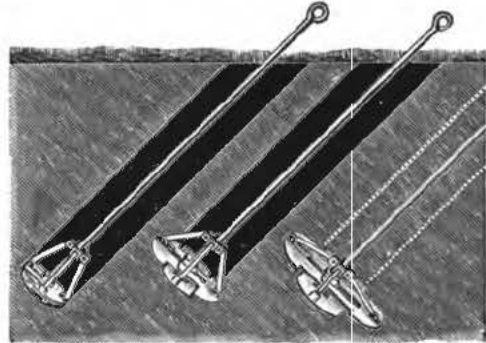
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MANSON TAPE
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are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

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1 2 3
Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

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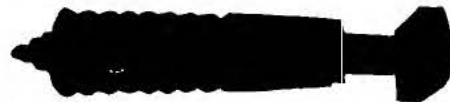
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"Hold As Long As the Wall Lasts"

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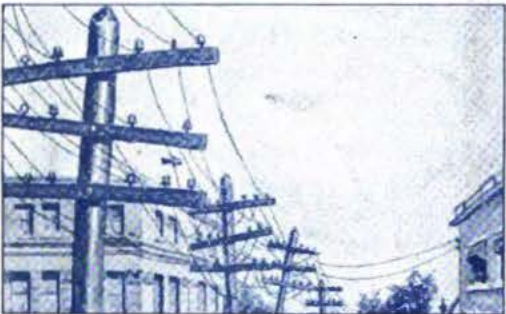
Hidden Factors of Service



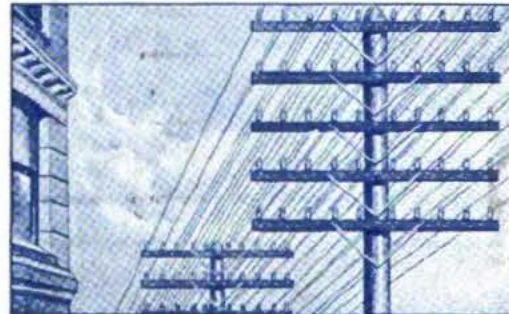
Records kept like this are practically useless for the management of a business. Efficiency is impossible and funds for improvement cannot be obtained.



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Such methods result in a telephone line which can give only poor service.



The result of such records is a telephone line like this, which gives good service.



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AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

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BELL TELEPHONE NEWS



Vol. 5 October, 1915 No. 3

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

SEPTEMBER 1, 1915

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	563,476	263,768	827,244
INDIANA	94,917	207,451	302,368
OHIO	190,863	208,711	399,574
MICHIGAN	220,604	73,528	294,132
WISCONSIN	<u>153,464</u>	<u>136,803</u>	<u>290,267</u>
	1,223,324	890,261	2,113,585

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 5

CHICAGO, ILL., OCTOBER, 1915

Number 3

BELL TELEPHONE NEWS

Published Monthly by

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

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AMORY T. IRWIN, *Editor*
BELL TELEPHONE BLDG. - CHICAGO, ILL.
SUBSCRIPTION PRICE—Two Dollars per Year in
advance, to all persons except employes of the
above named Telephone Companies.

A Great Conquest

With Europe torn and bleeding and her keenest minds absorbed with conceiving new means for the taking of human life, or distraught over the awful carnage that has already befallen, American genius pursues its steady course of solving the problems of the phenomena of being and adapting to the service of humanity, bit by bit, the wondrous creations of the Eternal mind. Within this month of September, 1915, the genius of the engineer corps of the American Telephone and Telegraph Company, headed by John J. Carty, whose vision and resourcefulness apparently know no bounds, has demonstrated its ability to devise apparatus by means of which the human voice can be heard not only across the American Continent, but also out over the far reaches of the Pacific Ocean in a group of islands that fifty years ago were regarded as almost mythical, so far away were they. On September 29th from the radio tower of the Navy Department at Arlington, Virginia, just across the Potomac from the Nation's capital, the human voice was flung out over land and sea to another radio tower near Honolulu, where it fell upon the listening ear of a representative of the American Telephone and Telegraph Company waiting there to receive its message. In the vast army of those

who work for the betterment of man through the agency of the Bell System, from Theodore N. Vail, its president and guiding genius, down to the humblest employé in the ranks, there is not a heart but beats the faster at the thought of these latest achievements, nor one whose whole being is not thrilled and aglow with warmth and pride, over an association which permits a share of the glory incident thereto to fall to his or her lot.

Four Hundred Thousand

Nearly forty years ago now the Mayor of Chicago, Honorable Monroe Heath, wanted a telephone installed in his office and the Chicago Telephone Company installed it. That was in 1878 and the telephone was the four hundredth in Chicago's system. On September 28, 1915, the Mayor of Chicago, Honorable William Hale Thompson, felt the need of an additional telephone in his office and the Chicago Telephone Company furnished it. It was the four hundred thousandth telephone of Chicago's system in 1915. Elsewhere in this issue will be found the story of what has taken place in the interval of time between the placing of these two telephones in service. Chicago has grown to a city of enormous proportions; it is the second in population in America, and fourth in population in the world; it is inhabited by busy, bustling, hustling people; it is pervaded by that intangible but none the less effective quality, Chicago Spirit; its enterprises are promoted and directed by big, broad-minded, level-headed men; and one of the biggest, if not the biggest of its big institutions, is the Chicago Telephone Company. In the nature of its calling it must perforce—not keep up with the procession—it must lead, be far in advance of the head of the procession that no pause may occur in the steady, onward march of the Metropolis. That it is keeping step and ever has kept step with the public demands is proven by the unparalleled saturation it has attained, one telephone to every six inhabitants. That it will so attune its activities in the future as to be found ever-ready its past performances are

the best evidence. President Sunny who has long been associated with Chicago's telephone development, at a dinner given on the evening of September 29th, modestly disclaimed for himself and other officials any particular credit for the splendid record that the company has made; he said and he feels that all who have taken part in the work in whatever capacity are partakers in the glory. And so it is, for the earnest, honest effort of each individual, the doing of whatsoever has fallen to his hand with all his might, has builded up and rounded out our magnificent organization—the Chicago Telephone Company.

The Training Camp

The dependence of this nation for defense always has been and always must be in its citizens. Conscription and huge standing armies are repugnant to our national character and institutions. There is nevertheless a growing feeling that it is exceedingly dangerous to wait until the enemy is at our doors before we begin to organize our citizen army. This feeling has resulted in the Citizen Training Camps, one of which has completed its work at Plattsburgh, N. Y., and the other of which is now in operation at Fort Sheridan, near Chicago. These camps are furnishing elementary military training to several hundred men who hope to fit themselves to become officers of volunteers in the army which Uncle Sam would need if the nation were attacked.

As a matter of general interest and also because ten employes of the Chicago Telephone Company are enrolled at the camp at Fort Sheridan, we are publishing in this issue an article and photographs descriptive of the camp life. For the privilege of securing this feature we wish to acknowledge the courtesy of Colonel D. A. Frederick, U. S. A., commanding the Central Department; Colonel W. J. Nicholson, commandant at Fort Sheridan and commanding officer of the training camp; and Colonel W. B. Judson of the department of engineering.

Bell Engineers Perfect Wireless Telephone and Speech Is Carried Across American Continent

Second Scientific Triumph Makes the Year 1915 Memorable in the History of the Art of Communication.

On January 25, 1915, the world was thrilled by the news that the American Telephone and Telegraph Company had made it possible to talk across the continent by wire and the opening of the transcontinental telephone was announced. Within less than a year this great triumph of science is followed by another achievement of the engineering corps of the Ameri-

Sitting in the offices of the company at 15 Dey street, New York, President Theodore N. Vail spoke into a Bell telephone, connected by wires of the Bell System with the wireless tower at Arlington, Va., and his words were transmitted by wireless telephony to Mare Island, near San Francisco, Cal. This latest and most remarkable triumph of the telephonic art was

phone and were heard at Mare Island and had their words repeated back by Mr. Carty there. Others present were Ex-Senator W. Murray Crane, of the executive committee; General Superintendent of Plant F. A. Stevenson, and Engineers O. B. Blackwell and H. P. Charlesworth.

At 12:48 eastern time, President Vail, surrounded by a few officials of the Ameri-



TALKING WITHOUT WIRES FROM NEW YORK TO SAN FRANCISCO.

Group of officials of American Telephone and Telegraph Company in President Vail's office in New York. Left to right—Bancroft Gherardi, engineer of plant; U. N. Bethell, senior vice president; F. A. Stevenson, general superintendent of plant; Theodore N. Vail, president; K. W. Waterson, engineer of traffic; W. Murray Crane, director; O. B. Blackwell, engineer; John I. Waterbury, director; H. P. Charlesworth, engineer; H. Christopher, special wire man, New York Telephone Company.

ican Telephone and Telegraph Company so stupendous that the mind can hardly grasp its extent and meaning and rivaling the other in its appeal to the imagination, although not in economic and practical importance.

On Wednesday afternoon, September 29th, the human voice traveled from the Atlantic to the Pacific coast without the aid of wire, by means of wireless telephone apparatus and methods developed by the engineers of the Bell System. At that moment wireless transcontinental telephony took its place among the great achievements of American telephone engineers and transatlantic telephony became practically assured.

under the direct supervision of John J. Carty, chief engineer of the American Telephone and Telegraph Company, who has been in San Francisco for several weeks. He received President Vail's first messages at Mare Island, and replied to them and repeated them back by wire. The demonstration was held by permission of the navy authorities at the radio stations, and the experiments were witnessed and verified by them.

Following President Vail's message, Union N. Bethell, senior vice president; John I. Waterbury, a director of the American Telephone and Telegraph Company, and Bancroft Gherardi, engineer of plant of the company, also talked into the tele-

can Telephone and Telegraph Company, picked up a Bell transmitter and called into it: "Hello, Carty; this is Mr. Vail." In spite of the fact that the words went by wire to Washington and then leaped through the air to the Pacific coast, Engineer Carty's reply came back almost instantly: "This is fine; this is wonderful," and the groups of men gathered together at opposite sides of the continent knew that wireless transcontinental telephony would henceforth be numbered among the miracles of modern science. After an extended conversation with Mr. Carty, Mr. Vail was followed by others present and in all cases the talkers were informed by the listeners

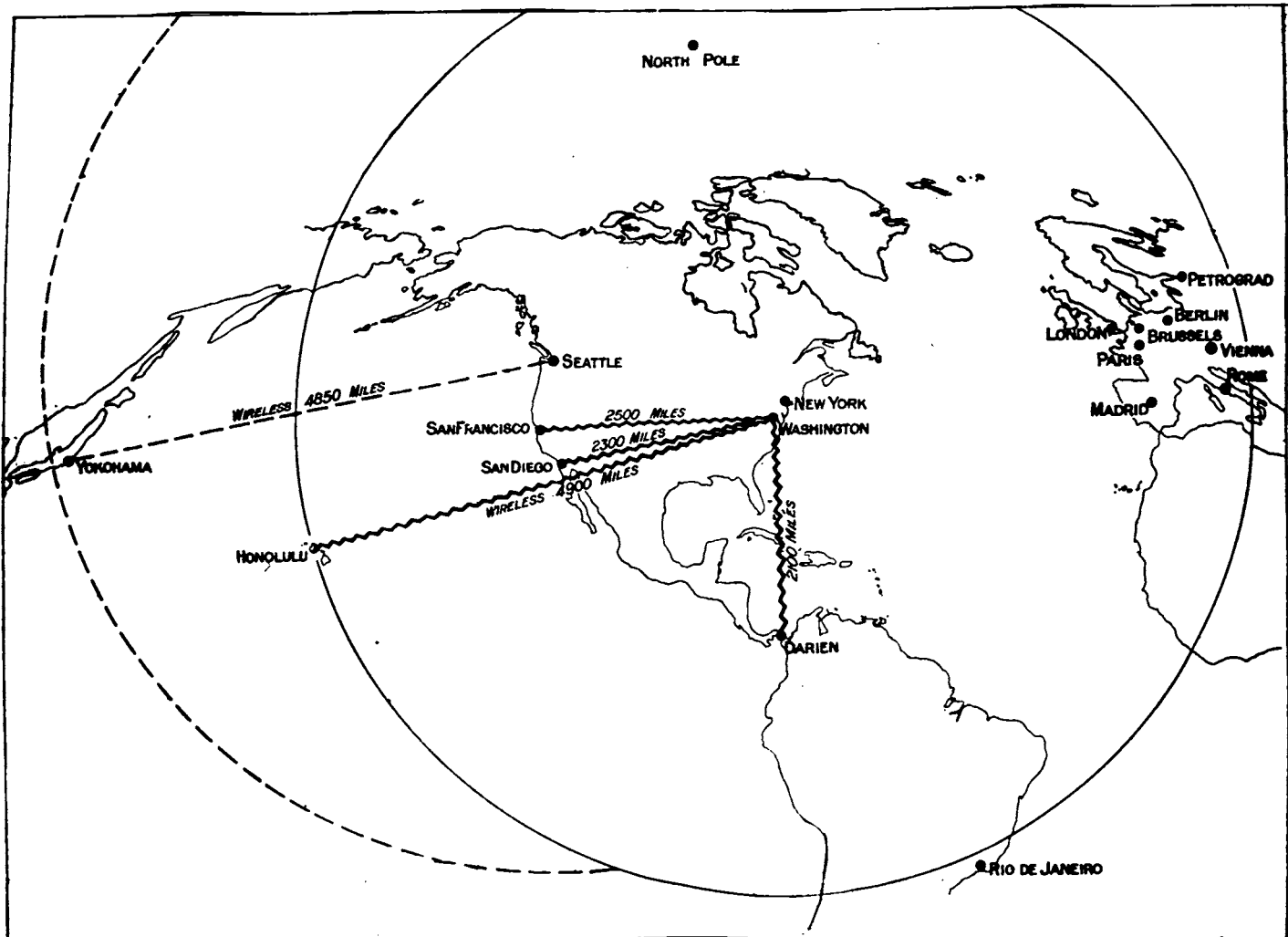
at Mare Island that their voices were distinct and recognizable.

The Bell wireless system is not yet fully installed at Mare Island, the receiving apparatus only being in position there; hence, it was impossible for messages to be telephoned back by wireless, but all the messages sent from or by way of the Arlington tower were recorded at Mare Island, and their receipt fully confirmed by the officials in their reports by wire.

During the day a similar and equally successful demonstration took place at Arlington, where engineers of the American Telephone and Telegraph Company, Western Electric Company and officials of the

September 29th an epoch-making day in the history of science, but a new and greater thrill came to the public when Lloyd Espenschied, an engineer of the American Telephone and Telegraph Company, cabled from Pearl Island, near Honolulu, Hawaii, 4,600 miles from Washington, that he had heard a message from the Arlington tower. Mr. Espenschied had been sent by Mr. Carty to the far-off Pacific island several months ago, carrying with him receiving instruments, and had erected an improvised wireless station on the island. When it is remembered that not only London, Paris and Berlin are nearer New York than Honolulu, that it is farther away than Pe-

of the Western Electric Company; E. H. Colpitts, research engineer, Western Electric Company; John Mills, J. W. George and W. H. Schott, of the American Telephone and Telegraph Company; R. A. Heising and W. H. Everett, of the Western Electric Company; Lieutenant Commander S. W. Bryant, Lieutenant Commander S. E. Hooper, Lieutenant R. B. Coffman and Lieutenant Bastedo, all of the navy, and P. G. Burton and J. E. Boisseau, of the Chesapeake and Potomac Telephone Company. A number of the officials talked direct to Mr. Carty by wireless and were plainly heard at Mare Island. Following the New York demonstration, J. J. Carty,



WHERE THE WIRELESS TELEPHONE REACHES.

The main circle shows the territory within a radius from Washington of 4,900 miles, the distance from Washington to Honolulu which was reached by a wireless telephone message, September 30th. The same message could have been heard at a properly equipped radio tower at any point within the circle. The dotted circle of equal radius shows that a telephone message from a wireless station at Seattle could be heard at Yokohama.

army and navy talked direct to Mare Island by wireless. Within the next twelve hours wonders piled on wonders in wireless telephony and even more marvelous records were made. From the radio station in San Diego came word that the talk from New York had been heard there over the wireless and later on a similar report came from Darien in the Isthmus of Panama. The distance from New York to San Francisco is 2,500 miles, to San Diego 2,300 miles and to Darien 2,100 miles. To have made these records was enough to make

trograd and even the North Pole, the magnitude and importance of this accomplishment may be partially realized.

The engineers and officials at Arlington had gathered at the station at seven o'clock in the morning and sent many messages to the various receiving stations during the day, reaching the climax of a scientific triumph when Honolulu was reached. In the Arlington party were Captain W. H. G. Bullard, the navy's chief of radio; Colonel Samuel Reber, of the army signal corps; Dr. F. B. Jewett, assistant chief engineer

of New York City, chief engineer of the American Telephone and Telegraph Company, officially confirmed the report that Theodore N. Vail, president of the American Telephone and Telegraph Company, seated at his desk in New York City, talked by wireless telephone with Mr. Carty, who was listening at Mare Island navy yard, San Francisco. Others who listened to the conversation at Mare Island were: Lieutenant Commander Sweet, United States Navy; Allen H. Babcock, consulting electrical engineer, of the Southern Pacific

Company; Chief Electrician Peterson, of the U. S. Naval Radio Station; H. P. Arnold and R. L. V. Hartley, of the Western Electric Company; A. H. Griswold, H. H. Hamlen and several other engineers and plant men of the American Telephone and Telegraph Company. He stated that U. N. Bethell, vice president of the American Telephone and Telegraph Company; John I. Waterbury, one of the company's directors, and B. Gherardi, of Mr. Carty's engineering staff, also spoke from Mr. Vail's office by wireless telephone to himself and to the others present with him. Mr. Carty recognized the voices of all of these gentlemen, and exchanged with them numerous questions and answers which were heard at Mare Island.

He also heard a large number of messages from the Arlington station. Words, phrases and sentences were heard from all of those by the listeners at Mare Island, notwithstanding the fact that the "static" disturbances were of an unusually violent nature.

Mr. Carty stated that the results achieved outdistance anything heretofore accomplished, and that this feat of talking across the continent is recognized by the experts as being of greater difficulty than talking across the Atlantic, for transmission over water is much easier than over land, particularly in view of the formidable mountain ranges to be crossed on the continent.

"Telephone messages," Mr. Carty said, "were transmitted with success from Arlington, Va., to the Isthmus of Panama, where they were received at the government radio station by one of its engineers, R. H. Wilson of the Western Electric Company, and by the naval officers in charge, who telegraphed back their contents. At San Diego also where one of the telephone engineers, W. Wilson of the Western Electric Company, was located, at the naval radio station, wireless telephone speech from the telephone and naval and army officials at Washington was received. Talking across the Atlantic by means of this new system is now but a matter of installing the necessary apparatus."

When asked what he thought would be the limit of this new system of his company, he stated that he had no doubt whatever that when the necessary apparatus is installed it would be possible to talk from New York to Tokio, Japan, using the transcontinental line from New York to San Francisco and wireless across the Pacific.

After the confirming reports had been received from Mare Island, President Vail, when asked for a statement, said:

"I do not think that I can better express my views in regard to wireless telephony than to quote the telegram which I have just sent to Mr. Carty, the chief engineer of this company, with reference to yesterday's wireless telephone talks:

"Carty:

"I want to congratulate you on yes-

terday's climax in the way of achievements, the greatest in intercommunication that the world has ever seen.

"To you and the wonderful staff, created by you, the world owes a debt.



CHARLES E. SCRIBNER.

"To throw your voice directly without the aid of wires from Washington to Hawaii — nearly 5,000 miles—a greater distance than from New York to Paris, Berlin, Vienna or Petrograd, and greater than that between Seattle and Tokio and Yokohama, was wonderful, but to send the recognized voice part way over wire and part through the air was still more wonderful and was the demonstration of the chiefest use that will probably attach to the wireless as amplifying and supplementing, not substituting, the wire system and bring into conversational communication ships, islands, and places which cannot otherwise be reached.

"Your work has indeed brought us one long step nearer our "ideal"—a "Universal System."

THEO. N. VAIL.

"September 30, 1915."

"As you will see from this, it is clear that wireless will never substitute or supplant the wire systems but will greatly amplify them and extend their usefulness. It is humanitarian rather than commercial, but it is useful in that it makes conversation possible between places and between places and moving objects and between moving objects that could not be connected by wire. As with wireless telegraph, it probably never will be dependable enough except as outlined above."

Secretary of the Navy, Josephus Daniels, was in Washington when the experiments

were made and was immediately informed of their successful outcome. The statement given out by him was as follows:

"Secretary Daniels is pleased to announce the successful outcome of experiments which have been carried on for the past few months by the American Telephone and Telegraph Company and Western Electric Company in cooperation with Captain W. H. G. Bullard, of the United States Navy, who has jurisdiction over the radio stations of the navy department. The working together of these forces has made possible long-distance wireless telephony.

"To-day, September 29th, speech was successfully transmitted from the Arlington radio station to the radio station at Mare Island, Cal., and there successfully received, thus making possible conversation without wires over a distance of approximately 2,500 miles, the first time this great distance has been covered by wireless telephony. In the first experiments to-day, the voice was successfully transmitted by radio to Mare Island from Arlington, the return answers and communication being made over the transcontinental land telephone line. This was successfully accomplished in the presence of officials and engineers of the American Telephone and Telegraph Company, the Western Electric Company, a representative of the signal corps of the army, a representative of the technical and operating departments of the navy department and a few other interested parties. After this successful demonstration conversation originating in New York was transmitted over the land line to Arlington, there automatically connected to the radio transmitter which carried the voice to Mare Island where it was clearly and distinctly received, and answers and other conversation were from there transmitted over the transcontinental line to the originating office in New York. The conversation was carried on by the president of the American Telephone and Telegraph Company, Mr. Vail, the vice-president, Mr. Bethell, and J. I. Waterbury, one of the directors, while at Mare Island were officials of the navy department, John J. Carty, chief engineer of the American Telephone and Telegraph Company, and representatives of the Western Electric Company. Every official taking part in this demonstration is enthusiastic about the results and the possibility of developing this system as an extension of the telephone system to ships at sea. The fact that the voice can be started on a land wire and automatically transmitted to a voice radio transmitter holds out hope that persons inland should readily be put in touch by telephone with others at sea through some central transmitting station.

"The use of such long-distance wireless telephone communication in naval or military operations is still in an undeveloped state, but it is expected valuable use can be made of this wonderful demonstration, but aside from such consideration the de-

partment and its officials may well feel proud that they have been interested co-operators in the first practical development of this last march in the wonderful science of radio communication."

During the evening President Vail sent the following telegram to Secretary Daniels:

Honorable Josephus Daniels, Secretary of the Navy, Washington, D. C.

Personally and as president of the American Telephone and Telegraph Company I wish to express to you my thanks for the courtesy of the navy department in extending to us the privilege of connecting special wireless telephone apparatus to the Navy Department wireless telegraph towers. By means of this special apparatus we have to-day successfully carried on wireless telephone communication from the Atlantic to the Pacific coast.

THEODORE N. VAIL.

U. N. Bethell, senior vice president of the American Telephone and Telegraph Company, who was among those who talked from New York to Mare Island over the wireless telephone, said afterward:

"This romantic incident—this talking by wireless across the continent, means another epoch in the development of the art of transmitting intelligence by electricity. The talking was very satisfactory, words and sentences uttered from New York were repeated back from San Francisco with absolute accuracy, and even my voice was recognized immediately when I spoke into the transmitter. Another wonderful achievement is to be credited to the Bell organization and for the second time within a year its engineers have presented this country with a marvelous triumph of science and magnificent aid to civilization, commerce and society.

"The exhaustive studies of our engineers concerning the matter of wireless telephony have given clear indications of both its possibilities and its limitations.

"The possibilities of wireless telephony, great as they are, will be mainly in the direction of extending the use of the wire systems, and its greatest utility will probably always be as auxiliary, tributary and supplementary to the older system. For emergency and special use the new invention offers thrilling suggestions and its practical and economic value should not be underestimated, but much of this is in its connection with the wire systems. Its great value will be to supplement and extend the telephone service wire system in those situations where it is impossible to string wires, and its use over wide expanses of water, desert, etc., opens up attractive fields to the imagination, especially when some way is found to overcome the well-known disturbances which interfere so much with all wireless communications, whether telephone or telegraph. In spite of this, however, the value of wireless telephony can hardly be estimated and

it is sure to be helpful beyond expression in making a neighborhood of nations."

Colonel Samuel Reber, who is in charge of the Aerial Signal Service of the army and an authority on aviation and communication, and who was among those who



DR. F. B. JEWETT.

talked across the continent from the Arlington station, said afterward:

"The recent successful transcontinental transmission of speech between Washington and San Francisco marks an epoch not only in technical achievement but also in the development policy of a great corporation. When conversing some two years ago with J. J. Carty, the chief engineer of the American Telephone and Telegraph Company, on the economic destiny of the telephone, he stated one of the goals sought by his company was the development of a truly universal telephone service. With this object in view his engineering force, which is one of the most able corps of engineers and scientists ever gathered together, had been working for some time on the problem both from the standpoint of wire and wireless transmission. Transmission of audible speech to Europe by wireless can be taken as an assured fact, and it would have been attempted ere this had conditions on the other side been favorable. I cannot express my appreciation of this wonderful achievement in too high terms, and I heartily congratulate Mr. Carty and his corps of able assistants."

In regard to this achievement Bancroft Gherardi, the engineer of plant of the American Telephone and Telegraph Company, who is one of Mr. Carty's staff, who have been working on this problem, said that the results obtained in talking by wireless telephone from New York and Washington to San Francisco and Hawaii, were

a culmination of long and very important investigations and discoveries which have been made by the engineers of the Bell System. These investigations have extended over a considerable period. During the early spring of this year, as a result of the work already done, the engineers of the telephone company talked over a distance of about 250 miles, using for the purpose an experimental tower which they had erected near Montauk Point, L. I., and a small tower borrowed for the purpose from private owners at Wilmington, Del. Soon after that they talked over 1,000 miles, in this case using the experimental tower at Montauk Point and an experimental tower erected for the purpose at St. Simon's Island, Ga. The results of these tests so conclusively demonstrated the correctness of their work and its possibilities that steps were immediately taken to try distances comparable with those involved in transatlantic telephony, and, indeed, even looking to trans-pacific telephony. What the results of these further tests have been is shown by the talks to San Francisco and Hawaii.

"Another interesting feature of the tests," said Mr. Gherardi, "was that, in a practical way, the ability to connect wireless telephone systems with wire telephone systems was shown. You have no doubt noted that Mr. Vail in his talk used wire from New York to Washington. At Washington, by the special means invented and developed by the engineers of this company, the wires were connected to our special wireless apparatus and to the navy's wireless tower, where the message went wirelessly to its destination."

Mr. Gherardi, when asked what was the place of wireless telephony in the general scheme of communication, stated that he expected that it would form a most important adjunct and extension to the existing schemes of communication. By its means communication can be established between points where it is impracticable to extend wires. For many reasons wireless telephony can never take the place of wire systems, but it may be expected to supplement them in a useful manner. Wireless telephone systems are subject to serious interference from numerous conditions, atmospheric and others. For many uses the fact that anyone suitably equipped can listen in on a wireless telephone talk would be a serious limitation to its use.

Wireless Telephony and Its Future

The transcontinental wireless telephone employs radically new ideas in wireless working which have been invented and developed by the general engineering staff of the American Telephone and Telegraph Company, working to this end by direction of President Theodore N. Vail. But it is interesting to note that in starting this first

message on its flight through the ether to the Pacific coast, President Vail used a Bell telephone, designed for wire working.

Wireless telephony, wonderful and important as it is, is subject to certain physical limitations that, while they do not prevent it from being a valuable auxiliary to wire telephony, will always keep it from being a serious rival of the older system for ordinary use, or ever supplanting wire. There are many sharp limitations to the use of the ether for talking purposes and it cannot be drawn on too strongly by the scientist. It will accomplish miracles, but it must not be overtaxed. Millions of messages going in all directions, crossing and recrossing each other, as is done every day by wire, are an impossibility by wireless telephony.

Weird and little understood conditions of the ether, static electricity, radio disturbances, which no scientist can control or foresee, render wireless work uncertain, and such a thing as a twenty-four hour service, day in and day out, can probably never be guaranteed. A thunder shower makes sad havoc with the use of the wireless. Even sunlight may make sending impossible.

The limitations of the use of the wireless are best understood when it is remembered that all its messages must be carried by one common conductor. In telephony by wire every man may have his own private wire; in wireless all the world is restricted to the use of one general medium or conductor—the universal ether. Only a limited number of messages may be sent at the same time. During the summer season wireless telephony is possible for limited periods only, and then only under the most favorable conditions. Proper weather conditions may be absent for months at a time. The very fact that nature does so much herself in transmitting wireless messages seems to give her the privilege of withdrawing her help at any time and without notice.

In addition to this, wireless telephony will probably always be subject to "listening in." A wireless message, unlike one by wire, radiates in every direction, as sound does. It can be heard by anyone anywhere who has a proper receiver properly tuned. The almost absolute privacy of the wire cannot be insured for it, and, while this will not interfere with the use of the wireless for its evident and very practical purposes, that fact alone would prevent it from ever being a serious rival of its more confidential sister. Marvelous as it is, the greatest value of the wireless will always be as an adjunct of the wire, and will largely depend on the fact that its messages can be caught up by the wire system and from that switched to the persons for whom they are meant, no matter where they may be. While the recent experiments took place from New York to San Francisco, via the Arlington tower, President Vail could have talked to

Dr. Carty by wireless from any point on the Atlantic coast, and Dr. Carty could have heard him at any place in California, provided each had been connected with the respective wireless stations by Bell telephone wires.



BANCROFT GHERARDI.

But, whatever the future or limitations of wireless telephony, there is no doubt as to the place it will take among the great scientific accomplishments of the age. Merely as a scientific discovery or invention, it ranks among the greatest wonders of civilization. Much as the imagination was appealed to by the tremendous leap of the voice 3,400 miles across the Transcontinental Line, there is something infinitely more fascinating in this new triumph of the engineer. As long as the mind had such tangible things as poles and wires to lay hold of and measure by, long-distance telephony, wonderful as it was, could be accepted as a fact even if not understood; this new piece of wizardry strains it, however, almost to the point of unbelief. This new thought of a spoken word winging its way in silence through space, past cities, over mountains, rivers, deserts, and then coming clear and human to a waiting ear on the other side of the continent—there is something in all this that seems to belong to the realm of the supernatural.

Marvelous as have been the developments of the art of telephony there is nothing more remarkable in connection with them than the rapidity with which they have been reached. No other science has ever attained so high a state of perfection in so short a time. When the completion of the Transcontinental Line was celebrated on January 25, 1915, one of the most notable facts concerning the achievement was that it had been made in

the space of a man's lifetime, and that the inventor of the telephone, Dr. Alexander Graham Bell, talked across the continent to his associate, Thomas A. Watson, who made the first crude instrument. Still within the lifetime of these two men telephony achieves its most wonderful victory over nature and apparently reaches the highest possible development of the art within less than half a century.

The first spoken sentence ever heard over the telephone was on March 1, 1876, when Dr. Bell called to his assistant, Mr. Watson, in a little room at No. 5 Exeter Place, Boston, and was heard by him. On that day the telephone was born. Within the comparatively few years since that invention has grown into the Great Bell system which includes 9,000,000 telephones in the United States, connected by 21,000,000 miles of wire, and this new achievement assures linking them with the lands across the seas.

It is difficult to find another date in scientific history to compare with this on which the first transcontinental wireless conversation took place. Closest to it in importance, perhaps, was that of 1858, when the Eastern and Western continents were first successfully linked together by the great Atlantic cable. Not even that, however, possessed such possibilities of intimacy between the old and the new world as are suggested by this new wonder. The cable, while it connects, still separates the two continents by wire and the formality of codes and written words. The wireless telephone, more than any other invention has ever done before, promises to annihilate space, make the world smaller, and draw its people closer together.

Startling and epoch-making as is the innovation of wireless transcontinental telephony, it is after all but another development of the American Telephone and Telegraph Company's wide policy and another proof of the earnestness and zeal with which that policy is carried out. Its idea of development has been to make every individual telephone as valuable to the subscriber as it could possibly be made, and it has never spared time, labor or money to bring about this result. Whatever the means, it has missed no opportunity to increase and extend the scope and usefulness of its lines, and, stimulated by the favorable conditions under which private enterprise and personal initiative are able to thrive in this country, it has achieved results impossible elsewhere in the world. Its fundamental idea seems to have been, as has often been stated, to make it possible for every man who can talk to talk to every man who can hear; and whether by wire or by wireless it has pushed steadily ahead toward this great end. That this broad policy is no new thing is shown by the very articles of incorporation of the company, adopted as far back as February 28, 1885, when even the wonderful wireless telephone seems al-

most to have been foreseen and provided for in the paragraph which declares it to be the intention of the company to connect the towns of the United States not only with each other, but "with the rest of the known world by cable and other appropriate means."

The transcontinental line was looked upon as the high water mark of a science created and developed entirely by American genius and enterprise, and as a final proof of the sincerity of the American Telephone and Telegraph Company and a true accounting of its stewardship. With this new contribution to civilization and commerce, it passes even its own high standards of achievement, and practically guarantees to place the world at the call of its millions of telephones. The transcontinental was hailed as one of the greatest forces in the future unification and prosperity of our nation. The part that the wonderful wireless telephone, with all its almost world-wide possibilities, may play in bringing about a realization of the great dream of universal brotherhood is a theme almost overpowering in its tremendous possibilities.

Teaching the Young Idea to Cook

A unique feature of the Electrical Exposition and Motor Show to be held at New York from October 6th to 16th will be found in a section of the New York Edison Company's exhibit, where the new Western Electric Junior Range is to be demonstrated.

This range, which a prominent central station man has characterized as "the greatest electrical novelty in years," is a practical, miniature electric range, complete in every detail, upon which real food can be boiled, baked or fried. It is intended for a toy and also as a means whereby young girls may be taught to cook.

As a direct tribute to the educational value of this device, the Board of Education of the city of New York has arranged with the New York Edison Company to send squads of young girls from the public schools to visit this exhibit and receive instruction in the art of cooking electrically, using the junior range in the demonstrations. Opportunity is to be afforded the school children to do some of the cooking themselves in order to give the instruction work its greatest possible value.

This feature will be continued throughout the duration of the show. It will serve, as few other things could, to impress the new generation with the "Do It Electrically" idea.

Heard Over the Telephone

Subscriber—Who called me?

Operator—Whoever called you left the line.

Subscriber—Thank the Lord they did not take it with them.

Operates Street Railway by Telephone

Chicago's huge street railway system was run almost entirely by telephone for a period of two weeks recently.

President Leonard A. Busby of the Chicago Surface Lines underwent a minor operation at the Presbyterian Hospital for an injury sustained in a fall while indulging in his favorite pastime of riding horseback. At no time was Mr. Busby's



PRESIDENT L. A. BUSBY
Directing operation of Chicago Surface Lines by telephone from hospital.

condition considered serious, but his physicians insisted that he remain in bed following the operation.

Meanwhile, the great street car system could not be neglected—the directing hand had to be kept upon the lever. Mr. Busby quickly solved the problem by converting his hospital room into temporary executive headquarters. His doctors would not allow him to leave his bed, but he overcame this obstacle by having a telephone installed at his bedside and the affairs of the company proceeded almost as smoothly as if Mr. Busby had been at his desk in the Borland block.

Operating Chicago's surface lines is no easy job under the most favorable conditions and the fact that the lines were successfully run by telephone from a hospital bed speaks volumes for the resourcefulness of the company's president and makes a strong appeal to the imagination when the enormous figures involved in the problem are considered. The company carries 3,000,000 passengers daily in 2,700 cars, operated over 1,000 miles of track, covering a territory of over 200 square miles; it has 14,000 employes, 9,000 of whom are trainmen, with a monthly payroll of over \$1,100,000.

All of which points to the conclusion that Mr. Busby's was "some job" for a sick man to handle and one which the telephone alone made possible.

Mr. Busby has returned to his office and, to use his own words, is "feeling fine."

Telephone to Help Nab Criminals

Police Commissioner Woods of New York and the New York Telephone Company have just devised a scheme to net criminals who get away from the scene of their crime but whose identity or personal appearance is known a few minutes after the crime is committed.

To show how the system will work, take the case of the recent murder of a wealthy Flatbush woman. She was beaten to death by a man servant who stole her jewelry and left the house with two packages. A few seconds later a woman friend of the victim, on her way to the house, noticed the escaping murderer but did not guess his frightful deed.

Upon the arrival at her friend's home she found the dead body and a few minutes later all the facts, with a full description of the fugitive were in the hands of the police.

Now, under the new system, the police would immediately give the description to the telephone company and the telephone company would do the rest. Through its wonderful network of lines it would notify every chief of police, sheriff, constable and railroad station agent within a radius of 100 miles of the point where the crime was committed.

The fleeing murderer would not dare to board a trolley car or an elevated train, he would fear to use the subway or the steam railroads—for everywhere he would know exact details of his looks and clothes had gone before him.

He could only lurk near the scene of the crime or get as far away as his legs could carry him. He might use a horse or automobile, but he would not dare to cross a ferry or an important bridge. He would have to hide in the neighborhood of his crime and here the people would be interested in the case and undoubtedly suspect him.

As it turned out in the Flatbush murder, the police without the cooperation of the telephone company, took two hours to notify important points. In these precious two hours the fugitive slipped through the cordon. He made his way to Philadelphia by train—something he would have only the ghost of a chance of accomplishing now.

Mr. Kingsbury's Little Joke

Vice President Kingsbury of the American Telephone and Telegraph Company, who presided at the recent transcontinental talkfest of the Rotarians at the Algonquin, sent the recipe for a new drink reverberating across the continent.

"Are you getting any September Morn highballs out there?" inquired Kingsbury of the speaker at the San Francisco end of the wire.

"I don't know; how do you make them?" inquired Frisco.

"Peel a peach and add a little water," replied Kingsbury.—*Dayton News*.

Chicago Telephone Company Installs Four-Hundred-Thousandth Telephone in the City

Officials at Dinner Celebrate Red Letter Day in the History of the Company and the Development of Telephone Service in Chicago.

At six o'clock in the afternoon of September 28, 1915, the four-hundred-thousandth Bell telephone to be placed in service in the city of Chicago, was installed in the private office of Mayor William Hale Thompson in the city hall. The following inscription on the base of the telephone instrument commemorates the event:

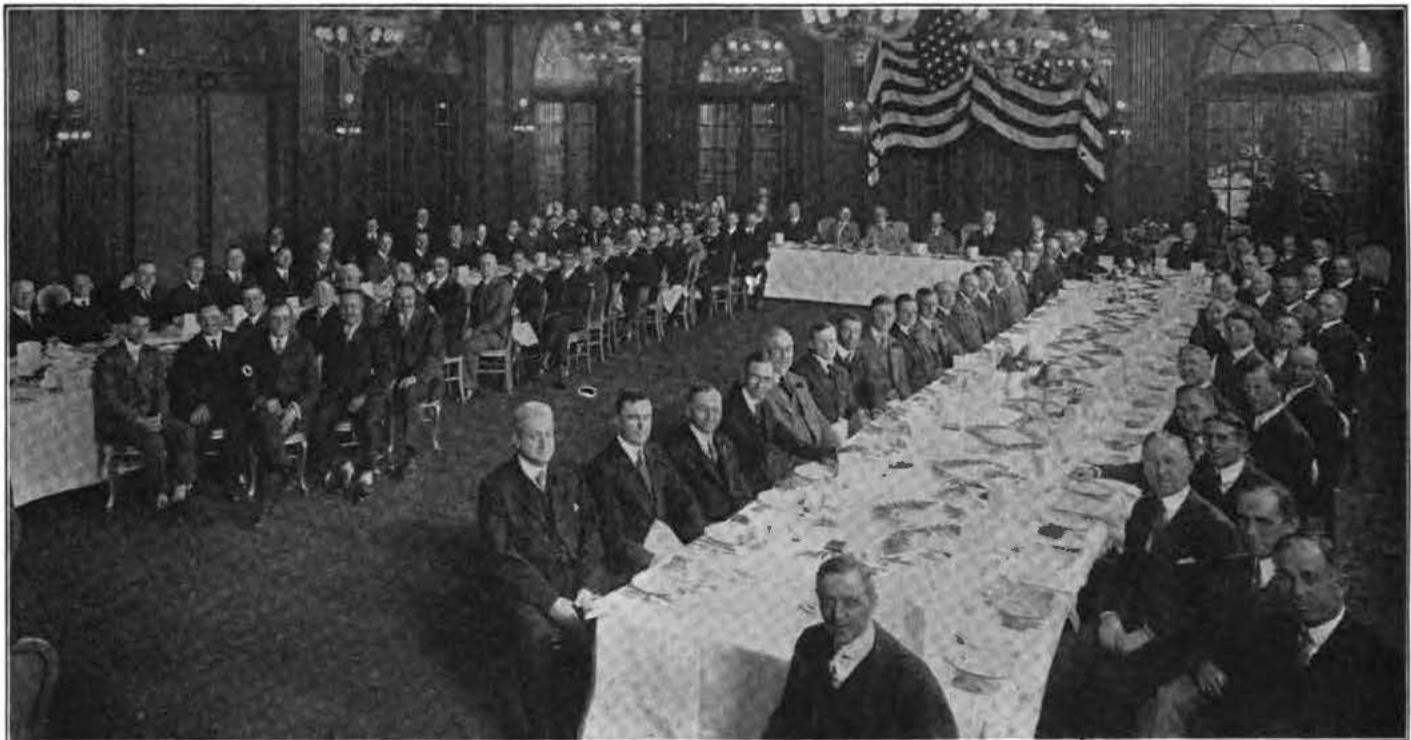
This telephone, which was installed in the private office of His Honor,

phones. These figures cover the metropolitan sections of the various cities only, and do not include any suburban points.

The city of Chicago now has more telephones than Italy, Spain, Hungary, Belgium, Portugal, Roumania, Bulgaria, Servia and Greece combined; more telephones than the whole of the Russian Empire and more than twice as many telephones as the whole of Austria. Chicago far surpasses

originating calls at present is 2,000,000. The total number of originating calls during the whole year of 1900 was 108,000,000, while the total number of originating calls last year was 607,450,000.

The Chicago Telephone Company was incorporated January 14, 1881. The first telephone building was erected in 1887 at the corner of Washington and Franklin streets. It was a seven-story building and



"CONGRATULATORY DINNER" GIVEN TO OFFICIALS OF CHICAGO TELEPHONE COMPANY TO CELEBRATE INSTALLATION OF FOUR-HUNDRED-THOUSANDTH TELEPHONE IN THE CITY.

Mayor William Hale Thompson, at 6 p. m., September 28th, 1915, was the 400,000th Bell telephone in service in the city of Chicago at that time. Thirty-seven years ago the 400th Bell telephone in the city of Chicago was installed for His Honor, Mayor Monroe Heath.

With a population of 2,500,000 this gives Chicago approximately one telephone to every six inhabitants. This development is confined to the city limits and does not include the telephones in service in the Chicago Telephone Company's suburban territory.

New York has 428,750 telephones; Philadelphia has 150,400 telephones; Boston has 88,100 telephones; Pittsburgh has 76,140 telephones; San Francisco has 118,217 tele-

all the principal European cities in the number of telephones in service. London has 258,895; Paris has 95,033; Berlin has 154,800; Stockholm has 85,641; Vienna has 64,438; Budapest has 27,944; Sofia has 1,599; Bucharest has 4,983 and Petrograd has 54,815.

This attainment represents an increase of 1,400 per cent. in telephones in the city of Chicago during the last fifteen years. In 1900 there were only 26,661 telephones in service. This increased to 104,338 by 1905. In 1910 there were 239,082; therefore, the present figure, 400,000, represents a growth of more than 373,339 telephones in fifteen years.

In 1900 the average daily number of originating calls in the Chicago exchanges was 324,000. The average number of daily

was considered a "skyscraper" at that time. The present Main office building at 212 West Washington street is twenty stories in height and the largest building in the world devoted exclusively to telephone purposes. In addition to the Main office building, the telephone company has thirty-nine other buildings throughout the city used for exchanges and supply stations.

The underground and cable system of the Chicago Telephone Company is the largest and most complete in the world, embracing 712 miles of conduit, which contain 3,398 miles of duct, carrying 1,081,704 miles of underground wire. The aerial plant contains 119,527 miles of aerial wire and 1,475 poles. From a pamphlet of five hundred names, the Chicago telephone di-

rectory has grown to a large book, containing more than 410,000 listings.

The Chicago Telephone Company is one of the biggest employers in the city and one of the largest distributors of money in the community. In the city alone the company has in its service 3,978 male employes and 6,367 female employes, of whom 5,600 are operators. The company spends on an average of \$6,800,000 a year for construction and wages. It is constantly extending its facilities, enlarging present exchanges and building new exchanges to meet the growing demand for telephone service.

Since the incorporation of the company men prominent in the business life of Chicago have occupied the executive chair as the following list shows: Norman Williams, Anson Stager, George L. Phillips, Henry B. Stone, Robert T. Lincoln, John M. Clark, John I. Sabin, Arthur D. Wheeler, and B. E. Sunny, the present incumbent. Mr. Sunny has occupied the president's chair longer than any of his predecessors; he was elected in May, 1908, and is, therefore, now rounding out his eighth year.

On Wednesday night, September 29th, at 6:30, ninety-four officials of the Chicago Telephone Company gathered at the Hotel La Salle and celebrated with a "congratulatory dinner" the installation of the four hundredth thousandth telephone. Vice President H. F. Hill, as happy as a boy, presided.

Mr. Hill started the humor of the evening by reading an "estimate" of the probable number of telephones in service in Chicago in 1930. The estimate, he said, had been made up by the "auditors." Taking as a basis the 400,000 telephones in service today and figuring the rate of increase during past years, the estimate fixed 14,000,000 as the number likely to be in use in that year.

Mr. Hill then called upon several of the diners, who responded extemporaneously. President Sunny, the first speaker, had supplied himself with some statistical information relating to the growth of Chicago's public service companies during a period of fifteen years, from 1900 to 1915, inclusive. Speaking of the telephone service Mr. Sunny stated that from the time the first exchange was opened until about 1890, the development of the service in the city was comparatively slow. It was so slow, in fact, that he confided to the audience that he had left the telephone service in 1888 feeling that the limit of its expansion had been reached. There were in Chicago at that time about 5,000 telephones. This number

had increased to about 10,000 at the time of the World's Fair in 1893. Following this period the multiple switchboard was perfected by Charles H. Wilson, now general manager of the long-distance lines of the American Telephone and Telegraph Company, and the possibilities of telephone extension and development along present-day lines began. The period from 1900 to 1915 has witnessed the greatest development. The increase during this time has been about 1,400 per cent. The 100,000 mark was reached in 1905; the 200,000 mark in 1909 and the 300,000 mark in 1912. The only other Chicago utility whose growth has been comparable to that of the

to-night," said Mr. Sunny, "and we must not take too much credit to ourselves for the great achievement, for it is due also to thousands who have by their efforts in the past made it possible. It took probably no longer than forty minutes to install the four-hundred-thousandth telephone in Mayor Thompson's office, but it took forty years to prepare for it."

At the close of his remarks, Mr. Sunny turned to Thomas B. Lockwood of Boston who was seated at the speakers' table, and after paying a tribute to his genius and long and unbroken service in connection with the development of the telephone, introduced him as the next speaker.

Mr. Lockwood, who was returning from San Francisco, where he had attended the convention of the Telephone Pioneers of America, related many interesting incidents in connection with his trip. He then proceeded in his inimitable fashion to relate humorous bits of telephonic history to the immense amusement of his hearers. At the close Mr. Lockwood was given an ovation.

Mr. Hill then called upon Vice-President Burt and General Manager Abbott, who added their congratulations, and paid their tribute to the work of officials an employes which had made possible the tremendous growth of the Company's business. Mr. Abbott laid particular stress upon the changed attitude of the public toward the Company, which he ascribed to the new régime of courtesy, consideration and a manifest desire to please, contrasted with the brusqueness and indifference which seemed to have been inherent in the attachés of public service corporations during the early days. Mr. Abbott made a more serious estimate than Mr. Hill as to the future of the Chicago Telephone Company, predicting that there would be 800,000 telephones in Chicago in 1930.

General Commercial Superintendent Bone, called upon by Mr. Hill to make a really scientific prediction as to how many telephones Chicago will be using in 1930, dodged the question, saying that any guess made would be sure to be too low.

General Traffic Superintendent S. I. Larned, upon being asked by Mr. Hill to tell how the traffic would be handled when the Company was serving 800,000 or 14,000,000 telephones, drew a picture that would have done credit to Jules Verne, in which he depicted the organization of the telephone company in 1940. At its head, Miss Mamie O'Sullivan appeared as president, and her administration was one of most advanced ideas, all of which were



NEWSPAPER CARTOON OF PRESIDENT B. E. SUNNY AND TYPIFYING THE GROWTH OF TELEPHONE SERVICE IN CHICAGO.

telephone is the Commonwealth Edison Company. "However, these two utilities," said Mr. Sunny, "are in a class by themselves. They have far outstripped all the other local utilities."

In commenting upon the impressive fact which the dinner celebrated, Mr. Sunny related a story of Henry Ward Beecher. A member of one of Mr. Beecher's audiences expressed his admiration of a beautiful prayer which the great preacher had offered and asked how long it had taken him to prepare it. "Forty minutes or forty years," replied the minister, "just as you want to look at it."

"This anecdote is apropos of our position

made practicable by a marvelous advance in mental activity which made 1915 practices obsolete. Mr. Larned noted that there were only a few of the old timers present who had also been present at the congratulatory dinner of 1915. These are at the heads of new and unusual departments. H. H. Henry, for instance, is the head of the Department of Psychology, and he has developed to the highest state of efficiency that capacity which enables him to convince Company officials of what they want rather than what they think they want.

Clifford Arrick, manager publicity department, the last speaker, stated that he had been so confused and mystified by the enormous figures quoted on this occasion, that in contrast with Mr. Larned's position, he felt that he must return to first principles in order to get a firm anchorage and he, therefore, invited his listeners to step back into the past and bear with him as he tested the theory of evolution.

"If we were to go back 400 years, 4,000 years, or 400,000 years," he said, "I am firmly convinced, from Chicago's experience, that we should find B. E. Sunny directing or superintending a telephone or telegraph company somewhere, and that Alonzo Burt would be found, probably in the pre-historic telephone organization, known as the Missouri and Kansas Telephone Company, promoting a propaganda of 'Waste Nothing.'"

Mr. Arrick then extended his congratulations to all present and to the thousands of employes who could not be present, all of whom had their share in the company's great growth.

At the conclusion of Mr. Arrick's remarks, Mr. Hill proposed the health of the 6,000 operators in Chicago and Traffic Superintendent H. N. Foster briefly responded with the assurance that whatever may be the future development of service by the Chicago Telephone Company, the operator will be found capably handling her part of the great work.

At intervals throughout the evening, there was music by the Chicago Telephone Company's orchestra under the direction of E. B. Moebius. A little "aside" was an impersonation of Thomas D. Lockwood by J. J. Cleary of the Chicago Telephone Players' Club and a song by Mr. Cleary parodying some of that famous telephone man's supposed eccentricities.

Them Came the Storm

"Why is it that the attendants in telephone offices are all women?" Mrs. Brown made this inquiry of her husband.

"Well," answered Mr. Brown, "the managers of the telephone offices are aware that no class of attendants work so faithfully as those who are in love with their labor, and they knew that women would be fond of the work in telephone offices."

"What is the work in a telephone office?"

"Talking," answered Mr. Brown. Then a different kind of conversation began.

Block Assigning System

By L. P. WILLIAMSON
Assigning Department, Cleveland

Not very many years ago when an order was received for a new installation, the line foreman and his crew went to the new subscriber's premises, and, after looking the situation over, determined whether the new subscriber could be connected with someone else in the neighborhood or whether a new circuit was necessary.

From the time this crude system was in effect up to the present day many improve-

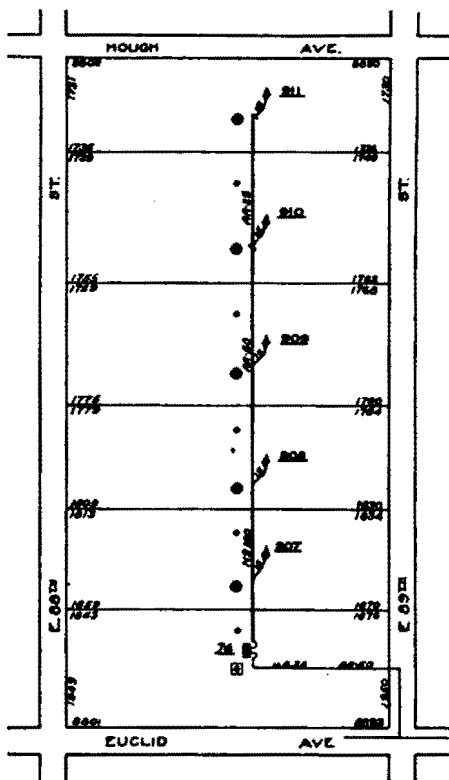


DIAGRAM SHOWING BLOCK ASSIGNING SYSTEM.

ments have been made in assigning methods and a review of the many methods would be interesting as a study in evolution.

This article, however, will deal entirely with the system that is in effect at the present time, known as the Block Assigning System and in use by several large Bell companies.

The quickest and most simple method of explaining the system will be to follow the routine of assigning one order, and by reference to the accompanying diagram a general idea of the scheme will be obtained.

An order is received for two-party service at 1809 East Eighty-eighth street. First we turn to a catalog of five by eight-inch cards and in numerical order we find a card marked East Eighty-eighth 17-18-19. This marking indicates that street numbers 17, 18 and 19 hundred on East Eighty-eighth street are shown on this card, and, on re-

moving the card we find a diagram of the block as shown in the cut.

We see at a glance that 1809 East Eighty-eighth street is fed by terminal number 908 aerial cable number 180. Turning to cable chart 180 the record shows that 5000-J, a two-party line, is working out of terminal 909 and that the same conductors multiple into terminal 908, out of which the new station must work. Now we must find out if 5000-W is available.

Directly back of the diagram or index card in the catalog is a green card showing all the two-party lines in the block, arranged numerically by telephone numbers and showing the street addresses. There are also other colored cards representing every other class of service. On this assignment, however, we are only interested in the green or two-party line card.

This card shows us that 5000-W is available, therefore this number is assigned, the address entered on the green card, assignment entered on the order and recorded on the cable chart. The order is then sent to the installation department for execution.

The system of naming and numbering streets in the city of Cleveland is ideal in connection with working out this plan. However, in municipalities where the numbering and naming of streets has not reached the perfection of the Cleveland system, this same method of assigning may be followed by assigning a number to each block and showing that block number on a key map, which can be kept on the assigning clerk's desk under a glass top. This method is followed in connection with assigning orders in the suburban municipalities surrounding Cleveland, where the street numbers are arranged in a rather haphazard manner.

The secret of successful assigning is good records, and the more simple the records the greater the accuracy. The block assigning system greatly simplifies the records, and, therefore, increases the accuracy of assignments.

This system also increases the speed of assigning, and where it was possible under the former method for one clerk to assign at the most twenty orders per day, it is now possible to assign anywhere from forty to fifty orders per day. Due to the fact that the records allow the assigning of new stations in such a manner that the subscriber will work from the nearest terminal box a large saving in wire has resulted.

The block assigning system is undoubtedly the very best system of assigning so far devised, and it will continue to be used by the Cleveland Telephone Company until some genius devises a better method.

Heard in Kalamazoo

Operator: "Ready with Ionia."

Subscriber: "What say?"

Operator: "I-own-ya."

Subscriber: "Oh, you do, do you?"

Citizen Training Camp Brings Five Hundred Prospective Soldiers Together at Fort Sheridan

Ten Chicago Telephone Men Among "Rookies" Who Are Receiving First Instruction in the Science of Modern Warfare.

Heads up, eyes straight ahead, chests out, 500 men marched behind a khaki-clad military band and with precise steps filed into the big dining hall ("mess" hall, more properly, in military parlance) at Fort Sheridan, Ill. The day was September

plan, which was advocated by the Chicago Association of Commerce, the Chicago Telephone Company sent ten men. They are:

E. F. Riddle, chief engineer's office.
Cyrus Hill, chief engineer's office.

a conspicuous example of the dire results of unpreparedness and had not the Union and Confederate troops on this memorable occasion been equally inexperienced the war for the Union might have been lost in that one battle.



GENERAL VIEW OF CITIZENS' TRAINING CAMP, FORT SHERIDAN, ILL.

24th and the marchers were the citizen soldiers who are spending a month at the United States Army Post receiving instruction in military tactics and practice under direction of officers of the regular army.

It was the fifth day of the training camp. A representative of the BELL TELEPHONE NEWS with a photographer had presented himself at the headquarters of Colonel W. J. Nicholson, U. S. A., commandant at Fort Sheridan and commanding officer of the camp, requesting permission to take pictures and gather material for an article.

"Go to it," responded the Colonel, with amiable brevity. He set the example by pausing for a moment in front of his tent while the photographer snapped the excellent picture on page 13.

About 500 men, mostly in their thirties, a few over forty, are earnestly engaged in learning all that can be absorbed in one month about the duties of a soldier. The men come from all walks in civil life. There are judges and clerks, public officials, corporation and mercantile men, engineers and college professors. Many of them are employes and officials of large business concerns and corporations which granted the men vacations on pay and defrayed their expenses while in camp. Following this

R. H. Hopkins, chief engineer's office.
C. D. Hoover, engineer's office.
E. L. Marmaduke, engineer's office.
D. E. Moore, engineer's office.
W. H. Inbusch, engineer's office.
F. W. Little, plant department.
Charles L. Poggi, Jr., plant department.
Brian French, plant department.

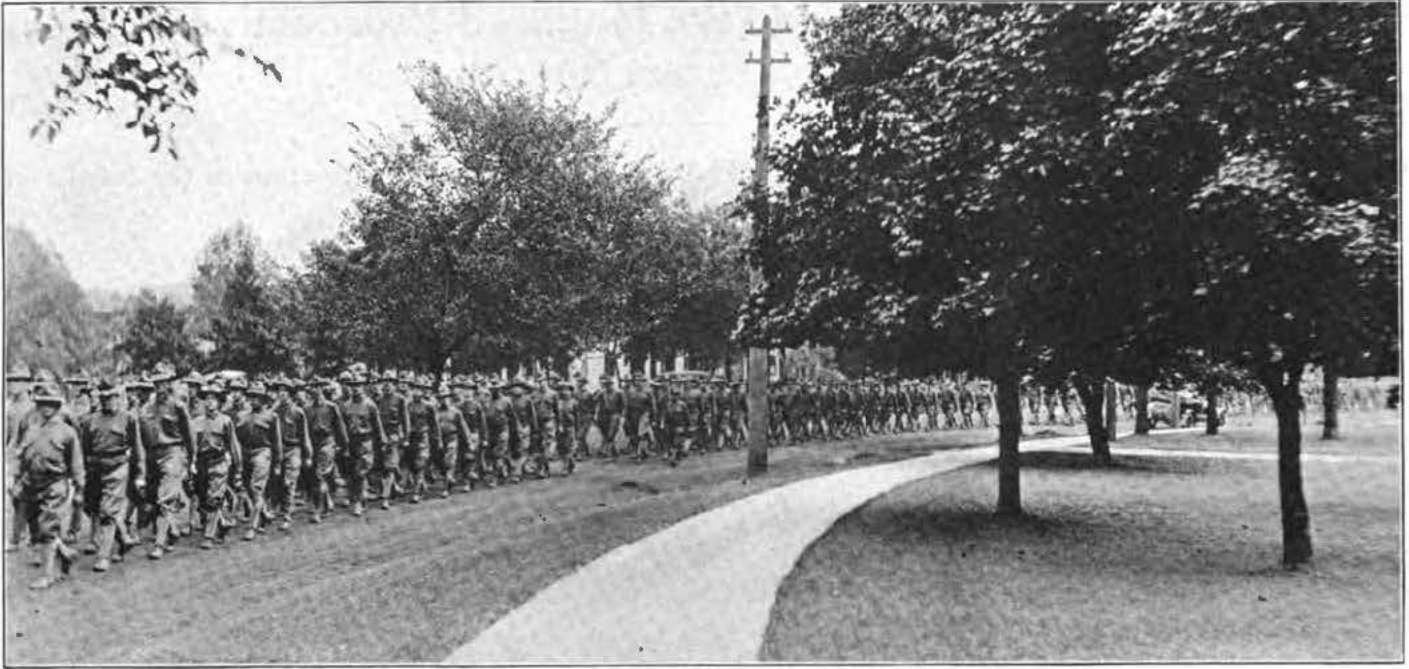
"Remember Bull Run," is one slogan of the camp and the reference to one of the bloodiest routs in history epitomizes the purpose of the training the men are receiving as well as the spirit in which they have gone into the service. Bull Run was



TELEPHONE PAY STATION AT TRAINING CAMP.

It is to make a start in the work of preparation for the emergency which all pray may never come but which the events of the past year prove may come at any time with no warning, that the citizen soldiers have left their desks and donned the garb of privates in the United States regular army. No one expects that finished soldiers can be made in one month. But the training which these men receive will fit them for leadership in the organization of companies and regiments for the volunteer army which will be Uncle Sam's dependence in the hour of national peril.

The camp is located in a sunny field within the government reservation at Fort Sheridan, about twenty-five miles north of Chicago. The camp environs, both within and without the grounds of the post, offer opportunities for maneuvers of all descriptions. There are open plains, woods, ravines, streams, lake front and beach. The men follow the regimen of regulars in active service. They are up with the dawn and to bed in their tents early. They make their own beds and do all the camp chores themselves. They "mess," however, in the big post mess hall. All day long they work, in rain or shine, cold or heat, and nothing affects their enthusiasm. They are sol-



"ROOKIES" AT FORT SHERIDAN MARCHING ON THE MESS HALL.

diers for the love of it and for the love of country.

The regulars are surprised at the progress made by the "rookies." An officer was quoted by one of the Chicago papers as saying that he "never saw anything like the way those fellows caught on to the army game in three days' time. They are marvels even to us, and have advanced as much in maneuvering as the average raw recruit does in three months."

It is the intention to give particular attention to instruction in signal corps work during the encampment, but this part of the program had not been reached at the time of the BELL TELEPHONE NEWS representative's visit. The signal corps instruction will be given by Captain Paul M. Goodrich, of Field Troop A, detailed from Fort Leavenworth, Kan., with Lieutenant L. T. Sherburne and ninety-three men. Reports from European battle fronts of the vitally important work of the telephone and telegraph have stimulated keen interest in this feature of the instruction work.

While the NEWS was not privileged to see the "rookies" at work building war telephone lines, the opportunity was offered to observe the work of some of the regulars. During the afternoon a "section" of the signal corps was busy testing some of its apparatus and the sergeant in charge willingly consented to allow the photographer to get some good pictures. The men were engaged at the time in testing the workings of one of the heavy reels from which the wire is paid out and on which it is rewound when taken up from the ground. The small field telephone and telegraph sets were also undergoing tests.

The permanent telephonic and telegraphic equipment at the fort is under the supervision of Lieutenant E. R. W. McCabe, U. S. A. The two-section switchboard is

located in the main barracks and 117 telephones scattered over the reservation are connected by underground lines with the central office. Three trunks connect this switchboard with the Highland Park exchange of the Chicago Telephone Company. The telephone service is under the direct supervision of First Sergeant M. L. Potter. The operators are Troopers A. E. Peterson and Alex Knipple. J. R. Nicholson is in charge of the telegraph service. A part of this equipment was manufactured by the Western Electric Company.

For temporary service from the citizens training camp, an automatic pay station, connecting with the Highland Park office of the Chicago Telephone Company was installed in a tent beside the main drive-

way through the post, near the headquarters.

The photograph showing R. H. Hopkins, E. F. Riddle and C. G. Hill in their "rookie" accouterments was taken by F. H. Emrich, of the central engineering department. Mr. Emrich was more fortunate than the NEWS photographer in that he was able to catch some of our own boys when they were off duty for a moment and ready to be snapped.

The three men say that the work is hard, but that they expect to leave the camp feeling like "new born babes."

The brave telephone "rookies" will receive a hearty welcome when they return to their desks after they are honorably discharged from the service October 18th.



THREE TELEPHONE "ROOKIES"
E. F. Riddle, R. H. Hopkins and Cyrus Hill.

American and European Telephone Service

By HENRY L. DOHERTY

(Reprinted from *Doherty News*, New York.)

When Goldberg gave us his never-to-be-forgotten cartoons of his European trip he said, "Every time you see an English suit of clothes you feel like cabling a kiss home to your own tailor." That line handed me one good laugh, and has been an ever recurring source of amusement.

An English suit of clothes is bad enough, but why speak of matters of such small importance?

Did Goldberg ever try to use a telephone in England or France? If he had he would have cabled a ship load of kisses to the American telephone companies.

In spite of the most monumental difficulties the New York Telephone Company, for instance, has developed a service which is already wonderful. The sad part of it is that it is but little appreciated.



SECTION OF SIGNAL CORPS AT FORT SHERIDAN READY TO LAY FIELD LINES.

When in Paris, if I am in a great hurry, I rent a taxicab and deliver my message in person. When I am in London I can almost walk downtown from the Savoy Hotel and beat the telephone service.

In New York, with a good operator on your own switchboard, the telephone service is more efficient than to step across the hall.

What I say about the New York Telephone Company applies almost equally well to all American telephone companies.

We, as a country, excel in telephone service.

It seems a shame to me that the men who have done so much in this line of work should have received so little praise and so much abuse.

I am wondering what they might not have done, or what they might not yet do, with a friendly pat on the back and a few kind words of encouragement.

Swear-words and the whip will get the most out of a team of lazy London bus horses that were raised on that diet, but I don't think Paderewski could play his best in a Texas saloon where everybody thought it was the proper thing to ridicule the piano player, and where the proprietor of the saloon had to hang out a big sign to say, "Don't shoot the piano-player; he is doing the best he can."

We have not got a dollar invested in telephone stocks, and the same thing will be true five years from now—and probably fifty years from now; so what we say is from the viewpoint of what the general public's should be. But we are dependent on the efficiency of the telephone service to give the best service to our own customers.

For selfish reasons we want their service to be as good as human capabilities can make it.

We know that the best service to the



COLONEL W. J. NICHOLSON,
Commandant at Fort Sheridan, in charge of the
citizens' training camp.

public cannot be produced under constant abuse.

A kick will energize the lazy hog, but John McCormack could not sing so pleasingly if he was anticipating a discharge of buckshot in the middle of his rear anatomy while delivering himself of that beautiful song, "I hear you calling me."

My memory may be short, but if any telephone company ever offered us a liberal agreement as to a joint pole arrangement, I don't remember it.

Neither do I remember a time when they did not demand more protection from our high tension lines than they were entitled to, but just because they are near-sighted on these matters is no reason why we should be near-sighted when we review their achievements.

I'm not so small that if Edison gave me a slap in the face to-morrow it would change in the least my opinion that he possesses the most useful mess of brains that the world has ever produced.

Good telephone service can't be had by the efforts of the company alone. The public must cooperate.

In-coming calls must be answered promptly. The public must endeavor to speak distinctly, to hold the lips in the proper position in relation to the receiver, to be courteous and reasonably patient. These things, and many more. All small things, and yet they mean the difference between good and bad service for the whole community.

Frequently I am annoyed by my phone being rung up for a wrong number. The first thought is that the telephone company is at fault. Not necessarily. I have been watching of late to see how many of these people spoke carefully and distinctly. In not a single case of misconnection in more than two weeks have I found a single person who spoke carefully and distinctly.



SIGNAL CORPS MEN TESTING FIELD LINES AT FORT SHERIDAN.

The public cannot have excellent public service of any sort if it depends upon the company. If the public wants the best it must cooperate.

We hear a great deal about the duty the public service corporation owes to the public, but the public for its own welfare doesn't hear enough of the duty it owes to the public service corporation.

If any telephone company would urge strongly that its customers speak distinctly, that they hold their lips in proper position and matters of that sort, it would seem to the public an attitude of impertinence—yet the public cannot have good service without this public cooperation.

We therefore want our managers to cooperate in every way with their local telephone company toward securing the best possible service.

Insist that all employes answer their telephones promptly, that they speak distinctly, that they are courteous and patient, and then ask them to spread the gospel.

This is only one little illustration of the need of the public to feel that they owe something to the public utility company.

The sooner the public is made to appreciate that the best service can only be had by friendly cooperation, the better it will be for everybody.

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 EDITOR'S NOTE.—Mr. Doherty's complimentary reference to the telephone service in our island possessions lying between the Hudson, the Bronx and the East rivers, will be found equally applicable to the service of the Chicago and associated companies which form the Central Group of Bell Telephone Companies.

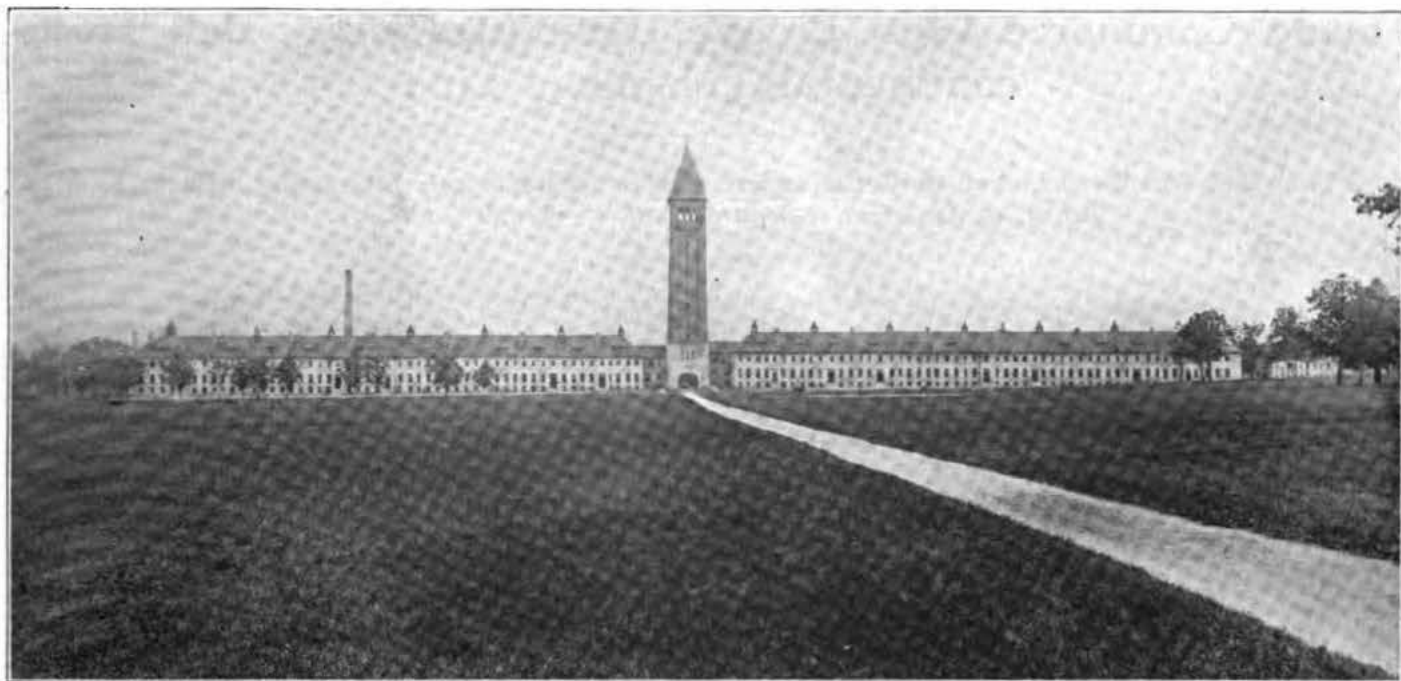
Curious Indian Superstition

The Indians living near the celebrated Mesa Verde in southwestern Colorado are interested in the outcome of their predictions about the telephone line which has just been completed into the Mesa Verde National Park. They declare that the poles

will not stand and that the wires will not talk. When asked why, they solemnly reply that the "little people" will permit no such uncanny things near their ancient homes. Nor can they be persuaded to the contrary. The white men will see for themselves, pretty soon.

The Indians live in great awe of the prehistoric dwellings of the Mancos Valley, which are, by far, the finest and best preserved of any in the American southwest. They will not believe that it was Pueblo Indians, or any Indians in fact, who, so long ago that the oldest traditions describe them as they now are, carved these wonderful cities out of the cliffs. They believe that spirits built the cliff dwellings, and that spirits still inhabit them. They reverently call these spirits the "little people."

For this reason it is difficult to induce Indians to approach the cliff dwellings. Whether or not the success of the telephone line will shake their superstitious fear remains to be seen.



GENERAL VIEW OF GREAT BARRACKS AT FORT SHERIDAN.

Nimble Witted Operators

The quick wit and efficiency of Alberta Bostwick, night operator at the Dexter exchange of the Michigan State Telephone Company, probably saved the life of Mr. and Mrs. Charles Boddy, who reside on a farm near that village.

On the night of September 8th Mr. and Mrs. Boddy were taken seriously ill with ptomaine poisoning. They were alone in the house and had no neighbors nearby to call. Mr. Boddy tried to call a doctor on the telephone, which had just been installed that day, but suffered convulsions and was unable to make himself understood. Miss Bostwick suspected trouble and called a physician, Dr. Wylie, who hastened to the house and found Mr. and Mrs. Boddy in a critical condition. He arrived barely in time to be of assistance.

Mrs. Carson Brownell of Benton Harbor was rescued from the hands of two ruffians on September 1st through the efficiency of "central" at the Benton Harbor exchange. Committing one of the boldest crimes known in the criminal history of Benton Harbor, two men forced their way into Mrs. Brownell's home at 11:30 a. m., tied her to a chair and ransacked the premises. She managed to get to the telephone, take down the receiver and to call loudly, "Central, send the police and my husband." The officers were soon on the scene, but the intruders made good their escape before the police arrived.

A Chase by Wire

Pursuing a lost actor and finally locating him in a motion picture theater miles away is one of the latest and most remarkable feats achieved by the telephone. An incident of this nature was recorded in a recent issue of the *Grand Rapids Herald*, which spoke in very complimentary

terms of the valuable assistance rendered by Marie Mittelstaedt, operator for the Michigan State Telephone Company.



"PRIVATE" MADDEN.

In civil life he is Congressman Martin B. Madden. He is known as the "father of the camp."

Four members of a company that was scheduled to produce an act at the Ramona theater, had taken a vacation and were to report at the Grand Rapids playhouse on a certain date. Three members reported, but, to the consternation of Manager DeLamarter, the hour for opening the performance was close at hand and the fourth member of the troupe had not appeared.

Acting upon a sudden inspiration Mr. DeLamarter ordered that a telephone search be conducted for the missing actor. He was known to have been in Lima, Ohio, but no response had come to numerous telegrams. Miss Mittelstaedt joined in the chase, finally bringing the missing man into port.

"This girl knew how to use her brains," says the *Herald*, telling of the incident. She called up the operator at Lima and asked her to call up every theater in the town, including the movies, and ask Walter Fishter, the actor who was missing, to report to the box office at once. She stuck to the job till the man was found. Soon after the call went out the lantern operator at the Lyric theater in Lima flashed on the screen: "Walter Fishter is wanted at the box office." Ten minutes later this much surprised man was talking on the wire and a few hours later he appeared in the Ramona theater, Grand Rapids.

How to Dress

Take great care always to be dressed like the reasonable people of your own age, in the place where you are; whose dress is never spoken of one way or another, as either too negligent or too much studied.—Chesterfield.

Toledo Commerce Club Enjoys Demonstration of Bell Transcontinental Telephone Line

More Than 500 Members Listen to Conversation with San Francisco — Interesting Address by M. C. Rorty, of American Telephone and Telegraph Company.

Members of the Commerce Club, Toledo, Ohio, at their annual meeting, talked to San Francisco over the Bell transcontinental line from their club rooms on the sixteenth floor of the Nicholas Building on Tuesday evening, September 21st.

In order to seat the greatest number possible in the dining room of the club rooms, it was decided to dispense with the banquet and have a buffet luncheon in the reading rooms immediately after the demonstration. The tables were removed and all available space filled with chairs, each of which was equipped with a telephone receiver.

More than 500 members of the Commerce Club and their guests listened to the conversation over the transcontinental line, and in the office of A. J. Mellen, district commercial manager, on the tenth floor of the same building, receivers were connected for a party of twenty-five ladies, who also enjoyed every moment of the demonstration.

Promptly at 8:30 T. H. Deardorf, vice president of the Commerce Club, introduced M. C. Rorty of New York, assistant to N. C. Kingsbury, vice president of the American Telephone and Telegraph Company, who delivered a very able address on the telephone situation. Mr. Rorty was given the closest attention, and was frequently and vigorously applauded.

Following this, wonderful moving pictures were shown illustrating the various stages of construction of the transcontinental line, and many of the difficulties encountered along the route and how they were overcome.

Mr. Rorty then called the roll of the following cities: New York, Buffalo, Chicago, Omaha, Denver, Salt Lake City, Winnimucca and San Francisco. Each answered promptly and short conversations were held. This to the audience was remarkable and brought forth much interesting comment.

Mr. Rorty then talked with George W. Peck, manager of the American Telephone and Telegraph Company's exhibit at the exposition, after which the following program was carried out:

T. H. Deardorf, vice president of the Commerce Club, talked to Mr. Manley representing the president of the San Francisco Chamber of Commerce. Mr. Manley congratulated Toledo on the fine showing its business men and manufacturers have made at the exposition.

Edward Conliss and Frank Skeldon of

the *News Bee* talked to Eugene McClean, editor of the *San Francisco News*.

Roland Starr of the *Toledo Blade* and Edward Kelsey, publicity manager of the Toledo Railway and Light Company talked to Frank Burt, director of concessions and admissions of the exposition at San Francisco.

R. A. Forest of the *Toledo Times* talked to Albert N. Alter of South Sausalito, Cal.

Henry L. Doherty of New York, banker and utility operator, talked to E. C. Jones, chief engineer of the gas company at San Francisco.

Henry Theobald, president of the Toledo Scale Company, talked to F. L. Ditzler, western manager of the Toledo Scale company at San Francisco.

J. F. Vogel, president, and W. L. Diemer, secretary of the Gendron Wheel Company, talked to C. F. Eminger of the Splitdorf Electric Company in the Transportation Building, exposition grounds.

H. B. Harper, general sales manager of the Overland Company, Toledo, talked to J. W. Levitt, general manager of distributors of the Overland cars at San Francisco.

Frank Mulholland, former national president of the Rotary Club, talked to Mr. Victor, president of the Rotary Club of San Francisco.

Rollo Scribner, banker of Toledo, and John T. Solon, wholesale coal dealer of Toledo, talked to George W. Peck.

A very agreeable surprise was in store for the audience when Mrs. Wells, of San Francisco, 82 years of age, called her son, George M. Wells, office manager for the Kent-Owens Machine Company at Toledo, who was in the audience, and the following conversation took place:

"Hello, mother."

"Hello, is this you, George?"

"Yes. How are you, mother?"

"Fine, George. O, isn't this wonderful. Can you tell my voice?"

"Yes, mother, and it sounds awfully good."

"Are you coming to the exposition?"

"No, I can't make it this fall, mother."

"You'd better try, my son. My, it sounds good to hear your voice."

"Well, mother, I'll have to say good-by. This is costing the Bell company big money and others are waiting to talk. Good-by."

"Good-by, son, I'm sending three kisses over the wire for you. Come out."

And when the voice of George Wells' mother in San Francisco died away on the telephone there were many moist eyes among the 500 Commerce Club members who, on Tuesday night at the club, heard for the first time in Toledo's history a telephone conversation over 2,200 miles of wire, from Toledo to San Francisco.

The sweet strains of two Victrola numbers, "Celeste Aida" by Caruso and "Then You'll Remember Me" by Alma Gluck, played in San Francisco, were wafted over the long span from San Francisco in such perfect manner as to give their auditors a feeling of nearness akin to that when listening to the sweet strains in their own drawing rooms.

The installation of the apparatus for this demonstration at Toledo was in charge of J. J. Pilliod, division engineer of the American Telephone and Telegraph Company of Chicago, and R. E. Russell, district plant chief of the American Telephone and Telegraph Company, Maumee, Ohio, and was in every way satisfactory.

Both the American Telephone and Telegraph Company and the Central Union Telephone Company have received many compliments and congratulations from the business men who attended the demonstration; in fact it was more talked of and elicited more favorable comment than anything that has taken place in Toledo for a long time.

Mr. Rorty's address to the club follows in part:

I conceive that we are gathered here this evening not for one purpose, but for several purposes. We are met, however, first of all to signalize a great and significant step forward in the art of communication, and to witness a demonstration on an unparalleled scale of one of the chief instrumentalities of that art; and we may, perhaps, obtain a clearer conception of what this demonstration means if we review briefly the part that means of communication have played in the history of mankind.

The original man, in common with the lower animals, undoubtedly possessed a certain primitive language, together with a variety of inarticulate cries capable of expressing hunger, anger, and other simple emotions. His first step forward came with the development of spoken language, and with this development came a primitive philosophy and a primitive theology.

With spoken language, also, each generation could pass on to the next a small portion of what it had learned from its experience.

Following spoken language came the first picture writing, from which developed later the Egyptian hieroglyphics and the Chinese characters, and much later still the alphabet in the form in which we know it. And with this written language came civilizations such as those of China and India and Egypt, and later the civilizations of Greece and Rome and the

to the faint sputtering of the wireless telegraph, or to the hard, hammer-like tolling of the submarine bell.

And if we turn from constructive and peaceful to destructive uses, we have only to read where Tolstoi, in his story of the Moscow campaign, tells of the helplessness and the ignorance of the great Napoleon in the face of a battle once begun, and to compare his position with that of a European general of to-day, who, with his network of field telephones, and with his wireless apparatus mounted on aeroplanes,

Not quite forty years ago, Alexander Graham Bell, standing in a little attic room at No. 5 Exeter place, Boston, sent through a crude telephone, his own invention, the first spoken words ever carried over a wire. These words were heard and understood by his associate, Thomas A. Watson, who was at the receiver in an adjacent room. On that day, March 10, 1876, the telephone was born, and the first message then went over the only telephone line in the world—a line less than one hundred feet long.



TOLEDO COMMERCE CLUB TALKING TO SAN FRANCISCO.

The picture shows Frank Mulholland, former national president of the Rotary Club, talking to Mr. Victor, president of the Rotary Club of San Francisco. At his right is A. J. Mellen, district commercial manager of the Central Union Telephone Company, and in the first row to his left is E. A. Reed, general manager of the Central Union Telephone Company, Columbus, Ohio. To the right of E. A. Reed is E. L. Doherty of New York, banker and utility operator, and the next four gentlemen in the first row are representatives of the press.

semi-civilizations of the Dark Ages of Europe. But it was not until the invention of printing from movable types that civilization as a whole began to move forward with any steady strides. The Dark Ages ended with the invention of the printing press, and it is not alone a coincidence, perhaps, that the steady but slow progress that followed the invention of the printing press became, with the invention of the telegraph and the telephone, the greatest activity in material and social advancement that the world has known.

To appreciate properly all the usefulness of the arts of communication in our life to-day, it is necessary to stand in a busy railroad yard and watch the changing semaphores and signals; or to stand in the pilot house of a steamboat and listen to the medley of sounds, bell buoys, whistling buoys, and sirens that spell the difference between safety and danger, and to watch the distant flash of lighthouses, and the nearer gleam of port and starboard lights; or farther out at sea to listen

controls not only the movement of every unit of his troops, but, if he desires, the firing of each shell, from a headquarters miles to the rear of his battle line.

So we are concerned to-night not with the development of a scientific instrument, not even with the supreme achievement of a great social utility; but, beyond and above all that, we are here to signalize one of the great culminations in the development of that faculty, of that ability to communicate thought, which perhaps more than any other, distinguishes and differentiates man from the rest of the animal kingdom.

And we are here, also, in the land of the inventor, in the land of practical science, to pay a deserved tribute not only to one of the greatest inventors and to one of the greatest of scientific applications, but to the genius, the foresight and the dogged perseverance of inventors as a class, and to all the power that scientific advancement lends to our national progress.

In the span of one man's life the world has moved a long way ahead. On Monday afternoon, January 25, 1915, this same Alexander Graham Bell, sitting in our offices in New York, talked with this same Thomas A. Watson in San Francisco, over a wire stretching 3,400 miles across the continent, and forming the last connecting link between the Atlantic and the Pacific and serving to unite in one great system 9,000,000 telephones connected by 21,000,000 miles of wire.

There was no hitch in the program on that afternoon of January 25th, which marked a new epoch in the development of communication, not any doubt as to the immediate success and practicability of the new line. Those who talked over the telephone did not raise their voices above the usual conversational pitch, and the replies came back from across the continent, clear and instantaneous. There was an appeal, indeed, to the imagination; there was a feeling akin to uncanniness at the thought that the voice distinctly heard had come

across thirteen states, shot over prairies and through forests, hurtled through cities, climbed the Rockies, skimmed across the desert and reached the listener clear and distinct in the space of an eye-wink; but to the senses, it was as if the voice came from an adjacent room.

It was a dramatic moment in the history of science, when the venerable Professor Bell lifted the receiver from its hook and called to Watson, the friend and fellow-worker of his youth, in San Francisco. There was a wonderful story in that first "Hello," a marvelous tale of miracle-working, of heroic struggle and sublime achievement. Few men have lived to see so great a dream come true. Probably no two men before in all the history of the world's discoveries and inventions, ever lived to see such magnificent results from the work in which they had been pioneers.

It has been a tremendous stride, for when Bell invented this first feeble receiver, it was the beginning of telephones. There had been nothing like it, or anywhere near like it, in all the ages that had gone before. It was a creation, so far as scientific apparatus was concerned; it was made out of nothing. More than that, this crude instrument, just capable of transmitting speech the length of a room, was all that Bell gave to the art of telephony. But it was enough.

The willing hands of other scientists and inventors have taken up the task where he left it, and, as the voice currents travel from the Atlantic to the Pacific, they are not greater in their number and diversity of form than have been the scientific problems of which the successful solution has tangible evidence in the daily operation of the line over which they pass.

Just what the work of these after comers of Alexander Graham Bell has been can only be fully appreciated by those who knew the difficulties that have been overcome and the subtlety and delicacy of the forces with which it has been necessary to deal. The very minuteness of things makes the task Herculean. There are no immense weights and masses to be handled, but there is constantly the baffling problem of dealing with infinitesimally small fractions. The energies of the telephone engineer have been devoted to conservation, and to conservation of the most intense kind.

It was not much more difficult to string wires from Denver to San Francisco than from New York to Denver, but the physical construction of the line was the least of the troubles. The real problem was to make that line talk, to send sound 3,000 miles with the breath as its motive power. The voyage of the voice across the continent is in effect practically instantaneous. If its speed could be accurately measured, a fifteenth of a second would be nearly exact. In other words, the voice flying across the continent on the new transcontinental line does not travel at the old

stage-coach speed of sound which is less than one-quarter of a mile per second, but has the lightning like rapidity of 56,000 miles per second. If we could put our heads out of the window here in Toledo and shout "Hello" loud enough for the voice to carry to San Francisco without the aid of wire and electricity, it would take something like four hours for the shout to be heard on the Pacific Coast. The telephone, therefore not only transmits speech, but transmits it thousands of times faster than its own natural speed.

But the breaking of speed records is not the only thing which the telephone must do in such cases. It must also guarantee safe delivery of these millions of tiny passengers which it carries every few seconds in the way of sound waves created at the rate of about 2,100 per second. These passengers must not jostle or crowd each other. These tiny waves in thousands and thousands of varying shapes which are made by the human voice in the air, each as irregular and as different from the other as the waves of the sea, must not tumble over each other or get in each other's way or splash about, but must break upon the Pacific Coast just exactly as they started at the Atlantic Coast. If this is not accomplished, all the line fails and the millions of dollars spent in its construction have been thrown away. In all this vast distance, if just one pin prick of construction is not exactly as it should be, if there is one iota of imperfection, the miles of line are useless and the currents and waves and sounds and words do not reach the end as they started, and the sound is unintelligible. It is such tremendous trifles and not the climbing of mountains and the bridging of chasms that makes the transcontinental line one of the wonders of the ages.

The telephone expert cannot increase his original motive power. He must begin with the human voice as it is. A breath against a metal disc changes air waves into electric vibrations, and these electric vibrations, millions upon millions of which are required for a single conversation, must be carried across the continent and produce the identical sound waves in San Francisco that were made in New York or Toledo. This task is so delicate and so fine as to be gigantic. One writer uses a very striking figure to illustrate the extreme delicacy and weakness of the energy employed in a telephone message. He says: "The energy that is set free by cooling one spoonful of water just one degree releases sufficient power to operate a telephone for 10,000 years." This, of course, is almost inconceivable, and so is the weakness and delicacy of the electric energy employed in a telephone conversation.

It was to nurse and coax this baby current of electricity 3,000 miles across the continent, under rivers and over mountains, through the blistering heat of alkali plains and the cold of snow-capped peaks,

that has taken the time, thought, labor, and ingenuity of some of the brightest minds of the scientific world.

And this infantile current has had a most skillful and patient lot of trained nurses. They began in Boston thirty-eight years ago. They have led the weakling on mile after mile, to city after city, until they have reached their goal.

There has been no isolated problem to solve. Literally as well as figuratively, the development and perfection of the system have been "all along the line." This has been, indeed, the new "Winning of the West," and the fight has not been a duel with a single inventor on one side and some one great big problem on the other side, but it has been a battle—a campaign—in which thousands have helped to overcome a thousand hindrances and imperfections and difficulties.

In all the 3,400 miles of line and equipment there is not one spot where a man may point his finger and say, "Here is the secret of the transcontinental line; here is that which makes it possible to telephone from New York to San Francisco." Rather it is the perfection at every point that has brought this about. It is the development of the transmitter in New York that makes the receiver in San Francisco do its work so well. It is the improvement in the receiver at San Francisco that causes the transmitter in New York to perform its functions so admirably. It is, in short, the perfection of every inch of line and every bit of mechanism between them that enables the instrument in New York to talk, and that in San Francisco to hear.

For many years this line from ocean to ocean has been the dream of our president, Theodore N. Vail, the goal towards which he has pushed and towards which he has steadily led his associates. This has not been an idle fancy of a dreamer, but the prophetic vision of a practical, forceful, capable man of unlimited business knowledge, who can see anything in telephony, except impossibilities. He not only cannot see impossibilities, but he will not admit that they exist; neither will he allow his associates to consider them for one moment. "Impossible" is not in his dictionary of engineering terms. Almost from the beginning of the telephone Mr. Vail's energy and enthusiasm, his dauntless optimism and ambition in everything relating to the perfection and promotion of his idea of universal service, have dominated the company and made enthusiasts of every one related to the system.

At Mr. Vail's side through most of these years has been a slightly built, live, keen-eyed man, who never has to be told but once when a great thing is to be done. A nod, and a line goes to Denver; a word, and it stretches to the Pacific Coast. This man is John J. Carty, chief engineer of the American Telephone and Telegraph Company. Mr. Carty is a leader among scientific men of all nations and has been

repeatedly honored by the rulers of the different nations for his distinguished services in engineering accomplishment, his wide knowledge, keen judgment and indomitable energy. These characteristics have combined to make him one of the great factors in telephone achievement and advancement, not only in this country, but throughout the entire world. Others have played big parts in this drama of human endeavor and achievement, and thousands have given their share of thought and labor. Mr. Vail and Mr. Carty would be the last men to claim an undue share of the credit for this great work, but their names will ever be linked together in this triumph.

As a mere piece of construction the building of a telephone line across the continent is impressive when one considers the data and figures. For instance, the line crosses thirteen states; it is carried on 130,000 poles. Four hard-drawn copper wires, one hundred and sixty-five one thousandths of an inch in diameter, run side by side over the entire distance, establishing two physical and one phantom circuit. One mile of single wire weighs 435 pounds, the weight of the wires in the entire line being 5,920,000 pounds, or 2,960 tons of copper. This amount of copper is required for the transmission lines alone. In addition, each one of the physical circuits has some 13,600 miles of fine hair-like insulated iron wire four-thousandths of an inch in diameter, in association with it for the magnetic covers of its loading coils.

Simply to string this immense amount of wire across the continent, to set the poles and insure insulation, to conquer the innumerable difficulties offered by land, water, forests, mountains, deserts, rivers and lakes, was in itself a task of no mean magnitude.

But a still greater task has been the building of the human organization that maintains the line day by day in operative condition and that maintains also the millions of active telephone terminals spread from ocean to ocean, without access to which the copper of the transcontinental circuits might as well be back in the mines from which it came and the poles back in their original forests. No group of isolated companies could build a transcontinental telephone line, or, if it were once built, could maintain it for a week in operative condition. The single-minded purpose that caused the line's construction must operate with equal singleness of mind each minute and each hour of the day to maintain it in service. A disciplined army of skilled technicians and picked repairmen must test and patrol the circuit mile by mile, from sun to sun, if its efficiency is to be preserved.

Such an organization is the work of years to build. With careful and judicial handling it can be made, even more than it is to-day, an invaluable instrument for

social welfare, while on the other hand, it would crumble in a week if made the shuttlecock of political control and manipulation, and the slave of political red tape.

Such an organization, also, and all of the many similar organizations that are lending themselves in good spirit—in constantly better spirit—to the public service, must have the wherewithal to work, the assurance of reasonable profits and public good will and coöperation to-day and for the future, if they are to do—if the genius of their leaders and organizers is to do—the great constructive work that the nation demands. And, speaking solely as a citizen and not as the representative of our own or any other utility, I cannot let this opportunity pass to say to you, gentlemen that, if such assurance cannot be had for the \$28,000,000,000 invested in public service corporations in these United States to-day, then the national prosperity must languish and your own, and all other, investments must certainly be in jeopardy.

And now, finally, it seems to me that we shall fail to realize the fullness of this occasion if we pay tribute only to individuals and to the genius of the individuals.

Our forefathers in 1776 established here the beginnings and the loose links of a national unity. These beginnings were welded stronger in the flames and under the hammer strokes of the Civil War. To-day on the Pacific Coast the Panama Pacific Exposition holds sway in celebration of the removal of one of the last of the barriers that stood in the way of the realization of our national ideals. To-night in Toledo we celebrate the removal of another such barrier.

What the transcontinental line means to the future of the country, what it will accomplish in bringing the east and the west closer together, how much of increased prosperity and happiness these thousands of miles of wire will insure, no man can gauge. This is a final blow to sectionalism. The east is no longer separated from the west, nor the north from the south. The railroads and the new canal have done much, and will continue to do much, in bringing the states closer together and uniting them more firmly, not only in commerce, but in thought and language and sentiment. Provincialism cannot exist while these great utilities exist. Provincialism depends upon isolation, and there is no longer isolation in this country.

It is a wonderful thing, gentlemen, that we can speak from the Atlantic to the Pacific or from any point between these two great oceans in either direction without the aid of an interpreter. We do not need translation in this country. All we need is transmission and, with that given to us, the Yankee twang, the soft elisions of the South, and the burr of western speech, cannot fail to merge in the single, great, harmonious voice of a people forever united.

Some Telephone Service in 'Frisco

Tracy C. Drake, recently in 'Frisco to attend the annual convention of the D. K. E., was a guest at the St. Francis, where many C. A. A. members have stopped and are now living. A trained hotel man of many years' experience, he was interviewed by the local *Hotel News*, and had this to say about telephone service, which must be of interest to other C. A. A. members:

"I was particularly impressed with the wonderful telephone service at the St. Francis. I had not been in my room five minutes when I started to call a number and was met with the response (before I uttered a word) 'Good morning, Mr. Drake, your order please.' Every time I lifted the receiver (no matter what time of day or night), I was called by my name, and in making inquiries, I learned that such is the universal custom toward all guests. It means care, intelligence, brain work, incessant watchfulness and a remarkably correct system of arrivals and departures to produce such an efficient and courteous result. I called up my sister at her home in Chicago and within twenty minutes had as fine a connection and as clear a talk as I have ever had in two and one-half miles instead of 2,500."—*The Cherry Circle, Chicago.*

Crossed Wires Lose Battle

An accidental crossing of telephone wires was responsible for a recent Austrian victory over the Russians, according to a story that is current in Vienna.

Officers at one of the Austrian staff headquarters were amazed one day on trying to use one of their telephone lines, to hear Russian words spoken. An officer conversant with that tongue was hastily summoned, and got to the telephone in time to get the most important part of the message that was being transmitted.

The chief of staff of a Russian division was trying to talk to a brigadier. Perhaps because of the crossed wires, which enabled the Austrians to hear, the connection was poor and both had to speak with unusual clearness and much repetition. The order was for two battalions to attack decisively at a given hour a specified Austrian position, while three companies were to assist by a flank attack.

In conclusion the Austrians were given the novelty of hearing a Russian major protest against the order, and demand its purpose, since, he complained, it probably would result in defeat or retreat. The Austrians, knowing precisely what to expect, merely lay in wait and bagged 2,000 prisoners, including the major who had protested.

What Was Sam In For?

Dahinda is without a telephone central at present, as Sam Webb has served his time out and he is going to move away.—Dahinda (Ill.) correspondence in *Galesburg, Mail.*

Telephone Pioneers of America

The Telephone Pioneers of America have returned from their convention at San Francisco and report a most delightful trip.

The eastern contingent left New York on a special train September 15th and picked up the party from the Central States at Chicago the following day. The train proceeded by easy stages and reached San Francisco September 20th.

The regular session of the convention was held at the St. Francis Hotel on September 21st. The same evening a banquet was given at the St. Francis by the American Telephone and Telegraph Company. During the banquet a cabaret performance was given, which made a tremendous hit, as it dealt almost entirely with telephone features. After the banquet the guests indulged in dancing.

On the second day, September 22d, as the guests of the Pacific Telephone and Telegraph Company, the whole party was taken up Mt. Tamalpais, 2,700 feet high, over the "crookedest railroad in the world," and on the return trip from the mountain a barbecue luncheon was served in what is known as Muir Woods.

On the third day a special demonstration was held at the Exposition, the assembled pioneers being addressed by long-distance telephone by Mr. Vail and Mr. Bethell.

This concluded the regular entertainment features, but the majority of the pioneers remained several days longer in San Francisco visiting the Exposition and taking side trips in the vicinity. Then several days were spent visiting Los Angeles and San Diego.

The return trip was by way of the Grand Cañon and the train reached Chicago at noon, October 5th. Here a luncheon was tendered the travelers and the Chicago pioneers by the Chicago Telephone Company.

Among pioneers and members of their family from the central group states who made the trip were the following:

Chicago—Mr. and Mrs. C. E. Mosley, Mr. and Mrs. J. G. Wray, Mr. and Mrs. E. H. Bangs, Mr. and Mrs. P. V. Warner, Miss Nell Bowsher, Miss Harriet Binmore, Mr. and Mrs. A. P. Hyatt (both are pioneers).

Dundee, Ill.—Mr. and Mrs. N. J. Baumann.

Springfield, Ill.—Mr. and Mrs. F. R. Atwood.

Detroit, Mich.—Mr. and Mrs. W. J. Berry.

Grand Rapids, Mich.—Albert Douglas.
Eau Claire, Wis.—P. J. Skolsky.

Technique of Living

A young girl who had spent years in learning to play the piano went to qualify for instruction by a great master. The girl played some of her concert pieces brilliantly; then without a word she took her scales. Sure-fingered and strong she went

up and down the piano, then taking each scale by fifths and seventh.

"Ah," said the great teacher suddenly, "someone has taught you well."

Back of her brilliant waltzes lay the grim foundation of her technique. Underneath those big concert pieces was the perfect mastery of her fingers.

But so few people stop to realize that there is a technique of the art of living. Few mothers think to teach their children that before they can live graciously they must learn that perfect mental control which makes an individual master of himself, that mastery of mind which is just as difficult as a mastery of the fingers.

A big athlete takes the hurdles in spectacular fashion—or clears a bar at an almost dazzling height. An uninitiated person might think that his great strength makes it possible. But the element of strength was

only incidental. The thing that sent him over the pole was "form"—and form in athletics means perfect muscular control—a perfect coördination between mind and muscle.

In the game of life we live not by brute strength, but by learning to control our minds quickly when the situation demands it.

That's the technique of life—to stand up under personal disappointments, to put up with inconveniences without whimpering, to be able to find that you can't have what you want without screaming like a child deprived of a bit of candy.—Florence Davies in *Cleveland Plain Dealer*.

The Telephone — The Work of Young Men

By JAMES T. MORAN,

Vice-President and General Manager of the Southern New England Telephone Company.

(Reprinted from *The Telephone Bulletin*)

The telephone was invented and developed electrically, mechanically and commercially by young men.

Alexander Graham Bell was but twenty-nine years of age when he perfected his invention of the telephone in the spring of 1876. He is unique in that he is probably the only creator of a world useful invention who has lived to see that invention brought to its complete fruition.

Thomas A. Watson, who assisted him in his work, was but twenty-two years of age in 1876.

President Theodore N. Vail had been for several years general superintendent of the United States Railway Mail Service, when in 1876, at thirty-one years of age, he became general manager of the American Bell Telephone Company. Mr. Vail on July 17th celebrated his seventieth birthday in the full vigor of life and enthusiastic in his ambition to make the telephone of even greater usefulness in the daily life of our people.

The late Edward J. Hall was twenty-five years of age when he entered the business in 1878 and only thirty-three when called upon by Mr. Vail to organize the long distance service.

John J. Carty, now chief engineer of the American Telephone and Telegraph Company, entered the business in 1879 at the age of eighteen years, serving as an operator in his home town of Cambridge, Mass. Mr. Carty is to-day the acknowledged world authority on telephone engineering.

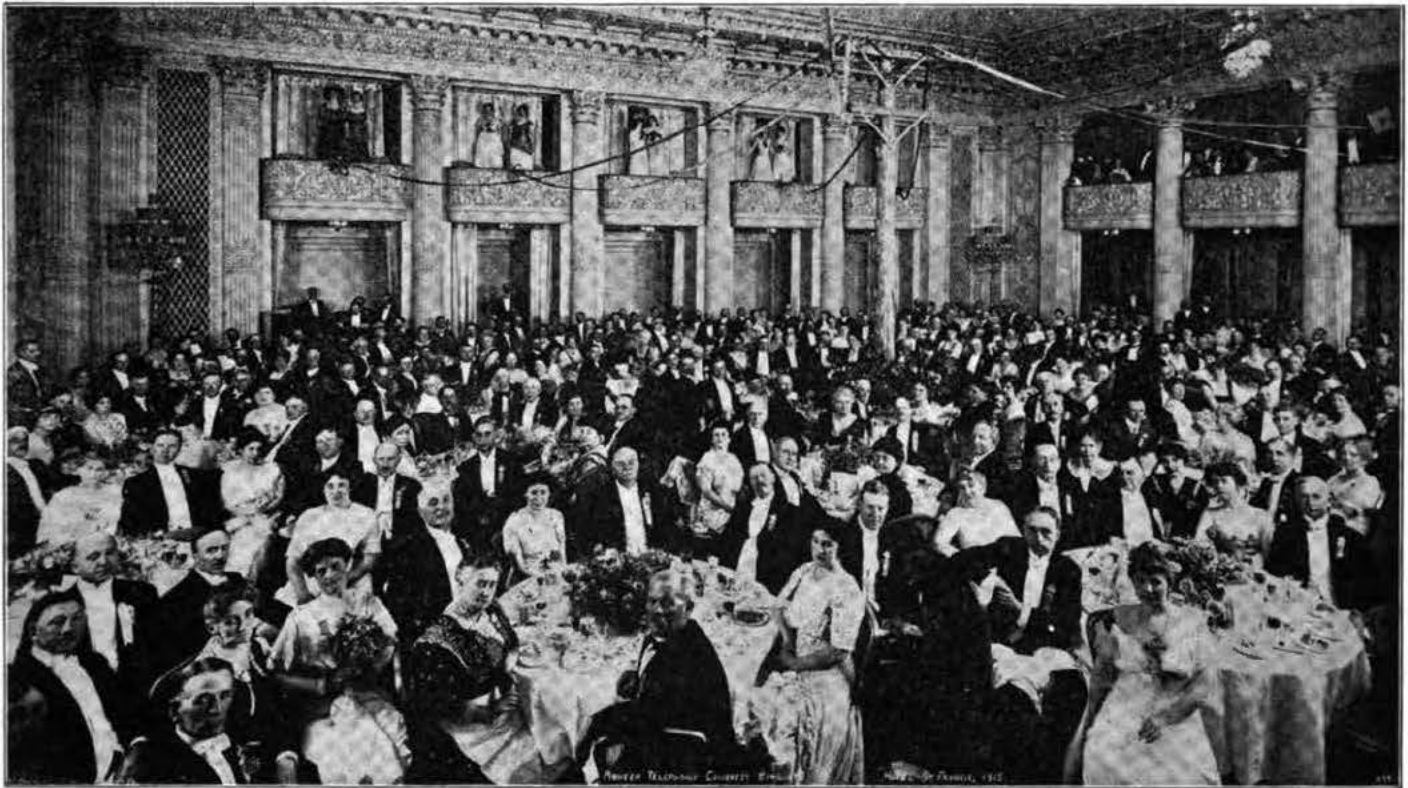
Union N. Bethell, senior vice-president of the American Telephone and Telegraph Company and president of the New York Telephone Company, entered the business in 1889 at the age of twenty-nine.

N. C. Kingsbury, vice-president, in charge of the commercial and long-distance lines



TALLEST FLAGPOLE IN THE WORLD.

The pole is 251 feet tall and exceeds in height the next tallest flagpole in the world by nearly 100 feet. The pole stands in front of the Oregon building at the Panama-Pacific Exposition. At the time the photograph was taken the pole was flying a burgee bearing the emblem of the Telephone Pioneers of America, who were visiting the exposition.



BANQUET OF TELEPHONE PIONEERS OF AMERICA AT SAN FRANCISCO, SEPTEMBER 21ST.

departments, is forty-nine, and Charles G. DuBois, comptroller, in charge of the accounting department of the American Telephone and Telegraph Company, is forty-five.

H. B. Thayer, president of the Western Electric Company, and until recently a vice-president of the American Telephone and Telegraph Company, entered the business in 1881 at the age of thirty-three.

Charles H. Wilson, general manager of the long-distance lines department, entered the business in 1877 at the age of sixteen.

Bernard E. Sunny, president of the Chicago Telephone Company and president of the associated companies constituting the Central Group, entered the business in 1879 at the age of twenty-three.

Colonel W. T. Gentry, president of the Southern Bell Telephone and Telegraph Company and the Cumberland Telephone and Telegraph Company, entered the business in 1879 at the age of twenty-five.

Frank H. Bethell, vice-president of the New York Telephone Company and president of the Bell Telephone Company of

Pennsylvania, the Central District Telephone Company of Pittsburgh, Pa., and of the Chesapeake and Potomac Telephone Company, is forty-five years of age and has been in the business over twenty-five years.

George E. McFarland, president of the Pacific Telephone and Telegraph Company, entered the business in 1880 at the age of seventeen years.

Philip L. Spalding, president of the New England Telephone and Telegraph Company, is forty-four.

The late Morris F. Tyler, president of the Southern New England Telephone Company for twenty-five years prior to his death in 1907, became connected with the New Haven District Telephone Company in 1878 at the age of thirty. On January 28, 1878, that company opened the first commercially operated telephone exchange in the world. Mr. Tyler was also a director of the New York and New Jersey Telephone Company and president for a number of years of the Chesapeake and Potomac Telephone Company. He was one of the organizers and for several years presi-

dent of the National Telephone Association, which existed in the middle eighties.

Ellis B. Baker, who opened an exchange in Meriden, Connecticut, a few days after the opening of the New Haven exchange, was then twenty-four years of age.

Thomas B. Doolittle, who soon after opened the Bridgeport, Conn., exchange, was thirty-eight when he took up the development of hard-drawn copper wire for use in the telephone business.

The writer, now the operating executive of the Southern New England Telephone Company, entered the business in association with Morris F. Tyler, in 1884, at the age of twenty.

Hundreds of other participants in the development of the telephone are of similar age and have service records of similar length. Pioneers in the business are still at or below middle age and share active management with men even younger. Wherever you go, throughout the Bell System, it is generally found that the business has been and is in charge of young men.



TELEPHONE PIONEERS AT "OLD FAITHFUL INN," PANAMA-PACIFIC EXPOSITION, SEPTEMBER 22ND.



Safety First and Accident Prevention

Member National Safety Council.



CARE FOR SAFETY MEANS SAFETY FROM CARE

THE MODERN A, B, C—ALWAYS BE CAREFUL

SAFETY IS THE CORNERSTONE OF EFFICIENCY

The study of preventable accidents in organizations employing large numbers of men and women is fast reaching the stage where it will be considered just as important as the study of production costs, selling costs, commercial forecasting, etc. In order to secure the greatest possible benefit from the experience of others, organizations have been formed to exchange such experiences and general information. Thoroughly appreciating the value of such associations and firmly convinced of the necessity for and the benefits to be derived from safety first work, the Chicago Telephone Company and its representatives are members of the following organizations:

- National Safety Council.
- Chicago Local Council of the National Safety Council.
- American Museum of Safety.
- Safety Committee of the Illinois Manufacturers' Association.
- Public Safety Commission of Chicago and Cook County.

Therefore, we have at our disposal not only the experience of this and other telephone companies, but also that of hundreds of other companies in many different lines of business and employing over two million people, and while ours is a highly specialized business we find that very much the same kind of accidents occur in all the different lines.

Granting that all possible mechanical safeguards have been provided, as Bobby Burns says, "A man's a man for a' that," and whether he is driving an automobile, operating a machine, installing a telephone or digging post holes, he will forget and

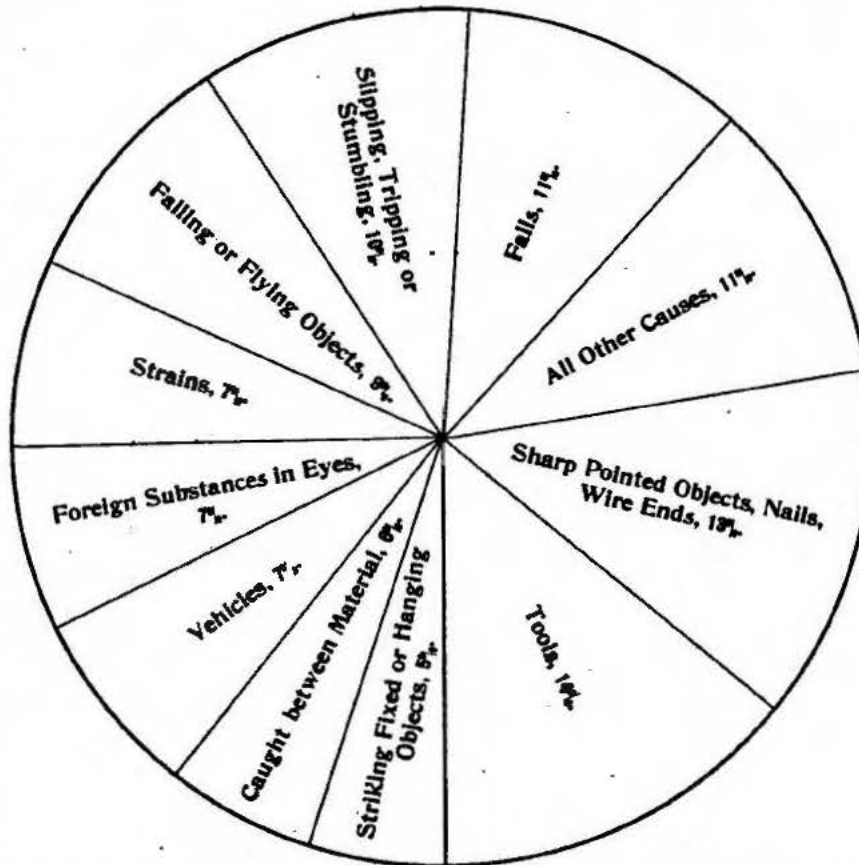
do the wrong thing at the very minute to cause an accident.

Data covering the accidents reported to the Employees' Benefit Fund State Committee during the month of August, has been collected and the cause of each acci-

Of the accidents caused by tools, thirteen were due to the tools slipping. This certainly indicates that they were not properly handled in the first place, as was also the case in the three accidents in which the injury was received in the ordinary use of the tool. Very few accidents caused by tools are admitted to have been due to carelessness; yet it is hard to believe that this was not the real cause in every case. As an illustration, a case in which an accident to an employé was caused by carelessness on the part of another employé is reported from the supplies division of the Chicago plant department. A clerk went to get out a tool from its proper place and in so doing he struck his hand against the edge of an ax which was lying in an adjoining bin with the cutting edge turned out. He received a deep cut, all because the man who had placed the ax in the bin had not been careful to place it in a properly safe position.

Another case in which lack of care on the part of one employé caused injury to another occurred to a cable splicer who was working in a vault. His helper climbed out of the vault and in doing so a heavy scissors fell out of his pocket, striking the cable splicer on the head. A person may say that such an accident is very unusual. As a matter of fact, however, it is not, the very same sort of accident having occurred during the previous month.

Accidents due to vehicles are so unnecessary, in view of the newspaper publicity and the constant attention that is brought to bear on the subject of how to



CAUSES OF ACCIDENTS REPORTED TO BENEFIT FUND COMMITTEE DURING MONTH OF AUGUST.

dent investigated. The result may be seen in the circle shown on this page.

The causes of accidents occurring during August seem to be fairly evenly distributed, no one cause having resulted in a majority of the accidents. It is interesting to note that the two classes which seem to have caused the most accidents, viz.: tools and sharp pointed objects, such as nails, wire ends, etc., are of the kind that really can be prevented by a reasonable amount of care on the part of the people involved.

conduct one's self when on or around vehicles. You say accidents do happen and accidents will happen! True; accidents do happen and they will happen as long as we all do not do our part to prevent them. This means not only to prevent accidents to ourselves, to the members of our families, or to our associates, but to prevent accident to others by assisting the proper authorities, both private and public, to compel the observance of safety rules and laws.

The results of the accident prevention campaign thus far, as shown by comparing the number of cases which occurred during the first eight months of this year with the accidents which occurred during the corresponding months of 1914, indicate that we are securing from our employes the cooperation that is so essential. The figures are as follows:

	1914.	1915.
January	135	63
February	88	95
March	113	87
April	92	83
May	115	87
June	112	75
July	131	95
August	101	105
Total	887	690

Of the number of accidents reported, over forty per cent. are accidents in which only the attention of the doctor was needed; that is to say, the employe was not disabled. We may safely conclude, therefore, that accidents are decreasing in number and that about forty per cent. of the accidents which do occur result in but minor injuries. It is a matter for congratulation on the part of every employe concerned.

Think a minute, if you will, what such a showing means to yourself, to your family and to your fellow workman. Does it not remind you that such a reduction in the number of accidents for a period of eight months in one year has saved numerous days of suffering on the part of the injured workman as well as days of anxiety and worry on the part of his family? While the efforts of our employes in safety work are thoroughly appreciated, there is still room for improvement. Therefore let each one of us put his shoulder to the wheel, so that we may make a still better showing in the next eight months.

Odd Case of Trouble

The emergency lines from Bayview, Fairmont and Highland terminating on the Seymour chief operator's desk were busy the other day. All the outside offices were calling in excitedly to report call circuits

Company, the well-known Chicago publishers.

When Jules Verne wrote "Twenty Thousand Leagues Under the Sea" he anticipated by half a century what actually became a reality in the development of the submarine of the twentieth century. In "The Pirates of the Sky" the author assumes a development of the aeroplane to the like point of scientific perfection; the secret of this amazing stability and carrying power being possessed, however, only by a band of marauders who prey upon all America with impunity. How their designs are frustrated and their careers checked, is told in the story.

The book is written in excellent style and

the action of the story proceeds logically from start to finish. While the whole thing is pure imagination, the reader is impressed with the inherent plausibility of the plot. It all might easily happen and it is quite conceivable that the characters would all act in about the way the author sets it forth under the circumstances described. "Gaillard's" book is distinctly worth reading and his friends are predicting still greater successes for him if he chooses again to take up his pen.

Safety First

MEANS.

- S**trive always to protect yourself and your fellow workers.
- A**dvice and caution those who do not or will not do so.
- F**orget petty trifles, but keep your mind on your work.
- E**liminate risks and hazards from your surroundings.
- T**hink ahead of what to do and what not to do in emergencies.
- Y**ield to the better judgment of your superiors.

- F**rown on horse-play tricks, as they usually hurt somebody.
- I**nterest yourself in the principles of First Aid to the Injured.
- R**emember, you must conquer booze yourself; safety devices can't.
- S**top, look and think before you act. Don't take chances.
- T**ake "Safety First" seriously; it is no joke to get hurt.

(Courtesy of N. O. R. News.)

tied up and everything on the circuit was pandemonium. The B board switching keys at the three offices had been carefully examined and found O. K., the Seymour switchboard man, called, but even he (and he is a wonder at shooting trouble) could find no reason for the mix-up. At last the discovery was made and the trouble straightened out. It was found to be a traffic official leaning on an unused position at the end of the Seymour A board.—British Columbia Telephone Talk.

"The Pirates of the Sky"

A daring newspaper reporter, a daring aviator, two beautiful women, a Russian fanatic and a half dozen other characters, drawn with cameo-like precision, walk through the pages of a new novel from the pen of a Chicago Bell telephone man, A. L. Peticolas.

Mr. Peticolas writes under the pseudonym of "Stephen Gaillard." His novel, "The Pirates of the Sky," was issued last month by Rand, McNally and

Pass a Law

- Are your neighbors very bad?
Pass a law!
- Do they smoke? Do they chew?
Pass a law!
- Are they always bothering you?
Don't they do as you would do?
Pass a law!

- Are your wages awful low?
Pass a law!
- Are the prices much too high?
Do the wife and babies cry
'Cause the turkeys all roost high?
Pass a law!

- When M. D. finds new diseases,
Pass a law!
- Got the mumps or encephalitis,
Measles, croup or "expertitis"?
Lest we all fly to pieces,
Pass a law!

- No matter what the trouble is,
Pass a law!
- Goodness sakes, but ain't it awful!
My! What are we going to do?
Almost anything ain't lawful,
And the Judge is human, too!
Pass a law!



THE BULL'S EYE OF SAFETY.

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Plant Department Field Day

The third annual field day of the Chicago Plant Department League was held (with great eclat) at the American Giants' Park on Saturday afternoon, September 25th.

About 500 noisy rooters came out to cheer their favorites on to victory, but after the ball game had been under way about three innings old Bill Kinsley, who had been picked to referee the battle, allowed as how the umpire's life was not a happy one. We say that Bill earned his \$2.10 anyway.

The champion Oakland took a picked team down the line to the tune of 9 to 5, after which they lined up in front of the grand stand, where President Wolcott presented the team with a pennant emblematic of the championship and each individual player with a gold watch—the watch being engraved with the initials of the recipient. These watches were paid for by the various league teams. The Oakland players are: R. J. Dubach, manager; A. F. Boyle, G. H. Bontemps, M. H. Hoskins, W. H. McCarthy, L. C. Conboy, E. E. Rose, F. H. Kristufek, C. D. Koefoed, W. J. Howlett, F. B. Litworth, H. L. Fisher.

After the champions received their watches the picked team lined up and each member was presented with a Jersey coat.

The fungo hitting followed, being won by L. A. Huyck, Stewart, with F. Bates, Wentworth, second. Rush of the Nights won the long throw with Oakland's speedy center fielder second. Another Oakland player cut into the prize list when Bon-

temps "copped" the 100-yard dash, with Archie Abrams a close second. The catcher's throwing event developed into an endurance contest between Le Vee of Long

so his victory, which was a popular one, was not unexpected. Litworth of Oakland was second.

The first prizes in these events were watches; second prizes, sweaters.

The bad weather this year interfered seriously with the schedule—rain spoiling many of the games and making it impossible to play several others. Under the circumstances, however, the league made a good showing and the winners won a clean cut victory. Since the league was organized over 100 prizes have been given away to champions and winners in various field events. The prizes have almost always been sweaters, but this year the league was a little stronger financially, so watches were substituted.

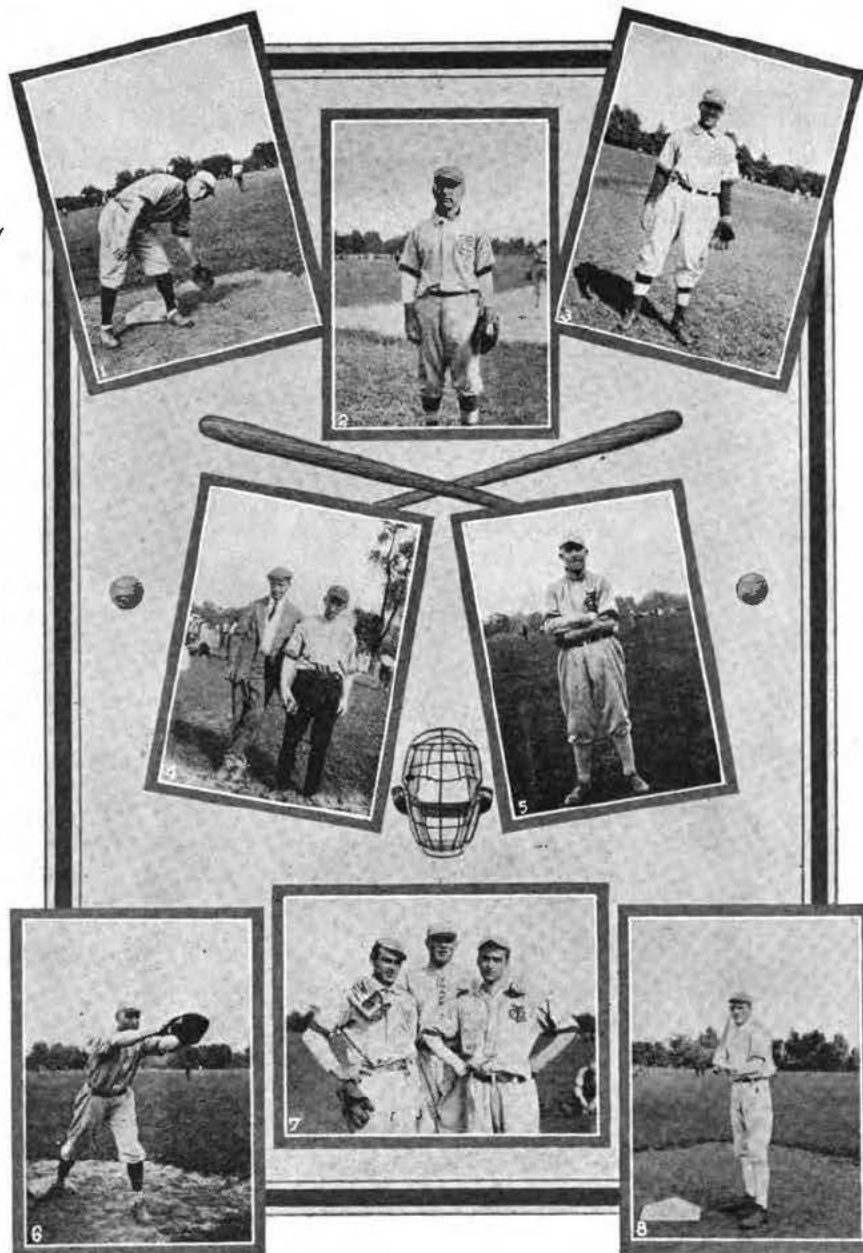
Bell Telephone Rod and Gun Club

The regular monthly meeting of the club was held September 17th at 321 West Washington street. The speaker of the evening was Lewis Kumfer of Bullard and Gormley, and his talk was on the new .22 Colt automatic target pistol, which the members had an opportunity to try out after the meeting adjourned, and it is "some gun."

A special rod committee, consisting of V. E. Code and J. J. Cleary, was appointed to get a casting tournament started, and

Chairman V. E. Code arranged to hold the tournament at the Washington Park lagoon Saturday, October 2d, at 2:30 p. m. The committee planned to give a trophy.

J. A. Rose of Main office was the winner of the second beginners' trap shoot and



A FEW OF THE PLANT DEPARTMENT STARS.

1—Ray Dubach, Manager Oakland. 2—Ike Boylan, Harrison Manager. 3—Jim Cady, leading batsman, 1912-13-14-15. 4—Eric Herder and Ed Leach, Captain and Manager of Wentworth. 5—Walt O'Connor, Long-Lines Manager. 6—Archie Abrams, Captain Central Construction. 7—Manager Code, of Main, leaning on his two lieutenants, Moody and Waggoner. 8—Long-legged Doc O'Connor, Nights Manager.

Lines and Conboy of Oakland. Le Vee finally hit the target twice, something that Conboy was unable to do in an equal number of trials. In the base circling Ben Schumacher of Wentworth won easily. Ben has led the base stealers all season,

was awarded a watch fob, which was the second one the Du Pont Powder Company offered. On October 9th the gun division had as its guest W. D. Standard, who is an authority on trap shooting.

In the future the rifle division will hold a regular beginners' shoot and target practice every Tuesday evening, starting at seven o'clock in the rifle gallery at 321 West Washington street. Guest tickets for visitors may be had from the secretary. It was suggested at the last meeting that the members of the rifle division get up teams of five, with one or two extra for substitutes, of men in their department and elect a captain, sending in the list to the secretary, and in this way the club can arrange competitive shoots and announce scores.

The design shown in this article has been adopted by the club and the commit-



EMBLEM OF BELL TELEPHONE ROD AND GUN CLUB.

tee has arranged to have it made up for the following prices:

Fob.

- XX gold filled.....\$3.75
- X gold filled..... 3.00
- Gold plated 2.25
- Sterling silver 2.25
- Silver plated 1.90
- Bronze 1.00

Button or Pin.

- Rolled plate gold.....\$0.75
- Gold plated35
- Bronze20

This is the actual cost to the club, and orders may be left with the committee: C. B. Robinson, care of Wabash wire chief; E. F. Bickel, care of Harrison wire chief, or J. W. Mueller, care of Main wire chief, Local 454.

In departments or offices it is advisable for some one to act as a committee and submit a list to the secretary at an early date so that one order can be given to the supplier.

Baseball at Rock Island

The Central Union Telephone Company team in the City League at Rock Island, Ill., had its ups and downs during August. On August 7th the telephone boys walloped the Cross Country team 11 to 1.



BENNIE SCHUMACHER.
Wentworth's Leading Base Runner.

Pitcher J. Branman allowed the Cross Country boys three hits, scattered lonesomely throughout nine innings, and whiffed fourteen men.

On August 21st the story was different. The Rock Island Plow Company team took two games with ease from the Central Union team, the first 12 to 2 and the second 4 to 2. These defeats put the telephone boys at the very bottom of the percentage column and left their opponents in first place.

Bell Telephone Bowling League of Chicago

STANDING OF THE TEAMS SEPTEMBER 21, 1915.

Team.	Won.	Lost.	Per cent.	Average.
Construction No. 1.....	6	0	1.000	877.4
Engineers	5	1	.834	854.5
Commercial	4	2	.667	826.4
Lake View	4	2	.667	810.3
Central Supply	4	2	.667	706.2
Construction No. 2.....	3	3	.500	852.2
Supply	3	3	.500	845
Plant Accounting	3	3	.500	840.5
Construction Supt.....	3	3	.500	840.4
Assignment	3	3	.500	831.2
Disbursements	3	3	.500	822.4
Revenue	2	4	.333	842.2
Oakland	2	4	.333	797.2
Traffic	2	4	.333	736.3
Long Lines	1	5	.167	761
West	0	6	.000	573

Play has begun with a dash in the Bell Telephone Bowling League of Chicago and scores of the opening play indicate that the high averages made last season will be

reached or passed during the season of 1915-16.

The league has reorganized with sixteen teams. M. P. Flynn is president; W. H. Johnson, vice president; C. W. Bacon, secretary, and H. H. Lovell, treasurer. The games are rolled this season in the Palace Alleys, 141 North Wabash avenue.

Assignment League

For several years past there has been a regular Bell Telephone Company Bowling League. Also there have been the "Outlaws," the "Peanut" League and the Plant Accountant League; but never has there been a regular Bell Telephone Company MINOR League duly organized with printed schedules and run on the same basis as the Bell Telephone Company major league until this year when the assignment department started the ball a-rolling on Thursday, September 16th, at Bensinger's alleys, 74 West Monroe street.

With six teams recruited from the assignment department, one team from the Belmont wire chief's office and one from the Edgewater wire chief's office, an eight-team league was organized with officials and captains as follows:

President, A. W. Blodgett; vice-president, A. J. Wales; treasurer, J. L. Moran; secretary, M. J. Bunke.

Captains—Fred Klein, Klein's Indians; W. C. Torgler, Meteors; W. E. Norcott, Consumers; W. F. Lecture, Socials; B. J. Ireland, Irish Colts; J. G. Stephan, Driers; O. G. Hild, Belmonts; J. B. Griffin, Edgewaters.

The main object of the new league is socialibility and to furnish recruits to the Bell Telephone Bowling League of Chicago. However, handsome prizes are to be given the various teams at the close of the season and a few of the individual bowlers will receive prizes for their performances.

A large crowd of enthusiastic fans and rooters was present on the opening night. Walter Work, a member of the Edgewater team, made a very appropriate speech, and, at his suggestion and by the unanimous vote of all present, F. H. Merriman rolled the first ball. The result of this shot need not be published, as it did not enter into the final scores, which were as follows:

	Won.	Lost.	Pct.
Driers	3	0	1.000
Belmonts	3	0	1.000
Irish Colts.....	2	1	.666
Klein's Indians.....	2	1	.666
Socials	1	2	.333
Edgewaters	1	2	.333
Meteors	0	3	.000
Consumers	0	3	.000
Individual 1 high game—Newsome, Edgewater water			226
Individual 3 high games—Newsome, Edgewater			641
Team 1 high game—Edgewater.....			817
Team 3 high games—Driers.....			2,298

Individual members of the league and their scores for the first night are given below.

Players.	Team.	Total.	Average.
Newsome	Edgewaters	641	213.2
Stephan	Driers	526	175.1
Byloff	Belmonts	512	170.2
Ireland	Irish Colts	492	164
Ross	Socials	492	164
Moerschbacher	Consumers	479	159.2
Torgler	Meteors	469	156.1

Miller	Socials	469	156-1
Wales	Driers	467	155-2
Blodgett	Irish Colts	464	154-2
Lindholm	Meteors	464	154-2
Driscoll	Driers	461	153-2
Riddel	Driers	458	152-2
Schumacher	Irish Colts	453	151
Meyers	Klein's Indians	453	151
Klein	Klein's Indians	447	149
Work, W. H.	Edgewater	437	145-2
Grant	Irish Colts	435	145
Rath	Irish Colts	423	141
Novak, C.	Belmonts	422	140-2
Hildebrand	Socials	419	139-2
Novak, F.	Belmonts	417	139
Goodyahr	Socials	410	136-2
Stahlberg	Klein's Indians	408	136
Griffin	Edgewater	405	135
Russell	Klein's Indians	403	134-1
Cerney	Meteors	393	131
Emrich	Meteors	391	130-1
Rosenbach	Consumers	391	130-1
Norcott	Consumers	388	129-1
Wirtz	Consumers	386	128-2
Holden	Driers	386	128-2
Johnson	Irish Colts	374	124-1
Hild	Belmonts	370	123-1
Vetter	Edgewater	360	120
Bunke	Klein's Indians	358	119-1
Bender	Edgewater	340	113-1
O'Grady	Consumers	339	113
Johnson, H. C.	Socials	313	104-1
McLaughlin, J. T.	Meteors	288	96

Bell Telephone Chess and Checker Club

PROBLEM.

Black: 3-7-13-K29.
White: 12-16-22-26-21.
(Black to play and win.)

All checker players on seeing this problem will undoubtedly attempt as soon as possible to work it out.

For the edification of those who are not checker players it may be stated that the above is the position of the black and white checkers of an unfinished game, and it is the turn of the player having the black checkers to move. Upon his move rests the result of the game, whether he will win or lose the game.

This is only one of the interesting problems that may be studied on any meeting night of the Bell Telephone Chess and Checker Club in the club room on the fourth floor, 212 West Washington street.

Although chess and checkers are ordinarily considered to be games which are to be played near the kitchen stove or behind the counter in the corner grocery, nevertheless they have held the interest of sixty or more members throughout the summer.

The summer chess and checker tournaments have been more than ordinarily successful. Funds have been appropriated by the company for suitable prizes and competition has been very keen.

The chess and checker committees are arranging for the regular winter tournament, and it is hoped that the success of the summer tournament,

which is just now drawing to a close, will make the winter tournaments even more popular and that many new players will become interested.

The real PROBLEM of the officials of the chess and checker club is to find players who know something of the game and to get them interested in the organization, so that they will attend the meetings and enter the various tournaments.

It is the intention of the club this winter to arrange match games with several of the other public utilities companies and large corporations in the city, all of which have well organized chess and checker clubs.

The interest in checkers is not confined to the employes in the main building alone. Several of the outside offices have organizations of their own or community organizations which bring out some very good players.

On Tuesday night, September 14th, employes in the wire chief's office at the Lawndale exchange played a match game with employes of the wire chief's office in Wentworth exchange, resulting as follows:

WENTWORTH.		LAWNDALE.	
Robinson	2	Martin	6
Hughes	6	Johnston	2
Leach	2	Ledderbege	6
Carity	4	Dunning	4
Mills	0	Berg	8
	14		26

Bell Telephone Glee Club

The Bell Telephone Glee Club of Chicago was reorganized October 4th for the coming season and will hold meetings each Tuesday thereafter. The club plans to make several public appearances during the season. Its work last year will be remembered as particularly pleasing by those who had the opportunity of hearing it.

The club had eighty members last year and President F. L. Curtis hopes to increase this number this year. Any male employe of the Chicago Telephone Company who wishes to join is invited to communicate with S. G. Fulmer, treasurer's department, who is secretary of the club.

The club is to be congratulated in having secured as its leader Daniel Protheroe, one of the best musical directors in Chicago. A rare opportunity is thus afforded male employes musically inclined to improve their knowledge of music and quality of voice. This announcement should result in a large increase in membership and the assurance of a first-class glee club.

The day of rehearsal has been changed from Monday to Tuesday at 5 p. m., room 911.

Detroit Traffic Games

The first game of the final series was played on September 1st between the Detroit Hickory and the Walnut girls and resulted in a score of 8 to 7 in favor of the Walnut girls.

Not only did Hickory field better than Walnut, but the pitching of Miss Lefevre of the Hickory team was much steadier; however, Hickory lost the game entirely through poor base running. Eight Hickory players were left on bases who could have advanced by better running and three Hickory players were put out on bases by careless base running. This was the chief reason for the Hickory girls' defeat. The Walnut girls also bunched their hits.

In the series for the championship the Main girls easily beat the Cadillac girls by a score of 15 to 5. The result was never in doubt and the ten errors made by the Cadillac girls as against none by the Main girls was the chief factor of their defeat.

On September 9th at Tashmoo the Hickory girls defeated the Cadillac girls by a score of 12 to 2. Only one hit was made off Miss Lefevre of Hickory. The fielding of both teams was poor, but the Hickory girls won the game by outhitting the Cadillac girls.

The Hickory-Cadillac game was followed by a game between the Main and Walnut teams, which was won by Main by a score of 16 to 9. The batting of both teams was good, but the Main girls won the game by steadiness in the field. The result of this



PRESENTATION OF PRIZES BY PRESIDENT WOLCOTT OF PLANT DEPARTMENT LEAGUE.

Above—Oakland team receiving watches which they won as champions of the League. Below—Picked team receiving jerseys.

game leaves a triple tie for second place in the final series between the Walnut, Hickory and Cadillac. This tie will have to be played off in order to determine which team will meet the Main in the final.

On September 3rd at Bob Lo the Main girls defeated the Hickory girls in a seven inning game by a score of 2 to 0. The game was very well played, being by far the best in any of the series, and was full of sensational plays. The pitching of Miss McKinney was very good, as she showed both speed and control. In addition to her pitching she made a very good one-handed stop of a grounder and a good catch of a very hard hit ball. Miss Wall of Main also played very well; in the last inning she made a difficult catch of a foul and also fielded a bunt to first base while falling over Miss McKinney. Miss Goethals of Hickory made a catch of a fly as it was going over her head and Miss Tyldsey, Hickory left-fielder, made a fine running catch of a Texas leaguer. The fielding of both teams was excellent, only one error being charged up against each team. Only three Hickory girls and five Main girls reached first base and two of these were afterwards put out. Both of Main's hits came in the first inning, giving them their first run. Hickory's errors brought about the second run in the fifth inning. The Hickory girls also got only two hits.

On September 3rd at Bob Lo the first surprise in the final baseball series happened. The Cadillac girls defeated the Walnut girls by a score of 10 to 6. The Cadillac team was considerably strengthened by a change of pitchers and the former pitcher, Miss Ferstle, by playing shortstop, greatly increased the strength of the team in fielding. The Walnut girls made three errors at critical moments in the game, while the three errors of the Cadillac girls were not so serious. The fielding of both teams was otherwise good and the work of Miss Murry as shortstop for the Walnut team was exceedingly so.

Detroit Recreation Program

With the passing of the season for outdoor sports, Detroit employes of the Michigan State Telephone Company have turned their attention to formulating plans to provide diversion for the winter months.

A bowling league of eight teams was organized, with Fred Clarke of the traffic department as president. Arrangements were made to have the use of the Cass bowling alleys, 129-137 Fort street, west, every Wednesday evening from six to ten o'clock, beginning October 6th and continuing till early in March.

Teams will represent the following departments: Division commercial, engineering, Detroit commercial, district accounting, division auditor of receipts, plant, installation and traffic. Each team will be assessed a certain amount for each evening. Part of the money will be used to pay for

the alleys and part for creating a prize and entertainment fund. Details are to be worked out at subsequent meetings of the captains of the teams. Captains are to be held responsible for collections.

The following have been elected captains of their respective teams: Harry S. Pratt, division commercial; N. C. Locke, engineering; B. A. Williams, Detroit commercial; G. M. MacFarlane, division auditor of receipts; Fred Clarke, traffic. The other teams have not yet made a selection. A. B. C. rules are to govern the contest.

Outlaw Bowling League

At a recent meeting of the Outlaw Bowling League of the Suburban Division of the Chicago Telephone Company it was found that there were seventy candidates for the several teams. On motion it was decided to have ten teams and seven men on each team. After each game the two players on each team having low score will be dropped to give place to the two extra men in the succeeding game.

Under direction of the arrangements committee the following teams have been made up:

PLANT.

Raiders—Girsch, Covert, J. P. Hansen, Vraneck, Wanick, Conlon, H. N. Taylor.
Repeaters—L. C. Jones, Borgeois, Newcomb, McDonald, Simmons, McCaffery, Rupp.

Destroyers—Kraft, Munteer, Penn, A. Arndt, A. P. Taylor, Ebert, Martin.

Wreckers—J. M. Hanson, Olson, Mitchell, Rashman, Ardoff, Berg, Burns.

COMMERCIAL.

Bandits—Larson, Nader, Lisle, Anderson, Beecher, Schramm, Levitt.

Highbinders—Pratt, J. Arndt, Judd, Carroll, Lamm, Vaughn, Parsons.

Pirates—Scott, Simpson, Luepke, Sailor, Krueger, Carey, Geyerstanger.

TRAFFIC.

Highbrows—de Peyster, Vermilyea, Hamm, Hilton, Cloyd, Seguin.

Lowbrows—Eldredge, Bang, Vial, Kennelly, Patchen, G. Jones.

MANAGERS.

Goats—Rhoades, White, Wylie, Gates, Corning, Conrath, Krinbill.

President Vraneck announced the following rules committee: A. C. Rhoades, chairman; L. M. Larson, E. Kraft.

Following is a report from the official minutes of a recent meeting of the Pirates team:

Meeting called to order by Mr. Sailor, former captain, with the following present or accounted for: Simpson, Luepke, Scott, Kreuger, Carey and Geyerstanger.

After invocation and a short hymn in praise of Waitress 25, Schmidt's Fish Resort, Hammond, sung by the eldest special agent, Mr. Sailor rose to announce that the business of the meeting was the election of a captain for the succeeding year.

Following his talk he made verbal in-

quiry as to whether the former captain would consider a renomination, the reply, in dialogue form, being in the affirmative. He promptly expressed his gratification at the decision and in a neat little speech placed before the team the name of A. S. Sailor, special agent, as candidate for the position of captain. Noting signs of unrest among the other players, he immediately withdrew the nomination. While yet addressing the chair he nominated A. S. Sailor, general manager of the Crown Point Telephone Company, as a candidate for the captaincy. At this juncture in the proceedings he administered several vicious kicks on the foot of Player Carey, who promptly rose to his feet and seconded the nomination.

In view of the shortness of the time allowed for the meeting, Presiding Officer Sailor resumed the chair and declared nominations closed, and at the same time slyly slipped a small piece of change to the expectant Carey.

At this critical moment Messrs. Simpson, Scott and Luepke were called to the telephone, while Messrs. Geyerstanger and Krueger were attracted to the opposite end of the room. Upon their return a few moments later it was found that the vote on captain had been unanimous and Mr. Sailor was making a speech of acceptance in which he deeply congratulated the team on its selection.

A Sad Tale

Poor old "can't come back" J. H. Girsch, with the Clinton, Iowa, bush-league team, 'way back in the early nineties was assigned to pitch for the Suburban Commercial team Saturday, August 28th. The game was widely advertised; therefore a great number of fans went to the yard to see the grand old boy whiff the youngsters. But they were sadly disappointed.

Here's what happened: Umpire called "Batter up." "Knuckle Ball Jack," who had been warming up for about an hour, went to the mound. The first ball pitched cleared the catcher's head at least four feet. Jack said it was his famous old "fade away." Well, the opposing team scored three tallies and had the sacks loaded when the manager sent a hurry call for motorcycles for the fielders. Then the good old "has-been" took himself to the initial bag, where he pastimed for two innings; then the manager shooed him to the right garden. In the seventh inning the manager looked for his right fielder and was informed that he had taken a rear exit to catch the 5:15 for Aurora. The alibis will follow.

We'd Get Used to It

"Some day we'll be telephoning through the air without wires."

"Maybe. But won't it seem queer to have an operator call back to you and say, 'The air is busy now!'"—*Washington Star*.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

"Starving for Oxygen"

Does this expression surprise you? Is it strange that the air, which is the freest thing on earth, is being withheld from any mortal so that they are literally starving for it?

In a recent conversation with a doctor who comes in contact with many girls she said, "Our girls are literally starving for oxygen." It suggests the desirability of calling the attention of our girls who read this page to the fact that as summer ends we are all likely to starve for the lack of fresh air.

For weeks our pages have been filled with camera gleanings of girls off on vacations or outings, girls on the beach, girls in the woods—girls always in the great outdoors. With this number our magazine will probably cease to present outdoor pictures, because the season of picnics has ended. The cold winds will be driving people to their homes and the doors and windows will be shut, and then what will happen? Why, there will be lots of people with fall colds and sore throats, people with headaches and tired feelings. They will not know that they are beginning to starve for fresh air. They

may take medicine to cure them, but will not find the cause of their ill feelings.

Just a hint, then, for our girls who still have the afterglow on their faces where the sun and the wind have kissed them. Don't let the natural roses the summer has given fade by shutting yourself up in close rooms. Don't sleep with your windows closed because it is cold. Put on more clothes when you go out so that you can enjoy facing the invigorating fall winds. Put enough clothing on your beds so that you can have your windows open. Of course it is expensive to let in cold air when you are spending money to keep your house warm, but at night, at least, you will gain more than you lose if you keep yourself fed with oxygen. You will save yourself discomfort from unaccountable colds, save on doctors' bills, and you will be bright and clear headed instead of tired and blue when you arise in the morning.

If people are starving they are poor workers and poor company, generally. Many people who drag around doing their

work with no pleasure and taking even their recreation with no enthusiasm are merely starved for that cleansing oxygen that should have been bringing them new life and good red blood as they slept. The night of sleep did not rest because the room was close and stuffy—the air breathed over and over again.

And in the exchanges, where provisions are made for good ventilation, many often shiver not only because they wear insufficient clothing but because vitality is low after a starvation diet of life giving oxygen.

The fall styles will interest all the girls.



CHICAGO GIRLS ENJOYING THE OUT-OF-DOORS WHILE THE LEAVES ARE FALLING. PHOTOGRAPH TAKEN AT SUMMER HOME AT HIGHLAND PARK.

Who will study the fall hints for saving the harvest of health summer outings have given?

On a Party Line

"John," said a weary wife, "I am too dead tired to cook tonight. Suppose we visit one of the neighbors and take a chance on being invited to stay to dinner."

"All right," was the ready reply, "how about the Browns?"

"Not on your life," quickly replied wife, "the Browns are going to have pork and cabbage. I heard Mrs. Brown order it over the party telephone. The Greens ordered chicken."—*Philadelphia Telegraph*.

Everybody Satisfied

"Our stenographer got married to-day."

"Did she quit work?"

"Yes."

"Who was the happy man?"

"Whole department."—*Southwestern Telephone News*.

'Til the Wires Went Dead

By Melgs O. Frost.

"During the West India hurricane that swept the Texas coast the telephone girls undoubtedly saved thousands of lives by telephoning the warnings from the weather bureau. After the storm had broken they stayed at their posts answering calls and directing assistance until the wires went dead."—*News Item*.

Out of the Gulf the Storm King swept

On the crest of his shrieking hurricane,
Rousing the chaos that long had slept,

Lashing the cities
with fierce disdain.
Sudden his rush—but
the swift refrain
Of a warning far
and wide was
spread

By the girls who
worked with their
might and main,
Who stayed at their
posts 'til the wires
went dead.

"'Til the wires went
dead"—what more
to say?

Round them the
rushing waters
swirled

And the screaming
wind-blasts had
their way

With a battered,
sodden, wreck-
strewn world.

What though their
hearts were sick with fear

At the thoughts of home—thoughts best
unsaid?

Never a one but answered "Here!"

And stayed at her post 'til the wires
went dead!

Sisters in stern and loveliest truth

To the great race-heroes, side by side
They take their place—it is earned in sooth
By those whom the last great test has
tried.

"Comrades, salute!" Can you hear the call
From the ghostly ranks of the men who
sped

To death when their duty demanded all
Who stayed at their posts "'til the wires
went dead."

EDITOR'S NOTE.—The poem above was printed in some small newspaper and our contributor who submitted the clipping did not supply any information which would identify the publication.

FOR THE GIRL WHO SEWS

THE TOP COAT WILL LEAD THIS SEASON

Top coats are to be extensively worn throughout the season that they are sure to be in demand. This one can be made as it is here or with a



8781—Loose Coat, 34 to 42.

slightly open neck and round collar with the fronts cut away to give a rounded outline.

The medium size will require 6 3/4 yds. of material 27 in.; 4 1/2 yds. 36 in.; 3 3/4 yds. 44 in.; 3 yds. 54 in., with 1/2 yd. 27 in. for collar and cuffs.

The pattern 8781 is cut in sizes 34 to 42 bust measure. It will be sent to any address by the fashion department of this paper on receipt of six cents in two-cent stamps. Use pattern coupon.

AFTERNOON COSTUME WITH OVER BODICE

Numbers 8766 and 8762 make one of the prettiest afternoon costumes that could be suggested. The



8766—8762—Costume.

combination is both handsome and eminently fashionable.

For the medium size the over-bodice will require, 2 1/4 yds. of material 27 in. wide, 1 1/2 yds. 36, 1 1/4 yds. 44; the pattern also includes a second model with full fronts. For the skirt will be needed 7 yds. of material 27 in. wide, 5 3/4 yds. 36, 4 3/4 yds. 44. The over-bodice pattern No. 8766 is cut in sizes from 34 to 42 in. bust measure and the skirt pattern No. 8762 is cut in sizes from 24 to 32 in. waist measure. The patterns will be sent to any address by the Fashion Department of this paper on receipt of twelve cents in two-cent stamps, or either pattern for six cents. Use coupon.

HANDSOME FUR TRIMMED COSTUME FOR FALL

Gabardine in one of the new blues makes this costume with trimming of skunk fur. The coat with its close fitting body portion and the flaring tunic on the skirt mark important innovations.

For the medium size will be needed 6 1/4 yds. of material 36 in. wide, 4 3/4 yds. 44, 4 yds. 54 for the longer coat; 4 1/4 yds. 36 in. wide, 3 1/2 yds. 44, 2 3/4 yds. 54 for the shorter coat; for the skirt will be needed 3 3/4 yds. of material 36 in. wide, 2 3/4 yds. 54 for serge and other materials without up and down; the width at the lower edge is 2 3/4 yds.

The pattern of the coat No. 8793 is cut in sizes from 34 to 42 in. bust measure and that of the skirt No. 8788, in sizes from 24 to 34 in. waist measure. Either pattern will be mailed to any address by the Fashion Department of this paper for six cents in two-cent stamps, or the two patterns for twelve cents. Use pattern coupon.



8793—8788—Fur Trimmed Costume.

PATTERN COUPON

Fashion Department, BELL TELEPHONE NEWS,
212 West Washington St., Chicago, Ill.

Enclosed find cents in 2-cent stamps for which please send me patterns listed below:

No. Size

No. Size

The price of each pattern shown in this issue, to employees of the Bell System, is six cents when order is accompanied by this coupon. Write name and address, and number and size of patterns plainly. Enclose six cents in 2-cent stamps for each pattern ordered.

Name

Address

City or Town

State

Storm in Michigan

A forty-mile gale, accompanied by thunder, lightning and a heavy downpour of rain, visited Detroit and southern Michigan September 10th, wreaking havoc throughout the area which it traversed. Broken telephone and electric poles, a tangled mess of wires and a seemingly endless amount of work for the plant department, all attested the fury of the storm.

It was seven o'clock in the evening when the storm broke. The rain that fell in a short time was so great as to tax the capacity of gutters and sewers. Water found its way into everything. Aerial and underground cables were seriously damaged. About fifty cases of cable trouble were reported during Friday night and Saturday in Detroit. Approximately 1,000 stations were out of service Saturday morning.

The most severe damage done to telephone property in Detroit was the total wrecking of pole lines on both sides of Kercheval avenue, starting one block east of the Hickory office and extending east almost a mile. One pole line carried one 200-pair, one 100-pair and one 50-pair cable and two crossarms of open wire. The other carried four and five arms of electric light and power wires and two 100-pair aerial cables. By daylight Saturday the street presented a busy scene with large crews on hand to repair the damage. Plant Superintendent Sharpe, Construction Supervisor Emmett of the Detroit exchange, General Foreman Evans and Foreman Campau of the construction department arrived at 2 a. m. to look over the wreckage and to start the work of rehabilitation. From that time until everything was again in good order, Kercheval avenue presented an animated scene.

The telephone cable strewn along Kercheval avenue, as shown in the picture, totals 550 pairs of conductors and feeds practically all of the territory known as Grosse Pointe. It was found on testing that a large percentage of the lines were still working through the cables.

The work of repairing this break was assigned to the forces of the construction superintendent. By Saturday night they had new poles set the entire distance and the cables suspended for nearly one-half. The cable fell across the switch tracks

twelve years. It struck the city late in the afternoon and within ten minutes .84 of an inch of rain had fallen. Main street was flooded so that automobiles stood in the water up to the hubs. Trees were uprooted. Water backed up in the sewers,

entered manholes and developed all kinds of trouble. A cable splicer working on a new 400-pair underground cable had barely time to get out of the manhole before it filled with water. He was unable to save the cable. The high water found a crack in the armor of a new 600-pair cable and trouble developed in several old terminals and laterals. About 1,000 stations were out of service after the storm. The entire exchange force and all of the construction force under Foreman Schemerhorn were kept busy for a week clearing up the trouble.



WRECK OF POLE LINES ON KERCHEVAL AVENUE, DETROIT.

leading to the factories of the Hudson, Chalmers and Continental motor companies and required specially dexterous work to get the tracks cleared for the passage of traffic. The Detroit exchange forces under the direction of Mr. Ewald gave their attention to trouble in other parts of the city.

The Detroit-Port Huron toll line was blown down for about one-half mile at a point three miles south of Mt. Clemens, and the wires were tangled with the trolley line.

A cyclone struck Ionia and demolished the Grand Rapids-Holly toll line in three places, tearing down twenty poles and the exchange cables at several points.

In Jackson the storm was the worst in

The main Detroit-Kalamazoo toll line was blown down for a distance of seventeen poles two miles west of Jackson. The break was located early Friday evening and by morning all the toll circuits were working temporarily. Permanent repairs were completed by Sunday. An automobile was passing the point where the break occurred and had pulled up on account of the velocity of the wind. Poles fell on both sides of the machine. No damage was done to the car, but it was stalled until the road was cleared.

Sunday, September 12th, a storm demolished a nine-pole section of the main toll line south of Reed City. The following day Port Huron and vicinity were struck by a terrific gale, a total of five miles of pole line went down in several locations and a great deal of damage was done to exchange plants.

War Taxes in England

Great Britain is spending about \$25,000,000 per day conducting the great war. To raise this money taxes must be increased everywhere. Telegrams of twelve words, which formerly cost twelve cents, will be raised to eighteen cents, and telephone messages in like proportion.



STREET SCENE IN JACKSON FOLLOWING STORM.

Brief News Notes from the Field

Items of Interest to Michigan Telephone Employees Gathered from All Parts of the Territory

Julius H. Moeller, Correspondent, Detroit.

Organization Changes

A. E. Huntley, formerly manager for the Michigan State Telephone Company at Benton Harbor, became district manager at Petoskey September 15th, filling the vacancy caused by the resignation of A. J. Pecknam, who is now manager of a company near Chicago.

Mr. Huntley had been manager at Benton Harbor since September 20, 1911. He is a native of Holland, Mich. At an early age he began the study of electricity and at nineteen was appointed city electrician of Holland. He has been in the employ of the Michigan State Telephone Company since June 1, 1895, when he became an inspector under W. J. Berry, then manager of the Grand Rapids exchange. Later he was manager at Holland, Muskegon and Ludington.

W. L. Stevens, formerly manager at Jackson, has succeeded Mr. Huntley at Benton Harbor. Mr. Stevens has resided in Jackson twenty-two years, during which time he attained considerable prominence there. He was connected with the telephone company throughout that period, with the exception of three years, while he was clerk at the Jackson prison. Associates of Mr. Stevens presented him with a handsome traveling bag in token of their esteem. The position he left vacant in Jackson has been filled by J. Rodney Weeks, formerly chief clerk to the manager at Detroit.

E. M. Steiner, chief commercial agent at Detroit, was made chief clerk to the manager, succeeding Mr. Weeks. H. J. Muhn, a commercial agent, was advanced to Mr. Steiner's position.

Sad Ending of Port Huron Picnic

Blanche Button, an employe of the Michigan State Telephone Company at Port Huron, was drowned while in bathing at Lakeside Beach, August 19th. Mary Schmidt, also an employe, who was bathing with Miss Button, was saved by Hugh Quinn, a member of the plant force at Port Huron. Mr. Quinn made a brave effort to save both young women.

The drowning was an incident of a picnic given by the employes of the Port Huron exchange. After the luncheon most of the picnic party



A. E. HUNTLEY.

left the beach and started home. A few remained, among them Miss Button and Miss Schmidt, who decided to go in bathing. The two girls got into deep water. Their cries brought Quinn, who immediately swam to their rescue. He grasped Miss Schmidt, who was holding Miss Button, and started to swim for shore. He was making good progress when Miss Schmidt's hold on Miss Button loosened and the latter sank from sight. After a desperate struggle, Quinn succeeded in bringing Miss Schmidt to shallow water, but was himself in a state of collapse from exhaustion.

A few minutes later Miss Button's body was recovered and every effort made to resuscitate her, but to no avail.

The funeral of Miss Button was held Sunday, August 22nd, and was attended by almost every employe of the Port Huron exchange.

Appreciation from Senator Smith

Senator William Alden Smith gives expression to the pleasure the demonstration of the transcontinental telephone afforded him, in a letter of appreciation to E. P. Platt, district manager at Kalamazoo.

On July 6th the company gave the transcontinental telephone demonstration before the members of the Rotary club at Kalamazoo. Senator Smith was present and talked with his mother, who is eighty-one years old, at the other end of the line, 3,000 miles away. He declared he could hear his mother as distinctly as though she were sitting beside him. He was greatly moved by the experience and regards it one of the most wonderful of his life. He writes as follows to Mr. Platt:

"Mr. dear Mr. Platt:—I greatly appreciate your thoughtfulness in sending me the photograph taken at the Rotary club luncheon. The memory of this experience will always remain with me as one of the most wonderful in my life, and I thank you and the officers of the Telephone company for the great courtesy extended to me and the rare privilege which I enjoyed. Cordially yours,

"WILLIAM ALDEN SMITH."

New Work Under Way

Estimates for new work in Michigan recently approved involve the expenditure of \$115,946.

The largest item in the list is for work to be done at Bay City at a cost of \$51,425. It is for the rebuilding of the entire outside plant for the new toll-line entrance and to make changes requested by the city authorities. Also \$3,559 will be expended to connect forty-five subscribers in Monitor and Kawakawlin townships with the Bay City exchange.

An estimate involving the expenditure of \$33,899 in Flint was the second largest item. It is for making additions and repairs to the outside plant, reinforcing conduit on North Saginaw street and adding three 600-pair underground cables.

Other estimates approved were as follows:

Turner-Emery Junction, East Tawas.—Stringing one No. 104 copper circuit and providing a phantom between Turner and East Tawas and re-



HUGH QUINN.



BLANCHE BUTTON.



MARY SCHMIDT.

routing nine miles of existing line between Emery Junction and Tawas City, \$8,693.

Jackson.—Moving poles, etc., in Blackman and Sandstorm townships that are in the way of high-way improvements; also re-grouping nineteen subscribers on the four farm lines terminating at Bennett's switch with Jackson farm-line subscribers so that these lines will terminate in Jackson exchange, and the switching station at Bennett's be discontinued; cost, \$1,513.

Detroit, North and Hemlock exchanges.—Underground trunking cables between North and Market, and Market and Hemlock offices. Cost, \$15,614.

Rochester-Pontiac.—Moving toll line from north to south side of road between Rochester and Pontiac, a distance of approximately two and one-half miles, to get line away from a new 4,600-volt line being erected on the same road by the Eastern Michigan Edison Company. The latter will reimburse the Michigan State Telephone Company for cost of right of way, as also for all trimming of trees necessary for a clear right of way. The estimated cost of this work is \$1,245.

Upper Peninsula Traffic Meeting

Fifteen operators employed by the Michigan State Telephone Company in the Upper Peninsula, together with the district and state officials of the company, met in Escanaba August 12th and 13th for a discussion of telephone traffic conditions. Those in charge of the meeting were W. L. Clark, of Detroit; District Manager K. S. Baker, of Marquette; District Manager D. I. Nixon, of Menominee, and District Manager Ole Sundquist of Escanaba.

Regular sessions were held in the morning and afternoon at each of which Mr. Clark delivered a lecture on traffic conditions. A general discussion of unusual conditions that develop now and then followed. The meeting was considered a great success.

Cold Facts From Big Rapids

On July 26th, Plant Superintendent Sharpe and Toll Wire Chief Williams drove from Grand Haven to Big Rapids, en route to Mackinaw City on a general inspection of toll lines.

The day had been pretty warm but the following statistics chalked in large letters on the wall of the store room helped to make the temperature seem more bearable:

The First Snow.

- 1909, October 27. 1912, October 31.
- 1910, October 27. 1913, October 22.
- 1911, October 26. 1914, October 26.

"Evidently a pretty consistent weather man rules over that region," concluded Mr. Sharpe.

Work of Wire Thieves

Wire thieves operating around Niles and Benton Harbor cut nearly 2,500 feet of wire from the company's lines the latter part of August.

On August 25th Niles was surprised to find it impossible to get connection with South Bend. For hours the trouble could not be located. A trouble man finally discovered that 1,000 feet of wire had been cut near the Niles Paper Company plant.

The following Friday the thieves operated near Benton Harbor. They cut 1,320 feet of copper wire from the Hartford and northern division. The job was pulled off about a mile from Benton Harbor along the Pere Marquette tracks. No trace of the thieves could be found.

Cupid Attacks Engineers

Members of the engineering department have been joining the ranks of the benedicts at a rapid rate. Three of the department have taken the fateful step since last April.

Carlyle Kittredge, engineer, led by taking unto himself a wife last April. July 28th Fred R. Temple, district line engineer, followed suit. Wednesday, August 25th, Joseph Diem, chief draughtsman, claimed as his bride Carmen Ada King of Emlenton, Pa. The ceremony took place in the home of the bride before a small company of relatives and intimate friends. The bridal pair left soon after the ceremony for Detroit, via Niagara Falls. Mr. Diem has prepared a home at 395 Stanton avenue.

Took out Telephone; Must Pay Damages

The Reading Central Telephone Company, of Reading, Hillsdale County, got a judgment of \$3 and costs against Mrs. Ellen G. Woodward in Justice Campbell's court, to recover installation charges on a telephone on a yearly contract which she terminated by removing the instrument herself before the end of the term.

Hurlbut to the Rescue

Ray V. Hurlbut, plant supervisor, went to Laporte, Minn., to spend his vacation. Before leaving Detroit he announced his intention of leaving all thoughts of telephone business behind. The following clipping from the Laporte paper shows how well he kept his resolution:

"The patrons of the Laporte and Yola Telephone Company are under obligations to Mr. Ray Hurlbut for services rendered last Wednesday in putting the line in working order. Ever since the line was struck by lightning two months ago

the switchboard at Central office has been out of commission and the service has not been satisfactory. Mr. Hurlbut, who is chief lineman for the Michigan State Telephone Company, was asked to look at it and in about fifteen minutes had the system in good condition. It was expert work, but he made no charge for his services and the company was saved considerable money as well as annoyance."

Coloma Mutual Taken Over

The Michigan State Telephone Company took over the operation of the Coloma Mutual Telephone Company July 1st. A temporary cable was connected from the Bell office across the street. The rural subscribers are connected with the Michigan State on the roadway plan. The exclusive village subscribers were solicited and contracts secured covering regular exchange service at exchange rates.

Coloma is a small town eleven miles northeast of Benton Harbor. The Mutual company started about four years ago. Low rates and inability to get an outlet for long-distance calls were factors that led the Mutual to make the new arrangement.

Car Runs Amuck

Telephones at Urbandale, near Battle Creek, were out of service several days as a result of an interurban car jumping the track September 10th. The car broke off a telephone pole, letting the big cable down upon a trolley wire which had been torn loose, burning off the cable.

Joint Poles at Monroe

The city commission of Monroe has authorized one of its members to enter into a contract with the Michigan State Telephone Company for the use of poles jointly by the city and the telephone company. The agreement will be for a term of five years.

Likes Long-Distance Service

H. D. Campbell, general manager of the Manistee Iron Works, writes complimenting the Michigan State Telephone Company on the excellent service maintained with New York and Chicago. He says that recently he held a thirteen minutes' conversation with New York and that it was so satisfactory that he felt called upon to write a complimentary letter to the company telling of his experience. He finds the New York service as satisfactory as that maintained with Chicago.

P. B. X. Development in Detroit

Among the new private branch exchange and additional equipment installed or ordered in Detroit during the month of August were the following:

	Trunks	Terminals
Dunlap-Ward Advertising Co. (New).....	1	5
Standard Oil Co. (Additional).....	2	1
Peoples State Bank (Additional).....	3	11
Parker Rust-Proof Co. (New).....	2	8
White Star Refining Co. (New).....	3	6
Merchants Realty Co. (New).....	2	6
Price Waterhouse Co. (New).....	2	7
Sam Plotkin, Apt. House (New).....	2	54
Auto Engineering Co., Auto Parts (New).....	2	6
Detroit Trust Co. (Additional).....	1	14
Robins Limited (New).....	2	7

Of the total of eleven private branch exchange contracts secured during August, ten were secured by Floyd H. Lockwood and one by the office.

These new contracts supplied a total of 125 stations for Detroit during August.

Detroit Operators' Excursions

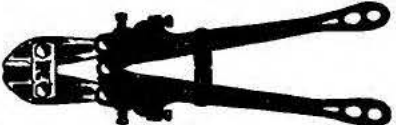
Tashmoo park was the scene of the sixteenth outing of the Michigan State operators, August 19th. After lunch had been served, the Main and Cadillac baseball teams clashed, the latter getting the big end of the 15-14 score. Hemlock defeated Cedar by a 10 to 8 tally while the other game was in progress. The usual athletic events followed, making the closing hours of the day

DETROIT BOWLING LEAGUE SCHEDULE

Rounds.	Date.	Alleys.	Hours, 6-8.		Hours, 6-8.		Hours, 8-10.		Hours, 8-10.	
			Teams.	Alleys.	Teams.	Alleys.	Teams.	Alleys.	Teams.	Alleys.
1 Oct.	6. 1-2	Engineers	3-4	Maintenance	1-2	Detroit Acct. Cen-	3-4	Commercial Supt.	1-2	and Detroit
2 Dec.	1. 3-4	and Div. Aud. of Receipts	1-2	and Inspectors	3-4	ter and Traffic	1-2	Commercial	3-4	
3 Jan.	19. 1-2		3-4		1-2		3-4		1-2	
1 Oct.	13. 3-4	Inspectors	1-2	Div. Aud. of Receipts and Detroit	3-4	Maintenance and Commercial Supt.	1-2	Engineers and Detroit	3-4	
2 Dec.	8. 1-2	and Detroit	3-4	Traffic	1-2	Commercial Supt.	3-4	Detroit	1-2	
3 Jan.	26. 3-4	Commercial	1-2		3-4		1-2	Acct. Center	3-4	
1 Oct.	20. 1-2	Commercial Supt. and Traffic	3-4	Detroit Commercial and Detroit	1-2	Engineers and Inspectors	3-4	Maintenance and Div.	1-2	
2 Dec.	15. 3-4		1-2	Acct. Center	3-4		1-2	Aud. of Receipts	3-4	
3 Feb.	2. 1-2		3-4		1-2		3-4		1-2	
1 Oct.	27. 3-4	Maintenance and Detroit	1-2	Engineers and Commercial Supt.	3-4	Div. Aud. of Receipts and Detroit	1-2	Inspectors and Traffic	3-4	
2 Dec.	22. 1-2		3-4		1-2		3-4		1-2	
3 Feb.	9. 3-4	Acct. Center	1-2		3-4		1-2		3-4	
1 Nov.	3. 1-2	Engineers	3-4	Div. Aud. of Receipts and Detroit	1-2	Maintenance and Traffic	3-4	Detroit Acct. Cen-	1-2	ter and
2 Dec.	29. 3-4	and Detroit	1-2	Inspectors	3-4		1-2	Commercial Supt.	3-4	
3 Feb.	16. 1-2	Commercial	3-4		1-2		3-4		1-2	
1 Nov.	10. 3-4	Div. Aud of Receipts and Detroit	1-2	Traffic and Detroit	3-4	Inspectors and Detroit	1-2	Engineers and	3-4	
2 Jan.	5. 1-2	Com'cial Supt.	3-4	Commercial	1-2	Acct. Center	3-4	Maintenance	1-2	
3 Feb.	23. 3-4		1-2		3-4		1-2		3-4	
1 Nov.	17. 1-2	Engineers	3-4	Div. Aud. of Receipts and Detroit	1-2	Maintenance and Detroit	3-4	Inspectors and	1-2	
2 Jan.	12. 3-4	and Traffic	1-2	Acct. Center	3-4	Commercial	1-2	Commercial Supt.	3-4	
3 Mar.	1. 1-2		3-4		1-2		3-4		1-2	

Teams—Commercial Superintendent, Detroit Accounting Center, Detroit Commercial, Division Auditor of Receipts, Engineers, Inspectors, Maintenance, Traffic.

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Center Cut Jaws, for 1-4-in. soft rods.

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very interesting. Margaret Woods undertook to win a prize for kicking the bean bag and came in for the "booby," which consisted of a Hindoo man, wrapped in a large box, and having the appearance of something quite valuable. The camera man caught the expression of surprise on Miss Wood's face when she received the award.

Rain interfered badly with the seventeenth excursion which was scheduled to be held at Bob-lo, August 24th. Main and Cadillac managed to find opportunity for playing a ball game, which resulted in a victory for Main, but the other contests had to be called off on account of the veritable deluge.

The steamer *Tashmoo* took the operators to Port Huron Wednesday, August 25th, on the eighteenth excursion of the season. During the hour's stay at Port Huron, the girls were entertained at the company's office, enjoying the hospitality of the chief operator and manager. The girls made the trip a merry one, selecting the talent among them

for an impromptu program. Readings by Miss Norwood, clerk at the Walnut office, were much enjoyed.

On September 1st, the girls went to Sugar Island for the nineteenth outing of the summer. Because of the cloudy skies, the attendance was small, but four ball teams were on the job to open the way for a series to be played at a later date. Dancing was the amusement during the early part of the afternoon. The latter part was devoted to the usual athletic events.

The weather man favored the operators September 3d with a choice branch of sunshine and made their day at Bob-lo a very merry one. The excursion was very well patronized. Cadillac and Walnut furnished the entertainment on the diamond in the morning, Main and Hickory in the afternoon. The various athletic contests were enjoyed by a large number. The outing was declared one of the best of the season.

The excursions of the season came to an end Thursday, September 9th, with a trip to Tashmoo park. Large numbers of chief operators, traffic chiefs and operators were present. The Cadillac and Hickory baseballists furnished the entertainment during the morning. After lunch they were replaced by the Main and Walnut girls. At the conclusion of the athletic events, the girls winning the highest number of points during the summer were awarded silver loving cups. The following were winners: Margaret Burkhard, Hickory, first, score, 40; Lillian Schultz, Walnut, second, score, 36; Loretta Villemonte, Walnut, third, score, 34; Cleo Artia, Main, fourth, score, 25.

Promotions

The following promotions have been made in the Detroit exchanges: Lillian Spaulding, North, operator to senior operator; Gertrude Nielson, North, operator to senior operator; Rosella Burleson, Hemlock, day operator to day supervisor; Irene Bright, Hemlock, relief operator to relief supervisor; Jessie Speck, Grand, evening B operator

to senior B operator; Laura Reese and Elizabeth McCarthy, day A operators, Grand, to senior operators.

Miss A. Seeger, relief supervisor at the East office, has been promoted to all night chief operator at Ridge.

Miss C. Krampo, day A operator at the East office, has been promoted to relief supervisor, taking the place of Miss Seeger.

Miss M. Duggan, A operator at the West office, has been promoted to monitor.

Winning Divisions

Lucille Comey, North third day B supervisor, won the prize of 100 points for August and, accompanied by the girls, spent a delightful three hours at a theater party at the Garrick. The party wound up with a lunch at the Griswold hotel.



MISS WOODS OF DETROIT.
Snapped as she was accepting "Booby" prize.



MISS HOLLISTER.
Hemlock pitcher in action.

The North A contest was won by the sixth day section. A theater party, composed of the operators and their supervisor, Hazel Critchett, spent a very pleasant evening seeing "The Bird of Paradise" at the Garrick.

Josephine Keiffer, supervisor, third A division, Main, won the July and August contests and with her operators, formed two theater parties, seeing "Pollyanna" and the "Bird of Paradise," at the Garrick.

Ida Bloom and the operators of the fourth Cherry A division carried off the honors in the August contest at Cherry exchange.

Adel Deary and the operators of the second Main B won the August contest. They attended a performance at the Garrick.

The second A day section of Walnut office won the prize for August and was chaperoned by Mrs. Woolston, supervisor, to the Garrick theater to see the "Bird of Paradise."

The first evening B section of Walnut office won the prize for August and was chaperoned by Ethel Richards, supervisor, to the Detroit Opera house to witness the performance of "The Prince of Pilsen."

The Walnut office was presented with the big prize picture awarded the girls for having won the most prizes at the outings held during the summer.

Operators' Standing for August

East—Miss C. Kramp, first; Miss G. Richardson, second; Miss A. Bretz, third; Miss M. Schafer, fourth; Miss E. Peters, fifth.

West—The Misses Mack and Gandion, first; the Misses Horn and Friendship, second; the Misses Klaus and White, third; Miss L. Fontaine, fourth; Miss A. Banford, fifth.

Ridge—Helen Collier, first; Miss A. Fiems, second; Miss S. Walters, third; Miss M. Patton, fourth.

Cedar—Miss Fearn, first; Miss Papp, second; Miss Hockstadt, third; Miss Fowler, fourth; Miss Winkler, fifth; Miss Schroeder, sixth.

Hickory—Miss Hedlund, first; Miss Gardner, second; Miss Golla, third; Miss Owens, fourth; Miss Lanham, fifth.

Detroit Supervisors Standing for August

East office—Miss McCormick, 96.2; Miss O. Smith, 87.4; fourth section, 86.3; Miss MacPherson, 80.7; Miss Hayes, 79; Miss Seeger, 62.5.

Social Affairs

Thirty girls, of the Cedar office, gathered at the home of Miss Stelter, Wednesday, August 18th, to attend a shower given in honor of Anna Hahn, who had resigned her position to become the bride of A. C. Monche. Japanese lanterns were hung about the lawn and created a most pleasing effect. A mock wedding, in which Miss Ehrmantraut impersonated the bride and Miss Stelter, the groom, was the principal feature of the evening. At 10:30 a buffet lunch was served in which all present participated with great enjoyment.

The "divided hour" girls, of the Cedar office, met Thursday evening, September 2d, to organize a club which they named Lambda Beta, meaning "lucky band." The girls were not awed by the fact that the club has thirteen members. They agreed to meet weekly and to make plans for some "good fellowship" work to be carried on in the future.

The day girls of the Cedar office, met Friday, September 3d, to organize a social club to meet twice a month. Adding to the good feeling that prevailed was the fact that the girls had won the pennant for August. Games and dancing made the hours pass quickly.

The Hemalowa club, of the Hemlock office, has resumed its activity and will meet every Wednesday evening. The girls busy themselves with fancy sewing for about an hour. A social session in which games and music are features, follows. A lunch is also served. The girls have rented a piano for the winter months.

Josephine Schmidlin, Main A operator, was tendered a pleasant surprise the evening of August



"DAD" SAUNDERS.

Chief commercial agent of the Grand Rapids exchange, who is spending his vacation at his cottage, Highland Park. Note the pleasant smile. Fishing must be very good.

30th by twenty of her girl friends, at the home of Adel Lyons. The affair was of the nature of a kitchen shower in anticipation of the approaching marriage of Miss Schmidlin.

A dainty linen shower was given at the home of Viola Grahn August 26th in honor of Bertha Roller, a bride of the month. A progressive peanut hunt and other games made the hours pass quickly. Vocal selections by Josephine Murphy were much enjoyed. Miss Roller was the recipient of many pretty and useful gifts.

Detroit Wedding Bells

The following have resigned to be married: Elsie Schuetzler, North; Bertha Roller, Main A; Josephine Schmidlin, Main A; Marie LaRose, Main A; Emily Friese, Hickory; Orpha Ayers, Cherry A.

Clara Reich, B operator at the Grand office, was married August 11th to Harry Ziess, an employe of the Studebaker corporation. The B operators gave her a cut glass water set.

Martha Osinski, A supervisor, Grand office, became Mrs. Frank Taylor, August 10th.

Sadie Ogden, senior B operator, Grand office, was married August 31st to Robert Manier. The bridal pair took a honeymoon trip to Calumet, Harbor Beach, Buffalo and Niagara Falls. The girls of the Grand office presented them with a cut glass water set.

Winifred Devereaux, B operator, Grand office, was married to Frank Parket, August 8th.

Ella Burnett, operator at the Hickory office, was quietly married to Roy Baker, August 26th.

Detroit District

Miss Maguire, senior B operator, Grand office, has resigned to take a similar position in Philadelphia.

Leona Antis, A operator at the Grand office, has gone to Portsmouth, Ohio, to engage in similar work.

Caroline LaFoud and Christine Rider, who have been on the sick list, resumed their duties at the Grand office early in September.

Mercedes Barry and Cora Robinson have returned from a trip to the Panama Exposition. They went as guests of the *Detroit Times*, having

won a contest conducted by that paper. They report a delightful time.

Grace Meyreles, senior supervisor, Main and Cherry B, enjoyed a two weeks' vacation at Minneapolis.

Bessie Adcock, who has been on a leave of absence for the last six weeks, on account of ill health, is able to be on duty again as assistant chief operator.

Miss Olsen, evening chief operator at Hemlock, enjoyed a trip to the northern resort country for her vacation.

Martha Kowalski, Walnut operator, has resigned to be married.

Grand Rapids District

John Fitzpatrick, commercial agent at Grand Rapids, spent his vacation at Spring Lake.

Julia Huyge, teller at the Grand Rapids office, has returned after an outing at Ottawa Beach.

Hazel Duram, clerk at the Grand Rapids exchange, spent a week at Chicago.

Tillie Spoelstra of the collection department at Grand Rapids has returned from Spring Lake, where she was a guest at a house party.

Fred Saunders, chief commercial agent at Grand Rapids, spent his vacation at his summer home, Highland Park, Mich.

Harry Kelly, commercial agent at Grand Rapids, has returned after a visit to his home, Youngstown, Ohio.

The Grand Rapids telephone operators held their annual picnic August 26th at North park, with a stiff northwester sweeping across the country. A committee of six, Bertha Hall, Louise Pape, Florence Hedt, Gertrude Loll, Lottie Cunningham and Emma Ozinga, served the supper for seventy-one operators and guests. Less than an hour after eating the Misses Voet and Hoadley won a three-legged race. Amelia Palmer carried off the prize for the orange race and Miss Richardson won the fat ladies' race. Margaret Palmer picked up enough "spuds" in a short enough time to gallop home with the potato race prize and Miss Hespel won the sprint. The occasion was one of the most enjoyable the girls have had in a long time.

Foreman Lyman Green of the construction department, Detroit, is engaged on fifteen small cable extensions in the Main and South exchange districts at Grand Rapids, relieving open wire conditions.

Carl Patti, for a number of years wagon foreman in the South exchange, Grand Rapids, died August 14th at the residence of his parents in Muskegon, Mich. Mr. Patti was a valued employe of the Company and will be missed by his friends and associates.

The operators of the Michigan State Telephone Company held their annual picnic at North Park on August 25th. An excellent supper for seventy-one operators and guests was served in the grove by the committee, consisting of Bertha Hall, chairman; Louise Pape of Toll, Florence Hedt and Gertrude Loll of the Main office, Lottie Cunningham and Emma Ozinga of the South office. After the "eats" races were held among the operators and were won as follows: Three-legged race, by the Misses Voet and Hoadley; orange race, by Amelia Palmer; fat ladies' race, by Isabelle Richardson, who won the race under protest, all the while disputing the imputation of being fat; potato race, by Miss Hespel. After the prizes were distributed the crowd left for home, stating they had the best time ever. The guests present were Mr. and Mrs. C. E. Wilde, Mr. and Mrs. Samuel Morris, Fred Saunders, Mr. and Mrs. Pielt, Miss J. E. Emmer, the commercial department employes, and Traffic Chief G. W. Johnson.

Mabel Curtis, cashier at the Ludington exchange, returned on August 13th from a week's vacation spent at Niagara Falls, Detroit and Grand Rapids.

Kalamazoo District

Telephone subscribers in the northwestern part of Kalamazoo were greatly disturbed by buzzing noises on the telephone one day last month. It was different from the ordinary hum and led to a



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The five gallon Can takes 15 seconds to fill and can be emptied in 20 seconds, proving its superiority over any other Safety Can.



DURAND STEEL LOCKER COMPANY

Steel Lockers, Racks and Bins for every purpose.

1545, 76 W. Monroe CHICAGO 945, 132 Nassau NEW YORK

KLEIN TOOLS Have Been Satisfying Linemen for Years—They Will Satisfy You


Write for Catalog

MATHIAS KLEIN & SONS
 Tool Manufacturers
 Canal Station 62 - - CHICAGO

Telephone Wabook 622




The "RICHHOFF" Combined Pay-out and Take-up Reel



"The French" FOLDING DOOR Telephone Booth
 (Patent Pending)


ECONOMY OF SPACE: The movement of the FOLDING DOOR takes but four (4) inches of space beyond the front of the booth. This feature makes it possible to use this type of booth in narrow passageways. This is one of the many advantages of the FOLDING DOOR telephone booth.

Write for booklet describing the advantages of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company
 Houses in all principal cities



Door Open Door Closed



UPPER PHOTOGRAPH—FIELD DAY AT BELLE ISLE, GIVEN BY MR. PARENT'S DISTRICT, OCTOBER 4th. PUZZLE, WHICH IS MR. SPENCER AND WHICH HIS BROTHER?

LOWER PHOTOGRAPH—CLAMBAKE BY GIRLS OF MR. PARENT'S DISTRICT AT BELLE ISLE, SEPTEMBER 22d.

Mr. Parent and Miss Chambers were each presented with a bouquet of flowers.

On Tuesday, October 5th, Mr. Parent gave a picnic at Belle Isle to the relief operators of his offices. Races were the feature of the day, the Hickory offices gathering almost more than their share of prizes. After the races the girls went to the casino and were served with delicious luncheon. After lunch they all took the motor buses and had a ride around the island. The preceding Thursday Mr. Parent gave a picnic to the day girls.

Emily Freize, Hickory B operator, left October 1st to be married. She is now Mrs. Hohfeldt. The girls presented her with a casserole and cut-glass sugar and cream set on leaving.

Among the pleasant recent happenings was a farewell party given by the East girls to Irene Hayes on the eve of her departure to take up her new position. The evening was pleasantly spent in dancing, songs and recitations and the presentation to Miss Hayes of a beautiful leather hand-bag, with a well-filled purse enclosed. A luncheon was served to finish a most enjoyable evening.

Irene Warner, third Walnut day supervisor A section, won the contest for September; standing, 85.9. Mrs. Woolston, second day A supervisor, won second prize and her operators were entertained at the Garrick theater.

Miss Lawson, Walnut first evening supervisor,

won first prize for September. The operators were entertained with a party at the Temple theater.

Agnes McNally, operator at the Walnut office, resigned October 5th, to be married.

Mary Goings, operator at the Walnut office, resigned October 1st, to be married.

Lena Tewksbury was promoted from evening operator at Walnut to evening supervisor.

Miss Sohnlein's division at Cedar office won the prize for September; standing, 99.9.

Harry Dawson, the twenty-year-old son of William Dawson, traffic supervisor of the Michigan State Telephone Company, died in Grace hospital Saturday morning, September 25th. The young man sustained an injury to the knee some time ago, which resulted in the development of a serious affection, necessitating an operation. He was believed to have rallied successfully from the operation and to have good chances for recovery when death claimed him. Mr. Dawson lay seriously ill at his home at the time of his son's death. He has the sympathy of many friends in the employ of the telephone company in his hour of trial and bereavement.

Eastern District

James A. Sherman, formerly wire chief at the Menominee exchange, took up the duties of Eastern District foreman September 15th, succeeding

William Ferris, who was transferred to the construction department. Mr. Sherman entered the service of the Michigan State Telephone Company in 1896 as an inspector. Later he was associated with the Chicago Telephone Company, Wisconsin Telephone Company and the Pacific Telephone and Telegraph Company in various capacities. He reentered the services of the Michigan company in 1909 and served as wire chief at several points in the Upper Peninsula.

Grand Rapids District

Margaret Kutskinski, toll operator at Grand Rapids, spent her vacation on a farm near Big Rapids.

Regene Bolter, toll operator at Grand Rapids, spent a two weeks' vacation at Rochester and Niagara Falls, N. Y.

Hazel Holcombe, who underwent an operation for appendicitis, has resumed her duties as toll operator.

Bertha Hall, toll supervisor at Grand Rapids, entertained with a towel and apron shower on Saturday evening, September 25th, for Josephine Timmers, whose marriage to Harry Thiel of Detroit took place the latter part of October. Bernice Bowes and Bertha Kreuger furnished a program of music. In the games played prizes were awarded to Zelda Williams and Clara Howe. Miss Timmer was presented with a number of pretty gifts.

Marie Middlesteadt, toll supervisor at Grand Rapids, spent two weeks' vacation at Nashville, Tenn., Cincinnati, Ohio, and Chicago.

Anna Maynard, after spending a week at Port Huron, returned to her duties as toll operator at Grand Rapids on September 22d.

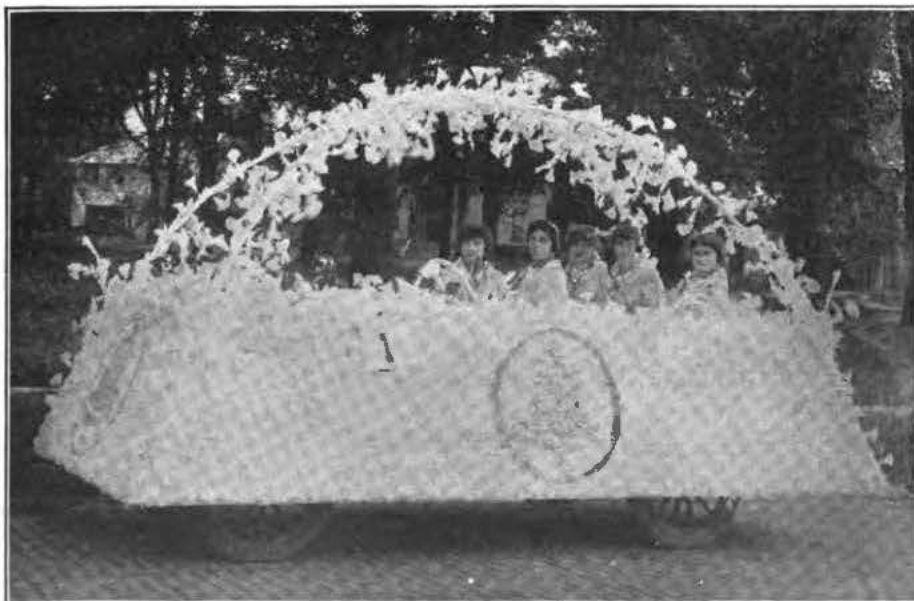
Irene Duemler, toll operator at Grand Rapids, has returned, after spending two weeks' vacation at Detroit.

Ehlie Meissner, evening chief operator at Ludington, returned to take up her duties September 29th, after an enjoyable two weeks' vacation, spent with relatives and friends at Two Rivers, Wis.

Ruth Brunk, toll operator at Ludington, enjoyed a week's vacation in September, which she spent quietly at home.

During the past month an intercommunicating system has been installed in the Federal building at Grand Rapids. This system is the only one of its kind in the city. Five additional individual business telephones have also been installed in the various branch post offices.

C. E. Wilde, district manager, and C. E. Waite, commercial manager, represented the Michigan State Telephone Company on the Tenth Annual Trade Extension Tour of the Wholesale Department of the Grand Rapids Association of Commerce, October 5th to 9th. It was the biggest and best trip ever. Hart, Ludington, Traverse City and Charlevoix were among the points visited.



PRIZE WINNING FLOAT IN PARADE AT KALAMAZOO.



"SEBCO"

Expansion Bolts and Screw Anchors

Accurate — Strong — Dependable

No better made for any price

They have been imitated by others, no one of whom has ever approached them in practical excellence.

**Bolts for Heavy Work
Anchors for Light Work**

Sold by dealers everywhere
Send for catalogue and working sample

Star Expansion Bolt Co.

147-149 Cedar St., New York City
130 West Lake St., Chicago, Ill.



No. 20 Red-Hot Torch
Price Each \$4.25 Net

ALWAYS IN DEMAND

There are no seasons for the Red-Hot Line of Torches and Fire Pots for they are in demand every day. Every user knows when he buys a Red-Hot Torch or Fire Pot he is sure to get the best value for his money and a tool that will give him long service and perfect satisfaction. The best is always the cheapest. The No. 20 will surely please you. All leading jobbers will supply at factory price.

Send for free catalog.

ASHTON MFG. CO.
23 Nevada St., NEWARK, N. J., U.S.A.



No. 20
Cyclone Plumber's Furnace

INSIST UPON HAVING THE No. 20 CYCLONE

You may ask why. The reasons are many: Tank made of heavy galvanized steel and is aluminum bronzed.

No cast ring on bottom of tank to break. Hood locks on firmly and will not fall off, and is japanned.

Brass pump has seven inch stroke and no springs to get out of order.

Circulars and prices furnished upon application.

DOUBLE BLAST MFG. CO.
2004 State St., North Chicago, Ill.

**MACK
TRUCKS**



**SAURER
TRUCKS**

Chicago Telephone Company is a consistent user of MACK trucks, 27 MACK General Utility vehicles, Winch trucks and Post Hole Diggers make up their present fleet.

The Associated Bell Telephone Companies have 141 International Motor Company trucks of various sizes in daily operation in all kinds of weather, and under extreme conditions of service.

Your transportation problem can be solved by us. Let us serve you.

International Motor Company

West End Ave. and 64th St. NEW YORK
Representatives in all principal localities

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

Harry Jupersema, collector at Grand Rapids, has returned after a week's outing at Highland Park, Mich.

On September 18th a very delightful outing was enjoyed by a party of the commercial girls at Grand Rapids. They were the guests of Miss J. E. Emmer, cashier at Grand Rapids exchange, who took them to Bostwick Lake in her auto.

prize float in the great pageant that featured "prosperity week" at Kalamazoo and was awarded \$50 for its enterprise. The float consisted of a floral display built up on the automobile used by the district manager. It differed from the usual type of floats inasmuch as there was not a letter to indicate that it was an advertisement. The color scheme was blue and white. The float was

George Sargison, repairman, has been appointed manager.

C. J. Strong, who was manager at the Portland exchange, has been transferred to Howell as repairman. Hazel Buskirk, chief operator at Portland, has been appointed to handle all commercial matters.

Blanche Hetchler has accepted the position of clerk No. 1 at Lansing. Adelaide Morse, who formerly had this position, was appointed cashier. This change was made September 16th. Genevieve Murray has accepted the position of clerk.

C. M. Darling, manager of the Lansing exchange, who had been with the company for the past four years, resigned October 5th.

The Holt exchange, which was formerly owned by I. B. Chandler as a connecting company to the Lansing exchange, was purchased by the Michigan State Telephone Company October 1st. Claud E. Coryell, who was foreman of the toll-line patrol out of Lansing, has been appointed manager.

O. W. Slocum, manager at Jonia, spent the last two weeks of October at Bellaire, Ohio, his former home.

Delliah Simmons, chief operator at Lake Odessa, resigned November 1st to become the bride of Sidney McLaughlin. Mr. McLaughlin is testman at the Kalamazoo exchange.

Hazel Buskirk, operator at the Portland exchange for the past five years, became manager of that office October 3d, succeeding Claude Strong, who was transferred to Howell. Mr. Strong has been at Portland two years. Charles North will take care of the trouble work both in the village and along the lines of the Portland Farmers' Telephone Company.

A remarkable growth in business is reported in Lansing by B. R. Marsh, district manager. The new directory, which was recently distributed, went out to nearly 3,400 subscribers, and showed an increase of 700 names over the May issue. Between the time the actual compilation was closed, September 23d and October 10th, 124 names were added, so that it was necessary to provide a special insert.

The company recently completed extensions and improvements in Lansing at a cost of \$100,000.

Marquette District

Miss Devine, chief operator of the Marquette exchange, spent her vacation at Traverse City.

Marie Labby, toll operator of the Marquette exchange, enjoyed her vacation at Calumet.

Inez Price, toll operator of the Marquette exchange, was quietly married early in the morning of September 20th to Mr. Byrnes of the Soo, without even her most intimate friends knowing anything about it. Her associates tendered her a miscellaneous shower September 30th.

Mr. Manes of the Marquette plant department was married to Pearl Riley Wednesday evening, September 29th. They spent their honeymoon in the copper country.

Port Huron District

W. A. James, manager of the Mt. Clemens exchange, has returned to his regular duties after a two weeks' vacation.

Delia and Ruth Miller, operators at the Mt. Clemens exchange, spent a two weeks' vacation at Loraine, Ohio.

Ella Chisholm, night operator at Mt. Clemens, has resumed her duties after a two weeks' vacation at Wallaceburg, Ontario.

Saginaw District

H. R. Mason, district manager at Saginaw, reports a substantial increase in business. The directory recently issued was the largest ever sent out to Saginaw subscribers. It showed that the company is serving 5,800 stations in Saginaw and 3,692 in Bay City, as compared with 5,152 stations in Saginaw a year ago and 3,359 for Bay City, a gain of 648 stations during the year for the former and 333 for the latter.

Lawrence Wiser, formerly installer at Saginaw, has been transferred to East Tawas as toll-line repairman, succeeding Fred Yanna, who was recently transferred to Standish.

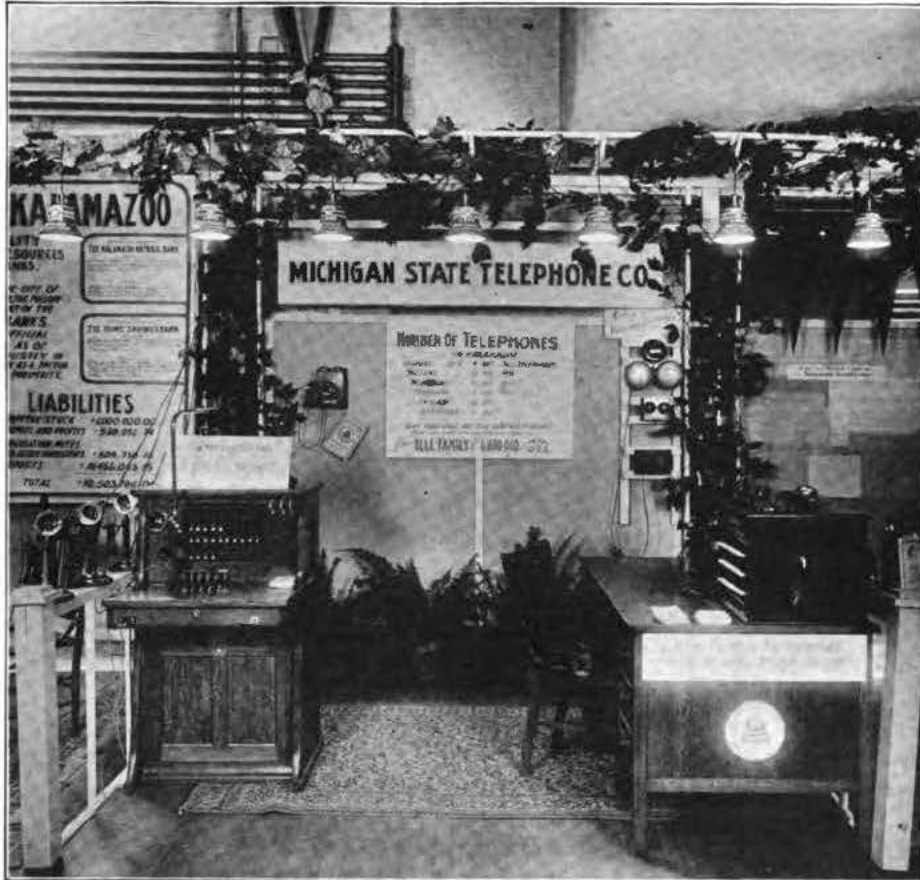


EXHIBIT AT THE ARMORY, KALAMAZOO, DURING PROSPERITY WEEK.

After rowing and other amusements, a picnic lunch was served. Needless to say, everybody had a good appetite. The following girls were in the party: Miss J. E. Emmer, cashier; Mary Walsh, stenographer in the district manager's office; Blanche Christiansen, directory clerk; Tillie Spoelstra, clerk in the collection department, and Aurelia Wurzburg, stenographer in the commercial department.

The West Michigan State Fair was held at Grand Rapids September 20th to 24th. The Michigan State Telephone Company's exhibit was in charge of Fred Saunders, chief commercial agent at Grand Rapids. Some 35,000 "Safety-First" tags and 60,000 pamphlets were distributed.

Kalamazoo District

The Michigan State Telephone Company played an active part in the "Prosperity Week" celebration held at Kalamazoo October 4th to 9th. The telephone booth was located in a prominent place in the Armory. There were more than 15,000 paid admissions and fully eighty-five per cent. of those attending called at the telephone booth, where literature and safety-first signs with the Bell emblem were presented to them. Methods in operating were explained and the public was invited to visit the exchange building. Many accepted. A considerable volume of new business was secured.

Twenty-one lines carrying twenty-five subscribers were cut out of service in Benton Harbor Saturday, October 5th, as a result of a serious garage fire. Repairmen restored connections Sunday and by Monday morning the lines were again in commission.

The Michigan State Telephone Company had the

declared by practically everyone to have been the most beautiful in the parade. On the end and the sides were blue bells and circles, but without lettering. Morning-glories of a lighter shade intertwined with white stripes were used to decorate the arches that extended over the float. They formed a very pretty effect. In front of the driver of the float were nine desk sets mounted promiscuously among the morning-glories, which were of white and delicate blue, interwoven with white oak leaves. The interior of the car was decorated in white. The car was driven by Mrs. Fay Bacon, bookkeeper of the south side garage, Kalamazoo, who received many compliments on the way she managed the float. Seated with her was Florence Sliiss, local supervisor. In the rear seat, left to right, are Camilla Hansen, local supervisor; Burmadette Cave and Cora Sootama, toll supervisors. They were chosen to ride in the machine by popular vote of the operators in the departments to which they belong. The girls were prettily dressed in white and wore the regulation operators' telephone set. As people along the line of march called out a number as it about to telephone, the girls would operate a gong as though ringing the subscriber. Credit for the success of the venture is due Herbert Whittet, district equipment foreman, who built and decorated the float. The prize money was given the operators. They decided to place it in their charity fund, which goes each year toward the furnishing of food supplies to needy families at Thanksgiving time.

Lansing District

T. L. Stevens, who has been manager at Howell for the past five months, resigned October 1st.

BIERCE ANCHORS

Have been approved and standardized by the A. T. & T. Co., the Central Group of the Bell Telephone Companies and the Bell Telephone Companies in all other districts of the United States and Canada.



Pat. Aug. 19, '13.

Guaranteed to outhold any anchor on the market, besides costing less than any other make.

Simple, safe and fool-proof. No driving, twisting or expanding to do, so there is no chance of burying the anchor unadjusted.

The Western Electric Co. has them in stock. Be sure and specify "Bierce Anchors" on your next requisition.

The Specialty Device Co.
CINCINNATI, OHIO



Real Telephone Satisfaction

is assured to the users of

Western Electric

No. 1317 type Telephones
the standard for magneto service.

There is satisfaction for the telephone company that buys—and satisfaction for the subscribers who use these telephones with their high-grade of transmission and superior signaling service.

The No. 1317 Telephone is for "Transmission First".

Western Electric Company
Chicago Indianapolis Cleveland
Milwaukee Detroit

"Beldenite"

TRADE MARK

Rubber Insulated Telephone Wires



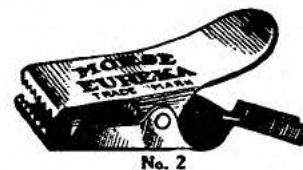
We make all kinds of Telephone Cords—Silk, Cotton, Beldensmel, Silkenamel and Cotenamel Magnet and Resistance Wires—Coil Windings—Cord Tips and Terminals.

CORRESPONDENCE INVITED.

BELDEN MANUFACTURING COMPANY
2318 South Western Avenue CHICAGO

Morse Eureka Testing Clips

Sure Grip
Every
Time



Price per 100
\$6.00
If Insulated
\$12.00

No. 2

Best and Lowest Price on the Market

WRITE FOR DISCOUNTS.

Manufactured by

FRANK W. MORSE

293 Congress Street

BOSTON, MASS.

ELECTRIC SOLDERING IRONS

PAY FOR THEMSELVES IN A FEW WEEKS,
IN THE TIME THEY SAVE.



APEX MULTIPLE-KARTRIDGE IRONS

Excel All Others

Not necessary to have several different Irons when one APEX answers the purpose of two others. It lowers cost of insurance.

Indorsed by National Board of Fire Underwriters.

Interchangeable TIPS, HEATING ELEMENTS, and protective non-corrosive Sleeve are some of the features which class the APEX as the Best.

Write for full description and FREE Trial.

APEX ELECTRIC M'FG COMPANY
1410-12 W. 59th St., CHICAGO, U. S. A.

Rust Proof



Special Wire Forms To Order

Poles

FROM THE
Stump
TO THE
Line

Largest Stocks
Finest Quality
Promptest Shipments
Yards from Maine
to Washington

**National Pole
Company**
Escanaba, Michigan

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

The telephone line
that lasts
and keeps down
transmission losses
is strung on



"Thomas Quality" Porcelain Insulators

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every Insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

Offices in all principal cities

UNIVERSAL RED-TOP DRIVE ANCHOR

The Light Construc-
tion Anchor with the
BIG value.

Made
from
High
Carbon
Steel
with
FLUKE
4 x 12
inches.



The
ONE
DOLLAR
Anchor.

Drives
EASY
Holds
Hard.

Universal Cable Grip Co.
SYRACUSE, N. Y.

NATIONAL

Double Tube Copper Connectors

are accurately made. They give less trouble and longer serv-
ice than other types.



National Signifies Quality in Connectors.

National Telephone Supply Company
8832 Superior Avenue CLEVELAND, OHIO

TELEPHONE B KEROSENE FURNACE



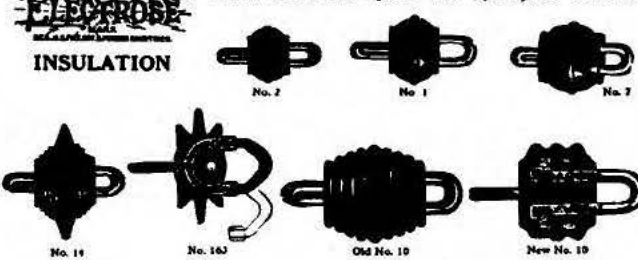
No furnace is
as much appreci-
ated by telephone
companies as one
illustrated here.
Tank made of
seamless drawn
steel, all joints
welded (NOT
SOLDERED)
which makes
strongest furna-
ce possible.

Fitted with
PATENTED
burner and pump
which are recog-
nized as the best
by all mechanics.
Trial will con-
vince.

Jobbers supply
at factory prices.
Catalog free for
the asking.

Tel. B Furnace
OTTO BERNZ, Newark, N. J.

INSULATORS 1,000 TO 1,000,000 VOLTS



LOUIS STEINBERGER'S PATENTS

ELECTROSE MFG. COMPANY
BROOKLYN, N. Y., AMERICA

ALSO FOR SALE BY

Western Electric Company

NEW YORK and BRANCHES

YOU'RE WASTING TIME If You Haven't Started Usin- FRANKEL'S TEST CLIPS

No peeling the wires. Perma-
nent, positive connection every
time and no damaged wires to
repair.



	Each
No. 2521	20c
Doz. lots	12½
100 "	11
500 "	10

Frankel Display Fixture Co.
Hudson and Vestry Sts.
NEW YORK CITY



The Standard for Rubber Insulation

WHEN YOU BUY

OKONITE

Insulated Wires and Cables

You don't just expect Good Service — YOU GET IT!

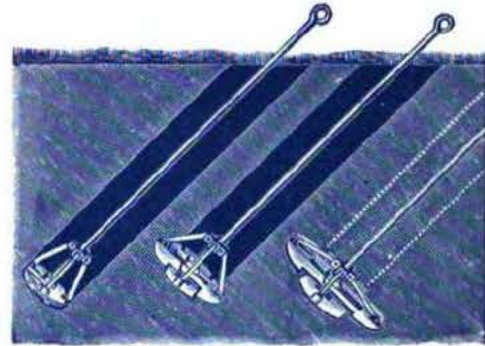
**OKONITE TAPE
MANSON TAPE
POTHEADS**

**The F. D. Lawrence Electric Co.
CINCINNATI**

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

**THE EVERSTICK ANCHOR CO.
ST. LOUIS, MO.**



1 2 3
Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

**The Pittsburgh Shovel
Company
PITTSBURGH, PA.**

Manufacturers of

**SHOVELS
SPADES
SCOOPS**

All Styles for Every Class of Work. Our High Grades Fully Warranted.

**Telegraph Shovels and Spoons
a Distinctive Specialty**

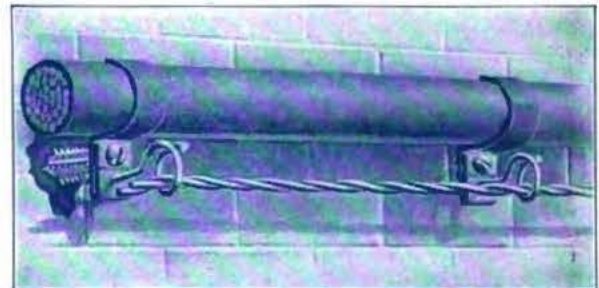
WRITE FOR PRICES

Suite 1832 Oliver Building, PITTSBURGH

"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"



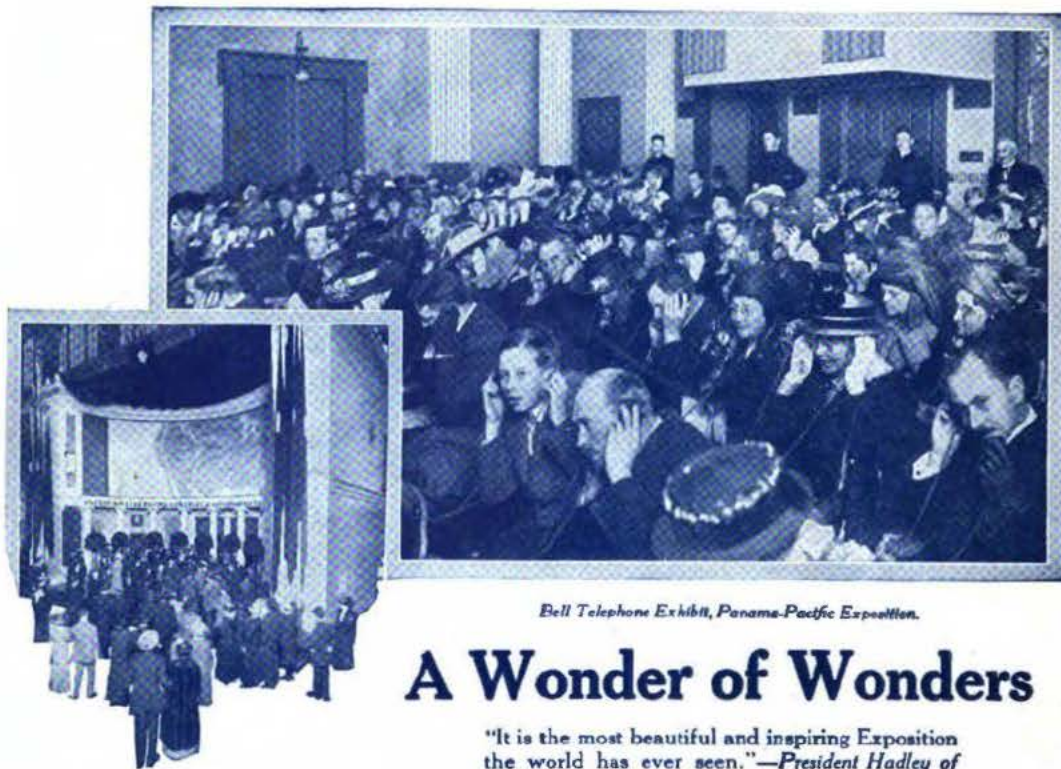
Method of attaching lead cable and parallel run of bridle wire with "LONG Cable Clamp. Both are securely fastened with one SAUT" attachment.

Diamond Expansion Bolt Co.

MANUFACTURERS OF
DIAMOND SPECIALTIES

90 West Street

NEW YORK



Bell Telephone Exhibit, Panama-Pacific Exposition.

A Wonder of Wonders

"It is the most beautiful and inspiring Exposition the world has ever seen."—President Hadley of Yale, in speaking of the Panama-Pacific Exposition.

EVERY American should feel it a duty as well as a privilege to visit the Panama-Pacific Exposition and view its never-equalled exhibits of achievements in Art, Science and Industry.

In all this assemblage of wonders, combining the highest accomplishments of creative genius and mechanical skill, there is none more wonderful than the exhibit of the Bell Telephone System.

Here, in a theatre de luxe, the welcome visitors sit at ease while the marvel of speech transmission is

pictorially revealed and told in story. They listen to talk in New York, three thousand miles away; they hear the roar of the surf on the far-off Atlantic Coast; they witness a demonstration of Transcontinental telephony which has been awarded the Grand Prize of Electrical Methods of Communication.

This Transcontinental Line has taken the thought, labor and ingenuity of some of the greatest minds in the scientific world. Yet it is but a small part of the more wonderful universal service of the Bell System, which makes possible instant communication between all the people of the country.



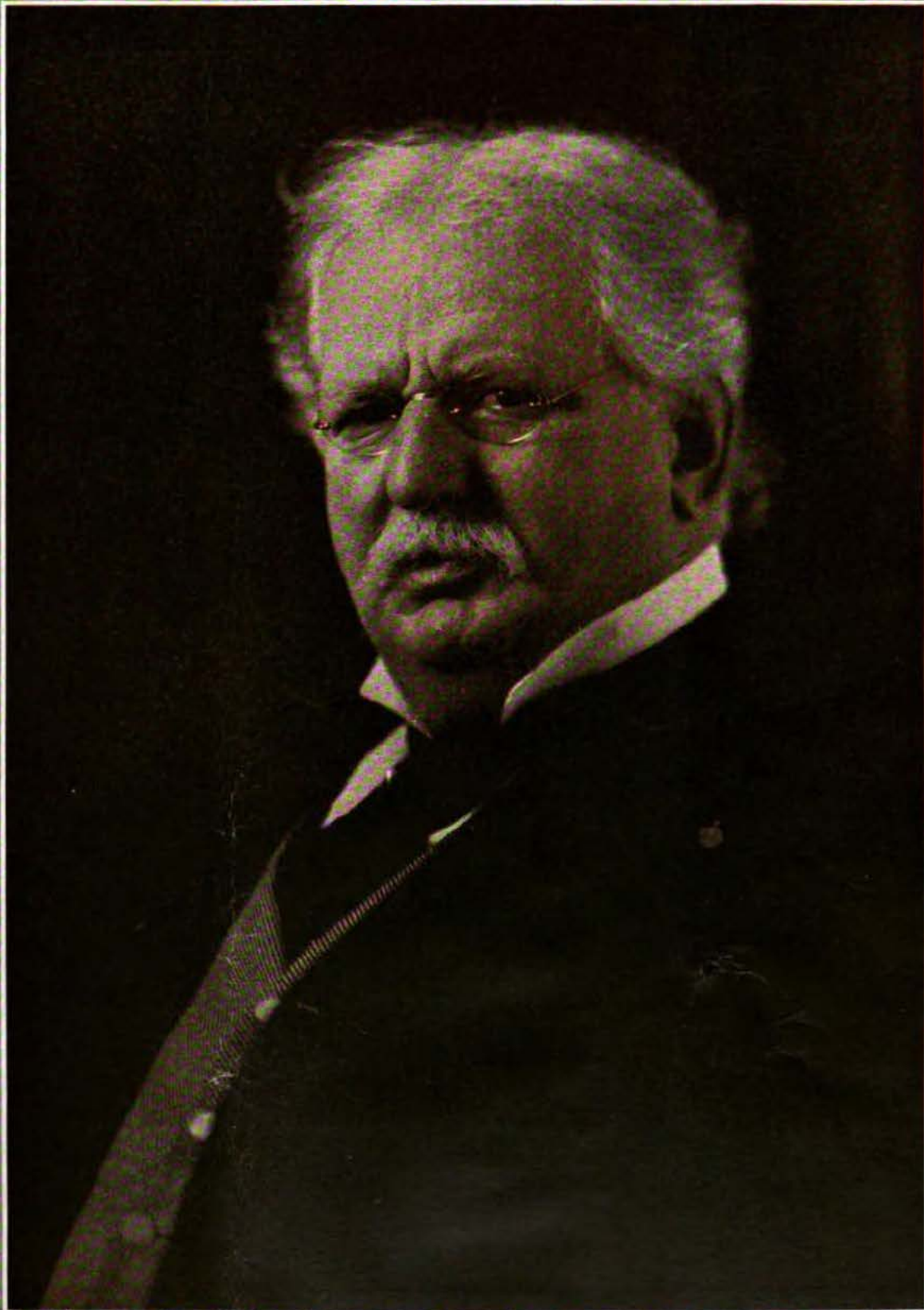
**AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES**

One Policy

One System

Universal Service

BELL TELEPHONE NEWS



THEODORE N. VAIL

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

NOVEMBER 1, 1915

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	572,453	264,455	836,908
INDIANA	96,319	209,371	305,690
OHIO	195,868	210,593	406,461
MICHIGAN	225,235	74,431	299,666
WISCONSIN	<u>155,163</u>	<u>137,271</u>	<u>292,434</u>
	1,245,038	896,121	2,141,159

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 5

CHICAGO, ILL., DECEMBER, 1915

Number 5

BELL TELEPHONE NEWS

Published Monthly by

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

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Issued by the PUBLICITY DEPARTMENT

AMORY T. IRWIN, Editor
BELL TELEPHONE BLDG. - CHICAGO, ILL.

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

Colonel Higginson's Tribute

COLONEL HENRY L. HIGGINSON, Boston's eminent financier, in a recent address on "Preparedness," paid a high tribute to the men whose genius has created the American Telephone and Telegraph Company.

"By and by this war will be a thing of the past, and then all the European nations will throw themselves with the greatest energy into industries, and will beat us out of the field unless we have prepared to meet them with every modern knowledge and every modern appliance.

"ON ONE POINT WE HAVE OUTSTRIPPED THE WORLD. SOME ABLE MEN HAVE BUILT UP WITH THE GREATEST CARE THE WONDERFUL SYSTEM OF THE AMERICAN TELEPHONE COMPANY, AND THEREBY ENRICHED THE WORLD. WE AMERICANS CAN DO THE SAME THING IN OTHER RESPECTS IF WE CHOOSE TO STUDY OUR LESSONS, PREPARE TO DO OUR BEST WORK AND INSURE OURSELVES AGAINST DISASTER.

"We may differ in our sense of national duty and honor, but we all value our homes and our women and children. Now that a sober mood is on us, let us think with care and with full comprehension of all our faults

and weaknesses and, having made our plans, let us act with decision. Let us urge quick and prompt action on the part of Congress.

"We are called a great nation. Let us prove our right to the name in every respect."

How It Works

The actual secret or secrets of the wireless telephone have not yet been made public. They have been imparted to the government, which is thereby in immediate possession of this important method of quick communication if it should be needed for the public defense. It is deemed fair to withhold the scientific details of the invention until the experimental stage is past.

What has been accomplished is, however, described in the *Telephone Review*, which says:

"The voice spoken into an ordinary telephone transmitter sets up vibrations in the electric current flowing over the line, which 'vary in intensity precisely as the air varies in density during the production of a sound,' and these vibrations traveling through the Bell wireless telephone apparatus at the sending station, set up the same vibrations in the tremendous electric currents sent out from the antenna of the radio tower, and these vibrations traveling upon the ether which envelops the earth, are transformed at the Bell wireless receiving stations into the identical sounds which created them."

A Good Will Offering

A most unique example of the trend of modern criticism is found in a little item of the month's news in Chicago.

Before the Monday Luncheon, which is a gathering of general office employes of the Chicago Telephone Company, one of the large musical houses of the city gave a special concert employing some of the best talent in the city. As stated in the program arranged by the music firm, the concert was given "in evidence of its good will toward the employes of the Chicago Telephone Company."

The telephone company, through

its employes, is steadily getting closer to the subscriber. Not only the telephone company but other public utilities and private business enterprises, large and small, are joining in the general effort, encouraged by broad-gauge commercial organizations, to clear up popular misconceptions and prejudices.

A memorable period in our national history was known as "The Era of Good Feeling." The amicable relations observable in business of every character give promise that another "era of good feeling" is at hand.

True Service

MR. J. EPPS BROWN, first vice president of the Southern Bell Telephone and Telegraph Company, in a recent issue of the *Southern Telephone News* has this to say about service:

"True service is possible only when the organization as a whole and each member as an individual goes about his daily work cheerfully; accords courteous and considerate treatment to fellow-worker and public alike; performs the disagreeable task with a smile; and meets every reasonable demand in a spirit of fairness, so that the company may be known of all men as a good citizen performing its duty efficiently and with proper consideration for the rights and welfare of the community.

"This is ideal service. It can be attained if each of us always bears in mind that the company's success depends upon us."

The Value of a "House Organ"

There is no better evidence of the value of a "house organ," or employes' publication, than the fact that such a publication is issued daily by the French government and read by the soldiers of the armies of the republic.

Winter Health Hint

Dress warmly, don't coddle yourself, bid defiance to Jack Frost and the chances are you will get through the winter without having to require the services of either the doctor or the undertaker.

A Story of Ten Million Telephone Books

How the Chicago Directory Has Been Continued in One Volume Notwithstanding the Marvelous Increase from 416. Telephones to 495,000 in Service.

By A. M. Ramsay, Directory Superintendent, Chicago Telephone Company.

Not many years ago the Telephone Directory was regarded with comparative indifference, the public accepting with little complaint whatever was distributed in the way of printed lists of telephone subscribers and paying but slight attention to its make-up, or the regularity of its editions. But to-day, and of late years, the telephone directory has assumed a place of considerable importance. It is consulted more extensively and published more frequently than any other book of reference. Daily we receive evidence of its use as a city directory, street, financial, credit, and solicitors' guide, mailing list, etc., eloquent testimony of its wide range of usefulness.

The telephone is now and will become more and more of a necessity in modern progress. Gradually, at first, and of late years with unparalleled rapidity, it has become an inseparable part of every branch of business, professional and social life. Methods have been greatly changed, and now, when possible, the "telephone way" is used in preference to all others.

A TELEPHONE WITHOUT A DIRECTORY IS LIKE A SHIP WITHOUT A RUDDER. It, therefore, requires no special insight to understand the change in the attitude of the public from its relative indifference towards the telephone directory to an actively critical attitude, and now demanding with ever increasing insistence a directory which shall be accurate and useful in its make-up and regular in its periods of publication. As the use of the telephone advances the trouble caused by errors increases, the individual subscriber naturally and properly demanding that his name be accurately published.

With a thorough appreciation of the public attitude we now turn to the position taken by the telephone company towards the directory. Again we find at first but slight attention paid to the directory, but as time passed a rapidly awakening sense of its importance and the assumption of an attitude as critical as that taken by the public becomes



A. M. RAMSAY.

necessary. The need of regular, up-to-date directories was strikingly apparent to the telephone company not only on account

of the desire to furnish reliable information to its subscribers and patrons, but to increase the efficiency of its own operative forces. An imperfect directory is the cause of wrong calls, loss of time at the switchboard, and also to the subscribers. An accurate directory, on the other hand, eliminates these faults, expedites the business of the community and company, and becomes a helpful adjunct to the service. Therefore, the company must demand a directory as complete and accurate as intelligent study, careful observation of rules, the best apparatus and the most painstaking care can accomplish.

The tendency of our population to concentrate has brought many problems to the large cities. Many of these problems have been and are now being solved as they arise, but the tendency towards increased congestion has made it necessary to find solutions other than those which were considered adequate in the past. We have become so accustomed to the telephone directory that we rarely consider it as a problem. Like the daily necessities of life, we only realize how dependent we are upon it when missing, or impossible to secure another copy.

In 1899 the writer, while in the employ of another company in a city where the use of telephone service was increasing rapidly, was obliged to make an investigation of unsatisfactory directory conditions. This investigation brought to light out-of-date methods that made it almost impossible to produce an accurate directory and place it in the hands of the telephone subscribers in less than a month, or six weeks. A system was soon devised and put into operation whereby accurate information was placed in the proper hands, including style cards and other helps which made cooperation possible between employes of the company and the printers.

At that time most of the telephone directories in the country were printed direct from type. (Each letter, figure or other character consisted of

Type Used in Chicago Directory 1878 to 1913, Inclusive

1878			
210	4	BARNHART BROS. & SPINDLER,	146-5th av.
165	2	BAUER JULIUS & CO.,	263 Wabash av.
1886			
242		Barnhart Bros. & Spindler	Type Foundry..... 115-5th av.
362		Bauer Julius & Co.	Pianos 263 Wabash av.
1892			
Main-242		Barnhart Bros. & Spindler	Type Foundry 183 Monroe
Main-8528		Bauer Julius & Co.	Pianos 228 Wabash av.
1900			
Main-242		Barnhart Bros. & Spindler	Type Foundry 183 Monroe
Harrison-2412		Bauer Julius & Co.	Pianos 224 Wabash av.
1901			
Main-242		Barnhart Bros. & Spindler	Type Foundry 183 Monroe
Harrison-2412		Bauer Julius & Co.	Pianos 250 Wabash av.
1906			
Harrison	1721	Barnhart Bros & Spindler Retail	715 S Dearborn
Harrison	2412	Bauer Julius & Co Pianos	305 S Wabash
1913			
Barnhart Bros & Spindler Retail			
715 S Dearborn		Harrison	1721
Bauer Julius & Co Pianos	305 Wabash	Harrison	2412

The gradual decrease in the type size explains why the Chicago directory can still be issued in a single volume. It will be noted that the 1913 type (which is that used at present) is easily readable, though small.

a separate piece of metal and set by hand, one letter, figure, or character at a time.)

A complete assortment of type of any one particular size and style is called a "font." The individual type is a piece of metal about one inch long with a letter, punctuation mark or other symbol, cut in relief on one end. Fonts are arranged in pairs of "cases," a "lower" and an "upper," the former (lower) holding the small letters, figures, c o m m a s and points, spaces (short metal types without letter faces, which are used to separate the words) "quads," etc., while the upper case holds the capitals, small capitals, the little used letters, etc. This is how the phrases, "caps" and "lower case" originated.

In addition to having to set these directories by hand, all type had to be redistributed unless it was held for future use. In the larger cities all type was kept standing and corrections made from time to time for succeeding issues.

Because of the ease with which compositors could pull out one letter or figure in a subscriber's listing and insert another, the majority of printers were thoroughly convinced that the Linotype method advocated by the writer would be extravagant.

In 1900 a few telephone companies were trying to have their directories printed from Linotype bars or slugs. The difficulty with this method was that the printers, at that time, could not devise a practical way to produce a complete insertion the

full width of the page, claiming that it was impossible to set subscribers' listings on the Linotype machine and make the necessary alignments, or "justifications" so that each subscriber's telephone prefix, number and name could be placed immediately under each other, as now done. In an effort to accomplish this, the subscriber's listings were set on two slugs where the insertion could be placed in one line, one slug containing the prefix number and subscriber's name; the other the character of business and the address. In a few instances the first slug only contained the telephone pre-

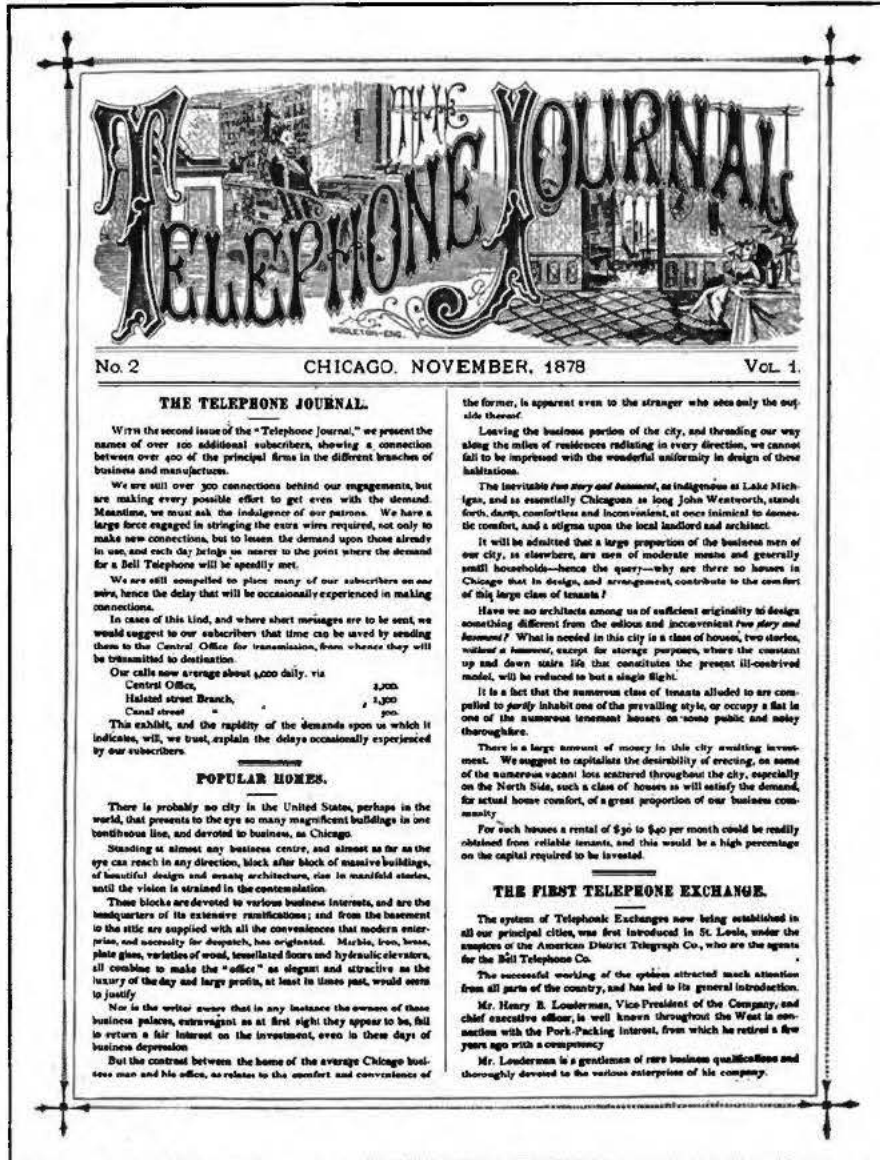
fix and number, and the other slug the subscriber's name, character of business, and address. This arrangement proved unsatisfactory because in making changes and corrections only half a line would be taken out, which frequently resulted in all the other lines on that side of the page dropping down and causing more serious errors than with hand composition. Every effort was made to remedy these conditions. After

only one directory was printed in this manner. The writer, not discouraged, continued to agitate the question with the manufacturers of the Linotype machine, by correspondence, and finally visited the president of the Mergenthaler Company in 1901. This visit was partially successful. The president acknowledged the plan was feasible, but not with the style of type I insisted upon, a black-faced type for the telephone, number and name, and a light-faced type for the character of business and the address. This style of type, set by hand, was first introduced by the writer in 1899 and was very popular with the people using the directories because the important parts of the insertions—the telephone number and name—were very plain and easily read.

In 1901 a telephone official, now the operating head of one of the largest group of companies, remarked to the writer: "The telephone directory in the large cities is a big problem." I replied that I thought the solution comparatively easy for at least another ten years after which it might be a serious (if not impossible task) for any company having more than a quarter of a million telephones in service to place before its subscribers a directory in one volume containing the names of all its subscribers. How this problem was solved for the Chicago Company may be of interest to the readers of the BELL TELEPHONE NEWS.

We will begin the account of the evolution of the "Chicago and Adjoining Counties

Telephone Directory" with a partial description of the "Telephone Journal" of 1878. This interesting relic of early days was presented to John M. Clark, president of the Chicago Telephone Company on July 15, 1900, by Isabella S. Curry. An interesting quotation from her letter follows: "This Journal is one of the second issue published by the Company and contains a complete list of its subscribers at date of publication November, 1878. Having entire charge of the contracts at that time this list was compiled by myself and, I think I can safely say, is the only one of the early date di-



TITLE PAGE OF OLDEST CHICAGO TELEPHONE DIRECTORY KNOWN TO BE IN EXISTENCE. (ABOUT ONE-HALF ACTUAL SIZE.)

much work and strenuous efforts to overcome the prejudices of the printers, a complete subscribers' listing was produced on the Linotype machine by placing certain necessary spaces to align properly the telephone prefix, number and name, so that the first letter of each name would be directly under the first letter of the insertion above. This was the first completely satisfactory subscribers' listing ever produced on one piece of metal. The expense was in excess of the cost of hand composition and the printers were so sure the expense could not be reduced by the use of the Linotype that

rectories in existence; having retained this as a keepsake of my business life and association with so great an enterprise as the telephone was now sure to become."

The apology of the company for delayed installations and the statement of the telephone traffic in the first article entitled "The Telephone Journal" is an indication that the Chicago public appreciated the telephone from its first introduction. The list of subscribers, arranged in alphabetical sequence, covered the fourth, fifth, sixth, and part of the seventh pages. The names were duplicated on the eighth, ninth, tenth, eleventh and twelfth pages according to business classifications. It may be of interest to note that of the 416 subscribers' listings, fifty-two have appeared in every directory since. This is a good illustration of the stability of Chicago business houses. The following are the names:

- Adams Express Company.
- Baltimore and Ohio Railway Company.
- Barnhart Brothers and Spindler.
- Bauer, Julius, and Company.
- Baeder, Adamson and Company.
- Blomgren Brothers and Company.
- Brown, George E., and Company.
- Brink's Express.
- Bradner, Smith and Company.
- Bremner, D. F. (2).
- Buck and Rayner (2).
- Cameron-Amberg and Company.
- Chicago Stove Works.
- Chicago Clearing House.
- Chicago Malleable Iron Company.
- Chicago, Milwaukee and St. Paul Railroad Company.
- Chicago and Alton Railroad (2).
- Chicago, Burlington and Quincy, Local Freight.
- Chicago and Eastern Illinois Railroad.
- Chicago White Lead and Oil Company.
- Chicago Daily News.
- Clinton Wire Cloth Company.
- Cook, Ezra A.
- Corn Exchange National Bank.
- Fuller-Warren and Company (2).
- Gross, J. P., and Company.
- Havemeyer, William A., and Company.

- Hoosac Tunnel Line.
- Illinois Central Railroad.
- Kranz, John.
- Libby, McNeill and Libby.
- Lyon and Healy.
- MacVeagh, Franklin, and Company.
- McNeill and Higgins.
- Menasha Wooden Ware Company.
- Montgomery Ward and Company.

the amount of paper needed to print 500 copies of this list was approximately twenty pounds. If the same weight paper had been used in printing the Chicago and Adjoining Counties Directory for October, 1915, the amount of paper required would have weighed 3,750,600 pounds.

The company evidently made good its promise to hasten installations and the demand for service increased steadily. The March, 1879, directory contained 950 subscribers' listings, an increase of over 100 per cent. in six months. This directory for March, 1879, was the first list of telephone subscribers ever printed in book form (size five by seven), containing forty listings per page. A copy is now in the possession of President B. E. Sunny, who was superintendent of the Bell Telephone Company at that time. The first complete page of "Instructions to Subscribers" ever printed was published in the June, 1879, directory, a reproduction of which will be found on page 6.

The succeeding issues of the Chicago directory continued in the same style until February, 1883, at which time the size was increased from five by seven to six by nine inches. The style of type was changed from all capitals to capitals and small letters. This directory had an average of forty-nine listings per page, with a total of 3,479 listings.

The February, 1892, issue was the first directory to contain telephone prefixes. Prior to that time exchange offices were numbered and the number shown in the telephone directory included the number of the exchange office. In addition to assigning prefixes as part of the telephone subscriber's listings the telephone numbers were changed from the light-faced type to a black-faced type.

The February, 1895, directory was increased in size from six by nine to six and one fourth by ten because a wider column was needed to care for new prefixes requiring more space than previously assigned. This issue contained 242 pages with an average of fifty-four names to a

BELL TELEPHONE COMPANY,

— PROPRIETORS —

Chicago Telephonic Exchange.

(Licensed under Alex. Graham Bell's Patents)

CENTRAL OFFICE: No. 125 LA SALLE STREET.

OPEN DAY AND NIGHT.

TO CALL THE CENTRAL OFFICE, turn the crank on the bell strongly, at the same time pressing upwards the knob on the bottom. The call will be answered by the ringing of your bell. Then turn the switch to the right hand button and use your telephone.

When you are called from the Central Office, answer by ringing your bell the same number of times as your call, *i. e.*, if your call is three, answer three; then turn the switch to the right and use your telephone. Speak clearly and distinctly, with your lips gently touching the telephone. When you have finished, turn the switch back to the left and hang the telephone on the hook provided on the bell. In requesting connections with other subscribers, first give the name of your own firm, then the name and location of parties wanted. While waiting for the connection to be made, turn your switch to the left, and as soon as the parties desired are connected on your wire the operator at Central Office will ring your bell once as a signal that the connections are made.

When you have finished, hang the telephone on the designated hook, turn the switch to the left and ring the bell once as a signal for the Central Office to disconnect the wires.

Subscribers are requested to report promptly to this office any trouble with wires or instruments.

Messengers Furnished Promptly from the Central Office.

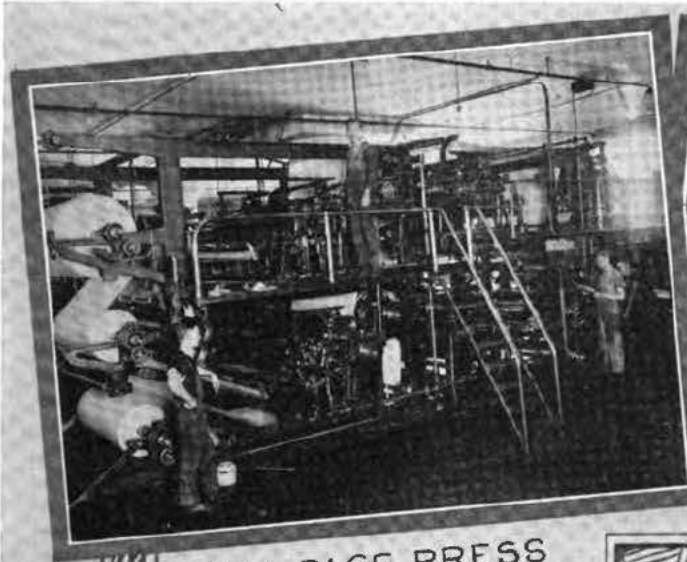
November 1, 1878. H. H. ELDRÉD, GENERAL MANAGER.

LIST OF SUBSCRIBERS.

WIRE CALL.	—Continued—
204 4 ABBOTT, A. A., Beach and Seber sts.	181 2 BELL TELEPHONE CO. BRANCH OFFICE, N. Clark st.
205 2 ADAMS EXPRESS CO., 53 Madison st.	182 2 BENT, GEO. F., St. Jackson st.
2 2 ALLERTON PACKING CO., 93 Washington st.	179 2 BENNETT, HERBERT E., 145 Washington st.
197 4 ANDERSON, J. A., 45 E. Indiana st.	201 2 BIGLOW BROS., Fish and 25th sts.
715 2 ANDERSON, F. A., Jackson st., near Canal st.	131 2 BICKFORD, KNOX & CO., 120 So. Water st.
114 2 ARMSTRONG & CO., 126 Lake st.	207 2 BLAKE, WALKER & CO., 24-26 N. Clinton st.
18 2 ARMSBY, J. K., 12-14 River st.	209 4 BLATCHFORD, E. W. & CO., Clinton and Fulton.
18 2 ARNOLD, CHAR. L., & CO., 28 S. Water st.	200 2 BLOMGREN BROS., 150-164 S. Clark st.
	186 2 BLOCH & ARNSTEIN, 176-178 Adams st.
	112 2 BOWEN, H. E., 85 E. Market st.
	155 2 BOONE, Dr. L. D., 121 La Salle st.
	25 2 BOOTH, A., 63 Lake st.
	39 2 BOWEN & LESTER, 57 Lake st.
4 2 BALTIMORE & OHIO, 83 Clark st.	169 4 BRACHVOGEL, CHAS., 261 Wabash ave.
110 4 BARNHARDT, BROS. & SPINDLER, 126 5th ave.	130 2 BROWN, GEO. E. & CO., 12 La Salle st.
146 2 BAUER, JULIUS & CO., 263-265 Wabash ave.	192 2 BROWN, S. A. & CO., Room 7, 125 So. Water st.
22 2 BARRETT, M. L., 38 Dearborn st.	202 2 BRADSHAW, F. M., 280 Centre ave.
89 4 BARRETT, ARNOLD & KIMBALL, 136 Lake st.	18 2 BRADSHAW & WAIT, 2-22 River st.
82 2 BARRETT, ARNOLD & KIMBALL, Gales Island.	21 2 BRINTNALL, LAMB & CO., 78-80 Lake st.
126 2 BACH, E., Ashland ave. and 25th st.	41 4 BROOKS & HEIMBA, 35-37 Michigan ave.
99 2 BAEDER, ADAMSON & CO., 116 Lake st.	53 2 BRYANT & STRATTON, 77-81 State st.
243 2 BATESON, ALEXANDER, 22d and Lumber sts.	89 2 BRUNSWICK, J. M. BALKE & CO., 47-49 State st.
152 2 BAKER & CO., 184 S. Clark st.	68 2 BRUNSWICK, J. M. BALKE & CO., Rush, cor. Kinzie.
274 4 BABBETT, M. B., 103 So. Canal st.	58 2 BRINK'S EXPRESS, 39 Randolph st.
313 2 BRIDLER, J. & BROS., Loomis and 22d sts.	124 2 BRADNER SMITH & CO., 119 Monroe st.
BELL TELEPHONE CO. GENERAL OFFICE, 125 La Salle st.	
BELL TELEPHONE CO. BRANCH OFFICE, Halsted st.	
BELL TELEPHONE CO. BRANCH OFFICE, Canal st.	

FIRST PAGE OF LISTINGS IN CHICAGO TELEPHONE DIRECTORY OF 1878. (ABOUT ONE-HALF ACTUAL SIZE.)

- Oconto Company.
 - Pictorial Printing Company.
 - Pullman Palace Car Company.
 - Rand, McNally and Company.
 - Scovill Manufacturing Company.
 - Seipp Brewing Company.
 - Sprague, Warner and Company.
 - Stein, Hirsch and Company.
 - Star Union Line.
 - Standard Oil Company.
 - Western News Company.
 - Wisdom and Company.
- Considering that part of the "Telephone Journal" containing subscriber's listing arranged according to alphabetical sequence, which required three and one-half pages,



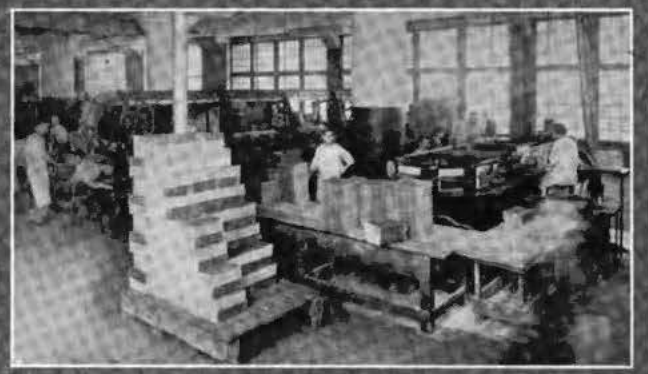
144-PAGE PRESS



PRESS ROOM SHOWING SMALLER PRESSES



GATHERING MACHINE



PATENT BINDING MACHINES



TRIMMING MACHINE



LOADING PLATFORMS

VIEWS SHOWING SOME OF THE MANY PROCESSES OF MANUFACTURING CHICAGO TELEPHONE DIRECTORIES. THE MAKING OF AN ISSUE OF THIS BOOK IS ONE OF THE BIGGEST JOBS OF PRINTING AND BOOKBINDING WHICH IS DONE IN THE WORLD TODAY.

page, with a total of 12,068 subscribers' listings.

The June, 1896, directory contained an announcement of the extension of the long-distance line to St. Louis.

The July, 1899, issue was the first directory in which the city and suburban listings were combined in one alphabetical sequence. They have continued so ever since.

By June, 1900, the alphabetical section had increased to 575 pages, with a total of 26,450 subscribers' listings.

In re-setting the directory for June, 1901, a black-faced type was used for the telephone number and name. This type was first introduced by the writer in the telephone directories of another company in 1899.

The next step was to improve the method of furnishing additions and changes between directory periods to information operators. The writer had had an ideal for a number of years which was the setting of the subscriber's name in type on a linotype machine in duplicate as soon as the contract was signed or the service installed, one to be used in printing promptly in some manner the name for the use of the information operators, the other to be held for the next directory. This plan could not be put into use because the linotype company at that time could not make matrices of the type being used in the directory, so only part of the plan was introduced. We discontinued the use of the interleaved directories and furnished instead a complete list containing in a cumulative alphabetical arrangement all changes and additions since the last directory up to noon of the previous day. This list was set on a linotype machine, printed at night, and mailed not later than 2 a. m. so as to reach each exchange information position at 8 a. m. daily.

Prior to the issue of October, 1901, a systematic plan was formulated which included forms for directory listings, a "style card" containing an intelligible list of abbrevia-

tions and other instructions to enable the company's employes and the printer to cooperate in producing uniform listings for all subscribers in a more condensed form without detracting from the value of the listing. By these methods, in the October,

from a two-column to a three-column book (no change in style of type) thus reducing the number of pages from 403 to 240. This directory contained 63,840 listings.

The issue of June, 1906, was the first directory produced from plates made from linotype slugs. In 1913, after a thorough study of different type faces, a special face was designed by hand which would enable us to place four columns on a page. The Linotype company made matrices from our hand-cut samples and the June, 1913, issue of the Chicago and Adjoining Counties Directory was the first directory with *four columns* to a page ever produced by any company. By this change the number of subscribers' names to the page was increased from 345 to 458, reducing the number of pages from 945 to 749. In this directory a new page index was introduced. By the use of these index names a subscriber can almost invariably open the directory at the page on which the name desired appears. The index name above the first column of the left-hand page and the name above the last column on the right-hand page are the first and last names on the two pages which contain nearly 1,000 listings.

When the linotype was first invented it was not regarded as a practical invention by printers generally, but as one of those many complicated, theoretical, but impractical contrivances with which the Patent Office has to deal. Its history, however, has been unique. It is practically the product of the brain of a single man, a watch-

maker and inventor. Otto Mergenthaler was a genius; he created one of the wonders of the world. The linotype machine was finally exploited under the patronage of a syndicate of newspaper men and more than a million dollars was spent on it before any practical results were obtained.

Mergenthaler's struggles remind us of the struggles of Dr. Alexander Graham Bell and the pioneers who worked with him in perfecting the telephone. To-day the lino-

BELL TELEPHONE COMPANY,

OF ILLINOIS.

INSTRUCTIONS TO SUBSCRIBERS.

FIRST.—To call the exchange office to which your wire runs—push up the knob underneath the call bell—hold it up while you give *one* or *two* turns to the crank (which is enough). If everything is right your own bell will ring, too.

SECOND.—The exchange office will answer by a short ring at your bell. Then state your name and that of the party you want; unhooking telephone while you talk. Hang up your telephone, and wait till notified by long ring that your party is being rung up. If he is in his office and answers the call, you will find him at other end of the line at once. If he does not answer the first ring, the exchange operator will call him again.

When through talking, *hang up your telephone* and give one short ring for disconnection. This ring should always be given by the party asking for connection.

NOTE.—Parties having a switch on their bell boxes instead of a hook—must remember to turn the switch to the *right* when talking, at all other times *invariably* to the left.

A ticket is made at exchange office for each connection asked for. Unless connection is delayed over ten minutes, do not repeat the call when your connection is not made instantly—because it simply piles up more than one ticket for but one connection and creates confusion.

Subscribers are particularly requested to mail written notice to the central office, when instruments do not work—beside notifying us over the wires—in order to insure prompt attention.

B. E. SUNNY,
Superintendent.
June 1, 1879

C. N. FAY,
General Manager.

PAGE OF INSTRUCTIONS FROM CHICAGO TELEPHONE DIRECTORY OF 1879.
(ACTUAL SIZE.)

1901, directory, while no change was made in the style of type, a page with two columns was introduced reducing the number of pages from 460 to 374. The October issue contained 7,000 more subscribers' listings than the June issue.

In 1902, because of the constantly increasing demand for service, it was decided to issue directories quarterly for a time. The size of the directory increased rapidly and the September, 1902, issue was changed

type, like the telephone, stands as a monument to human ingenuity and patience, ranking in importance with the rotary web perfecting press, and is probably the most ingenious piece of practical mechanism in existence.

A few of the many interesting and necessary details in the production of the current directory (October, 1915) follow:

The manuscript copy for the October, 1915, issue contained 3,587 pages and was sent to the printer in six days. The first page proof was received in three days, and the first press began to run in six days, the

the jaw is mounted. The product is then transferred to a delivery cylinder where it is slit into three sections of forty-eight pages each, carried down an inclined table by means of trolleys, folded to page size and delivered in three separate packer boxes.

Automatic Gathering Machine.

The signatures are placed in the gathering machine to be collated. This gathering machine consists of a series of boxes, each box containing the separate signatures as they come off the press. By mechanism one signature is withdrawn at a time from the bottom of these boxes and

chine. This machine consists of a traveling chain belt. Four books are laid upon this belt in a pile. This belt brings the book under jaws which hold it tightly and pass it between two parallel knives, which trim off the top and bottom and, further on, under a knife which trims off the front. The books are then ready for delivery.

In addition to the machinery described above, the following machines were also used: Ten duplex matrix linotype machines; seven rotary presses—two printing thirty-two pages, four printing sixty-four



DELIVERY OF DIRECTORIES IN BUSINESS DISTRICTS.

first complete book was received in twenty-two and one-half days after the first page of manuscript copy was sent to the printer. In the October, 1915, issue there were 117,117 additions, changes and erasures.

Some of the special machines used for the work were a 144-page press, the largest commercial press in the world; an automatic gathering machine, seventy-eight feet long; automating binding machine thirty-five feet long, and automatic cutters.

144 Page Press.

There are two complete sets of cylinders printing from two rolls of paper fifty-six and one-half inches wide. The press delivers at the rate of 18,000 forty-eight page signatures per hour. If this product were delivered in single pages it would produce a mile and a quarter of paper a minute; a twenty-four-hour run on this press with a strip of paper would reach from New York to Denver. The press consumes almost two carloads of paper every twenty-four hours. After being printed the paper runs into the folding part of the machine where a flexible knife mounted in a collecting cylinder makes a cross fold by means of a jaw, transferring the collection to a cylinder in which

placed upon a traveling belt. As this belt travels along, a signature is dropped from each succeeding box until at the end of the machine a complete set of signatures has been gathered into a book. A set of calipers on each box automatically stops the machine should no signature or more than one signature at a time be dropped.

Automatic Binding Machine.

These gathered books are then taken to a patent binding machine for binding and covering. This process is virtually a tabbing process, done in such a manner that the book may withstand the hardest kind of usage without the leaves tearing out. The book is dropped into a traveling jaw. The backs are cut off so that each individual leaf is separate from the other. The back is then roughened, passed over rolls containing a composition of glue and other materials. The covers are next pressed on, and the directory is delivered bound in such a manner that it opens up as flat as a thread-sewed book.

Automatic Cutting Machine.

After allowing the books to set and dry, they are put into an automatic cutting ma-

chine. This machine consists of a traveling chain belt. Four books are laid upon this belt in a pile. This belt brings the book under jaws which hold it tightly and pass it between two parallel knives, which trim off the top and bottom and, further on, under a knife which trims off the front. The books are then ready for delivery.

The material used consists of 1,537,000 pounds of paper; 19,400 pounds of ink; 4,750 pounds of glue; 1,650 pounds of glycerine; 500 pounds of sugar; 325 pounds of salt; 9,250 yards, thirty-six inches wide, of super (cloth for binding).

Twenty-seven different steps are necessary to complete the directory, 425 people were employed in manufacturing the October, 1915, issue of 470,000 copies and 45,000 feet of floor space was used.

The delivery of the directories is generally completed in about ten days, depending upon the weather. Approximately 44,000 directories are delivered daily (ninety directories every minute). All records were broken recently when 50,003 directories were delivered in one day. The delivery forces consist of twenty-six men sorting cards into street sequence, sixteen trucks "planting" directories in various parts of the city prior to beginning delivery to subscribers, twenty-four trucks with twenty-four foremen, and 289 delivery men delivering new directories to subscribers and

collecting about two carloads of old directories daily.

The delivery of the October issue was completed on November 19th. The number of directories manufactured and delivered from October, 1901, to October, 1915, exceeds ten million.

That the Directory for Chicago and Adjoining Counties has met the requirements of both the public and the company is best evidenced by the many advances in its make-up and appearance. This increased efficiency was only accomplished by hard work and careful studies.

to a ream, twenty-five by thirty-eight) is the lightest weight paper made and used in the manufacture of any similar book.

Plans are being formulated up to 1920. The task seems big now.

What will it be in 1950?

Die to Live

It takes a Middle West or Far West town to do things dramatically. Take Chanute, Kan., as an example. Chanute is in the oil strip of the state. The sum and substance of the story about Chanute is that in order to make the town live its citi-

The work of both, however, has had an important bearing upon the more theoretical and physical aspects of electrical science, and it is gratifying to find two practical American men of genius carrying off the award in a scientific field.

The recognition of the researches of these inventors comes rather late but is none the less welcome. The work upon which the reputation of each is principally based was done many years ago, but in making the Nobel awards, consideration is given not merely to the attainments of those under consideration during the past year, but to



DELIVERY OF DIRECTORIES IN RESIDENTIAL DISTRICTS.

In 1900 one directory page was required for every eighty-six telephones in service. In 1915, one directory page was required for every 540 telephones in service. This increase in the number of listings per page has made it possible to keep down the size of the book so that the increase in number of pages has been only sixty-three per cent., while the net increase in the number of telephones in service during the same period (fifteen years) has been fourteen hundred per cent.

We have succeeded in keeping abreast of this marvelous telephone development of the past, receiving practically no adverse criticism from the public. Special faces of type have been designed and cut, and new machinery invented and constructed to meet the exacting requirements of our directory ideals. As a result we have produced at a lower cost per copy than the company paid for its directories in 1901, the largest telephone directory in existence, containing more subscribers' listings (approximately 418,000) in one volume than are contained in any other telephone directory in the world. The paper used (twenty-five pounds

zens must die. A paradox? Yes. But figures will explain.

The town has a municipal water works, a municipal electric plant, a municipal gas plant, and a municipal cemetery. The finance committee recently completed footing up its accounts, and found that for the three months ended June 30th there was a deficit in every department except in the cemetery. That was ahead. It had made a profit.

The report does not say so, but there is only one logical conclusion. At the rate at which the town has been going the only way for it to break even is for its citizens to die and be buried in the municipal cemetery.—*Richmond Times-Dispatch.*

Nobel Prizes Awarded to America

The first press dispatches stating that the Nobel prize in physics for the year 1915 has been awarded to two American investigators has been confirmed by the official announcement. The award has been made to Thomas A. Edison and Nikola Tesla, both of whom are best known for their inventions in the practical electrical field.

the total accomplishments of their entire lives.

Dr. Edison's name is probably best known in connection with the incandescent lamp, the phonograph and the storage battery, but his investigations have covered a much wider field and even the inclusion of his telegraph inventions and other technical applications does not exhaust the field of his accomplishment. A number of principles which are of importance in physics were first demonstrated by him, and the variety and extent of his work are evidenced by the fact that he has received patents upon more than nine hundred inventions.

These include in their subject matter the carbon telephone transmitter, the kinoscope and kinetophone, the microtasimeter, the aerophone, the mimeograph and poured concrete houses. His work has been recognized in various ways. He is a commander of the Legion of Honor and has been awarded the Rathenau and Adelskiold medals, as well as an honorary degree of Doctor of Philosophy.—*Electrical Review and Western Electrician.*



Christmas 1915

TO ALL EMPLOYEES:

Of all our festivals, Christmas is the one that never loses its power to warm and strengthen feelings of friendliness and good-fellowship. It is above all else, the holiday of the family,—the time when ties of kinship seem strongest, and we take most interest in one another's accomplishments and well-being.

We of the big Bell family have unusual occasion this year for mutual congratulations. The applause and commendation of the whole world have come to us for the achievements of our Engineers in sending speech across the Continent, and for the remarkable development in wireless telephony.

We have escaped the withering touch of the war storm.

Our affairs have gone on serenely and with full employment for all of our people.

We have been able to continue our construction plans including the addition of comfortable telephone buildings where the working hours may be spent agreeably and healthfully.

In the Bell Telephone family, we have at least three degrees of relationship,—with our subscribers, with our stockholders, and with our fellow employees.

The first is one of service, for our subscribers depend upon us in every activity of daily life. Our lines are both the warp and woof in the complex web of commercial and social existence. We owe to our subscribers the best that is in us.

The second is one of trust. Our stockholders have placed their property in our hands, for us to use to the mutual advantage of all three groups of relations.

The third relationship is more intimate and personal,—nearer that of the real family. There is a little of friendly prejudice in it, but the more it prevades our group the more pleasure we find in working shoulder to shoulder and the better our work is done.

In that spirit, I give you my cordial good wishes for a "Merry Christmas and a Happy New Year."

Very sincerely,

President



Chicago Telephone "Rookies" Return from Training Camp Missionaries of National Preparedness

Men Thoroughly Enjoyed Their Month's Outing and Are Convinced That a Soldier Cannot Be Made in a Day.

"The word 'soldiering' to designate loafing and idleness, is a libel upon real military life and work."

This is the unanimous opinion of the fourteen Chicago telephone men who spent four weeks at the Citizens' Training Camp at Fort Sheridan, Ill., during September and October.

To these men, although their stay at camp was brief and the knowledge gained was necessarily limited, "soldiering" has taken on a new meaning—soldiering even in time of peace. The camp for this year is over and the men have returned to their ordinary occupations in civil life. They received a warm welcome from their associates. The men, as a unit, regard their four weeks military training as one of the most pleasant, interesting and instructive episodes of their lives.

The men came back from the camp impressed with the value of discipline, not only as applied to the life of the soldier, but in all walks of life. The necessity of preparedness also has been proved and the men now understand the fallacy of the claim that an army of citizen soldiers can be raised

between sunrise and sunset. They are missionaries of preparedness and their influence in this direction will be one of the most important, if not actually the most valuable result of their four weeks of strenuous efforts to master the rudiments of the art of warfare.

The story of their stay in camp has been told in detail in reports made by the fourteen men and their impressions and opinions placed on record. Not one of them regrets his experience and several express the hope that they may be permitted to take a second course of training next year if another camp is opened. The names of the fourteen telephone "rookies" follow:

W. G. Hendron, commercial department.
A. A. Langlund, construction department.
Brain J. French, frameman, Humboldt office.
D. E. Moore, state engineering department.

E. L. Marmaduke, state engineering department.

C. D. Hoover, state engineering department.

W. H. Inbusch, state engineering department.

Harry J. McGrew, maintenance department.

Frank M. Little, maintenance department.

Charles L. Poggi, Jr., installation department.

L. B. Boylan, maintenance department.

tain John E. Stephens, Third Field Artillery.

Infantry and General Training—Captain Raymond Sheldon, Eighteenth Infantry.

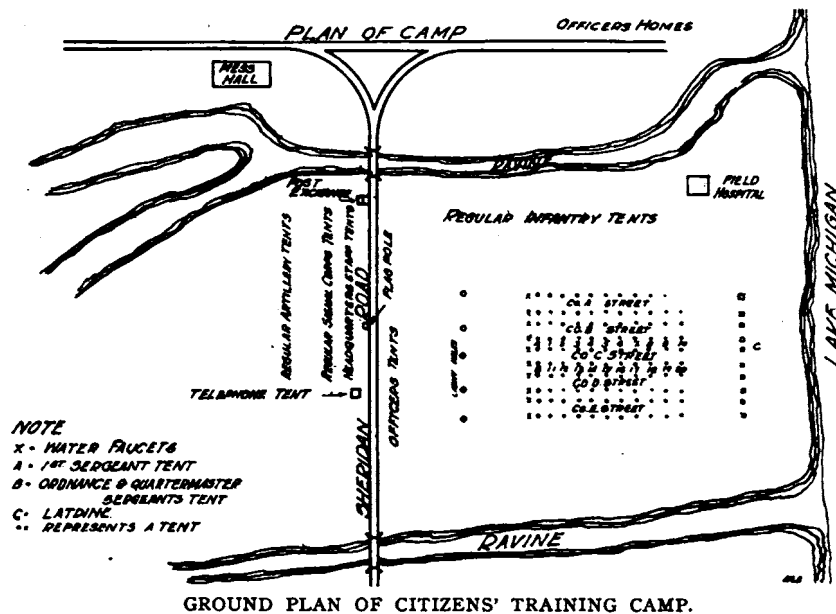
Signal Corps—Captain P. H. Goodrich, Signal Corps.

Topography—First Lieutenant E. Warner McCabe, Fifth Cavalry.

The story of the encampment as told in the following pages is made up from the reports of the fourteen men, who are agreed in all essential points as to the value of the training both to themselves and their country, which they may be called upon to serve.

The men arrived at Fort Sheridan during the morning of September 20th, pursuant to orders received at the time of acceptance of their applications. Each man had received the following letter from Adjutant General Heistadt:

"Your application to attend the camp of instruction for regular troops and business and professional men at Fort Sheridan, Ill., from September 20th to October 17, 1915, has been received and is hereby approved. You should report to the commanding officer of the camp on the morning of September 20th, presenting this letter as



Drawn by one of the Engineering Department recruits. This plan makes clearer the story of the maneuvers.

Cyrus G. Hill, central engineering department.

E. F. Riddle, central engineering department.

R. H. Hopkins, central engineering department.

The camp was held under direct supervision of officers of the United States Army. Colonel William J. Nicholson, of the Cavalry, U. S. A. Staff, was in command. The following staff and line officers formed the corps of instructors for the camp:

Adjutant and Ordnance Officer—First Lieutenant E. R. Warner McCabe, Fifth Cavalry.

Quartermaster—First Lieutenant Joseph H. Barnard, Fifth Cavalry.

Surgeon—Lieutenant Colonel William B. Bannister, Medical Corps.

Cavalry—Captain W. B. Scales, Fifth Cavalry.

Senior Instructors—Lieutenant Colonel William B. Bannister, Medical Corps; Cap-

your authority."

Immediately after dinner in the "mess hall" the recruits marched in a body to the general headquarters tent to be enrolled in the different companies. The dinner gave the boys a good forecast of what was to come during the thirty days. The food at the camp was simple and wholesome in character and generous in quantity. An average day's ration was: Breakfast—oatmeal, bacon, potatoes, bread and coffee. Dinner—boiled ham and cabbage, potatoes, bread, butter, tea and bread pudding or pie. Supper—baked beans, potatoes, bread, butter, tea and stewed peaches.

The first afternoon was spent in enrollment and settling the men in quarters. Each man had provided himself with the following outfit of clothing: Two pairs of shoes, campaign hat, puttees, khaki blouse, khaki pants, two woolen shirts and two pairs of socks. The quartermaster issued to each man one sweater, cot, mattress, two mat-



CHICAGO TELEPHONE MEN WHO ATTENDED TRAINING CAMP AT FORT SHERIDAN.

Standing, left to right—Brian J. French, L. B. Boylan, C. D. Hoover, E. L. Marmaduke, D. E. Moore, E. F. Riddle, Cyrus Hill, Arthur Langlund, F. W. Little. Kneeling—C. L. Poggi, Jr., W. G. Hendron, W. H. Inbusch, H. J. McGrew, R. H. Hopkins.

dress covers, four sheets, pillow, two pillow cases, four woolen blankets, pack and blanket roll case, field belt.

After this equipment had been obtained and stowed away the recruit received his fighting and marching outfit, consisting of a Springfield rifle with cleaning kit, sling and sight cover, bayonet, canteen, knife, fork and spoon, frying pan and plate.

The regular work of the camp began next day. A glance at the following schedule will show that the rookies had no spare time on their hands, nor did the instructors. Even the bugler was an extremely busy man. Here is a day's routine:

- First call for reveille..... 5:45 a. m.
- Reveille 5:55 a. m.
- Assembly 6:00 a. m.
- Mess call (breakfast)..... 6:30 a. m.
- Sick call 7:00 a. m.
- First call for drill..... 7:25 a. m.
- Assembly 7:30 a. m.
- Recall 8:30 a. m.
- First call for drill..... 8:55 a. m.
- Assembly 9:00 a. m.
- Recall 10:00 a. m.
- First call for drill..... 10:25 a. m.
- Assembly 10:30 a. m.
- Recall ... 11:30 a. m.
- First Sergeant's call 11:40 a. m.
- Mess call (dinner) 12:00 noon
- First call for drill. 1:50 p. m.
- Assembly. 2:00 p. m.
- Recall ... 4:00 p. m.
- Sick call. 4:30 p. m.
- First call for retreat ... 5:00 p. m.
- Assembly. 5:10 p. m.
- Retreat .. 5:15 p. m.

- Mess call (supper)..... 5:45 p. m.
- Mess call and assembly.... 5:50 p. m.
- Tattoo (lights out in quarters) 9:00 p. m.
- Call to quarters 9:45 p. m.
- Taps 10:00 p. m.

During the first weeks of the encampment, mornings were devoted to a progressive program of instruction in the duties of a soldier from those of a private to company commander, including physical training, bayonet combat, military drills in close and extended order, field training and construction of different types of field trenches. In the afternoons more time was spent on field work and less on close-order drills. In the evening lectures were given on various military subjects, such as discipline, courtesy to the flag and to officers, articles of war, individual and collective firing, leadership, combat, fire superiority and strategy, mechanism of extended order, sanitation in camp and the mechanism of each of the branches of service of the regular army.

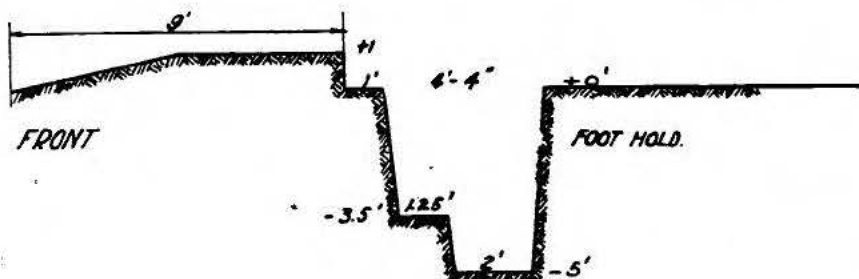
A feature of the training which the telephone rookies will not soon forget was the instruction in trench digging. Rookie E. L. Marmaduke describes it thus:

"Modern warfare is trench warfare, and I can assure you that not one of us will ever forget how trenches are dug. We had blistered hands for days. In order to save time, we would often take theoretical marches, or make assumptions of our locations, but you may be sure there was no theory about those trenches—they were actual."

The clay at Fort Sheridan was not quite as hard as brick, because it had not been baked, but it was certainly plenty hard for these office bred rookies. However, there were enough trenches dug to conceal a regiment. They were all drained so that they might be occupied in wet weather. Some were living trenches, in which the men might stay during the rain, others were fighting trenches. All fighting trenches had galleries connecting with the living trenches, so that the men might pass from one to the other without exposure to the enemy. Entanglements were placed at various spots.

During the latter part of the course, manuevres were held with the battalion divided into two parts. The proper methods of handling troops were demonstrated. One of the hardest exercises was to advance

under fire while lying on the ground. In doing this, the arms and legs were used. It is not permissible to crawl, as the crawling figure presents too good a target. While troops are under fire, or firing, orders are given by signal by the commander, as the voice cannot be heard. The commander blows a whistle and then, by a series of



1-YARD OF TRENCH TO A MAN
CROSS SECTION OF TRENCH AS DUG BY THE ROOKIES

arm and hand motions, conveys his order. The men learned in detail the positions and duties of the troops and officers in skirmish or battle. For instance, the captain of a company selects the position for his troops, if not selected for him by superiors, ascertains the range and determines that the target is properly divided up among platoons and squads, so that every point will be covered by fire. He also regulates the speed of fire, having regard to effectiveness, supply of ammunition, range and distinctness of target.

During the afternoons of the last two weeks, each man was required to select one branch of the service for special instruction.

An ingenious and effective device used for instruction work was the "sand table." This is a means of representing an extended area and showing operations of war conducted on it. The sand table, as described by Private L. B. Boylan, is a table approximately twenty by thirty feet, filled with sand to a depth of about six inches. On the sand, the instructing officer laid ribbons of different colors to denote roadways, streams or railroads. He set up blocks at different places to denote towns, cities or windmills, or to represent other landmarks of the country. The sand was heaped up in piles to represent hills; at other places foliage was placed in the sand to represent woodland. After the layout was arranged the officers lectured and moved imaginary bodies of troops, say a regiment or brigade, through the country (which was represented as enemy territory) and showed how to handle detachments of cavalry, protect the artillery and place advance guards, and how to meet an enemy on a certain spot as outlined in the sand.

On the evening of October 4th the boys had their first really exciting experience. It is described by Private Walter H. Inbusch:

"We had to march in the dark in a skirmish line from the camp to the south line of the Reservation. You were not to talk above a whisper and all orders were passed to the man next to you, who did likewise to the next man, until the entire line had received them. Orders were given to keep in touch with the man to your right. We had to cross several ravines, the parade ground, and woods with thick underbrush. There were many encounters with branches, stumps, logs, poles and ditches. A number of men, even entire squads, were lost in the advance. Those men who succeeded in keeping in touch with their company marched back to the camp in a column of fours, leaving the stray ones to find their way as best they might."

The Culver cadets, of the Culver Military Academy, Culver, Ind., spent a short time at the camp and participated in some of the maneuvers. On October 14th the entire Training Battalion, accompanied by the Culver Boys, went by train to the Naval Training Station at Lake Bluff. Exhibition drills were given and the rookies enjoyed



PRIVATE LITTLE.

Telephone Rookie "seeking the bubble reputation (publicity) even in the cannon's mouth."

dinners from their wagon kitchens. After dinner they repacked their rolls and marched back to Fort Sheridan, about ten miles south. Marches were made with rest periods of ten minutes every hour. The march consumed about three hours.



TURNING IN EQUIPMENT.

Private Hoover (right of picture) is observed to be still in a good humor.

There were two sham battles the next day. In the morning the rookies attacked the Culver cadets and in the afternoon were attacked by the boys from the Naval Training Station, who descended on their coast in the United States Gunboat, *Isle de Luzon* (captured by Admiral Dewey at the Battle of Manila). The field artillery bombarded her and she must surely have foundered in fifty fathoms if the shots had been real. The infantry manned the trenches which had been placed so as to defend the landing point. As soon as the "Jackies" started for shore in their boats, the infantry opened fire and, if anything but blank cartridges had been used, every cadet would have been killed, so murderous was the fire. After the cadets had landed and learned that they had been thoroughly defeated, they were given three rousing cheers. Thus ended the Battle of Patterson's Point.

Just before the camp disbanded, an incident occurred of particular interest to the telephone detachment and one which evoked great enthusiasm throughout the camp. While the encampment was in session, the general officers of the Chicago Telephone Company made their annual inspection trip through the Suburban Division. The party included Vice President H. F. Hill, General Manager W. R. Abbott, Publicity Manager Clifford Arrick, General Traffic Superintendent S. J. Larned, General Commercial Superintendent A. R. Bone and Engineer W. R. McGovern. They intended to visit the training camp, but on arrival at Fort Sheridan found that the troops had gone to Lake Bluff for the day. They went on to Lake Bluff and, by invitation of Commander Moffatt, commandant of the Lake Bluff Naval Reserve Station, witnessed a review of the Naval Reserves and the student soldiers at the camp. The Jackies had passed before the reviewing officers, their band playing and their colors flying. Next came Colonel Nicholson's men, headed by a military band but without any colors. This deficiency was remarked by the visitors and Colonel Nicholson said that it was a matter of deep regret to him that there were no colors for his command.

While the telephone officials were at luncheon later in the day it was suggested that it would be a fitting tribute both to Colonel Nicholson and the men, who had voluntarily taken upon themselves the hardships of camp life in the spirit of "Preparedness," to make up to the command its lack of a stand of colors. This was agreed to cordially and Major Arrick, who is a veteran of the war with Spain, was delegated to procure a national flag and also a regimental flag suitable for the colonel's command.

The telephone party did not return to Chicago until Friday and the training camp was to be demobilized the following Sunday, so that there was little time in which to procure the regimental flag. However, the colors were procured and on Sunday morning a committee consisting of Mr. Abbott, Mr. McGovern and Mr. Arrick

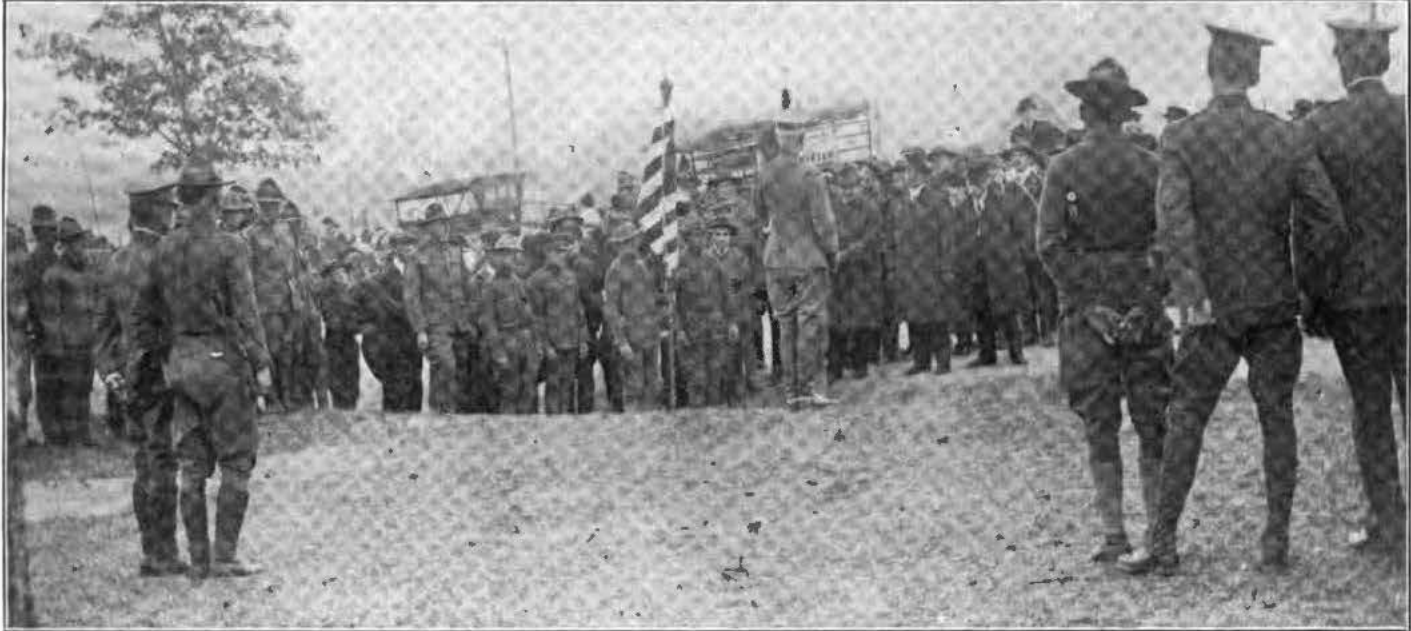
went to Fort Sheridan and the colors were presented to Colonel Nicholson by Major Arrick.

The national flag is regulation size, is of silk with heavy gold fringe. The regimental flag is of blue bunting with white letters reading "U. S. Training Camp, Fort

are developed only through years of drilling, of obedience to all kinds of orders, under all kinds of conditions, until obedience becomes second nature to each and every man, and of that active coöperation between men which brings about mutual confidence. The end of discipline is high morale in the

"One month," concluded Mr. Little, "does not make a soldier, even of the most intelligent of men. It requires at least six months to make a fair soldier according to the opinion of most of the regular officers, and even then a man is not fully trained."

The men who made up the camp included



PRESENTATION OF COLORS TO TRAINING CAMP BY CHICAGO TELEPHONE OFFICIALS.

Mr. Arrick, who is making the presentation, is hidden behind the figure of Colonel Nicholson. Mr. Abbott and Mr. McGovern were more fortunate when the shutter clicked.

Sheridan, Illinois." Colonel Nicholson was taken completely by surprise but accepted the colors on behalf of the United States Training Camp in a graceful speech. The colors will remain at Fort Sheridan for use in future camps composed of civilians volunteering for military training.

On Friday morning, October 16th, one day before the end of the encampment, the flag of the president of the United States was raised over the camp. This is said to have been the second time in history when this flag had been raised without the president attending the ceremony. The flag was lowered Sunday morning just prior to the presentation of the colors by the telephone officials.

The fourteen telephone rookies are enthusiastic over the results of the four weeks at the camp and declare that in one respect, at least, they learned their lesson thoroughly. They realize to the fullest extent, the difficulties to be met in preparing armies for the field on short notice. Each will be an evangelist of preparedness. As Rookie Cyrus G. Hill expresses it, "Each one will tell his friends that the value of a soldier does not depend upon his ability to drill, nor even upon his knowledge of the intricacies of the game of war, but that it depends upon the presence within each individual of that curious combination of personal energy and initiative with absolute obedience to orders and subordination of the individual to the whole body, which the soldier calls discipline. Disciplined troops

troops, which sustains them in hardship, carries them through hostile fire and enables them to suffer heavy losses without flinching under conditions where the undisciplined crowd would break up in a panic.

"The development of a disciplined army is of necessity a slow process since it involves the training of crowd character as distinguished from individual character. Cowardice and panic in the face of danger are the national characteristics of the crowd. In it the traits of the individual man disappear and the individual is no longer responsible for his own actions. He acts as a member of the crowd in accordance with crowd impulse. Thus the commander on the battlefield is concerned not with the bravery or cowardice of each man of his command, but with the morale of his men as a crowd, for as a crowd his army will either do its duty with honor or be overwhelmed by panic, each man running from he knows not what, under the influence of crowd terror."

Rookie Little relates an incident of the training which well illustrates the contention of Mr. Hill. During one of the manoeuvres a lieutenant was appointed from among the student body. He got in a tight place and everyone started to advise him, some refused to obey orders, and pandemonium reigned generally—and this merely in a little fracas without bullets flying through the air. The men who took part in this had had nearly a month of intensive training.

judges, lawyers, doctors, bankers and men in almost every walk of business or professional life. Except in instances of excessive zeal like that just related, they proved to be excellent military material, obeying orders with alacrity. The men believe the lessons of obedience and discipline inculcated in the training camp will be valuable in the business world, both to employes and employers.

Western Electric Changes Residence

On November 18th all of the assets of the Western Electric Company of Illinois were acquired by transfer to a company chartered under the laws of the State of New York, to be known as Western Electric Company, Incorporated.

The stockholders of the Western Electric Company came to the conclusion that it was desirable that the company should have two classes of stock, common and non-voting preferred. As the statutes of Illinois do not provide for such classifications it was decided that the company should change its legal domicile. No change in the policies, operations, or management of the company is involved. The same board of directors and officers still continue.

"Get Off the Air!"

The *Telephone Review* suggests that the *New Yorker* will soon be saying, "Get off the air, I'm talking to Paris."

First Public Wireless Demonstration

Honoring their fellow-member, John J. Carty, chief engineer of the American Telephone and Telegraph Company, 300 members of the Lotos Club, of New York, on the night of November 27th listened to voices in the air and stood while "The Star-Spangled Banner" was played to them at Arlington, Va., and transmitted by wireless telephone to their places at the tables.

They exchanged greetings over 3,400 miles with the Bohemian Club of San Francisco over the long-distance telephone, and heard Mr. Carty talk to his wire chiefs across a continent. Every one of the 300 had the use of a receiver, and by wireless and also by the regular telephone service made the world a whispering gallery.

This was the first large social function at which wireless telephony was a factor. Josephus Daniels, secretary of the navy, who was present, was able to converse easily with Rear Admiral Victor Blue of the Public Health Service in Washington, while all the company engaged in unrebuked eaves-dropping.

The voice of the rear admiral was carried from his home in Washington to the radio station at Arlington, a distance of six miles, over the long-distance telephone wire from which it was automatically transferred to the wireless and conveyed to the laboratory of the Western Electric Company at 463 West street, in New York.

It was then shifted, automatically, after it had traversed 225 miles of air, to the telephone wires, and made its way to the Lotos Club in West Fifty-seventh street, a distance of less than three miles. The secretary of the navy, recognizing the voice of the rear admiral, expressed sorrow over the outcome of the Army and Navy football game.

Mr. Daniels said that these were days in which prophecies were realized, when he rose to speak of the wonders which had been accomplished by Mr. Carty and his associates in perfecting communication by wire and air, for he declared that wireless telephony would soon extend around the world.

"We thought," he said, "that wireless telegraphy was the last of modern miracles that had to do with communication. Recently the world was amazed when from Washington, without wires, the human voice was heard in San Francisco. When fully perfected, we may talk to our friends 'from Greenland's icy mountains to India's coral strands.'

"The genius who is making this miracle

possible is John J. Carty, to whom the Lotos Club pays tribute this evening."

Frank R. Lawrence, the president of the Lotos Club, presided at the dinner. At his right was Mr. Carty and at his left the secretary of the navy.

Others at the speakers' table were Frank J. Sprague, Melville E. Stone, John P. Gavit, Chester S. Lord and Charles W. Price. Among other members and guests present were N. C. Kingsbury, B. E. Sunny, H. B. Thayer, A. S. Hibbard, Thomas D. Lockwood, F. H. Bethell, Thomas B. Doolittle, Bancroft Gherardi, H. A. Halligan, F. B. Jewett, F. A. Pickernell, A. L. Salt, C. E. Scribner, Gerard Swope, John I. Waterbury, H. J. Pettin-gell.

Among the other speakers were Theodore N. Vail, Captain William H. G. Bullard of the United States Navy, Colonel Samuel Reber of the Army, and Union N. Bethell.

Most of the speech of Mr. Carty was directed to the universe. Through the

And yet so rapid has been this development that those same men who were the beginners are yet in their prime of active life.

"Our Carty came with the telephone while it was yet being taught to speak, and has been either a co-laborer or leader in the development of that perfect comprehensive world-wide electrical conversational intercommunication which is rapidly bringing the whole world and its people within speaking distance.

"While in the establishing of the methods for bringing all people together for electrical speech our Carty has been the most useful and constructive, and is now considered by all the foremost genius in this work, his work has by no means been confined to that branch, for in all other and collateral electrical development, whether affecting his particular work or not, he has been recognized as having a grasp of conditions to be overcome and a vision of what may be accomplished which few possess.

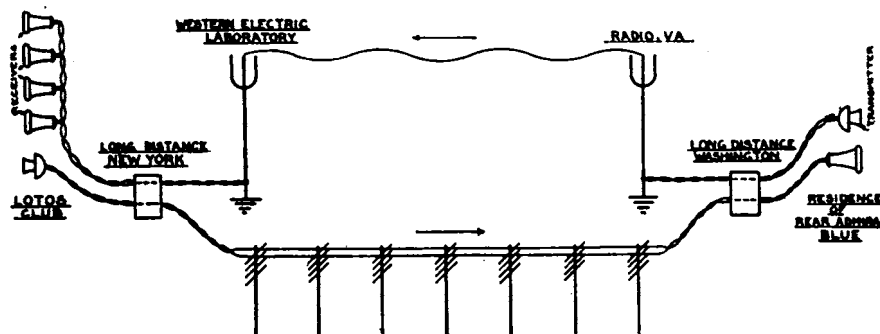
"This tribute, from this club, is unique in that it is not a scientific tribute from fellow scientists; it is not a commercial tribute from corporation or association, but it is a layman's tribute, to one who is recognized and acknowledged as having made their business and social intercourse more easy, more comfortable and more agreeable and contributed so important an element into their daily life.

"And as one member of the associates who claim Carty as ours, I want to thank you, Mr. President and members of the Lotos Club, for all."

Three weeks prior to the demonstration described above, Secretary Daniels, in Washington, had transmitted the first official departmental order by wireless telephone.

Secretary Daniels was sitting at his desk in the Navy Department and personally dictated the order into the mouthpiece of a telephone transmitter. The message traveled over a land telephone wire to the Bell telephone office in Washington, when it passed over a telephone wire to the naval radio station at Arlington, Va.

Automatically the message was transferred from the telephone wire at Arlington to the antennae of the radio station and sent through the air to New York City. The message was picked up by the antennae of the radio station on the building of the Western Electric Company in New York, where it was automatically picked up by land telephone wires, and transmitted by land wires to the office of Rear Admiral Usher in the Brooklyn Navy Yard.



A photographic reproduction of this diagram was presented to each of those present at the dinner at the Lotus Club, New York, on November 27th, to John J. Carty, chief engineer of the American Telephone and Telegraph Company. The diagram represents the wire and other connections between the Lotus Club at New York and the radio station and residence of Rear Admiral Blue at Washington, D. C. The telephone conversation from New York to Washington was over the wire line and the conversation was transmitted through space from Washington to New York. Every word that came via wireless was clearly heard and understood in New York.

transmitter he talked familiarly with his associates and subordinates all over the country, acting as a master of ceremonies in a realm of magic.

Mr. Vail said: "I cannot refrain from saying a few words in appreciation of this most delightful and considerate tribute to the foremost genius in electrical personal intercommunication—Our Carty. We, that is, all of us associated in that organization called the Bell System, associates who act and think and work together, are very proud of our Carty and are honored by anything that honors him.

"When our Carty was born electrical science was in its swaddling clothes, still being nursed in the laboratories of scientific institutions.

"There were a few, who were looked upon as dreamers, outside these laboratories trying to teach the art how to walk and work—were trying to develop its industrial activity. Such men as Bell, Edison, Brush, Thomson and many other now notable names, were not then names to conjure with as they afterward became.



Safety First and Accident Prevention

Member National Safety Council



ACQUIRE THE SAFETY HABIT; IT IS THE ONLY HABIT THAT WILL NEVER INJURE YOU. ANY FOOL CAN TAKE A CHANCE.

HUMANITY DEMANDS SAFETY.

DON'T TAKE CHANCES. THE GAMBLER LOSES ONCE IN A WHILE. YOU CAN'T AFFORD TO GAMBLE YOUR LIFE AWAY.

The annual congress of the National Safety Council recently held in Philadelphia was attended by 1,500 representatives of members of all classes of business from Maine to California, including Canada, whose payrolls carry over 2,000,000 people. The telephone industry was well represented from all parts of the country, the Chicago Telephone Company being represented by H. M. Webber, superintendent of relief and safety; and at the meetings limited to public utilities only, which were presided over by Dr. E. B. Rosa of the Bureau of Standards of the United States government, a valuable paper was read by a representative of the American Telephone and Telegraph Company.

Such gatherings serve to remind us of the all-embracing importance of the subject of "Safety First" and result in new ideas and new courage being given to the men in this work.

It has been said that history repeats itself, and in order to try to prevent a repetition of accidents which have occurred in the past, some of them are reviewed and discussed. Let them serve to remind us again that working with or near power and lighting circuits is a dangerous business. The men who do this work are usually experienced and well know what they are doing and how to protect themselves, but they must not permit that familiarity which comes from constant proximity to danger to lead them into careless or foolhardy acts.

Several years ago, in the Chicago suburban territory, a man was assisting in the stringing of a drop wire. He stood on the metal roof of a building, holding the wire. The wind, which was blowing briskly, blew the wire into contact with a high tension power circuit. The man received a severe shock but fortunately did not suffer any permanent injury. In working in the open, we are likely to encounter strong winds and their effect on wires must be considered. Unquestionably this particular accident could have been prevented had a little more care been exercised in handling the wire.

It was necessary for a lineman to ride a strand passing over some high tension wires. Though he was warned both by his foreman and another lineman not to let

his feet touch the high tension wires, he let his spur touch and was killed.

Our men were stringing wires through some trees, one man being on the ground guiding the wire. The wire was drawn across the primary of a lighting circuit and the man on the ground received a severe shock and burns. This is another case where ordinary care would have prevented the accident—care on the part of both the man pulling the wire and the man guiding it.

An installer, while clearing a grounded line, found some loose wire lying across it. He did not stop to look where the wire came from or where it led to, and when he attempted to dislodge it he received a severe shock. It was later found that the loose wire was a telegraph line put up by some boys, which had fallen on the lighting circuit as well as on the telephone lines. A moment's time taken in tracing the loose wire and the wearing of rubber gloves would have prevented this accident. One of the first principles to be remembered is that all foreign wires should be considered dangerous unless they are found not to be. *Don't take a chance.*

Some years ago one of our repairmen was sent to clear a case of trouble and climbed a pole to make a test, receiving a shock which threw him from the pole. After the accident, he stated that he saw that the power company's primary was in contact with our lead. It is not known just how the shock was received, but it is evident that sufficient care was not taken though the dangerous condition was apparent.

In another case, a telephone wire caught on some projection on a pole carrying a 2,200-volt power lead. The repairman was unable to loosen the wire, so climbed the high-tension pole and attempted to reach between the power wires. In doing so, he touched one of these wires and was electrocuted.

A somewhat similar accident happened to a lineman who was transferring electric light wires on a joint pole when he touched the light wire with his knee. Fortunately, he was not killed, escaping with some slight burns.

Both of these cases could have been avoided if these men had used the extreme

care which the work under the conditions deserved.

An unusual accident occurred some time ago in which an installer was dead-ending some wires at the top of a pole. In some undetermined manner, he received an electric shock and fell a distance of some thirty feet. While the shock rendered him unconscious, the fall revived him. Specific instructions had been given the man "to be careful not to let wire slack back on trolley wire," and that is probably what happened.

In a previous article, we called attention to the dangerous conditions which often exist in connection with cross-arm braces supporting arms on combination poles where these braces become charged from the electric light wires above, through pieces of baled hay wire thrown by boys. Owing to the fact that conditions of this kind will continue to exist, these cross-arm braces should always be considered dangerous until we know the contrary. We must avoid the habit of taking hold of electric light cross-arm braces.

Some few years ago, one of the Chicago company's old linemen with years of experience in telephone and electric light work, climbed a pole to assist in removing a messenger wire, below which were the high tension wires of an electric light company. This man recognized the dangerous character of the work and cautioned the other men in the gang, yet he allowed sufficient slack in the messenger to permit it to be dragged across the electric light wire. He received a severe shock, resulting in his death. This man had absolute control of the situation and his death was caused by his own carelessness.

A foreman of some twenty years' experience was killed, together with a wagon driver, when he flipped a pair of wires through the air to pass them over a cross arm, instead of sending a man up the pole. The wires went too high and came in contact with the electric light wires above. The driver was holding the wire at the reel and received the fatal shock at the same time the foreman did. In a mistaken effort to save time, this foreman sacrificed his own life and that of his fellow workman.

A lineman of long experience in telephone work was killed while assisting in removing telephone wires at a street intersection. About eight feet below the tele-

phone wires were a number of high-tension wires. The lineman was told by his foreman to take his safety belt and rubber gloves and be careful not to allow the telephone wire to slack back on the electric light wires. He laughed at the instructions, saying that he knew what to do and did not need the gloves. Not ten minutes later this man received a shock and fell some thirty feet to the ground and the fall caused his death. It was shown in the investigation that he had cut one of the telephone wires and allowed it to slack back onto the electric light wire while he still had hold of it. This is a clear case where stubbornness and disobedience resulted fatally.

The safety first campaign should have the support and hearty cooperation of everyone, as it is in reality the carrying out of the doctrine of self-preservation. Its aims have been strikingly set forth in the forceful words of P. B. Juhnke, which have been adopted by the National Safety Council as a clear presentation of its objects, "And the end is that the workman shall live to enjoy the fruits of his labor; that his mother shall have the comfort of his arm in her old age; that his wife shall not be untimely a widow; that his children shall have a father; and that cripples and helpless wrecks who were once strong men shall no longer be a by-product of industry."

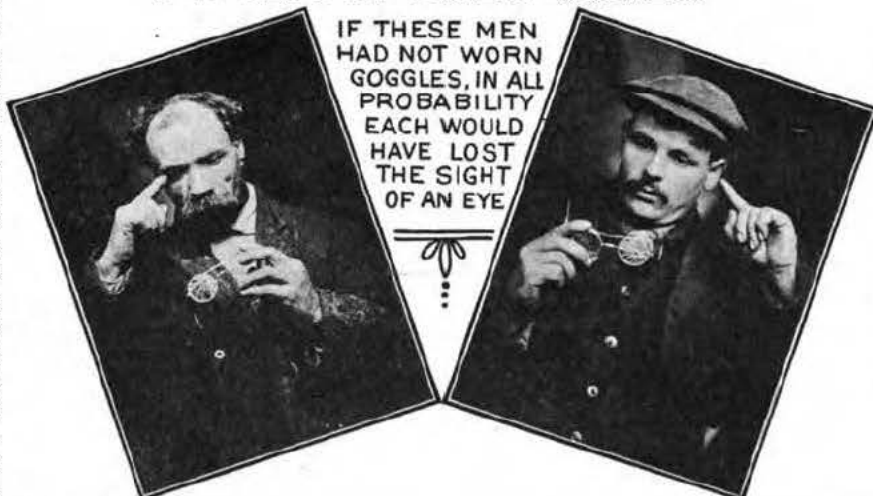
As to Itemized Bills

Henry Wrede, of North Prairie, Wis., refused to pay a bill amounting to \$7.80 for long-distance and local telephone tolls, because, he claimed, he did not receive an itemized statement. The Eagle Telephone Company brought suit in justice court, where the case was tried before a jury and a verdict given for the defendant. The company appealed, and Judge Agnew of the county court reversed the jury holding, claiming that there was no legal obligation on the part of the company to serve an itemized statement of its account upon Wrede before bringing suit. It held that it was just as much the duty of Mr. Wrede to keep an account as it was for the company to do so.—*Evening Wisconsin, Milwaukee.*

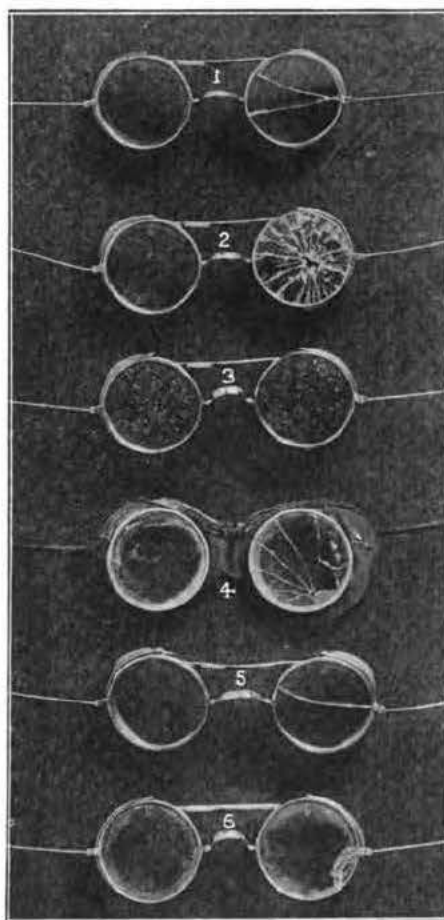
"Competition" Discouraged

In passing upon the application of the People's Telephone Company of Sterling for authority to issue stock, the Nebraska Railway Commission states, among other things, that one of two results accompanies

A PAIR OF EYES SAVED



IF THESE MEN
HAD NOT WORN
GOGGLES, IN ALL
PROBABILITY
EACH WOULD
HAVE LOST
THE SIGHT
OF AN EYE



BROKEN GOGGLES VERSUS BLINDED EYES.

The damaged goggles shown above represent eyes saved from injury. What were they worth to the men wearing them?

1. Putting a head on a hammer. Wedge flew and struck glass.
2. Breaking concrete. Piece of concrete flew against glasses.
3. This pair was used by a man who did a great deal of work with an emery wheel. In all probability a large proportion of the small particles caught on the glasses would have entered his eyes.
4. Breaking concrete, when the chisel bar slipped and broke lens.
5. Breaking concrete in an old sewer.
6. Breaking concrete.

the operation of two competing telephone exchanges in the same community; either one or both is operated without profit with a resultant ultimate loss to stockholders and investors or an extra burden is imposed upon the subscriber who is required to pay for and maintain two telephones, and that, moreover, the inconvenience attached to such situation eventually becomes so burdensome and unbearable to the public that a consolidation is demanded.

The commission held that despite the fact that public convenience and necessity do not require the construction of the proposed line, the commission could not, under the law, refuse to authorize the proposed issue of securities, but a dissenting opinion was read by Commissioner Hall in which, after reviewing the statute at great length and citing many authorities, he vigorously dissented from the prevailing opinion and contended that under the general powers granted by the constitution of the state the commission could deny the application on the ground that the proposed construction for which the proceeds of the stock issue were to be used was not demanded by public convenience and necessity and that should the second company attempt to operate, failure was imminent on account of destructive competition.

Telephone Girls in Turkey

Turkish news is in great vogue in Germany at the present time. German papers have recently printed, as an evidence of the growth of occidental ideas in Turkey, a story of the increasing freedom of women telephone operators in Constantinople.

Though there was the utmost opposition at the start to the idea of Turkish women violating their century old traditions by entering the exchanges and "exposing" themselves to the public, the feeling has almost entirely died away. To facilitate their work the authorities have allowed them to abandon the prescribed Turkish headdress and wear a cap that does not interfere with the telephone headpiece.

Women have become so proficient—so indispensable, in fact—that a woman, Miss Osman, has been placed in entire charge of the Stamboul exchange. When the telephone operators attempted recently to conduct an outdoors picnic along occidental lines, however, all the old time prejudice arose, and a policeman spoiled the whole affair by forcing the women to sit down with their backs to the men.

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Bell Telephone Bowling League of Chicago

STANDING OF THE TEAMS NOVEMBER 23, 1915.

Team.	Won.	Lost.	Per cent.	Average.
Construction No. 1.	24	9	.727	922-29
Engineers	21	12	.636	914-14
Commercial	21	12	.636	896-25
Revenue	20	13	.606	904-11
Plant Accounting	20	13	.606	897-21
Supply	19	14	.576	913-9
Disbursement	19	14	.576	874-7
Assignment	18	15	.545	901-25
Lake View	17	16	.515	879-7
Construction No. 2.	16	17	.485	888-28
Long Lines	16	17	.485	884-11
Construction Supt.	15	18	.455	899-23
Oakland	13	20	.394	864-6
Traffic	11	22	.333	856-21
Central Supply	7	26	.212	803-12
West	7	26	.212	769-15

With a lead of three games and going strong, the boys of Construction No. 1 team in the Bell Telephone Bowling League of Chicago expect to finish the first half of the season well in the van and hold the place through the post-holiday series.

Although in first place, the Construction No. 1 team does not hold the season record either for high game or high average for three games. These honors belong to the Engineers and Assignment Teams, respectively. High score for one game, as made by the Engineers, was 1,081. High average for three games, as made by the Assignments, was 1,001.

Benzing, Long Lines, and Truax, Construction Superintendent's team, are tied for high individual game with 245. Hopkins, Supply; and Truax, Construction Superintendent's team, are tied for high individual average for three games, 218. J. Welch, of the Constructions No. 1, leads the field in season's average, 193-27 for thirty games.

Michigan State Telephone Bowling League

STANDING NOVEMBER 17, 1915.

Team.	Won.	Lost.	Per cent.
Maintenance	18	3	.855
Commercial Superintendent	13	8	.619
Inspectors	11	10	.523
Plant Accounting	10	11	.476
Revenue Accounting	10	11	.476
Traffic	8	13	.382
Detroit Commercial	7	14	.350
Engineers	7	14	.350

At the end of the first round of the season's bowling competition in Detroit, Maintenance led the league by a big margin in the percentage of the number of games won, having taken eighteen games out of a total of twenty-one played up to November 17th. Their high score of 900 for any one game set the record to date, but in the average for any one night they were nosed out by the Commercial Superintendent's team whose score of 826 compares with 815 for Maintenance. The two teams are tied on the cumulative average which is 770. With a total of 16,172 pins rolled in seven

games, Maintenance is only five ahead of its nearest competitor in this respect.

Marten, of Maintenance, bowled 246 on the night of November 3rd, setting the record for the season thus far. Other high scores are Macfarland, Revenue Accounting, 235; Howard, Plant Accounting, 199; McCutcheon, Inspectors, 212; Warddell, Inspectors, 212; Clarke, Traffic, 219; Lehman Revenue Accounting, 228; Slack, Detroit Commercial, 221; Locke, Engineers, 224; Ellis, Commercial Superintendent, 193.

Ellis leads all competitors in cumulative average with a score of 179. McCutcheon with a cumulative average of 177 is second with a total of eighteen games bowled, whereas others competing for high honors have bowled twenty-one games. Clarke is third with an average of 172 and Macfarland fourth with a tally of 169.

Outlaw Bowling League

STANDING OF THE TEAMS, NOVEMBER 24, 1915.

	Won.	Lost.	Per cent.	High game.
Pirates	12	6	.667	849
Wreckers	12	6	.667	789
Raiders	12	6	.667	787
Repeaters	13	8	.619	801
Destroyers	10	8	.555	744
Goats	8	10	.444	848
Bandits	9	12	.429	736
Lowbrows	9	12	.429	852
Highbinders	7	14	.333	711
Highbrows	7	14	.222	697

High individual score, one game—J. G. Nader, Bandits, 228.
High individual average, three games—J. M. Hanson, Wreckers, 189-2.
High team score, one game—Lowbrows, 852.
High team average, three games—Lowbrows, 760-2.

With three teams tied for the head place and a fourth team but two games behind, the contest for honors in the Outlaw Bowling League, of Chicago, is creating much interest. Captain Sailor's team of Pirates from the Suburban commercial department was in the lead during the latter part of October. The Repeaters, captained by Mr. Bourgeois, gained the head place and held it until November 23rd.

Secretary E. J. Vermilyea, of the league, has had an abscess on his bowling arm. Between nursing this and lending aid in taking care of a new baby boy which recently arrived at his home, he has been too busy to do much bowling.

Phoney Bowling League

A new bowling league, known as the Phoney League, has been organized in the Chicago commercial department.

The object of the organizers is not only the promotion of sport, but also of acquaintance and good fellowship among the employes of the different divisions of the department.

The new league has eight five-men teams

and also a number of good substitutes. The hearty interest taken by all the members at the weekly meetings seems to assure a successful season, which will end April 28, 1916, with a banquet and the awarding of prizes to the teams and individual players having the highest average scores for the season.

The officers of the new league are: E. L. Stickelman, contract division, president; O. G. Haller, collection division, secretary; K. S. Russell, commercial engineer's office, treasurer.

Austin Defeats Kedzie

O'Connor's Ringers, of Austin, defeated the Asher Relays, of Kedzie, at Glynn's Bowling Alleys, in the most difficult game that has yet been played, Friday evening, October 29th.

The Relays were ahead of the Ringers in the first game by seven pins and in the second by seventeen—then the Ringers came back strong in the third game and won out over the Relays by eighty-seven in the last five frames of the game.

The bowling of Riley and Seaholm was remarkable. It was due to the untiring efforts of Manager O'Connor and Captain Raferty that the Austin team was returned victors.

The men in the Relay team lost confidence in the third game of the series and were discomfited by their loss.

The line-up was as follows:

RINGERS—Glynn, Riley, Raferty, Owen, Seaholm.

RELAYS—Hultz, Braun, Jensen, Lessman, Kowalski.

Bowling at Evanston

The bowling bug seems to have bitten everyone at Evanston, including the fair sex. On Friday evening, November 19th, two games were rolled between the girls from the commercial and traffic departments at Evanston, each team winning one game. Following is the score:

	1st game.	2nd game.
Commercial	279	264
Traffic	239	272

The individual stars were Miss Peiffer of the traffic department, who had high score in both games, rolling 81 and 91, respectively, and Miss Stanger and Miss Smith of the commercial department, who rolled 81 and 63, respectively.

The girls are very enthusiastic and the outlook appears to be very good for an enjoyable get-together winter for employes in this progressive and enterprising district.

There was also a gallery, prominent in which was Commercial Agent Levett, who

was coaching both sides on the best style of delivery.

While the girls were bowling their two games, District Manager H. B. Gates, Chief Clerk R. A. Carey and Traffic Supervisor H. Eldredge rolled a match game.

Miss J. McVicker, chief operator at Evanston, is getting her team lined up preparatory to issuing a challenge to the girls of the traffic department at Waukegan.

Suburban Girls Bowl

The "K. K." bowling team, composed of young ladies in the commercial headquarters, Chicago Suburban Division, has been organized within the month and has played several games with regular teams in the Outlaw Bowling League.

Games are played each Tuesday night on the fourth floor of Benzingers, Madison and Clark streets. The Outlaw team known as the "Goats" was the first team defeated by the young lady bowlers. Already considerable bowling talent has developed and the team has numerous challenges.

Young ladies in other Suburban departments are said to be planning similar teams.

The "K. K." team consists of the following: M. Dempsey, captain; L. Evanson, treasurer and anchor; M. Howard, L. Dempsey, V. Neubacker, K. Kent, substitute.

Bell Telephone Rod and Gun Club

On Wednesday evening, December 15th, the Bell Telephone Rod and Gun Club will hold its first annual competition shoot at the club's own gallery, 321 West Washington street, Chicago, starting at eight o'clock.

Each department of the Chicago Telephone Company is earnestly requested to have a representative team entered. Two beautiful silver trophies will be offered by the Chicago Telephone Company as prizes for first and second place, and are well worth shooting for. Cups are now on exhibition in the commercial department.

There will be seven men on each team, five men to shoot and two alternates. Any twenty-two caliber rifle may be used. The range is fifty feet. Each man will shoot five shots standing, five shots kneeling, five shots sitting and five shots prone. Possible score is 100 per cent.

Rules governing army competitions will be adhered to strictly.

Entries of teams must be in the hands of the Chief Executive Officer, H. C. Ridgeway, not later than December 11th. No one will be allowed to shoot who is not regularly entered in the competition. The following officers will act as officials:

Captain H. C. Ridgeway, executive officer; Lieutenant C. R. Boman, range officer; C. B. Robinson, assistant range officer; F. H. Glahn, assistant range officer; J. W. Mueller, statistical officer.

The ten men who make highest scores at this shoot will constitute the Chicago Telephone Rifle Team.

Bell Telephone Chess and Checker Club

The Bell Telephone Chess and Checker Club of Chicago met and thoroughly walloped a similar club from the Commonwealth Edison Company, at the Bell Club's headquarters in the Telephone Building on the night of November 9th.

Each club was represented by eight chess players, who were matched for one game each, and eighteen checker players, who were matched for four games each—a win counting two points and a draw counting one point in both chess and checkers.

The result of the chess match was 12 points to 4 points in favor of the Bell Telephone club, and the result of the checker match was 115 points to 29 points in favor of the Bell Telephone club—a total of 33 points for the Commonwealth Edison club and 127 points for the Bell Telephone club.

A return match is expected soon and the Edison boys are vowing sharp vengeance when they get on their home grounds.

The summer tournament of the Bell Telephone Chess and Checker Club which has just been closed, has been a big success. A schedule is out for the winter tournament and it is hoped that even more enthusiasm will be shown in the future.

Prizes in the summer tournament were awarded as follows:

CHESS.

Class A—C. F. Smith, first; R. S. Hana-bury, second.

Class B—F. E. Cahow, third.

Class C—O. M. Campbell, fourth.

CHECKERS.

Class A—Harry Alexander, first; J. E. Martin, second; F. H. Baker, third.

Class B—J. M. O'Grady, first; P. J. Peterson, second; O. R. Bolms, third.

Class C—Joe Scott, first; A. W. Rupp, second; J. H. Malloy, third.

Post-Season Baseball

On October 21st the Detroit Hickory and West offices played a post-season baseball game at Belle Isle. The Hickory team was composed chiefly of substitutes and only one regular player played in her regular position. The game was closely contested and was supposed to end in six innings, but at the end of the seventh inning the score was still a tie and it was decided to call it off.

In a practice game at Belle Isle lasting four innings, the Hemlock team defeated the Hickory team by a score of 6 to 2. A home run by Miss Hollister of the Hemlocks and a one-handed stop of a grounder by Miss Trombley of the Hemlocks were the features of this game.

Intense interest was taken in baseball by the Detroit girls throughout the whole season and they look forward eagerly to the beginning of play next spring.

British Telegraphs and Telephones

Few people have any conception of the extraordinary waste of public money involved in the management of the state telegraph and telephone services, says the London *Evening Standard*. Both these services were originally established by private enterprise, but a section of the public, backed up by officials, conceived the idea that better results could be achieved if the state took possession of these means of communication. It was in 1870 that the telegraphs were taken over. The officials of the post-office had presented to Parliament glowing estimates of the profit that would be made by purchasing the property of the then existing telegraph companies. Not only were these estimates never realized, but after the first two years of state working all profit vanished. After 1871 the postal telegraph service failed to pay the interest due on the capital advanced by the state for the purchase of the undertaking; a few years later the working expenses actually exceeded the gross revenue.

Essentially, this failure is due to the habitual expensiveness of government work. As one of the more independent officials of the postoffice stated, the economic failure of government undertakings is due to the fact that government employes cannot be dismissed. "Railway servants," said this postoffice official, "have continuous employment as long as they are efficient, but our people have continuous employment whether they are efficient or not." It may be added that the government never, or very rarely, takes any steps to secure efficiency by appointing a business man to the management of a business concern. The actual results are very striking.

According to the last published accounts the telegraph service in 1913-14 involved a net loss of \$6,060,000, but this figure takes no account of the interest which ought to have been paid upon the advances made year by year out of the public exchequer to meet annual deficits. The true commercial loss is certainly not less than \$7,500,000. According to the calculation of the postmaster-general, speaking in the House of Commons, April 30, 1914, the ordinary six-penny telegram now costs on the average eleven pence to transmit and deliver.

"The Birth of a Nation"

In the elaborate moving picture production known as "The Birth of a Nation" are a number of scenes representing battles in the American civil war. In some of these appear several thousand actor troops, and the "stage" on which the spectacle was pictured covered several square miles. The telephone was used extensively in directing the movements of the widely separated performers. It is said that the production of the film would not have been possible without the telephone.

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

Following the Star

As the Christmas time approaches we wish we could send a personal word of greeting to every girl who reads this page. It is the month when good will is the keynote of our thoughts, but there is a special warmth of feeling as we think of "our girls"—thousands of them—who are watching the twinkling lights of the switchboard and whose deft touch and cheerful "Number, please?" are bringing people together all over the world. We can not say Merry Christmas to each one but we can send you this lovely Christmas picture and wish that each one of you may, like the wise men of old, follow the Star.

The picture is from a great painting of Rubens called "The Adoration of the Magi," and is in the Louvre in Paris. Peter Paul Rubens, the chief master of the Flemish School of painters, was born in Westphalia, June 29, 1577, the son of a lawyer of Antwerp. He died when sixty-three years old at the height of his power but he had already painted 1,300 pictures, nearly two-thirds of which were painted by his hand alone. He was a teacher not only of painting but engraving. He was master of seven languages and corresponded with many distinguished contemporaries. At this time, it is especially interesting to know that this great artist was chosen in 1627 to negotiate peace measures between Spain and England and upon the successful ending of his mission was knighted by Charles the First in 1630.

Perhaps this spirit which made him so successful in diplomatic peace relations may have given him a special fondness for pic-

turing the infant Christ being worshipped by the nations as the Prince of Peace, for among his paintings were several even more imposing than the representation of the scene reproduced upon this page. Notice the fine faces of the wise men with their rich robes and splendid gifts of gold and precious stones, the warlike spears of the soldiers and see the contrast to the helpless

little baby before whom they worshipfully stand. The beautiful Madonna, her face exalted with the radiance of motherhood, receives the homage poured out before her unconscious child, who like any other baby, reaches out his little hand for the glittering gold. It is the homage of wisdom to love, the greatest thing in the world.

It is the splendid representation of the true value of things in life. What are gold and jewels and spears and wisdom and power, compared with the life which God has sent into the world to bring peace and good will?

These wise men, looking high above the struggles of nation against nation, of greed and selfishness and unrest, saw a wonderful star and followed it to find that the King they sought was but a little child in his Mother's arms and they recognized and worshipped, knowing that the Star had led them there. It is a beautiful story and it brings a thrill of wonder each year, as we realize that this Christmas story has touched the heart of the whole world and that for almost 2,000 years the little child in the manger has persisted while kingdoms and kings have long been forgotten. "Peace and Good Will" never sounded more beautiful than to-day, perhaps because they seem so far away. But this little child, who later died to bring peace, the victim of cruel power and selfishness, must by and by draw all men to the spirit of peace. We are sure even in these days of doubt and discouragement, that it will come.

There is a lovely suggestion in this thought of following the Star. It is a good motto for each one of us to take. Edward Everett Hale said it in



"ADORATION OF THE MAGI"

—Painting by Peter Paul Rubens.

Who are these that follow across the hills of night
A star that westward hurries along the fields of light?
Three wise men from the east who myrrh and treasure bring
To lay them at the feet of him their Lord and Christ and King.

Tell me how may I join in this holy feast
With all the kneeling world and I of all the least?
Fear not, O faithful heart, but bring what most is meet—
Bring love alone, true love alone, and lay it at his feet.

—Richard Watson Gilder.

"Look up and not down"—Emerson said it in "Hitch your wagon to a Star." Why shall we not join the wise men of old and the wise men of our own day and follow the Star? We shall be called visionary just as the wise men are but isn't it beautiful to see things which others can not see? Who is satisfied to look at the path before her without ever looking up to see the sky above? And why should we be satisfied with seeing nothing in life but food and drink and clothes? To follow the Star, we shall need to make up our minds as the wise men of old did—that love and peace are more powerful than kings, or gold, or implements of war.

Have we a Star—an ideal—which we are trying to follow? If we are trying to be true and unselfish, faithful in service, companionable and pure-minded, we are following a splendid star, and it will lead to the One who brought peace and good will to earth.

Many of us know girls whose unselfish lives are ideals for us; girls who work for hire at our switchboards but who transmute their money into something much more precious than gold as they give it unselfishly to those dependent upon them.

If we "look up and not down," we shall find something beautiful to follow and it is really practical "to hitch our wagon to a star" for we can not keep our purpose steadfast and high, without finding that we have a new strength and joy in life and a feeling that we are connected in a mysterious way with the power from on High.

The busy days of December are here and the twinkling lights of the switchboard silently beckon our girls to most practical service. Good Will can be in every quick connection you make and if you are conscious that it is following a star, even when you follow your pilot light, it may make each day a glad gift to the unseen multitude you serve.

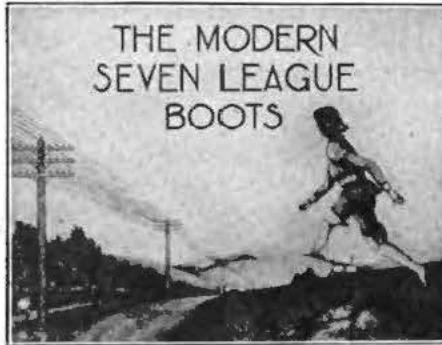
The Telephone Girl

Telephone companies require their operators to use their sweetest tones when answering calls. For which there can be no criticism.

But how about the rest of us who use the lines?

The telephone operator is seldom to blame when service is poor. She is entitled to the respect due a woman, and to the consideration due an efficient worker.—

Toledo News-Bee.



Telephone Moving Pictures

The Chicago Telephone Company under the personal direction and supervision of H. N. Foster, traffic superintendent, has recently produced a very novel and interesting moving picture with telephone operating as the chief feature. The picture is entitled "The Modern Seven League Boots." The telephone details are cleverly woven into a fascinating story, the opening scenes of which are laid in California. The heroine, a wealthy society girl, Ethele Warder, leaves her home in California to visit her brother, who is the star half-back in the university team of Yarmouth, Mass. During her visit east she meets her brother's classmates, one of whom, Walter Hartgrave, becomes particularly attentive. While she is enjoying the gaieties of college life and activities, her father, who is a wealthy stock broker, becomes involved in unfortunate investments and loses his fortune.

The transcontinental line is brought into play by the father talking with his daughter and explaining the situation. The daughter without a moment's hesitation

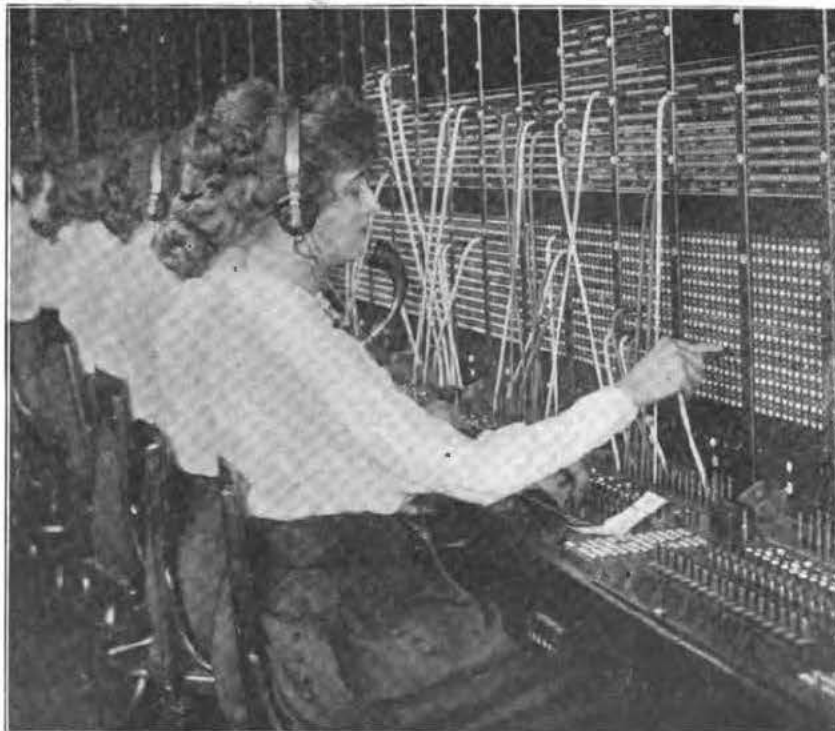
encourages her father, and arranges to go to her aunt in Chicago, instead of going home, and the scenes then move from the east to the daughter's arrival at her aunt's in Chicago. They immediately discuss means of employment, as it is now necessary for her to seek her own livelihood.

The aunt suggests telephone work and explains to Ethele the advantage of this work and describes the training and healthful, pleasant environments of telephone operating. The film at this time shows a portion of the school, and pictures of the tennis courts, rest rooms, etc. Ethele applies for a position at the Telephone School and the film then takes her through the various class rooms and activities of the school course.

During this course particular stress is given in one of the lectures to the proper handling of a fire call, and opportunity is given to illustrate the starting of a fire in a residence, a woman's call for the fire department and the rushing down one of the boulevards of the fire department. Particular interest is centered on this picture, as the fire procession is led by Chief O'Connor of the Chicago fire department in his white helmet.

After graduation the young lady is assigned to one of the Chicago offices, and the film then deals with the operating practices, showing the operating rooms, rest rooms, luncheon room and various equipment of the building.

Probably the most remarkable portion of this film is the panoramic view of the Hyde Park A switchboard, the entire length of board 175 feet long being shown. Considerable ingenuity was required in taking this picture, and it was accomplished by mounting the camera and twelve large lamps on trucks which required some twenty janitors to pull from one end of the room to the other, paralleling the switchboard. In this picture each operator and supervisor is shown actually and actively engaged in the proper handling of the traffic. A similar view is later shown on the three B units. One evening while Ethele is on duty a call for "Help" is received on her position. This call, unknown to Ethele, comes from the home of Walter Hartgrave. A robber has broken in and his mother and invalid sister are alone in the house and have only time to call "Help" into the telephone. Ethele happens to handle this



ETHELE AT THE SWITCHBOARD.

particular call, notifies her supervisor, who in turn calls the police. The film shows the robber withdrawing from the house and, as he climbs down the porch, is promptly met by the patrol wagon with its load of policemen.

The young man returns home the next morning and the mother and son are so pleased at the prompt action on the part of the operator that they visit the telephone

It is planned that this film will be very generally used both in the "movie" houses and in talks and lecture work.

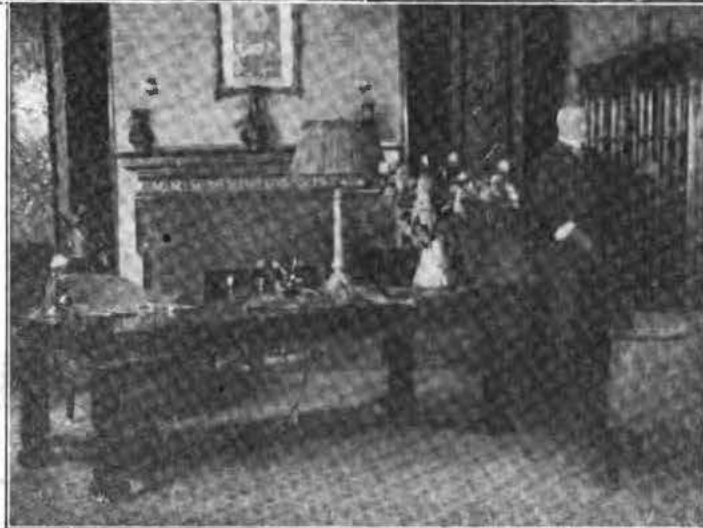
Not a Bomb

Herman Wasserman of New York was peacefully sleeping in his room at a St. Paul, Minn., hotel at 9:30 a. m. He had arrived late the night before and was tired.

An Unvarying Story

It is the uniformity, the entire lack of any exception to the rule, that makes the story of the telephone girl in times of stress so noteworthy.

With a long record of heroism back of her there is nothing surprising in the story that came from Belgium of the telephone girl at Dahlen, or the one told of the



exchange to express their thanks, and in this way Ethel and the young man find each other, as she had quietly left the east, leaving no explanation as to her whereabouts. The climax is shown a little later by the film of Ethel and Walter in their suburban bungalow.

The pictures are particularly well taken and clearly express the various points which they are intended to illustrate. They are especially novel in that no "fake" scenes are used, all of the interiors having been taken in actual rooms and the surroundings are thus made unusually attractive.

The skeleton of the scenario was first made up with the idea of bringing into play the transcontinental line, the emergency calls, such as fire, police and doctor, and the various views of the interior of a telephone exchange. With these as a start, a committee composed of Messrs. Foster, Bradshaw, Sullivan and McCorkle evolved an interesting story which completely holds the attention of the audience.

The camera work has been unusually well done by Thomas Lambert of the Chicago company.

It is particularly interesting to note that no outsiders were employed in the production of this film, all of the characters being regular employes of the traffic department. Altogether there are about 150 different people, both men and women, in the various scenes throughout the play.

Russian girl at Novorossysk. The Belgian girl observed the battle going on around her, undisturbed by the danger she was in, and telephoned the officers at the forts that they were not properly placing their shells. She continued to direct the Belgian fire until a German shell destroyed the office she was in and killed her.

The Russian girl stayed at her post when everybody else had fled, and did her work with shells falling all around her. The decoration "for valor under fire" was never more worthily granted to any soldier.

These girls keep up the traditions established at many a fire and flood.

How shall we account for this record without an exception? Let us not try to account for it, but simply take off our hats to her.—Editorial in *Madison Democrat*, November 24, 1915.

A Timely Tip

George Geiger of Bellecenter, Ohio, joins the number who say they don't know what they would do without a telephone.

He was at the breakfast table when the bell rang, and he hurried to answer.

"Finley Sloan, a neighbor, had called me up to tell me that the roof of my house was afire," says Geiger.

Thus, once more was the value of the telephone as a watchman for the home, abundantly proved.

1. ETHELE ON BALUSTRADE AT THE COUNTRY CLUB. 2. ETHELE IN HER BOUDOIR. 3. Mr. WARDER IN HIS LIBRARY.

These are cuttings from the film.

Downstairs, the clerk handed the telephone repairman a key to Wasserman's room and told him to go ahead and fix the telephone. Everything was lovely until the telephone man left his "buzzer" in the middle of the room and went down in the basement to test out the line.

The noise awakened the sleeper, to whom the sinking of the *Lusitania*, the president's note to Germany and the proximity of the Canadian border all occurred at the same time.

When the lineman returned from the basement, he found his buzzer in the hall, under a pile of bed covers and pillows, and an excited German piling on more.

FOR THE GIRL WHO SEWS

COAT WITH FASHIONABLE BELTED EFFECT

Belted garments of all sorts are in the height of style this season and this coat is one of the best possible for small women and for young girls. It really is a loose, simple, plain coat, but the adjustment of the fulness by means of the belt gives it a decidedly novel effect. It flares gracefully at the lower edge. The garment presents no great difficulties to the home dress-maker. The collar may be worn up around the

throat as it is here or rolled down over the coat. All reasonable cloaking materials are appropriate.

For the 16-year size will be needed, 7 1/4 yds. of material 27 in. wide, 4 1/4 yds. 44, 4 1/4 yds. 54.

The pattern No. 8817 is cut in sizes for 16 and 18 years. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon.



8817 (With Basting Line and Added seam Allowance) Loose Coat for Misses and Small Women, 16 and 18 years.



8843 (With Basting Line and Added Seam Allowance) One-Piece Gown in Russian Style, 34 to 44 bust.

SMART GOWN IN RUSSIAN STYLE

Every variation of the one-piece dress is fashionable, and this one in Russian style is especially smart. Blouse and skirt are made separately and joined by means of the belt.

For the medium size will be needed, 7 1/4 yds. of material 27 in. wide, 5 1/4 yds. 36, 4 1/4 yds. 44, with 5 1/2 yds. of fur banding. The width of the skirt at the lower edge is 3 yds. and 6 in.

The pattern No. 8843 is cut in sizes from 34 to 44 in. bust measure. It will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps. Use pattern coupon.

PRACTICAL AND BECOMING GYMNASIUM SUIT

There is no better costume for exercise or the gymnasium than the middy blouse with bloomers. This blouse is a new one, with patch pockets and smocking in place of gathers. The bloomers are plaited, ample and roomy and are closed at the side.

The pattern for the blouse No. 8809 and the pattern for the bloomers No. 8856 are both cut in sizes for 16 and 18 years. They will be mailed to any address by the Fashion Department of this paper, on receipt of six cents in two-cent stamps for each, or twelve cents for the two. Use pattern coupon.



8809 Middy Blouse for Misses and Small Women, 16 and 18 years.

8856 (With Basting Line and Added Seam Allowance) Plaited Bloomers for Misses and Small Women, 16 and 18 years.

PATTERN COUPON

Fashion Department, BELL TELEPHONE NEWS,
212 West Washington St., Chicago, Ill.

Enclosed find cents in 2-cent stamps for which please send me patterns listed below:

No.....Size.....

No.....Size.....

Name

Address

City or Town

State

The price of each pattern shown in this issue, to employes of the Bell System, is six cents when order is accompanied by this coupon. Write name and address, and number and size of patterns plainly. Enclose six cents in 2-cent stamps for each pattern ordered.

Brief News Notes from the Field

Items of Interest to Michigan Telephone Employees Gathered from All Parts of the Territory

Julius H. Moeller, Correspondent, Detroit.

New Managers

John A. Holman is the new manager at Alma, succeeding H. F. Allman, who was transferred to the Lansing office. Mr. Holman has been in the employ of the Michigan State Telephone Company since last May when he took a position as commercial agent, working in Farmington, Redford, Battle Creek and Jackson. He is a native of Chicago and has seen several years' service in the United States Marine corps, being in charge of the Detroit recruiting station immediately preceding his connection with the telephone company. He has been recommended for an officer's commission in the volunteer army should complications necessitate creating one.

H. F. Allman, formerly area manager of Grafton County, succeeds C. M. Darling as manager at Lansing. Mr. Darling resigned recently to enter another line of business. Mr. Allman entered the employ of the Michigan State Telephone Company in February, 1908, as solicitor at Bay City. A month later he was given the position of subscribers' representative which he held until October 1, 1913, when he was transferred to Alma. Mr. Allman assumed his new duties at Lansing November 1st.

Mrs. Hattie V. Mee has succeeded Emma C. Maloney as manager at the Hopkins exchange. The change became effective October 14th.

Traffic Conference at Lansing

One of the most successful traffic conferences ever held by the Michigan State Telephone Company took place at Lansing Wednesday, Thursday and Friday, October 27th, 28th and 29th. Headquarters were established at the Hotel Went-



JOHN A. HOLMAN.

worth. From forty to fifty chief operators and managers representing thirteen of the larger offices in the lower peninsula were present. The conference was conducted by L. J. Walley and H. V. Weed, of Detroit, traffic supervisors.

Addresses and discussions centered around the revised issue of traffic bulletin No. 4 and the reference book on toll operating and traffic bulletin

4T. The handling of toll traffic and the proper use of facilities claimed considerable attention.

W. A. Spencer, traffic chief, Detroit, discussed the organization of the force and the value and object of peg counts. Fred Clarke, traffic engineer, Detroit, explained the new Michigan tariff and route book. A. E. VanHagen, traffic engineer of the central group of Bell companies, Chicago, gave an interesting talk on general toll operating practice and ways and means of properly training and instructing toll operators. J. C. Brett, district accountant, Grand Rapids, represented the auditor of receipts, and discussed the legibility of ticket records as they affect the accounting department. W. G. Slocum, district traffic chief, Detroit, spoke on the value of following authorized routings and class of circuits. Much time was spent discussing the use of toll circuits and keeping subscribers properly advised as to the progress of calls under all conditions.

The program of entertainment included a banquet and a theater party. Wednesday noon all attending the conference were guests of the company at the Hotel Downey. Short talks were given by various persons who have been in the telephone business for an extended period. They told many interesting reminiscences. Wednesday night a theater party was given at the Bijou.

Operators from the western side of the state visited the Grand Rapids exchange on the homeward trip and those from the eastern part stopped to visit the Jackson office. Following are the offices that were represented in the conference: Ann Arbor, Benton Harbor, Battle Creek, Bay City, Detroit, Flint, Grand Rapids,



TRAFFIC CONFERENCE AT LANSING.

Kalamazoo, Jackson, Lansing, Pontiac, Port Huron and Saginaw.

District meetings were held in Jackson, Kalamazoo and Grand Rapids during November. Other district meetings will follow.

Mr. von Schlegell Addresses Club

General Manager von Schlegell was the principal speaker at a social session of the Wolverine Automobile club, held in Detroit Friday evening, October 28th. Mr. von Schlegell discussed the telephone situation in Detroit briefly and told how the company is cooperating with the club in marking the way for motorists on 10,000 miles of Michigan roads. The company's motion picture machine was put into operation and the film, "Spinners of Speech," was shown, to the great delight of the audience.

Telephone Society of Michigan

The call sent out by the officers of the Telephone Society of Michigan for a meeting Friday evening, November 19th, of all male employes of the company in Detroit was answered by a turnout of 350 men. Short speeches were made by C. G. Sharpe, plant superintendent; C. Kittredge, engineer, and C. S. Slack, manager at Detroit.

The meeting was of an informal nature and plans for the winter's activities were formulated. An effort will be made to have a transcontinental telephone demonstration for members at an early date. Various subjects of interest to telephone men in general will be treated at the different meetings by men who can speak with authority on their special topics.

The end of the fiscal year was changed from April 1st to October 1st and a special election of officers will be held the first Tuesday in January. Regular meetings will be held the first and third Mondays of every month. Prospects are that the society will have the largest membership in its history. Seventy new members were admitted at the first meeting and an active canvass will be made to enroll every male employe of the company in Detroit and environs in the organization. Large, attractive quarters have been obtained, through the assistance of the company, at Washington Halls, Grand River avenue and Washington boulevard.

The lady employes presented a petition requesting that a ladies' auxiliary be organized. The secretary was authorized to report to the petitioners that they will have the active cooperation of the society in their desire to accomplish this purpose. Committees to effect the organization will be named soon.

Industrial Exhibit at Lansing.

B. R. Marsh, district manager of the Lansing district, has been bubbling over with glee ever since he did \$600 worth of business at the Lansing industrial exhibit held from November 5th to 13th inclusive. Following the end of a revival campaign held in Lansing earlier in the fall, the *Lansing State Journal* conceived the idea of using the big tabernacle that had been constructed for that purpose for an industrial exhibit. The leading concerns of the city took space and staged one of the most successful enterprises of the kind ever put on anywhere. The Michigan State Telephone Company's booth was arranged in attractive manner under the direction of Mr. Marsh and assistants and elicited much favorable comment. A pretty canopy of blue and white covered the booth. Blue Bell lamp shades and telephone canteen lamps were used effectively. A telephone was installed in every booth at the show and service was given to all parts of the city. A long-distance booth was also installed and proved a great convenience. Telephone apparatus was exhibited in convenient places and telephone employes explained its use and purpose. An abundance of signs and literature told of the merits of the Bell system and of the fact that Lansing has gained 1,003 Bell telephones between January 1st and November 1, 1915. Four loud-talking re-

—M



BOOTH AT LANSING INDUSTRIAL EXHIBIT.

ceivers in various locations in the building proved a great mystery to many visitors and caused no end of fun. They were the hit of the show.

Poles Mark Wolverine Trail

The Wolverine Automobile Club, with the aid of the Michigan State Telephone Company, is blazing a trail through Michigan. General Manager A. von Schlegell has given the club permission to paint a guide sign on all of the company's telephone poles along the various highways throughout the state. The work was begun the latter part of October and the Detroit-Toledo route has been practically covered. J. E. Scott, manager of the Eastern district, accompanied the Wolverine club committee in charge of the work. He has obtained permission for the club to use the poles of all telephone, electric light and power companies in the state to mark the route. The telephone company has offered the Wolverine club the services of one of its employes to help do the work.

The signs to adorn the telephone poles have a white background so as to be easily distinguishable at a considerable distance. The letters W. A. C. are stenciled in red on the sign to show that it is the official route. The name of the route also appears with a double pointed arrow pointing the way to the respective towns. A curved arrow and the letter L or R appear on a pole at every turn to indicate the course.

At a recent meeting of the Wolverine Automobile club a vote of thanks was extended the Michigan State Telephone Company and Mr. von Schlegell for the material assistance rendered.

New East Office Planned

East exchange, Detroit, is to have a new home. The company has purchased property on the north side of Congress street, east, between McDougall and Elmwood avenues, as a site for the new building. It has 115 feet frontage and depth of 140 feet. The two frame houses and one brick dwelling that stand on the premises will be razed at once to make way for the new building.

The new East office will cost about \$60,000 and will be one of the finest in the city. It will be of steel and concrete construction, forty-three by one hundred and five feet in size, and absolutely fireproof. The exterior will be of red pressed brick with stone trimmings and ornamental iron balconies. Foundations will be made strong enough to permit the erection of a fourth story at a future date.

The operating room will be located on the second floor. The third floor will be devoted to rest room, lockers, cafe, lavatories, etc. The building will be located at one side of the property, leaving the rest of the grounds to be fitted up for out-door recreation.

The new building is made necessary by the continued and rapid growth of the company's business in the area served by the East exchange. The present East office, a two-story structure, measuring thirty-six by sixty-one feet, was opened in 1904 with 2,500 stations. The fundamental study made in 1912 estimated that by 1930 the East office would serve 8,300 stations. The 4,000 circuits entering the exchange at the present time, serving nearly 7,000 stations, will be increased to 5,000 circuits in the new building and provision will be made for serving 12,000 stations.

Cedar Sewing Clubs

The "Lamba Beta" club, which means "Lucky Band," is composed of the day operators at the Cedar office. Following are the officers of this club: Eva Vatcher, president; Elsie Ehrmantraut, secretary; Julia Maloney, treasurer.

The "Signa Ti" club, which means "Service First," is composed of the evening operators at the Cedar office. Officers of this club are: Luella Sohnlein, president; Gertrude Bauer, vice president; Evelyn McTaggart, secretary; Fannie Klotz, treasurer.

The Good Fellow club of Hickory will dress dolls for poor children and will be glad to receive the names of such children from any one who knows of them.

Detroit District

Agnes Donohue, Seventh division, Main, won the contest for September.

On October 19th a surprise dinner party was given for Miss F. Greenstide at the Hotel Statler. Tables were decorated in Hallowe'en favors.

On Wednesday evening, November 3rd, about one hundred operators of the Ridge exchange attended a "Little Girls' Party," which was given in their offices. The affair proved to be very successful. During the evening, games were played, M. Fisher, M. Fiems and C. Dettloff winning the prizes for the spelling match. Misses Mittleberger and O. Bischoff received prizes for giving correct answers to capitals of states. Many of the girls did different "stunts," which added to the evening's enjoyment. After a dainty

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The New "Thompson-Levering" Test Set



TYPE CI-3011 Price \$30.00

Special Features

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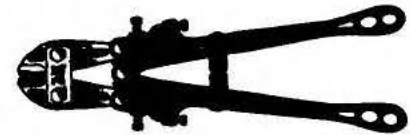
A set the telephone world has greatly needed and desired for years, but never available until now. Its low price is the result of special design, quantity production and approved manufacturing methods.

Made, sold and guaranteed by the Thompson-Levering Company who are the producers of the highest grade testing instruments which are standard with all of the largest public service corporations in the world.

THOMPSON-LEVERING CO.,

Philadelphia, Pa.

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CUTTERS



- 10-Inch** Clipper Cut Jaws, for 3-16-in. annealed bolts in thrd thread, or 3-16-in. soft rivets.
- Center Cut Jaws, for 3-16-in. soft rods.
- 14-Inch** Clipper Cut Jaws, for 1-4-in. annealed bolts in thrd thread, or 1-4-in. soft rivets.
- Center Cut Jaws, for 1-4-in. soft rods.

Insulated Handles if desired.

H. K. PORTER, EVERETT, MASS.

"Easy," "New Easy" and Allen Randall Bolt Clippers

luncheon, the girls spent the remainder of the evening in dancing and singing.

Helen Draks, of the Ridge office, has been promoted from senior operator to assistant evening chief operator.

The prize for last month was won by the day operators in Myrtle Fisher's section, Ridge office.

Margaret Karp, of the Ridge office, has announced her marriage to M. Phillips, which took place in August.

Rose Tueck and Clara Brehm have been promoted from relief operators to evening supervisors.

Miss MacPherson was promoted from super-

visor to senior supervisor and social secretary at East office.

Miss G. Johnston was promoted from B operator to evening B supervisor.

The East girls gave a farewell surprise party to Miss I. Hayes on October 5th. They played games and danced. Miss Hayes was presented with a beautiful leather handbag in which was a ten-dollar gold piece. She succeeds Mrs. Flintham as social secretary.

On November 2nd the East girls gave a Halloween party. The games started at 8:30 p. m. Miss Burkard, Miss Jefferies and Miss E. Nathan received prizes for ducking for quarters and dimes at the bottom of a tub of water. Miss Hayes, Miss E. Gassman and Miss Christie won prizes for carrying a peanut on a silver knife all around the room. Miss R. Gassman won a prize for walking like Charlie Chaplin; Miss Middleton for yawning until she made some one else yawn. That some one else happened to be Miss Decker from Cedar. Miss E. King and Miss MacPherson won prizes for ducking for apples. Miss Howatt and Miss McIlwain won prizes in a fish game.

Miss E. McCormick took her vacation and a leave of absence at the same time and went to the Thousand Islands. During Miss McCormick's leave of absence Miss L. Brown took her section.

Anna Sorenson, clerk at Hemlock, was promoted to clerk at North office.

P. Salisbury, evening B supervisor, was promoted to day A supervisor.

O. Brelinski, evening senior operator, was promoted to evening B supervisor.

G. Stuart, day B supervisor, was promoted to day senior operator.

Miss Rusno, evening A supervisor, and her remaining division spent a very pleasant evening at the Temple Theater.

O. Jubenville, day B supervisor, won the contest for the month of September and October.

M—



RIDGE OPERATORS AT CHILDREN'S PARTY.



HALLOWE'EN PARTY AT HICKORY OFFICE.

She took the girls to see "Peg O' My Heart" at the Garrick.

The Hemlock club had a very pleasant time at their last meeting. The officers planned a program which was a success, after which a dainty luncheon was served. Miss Olsen, evening chief operator, entertained her operators with a Halloween party. The dining room was decorated in appropriate colors. The evening was spent in various games, after which all enjoyed a supper.

On Monday evening, October 18th, the "Aloha" club, the members of which are girls from the Grand office, gave a miscellaneous shower at the home of Anna Murphy, complimenting Irene Gannon, who was recently married to Edward Ashley. The bride received many beautiful gifts. Music and games were enjoyed and last but not least a supper.

Rose Kowalski, day A supervisor, Grand office, resigned and was married to Matthew Kerwin at St. Leo's church. The operators in her division presented her with a cut-glass berry set.

Anna O'Leary, all-night chief operator Grand

office, resigned and was married to Earl Pickering on October 27th. The all-night operators of the Grand office presented her with a beautiful electric lamp.

Margaret Weigand, relief A operator, Grand office, has been promoted to evening supervisor.

Ione Wadsworth, evening multiple marking operator, Grand office, has been promoted to evening supervisor.

Emily Bickel, evening A operator, Grand office, has been promoted to senior operator.

The first day A division, with Kathleen Tomes as supervisor, won the October contest at the Cadillac office.

Helen O'Rourke, operator at the Cadillac office, resigned October 14th to stay at home. Miss O'Rourke became Mrs. Hubbard about September 15th.

The following promotions have been made at the Cadillac office: C. Connolly from senior B operator to day B supervisor, J. Lahusky, M. Losins and M. Pezan from operators to senior A op-

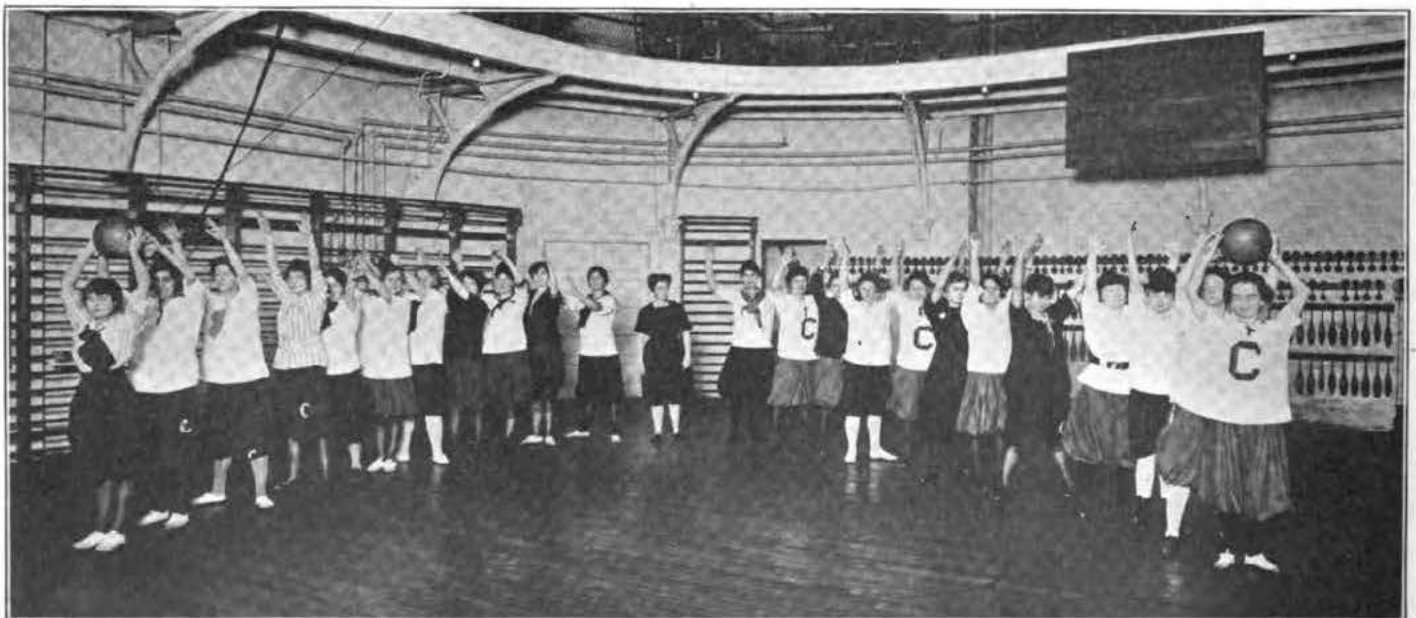
erators and A. Lozelle from desk supervisor to record clerk.

Emma O'Connor and Julia Witt, operators at the Cadillac office, resigned in October to stay at home. Both girls were married during the summer.

The girls of the Hickory office gave a Halloween party October 29th. The retiring room was decorated with lanterns, corn stalks and fancy novelties. Dancing and a grand march were the features of the evening. The invited guests were Hilda Bartz, of Main; Elra Hayes, of Walnut, and Miss I. Hayes, "Social Editor." A flashlight picture was taken of the merry crowd, after which a supper was served.

The Hickory girls have organized a sewing club, meetings to be held every Friday night. Their first undertaking will be to dress six dozen dolls which the "Good Fellow Club" will distribute among the poor.

Detroit operators are showing considerable interest in the Bell Choral society which was organized early in November. They expect an en-

BASKET BALL AT Y. W. C. A.
Cedar and Cadillac ready to play.



THE No. 223 KEROSENE FIRE POT

was designed to meet the requirements of particular mechanics, desiring to use kerosene as fuel instead of gasoline. The No. 223 is made with seamless drawn steel tank reinforced with all fittings and bottom welded in, making it extra strong and durable. The special burner is made of the finest generator metal ever produced. It holds the heat longer and produces a steady blue flame of intense heat and devoid of Smell and Smoke, and is a winner. Try the No. 223 and you will be pleased and satisfied. All leading jobbers will supply at factory price.

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Blake Insulated Staples

Unequaled for telephone and bell wiring. The fibre insulation prevents troublesome short circuits and grounds. 5 Sizes. Pat. Nov. 1900. Write for samples.

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Boston, Mass.

Be sure to look for this label on the "Peerless" Can when purchasing.

UNDERWRITERS LABORATORIES INC
INSPECTED SAFETY CAN
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Your life is worth more than the price of the "PEERLESS" CAN

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The five gallon Can takes 15 seconds to fill and can be emptied in 30 seconds, proving its superiority over any other Safety Can.



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The "EICHHOFF" Combined Pay-out and Take-up Reel



"The French" FOLDING DOOR Telephone Booth

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PROTECTION FROM INJURY: The point where the two leaves of the FOLDING DOOR meet is of such design as to prevent any possible chance of injuring the fingers. This feature makes the FOLDING DOOR booth a practical proposition.


Write for booklet describing the advantages of the "Folding Door" Booth

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Door Open Door Closed

rollment of 300 members. Professor A. Edison Laing, of the Detroit Institute of Music, is in charge. The girls will give a concert late in the winter.

Sewing clubs have been organized in West, Cedar, Main, Hemlock and Ridge exchanges. Similar clubs will be organized soon in the other offices. The girls are busy making presents for Christmas.

The girls in the Market office have organized a pedro club. They meet every other Monday evening from eight to nine o'clock. Suitable prizes are offered and refreshments are served.

The dancing class which was organized November 8th has proved very popular. Nearly 300 reported the first night. Instruction is in charge of Pearl and Maud Miller, of the Grand office. Pearl Miller was Vernon Castle's choice as prize waltzer in Detroit last winter and Maud Miller was awarded first prize in an amateur dancing contest at the *Palaise de Danse*.

Twelve girls of the Cadillac office met at the home of Edna Poole Thursday, October 28th, to attend a kitchen shower given in honor of Aulga Amos, who resigned November 10th to become Mrs. Gelen Sutterby. The shower was a surprise to Miss Amos and given in the form of a pajama party. Miss E. Weigand entertained several girls at a linen shower and Miss O. von Walthausen gave a miscellaneous shower in honor of Miss Amos. The girls at the Cadillac office presented her with a beautiful cut-glass water set. Mr. and Mrs. Sutterby will make their home at Owosso, Mich.

The Cedar Lamba Beta club delightfully entertained the Sigma Ti girls at a masquerade Halloween party. Prizes were given for the best make-up and for several games.

Miss Bauer, senior operator, has been promoted to supervisor.

Miss Quiring's division took the lead for October and won division prize. The operators expect to see "The Only Girl."

Eastern District

Friday and Saturday, November 5th and 6th, were busy days at Ann Arbor exchange. Saturday was the Michigan-Cornell football game day and the day before was "preparation day," and almost as busy from a traffic standpoint as the real big day. On Friday the toll operators handled a total of 416 completed out calls, while on Saturday the number of calls completed was 444. This on a six-position board bespeaks some lively moving on the part of the operators, and there was some. Not very much more interest could have been manifested on the part of the operators and supervisors in both toll and local rooms had the institution actually belonged to the operators themselves. With many thousands of visitors in the city for the day, who had not the time to see their friends, so called them over the telephone, the local operating room was turned into an interesting sight. Traffic Superintendent Spencer was a very interested spectator of the performance. He arrived in the operating room shortly after eight o'clock in the morning and remained the greater part of the day. The Ann Arbor manager says the operators this season have broken all previous records of the exchange in the handling of the cyclone of traffic on big football days. Last season was the first in years that extra operators were not required and this season the unusual load was handled with even more ease.

Mrs. May Stevens, formerly chief operator of the Ann Arbor exchange, has resigned and gone to Cleveland, where Mr. Stevens is employed in the contract department.

A private branch exchange, with four trunks and six stations, has recently been installed at Ann Arbor exchange for the A. A. Taxi Cab Company.

A private branch exchange, with two trunks and five police alarm stations located in different parts of the city, has been installed at police headquarters in Ann Arbor.

Ora Jeremy, of the Milan plant department, was married to Tressie Hamlin, of Milan, Wednesday, November 10th. The ceremony was per-

formed in the presence of seventy-five relatives and friends.

Carl Thilk, cableman, and helper have just left Chelsea after a thorough clean-up on cable troubles. At one point two twenty-two cabler bullets were located which had penetrated the sheath of a one hundred-pair cable.

Howard C. Mudg, repairman at Birmingham, was married to Lillian Thompson November 6th. Miss Thompson was a former operator of both Birmingham and Royal Oak exchanges.

On Wednesday evening, November 10th, twelve of the girls at the Ypsilanti exchange met at the home of the chief operator, Lyda Palmer, and organized a sewing club to be known as the M. S. T. club. Miss Palmer was elected president; Eleanor Hutting, treasurer, and Clara Kicherer, secretary. The second meeting was held at the home of the assistant chief operator, Edna Hutting, November 25th.

Grand Rapids District

Carrie A. Seeba, toll operator at Ludington, returned to her duties on October 27th after enjoying a week's vacation, part of which she spent with relatives at Scottville, Mich.

Elsie Meissner, evening chief operator at Ludington, entertained the operating force and the clerk of the commercial department at her home on the evening of October 26th. The function was given in honor of Edna Wilkenson, who left a few days later to locate permanently in Detroit. The evening was informally spent with music and needlework and the hostess served dainty refreshments.

Grand Rapids operators and other employees of the company at the Furniture City to the number of about 400 gave a dinner Tuesday evening, November 9th, at St. Mark's parish house for the benefit of a Thanksgiving fund. Following a custom of many years the employees of the company in Grand Rapids remembered the poor and needy families throughout the city on Thanksgiving Day. The proceeds of the dinner went to fill the baskets, which were distributed. The dinner was arranged by Camelia Palmer and Anna Daoust, of the Main office; Vera Blain and Nellie Williams, of the South office, and Bertha Hall and Vernice Bowes, of the toll department. During the dinner there were musical offerings by Rose Frederickson and by Leonore Kaminski, accompanied by Anna Palmer.

On November 1st Rosa Schneider succeeded Mrs. I. V. Fry as manager of the Dorr exchange.

On Wednesday evening, October 20th, Mr. and Mrs. C. E. Waite entertained the girls of the Commercial office at Grand Rapids with a dinner party at their home. Music was one of the features of the evening and Miss Spoelstra rendered several vocal selections, assisted by Miss Christiansen. Later in the evening everybody went for an auto ride. Mr. Waite is commercial manager at the Grand Rapids exchange.

Kalamazoo District.

Delilah Simmons, operator at Lake Odessa, and "Sid" McLaughlin, testman at Kalamazoo, were quietly married at Grand Rapids, Mich., on November 2nd. The marriage was a complete surprise to all at the exchange. A beautiful chest of silver was presented Mr. and Mrs. McLaughlin as a token of esteem.

E. P. Platt, district manager, spent a most enjoyable vacation in Jacksonville, Fla., stopping en route to visit relatives and friends in Ohio and Indiana.

Vern Palmiter, formerly rackman, succeeds Lawrence Chrouch, as stockkeeper. Mr. Chrouch resigned to continue his studies at the University of Michigan.

Lynn Lukins, toll repairman, and Margaret Norton were married at the home of the bride in Alamo on October 15th. A set of silver was presented Mr. Lukins upon his return to the exchange.

Florence Sheffers, stenographer to A. W. Robb, manager, resigned to become the bride of Karl W. Hooth on Thanksgiving Day. Miss Sheffers,

who has been connected with the company for the past three years, has endeared herself to all her associates. Janet Menzie will succeed Miss Sheffers. The girls of the district and commercial offices entertained Miss Sheffers at a seven o'clock dinner at the "Blue Bird" tea room on Saturday, November 13th. Following the dinner the party enjoyed "A Pair of Sixes," presented at the Fuller Theater.

Camilla Hansen, local supervisor at Kalamazoo, has resigned to join her parents in Milwaukee. Before she left the local and long-distance girls gave her a farewell party in the form of a six o'clock dinner. The guest was presented with a piece of silver. Bell Wheeler, former chief operator of Union City, has taken the position left vacant by Miss Hansen.

Manager Stevens, of the Benton Harbor exchange, recently accepted a contract for a private branch exchange system for the Benton Harbor Malleable Foundry Company. It consists of seven terminals and two trunk lines. A cordless-type switchboard was installed.

Former Chief Operator Mabel Gilbert was given a pleasant surprise in the pretty rooms of the Business Girls' Club. She was noisily greeted by the traffic departments of Benton Harbor and St. Joseph Exchanges. In behalf of the girls, Toll Operator Ella Ramlow "eloquently" presented her with a handsome ivory toilet set. Dainty refreshments were served. Miss Gilbert, who for the past four years has been chief operator at Benton Harbor, has accepted the position as chief operator in South Bend. She is succeeded by Evening Chief Operator Stella Lyle. Miss Lyle was connected with the Chicago Telephone Company about nine years, part of the time as supervisor in Kedzie office.

Local Operator Buelah Goodrich, of Benton Harbor, enjoyed a month's leave of absence, most of which was spent in Waterloo, Iowa.

Supervisors May Frock and Mary and Nellie Horan enjoyed two weeks' vacations in Chicago and nearby Michigan resorts.

Lansing District.

Maude DeCamp resigned her position as chief operator at Mason October 20th. Helen Gregory is filling the vacancy temporarily.

Evert Metcalf, operator at Holly, resigned November 15th. Leora Downing has succeeded Mr. Metcalf.

Marjorie Stark, local operator at Grand Ledge, entertained the operators and their friends at a Halloween party Friday evening, October 29th. The rooms were decorated in jack o' lanterns and lighted by candles. The hostess received in the costume of a ghost. Gladys Stark, toll operator at the Lansing exchange, was present and represented a witch. She created much fun by the "fortunes" she told for different members of the party.

The Howell operators were pleasantly entertained Monday evening, November 1st, at the home of Frances Hall.

Mrs. Anna E. Corey accepted the position of chief operator at Lake Odessa November 1st, Delilah Simmons, former chief operator, having resigned.

Hazel Snyder has accepted the position of chief operator at Charlotte.

Susie Cameron succeeded Ester Farlin as toll operator at Howell. Miss Farlin resigned to take up her residence in Lansing.

Bernice Gilleo, chief operator at Lansing, spent a week's vacation at her home in Grand Rapids.

Extensive improvements are under way at the Lansing exchange, the office being enlarged to accommodate both local and district offices.

The Michigan State Federation of Women's Clubs, through its secretary, Margaret Murlen, has sent to B. R. Marsh, district manager at Lansing, the following acknowledgment of the courtesy extended by the telephone company during the recent state convention at Lansing: "Michigan State Telephone Company: We wish to thank you for placing a telephone in the capitol for use during the meetings of the Michigan State Federation of Women's Clubs. We greatly ap-



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preciate this courtesy extended to the club women of Lansing."

Marquette District

Mayme Maclam, local operator at Marquette, visited in Escanaba and Manistique during October.

Anna Baulke, local operator of the Marquette exchange, enjoyed a vacation during October.

The operators of the Marquette exchange had a theater party the evening of November 3rd, taking in the first performance of "The Melting Pot." After the show the operators went to the exchange rest room, where they enjoyed a peanut stab for over an hour. Mayme Maclam, local operator, murdered the most peanuts and carried home the prize.

A toll operators' meeting was held in the Marquette Exchange rest retiring room on the evening of November 10th from 7 to 9 p. m., after which a "sewing bee" was enjoyed by all for an hour.

G. I. Beal, of the Marquette Plant department, has taken a several months' leave of absence. Recently he underwent an operation.

B. Connolly, night operator at the Ishpeming exchange, has returned from a three weeks' vacation at Milwaukee and Wausaukee.

The operators at Ishpeming gave a dancing party October 26th which was a success socially and financially. The hall was prettily decorated in blue and white. This was the first party given by the young ladies of this exchange. The Misses Devine, Lindquist, Fraser and Schrandt of the Marquette exchange, motored to Ishpeming to attend. Miss Roberts, of the Marquette exchange, was also present.

A. R. Kyte, cableman, and helper are at Ironwood making additions to the cable plant on Lake street.

Elsie Hoeft, operator at Bessemer, has resigned and Ethel Allen has been employed.

S. A. Bernes succeeds Alex Turner as agent at Bruce's Crossing toll station, and F. B. Ensign succeeds O. A. Cross at Kenton toll station.

Alice Lauzon, chief operator at Ironwood, entertained the "Busy Bee" Sewing club at her home on November 1st.

The operators of the Ironwood exchange gave a private roller skating party at the Armory on November 3rd.

Albert Morrell, wire chief of the Calumet exchange, was married October 5th to Mildred Bonds, of Hancock. The marriage took place at Marquette and came as a surprise to his friends.

Blanche Gilbert, operator at the Houghton exchange, has just returned from the St. Joseph's Hospital, where she underwent an operation for appendicitis.

Rose Fournier, assistant chief operator at Houghton, has accepted a position as switchboard operator for the Copper Range Railroad Company. She is succeeded by Lillian Demaree.

Manager W. W. Wilcox, Ironwood, Bessemer and Wakefield exchanges, had no outstanding subscribers' bills at the end of the month of October. "Here is a record for other managers to shoot at," says the commercial department.

Menominee District

Helen Rachel Sharkey, former operator at Menominee, was married last month to Arthur Sherman, lineman. Miss Sharkey had recently been private exchange operator for the Menominee River Sugar Company. According to the *Herald-Leader* the romance had its start when Lineman Sherman "tested" and heard the pleasing voice of Miss Sharkey over the wire.

Petoskey District

Early in the morning of Friday, November 12th, fire destroyed the Garland Hotel at Boyne City and also the pole lead on the street in front of the hotel. Four toll circuits were put out of commission and also the 200-pair cable, about 100 feet of this being completely destroyed. Manager



HALLOWE'EN PARTY AT TRAVERSE CITY.

Sage had the toll lines working before daylight and material was on the way for the cable repairs by 8 a. m. Service was reestablished to the 200 subscribers on the evening of the fifteenth.

The following employes of Petoskey exchange were on their vacation during the months of October and November: Agnes Mulvogue, toll operator, and Maude Mulvogue, assistant chief operator, spent their vacations at Pickerel Lake; Jessie Lensen, supervisor, and Vivian Elmendorf, operator, at Traverse City; Miss Kethledge, Beulah Stradling, and Florence Gallop, at Petoskey; Miss Cook, at Detroit; Rose Stradling at Cadillac; Margaret Hoffman, at Kalamazoo and Grand Rapids; Miss Kerwin, at Traverse City; Miss Van Gorder, cashier, at Detroit.

At Manistee two contracts for private branch exchange installations have been secured. One is for the Manistee Iron Works and the other for the Manistee East and West Railroad.

Manager Hill, of the Harbor Springs exchange, returned November 17th from a short vacation trip in the southern part of the state.

Grace McGuirk was promoted from operator No. 2 to chief operator at Mancelona November 1st. Eleanor Childs takes the place of Miss McGuirk as operator No. 2.

Frances Todd, chief operator at Charlevoix, spent her two weeks' vacation at Niagara Falls, Detroit and Grand Rapids late in October.

Grace Daniels, operator at Charlevoix, spent her vacation in Grand Rapids and Ludington.

A crew of men under Foreman Swartz has just overhauled the toll circuits between Boyne City and East Jordan, putting them in good shape. Boyne City cables have also been overhauled. Subscribers seem much interested in the new toll circuits to be built between Boyne City and Boyne Falls.

Richard Soggi has accepted a position as inspector at Traverse City.

Effie Fryxell, operator at Traverse City, has returned to her duties, after spending a two weeks' vacation visiting the different cities in the state.

Eleven girls of the Traverse City office with a few visiting guests were entertained by the Misses Stadelbauer and Brown, at a Hallowe'en party Saturday evening, October 30th. The house was very prettily decorated for the occasion. The evening was spent in playing numerous games, with music and singing, after which an elaborate luncheon was served at midnight by the hostesses. A flashlight picture was taken of the group, but owing to the lateness of the hour, it was hard for the "young 'uns" to stay awake, as may be seen in the picture. Standing left to right are Misses Lindquist, Frosh, Courter, Stan, Plough, Yenish, Stadelbauer, Hendricks, Brown. Second

row, sitting: Misses Erickson, Fryxell, Wilson, Steele and Steele. The girls departed for their homes, thoroughly impressed that Miss Stadelbauer and Miss Brown were royal entertainers.

Inspector Ray F. Rugg, of Traverse City, suffered an attack of pleuro-pneumonia, which will keep him from his duties for several weeks.

The employes of the Traverse City Exchange organized a Flower Club. Each month every employe contributes to the fund and whenever anyone is ill, flowers will be sent.

Port Huron District

Eliza Cooke, toll operator at Mt. Clemens, has been transferred to Detroit.

Delia and Ruth Miller, local and toll operators at Mt. Clemens, have returned to their regular duties after spending a two weeks' vacation at Loraine, Ohio.

Myrtle Lefevre, cashier at the Mt. Clemens exchange, took a two weeks' vacation in November.

An estimate covering a new heating plant for the Mt. Clemens exchange has been completed and the exchange building now is one of the most up to date and complete for its size in the state.

Clara Chapman and Gertrude Chapman, of Algonac, spent their vacations in Detroit.

Alvena Endleman, a November bride, formerly relief operator at Algonac, was given a miscellaneous shower by the girls of the Algonac exchange at the home of Ethel Casler.

Sault Ste. Marie District

Grace E. Hoban, manager at Mackinac Island, left November 7th for a two weeks' vacation, during which time she visited friends in Detroit, Chicago and Milwaukee. Sarah Hoban was in charge of Mackinac Island exchange while her sister took her vacation.

Harriet Nielson, toll operator in charge at Trout Lake, enjoyed two weeks' vacation. Margaret McGrath, of St. Ignace, filled her place. Mrs. Phillip Mulvehil acted as temporary operator during Miss McGrath's absence.

Lottie Gerrie, chief operator at the Sault Ste. Marie exchange, left November 11th for a two weeks' vacation.

Saginaw District

In the last six months the Coleman exchange has connected five new roadways, with a total of sixty-five subscribers. Six new installations were also made in the village, making a net gain of seventy-one subscribers. Manager George W. Kent reports that prospects for additional business are favorable.

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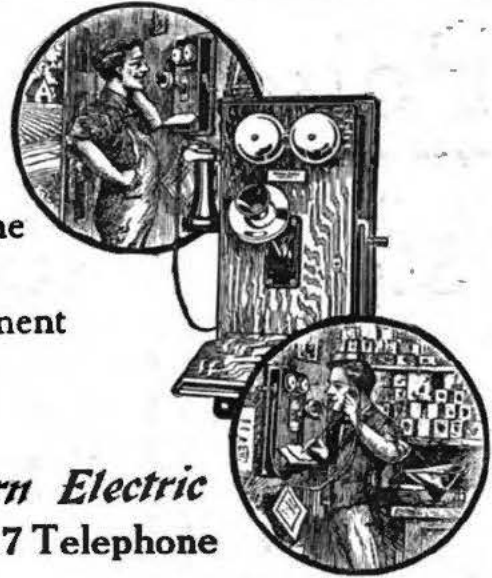
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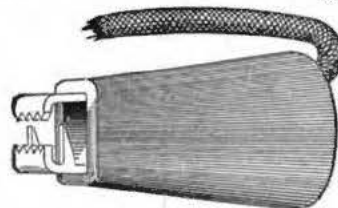
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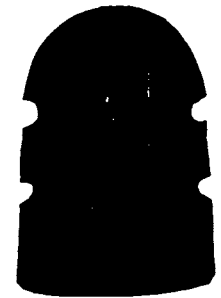
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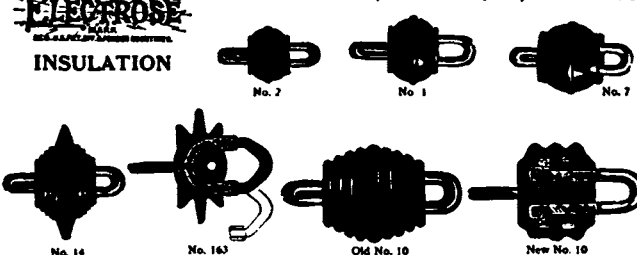
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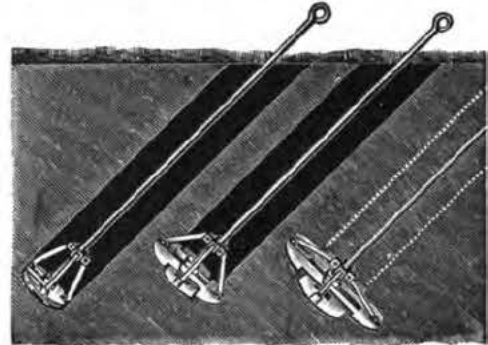
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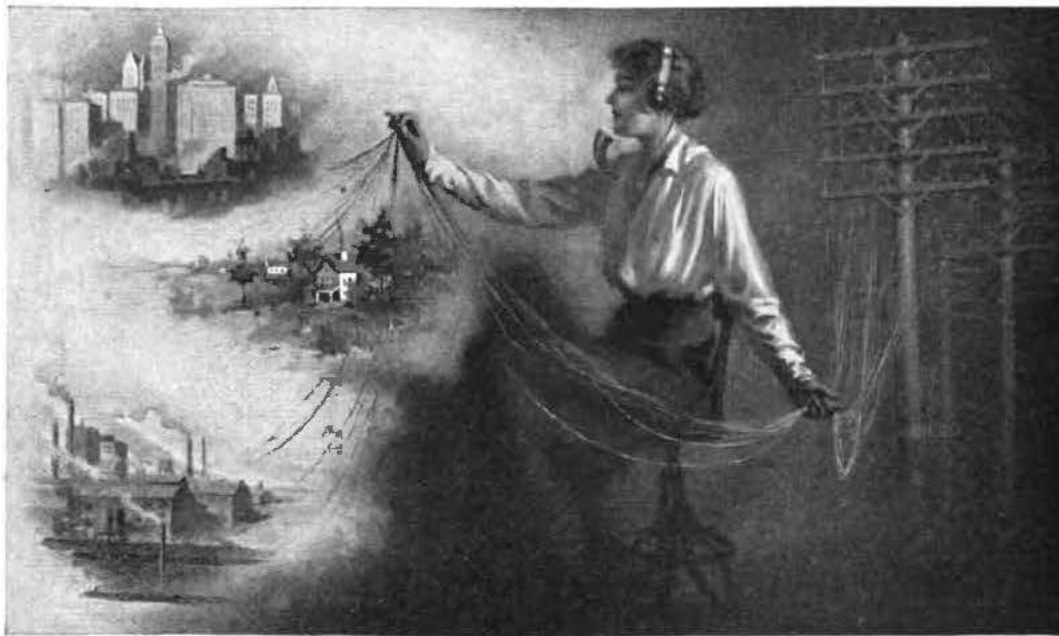


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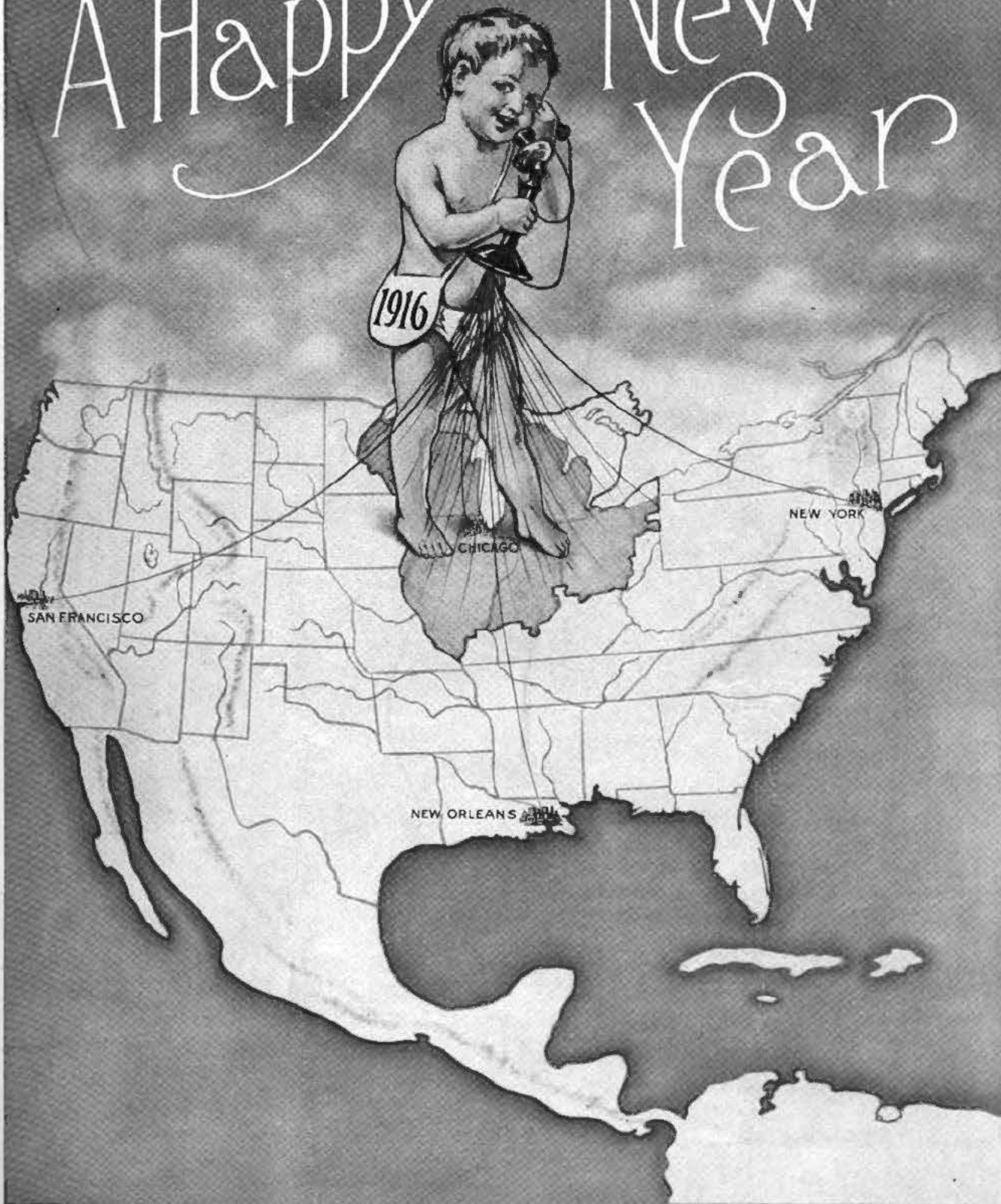
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ILLINOIS	577,717	264,615	842,332
INDIANA	97,198	210,031	307,229
OHIO	198,758	211,190	409,948
MICHIGAN	226,967	74,428	301,395
WISCONSIN	<u>155,896</u>	<u>135,075</u>	<u>290,971</u>
	1,256,536	895,339	2,151,875

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 5

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Number 6

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The Spirit of the New Year

Christmas is past but the spirit of the season lingers, that spirit which manifests itself in liberal giving, in joyous, generous open-handedness and in a universal desire to scatter, broadcast, sunshine and cheer, for all to share, rejoicing the while in the blessings of prosperity and the serenity of peace.

In such an atmosphere, standing at the threshold of the New Year, all may look upon a prospect that is in itself an inspiration, a harbinger of good. Factories are humming with large and remunerative orders; the banks are stocked with gold; the railroads are taxed to their utmost to meet the demands upon them; the telephone system is growing and broadening in extensiveness and usefulness; merchants are filling their shelves with ample stocks, of excellent quality; granaries are bursting with foodstuffs, and labor is more fully and more profitably employed than for years past.

In her prosperity America is beneficent and free-hearted. She stands with outstretched hands, eager to aid and comfort the unfortunate and destitute over seas. She stands ready and anxious to extend her good offices in the adjustment of differences between the struggling nations. She stands in readiness to lead or to second any movement that will make for permanent, honorable peace.

With charity toward all and malice toward none, America enters the New Year with high hopes, noble aspirations and buoyant confidence.

Appointment of Safety Inspector

The recent appointment by the Chicago Telephone Company of MR. F. M. ROSSELAND as safety inspector is a distinct step forward in a definite effort to reduce the number of preventable accidents, thus avoiding the pain and discomfort resulting from such accidents. It is truly a coöperative move to assist the men to do their work safely and quickly by removing unsafe conditions, by insisting upon the use of tools in proper condition only, and by directing attention to dangerous practices. In addition, the safety inspector should be a center for all information pertaining to safety matters. Unaided, the safety inspector can do very little, and in order to insure the success of his work the assistance of every employé is solicited.

The aims of the safety first campaign are strikingly set forth in the following words of P. B. Juhnke, which have been adopted by the National Safety Council as a forceful presentation of its objects: "And the end is that the workman shall live to enjoy the fruits of his labor; that his mother shall have the comfort of his arm in her old age; that his wife shall not be untimely a widow; that his children shall have a father; and that cripples and helpless wrecks who were once strong men shall no longer be a by-product of industry."

Are We Getting Too Efficient?

Periodically the highly efficient organization behind the telephone service attempts to persuade an easy going public to eliminate the preliminary "hello" from its conversation, pointing out that to the modern, efficient mind this conventional greeting is a useless institution that wastes both time and labor. The figures given to illustrate the delay and expense attendant upon its use would stagger humanity if humanity were not already flat on its back. In that recumbent attitude humanity merely nods cheerfully and goes on saying "Hello!"

Humanity in so doing is not without justification. It has few amenities left in its mad commercial existence and the telephonic hello is one of them. "Hello" is a friendly word, a flag of truce, a general countersign. Marvelously efficient, not to say superhuman, as "central" is, she, like Homer, occasionally nods, and, nodding, gives a subscriber the wrong number. If the person who is rung up should, as the telephone authorities recommend, baldly shout into the transmitter "Jones & Brown" and wait for the recoil, there would be a disagreeable shock, a head-on collision of, perhaps, antipathetic personalities. But the "hello" is a shock absorber. It brings on explanations gradually and gracefully. It is the bit of common language used by people who otherwise have nothing in common.

Further, the "hello" is a sort of mood barometer. If a tired business man, for example, is to be detained downtown by urgent affairs that cannot be postponed, he telephones his wife, and the tone of her responsive "hello" at once tells him whether he can put it over, as one says in politics, or whether he must call it off and go straight home like a sensible man and a docile husband.

These are but a few of the sweet uses of "hello," but to the wayfaring man they should indicate others too great and too numerous to permit ready compliance with the wishes of the excellent but supermundane telephone authorities. After all, there is much in life besides efficiency.—*Chicago Daily News.*

What Will Be Next?

When one takes a retrospective glance at the telephone accomplishments of the year 1915, his inclination is to say that man's ingenuity has reached the zenith of its possibilities in this field of effort, and that he will do well to live up to his high attainments, without attempting any further advance. Then there comes before the mind's eye, a scroll, upon which appear the names of Vail and Carty and telephone men know that there will be no pause, no suspension. Rather do they stand expectant, while lips form the ever-recurring query:

"What new record of achievement will be written in the record of 1916?"

New Hyde Park Office in Service Following Largest Single Cut-Over Ever Made in Chicago

Engineering, Plant and Traffic Departments Meet and Solve Many Interesting Problems.

Bringing to a fitting close a large construction program carried out during 1915, the new Hyde Park office of the Chicago Telephone Company was completed and cut over in November. Earlier in the same evening, November 6th, the new Prospect office was also placed in service.

The Hyde Park cut-over is believed by telephone men to have been the largest in telephone history, and because of its size and the numerous special problems involved, is of unusual interest.

Mrs. Harlan Ward Cooley, president of the Chicago Woman's Club, at midnight pressed the button which gave the signal to throw the new equipment in and the old out of service. The ceremony was witnessed by a number of officials of the Chicago Telephone Company and invited guests.

The new Hyde Park office is located at 6041 Kenwood avenue, and contains one of the largest installations of telephone switching apparatus in the world. The words "Hyde Park office" are generally used in referring to this installation, but there are in reality three units in the building, Hyde Park, Midway and Blackstone. The present number of stations served is more than 22,000.

The first installation of equipment, the ultimate capacity of which is 26,000 stations, will be ample to care for growth in the Hyde Park area for the next three years. There is space in the handsome, massive new building for three additional units, sufficient to handle all the business in this exchange area for many years to come, at least this is the expectation of the engineers.

But who can tell? A dozen years ago the Hyde Park office was a part of the Oakland office area. Oakland office becoming inadequate, it became necessary to establish a new office and accordingly, on December 13, 1902, Hyde Park office was

cut into service with 2,171 stations, an initial equipment of twelve sections of subscribers' switchboard, and four sections of trunking board, all with an ultimate capacity of 3,000 stations. And it was thought that this ultimate would not be reached for years to come.



NEW HYDE PARK OFFICE, CHICAGO.

But engineers' estimates "gang aft aglee" when the element of growth, as Chicago grows, is a factor. The engineers who estimated in 1902 that the capacity of the Hyde Park office on Dorchester avenue would be ample for many years to come, were no wider of the mark than some of their fellows, who in 1896 estimated that provision should be made ultimately for not less than 50,000 telephones in the city of Chicago. In September, 1915, there were 400,000 telephones in the city of Chicago and Hyde Park office, which in 1902 had 2,171 stations and was not expected to reach 3,000 for a number of years, had 22,000 subscribers.

The natural risk inherent in telephone operation is illustrated in the Chicago

Telephone Company's experience in the Hyde Park area. The fine, substantial fireproof Hyde Park building on Dorchester avenue and Fifty-seventh street must be abandoned, at least for the use for which it was originally constructed.

The business has outgrown it and the wire center for the district has changed to a point south of the Midway. The building stands idle and the property will probably have to be sold for considerably less than its actual value, as the building is one difficult to adapt to ordinary business or residential requirements. This is one of the hazards of the telephone business—when an exchange building located in a congested neighborhood is outgrown, it must be vacated and larger quarters secured. Efficiency in telephone service requires adequate quarters and equipment.

The property on which the new Hyde Park building is located has a frontage of 126 feet on Kenwood avenue. The building itself is sixty-eight feet wide and 177 feet deep. It is

four stories high, of brick and reinforced concrete, and is entirely fireproof, affording the greatest measure of safety to operators and other employes. In design the building is Italian Renaissance. Heavy stone columns flank the main entrance and massive bronze lanterns hung on either side of the doorway add to the architectural beauty of the front.

The basement contains the cable vaults, storage batteries and boiler rooms, also a large cooling plant through which drinking water passes before reaching the floors above. By means of this system the building is always furnished with cold water, accessible at bubbling fountains placed at convenient locations.

The first floor carries the huge distrib-

uting frame, power machinery, testing apparatus, repair department and wire chief's quarters. The operating rooms occupy the second and fourth floors. The B board is on the second and the A board on the fourth.

The third floor is given over entirely to operator's quarters, being divided, as is usual in Chicago offices, into rest room, dining-room and kitchen. The rest room is an exceedingly attractive place, as may be seen in the picture. For operators who wish to enjoy the open air, a large space at the side of the building will be planted with grass, ornamental shrubbery and trees

and will furnish an ideal recreation place during relief periods in warm weather.

The new Prospect office is located at 6318 South Claremont avenue and serves the district extending from Loomis street on the east to Harlem avenue on the west and Forty-ninth street on the north to Seventy-first street on the south. This district was formerly served from Wentworth office, three miles east, but the telephone development had expanded so rapidly that it finally became necessary to provide the new exchange as contemplated by the fundamental plan.

Both Hyde Park and Prospect offices are equipped with switching apparatus of the standard No. 1 common-battery type. Hyde Park has eighty-four positions of subscribers' A board on the fourth floor in a straight line (excepting the last two sections) with 8,500 subscribers' lines working and three B trunk units on the second floor with a total of forty-two positions and 22,000 stations working. Prospect has forty-two positions of subscribers' A board with 1,750 lines working and sixteen positions of B trunk switchboard with 6,300 subscribers' stations working.

The switchboards and exchange apparatus at the two new



NEW PROSPECT OFFICE.

offices were manufactured and installed by the Western Electric Company; the power plants being installed by the power and light branch of the equipment department of the telephone company and the underground cables by the construction department of the telephone company. The Western Electric Company's work of installation was up to that company's usual high standard.

The design of the cable runways and installing of the cables at Hyde Park office deserve special mention. After the Western Electric Company completed the

district Foreman Hulett at Prospect. General Foreman O. W. Freeman had charge of the installation of the power plants.

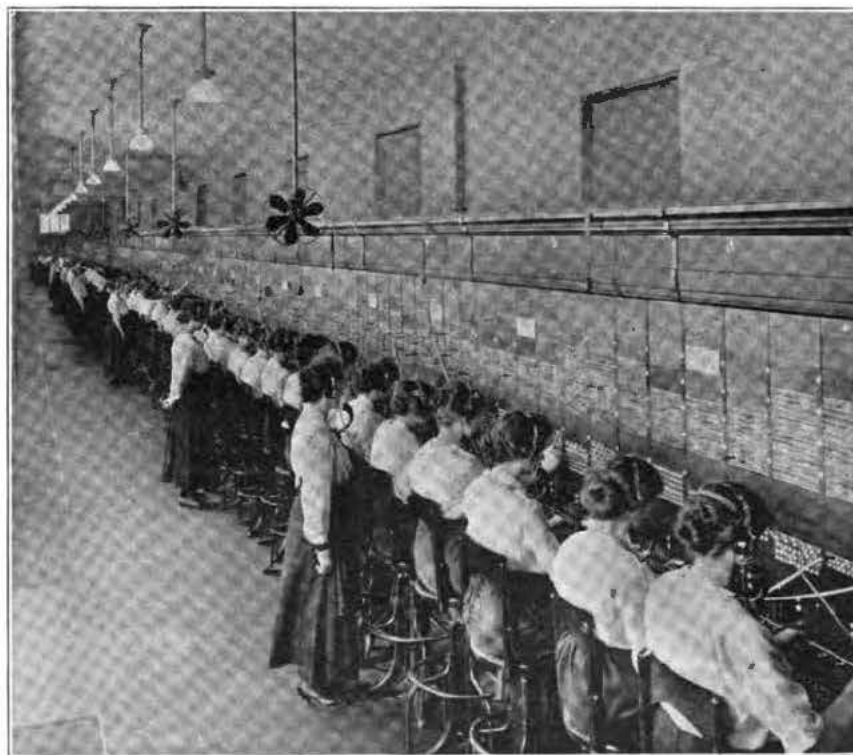
The assignment branch of the maintenance department was responsible for the very important and essential job of furnishing the necessary assignments and cable information to the equipment men for cross-connecting. J. G. Stephan ably represented the assignment department.

As Hyde Park district has a large four-party development, and the office is on a jack-per-station basis, or in other words has an individual jack in the multiple for

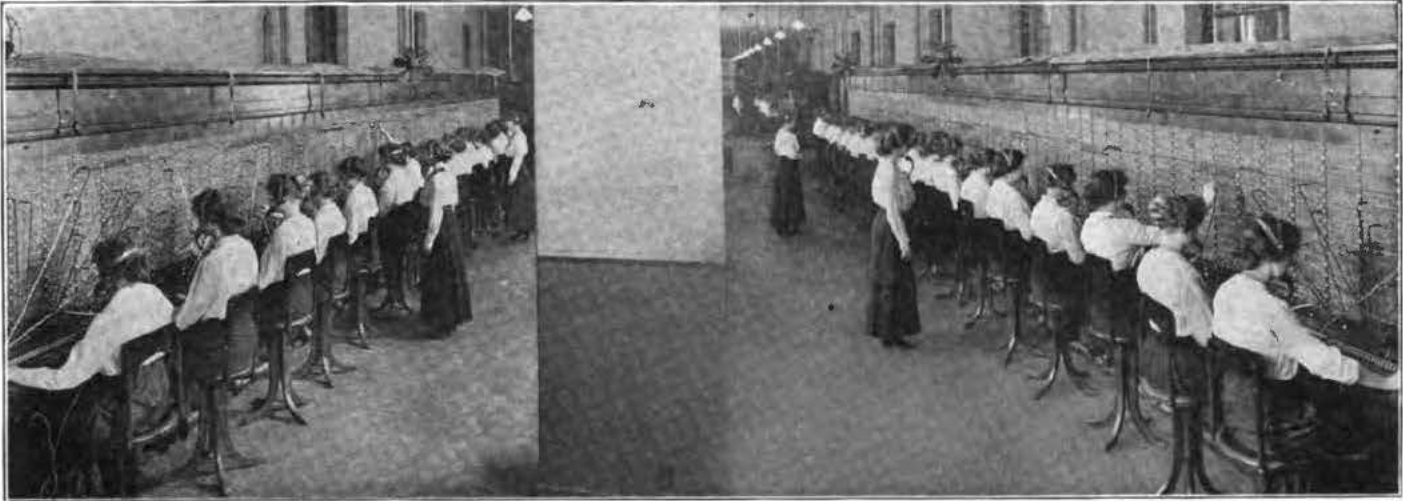
each subscriber's telephone station, a larger amount of apparatus was necessary than if the development was all one or two-party.

The distributing frames are among the longest in the world, the main distributing frame being eighty-six feet long with a present equipment of 131 verticals and an ultimate of 190 verticals in a straight line. The intermediate distributing frame is seventy-two feet long with a present equipment of 134 verticals and an ultimate of 169 verticals.

A total of 55,000 jumpers were run and connected on these distributing frames in order to connect the subscribers' multiple lines of the switchboards to their respective an-



"A" SWITCHBOARD, NEW HYDE PARK OFFICE.



"B" SWITCHBOARDS, NEW HYDE PARK OFFICE.

swering jacks, as well as to the assigned pairs in the underground service cables.

A total of 300,000 jumper connections were soldered by the equipment men. The total amount of jumper wire used was 1,800,000 feet of 2 and 3 conductor, which is equivalent to 3,400,000 feet of single conductor wire, or enough to extend one wire from Chicago to Atlanta, Ga.

The cut-overs were made according to the practice that has been successfully used for the past four years in Chicago. The subscribers' cut-off relays in the new exchanges were operated or pulled up by a temporary four-volt tap from the regular exchange storage batteries, this battery being connected through a switch and applied to the sleeves or third wires of the subscribers' lines at the multiple jacks of the last B section. The connections on the multiple jacks were made with bare wire wrapped around the shanks of No. 4-D plugs and inserted in the working jacks of the subscribers' lines. These wires were then connected to cable and taken through fuses to the temporary four-volt battery lead. After the cut-off relays were pulled up, which removed the ground and battery in the new offices, the heat coils were inserted in the protectors on the underground cables, thus bridging the new office without line signals to the old office and to the subscribers' lines without interfering with their service.

This arrangement also permitted a thorough testing from the multiple jacks of the new office to the old office multiple jacks, thus checking omissions, errors, irregularities and trouble of various kinds before

the new office was cut in.

The actual cut-over was made by quickly jerking the heat coils out of the protectors at the old office by means of strings, these strings having previously been inserted back of the coils. The removal of the old heat coils disconnected the old office, and then the new office was cut in by opening the temporary four-volt battery switch, thus allowing the subscribers' cut-off relays to release.

The releasing of the cut-off relays restored the ground and battery and permitted the call signals to appear in the new office. The temporary multiple plugs were also removed simultaneously with the opening of the battery switch—the result being practically an instantaneous cut-over of one office to the other.

The large number of stations to be cut over, the fact that three B boards were involved and that a large battery switch was to be operated made it necessary to use a bell to signal the man at the switch, as well as the men at the different B boards notifying them when to remove the plugs. Mrs. Harlan Ward Cooley, president of

the Chicago Woman's Club, pressed a special gold key, which operated this bell signal.

In addition to the mammoth distributing frames, Hyde Park office can also boast of one of the largest and finest power plants in a telephone exchange; also the first of the new standard wire chief's test desks. The power plant includes, with the usual ringing, coin collecting and message register machine, three 30-K.W., 30-volt charging machines connected with 48-H. P., 220-volt three-phase motors; three eleven-cell storage batteries are required, two of them having 75-G plate capacity and one 15-G plate capacity. One of the 75-G batteries is fully equipped.

The test desk is the new standard No. 12 type with six positions, which is the result of several years study and the joint experience of many of the associated companies. The test circuit of the new desk reduces the number of key operations in determining whether the line is normal or abnormal, and with a number of new features, faults are quickly and accurately located.



OPERATORS' REST ROOM, NEW HYDE PARK OFFICE.

The Hyde Park cut-over was of great interest to engineers and outside plant men on account of some features not usually encountered in cutting in a new office. These grew out of the tremendous size of the job of providing facilities to terminate approximately 23,000 cable pairs in the new office.

In the first place, the Dorchester avenue conduit run was built many years ago, before the days of fundamental plans, and the cross section, as well as the manholes,

would not accommodate the number of cables necessary to make an instantaneous cut-over in the manner usually employed, without reinforcing the conduit run and pulling in new cable.

The new Hyde Park office is located at the wire center, about one-half mile south and one block west of the old office. Seventeen large-unit cables extended southward in Dorchester avenue past the new office. These cables could readily be looped through and later, if a slow cut were made and the spares used, these cables could be employed to terminate on the new frame, the cables extending northward from the old office.

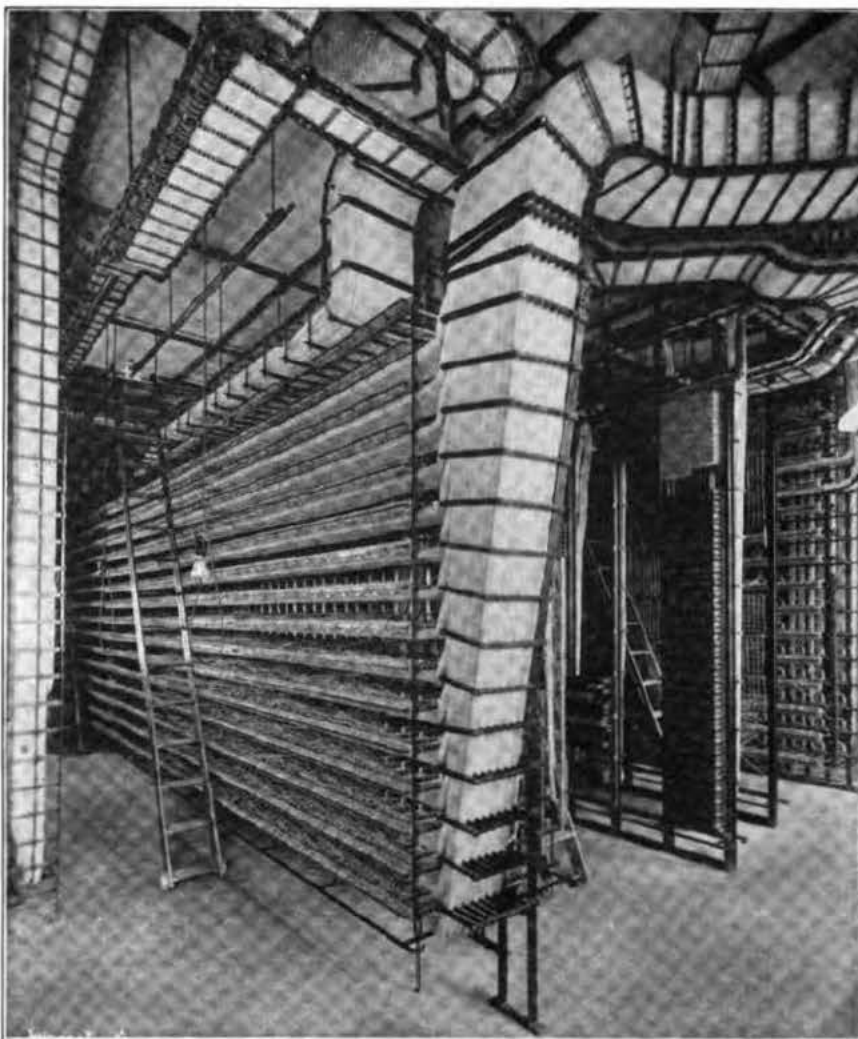
In view of the scarcity of pairs in these cables, the slow-cut scheme was abandoned and the state engineering department prepared a plan to make an instantaneous cut-over, without reinforcing the conduit run and pulling in all new cables. This plan, which was successfully carried out, provided for pulling in only one temporary 900-pair cable between the two offices and using practically all the spare pairs in the old cables. These spares were looped through the old office in such a manner as later to connect with the corresponding pairs and ducts extending north from the old office manhole. To apply this scheme, it was necessary to change many of the jumpers, as it was found that many of the working circuits south of the office were also working on the corresponding pairs in the cables north. Where this condition was encountered the south circuit was transferred to a spare pair of conductors as far as the new office and there jumpered across the main frame back to its original

circuit, the last step being taken to avoid keeping a double record in the assignment books. The conductors released were then used to terminate permanently the circuit north of the old office on the new main distributing frame. Upon comple-

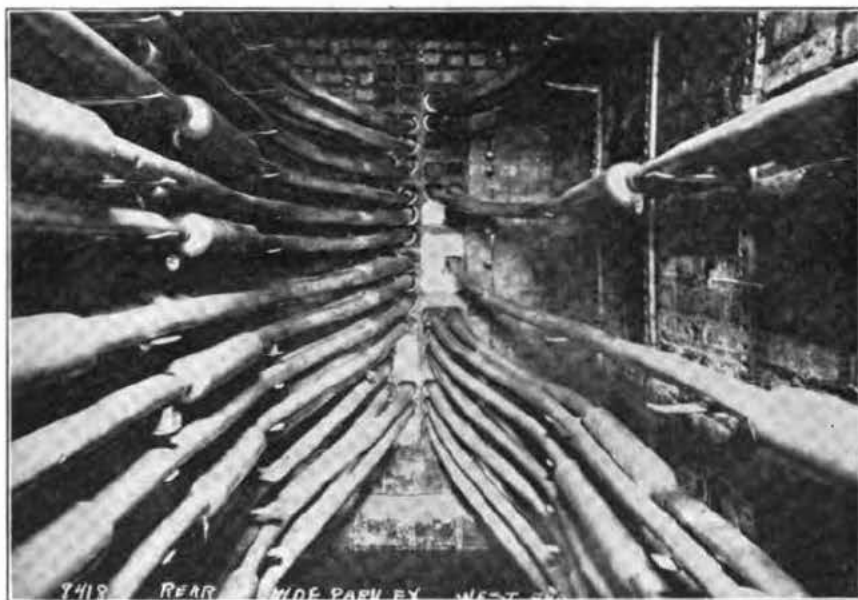
scribers' cable extending south lined up with a 200-pair or 300-pair trunk cable extending north or vice versa. By careful study, however, a very desirable racking arrangement was perfected, without pulling in new cables.

To rack properly, the cables in the Dorchester avenue conduit run necessitated rebuilding a number of the small manholes. The City Water and Gas Company pipes were also removed. At one location an eight-inch pipe, which in 1893 supplied the World's Fair with Waukesha water, was cut out of the manhole by the Commonwealth Edison Company, which now uses this pipe for one of its high-tension cables.

Providing conduit facilities for bringing the south and west cables into the office involved building a new



TERMINAL ROOM, NEW PROSPECT OFFICE.



OFFICE MANHOLE, REAR OF NEW HYDE PARK OFFICE.

tion of these jumper changes, the cables in the old office manhole were in shape to cut straight through to corresponding cables and ducts after the cut-over. At this writing, ten of these cables have been cut straight through and the dead sections into the office pulled out.

While speaking of the old office manhole, this article would not be complete without describing the conditions met with when preparing the cable racking plans. This manhole was built about fourteen years ago, when the old office was cut in. At that time and for years after, no one thought that this beautiful building would be abandoned and a new office built at an entirely different location, and therefore no effort was made to install cables of the same size north and south of the office in corresponding ducts.

In preparing the racking sketch, it was found that a 600-pair

conduit run in Sixty-first street and in the alley west of Dorchester avenue. Ducts were also placed north in the alley and east across private property to care for the north cables. Sixty-four ducts were laid between the cable room and the office manhole. At the intersection of the north conduit and the Dorchester avenue conduit run, a large manhole was built and in order to bridge the new cables it was necessary to pull slack three sections each way in seventeen cables. In all, twenty-four 600-pair, fourteen 300-pair and three 900-pair cables were pulled into the new office. A photograph showing the racking arrangement in the cable room is shown on this page. This room is approximately 160 feet long. The weight of the cables on the racks aggregates twenty tons.



CABLE VAULT, NEW HYDE PARK OFFICE.

Another cut shows how the cables were racked in the office manhole.

On account of the *Eastland* disaster, the cable delivery by the Western Electric Company was considerably delayed and, in order to complete the outside plant work in time, the construction department forces, between September 13th and October 9th, worked twenty-four hours each day, in eight-hour shifts. The weather during this time was fine and all cuts were made in accordance with a prearranged schedule. It is said that the cover on the manhole north of Sixty-first street on Dorchester avenue, where most of the splicing was done, was never closed during this period. In the office manhole, where eight splicers were continually working, a temporary floor was laid, making a double-deck manhole. Four men then worked above and four below the temporary floor.

This was the first big job on which the new cotton sleeving was used and it required

five men to cut and mandrill these sleeves to keep the twenty-six splicers supplied. To cut and mandrill this sleeving is tedious work and was done by hand. About 10,000 sleeves were finished by the five men each day.

It will be interesting to know that a Chicago Telephone Company employé has perfected a machine which will cut over 300 tubes per minute. He is now working on a mandrill attachment, which, when

completed, will be a great improvement on the present method. About one quarter of a million of these sleeves were used on the Hyde Park job. H. Daudistel, cable foreman of the South Division, during this job also turned inventor and devised a new method of forming silk and cotton cables by which a saving of over 500 feet of 300-pair was effected in the seventy-three silk and cotton cables terminated on the main frame at this office. The scheme employed, is shown in detail in a carefully drawn diagram printed on page 8. The plant department forces, a number of whom are shown in another picture, deserve great credit for the masterful way in which they handled this tremendous job.

The Hyde Park and Prospect cut-overs followed several months of preparation by the traffic forces. From the middle of July until the night of the cut-over, twenty clerks at Hyde Park and fourteen at Wentworth had been constantly at work preparing the necessary lists. These lists took care of the disconnecting and connecting up of the thousands of jumpers necessary and of the routing of the thousands of trunks; in the case of Prospect office of the changing of some 2,900 subscribers' numbers and in Hyde Park of the changing of the method of operation of some 14,000 stations. In addition to the clerical forces, the operating forces were also busy.

Every one of the 298 operators in the old Hyde Park office and the seventy-eight operators transferred from Wentworth to Prospect had of necessity to visit their new office on three or four afternoons, where they practiced on the boards to familiarize themselves with the new conditions, the new arrangement of out-trunk multiple and other



TEST BOARD, NEW HYDE PARK OFFICE.

equipment. So successful was this preliminary training carried out that when the new offices were opened approximately 90,000 calls per day for Hyde Park and 21,000 for Prospect were handled without a hitch. The plugging of the boards made necessary by these two cut-overs in itself entailed many hours of tedious work, 185,000 plugs being used in the performance of this apparently trifling task.

However, the additional work and inconvenience necessarily endured were cheerfully put up with and every one felt more than repaid by the privilege of occupying the beautiful buildings into which they moved.

The operators at Hyde Park during the past few months had used rather unattractive rest and luncheon rooms, temporarily established in an adjacent flat building. But the quarters in the new building are as fine as any in the city, the rest room being particularly large, bright and airy. The luncheon room is equipped with a kitchen behind the serving counter space and partitioned off from the rest of the room. This is the first kitchen of its kind and is a distinctly fortunate innovation.

The Hyde Park and Prospect offices are a part of the Southern District, which is under the general supervision of G. K. McCorkle, district traffic chief. H. T. McMahan is traffic manager at Hyde Park and Margaret Dare chief operator. W. T. Bell is traffic manager at Prospect and Martha Dalzell chief operator.

In the plant department, Edwin J. Cady is wire chief at Hyde Park and R. S. Bouland wire chief at Prospect.

The Prospect cut-over was the occasion of a testimonial to the service in that district which was exceedingly gratifying to the traffic officials. A few days before the cut-over, Robert S. Murray, a druggist at 6300 Western avenue, called Traffic Manager Bell and asked to be allowed to furnish ice cream to the operators and guests at the opening. Mr. Bell accepted the

offer and sufficient ice cream was provided to serve about sixty lunches on the night of the cut-over and also to serve the eighty-eight operators on duty the following Sunday. Mr. Murray said his generosity was prompted by a feeling of good fellowship and appreciation of the consideration and courtesy which he had always experienced in his dealings with the company.

ence is supplemented by that economic ingenuity which organizes and systematizes our daily life through coöperation and division of labor. Any one may own a private telegraph who chooses, but he may hire one just as well. Companies established for the purpose will stretch his wires for him, set up his batteries and "coach" him in the few simple practical methods of signaling required, into the bargain. For all of this they will charge him a sum, which in view of the convenience attained is almost insignificant, and on any change of residence or place of business will patiently pick up their machinery and set it all up again before the wandering client is fairly settled in his new abiding-place. Thus the merchant may be in immediate communication with his counting room, and close bargains or make consignments from his library fire; or, from down town may talk familiarly with madame and the little ones about the afternoon drive or the evening's entertainment. The lawyer may know in his office just what is going on in court, and the politician, with his finger on the magic key, may make his busy brain felt in a dozen different places at once. The manufacturer may watch from his central point of observation the ramifications of his immense industry, directing its momentary and minutest details as if personally on hand. Sitting with an editorial friend the other day, whom late work and a headache

DETAILS SHOWING CONDUIT LAYOUT AND RELATIVE POSITIONS OF OLD AND NEW HYDE PARK OFFICES, ALSO METHOD FOLLOWED IN MAKING THE CUT OVER FOR LINES NORTH OF THE OLD OFFICE.

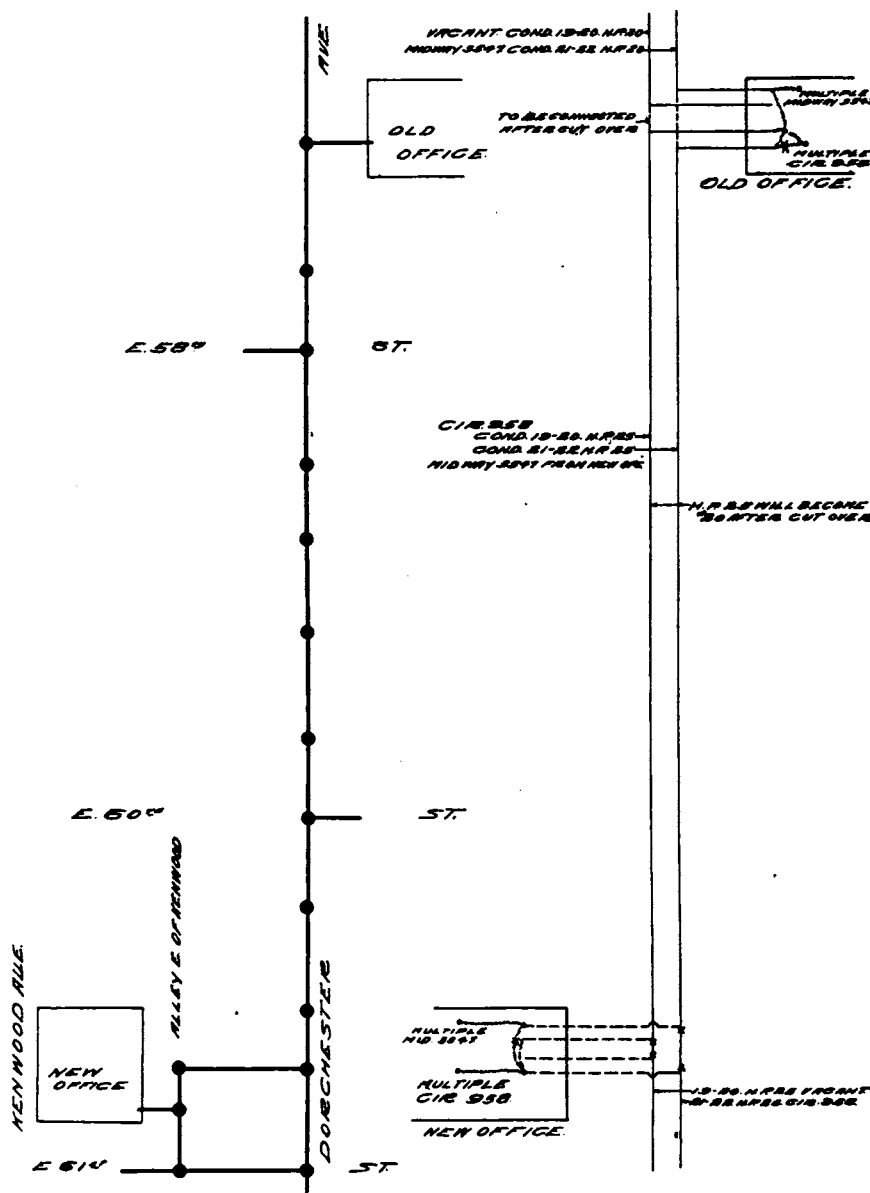


DIAGRAM SHOWING RELATIVE POSITIONS OF OLD AND NEW HYDE PARK OFFICES.

"Modern Convenience"

The following article, curious to the modern reader, appeared in the section devoted to scientific matters in *Scribner's Monthly* of the issue of December, 1872. The attention of the editor of the *News* was called to the article by H. M. Fales of the American Telephone and Telegraph Company, Chicago. The article is headed "Modern Convenience."

The establishment of private telegraphs all over our large cities is beginning to be one of the notable features of our material progress. Here again physical sci-

ence had kept uptown, we were amused and interested to see him step to his dressing-table, and, with a little buzzing and clicking of wheelwork and a few mystic waverings of a ghostly index, inform "the office" that he should be downtown at 2 p. m., to which the office responded with a cheerful but laconic O. K. As we had been told at the office an hour or two before that the luxurious journalist had just telegraphed to have his mails sent up, we were profoundly impressed with the

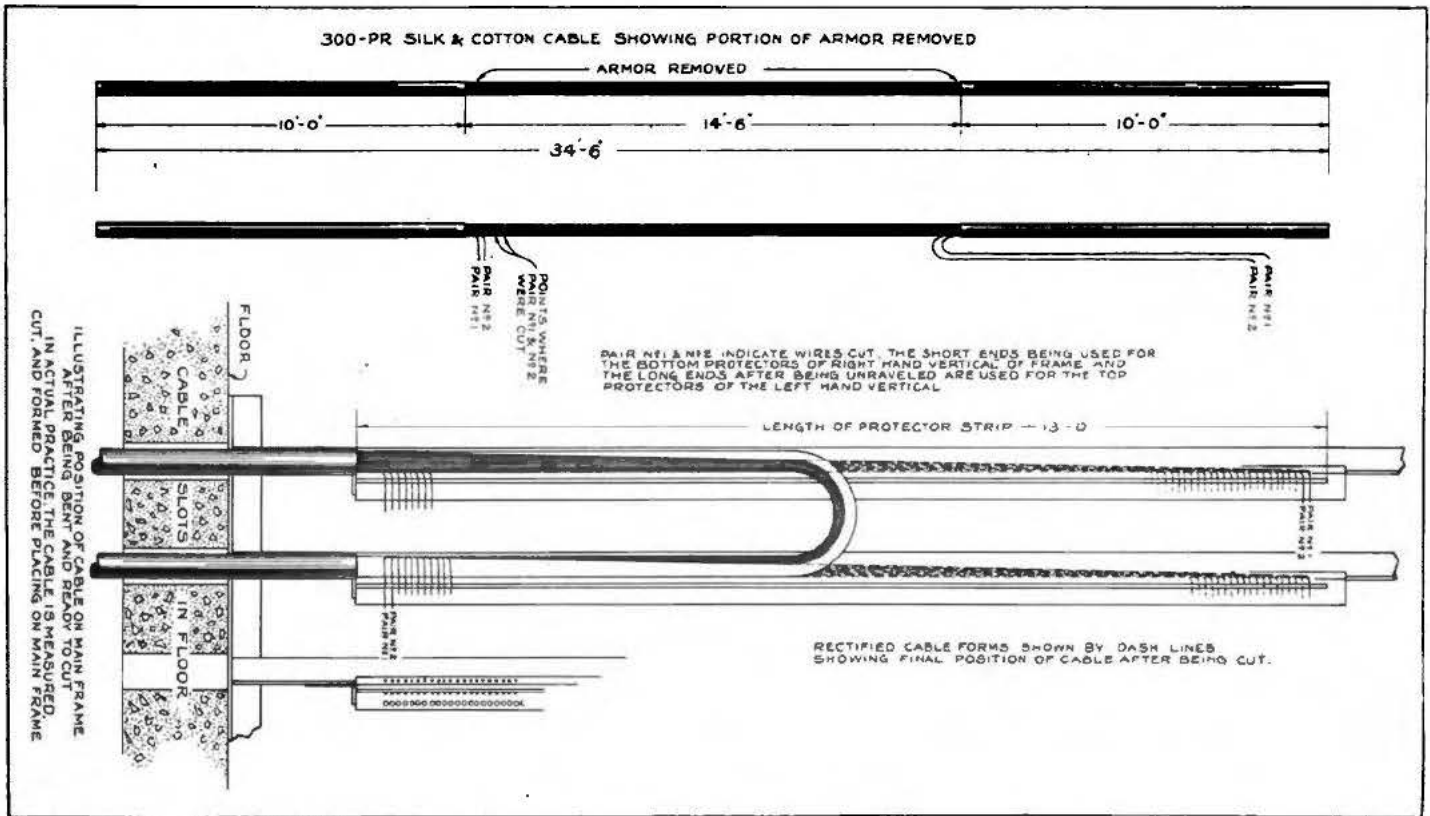


DIAGRAM SHOWING NEW METHOD OF FORMING SILK AND COTTON CABLES ... CONNECTION WITH HYDE PARK CUT-OVER.

coziness of the whole arrangement. And behold! we too have become a sharer in the blessing. Having, a few evenings ago, to send a message and parcel down town at a late hour of the evening, one touch of a little key at the office of the nearest hotel brought in three minutes a blue-coated, wide-awake little lad from the messenger office in Twentieth street at full gallop, and our parcel was on its way down town in less time than would have been needed to don the journalistic coat or draw on the editorial boots. *The whole opera-*

tion cost less than fifty cents. The same company expects soon to have the city partitioned out with districts and district offices, in such sort that a private family may communicate their wants, and call for messengers, police officers, fire service, and the like, in a very few minutes at furthest. Thus Bridget need not leave her steak spoiling at the kitchen fire while she runs for the doctor, and, as the circular roughly suggests, the timid householder in the process of being "burgled" may call down a squad of policemen on the artistic cracks-

man, who is working away at his area window in all the security of conscious well-doing.

Such improvements are welcome, not only because they make life more sensuously comfortable and easy, but because they help to make it more effective. The province of society is to offer to the mind the freest play and influence over matter, and everything which helps throw off the needless vexations and hampering limitations of time and space, gets the world forward not only in seeming but in fact.



PART OF CONSTRUCTION FORCE WHICH WORKED ON HYDE PARK CUT-OVER.

The future of this curious application of a familiar principle seems incalculable. It may not be many years before the house-tops over our heads, the very steeples, and flagpoles, and trees shall be knit and tangled in an interlacing net-work of wires, over which the thoughts and plans, the desires and passions of our crowded population shall go swarming and tingling with a pulsation as constant as that of our lungs or our heart—crossing, intersecting and blending, a fit emblem in their silent activity of the more evident strife and bustle, trial and work and suffering below.

Early Winter Storms

Late November and December brought the vanguard of the winter storms which are the favorite abominations of telephone companies and their plant departments. Every state suffered to some extent.

In Michigan the first sleet storm of the season made its appearance in the vicinity of Alpena, Sunday evening, November 28th, and traveling in a southwesterly direction, accompanied by a heavy wind, wrought havoc and destruction to poles, wires, and other outside plant, of the Michigan State Telephone and other wire using companies.

When the storm first made its appearance at Alpena, little alarm was felt. The storm started with a heavy, wet snow, and did not show any indications of sleet. Later in the evening it was noticed that the snow was clinging to the wires giving them the appearance of large strands of barbed wire, and it was the weight of this mixture of snow and ice that started the work of destruction.

As the storm worked south toward Bay City and Saginaw, it developed into a genuine heavy sleet; and aided by the heavy wind, made the work of destruction almost complete. The Saginaw District bore the brunt of the storm, especially the toll section north, the Saginaw-Alpena lead suffering a loss of 841 poles, and West Branch to Rose City 179 poles. The entire district reported a loss of 1,109 toll poles.

Scattering breaks and interruptions to toll service were reported from the various districts as follows: Saginaw District, 1,109 poles; Jackson District, 54 poles; Lansing District, 42 poles; Kalamazoo District, 41 poles; Grand Rapids District, 6 poles; total, 1,252 poles.

The storm diminished in fury as it traveled southward from Saginaw and ended its work of destruction in the vicinity of Niles the following day.

Much can be said of the efficient manner in which repairs were made. As soon as reports of toll service interruptions, whether partial or total began to be received at the district offices, the wheels of the plant organization were set in motion and the various local plant forces started the work of organizing repair crews for the morrow. At daybreak Monday many crews were on the job and the work of restoring toll and

local service was in progress. D. G. Williams, division toll wire chief, located at Detroit, was a very busy man. Emergency stocks of paired wire were dispatched to points requiring it and by the time temporary repairs had been made, poles had been requisitioned and loaded for the scene



ICE ON No. 12 WIRE BETWEEN SAGINAW AND BAY CITY.

of action. There was no hitch in the work and the coöperation of division, district and local forces was excellent.

The work of making permanent repairs and replacing the poles in the larger breaks was assigned to Superintendent of Construction C. E. Gardner, under an estimate which covered all storm damage.

Central Illinois and western Indiana felt the force of a sleet storm December 10th and 11th. Conditions around Peoria, Springfield, Decatur and Bloomington were rather bad but restoration of service was made quickly. Toll lines suffered considerably, Peoria being cut off at one time from Springfield, Bloomington and Chicago. The ice formation on the wires was in some places as thick as a man's wrist. The storm was followed by a cold wave which held the ice on the wires. Some of the smaller companies in Illinois were very hard hit.

At Terre Haute, Ind., the storm was one of the worst in years. The toll leads running north and south were damaged most on account of the wind being from the East. There were several breaks in the pole lines in which the entire lead went down into broken poles and junk wire. Local exchange wires were broken down in a great many places putting out of service about 400 telephones.

Some damage to wires in the vicinity of La Crosse, Wis., was reported following a late November storm.

Ohio and Indiana suffered from a severe storm on December 29th but authoritative details of this had not been received at the time of this writing.

From Glencoe

Subscriber—"Exchange, we have a cook who cannot read, and want some cookies. The book says, 1, a line, and 2. Is that one or two cups?"

Information—"It means one half a cup."

Keep on Workin'

If the road is hard and rough,
And you're feelin' pretty tough,
Tain't no use to sit and pout,
Gettin' miffed won't help you out,
Get to workin'

Don't stand still, if you get blue,
That, you know, will never do;
One more step may change your view,
Clouds will often change their hue,
So keep on workin'.

Don't get down into a rut,
Watch the road for some short cut,
Don't be gazin' all around,
With your face all in a frown,
Get to workin'.

Don't let folks discourage you,
Always keep your goal in view;
If you do right things to-day,
Some time you'll hear Miss Middleton say,
They did some workin'.
—Supervisor G. MacPherson, East Office,
Detroit.

A Modern Fairy

Dear Lady, I'm a Fairy,
That has something nice to say.
My home's a quiet corner,
Out of everybody's way.
If you class me with the shirkers,
Your estimate is wrong;
For a thousand unseen workers
Help my miracles along.

I'm nothing of an eater,
And I never, never sleep;
A few cents of your allowance
Each day, will pay my keep.
I'll take greetings to your dear ones;
And back from them to you;
Do your Christmas shopping early;
And the "every day" kind, too.

I'll place your grocery order,
Fetch an extra chunk of ice;
If you wish to go out calling,
Get a taxi in a trice.
I'll let you know when hubby
Has to stay down town to work.
In fact I'm at your bidding,
And I'm never known to shirk.

I bring the boys home early,
When the Storm King howls and raves;
If the house should catch on fire,
Here I am to call the "braves."
Night thieves had best beware me,
When they plan a daring raid.
With me ever at your elbow
There's no need to be afraid.

I'll be your stanch protector,
When it's late, and you're alone;
Behold, I stand, revealed to you,
THE BELL TELEPHONE.

—C. O. Dewstoe, Cleveland.

Telephone Plant Men Erect "Tree of Jewels" for Community Christmas Festival

Officials of Chicago Telephone Company Take Prominent Part in Ceremonies Attending Opening of Brilliant Pageant on Lake Front.

"For 'tis good religion
On this festal daie
That joy in each region
O'er all should have swaye."

—Old English.

Now Christmas comes, 'tis fit that we
Should feast and sing and merry be,
Keep open house, let fiddles play;
A fig for cold, sing care away.

—Poor Robin's Almanac, 1715.

The municipal Christmas tree idea is only three years old. From that first tree in Madison Square, New York, there have, however, burst forth shoots which have taken root in hundreds of cities. The success of these festivals has been made possible largely by the generosity of public-service corporations and the interested cooperation of their plant employes.

In 1913 a committee of Chicago citizens cooperating with Mayor Harrison and city

mittee. Angus S. Hibbard, a director of the company, was chairman of the music committee. As on the previous occasion the Chicago Telephone Company undertook to erect the tree and the Commonwealth Edison Company to furnish the lighting.

the jewels it would have been a lovely tree. The jewels made it a thing of exquisite beauty.

The ceremonies attending the festival began at 5 p. m., Friday afternoon, December 24th, when Mayor Thompson, surrounded by a party of city officials and personal friends pressed a button which threw the vital current into the illuminations. Instantly the great tree was a blaze of light from the giant searchlights which played their shafts upon it from all directions, lighting the glistening facets of the jewels into a thousand beauties.

After Mayor Thompson's short speech the Chicago band and a company of singers under direction of Mr. Hibbard, rendered a program of sacred music and Christmas carols, in which the thousands who stood in the snow enjoying the spectacle, joined with enthusiasm.

The tree was lighted every night from



"TREE OF JEWELS" IN GRANT PARK, CHICAGO.

officials promoted Chicago's first municipal Christmas celebration. On that occasion the Chicago Telephone Company erected the tree and the Commonwealth Edison Company arranged the lighting effects and furnished the electric current.

No celebration was held in 1914, but a few weeks prior to Christmas, 1915, the idea was revived by the *Chicago Examiner*, one of Chicago's metropolitan newspapers. Committees were appointed and arrangements speedily were under way. B. E. Sunny, president of the Chicago Telephone Company, and Clifford Arrick, manager publicity department, were named among the honorary vice presidents of the festival and W. R. Abbott, general manager, was appointed a member of the executive com-

The tree was erected in Grant Park. It was a composite affair and the pictures show how it was made up. First the telephone construction men, under supervision of Robert Cline, construction superintendent, set three massive stub poles converging at the top and in the center of these set a spliced pole, to which the top section of the evergreen Christmas tree had been attached. Then smaller trees were attached until the skeleton was entirely hidden by green branches, the whole having the appearance of a gigantic tree, ninety feet high. Then the lights and ornaments were mounted. The decorations included the Novagem jewels from the Tower of Jewels at the Panama-Pacific Exposition which had been secured for the festival. Without

five o'clock until midnight from Christmas Eve to New Year's.

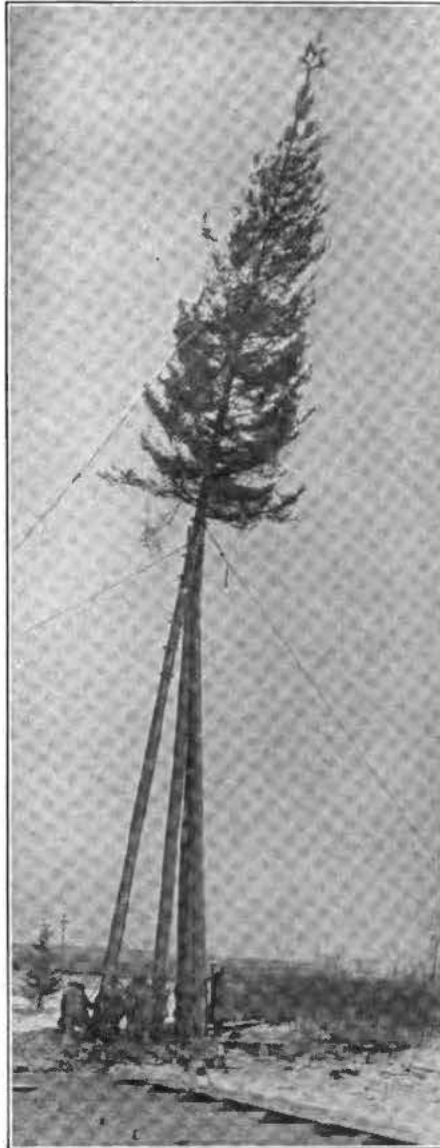
The idea which inspired the first municipal Christmas tree was the impression left upon a woman by the experience a young American related to her. As a student this young man had traveled in Germany and found himself as the holiday season came on, in the midst of the many preparations for the German home Christmas tree. Everywhere there was evidence of joyful celebration for others, but he walked the street alone and was constantly reminded of his being separated from all participation in the Christmas rejoicing. He soon found himself thoroughly homesick, and this led him to resolve that if possible he should prevent others from having the same

experience. "Next year," he said, "I shall get me a Christmas tree and invite all the lonely folk I know."

The woman who heard this young man's story thought,—why not a Christmas tree in a public place with music and light for the lonely ones of New York? The Madison Square tree of 1912 was the result.

Although the idea which inspired the first tree in New York and the later ones in Chicago and elsewhere was "Remember that there are others not so fortunate as you," the three years' history of the movement has already shown that many new ideas are involved. It represents a definite step toward developing the social feeling of the community. There have been many movements of late years to organize and unify the community interests along the lines of government, of health, of recreation, and of business, but there have been few if any movements that had as their object nothing more tangible than the development of community social feeling, the establishing of a social tradition. A community Christmas tree does not aim to educate, to make more healthful, or to promote the business of any town. It desires simply to have people feel together that glow of kindness and good will known as "the Christmas spirit." There is a social aspect to the Christmas message of "Peace on earth, good will toward men," of exalting the place of the child in our life, which is not properly taken care of by any celebration that is restricted to any group smaller than the community as a whole. The municipal Christmas tree is of course but one expression of the idea that the interest of each is the interest of all, but it is such an idealistic, forward looking conception that its value as a civic inspiration is certain to be great.

The Christmas spirit spread throughout



HOW THE TREE WAS RAISED.

the year, means the working together of the whole community for efficient government. The essence of the community Christmas tree idea is brotherhood.

Many cities and towns, through their charity societies, and such special agencies as the churches, salvation armies, and volunteers, have provided in the past and will continue to provide in the future, very substantial gifts in the way of food and clothing. Too frequently, however, there has been entirely missing from these donations the element of beauty. The beautiful Christmas tree may nourish many souls that are impoverished. It is quite possible that the memory of the resplendent "Tree of Jewels" in Chicago and similar gorgeous creations in other places may do more to help many people live as they would throughout the year than the over-eating at a Christmas dinner which in the past has too often been the only municipal Christmas gift.

In Cleveland, the Boy Scouts cooperated with the Cleveland Telephone Company in erecting a big tree in the Public Square.

At Evanston, Ill., the Chicago Telephone Company erected a tree in Raymond Park and school children sang carols on Christmas Eve.

In Canton, Ohio, plant men of the Central Union Telephone Company were assisted by plant men of the Ohio State Telephone Company in raising a beautiful tree.

Possible Beneficiary

"What is the trouble with this telephone?" said the grouchy person. "Every time I want to talk to somebody the line is busy." "Well," replied the patient friend, "it's an ill wind that blows nobody good. Maybe it's lucky for the party you were going to talk to."



GIANT POLES USED AND SOME OF THE CHICAGO TELEPHONE MEN WHO ERECTED CHRISTMAS TREE.

Mr. Sunny's Annual Luncheon

Following a pleasant custom established in previous years, President B. E. Sunny gave a holiday luncheon on December 31, 1915, to department heads of the Chicago Telephone Company.

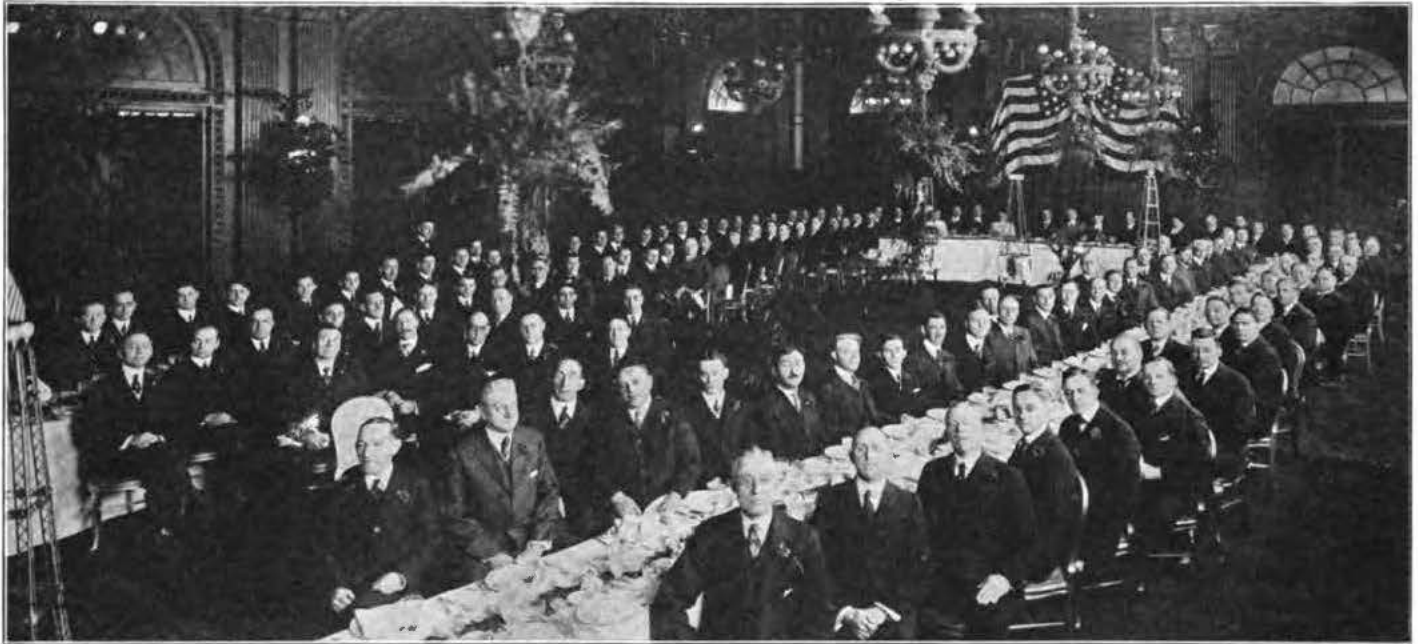
The affair was given in the Red Room of the Hotel LaSalle, which had been decorated in keeping with the character and spirit of the occasion. Conspicuous in the decorations were six miniature metal tow-

were acknowledged by enthusiastic applause.

After cigars had been passed, Mr. Sunny arose and welcomed his guests in a short speech. He said that it was a matter of congratulation that the telephone business had held up during the business strain and that the company had no fault to find with conditions. He reviewed briefly the business situation, with particular reference to present and future effects of the European war.

the troubles of his Evanston household, brought on by the bibulous habits of a Portuguese servant girl (this is a nature fake on its face). Mr. Crunden added a serious note to the concert of frivolity by an analysis of conditions in Europe. He expressed the belief that the great war, in spite of its horror, will result in good.

At the close of Mr. Crunden's talk Mr. Hill wished all present, and through them every employé of the company, a happy and prosperous New Year.



PRESIDENT B. E. SUNNY'S ANNUAL LUNCHEON AT CHICAGO.

ers, three at each end of the room within the open triangle formed by the three long tables. The three at one end represented the huge wireless towers at Arlington, Va., from which the first wireless telephone message was sent across the continent a few weeks ago. The towers at the opposite end represented stations at Mare Island, Cal., and Honolulu, which caught the first wireless telephone message from the ether, and the Eiffel Tower, in Paris, which received the first transatlantic wireless telephone message a short time later. These towers were made from parts of metal toys loaned by the Mysto Erector Company, whose representatives assisted the telephone equipment men to rig up the display. Between the three miniature Arlington Towers standard antennae were stretched. To add to the realism, each of the towers was equipped with a Geisler tube, connected with a high-voltage spark current. These tubes were of different colors. They gave off intermittent sparks, and the effect closely resembled the sparkling of the wireless, but without the noise.

Winding through green leaves on the tables were pink roses, illuminated by electric lights, which flashed at intervals.

Before and during the dinner there was music by the Bell Telephone Orchestra, conducted by E. B. Moebius. The orchestra was in splendid practice and its efforts

Mr. Sunny was followed by Vice President H. F. Hill, who spoke enthusiastically of the achievements of the Bell System during 1915. Last year was indeed memorable in the history of the development of the telephone. Mr. Hill referred to the completion and public opening of the transcontinental service and the successful experiments with wireless telephony. He paid high tribute to John J. Carty.

E. H. Bangs entertained for a few minutes with one of his inimitable monologues. Mr. Bangs traced the origin and rise of the practice of shaving from prehistoric times down to modern days. He drew a dark picture of the fate of mankind if this pernicious habit is not checked before it reaches that point in its evil march when it will consume the entire time and energies of its unfortunate devotees.

Mrs. F. E. Dewhurst, in a few happily chosen words, responded in behalf of the girls of the organization.

Henry Dakin related a dream in which he imagined that he had been carried to the realms below. Here he encountered several associates in the telephone organization whom he had known in his days of nature. They were all, he said, engaged in characteristic occupations.

A. B. Crunden, the last speaker, related

The Telephone Helps

"Items are scarce this week, because the telephones are out of order" is the significant statement in one of the letters to the *Journal* from a country correspondent. The sentence suggested what a great force the neighborhood telephone has become in adding to the comfort and pleasures of country life. The value of this service is felt especially when roads are bad and it is unpleasant to travel from one farmhouse to another. Then when a storm comes and the lines are out of commission, the value of the service is doubly emphasized by the very lack in means of communication.

Call a country line in the early evening hours and the operator will almost invariably tell you that the line is busy. Sometimes by chance a crossed wire will give you a clear insight into the fact that in the country districts even more so than in town, the telephone lines are used not only for business but for the friendly intercourse of neighbors. The wives exchange news about their household affairs and the men talk about crops and markets. Certainly life in the country in these latter years has taken on much in the way of convenience and pleasure, and there has been no larger factor in this advance than the telephone.—*Jacksonville, Ill., Journal.*

Fire at Ann Arbor

It was only a small blaze which started in the basement of the State Savings Bank Building at Ann Arbor, Mich., just before midnight, December 4th, and it burned but a few minutes after discovery, but in this short time tremendous damage was done.

The Ann Arbor central office of the Michigan State Telephone Company occupies the second and third floors of this building and all of the cables are brought into the basement and cross the basement along the ceiling. An overheated furnace pipe started the fire in some wooden forms used in concrete work in connection with an addition to the building.

On arrival of the fire fighters a basement window was broken in and through this the firemen entered and quickly extinguished the blaze with chemicals. The whole performance lasted but a few minutes, but nearly all of the 5,000 telephones were put out of service and the long switchboard was illuminated from end to end with signal lights. Bells and buzzers were ringing and buzzing in the operating room and adjoining rack-room, but through it all Amanda Lau, Anna Stocking and Pauline Engel, night operators, were as brave and faithful to duty as any soldier facing bullets in the European trenches. They followed the fire alarm quickly with calls to the wire chief and the manager. While the operator was notifying the manager the latter instructed the operator to call District Manager J. E. Scott, and by the time the manager was ready to go to the exchange he was able to report the fact of the fire before leaving his home, with the advice that he would follow as quickly as possible with information as to help and material needed. Plant Superintendent C. G. Sharpe was in turn immediately notified and as a result of this prompt reporting, preparations by the division construction department were under way almost before the blaze had been extinguished.

Superintendent Sharpe was on the scene at six o'clock Sunday morning, having come from Detroit on the early train after personally supervising the loading of reels of cable on a huge company motor truck for carting to Ann Arbor. District Manager Scott and Construction Superintendent C. E. Gardner with Construction Supervisor Price Evans in their autos, followed closely by the big motor truck with two large reels of 400-pair cable, came next. The cable was brought because it could not be determined until a portion of the partition cement wall had been removed, whether splicing of the burned cable was possible. Indeed it seemed very likely that the eight damaged cables running from the scene of the fire in the center of the basement, through iron pipes between floors to the north wall, thence to the third floor in the same manner, would have to be pulled out and new cable pulled in. Fortunately this did not have to be done and,

by working night and day from the moment of the fire, the last of the nearly 5,000 telephones was restored to service at 1:15 Monday afternoon. So nearly cleaned up were they at the opening of business Monday morning that scarcely any complaints were received.

It was necessary to put out the fire in the furnace to enable the men to work at



NIGHT OPERATORS AT ANN ARBOR.

Left to right—Anna Stocking, Amanda Lau, Pauline Engel.

the cables which were immediately over it and on Sunday morning gas heaters were installed in both of the operating rooms, the wire chief's quarters and the commercial offices. The gas company did not have a gas stove in stock and a second hand store came to the rescue. The officials of the State Savings Bank extended every courtesy, William J. Booth, president of the bank, going to his own home in his automobile to get a gas stove for use in the operating rooms.

The great speed with which complete service was restored brought Manager J. J. Kelly many congratulations from business and professional men and women subscribers.

There was no damage to the building, the cables alone suffering.

"25,000 in Columbus"

The twenty-five thousandth Bell telephone in Columbus Ohio, was installed by the Central Union Telephone Company on Thursday, December 23rd.

This telephone is located in the new home of the Athletic Club, and in taking

cognizance of the significance of this event, exemplifying as it does the growth and progress of Columbus, a metal plate has been attached to the telephone bearing the following inscription:

This telephone was the 25,000th Bell telephone in service in Columbus at the time of its installation, December 23, 1915.

The telephone directory of any city is a key to the progressive activities of the population. The growth of Columbus in population has not been spasmodic. The increase from 125,560 in 1900 to approximately 225,000 in 1915 has been steady and at an even ratio.

On December 31, 1900, there were 3,549 telephones connected with the Columbus exchange, while to-day there are 25,000.

According to the estimate of the Chamber of Commerce there are approximately 50,000 families in the city of Columbus and the immediate vicinity, and about 6,000 places of business. This means that there is a residence Bell telephone in use for every third family and an average of four business Bell telephones for every three places of business.

The fact that the Bell Telephone Company has, during 1915, added 2,000 telephone stations to its Columbus exchange, which is far in excess of the proportionate increase as measured by the increase in population, is a good indication of the substantial progress and business prosperity of the city.

In Chicago the 25,000th Bell telephone was installed in 1900. At that time Chicago was the second city of the United States with a population of 1,700,000.

On the twenty-eighth of last month Chicago celebrated the installation of its 400,000th Bell telephone, with a population of 2,500,000. It will be observed that while the population did not quite double in fifteen years, the number of Bell telephones in use increased fifteen times, or at an average rate of 25,000 every twelve months during the same period.

Columbus has as many Bell telephones in service to-day with a population of 225,000 as Chicago had fifteen years ago with a population of 1,700,000.—*Columbus Citizen*, December 23, 1915.

Did She Get Even?

"I wants to talk wif Mr. Samuel Adams Johnson, what am in Omaha, and I wants him to pay for it," said a colored woman who stepped into the Kansas City office in the Gates building not long ago.

The connection was put up, Mr. Johnson O. K.-ing the charges. When the woman came out of the booth she remarked to the operator, "I doesn't care nothen 'bout dat worthless, good-for-nothen white trash, but he done left de city owin' me twenty-seben cents wash bill, and I just wants to get even wif him."

The charges were \$6.50.—*Southwestern Telephone News*.

Dismantling Old Harrison Office

Following the cut-over to the Harrison exchange into the Wabash exchange as described in the September issue of the *BELL TELEPHONE NEWS* was the dismantling and disposal of the Central office equipment in the old Harrison office.

At the time the Harrison office was cut into service in the Manhattan Building, the equipment consisted of six sections or eighteen positions of A switchboard; 1,440 answering jacks; 200 out-trunk multiple; three sections or nine positions of B switchboard; 3,000 subscribers' multiple and 150 in trunks. At various times additional equipment was added as required, and when the office was abandoned, there was a total of thirty-five sections, or 105 positions of A switchboard; 8,660 answering jacks; 1,400 out-trunk multiple; twenty-two sections or forty-eight positions of B switchboard; 8,400 subscribers' multiple and 1,436 in trunks.

In dismantling this equipment all the cables were disconnected from the answering jacks and out-trunk multiple jacks, the cable junked and the jacks returned to the Hawthorne plant of the Western Electric Company. The cable and jacks of 3,000 subscribers' multiple in sixteen sections and 5,400 in eight sections, being in good condition, were removed and returned to Hawthorne. The balance of the subscribers' multiple jacks were disconnected from the cable, the jacks returned to Hawthorne and the cable junked.

Three sections of A switchboard, one fully equipped, also cable, answering jacks and out-trunk multiple jacks were shipped to Evanston to be installed in that office.

The balance of the equipment, including power equipment, relays, main and intermediate distributing frames were returned to the Western Electric Company with the exception of a few items that were transferred to the maintenance department.

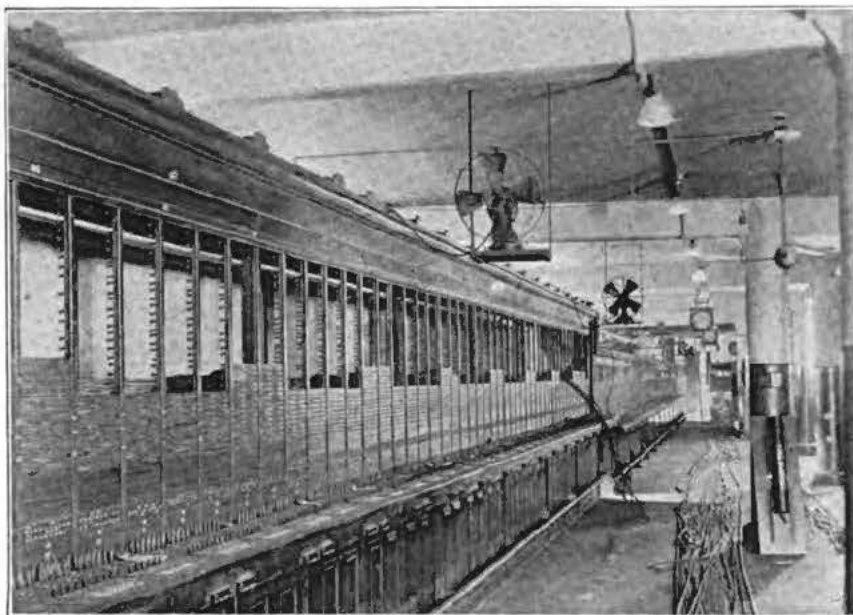
Diggers Cut Chicago-Milwaukee Cable

The Chicago-Milwaukee toll cable was reported out of order at 9:45 a. m. November 26th. The Racine cableman, Mr. Jensen, and Foreman Rush followed the cable route and found some diggers at North Erie and Gould streets, Racine, who had already cut one cable completely in two. They were just starting on the other two when discovered.

In answer to questions they replied that they were destroying old water pipes which were "no good." It must be admitted that the "pipes" were of no service until the shattered cable was repaired. The cable was O. K.'d by the Racine and Milwaukee cable departments at 1 p. m. on the same day.

Submarine Cables at Saginaw

Two submarine cables across the Saginaw River, south of the Bristol Street bridge, Saginaw, were installed November 24th by the Michigan State Telephone Company. Each cable was 1,125 feet long, contained



SWITCHBOARD AT OLD HARRISON OFFICE DURING DISMANTLING PROCESS.

420 pairs of twenty-two-gauge conductors and weighed approximately 30,000 pounds.

The installation was made under the direction and supervision of Superintendent of Construction C. E. Gardner, in accordance with specifications.

To lay successfully submarine cables of this length and size, requires a large amount of planning and preparation. The essential details were worked out by Mr. Gardner in conjunction with his division foreman, Price Evans, and Estimate Foreman George Lucas, and the work was well done.

To conform to government regulations and avoid the possibility of damage to the armor or sheath of the cables by passing boats, it was necessary to dredge a channel in the river bed, twenty-six feet below mean water level. Some difficulty was encountered by the dredging crews on account of old logs imbedded in the mud of the river bottom. While working near the west bank of the river the bank suddenly gave way and before work could again proceed, piling was placed to retain the river bank.

Supporting rafts were built and floated into place and held in line by a large steel strand. Rollers were placed on the rafts

to ease up the pull on the cable and they worked remarkably well. In building these rafts it was necessary to take into consideration their carrying capacity, and considerable study was made of this feature.

The pulling of the cables was accomplished by a No. 9 Packard truck from Detroit. This truck was stationed on the east shore, just south of the bridge approach, and was anchored securely to a railroad track at that point and supported by heavy timbers. The truck carries a winch directly connected to the motor, and just forty minutes after the starting signal was given the first cable was brought up on

the opposite shore. The second cable followed in like manner. The performance of this truck was remarkable and demonstrates the value of motor cars in telephone construction work nowadays.

While the work was in progress, motion picture men from the educational department of the Ford Motor Car Company of Detroit were busy "filming" the more important features of the work. The pictures were shown at several of the Detroit movie theaters and occasioned favorable comment. The films will be shown all over the country in

connection with the "Ford Weekly."

The work was well engineered and well handled and, as Mr. Gardner expressed it on his way home to Detroit that evening, "It was more than satisfactory and everyone connected with the work should be able to feel more than thankful to-morrow, Thanksgiving Day."

Satan and the Railroads

The school board at Lancaster, Ohio, in 1828, refused to permit the schoolhouse to be used for the discussion of the question as to whether railroads were practical or not, and the matter was recently called to mind by an old document that reads as follows: "You are welcome to use the schoolhouse to debate all proper questions in, but such things as railroads and telegraphs are impossibilities and rank infidelity. There is nothing in the Word of God about them. If God had designed that His intelligent creatures should travel at the frightful speed of fifteen miles an hour, by steam, He would have clearly foretold it through His holy prophets. It is a device of Satan to lead immortal souls down to Hell."—From "Industrial Problems," by N. A. Richardson, 1910.



Safety First and Accident Prevention

Member National Safety Council



**"A MISS IS AS GOOD AS A MILE,"
BUT REMEMBER THAT YOU ARE
NOT ALWAYS MISSED."**

**RECKLESSNESS IS NO INDICATION OF
COURAGE; BRAVE MEN ARE ALWAYS
CAUTIOUS. BE CAREFUL!**

**PRACTICE SAFETY ALL THE TIME.
OTHERS WILL FOLLOW YOUR EXAMPLE.**

A Safety Device

For several months, reports were being received of telephone men being injured while cranking Ford automobiles owned by the Chicago Telephone Company. The injuries were varied, from a strain or sprain to a very serious fracture of the bones of the wrist, lower arm and upper arm. In view of the number of Ford automobiles owned by the company, this bid fair to become a serious matter and an effort was therefore made to locate definitely the cause of these accidents and to overcome the trouble.

It was found that, in every case reported, the injuries were caused by the backfiring of the engine and in turn the backfiring of the engine was probably due to the improper adjustment of the spark lever. If the spark is not fully retarded, there is always a probability of backfiring. Hence, the causes of such accidents naturally divided themselves into three classes:

Thoughtlessness of the ordinarily careful driver.

Ignorance of the principle of operation of a gasoline engine on the part of the ordinarily careful, thoughtful individual.

Carelessness and a desire to get quick action in cranking.

Obviously, one of the best ways to prevent these accidents, therefore, was to prevent

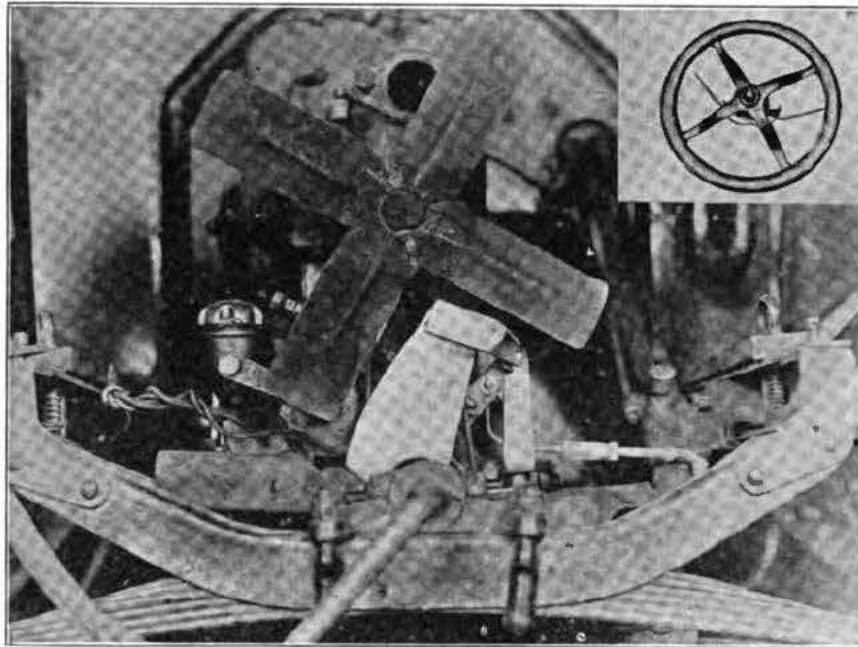
the possibility of anyone's starting the engine without having the spark lever fully retarded.

The maintenance department, in conjunc-

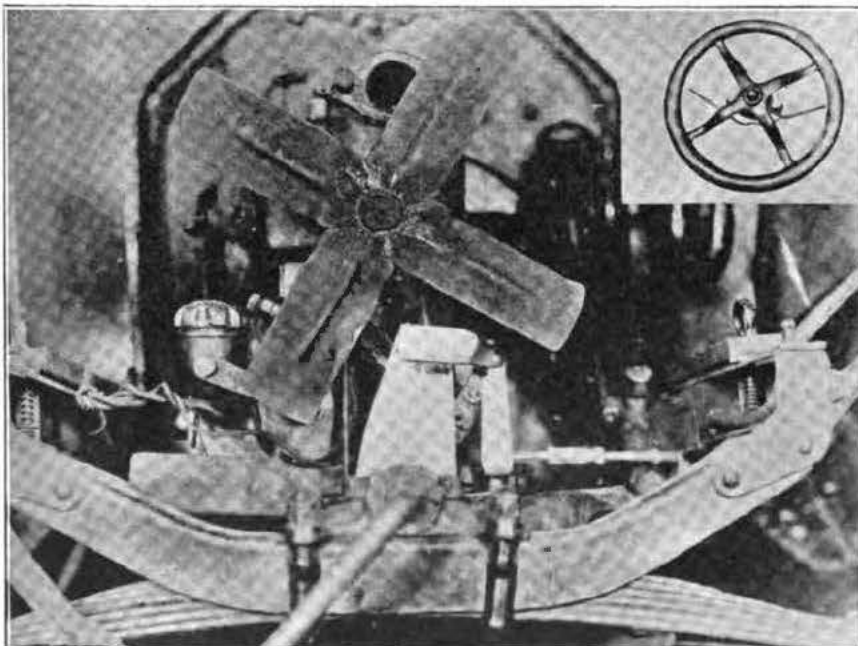
tion with the company's shops, has developed the device shown in the photographs, consisting of a shutter, the action of which is controlled by the spark advance lever. If

the spark lever is not fully retarded, this device allows the shutter to fall in front of the ratchet at the forward end of the crank shaft into which the crank engages and effectually prevents the engine from being turned over. If, however, the spark is fully retarded, the shutter is drawn up out of the way of the crank and the engine may be started as usual.

This simple device is rapidly being put on all Ford automobiles owned by this company and not a single accident of this kind has happened with the machine so equipped.



SPARK LEVER AT FULL RETARD; SHUTTER CLEARING RATCHET.



SPARK LEVER ADVANCED TO RUNNING POSITION; SHUTTER IN FRONT OF RATCHET

A Two Years' Record

How often has good fortune alone saved you from the consequences of your own or someone else's neglect? A telephone employe in another group took a chance and seven weeks afterwards reported as follows: "I am able to walk with a cane. My knee is still in splints. I am getting along nicely. My right arm bothers a little from being sprained. I expect to have teeth put in next week." He will always have something to remind him that he followed the common practice once too often. Are you going to

let yourself get hurt and inconvenience and endanger others by some act of carelessness? Some accidents can be prevented by eliminating dangerous conditions, but more can be prevented if each individual will make a consistent effort to make safety *first*. The effort requires observation, thought, care, and the use of proper equipment in good condition. Don't allow yourself to become responsible for an accident that reflects unfavorably upon your ability. Do your work properly.

A classified report of the accidents occurring to male employes of the Chicago Telephone Company, covering a period of two years, has been prepared, and it is somewhat surprising to note that the largest class consisted of bruises and other injuries caused by falling objects, slamming doors, rolling cable reels, etc. This classification furnished a little more than twenty-five per cent. of all of the accidents reported and two of them resulted fatally. The greatest number of accidents falling under this classification was caused by falling materials. This includes materials falling from a workman's belt while working on a pole, tools and other objects falling from ladders, and tools and materials of various kinds falling out of windows, from the surface of the ground into manholes, and from the innumerable places from which objects of more or less weight can fall and cause injury.

Under the same conditions, the same kinds of accidents in approximately the same number will occur again. This has been demonstrated time and time again. When you realize that accidents caused in the manner above outlined, injured forty-two men of every thousand in the employ of the Chicago Telephone Company, your personal interest in accident prevention should be quickened. Will you, or shall I, or shall we both be numbered among the forty-two this year? The only way we can protect ourselves from such accidents or in fact from any accidents is to play the game safely. If we do this and also do all in our power to see that our fellow-workmen do likewise, we will prevent much needless suffering.

The next highest number of accidents occurring during the same period resulted from injuries caused by sharp or pointed objects, none of which, fortunately, resulted fatally. Injuries caused by sharp or pointed objects, such as wire ends, broken insulators, splinters, thorns, pins, needles, nails and ragged edges, are usually of a minor nature, but all of them cause pain, discomfort and annoyance for varying periods of time. Every one of these accidents can be readily guarded against. The danger from the wounds resulting from such accidents is infection, which has always been a most troublesome condition for a physician to handle. It is easily controlled if the wound is attended to promptly, but thus far in the history of industrial accidents it has been shown that the men have not given this mat-

ter enough serious thought and have not taken the precaution to have their wounds cared for promptly. If we will but stop to think, there is not a single one of us but can remember distinctly some very painful case of blood poisoning, and it may be said without fear of contradiction that there is not one of these cases, with the resulting loss of parts of the body, or the use of parts of the body, or even death, which could not have been prevented by prompt and proper attention to the wound. No scratch, no cut, is too small or too large to become infected. The fact that the object which caused the wound was surgically clean (which is improbable) does not prevent the infection. The fact that we think that we are physically clean, that our work is of a kind which we are sure would not cause dirt to enter such a wound, does not prevent infection. The best method positively to prevent infection in many cases and to control or minimize it in other cases is immediately to apply the iodine furnished by the company, and at the earliest possible moment afterwards to have the wound (be it cut, scratch or larger) examined and attended to by a physician.

Another class which furnished almost as many accidents as sharp pointed objects is "falling from high places," of which two cases resulted fatally. Less than half of these cases were falls from poles, the remainder being falls from trees, roofs, walls, fences or porches, from ladders and down flights of stairs. Accidents of this kind are the result of carelessness on the part of someone and if they are they could have been prevented.

Time is money, but time saved at the risk of a serious injury or of death, is not worth the money saved. No money can pay for the pain, the permanent disfigurement, or the loss of ability to earn a livelihood, which results from so many accidents. *Your* efforts to do your own work safely will not entirely remove the possibility of accident, but if we all work together we can greatly reduce the number of accidents of all kinds now being reported and eventually eliminate ninety per cent. of them. Let's all work together, whole-heartedly, to steadily improve on the excellent beginning already made. To apply an old adage, "Rome was not built in a day, nor was it built by one man," but many working together in the course of time erected the splendid metropolis whose fame will never die.

Forgot His Telephone

John Walton, a farmer living near Ypsilanti, Mich., reported to the police of that city that a horse had been stolen from him the night before. Walton went to a neighbor's house and then drove to Ypsilanti to give the alarm. He had a telephone in his home but forgot to use it.

Famous Sentences

We read in history many epigrammatic expressions that are linked with great men's names. From a telephone standpoint, here are a few that will endure in telephone history:

"Come here, Mr. Watson, I want you."

Dr. Alexander Graham Bell, March 10, 1876.

"My God, it talks."

Emperor Dom Pedro, at Philadelphia Centennial Exposition, June, 1876.

"Mr. Watson, are you there? Do you hear me?"

"Yes, Dr. Bell, I hear you perfectly."

Dr. Bell in New York to Mr. Watson in San Francisco, January 25, 1915.

"Hello, Carty; this is Mr. Vail."

"This is fine; this is wonderful," replied Mr. Carty.

Wireless Telephone demonstration between New York and San Francisco, September 29, 1915.—*Cincinnati Telephone Bulletin*.

Details

Much has been said about the importance of details, but not enough about their *danger*. Details may be called the technique of business, or of life itself. One must know the technique—the details—of business, but their importance is secondary to comprehension of the business itself—of the vision which permits man to dream a business structure to be built in the years to come.

One person places all the importance on details. The result is a drudge, seeing only the earth beneath his feet.

Another never thinks of them. The result is a dreamer, seeing only the clouds above his head.

It's the right combination that produces results—the vision to devise, the ability to execute. It's the blending of earth and sky that defines your horizon.

Don't let details master you. Keep them in their proper place. They are only the tools of your trade, only a means to an end; otherwise you become their slave. Know the earth, but know the sky as well. Dream your dreams, plan your work and then use the details to make your dream come true.—*N. C. R. News*.

Appalling

"Some short-sighted persons may rejoice," says a paragrapher, "at the successful demonstration of science's power to make the human voice audible across a space of 4,600 miles; but the thoughtful will be appalled when at the opening of the political campaign they consider the possibilities of this dreadful gain."

Department of Sports and Recreations

Doings of Telephone People in the Field of Athletics and Pastimes.

Competition Rifle Shoot

Speaking of close finishes, the first annual competition shoot of the Chicago Telephone Company rifle teams furnished a hair raiser. If anybody doubts it, we offer the one lonesome point by which the Commercial Department team won out in evidence.

The Construction Department team, which won second place, was the fifth team to shoot and made what up to that time was the highest score, with the Maintenance a close second. Then the Commercial team came on the firing line. Ritzma led off, cool as a cucumber, with 91 points; Charlie King was close behind with 90; Bob Noble followed with 89 (his rifle was shooting wild; but it was not half so wild as Bob was at scoring only 89 points, when in practice he has been shooting up in the 90's); then came veteran Stranahan equalling Ritzma's 91. Total, 361 points and one man to shoot; 97 points necessary to tie and 98 to win. Did everybody's hair stand up? It did, especially the Commercial men's. Speaking confidentially, we think anybody could at that moment have easily secured 10 to 1 odds on their chances.

Then up steps Sergeant Boland, the mighty Boland and makes 23 points in the standing position. If the Commercial team is to win out, he will have to make perfect scores in the next three positions; i. e., kneeling, sitting and prone. When he shot a perfect score from the kneeling position the crowd went wild. When he did it again from the sitting position they scarcely breathed. When he began to shoot prone they didn't breathe at all until Range Officer Ridgeway examined the target and found that the whole five shots had clipped the bull's eye. Then they caught their breath again and went clean daffy, and they had a right to—98 out of a possible 100 is some shooting; nor need the Construction men who shot against the Commercial feel a bit dis-

couraged. When the winning team has only one point to spare, second place is so nearly as good as the best that there is little to choose between winners and losers.

Altogether the shoot was a big success from every point of view; naturally so from that of the Commercial men, who secured five places out of fifteen on the team which is to represent the Telephone Company in outside matches.

Team and individual scores of the shoot follow:

Teams.	Possible	500.
Commercial	463	
Construction	462	
Maintenance	458	
Equipment	444	
Right-of-Way	436	
Main Wire Chief.....	404	
Superior Wire Chief.....	401	
Relief and Safety.....	395	
Wabash Wire Chief.....	389	

Individuals. Team.	Possible	100.
Boland, Commercial.....	98	
Robinson, Maintenance.....	97	
French, Relief and Safety.....	95	
Campbell, Construction.....	95	
Lippert, Equipment.....	95	
Stranahan, Commercial.....	95	
McGee, Right-of-Way.....	94	
Langlund, Construction.....	94	
Boman, Construction.....	94	
deBuyn, Maintenance.....	93	

Alternates—	Possible	90.
Mundt, Maintenance.....	93	
Ritzma, Commercial.....	91	
Walsh, Equipment.....	91	
King, Commercial.....	90	
Dietsch, Construction.....	90	

D. E. Moore and P. F. Zinke of the Illinois engineering department, turned in high scores of the "Ten Men Team" Chicago Rifle Club, at a meeting of the National Rifle Association of America. The indoor competition of that Association for 1915-16 season commenced December 22, 1915.

Messrs. Moore and Zinke are members of the Bell Telephone Rod and Gun Club.

Work of Plant Teams at Cleveland

After playing twenty-one games, or one-half of the scheduled number, the Plant Office Team in the Bell Telephone Bowling League of Cleveland stands out at the top of the percentage column with an excellent record of having won twenty games and lost one. This brilliant record is one that has been unexcelled by any other Cleveland Telephone Company team since bowling has first been recognized by the sport loving employes of the company.

Such a record has only been accomplished by very consistent work on the part of each member of the team and the hearty cooperation of the plant rooters, who so far have been right there with the punch.

The Outside Plant Team is also receiving warm congratulations. Their record for the season is fourteen games won and seven

games lost, and they are occupying third place in the league's standings. It has been their many victories that has helped materially in holding the other league teams down while the Plant Office Team has progressed rapidly in building up a wonderful record.

As in the second round of the schedule a handicap basis will be established, due to the "runaway" made by the plant teams, and incidentally to create more interest in the league, the plant teams will bend all efforts to maintain their positions in the league standing. Both the teams and the plant rooters are filled with confidence to an immeasurable degree, and it is their earnest belief that the plant department will



COMMERCIAL RIFLE TEAM, CHICAGO.

Upper row, left to right—F. S. Boland, E. C. J. King, R. M. Noble, J. H. Chandler.
Lower row—H. C. Ridgway, L. P. Ritzma (Captain), G. H. Stranahan.

be graced with the presence of the *cup* at the end of the season.

Bell Telephone Bowling League of Chicago

STANDING OF THE TEAMS, DECEMBER 21, 1915.

Team.	Won.	Lost.	Per cent.	Average.
Construction No. 1.	31	14	.689	922-18
Supply	30	15	.667	912-43
Commercial	30	15	.667	905
Revenue	28	17	.622	907-33
Plant Accounting	28	17	.622	897
Construction No. 2.	27	18	.600	906-19
Disbursements	25	20	.556	883-20
Assignment	23	22	.511	904-1
Engineers	23	23	.489	906-37
Construction Supt.	22	23	.489	905-39
Lake View	22	23	.489	875-22
Long Lines	21	24	.467	859-27
Traffic	18	27	.400	866-44
Oakland	16	29	.356	865-11
Central Supply	9	36	.200	817-22
West	8	37	.178	782-34

By one pin only Lindgren, of Construction No. 1 team in the Bell Telephone Bowling League of Chicago, held the record for one game after the games of December 21st. Mr. Lindgren's game was 246, topping the 245 of Benzing and Truax. Hopkins and Truax are tied for three-game average at 218.

At the date of the last scoring the Construction No. 1 team still held first place by the precarious margin of one game. The Supply team had climbed to a tie for second place, passing in one month the Engineers, Revenue and Plant Accounting.

Bowling at Detroit

Competition between Maintenance and Commercial Superintendent bowlers at Detroit had become so keen by December 15th that the first mentioned aggregation held the league leadership by only one game. All teams have been strengthened by the discovery of new material of considerable promise and the contest for honors promises to wax warmer as the season advances.

Although the Commercial Superintendent's men were not league leaders December 15th in team standing, they had made the highest score rolled for any one night, with a total of 946 pins. Maintenance was second with 900 and Traffic was hot on the heels of Maintenance with 898. The Commercial Superintendent's team led in accumulative average as well, having scored an average of 788 pins in thirty games. Revenue Accounting had an average of 764 pins to its credit for the same number of games, with Maintenance only one pin behind. The accumulative average of other teams follows: Inspectors, 760; Traffic, 754; Engineers, 752; Plant Accounting, 744; Detroit Commercial, 712.

Fred Clarke, captain of the Traffic team, leads all players with an accumulative average of 174, rolled in thirty games. McCutcheon, of the Inspectors, and Macfarlane of Revenue Accounting, are tied for second honors with a score of 173. Ellis of the Commercial Superintendents obtained an average of 168 in twenty-seven games and Locke, captain of the Engineers, made 165 in twenty-eight games.

High scores—Sherman, 209; Hardy, 210; Petithory, 194; Wardle, 193, all of Commercial Superintendents. Steiner, 234; Stevens, 194, Detroit Commercial; Ereaux, Engineers, 211. Macfarlane, Revenue Accounting, 211; McCutcheon, 190; Milne, 233; Wardell, 191; Rabe, 193, all of Inspectors. Drean, 190; Stendel, Maintenance, 213. Clarke and Griffin, Traffic, 212 and 191, respectively.

The league standing as of December 15th follows:

	Won.	Lost.	Per cent.
Maintenance	22	8	.733
Commercial Supt.	21	9	.700
Inspectors	16	14	.534
Revenue Accounting	16	14	.534
Plant Accounting	14	16	.467
Traffic	11	19	.367
Engineers	10	20	.333
Detroit Commercial	10	20	.333

Outlaw Bowling League, Chicago

The Outlaw Bowling League, of Chicago, continues to roll to the glory of the Raiders. This team of the plant department leads with the high percentage of .767, while the Highbrows, traffic team, forms the rear guard with the percentage of .234.

J. G. Nader of the commercial department Bandits has high individual score of 228.

J. M. Hanson of the Wrecker's team holds high individual score for three games of 189-2.

The Lowbrows hold the high individual team score of 852 and the Pirates high team average for three games of 795-2.

L. C. Jones leads the league, with the average of 170-4.

Good fellowship is the watchword of these meets and every Tuesday night brings the gathering of a very enthusiastic bunch of bowlers, each bent upon out-doing his fellows.

The percentages after the play on Friday evening, December 21st, were as follows:

	Won.	Lost.	Per cent.
Raiders	23	7	.767
Wreckers	21	9	.700
Pirates	20	10	.667
Repeaters	18	12	.600
Destroyers	14	13	.515
Goats	13	17	.434
Lowbrows	11	16	.407
Bandits	11	19	.367
Highbinders	9	21	.300
Highbrows	7	23	.234

Girls Bowl at Waukegan

The girls of the Waukegan traffic department caught the bowling fever which has been raging in the Chicago Suburban Division. On Friday evening, December 3rd, the Richelieu was the scene of an enthusiastic gathering of telephone employes. Members of the Waukegan and Highland Park plant departments rolled against each other. The girls were so interested that they played three games with Mr. Ford as coach. The evening's results were as follows:

TRAFFIC DEPARTMENT.

First Game—Highest individual score 75, rolled by M. Goodbout.

Second and Third Games—Highest individual scores 74 and 94, respectively, rolled by O. Herberger.

PLANT DEPARTMENT.

Highland Park defeated Waukegan by a total of 105 pins.

On Friday evening, December 17th, the traffic department girls of Waukegan rolled their second series of games with the following results:

First game:

Name.	Team.	Highest individual score.
H. Warner	Buzzers	76
I. Jansen	Safety Firsts	72

Second game:

R. Crombie	Buzzers	77
R. Cole	Safety Firsts	81

The Buzzers won both games.

Mr. Eldridge, traffic supervisor, was kept busy coaching the girls, acting as checker occasionally of the score board and bowling with the Waukegan Plant Department which was well represented.

Miss L. Neely and H. Day are sympathizing with each other, as each has a smashed finger due to strenuous bowling.

We note with interest Miss McVickers' threatened challenge, and although we think Mr. Eldridge indirectly responsible for the advance, Miss Warner with her fearless bowlers is awaiting it. Mr. Ford assures her that the Waukegan girls are even fit opponents for the Plant Department team.

On December 20th (Saturday), the Highland Park Bowling team defeated the Evanston Bowling team in a three-game encounter, Highland Park winning by a total of 47 pins. High men of the two teams were: Evanston, Arndt, 191 pins; Highland Park, Johnson, 204 pins. The results are as follows:

First Game.

Highland Park	467
Evanston	467

Second Game.

Highland Park	521
Evanston	492

Third Game.

Highland Park	508
Evanston	490

On December 4th, the Evanston Plant Bowling team accepted the challenge from the Highland Park Plant team for a three-game match (total pins to count), defeating them with a margin of 106 pins. The return game, which was played at Evanston, resulted in a defeat by 98 pins.

Another Bowling League

Men of the Wabash office, Chicago, being greatly encouraged (in fact enamored of themselves) by their success on the baseball field and their even more recent success on the rifle range, have added bowling to their curriculum and beginning Monday, January 3rd, will bowl regularly on the Bensinger Monroe Street alleys.

The Wabash Bowling League has been organized with C. A. Butler, president; R. E. Fairman, secretary, and Captain O. R. Benson, the intercollegiate hammer thrower and all-around champion, as treasurer. Eight teams have been formed—Goats,

Captain Goetz; Athletes, Captain Benson; Zimms, Captain Butler; Nellies, Captain Nalikowski; Wits, Captain Wittenberg; Weeds, Captain Wiedemayer; Knockers, Captain Hammer; Whales, Captain Wolcott.

For the present, at least, no admission fee will be charged to the games and visitors (to encourage or intimidate the (Mex.) bowlers) are invited at their own risk.

Bowling at Madison

The bowlers at the Madison exchange of the Wisconsin Telephone Company have re-organized their league. One team was so much stronger than the other two that it was thought best to take the averages of all the bowlers and form three teams, made up of bowlers so divided that the total average per team would be about the same. Below are percentages of the league to date, with the individual averages:

	Won.	Lost.	Per cent.
Carbons	3	3	.500
Heat Coils	2	4	.333
Micas	1	5	.166

INDIVIDUAL AVERAGES.

	Games.	Total pins.	Average.
Brahany	6	1044	174
Goulet	6	951	158.5
Scherer	6	947	157.8
Clark	6	928	154.8
Schoen	6	926	154.3
Howard	6	904	150.8
Meiler	6	802	133.6
Keating	6	873	145.5
Miller	6	809	134.8
Brewer	6	850	141.8
Pahl	5	709	141.8
Bloomer	6	821	136.8
Whelan	6	817	136.3
Comstock	6	769	128.1
Roberts	5	635	127
Schroeder	1	118	118

Eau Claire Basketball

With but one defeat out of the eight games played the Wisconsin Telephone Company's basket-ball team of Eau Claire is beginning to make the other teams in the vicinity take to the tall timber. They are out with a challenge to any telephone team in the state and some very interesting games are expected this winter. Wire Chief C. Culbertson is captain of the team, which is composed of Al Borgen, right forward; Victor Hanson, left forward; J. Burns, right guard; M. Middlekauf, left guard; C. Culbertson, center; H. Hoveland, substitute.

English (?) As It Is Spoken

The district plant chief of a southern telephone company received the following note from the plant engineer:

"There's a guy at 1114 East Avenue interfering with the company's lines. . . . Acting on instruction we removed this guy. Will you please O. K. for our share of the expense?"

And the answer came back, "Who's the guy?"

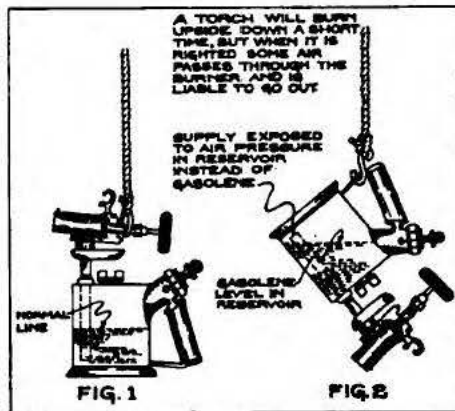
Definite

Subscriber: "Why, operator, you ought to know him; he's a big, heavy-set man who rides around in a Ford automobile."

Raising Gasoline Torch to Top of Pole

Considerable difficulty has been experienced in the past in keeping gasoline torches lighted on the top of poles on windy days. There have been numerous devices made to cover the burner and protect it from the wind. All of them are of some help, but the main feature is to have the torch properly lighted and raised to the top of the pole in the proper manner.

Some people do not understand the proper method of lighting a torch and to



LIFTING A GASOLINE TORCH TO THE TOP OF A POLE—RIGHT AND WRONG WAY.

this fact is attributed the bulk of the trouble. The burner of a torch should be well heated before lighting, and the preparation should be made in a sheltered place. After the burner has been properly lighted and is going in good shape it is sometimes hauled to the pole as shown in Figure 2 and the notes on the sketch will show what happened. Figure 1 is the proper way to raise a blow torch. A ring or snap can be fastened to the burner so that there will be no change in the normal line of gasoline. If this is followed out considerable less trouble will be experienced than heretofore.

With Our Advertisers

One of the features of the new home of the Detroit Athletic Club is an inter-phone system designed to do away with the "buzz and walk" systems now all too frequently met in club houses. In view of the fact that this club is one of the most pretentious of its kind in the United States, the directors decided that the inter-phone system to be installed must be in accord with the surroundings. In selecting a Western Electric No. 1 inter-phone system, they found that they had ornamentation and service at a sacrifice of neither. The system has a capacity of sixteen stations, of which twelve have been installed and are in operation. Each station is equipped with a series of buttons, pressing any of which puts the operator in touch with the station wanted. The stations are scattered throughout the building in such a manner that every 'phone is in an important place with

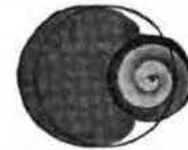
none going to waste. As there is no operator required, the upkeep attendant upon the system is practically nothing. In its simplicity of operation, general excellence of service, and appearance, the system is perfectly in place amongst its sumptuous surroundings.

The Diamond Expansion Bolt Company, 90 West street, New York, has recently placed upon the market an expansion shield for lag screws which is entirely new in its principle of operation and in its design. It



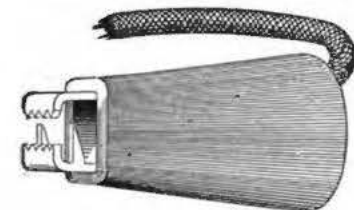
is said to be the most radical departure in the line of expansion bolt design that has been brought out for a number of years.

It is the most simple form of expansion shield for heavy duty that has been devised, the shield being a single unit. The screw enters on center at the outer end and travels along the tapered bore which



emerges at the side and permits the screw to contact directly with the side of the hole as well as with the shield. The great displacement at the inner end produces a very powerful expansion where it is most needed.

Frank W. Morse, of Boston, manufacturer of the popular "Morse Eureka" testing clips, has put out an insulated clip, as



shown in the cut. All the convenience of the ordinary testing clip with the additional safety to workman and apparatus which insulation naturally insures are claimed for this clip. It is furnished with either gray or red rubber insulation.

A Natural Expedient

A chauffeur who "kids" everybody all the time was in a smashup lately. His pal was thrown almost to the top of a roadside telephone pole.

"Say, Billy," cried this chauffeur, seeing his pal dangling by the seat of his trousers, "while you're up there just telephone the garage for help."—*Day Book.*

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

New Year Forebodings

Waiting for a train one day in November, I overheard the following conversation:

First lady: "What a lovely fall we are having."

Second lady in a melancholy tone: "Yes, it is nice, but I am just worried to death about the spring."

I laughed to myself and then I meditated on the unfortunate people who look for trouble, who cannot enjoy the present for fear of the future. Here with a gorgeous autumn delightfully prolonged, this dear lady in gloomy tones predicted a bad spring. And such people seem to worry with just as much persistence over weather which no one can certainly predict and certainly never can control, as they do over their own affairs which they can manage or mismanage as they see fit.

You are always coming across such croakers. If there is a season of prosperity, they usually predict hard times to follow. If there is plenty of work, they are fearing it will not last. The present moment is spoiled by their habit of foreboding.

Such people when they lack material for present or future complaint even recall past troubles like the old lady on the train who kept saying over and over again, "I am so dry." Finally, as she made no effort to get water to quench her thirst, a gentleman, wearied by her constant complaint, brought her a glass of water. She took it gratefully and as he settled down to read his magazine in peace, she began again, "I was so dry" and kept it up the rest of the journey.

An old man who was giving some advice based on his own experience, said: "The hardest things in my life and the things which have given me the most gray hairs are the things that never happened." If we stop to think, we shall probably find that his experience is not unlike our own.

Some one has said, "Never bear more than one kind of trouble at a time. Some people bear three—all they have now, all they ever had, and all they ever expect to have."

So as we take up the first calendar for

1916, it is well to see one day at a time and if we can be happy and satisfied with each day, we shall have a Happy New Year. Of course, "into each life some rain must fall," and perhaps work sometimes seems a little like drudgery, but on the whole—

"It's worry that kills,
Not work;
So don't worry,
Just work."

There is something fascinating about a new calendar, if one thinks of it as full of possibilities for happiness. We throw away the soiled pages of old 1915 and here before us lies the suggestion of shining

"Upon the magic looms of the Bell System, tens of millions of telephone messages are daily woven into a marvelous fabric, representing the countless activities of a busy people.

"Day and night, invisible hands shift the shuttles to and fro, weaving the thoughts of men and women into a pattern which, if it could be seen as a tapestry, would tell a dramatic story of our business and social life.

"In its warp and woof would mingle success and failure, triumph and tragedy, joy and sorrow, sentiment and shop-talk, heart emotions and million-dollar deals.

"The weavers are the 70,000 Bell operators. Out of sight of the subscribers, these weavers of speech sit silently at the switchboards, swiftly and skillfully interlacing the cords which guide the human voice over the country in all directions.

"Whether a man wants his neighbor in town, or some one in a far-away state; whether the calls come one or ten a minute, the work of the operators is ever the same—making direct, instant communication everywhere possible.

"This is Bell Service. Not only is it necessary to provide the facilities for the weaving of speech, but these facilities must be vitalized

with the skill and intelligence which, in the Bell System, have made Universal Service the privilege of the millions."

He Was Considerate

"Say, Snibbs, let me use your telephone, will you?"

"Sure. What's the matter with yours?"

"It's all right. I want to telephone to my wife that I'm going to bring a man from out of town to dinner."

"Well?"

"He's sitting in my office now, and I hate to have him watch when my wife tells me what she thinks of the proposition."

Something Just as Good

"That telephone girl was very polite, I must say."

"How so?"

"Couldn't give me the number I wanted, but offered me my choice of several other nice numbers."



WEAVERS OF SPEECH.

days of opportunity—undreamed of happiness, too, perhaps, enfolded in these little pages of 1916. But we must take it day by day and instead of wishing a Happy New Year for our girls, we wish a Happy New Day every day full of present satisfaction and with no fears for the future.

"Don't worry about the future,
The present is all thou hast;
The future will soon be present
And the present will soon be past."

Weavers of Speech

The attractive title and the beautiful picture on this page are from the December advertisement of the American Telephone and Telegraph Company, published in the leading magazines of the country. This advertisement is almost a poem. It has attracted such wide attention that we are reproducing it in full for the benefit of those of our girls who may have missed reading it elsewhere. It says:

Plant School at Terre Haute

The Terre Haute Bell Telephone Society has erected what may be termed a "miniature telephone plant" to be used in instructing plant and traffic employes.

This equipment, which is composed of subscribers' sets, arrestors, line relays, condensers, retardation coils, operator's head set, plugs, cords, etc., covers the entire telephone circuit of a No. 1 multiple switchboard such as used in Terre Haute. The accompanying photograph gives some idea of the arrangement.

The use of this apparatus has proved very valuable for instructing employes, and demonstrating to subscribers. Plant employes are taught the necessity of each part of the equipment, and the operation in conjunction with other parts. The apparatus is more especially used in the lecture course in which the different parts of the switchboard are studied. Operators are taught as to the lamps, signals and subscribers' sets.

Subscribers are shown the working of the apparatus such as "busy signals," party-line ringing, protection, and numerous other things, which can be better demonstrated by the use of the apparatus than at the regular switchboard.

Skillful Moving of Power Apparatus

The rearrangement of the power apparatus and capacity increase of storage batteries at the Belmont office, Chicago, was completed the latter part of August.

The power board and machine equipment were moved to the new addition to the exchange building in order to permit the installation of additional main and intermediate distributing frames.

The work was handled in the following manner: A temporary power board was made using some rough boards and odd switches. The motor starting boxes, field rheostats, starting boxes and like equipment were transferred to the temporary board and connected to the equipment.

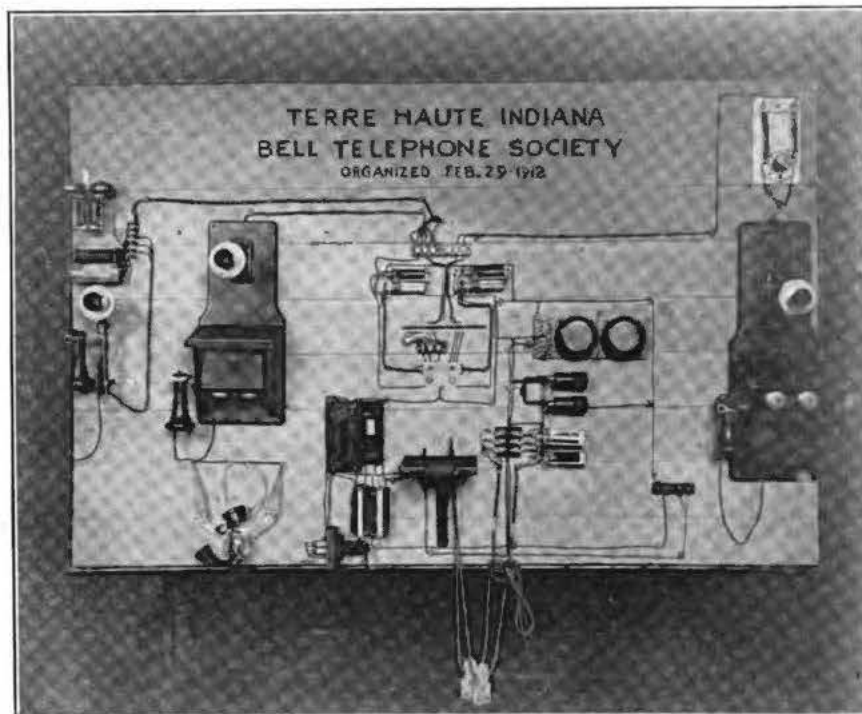
After the power board was disconnected, it was moved and set up in the new location at the rear of the building. The machines were then removed from the machine table and placed on the floor. The table was moved to its new location, on which the machines were replaced. The

permanent conduit was then installed, the wiring pulled in and connected to the power board and machines.

This complete change was made without any interruption to the office or service and without one case of trouble.

Western Electric Warriors

Lieutenant Trives, formerly of the Paris branch of the Western Electric Company,



INSTRUCTION APPARATUS AT TERRE HAUTE.

is accumulating a war record along with sundry scars.

Lieutenant Trives was first wounded in the fighting around Ypres, and still carries an ugly scar on his head and a piece of shrapnel in his lung. Soon after his return to the front he was injured by a clod of earth which was thrown up by an exploding shell, and at the same time lost the first joint of his left thumb.

As soon as he was allowed to return to the front he went into the thick of the fight again, and in the offensive around Loos his captain was killed. Trives then took command of the battery. He received a piece of shell just below one eye, but removed this himself, and continued at his post until four hours later, when another piece of shell crushed one of the bones in his leg. He is once more in the hospital, and is as eager as ever to return to his battery. By the time this note is published, it is probable that he will have been made captain.

Another former Paris employe, Rene Chevalier, has been awarded the military medal for bravery. The official award reads: "Very courageous. Wounded in the left thigh on January 2, 1915, by a shrapnel bullet; has had to have the limb amputated."

Service to the "Twentieth Century Limited" by The Twentieth Century Telephone Company

The president of one of Milwaukee's well known concerns had decided to take a trip to New York City. In fact, he was already on the train en route to Chicago when some very important news was telephoned to the bank where the first vice-president was presiding in his absence.

It was essential that the president be communicated with immediately. The vice-president acted quickly. He knew Mr. "Blank" would take the "Twentieth Century Limited" out of Chicago at twelve o'clock. He called the Chicago long-distance operator, and accurately described the personal appearance of the gentleman wanted. The operator then got into direct telephonic communication with the Twentieth Century Limited as it stood in the La Salle Street Station. She also had the station agent look at the ticket gate. This man recognized Mr. "Blank" and said:

"You're wanted by Milwaukee long distance on the observation car, sir!"

Obituary

JOHN P. BARRETT, a pioneer member of Chicago's fire department and the deviser of the police and fire alarm systems, died in Chicago December 28th. At the time of the world's fair in 1893 he was in charge of the special fire department which had been provided. He was the deviser of the police system of hourly "pulls" from the familiar wooden patrol boxes, which he helped to install and which have been replaced by the more up to date small iron boxes. He was also the inventor of and installed the switchboards still in use in the police and fire departments. In 1853 he became a member of the volunteer fire department and later of the regular department. In 1865 he was detailed at the signal tower in the center of the block on the present site of the city hall. He was appointed to the work of remodeling the alarm and switchboard systems of the police and fire department in 1880, and soon became superintendent of the bureau. In 1897 he retired.

Brief News Notes from the Field

Items of Interest to Michigan Telephone Employees Gathered from All Parts of the Territory

Julius H. Moeller, Correspondent, Detroit.

Death of Albert Gibson

Telephone men throughout Michigan were grieved to learn of the tragic fate of Albert Gibson, Lapeer, who met death through electrocution Monday morning, December 6th, while temporarily in employ of the Lapeer Gas and Electric Company. Mr. Gibson was on duty between the crossings of the Grand Trunk and Michigan Central railroads on South Saginaw street, Lapeer, when the messenger of death came. With one hand the lineman held a set of pliers and was working on a wire when the back of his other hand accidentally came in contact with a live wire carrying 2,250 volts. Death was instantaneous. A fellow worker hastened to the nearest telephone. The power was shut off and the body was brought to the ground. Physicians worked over the prostrate form till it was apparent that all efforts to restore life were vain.

Albert Gibson was born at Bolsover, Eldon township, Victoria county, Ontario, in 1881. He began his career as a telephone man in 1898 when he took a position as lineman with the Sill Telephone Company, Cadillac. From that time until March, 1915, he was engaged in the telephone business with the exception of one year when he was employed by the D. S. S. & A. railroad at Marquette. Returning to the work of telephone lineman in 1901 Mr. Gibson worked for the Consolidated Telephone Company, Minneapolis. The efficient and conscientious manner in which he discharged his duties secured his promotion to the position of foreman in which capacity he served the Northwestern Telephone Exchange Company, Minneapolis; the Michigan State Telephone Company, and the Central Union Telephone Company. Leaving the employ of the Michigan State Telephone Company last March, Mr. Gibson located on a farm near Lapeer. He worked the farm and served the Lapeer Gas and Electric Company as temporary lineman.

Death of John C. Walsh

JOHN C. WALSH, who has been one of the Michigan State Telephone Company's most faithful employes for the past seventeen years, died at the Detroit Tuberculosis Sanitarium on November 24th, after a sickness of approximately two years. He is survived by a wife and nine children.

Mr. Walsh started with this company as rackman in September, 1898, and served in various positions in the plant department until he was transferred to the engineering department in April, 1905, where he served in the capacity of estimate clerk. He filled this position and also the position of chief clerk in the engineering department, until March, 1912, when he was made toll-line engineer for Michigan, which position he filled up to the time of his sickness. Mr. Walsh made for himself a host of friends by his kindly disposition and his loss is deeply mourned by all who knew him.

P. B. X. Development in Detroit

Among the new private branch exchange and additional equipment installed or ordered in Detroit during the month of November were the following:

	Trunks	Terminals
L. J. Robinson Co., Chalmers Cars (New)	3	9
The Stoll Printing House (New)	2	6
The Kales Haskel Co., Auto Supplies (New)	3	6
Peoples Outfitting Co. (Additional)	1	17
Universal Service Co., Motor Truck Mfg. (New)	2	6
C. R. Wilson Body Co., Auto Bodies (Additional)		12

—M



ALBERT GIBSON.

Clemons, Knight, Menard & Paul, Real Estate (New)	2	6
Will St. Johns & Co., Real Estate (Additional)	1	..
W. H. Rose & Co., Bankers & Brokers (New)	3	6
American Bridge Co. (New) ...	3	9
Merrell, Lynch & Co., Bankers & Brokers (New)	2	6
Barnett-Strum Co., Furniture (New)	2	6
Fred E. Holmes Co., Auto Assessor (Additional)	2	..
Hotel Statler (Additional)		180

271

The fourteen private branch exchange contracts taken during November were secured by Floyd H. Lockwood. These new contracts supplied a total of 271 stations for Detroit during November.



JOHN C. WALSH.

Among the new private branch exchange and additional equipment installed or ordered in Detroit during the month of October were the following:

	Trunks	Terminals
LaMeasure Bros., Laundry (Additional)	1	2
R. L. Aylward, Coal and Coke (New)	4	6
Fisher Closed Body Co., Auto Bodies (New)	4	13
Sun Company, Oil (New).....	3	7
Fisher Closed Body Co., Auto Bodies (New)	4	13
Michigan Smelting & Refining Co. (Additional)	0	5
Brown-Hawkins Lumber Co. (New)	2	6
The Frantz Premier Distributing Co., Vacuum Cleaners (New) ..	2	6
Tanner & Gates, Real Estate (New)	2	6
Detroit Store Fixture Co. (New) ..	2	6
S. S. Kresge Co. (New).....	2	6
James Ellmann, Attorneys (New)	2	6
Cable Draper Baking Co. (New) ..	2	6
Dodge Bros., Auto Mfg. (Additional)	0	37
Alldis & Co., Real Estate & Ins. (Additional)	1	5
Houseman Spitzley Co., Real Estate (New)	3	6
Howie Roofing Co. (New).....	2	6
Wolverine Auto Club (New)....	2	6

148

Of the total of eighteen private branch exchange contracts secured during October, fourteen were secured by Floyd H. Lockwood and four by Joseph F. Bacharach.

These new contracts supplied a total of 148 stations for Detroit during October, 1915.

Christmas Dinner at Detroit

The dining-room at the Main office, Detroit, was the scene of a very festive gathering on Christmas day when seventy girls, who do not live at home and have to eat their meals in the Office café, sat down to a decorated well laden table, that the Company had provided.

Dinner consisted of all the good things that a Christmas dinner is composed of,—turkey, cranberry sauce, vegetables, pie, cake, fruit, coffee and ice cream. The dinner was served by girls from the Main and Branch offices. The colors were red and green, each girl was given a Christmas remembrance and much good cheer and Christmas spirit made the occasion very enjoyable. Much credit is due Miss Hutton and her assistants for the success of the feast.

Christmas Charity at Detroit

Several hundred poor children in Detroit were made happy Christmas day because there are many kind hearted girls who work for the Michigan State Telephone Company that were willing to play Santa Claus for the little kiddies who might otherwise be forgotten. The girls began to think of Christmas and of the needy long before the holiday season arrived. They arranged with the goodfellow departments of the various newspapers to dress as many dolls as they would supply. They also managed by various means to raise money to send presents to the poor on their own account.

The operators in A. M. Parent's division obtained permission from Mayor Marx to sell Christmas tags, cards and stickers on the streets Wednesday, December 15th. They realized \$946.50 from

their efforts. Excellent support was rendered by the Detroit newspapers who put the public in a frame of mind in which they were ready and even eager to patronize the girls.

The operators in the North office gave a very successful pedro and pound party Tuesday evening, December 14th, under the direction of the Misses McGee, Niemi and Hayes. Each girl contributed a pound or its equivalent in food. In the course of the entertainment Mr. Spencer presented the girls with a Victrola.

The girls in the Main and Cherry offices collected a neat sum in a very unique way. At the suggestion of Leona Kunze, Cherry chief operator, little green socks were distributed among the girls with the instruction to return the sock after having placed therein an amount of money equivalent to the size of the hose worn by the contributor. The girls violated the instructions by returning the socks in many cases containing so much money that it would have required a giant created by the wildest flight of the imagination to have a foot demanding a sock of corresponding size. Assisted by Lillian Sexton, Miss Kunze made several hundred socks. The girls also raised a considerable sum by selling postcards, stickers and tags among themselves.

The work of distributing the gifts, consisting of baskets well filled with clothing, food and toys, was done at various times during Christmas week. Names of needy families were obtained from the Visiting Nurses' Association and charitable organizations. The expression of joy and gratitude which the Misses Santa Claus found in the homes of the needy brought to the "good fellows" the consciousness of having done much good, which was in itself a most ample reward. The various



DETROIT GIRLS STARTING OUT TO DISTRIBUTE CHRISTMAS DINNERS.

committees in charge take this opportunity to thank all who assisted in distributing the gifts for the excellent service they so willingly rendered.

Christmas in Kalamazoo

The annual Christmas Tree was held in the Commercial Office on Wednesday evening, December 22nd. About one hundred and thirty employes were the recipients of gifts which were both practical and comical. The tree was prettily trimmed and lighted with small colored electric lights.

The gifts this year were placed around the tree and on ropes suspended across the room. Each person who entered was presented with a ticket upon which was a number corresponding to a number on some gift.

A. W. Robb distributed the gifts, calling off a number on a gift and the person holding that number came forward to receive the gift. This caused no end of merriment, as the gifts were of

every description. One young lady received a pair of suspenders, while another received a hatchet. A ladies' apron was presented to one of the men and a pretty little doll to another.

A pleasant surprise was the musical program, including the "Blue Bell Rag," rendered on the guitar and mandolin by Messrs. Stark and Westendorf. A Victrola also furnished music during the evening.

The serving of popcorn, apples, cider and doughnuts completed the evening's entertainment.

District Traffic Conferences

District traffic conferences, conducted during November and December by Traffic Supervisors L. J. Walley and H. V. Weed, assisted by J. H. Brett, Grand Rapids, district accountant, were successful to a high degree. They were well attended by chief operators, supervisors and managers of the various districts, and also by representatives of nearby connecting companies. Bulletins 4 and 4-T were discussed. It was the consensus of opinion that the meetings were of a very helpful nature.

Bulletins 4 and 4-T were discussed at a conference of chief toll operators held in Kalamazoo November 11th and 12th. Each toll center in the Kalamazoo district was represented as well as the Cass County Home Telephone Company, of Cassopolis; Van Buren County Telephone Company, of South Haven, and Citizens' Telephone Company, of Schoolcraft. The meeting was in charge of Traffic Supervisor L. J. Walley and Traffic Supervisor H. V. Weed of Detroit. J. H. Brett, district accountant, of Grand Rapids, and E. P. Platt, district manager, of Kalamazoo, also gave interesting talks.



RECEPTION TO SANTA CLAUS AT KALAMAZOO.

A traffic conference for the district was held in Grand Rapids on November 18th and 19th at the Livingston hotel, this conference conducted by Traffic Supervisors L. J. Walley and H. V. Weed, of Detroit, assisted by J. H. Brett, Grand Rapids district accountant. A thorough study was made from Traffic Bulletins 4 and 4-T. On Thursday noon all attending the conference were entertained with luncheon at the Livingston café, and in the evening a party was given at the Empress theater.

A chief operators' conference of the Petoskey and Soo districts was held at Petoskey December 8th and 9th. Bulletins 4 and 4-T were gone into thoroughly by traffic supervisors, Mr. Weed and Mr. Walley from Detroit. The first day was almost entirely taken up by District Accountant J. H. Brett, Grand Rapids, explaining the proper method of making out tickets from the accountant's standpoint.

The Port Huron district conference was held at Port Huron on December 14th and 15th. This conference was presided over by Messrs. Walley and Weed of the traffic department during the first day, and they were followed by a three hours' talk on the second day by District Accountant Brett of Grand Rapids.

The conference was attended by chief operators from Port Huron, St. Clair, Marine City, Algonac, Mt. Clemens, Romeo, Armada, Lapeer, Washington and Carsonville, and chief operators from the following connecting companies: Croswell Telephone Company, Crosswell, Mich.; Consolidated Telephone Company, Bad Axe, Mich.; Brown City Telephone Company, Brown City, Mich.

In addition to the chief operators, the conference was attended by Manager Berry, Port Huron; Manager Dudley, St. Clair; Manager Smith, Marine City, and Manager Backus, Lapeer.

It was the general impression that it was the most successful traffic conference ever held in this district and it was very evident from the discussions which took place at the conference that the chief operators have been diligently studying their traffic bulletins.

The Bell Choral Society

The Bell Choral Society was founded last November by A. Edison Laing, the well known vocal instructor of Detroit Institute of Musical Art, and conductor of the People's Choral Union of Detroit, to promote the love and culture of good music, in a simple yet thorough way.

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TRAFFIC CONFERENCE, PETOSKEY AND SOO DISTRICTS.

Top row (left to right)—A. M. Williams, local manager, Petoskey; R. T. White, district manager, Sault Ste. Marie; O. A. Solomon, manager, Charlevoix; J. M. Clifford, manager, Manistee; A. E. Huntley, district manager, Petoskey; E. G. Stacey, manager, Cadillac; H. J. Johnston, manager, Traverse City; L. J. Walley, traffic supervisor, Detroit.

Second row (left to right)—Gertrude Lybolt, chief operator, Kalkaska; Bertha Bohls, chief operator, Traverse City; August Peterson, chief operator, Manistee; Sadie Wallin, chief operator, Cadillac; Frances Todd, chief operator, Charlevoix.

Third row (left to right)—J. H. Brett, district accountant, Grand Rapids; Maud Mulvogue, assistant chief operator, Petoskey; Jessie Lensen, supervisor, Petoskey; H. V. Weed, traffic supervisor, Detroit; M. McGraith, chief operator, St. Ignace; Anna Nielson, chief operator, Trout Lake; Grace McGuirk, chief operator, Mancelona.

Fourth row (left to right)—Lottie Gerrie, chief operator, Sault Ste. Marie; Mae Van Dyke, chief operator, Thompsonville; Georgia Adams, chief operator, Boyne City; Carrie A. Guetschow, chief operator, Cheboygan; Maud Snook, chief operator, East Jordan.

The fundamental principle of the society is that all shall have an equal opportunity of acquiring a means towards making life better and happier. All can learn to sing. No matter how small and inadequate the individual voice may be, as a part of a grand chorus, it becomes inspired. Any operator with only an ordinary singing voice may become a member.

The object of the society is to teach the art of reading music at sight (with practical application

windows of the Washington Arcade, where a number of young ladies are employed in the various offices. Strange to say, William Rinkus, a draftsman in the engineering department, was recently united in marriage to Lillian Tuesell, a former employe in one of the Washington Arcade offices. Their friends are wondering if these events are at all related. After a short trip, Mr. and Mrs. Rinkus will be at home at 1253 Twelfth street, Detroit.

Just a Coincidence

About a year and a half ago, when the engineering department moved into its present quarters, the desks of the draftsmen were located opposite some of the

Mr. Rinkus is the fourth employe of the engineering department to join the ranks of married men this year. With leap year ahead, the heads of the department look to the future with many misgivings.

"Charlie Chaplin" Contest

The Charlie Chaplin contest held in the Main retiring room October 27th was a most enjoyable entertainment. The participants were dressed up in excellent imitation of the famous "movie" actor, and their grotesque antics kept their audience in a continuous uproar. The contest was open to senior operators. Supervisors, chief operators and traffic chiefs to the number of 300, were in attendance by invitation of Mr. Spencer at a general traffic meeting. Eight couples entered the competition. Miss G. MacPherson, East, and Miss R. Gassman, P. B. X., were awarded first honors. Miss M. Schlerp and Miss P. Salisbury, Hemlock, received second prize.



TRAFFIC CONFERENCE AT KALAMAZOO.

Top row (left to right)—A. W. Robb, manager, Kalamazoo; Helen Hare, chief toll operator, Kalamazoo; Bernice Housel, chief operator, Plainwell; J. H. Scott, manager, Vicksburg; Ethel Trimble, chief operator, South Haven; H. V. Weed, traffic supervisor, Detroit.

Second row—Gertrude Lockwood, chief operator, Otsego; Luella Chevie, chief operator, Three Oaks; Edward Zwergel, manager, Niles; E. P. Platt, district manager, Kalamazoo; L. J. Walley, traffic supervisor, Detroit; Emma Dinkel, toll service observer, Kalamazoo.

Third row—Chloe Herrick, chief operator, Kalamazoo; Helen Townsend, chief clerk, Kalamazoo; Grace Richardson, chief operator, Vicksburg; E. V. Swintz, traffic chief, Kalamazoo District; Ethel Johnson, chief operator, Niles; Coila Burns, chief operator, Dowagiac.

Fourth row—Grace Fowler, chief operator, Buchanan; Bertha Burgoyne, chief operator, Berrien Springs; Cora Sootsman, toll supervisor, Kalamazoo; Margaret Burkenstock, evening chief toll operator, Kalamazoo.

Cadillac and Grand Keno Party

The first game was under way and the announcer's voice was heard in the far corners of the Main café, crowded with 300 operators of the Cadillac and Grand offices, as they sat intently watching the keno cards before them. "20-48-58-94-72." "Keno!" piped a shrill voice followed by mutterings of envy from all sides. "Who called Keno?" spoke up Traffic Superintendent Spencer. "Here! Here!" called several girls and pointed to Miss Weinand, day monitor of the Cadillac office, who was too bashful to speak up. "First prize, a twelve-pound turkey, to Miss Weinand," announced Mr. Spencer. Then followed the distribution of other prizes, a plump goose, a duck, pair of chickens, and several boxes of bon bons.

As the games continued the special prizes were exhibited, several barn yard friends appearing in real life before the audience and blinking complacently. Mr. Brown Pig shrank from the gauntlet of covetous eyes and hid his head under a proud white globbler's wing, and Mr. Grey Goose quacked nervously and waddled away in hope of refuge.

Miss Hager of the Grand office won the plump suckling which squealed vociferously as he was trussed in a strong hemp bag and dragged homeward.

Marie Cardinall, record clerk in the Cadillac office, won the white turkey.

The dancing white mice appropriately fell to Pearl Miller of the Grand office, who was awarded a trophy by Mr. and Mrs. Vernon Castle for her terpsichorean grace when they appeared in Detroit.

Upon winning the special prize of a canary and cage, Mamie Hall of the Grand office remarked that "Canaries don't make a very substantial Thanksgiving dinner."

Before the games were concluded at 12:30 Wednesday morning, November 24th, the prizes distributed included twenty-five turkeys, thirty-five geese, ten ducks, sixty chickens, thirty-five cans of oysters and seventy-five boxes of candy.

Claude's Secret Discovered

Claude J. Murray, toll traffic chief, and Lillian Haines, stole a march on their friends Saturday, November 27th, when they were married at the home of the bride in Windsor. Mr. Murray had

not betrayed his intentions to anyone around the office and it is uncertain how long he had expected to keep his friends in ignorance of the fact that he had fallen under the spell of Cupid. Be that as it may, the wide-awake toll operators were too much for him. They spied his license in the Sunday paper and were ready for him the next

Dancing Party at Kalamazoo

The third annual ball of the employees of the Kalamazoo exchange was given December 2nd at the Pythian temple. This was one of the most delightful dancing parties ever given by the young ladies of the telephone company. Between two and three hundred guests were in attendance on this occasion and unusually elaborate arrangements were completed for their entertainment.

It was a Bell telephone affair throughout, and the effects were carried out with telephone bells placed about the hall and telephones stationed at intervals. Fisher's first orchestra arranged a most unusual program for the event, which included bell effects in some of the numbers and, when the orchestra played and sang "Hello Frisco," there was a stunning effect with telephones from which would peep forth incandescent lights.

The guests were received by the committee, including E. P. Platt, A. W. Robb, Helen Hare, Chloe Herrick, Bess Parker and Nell Case.

Among those present from out of town were A. von Schlegell, general manager, Detroit; G. M. Welch, commercial superintendent, Detroit; L. J. Walley, traffic supervisor, Detroit, and G. W. Johnson, traffic chief, Grand Rapids.

The sum \$121.95 was cleared, which was added to the operators' charity fund.

Miss Schneider Surprised

On Friday, November 19th, Amanda M. Schneider, supervisor at Ann Arbor, completed her eleventh year of continuous service at that exchange, and elaborate preparations were made by the traffic and commercial departments to celebrate the event in a manner that Miss Schneider could not soon forget.

It was to be a surprise on Miss Schneider and it was absolutely a perfect one. Mae Shorr, chief operator, and Hilda Herman of the commercial department, as a committee of arrangements contracted for the festivities with N. E. Konald, proprietor of "The Delta," and special decorations for the occasion were arranged.

Miss Schneider was lured by a friend; Miss Ware, to the Delta. As they were being waited on by the clerk Miss Ware engaged him in conversation about The Delta's new banquet hall, which she understood was very fine and would there be any



GRAND RAPIDS DISTRICT CHIEF OPERATORS AND SUPERVISORS.

Left to right, top row—Ella Lindberg, Grant; Ruth Austin, Sparta; Sadie Nell, Grand Rapids, chief operator; Viola Van Alstine, Big Rapids.
 Second row—Mrs. Hattie Wallbrecht, Wayland; Marie Mittlestadt, Grand Rapids, instructor; Lillian Gilleo, Grand Rapids, supervisor; Cora Kingsburg, Grand Rapids, supervisor; Lucile Potvin, Ludington.
 Third row—Rebecca Beihl, Grand Haven; Genevieve Volk, Muskegon; Elizabeth Wettlaufer, Reed City; Mary Peters, Grand Rapids, evening chief operator; Louise Van Anvooy, Holland.


day. In his absence during the noon hour, his desk was gaily decorated with Christmas bells and the usual what nots used on such occasions. Telegrams of all sorts and placards of humorous design were scattered about the desk. But the girls also remembered him in a more substantial way and much to his surprise he found a beautiful chest of silver among the other things. Mr. and Mrs. Murray are residing at 80 Maplewood avenue, Detroit.

Miss Gilbert's New Position

Mabel Gilbert, who has been in the employ of the Michigan State Telephone Company at Benton Harbor during the last four years as chief operator, has accepted a position as traffic chief in the South Bend office of the Central Union Telephone Company. The change became effective October 18th. Miss Gilbert is succeeded at Benton Harbor by Stella Lyte. The girls from the Benton Harbor and St. Joseph offices tendered Miss Gilbert a farewell party and presented her with a handsome ivory toilet set.

Organization Change

Dorothy M. Cooke became manager of the Hopkins exchange December 1st. She succeeds Mrs. Hattie V. Lee.



"The French" FOLDING DOOR Telephone Booth

(Patent Pending)

DOOR OPERATION: One of the distinctive advantages of the FOLDING DOOR is that it can be both closed and opened by pulling on the handle. This feature, which is an important one from the booth user's standpoint, is possible only with this type of door.


Write for booklet describing the advantages of the "Folding Door" Booth

C. B. FRENCH CABINET COMPANY, Inc., Brooklyn, N. Y.

DISTRIBUTORS:

Western Electric Company

Houses in all principal cities



Door Open

Door Closed

objection to their taking a "peek" at it. The clerk who was familiar with the program for the evening assured them he would be glad to have them inspect it and lead the way. As the banquet hall door was opened and Miss Schneider beheld all the familiar faces of the operators there gathered, smothered in their sweetest smiles, she realized for the first time as they swarmed about her to offer congratulations that the surprise she had been helping carry out was on her and not on Miss Ware. For several moments she presented the best representation of marble statuary ever produced by a living person, absolutely the only sign of life visible being a tear stealing down one of her cheeks.

Cards and dancing and an elaborate banquet were enjoyed. Miss Schneider was presented with a beautiful diamond lavalier, the gift of her fellow workers. In an account of the party, the *Ann Arbor Times-News* among other things said:

"To work eleven years in one place and during that time have direct supervision over from forty-five to sixty young women employes and be able at the end of that long period to witness the spectacle of employer and subordinate employe vying with each other to show their appreciation and respect of continuous fidelity and beautiful characteristics, is an experience that comes to comparatively few people in a lifetime. Yet that was the rare treat afforded Miss Amanda M. Schneider, 512 South Main street, on Saturday night. A more cleverly concocted and successfully executed surprise was probably never accomplished than this one, of which Miss Schneider was a truly innocent victim."

Manager Kelly pays the following tribute to this faithful employe of the Ann Arbor exchange: "It is only now and then during one's journey through a business life, that we are afforded the treat of encountering an Amanda Schneider; ever faithful to duty, unassuming always, and as constant as the day following the night, she affords a splendid model for all the rest of the exchange, and it is no surprise to me that all are so proud of her."

Thanksgiving Dinner at Detroit

A delicious Thanksgiving dinner, "just like mother used to make," was served by the Michigan State Telephone Company to the Detroit operators who were unable to spend the great national holiday at home partaking of turkey and cranberry sauce. The menu included everything that is considered essential to make the annual feast a complete success. The Main café was prettily decorated for the occasion. Tables covered with cloth of purest white contrasting with bouquets of chrysanthemums and baskets of delicious fruit presented a sight that was good to behold. Dinner was served from twelve to two o'clock. Each girl, on departing, was presented with a beautiful chrysanthemum.

Girls unable to spend Christmas at home were entertained in like manner Christmas Day by the company.

Girls' Social Club

The girls comprising the clerical force in the offices of the company at Detroit have organized a society to be known as the Girls' Social Club. It is the first organization of the kind among the employes doing clerical work.

Through the aid of the company, the girls have secured the use of the Y. M. O. hall on Elizabeth street, where they will meet the second and fourth Fridays of every month. The first regular meeting



AMANDA M. SCHNEIDER.

of the club was held Friday evening, December 10th, with an attendance that spells success in this movement. Mary McLain of the directory department at Saginaw was the guest of honor. A season of activity is planned for the winter months. A topsy turvy party is scheduled for an early date. All girls employed in the offices of the company are invited to join the club.

Officers have been elected as follows: Estella McGraw, president; Margaret Woods, vice president; Grace Smith, secretary, and Effie Brown,

treasurer. Much credit is due Miss Brown for bringing about the organization. Her persistent promotion of the project was directly responsible for the initial meeting that led to definite action.

Detroit District

The Markinette Club of Market office gave a party Monday evening, November 8th, about thirty-five girls attending. The evening was spent in playing cards, Luella Avis winning first prize, Anna Grewe second and Mary Sharpe carting off the much coveted booty. Later in the evening ice cream and cake were served.

The following promotions at Market took place during November: Beatrice Teahan from day B senior to evening A supervisor; Edna Huck from evening to day supervisor; Ruth Sielaff from B operator to B senior operator; Mary Sharpe from A operator to A senior operator; Hazel Rice from A operator to A senior operator; Bessie Chafey from A operator to A senior operator; Gladys Austin from B senior operator to evening B supervisor.

The second A day section at Market won the prize for November, Supervisor Miss S. Carlin. The second B day section also won the prize for November. Antoinette Grewe is the supervisor.

At noon, November 8th, the East office girls who go to dinner at 12:30 had a noon day party. Each girl brought something to help make up the lunch. Miss Weiss entertained with fancy dancing. The girls arranged their time so that each had an hour.

On November 15th the 11:30 dinner girls at East office had a dinner party in honor of Miss Lafferty's birthday and Miss G. Mac Pherson's departure. The table was decorated in blue and white. A large bouquet of flowers was the centerpiece. Miss Mac Pherson of East took two weeks' leave of absence and spent her Thanksgiving in the country.

East section standing: Miss Gassman (winner), 94.8; Miss O. Smith (second), 92.9; Miss A. Bretz (third), 89.9; Miss McCormick (fourth), 87.3; Miss G. Johnson (fifth), 86.4; fourth section, 74.1.

L. Wehrle has been promoted from operator to evening supervisor at West.

Dora Eiden, day B supervisor at West, surprised the girls by announcing her marriage to Carl Ritter. On the twenty-first the girls had a shower and presented her with a cut-glass berry bowl and sugar and creamer.

Miss Missig's A section at West won the \$10 prize for November. The girls enjoyed a pleasant evening at the temple.

The announcement of the marriage of Edward Paul, switchboard man at West, and Bessie Chapaton, former operator, was a surprise to everyone. The girls presented them with a cut-glass fern bowl.

The Hickory Social and Sewing Club held its meeting on Friday night, December 3rd. The evening was spent very pleasantly, some of the girls sewing dolls' clothes for the Goodfellows' Club, some learning to crochet, and others playing pedro. The meeting closed with a delightful luncheon.

The brides of the Hickory office during November were Martha Golla, who was married on the 25th, attended by Any Naw, one of the Hickory girls, as bridesmaid; and Alice Feeteau, who was married November 30th. Ethel Jaffray, one of the Hickory girls, was Miss Feeteau's bridesmaid. These girls received several showers from the girls of the Hickory office.

The day operators in the sixth



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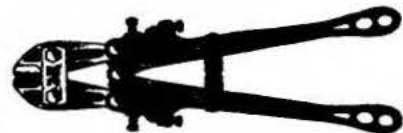
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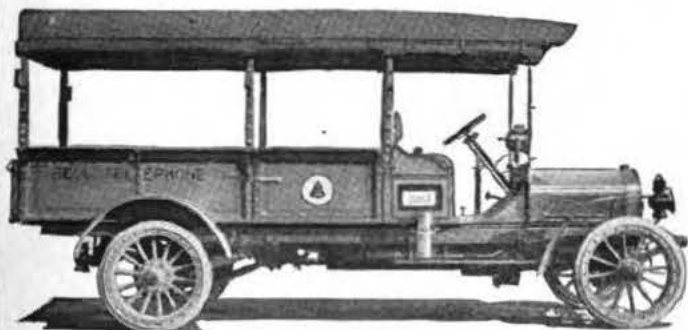
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section of the Ridge office won the premium for November. The girls, accompanied by their supervisor, Miss M. Fisher, were entertained at dinner, after which they attended the Temple theater.

Hazel Voodris, Ridge office, has resigned to be married to Francis Missig.

Friday evening, December 3rd, the evening sewing class of the Grand office gave a "character

The Hemalowa Club held a farewell party in her honor in the café of the office on Wednesday evening, October 6th, the luncheon being prepared by members of the club. The table decorations were pink and white, and carnations served as the center piece. Games were played and dancing was enjoyed. Miss Durkin was presented with several pieces of white ivory by the evening girls and a cut-glass celery dish and beautiful basket of flowers

sugar, one-half bushel of potatoes, one quart of cranberries, two loaves of bread, one pound of butter, one pound of coffee, one-quarter pound of tea, onions, apples, and a quart of beans. The committee in charge consisted of Verna Blaine, chairman; Nellie Williams, South office; Goldie Hoadley and Anna Milan, Main office; Esther Mittelstadt and Lillian Gillo, Toll office. The city was divided into four districts, each district having



"CHARACTER PARTY" AT GRAND OFFICE.

party." Costumes of all descriptions representing all nations were worn. Dancing and games were enjoyed. The "donkey game" was one at which the donkey was terribly abused. Tails were placed everywhere. P. Williams succeeded in getting first prize, Martha Enz second and Lillian Bernard the booby prize. A grand march proved a great deal of enjoyment and ended at a fishing pond where many prizes were drawn.

The following promotions have been made at the Cadillac office: Marie Israel, senior operator to B supervisor; Marie Merron, operator to senior B operator; Senia Hopponen, operator to senior B operator; Carrie Sullivan, senior to A supervisor; Marjorie Christie, operator to senior A operator; Anna Johnson, senior operator to A supervisor.

On Wednesday evening, November 17th, a masquerade was held in the retiring room of the Cadillac office. Many were the costumes represented, varying from a boy scout to an old maid. The evening was spent in dancing and music.

The first evening A division, with Tillie Kraus as supervisor, won the November contest at the Cadillac office.

Miss Sohnlein's division at Cedar won the ten-dollar prize for November. It was given toward the goodfellow work of the office.

Lilah Haimas, senior operator at North, was promoted to evening supervisor.

Florence Duncanson, sixth evening supervisor, won the section prize at North and gave a theater party at the Garrick for her operators.

Nellie Sodergren, first evening supervisor at North, won the prize and gave a theater party at the Detroit for her operators.

Olga Hoelner was promoted from operator to senior operator, and Helen Gallaher was promoted from operator to senior operator at North.

May Durkin has resigned her position as chief operator at the Hemlock office. She had been in the employ of the telephone company for over seven years. Miss Durkin organized the Hemalowa Club, which has a membership of ninety girls.

by the day girls. Miss Durkin made a farewell speech. Miss Durkin is succeeded by Ellen Cahill, who was chief operator of the Market office, and the girls are all determined that under their new chief operator, Hemlock shall still retain its position as leader among the offices.

The third evening Hemlock division won the contest for November. Supervisor Tessa Kuzfa entertained her girls at a theater party at the Temple.

Evening Supervisor Miss O. Brelinski of Hemlock and her remaining division enjoyed a luncheon at the Dixie Land.

The Bonita girls of Hemlock were pleasantly entertained at a card party at the home of Hazel Critchett. First prize was won by Miss M. McLean.

On Tuesday, November 23rd, North, Hemlock, Walnut and Market (Mr. Johnson's district) gave a Thanksgiving party at Strasburg. The hall was prettily decorated in orange and black, the same color scheme being carried out in the dining hall where ice cream and cake were served to about 400, the favors being miniature turkeys. The decorating committee comprised the Hemlock and Walnut girls, the refreshments committee the North and Hemlock girls.

The operators of the long-distance department have organized a pedro club which meets every other Monday evening in the retiring room of the Main office. The girls play cards from eight to ten and then join the dancing class for the rest of the evening. Light refreshments are served and from four to six prizes are always offered. Miss Dixon is president of the club.

Grand Rapids District

On Thanksgiving day, seventy-two families were made happy by the Thanksgiving baskets given them by the Michigan State telephone operators. Each of the seventy-two families received five pounds of chicken, a head of cabbage, two pounds of

a card record of all families. The committee who delivered the baskets wishes to express its appreciation to Messrs. Dudley E. Waters, William Judson and A. E. DeNio, local business men, for the use of their automobiles, and to H. Hagens of the Valley City Milling Company for a motor truck. Although it required a great amount of work on the part of members of the committee, they surely can feel well repaid for their services, by the appreciation of the families receiving baskets.

Rika Meyers, Main supervisor, in the employ of the company for five years, resigned October 16th, and was married to Albert Huzel October 26th. Two showers were given her by the operators, one miscellaneous, and the other, china. Also, a surprise was given her at her home on December 1st, at which she was the recipient of many beautiful gifts.

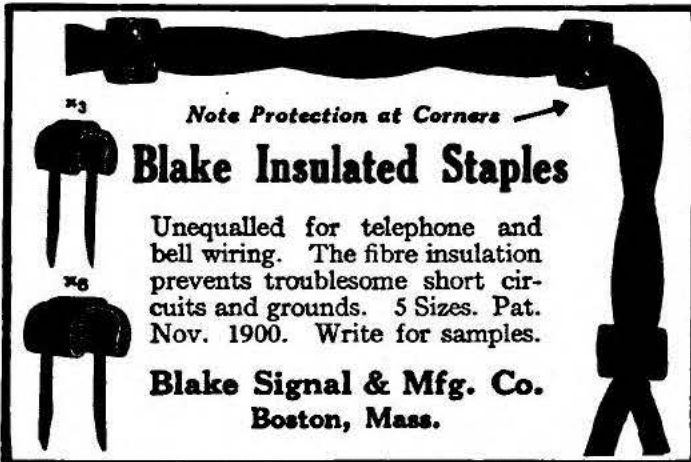
Ethel Scott, toll supervisor at Grand Rapids, resigned November 30th to become Mrs. George Vandenberg. On December 1st, the Misses Bowes, Howe, Kingsbury and McLaughlin entertained the Grand Rapids toll operators at Garfield lodge with a towel and apron shower for Miss Scott. The prospective bride received many attractive as well as useful gifts.

Kalamazoo District

Local Operator Buelah Nicely has returned to Benton Harbor from a two weeks' leave of absence visiting friends and relatives in Anderson and other Indiana points.

Chief Operator Stella Lyle of Benton Harbor was elected president of the Business Girls' League at its second annual election of officers. The mission of the club is the physical, mental and moral uplift of its members and the community at large. Largely through the efforts of the Business Girls League, free night schools were established December 1st, in the public schools. Six telephone girls are now enrolled.

The rebuilding of the Coloma exchange was started November 15th by Foreman H. Maloney.



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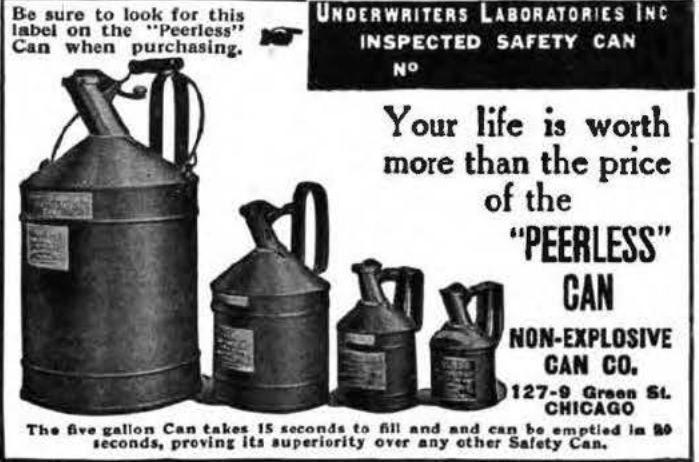
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The estimate calls for an expenditure of approximately \$5,000.

On Wednesday, December 8th, the Kalamazoo local supervisors entertained at a six o'clock dinner in the rest room. Covers were placed for ten. The guests of the evening were Elsie Swintz, district traffic chief; Helen Hare, toll chief operator, and Chloe Herrick, local chief operator. After the supervisors' meeting the party attended the Majestic.

Mrs. Mary Tully was appointed matron of Kalamazoo exchange, taking up her duties December 1st. Mrs. Tully has a very winning disposition which has, during her short stay, endeared her to all the girls.

The annual Christmas celebration at Kalamazoo was held December 29th.

Mrs. Volney Smith, chief operator at the Coloma exchange since July 8, 1912, resigned December 1st owing to ill health. Before coming to Coloma she was an operator at St. Joseph and at Benton Harbor, serving two years at each place. Her work at Coloma was highly successful. May Wright, who has been in the office with Mrs. Smith for several months, is the new chief operator and Esther Herbster of Grand Junction is the night operator.

John V. Wright, who was secretary of the Coloma Telephone Company, resigned December 1st and is succeeded by Charles Bachman.

Lansing District

On November 27th the employes of the Eaton Rapids exchange very pleasantly surprised Mrs. Mae Smith Laird at the home of Susie Petrie. The affair was in the nature of a farewell party, the honored guest, Mrs. Laird, having recently resigned her position as chief operator. The early part of the evening was most enjoyably spent with music and games, after which a dainty luncheon was served. The dining room was prettily decorated in blue and white. At the close of the social hour P. T. Mitchell, manager, presented Mrs. Laird, in behalf of the employes present, with a cream ladle.

Susie Petrie has accepted the position of chief operator at Eaton Rapids, Mrs. Mae Laird having resigned November 30th. Blanche Prosser has been promoted to toll operator, Eileen Robinson has taken the place of Miss Prosser and Miss Babcock has succeeded Miss Robinson.

Julia Abramson, chief operator at Howell, has returned after a leave of absence of three months. Zatta Rayton, who was temporary chief operator during the absence of Miss Abramson, has accepted the position of first toll operator.

On November 30th work was completed on the installation of a private branch exchange in the furniture plant of the Ypsilanti Reed Furniture Company, Ionia. It consists of No. 101 switchboard and twenty-three terminals.

Mrs. Bernice Edick has accepted a position at the Lansing exchange as clerk No. 1. Mrs. Edick had been with the company seven years prior to coming to Lansing.

On December 15th work was completed on the installation of a private branch exchange consisting of one cordless switchboard, two trunks and five terminals in the office of Dyer, Jenison and Barry Company, Lansing.

A contract has been accepted for a private branch exchange system for the Lansing Fuel and Gas Company. It consists of five terminals and two trunks. A cordless-type switchboard installed.

Elsie Jessel, chief operator at Wacousta, has again taken up her duties, having fully recovered from her injuries.

Marquette District

The toll operators of the Marquette exchange entertained the local operators at a Thanksgiving party the evening of November 29th. The game was "Thanksgiving," written down one side of a piece of card board and written on the opposite side, starting with last letter, thus "G" was opposite "T," "N" opposite "H," etc. Words of same number of letters had to be written on the card starting and ending with the letters given. Twenty minutes was given as time limit and at the end of this period, Rose Quilliam, local operator, had the most words and won the prize. Light

—M

refreshments were served and everyone had a most enjoyable evening.

Mr. Van Den Berg, testman at Houghton, returned to his duties, December 8th, after a two months' absence, during which time he underwent an operation at the Mayo Brothers' hospital.

Members of the force at Ironwood gave an anniversary party in the commercial department Tuesday, December 7th. Games were played and a very enjoyable time was spent. Lunch was served by the young ladies.

The work of making extensions to plant at Wakefield is well under way, and will be completed in a very short time.

Lillian Demarce, assistant chief operator, was painfully but not seriously injured by falling down stairs at the Houghton exchange on November 27th. Miss Demarce is back at work again.

Calumet operators gave a dancing party at the Calumet Armory on New Year's eve.

F. E. Reiff, manager at Houghton, spent four days with G. W. Stannard at his hunting lodge during the deer season. Mr. Reiff brought home a 150-pound buck.

Dean Annis, cableman's helper at Houghton, spent a few days during the deer season in the woods outside of Nestoria. He was successful and brought home a good sized deer.

Aline Bertrand, chief toll clerk of the Marquette accounting center, was married October 4th to Michael Coleman of the Western Express Company. Mrs. Coleman was tendered two showers by the girls of the accounting department.

L. C. Jacokes, district accountant at Marquette, Mich., spent a week at Three Lakes on a hunting expedition.

Leona Saladin, stenographer at the Marquette accounting center, has been transferred to Detroit. Miss Saladin was tendered a farewell party by the girls of the accounting department.

Hanna Kennedy of the Marquette accounting department spent her vacation in Detroit, Mich.

On November 23d the girls of the Marquette accounting center enjoyed a theater party at the Marquette opera house. They were afterwards entertained by the Misses Paquette. Music was the feature of the evening.

Petoskey District

Foreman Morseman has just completed the trimming of trees and general repairs to the toll lines between Thompsonville and Manistee. Mr. Morseman is certainly an expert at this line of work.

On Friday, November 26th, Josie Schlief, night operator at the Manistee exchange, entertained at a dinner party all of her associates, the occasion being her birthday. The operators in return presented Miss Schlief with a beautiful silver serving set. It was a very enjoyable function and all report having a splendid time.

The Michigan State Telephone Company sustained a loss of several hundred dollars when fire destroyed the Garland hotel at Boyne City the morning of November 12th. New cable which had been put up but a short time before was badly damaged. About 200 telephones and four toll lines were put out of commission.

Saginaw District

Anna Wallner of the traffic department, East Tawas, resigned November 18th to become the bride of George Pehrson of Detroit. The ceremony took place at St. Joseph's church, Monday, November 22nd, at 6:30 a. m. The bride was attended by Julia Nolan and the groomsmen was Albert Wallner, brother of the bride. Following the ceremony a dainty wedding breakfast was served at the Wallner home, the decorations being in the bride's chosen colors, blue and white. Several showers were given in honor of Miss Wallner, and on the Thursday evening preceding the wedding she was pleasantly entertained at a farewell party given at the office by the traffic force. The office was artistically decorated in evergreens and hearts, and a dainty and appetizing four-course dinner was served. The bride at this time was made the recipient of many beautiful and useful gifts.

The month of December witnessed three marriages of Saginaw traffic employes. Anna Baumann,

toll supervisor, was married December 1st to John Zahnaw. The supervisors presented her with a set of silver teaspoons. Anna Wallace, local supervisor, was married December 2nd to Earl Holloway. She was presented by the supervisors with a set of silver teaspoons and by her division with a silver sugar shell and butter knife. Edith Zauner, day operator, and Roy Wiltse were quietly married during the month.

Flames threatened the destruction of the village of Munger late Wednesday night, December 1st. Miss Barkofski, the telephone operator at Munger, rendered valuable service in summoning people from far and near to fight the flames. A department store and the village hotel were burned to the ground and but for the heroic work of Miss Barkofski other buildings would have become prey for the flames also. She called farmers for several miles around, who hurried to the scene. Several hundred armed with pails formed the fire fighting brigade and confined the fire to the two buildings.

Sault Ste. Marie District

The operators at Sault Ste. Marie gave a dancing party in the K. of C. hall on the evening of November 10th. About 100 were present. Luncheon was served at twelve o'clock. All present reported a very enjoyable time. This is the first of a series of dances which the operators expect to give this winter.

The operators at Sault Ste. Marie gave a farewell party for Muriel McNair on the evening of November 2nd. The evening was spent in games and dancing, and a delicious luncheon was served. A beautiful silver purse was presented to Miss McNair. Miss McNair left for Misbee, Arizona, where she expects to make her future home.

Connecting Company Affairs

A telephone exchange was opened at Hoxieville October 15th.

A contract was recently signed with the Alger Telephone Company, newly organized. The company operates in Moffitt township in the northwestern part of Arenac county. The connection gives the company business which is an entirely new development.

The exchange at Holt, Ingham county, was taken over by the Michigan State Telephone Company October 1st. It was formerly operated by I. B. Chandler.

The exchange at Clifford, Lapeer county, operated by Guy Williams, has been sold to Clarence D. Willson. The purchaser has signed a new contract with the Michigan State Telephone Company.

A new contract has been signed with the Central Michigan Telephone Company, covering toll arrangements with Strasburg, Monroe county, and giving the farmers of the territory connection with the Michigan State Telephone Company.

The Somerset Center Telephone Company has signed a contract with the Michigan State Telephone Company whereby it obtains direct toll connections. Heretofore, connections were made through Moscow and Jerome.

The lines of the Erwin Township Rural Telephone Company, the third rural line to be constructed in Gogebic county, have been placed in operation. Connections have been made with the Michigan State Telephone Company at Jessieville. The people of the vicinity welcome the opportunity to be brought into closer touch with each other.

Lyman G. Fancher, secretary of the Mutual Telephone Company of Lapeer County, called on W. J. Berry, agent for connecting companies, early in November. Other connecting company representatives who called during the month were A. E. Sleeper, president of the Consolidated Telephone Company, of Bad Axe; Fred C. Kuhn and C. H. Miner, president and secretary respectively, of the Livingston County Mutual Telephone Company, together with George Adams, editor of the *Fowlerville Review*, all of Fowlerville.

New contracts have been signed with the Moscow and Jerome Rural Telephone Company and the Somerset Center Telephone Company.

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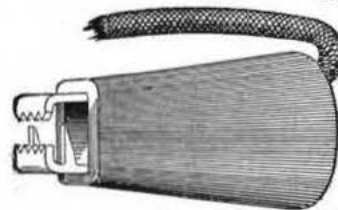
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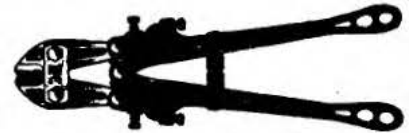
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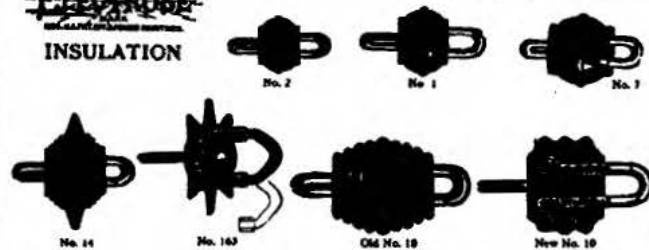
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INSULATORS 1,000 TO 1,000,000 VOLTS



LOUIS STEINBERGER'S PATENTS
ELECTROSE MFG. COMPANY
BROOKLYN, N. Y., AMERICA
ALSO FOR SALE BY
Western Electric Company
NEW YORK and BRANCHES

**MAKING THE BEST SINCE
1876 AND STILL
AT IT**



Patented
No. 12 Pump
No. 11 Bulb
Otto Bernz, Newark, N.J.

Since that time we have patented our many improvements which we have fitted to our furnaces and torches for which we have never made any extra charge. With these improvements our goods are the best and most practical made. Our prices are no higher than any others. Try some when in need. Ask for catalog.

ADVERTISING
in the
**Bell Telephone
News**
**BRINGS
RESULTS**

The telephone line
that lasts
and
keeps down
transmission losses
is strung on



"Thomas Quality" Porcelain Insulators

Wherever service conditions
are unusually severe these
brown glazed porcelain insu-
lators will meet the require-
ments. Every insulator is
rigidly inspected before it
leaves the factory.



Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by

Western Electric Company

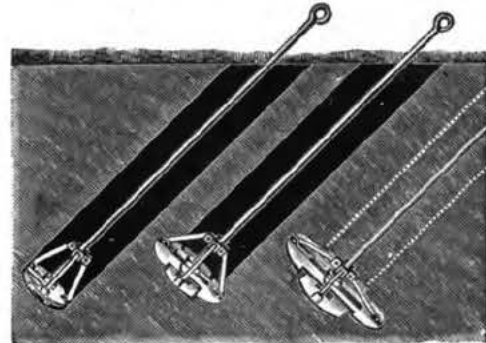
Offices in all principal cities

EVERSTICK ANCHORS

are used by every Bell Telephone Co.
in the United States except one. We
feel this one has made a mistake.
Lighting Companies and Electric Rail-
way Companies not using Everstick
Anchors have also made a like mis-
take, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.

ST. LOUIS, MO.



1 2 3
Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

The Pittsburgh Shovel Company PITTSBURGH, PA.

Manufacturers of

SHOVELS SPADES SCOOPS

All Styles for Every Class of Work. Our
High Grades Fully Warranted.

**Telegraph Shovels and Spoons
a Distinctive Specialty**

WRITE FOR PRICES

Suite 1832 Oliver Building, PITTSBURGH

"DIAMOND X" Expansion Shield for Lag Screws Equal Results at Lower Cost

REDUCES

Original Cost of the Expansion Bolt
Diameter of hole to be drilled
Cost of drilling
Time required to install
Your total cost of making attachment



Screw enters
shield on center



Screw emerges at
side and contacts
directly with wall

This new expansion shield is designed for heavy work. Its simplicity,
being composed of but one single unit, will recommend itself to telephone
engineers for construction work requiring attachment of equipment to
stone, brick or concrete buildings.

Its principle of operation is the most radical development in expansion
bolt design. The screw contacts on one side directly with the hole in
the wall. The enormous displacement of metal at the further end is
what gives it its powerful expansion at the inner end.

SEND FOR SAMPLE

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties 90 West St., Cor. Cedar, New York



The Kingdom of the Subscriber

In the development of the telephone system, the subscriber is the dominant factor. His ever-growing requirements inspire invention, lead to endless scientific research, and make necessary vast improvements and extensions.

Neither brains nor money are spared to build up the telephone plant, to amplify the subscriber's power to the limit.

In the Bell System you have the most complete mechanism in the world for communication. It is animated by the broadest spirit of service, and you dominate and control it in the double capacity of the caller and the called. The telephone cannot think and talk for you, but it carries your thought where you will. It is yours to use.

Without the co-operation of the subscriber, all that has been done to perfect the system is useless and proper service cannot be given. For example, even though tens of millions were spent to build the Transcontinental Line, it is silent if the man at the other end fails to answer.

The telephone is essentially democratic; it carries the voice of the child and the grown-up with equal speed and directness. And because each subscriber is a dominant factor in the Bell System, Bell Service is the most democratic that could be provided for the American people.

It is not only the implement of the individual, but it fulfills the needs of all the people.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

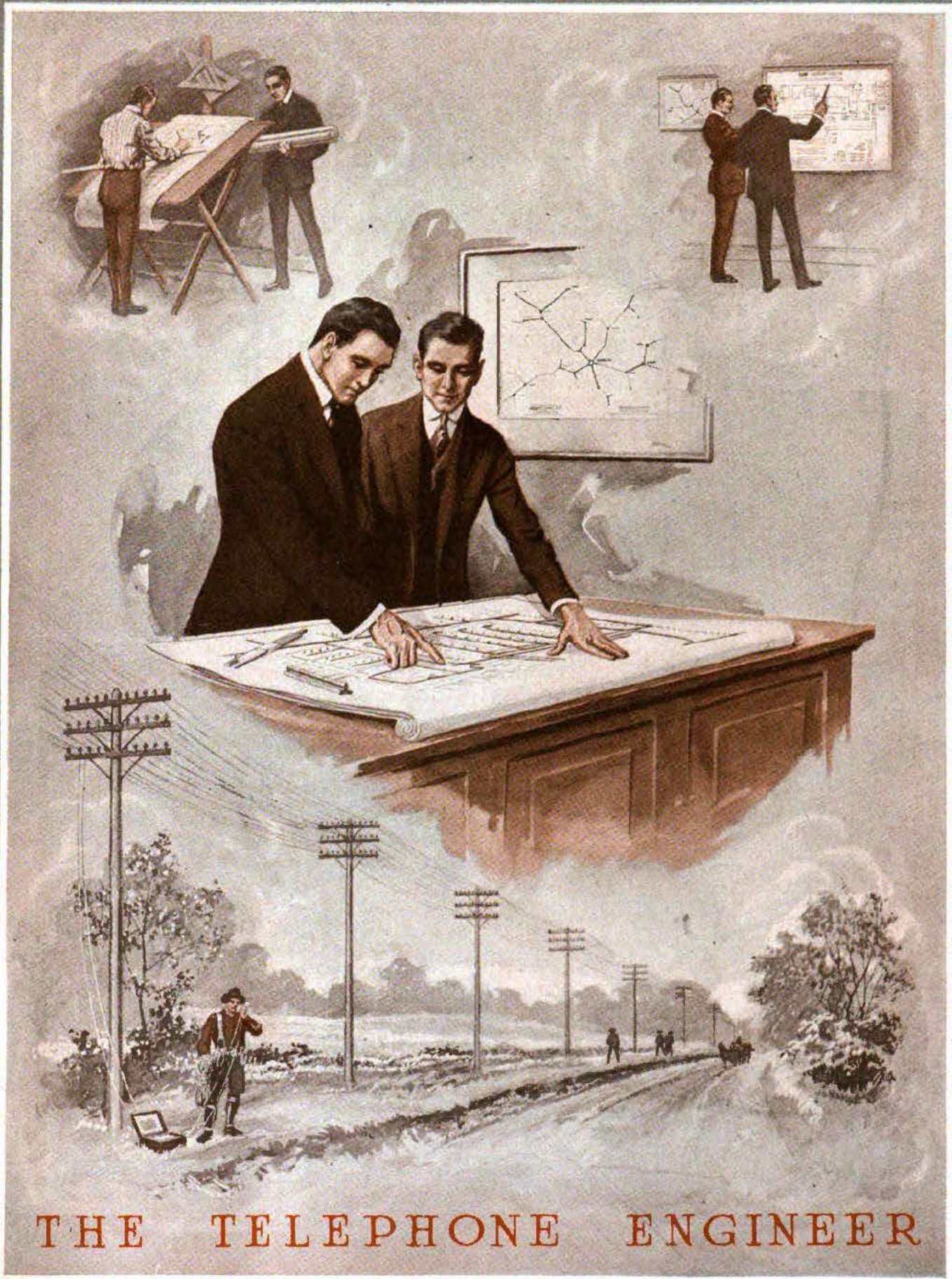
One Policy

One System

Universal Service

BELL TELEPHONE NEWS

W. J. ...



THE TELEPHONE ENGINEER

Bell Telephones

AND CONNECTIONS

In the Territory of the Central Group of Companies

MAY 1, 1916

	<u>Regular</u>	<u>Connected</u>	<u>Total</u>
ILLINOIS	603,671	273,925	877,596
OHIO	216,251	217,003	433,254
INDIANA	103,829	213,987	317,816
MICHIGAN	240,886	75,206	316,092
WISCONSIN	<u>161,131</u>	<u>140,552</u>	<u>301,683</u>
	1,325,768	920,673	2,246,441

BELL TELEPHONE NEWS

ONE POLICY

UNIVERSAL SERVICE

ONE SYSTEM

Volume 5

CHICAGO, ILL., JUNE, 1916

Number 11

The Engineering Department

The Department in the Telephone Organization Which Studies the Requirements and Plans the Construction and Reconstruction of the System.

An Engineer, by the early definition, was a man who was "ingenious in the use of engines." That period was remote, the "engines" then referred to were "engines of war," and the military engineer was then the only engineer. Now, the military engineer is but one of a large group of specialized engineers and, numerically, his is not the most important division of the group.

The title of engineer entered into telephone organizations slowly and with some hesitation. Electrician was the more popular name in the early days. At a time when nearly every move in technical telephony was a step in the dark, perhaps the title should have been inventor. But eventually it became possible to begin the work of standardizing plant and practices, and at that point in the history of the telephone industry inventor and even electrician ceased to indicate properly the work of a man whose duties had grown to include much that was wholly removed from invention and in no way connected with the direct applications of electricity.

The genesis of the engineer being fulfilled, he became prolific and the present organization chart of a telephone company is likely to show, outside of the force of the parent Engineering Department, such titles as Commercial Engineer, Plant Engineer, Traffic Engineer and also blank space reserved perhaps for possible Legal, Auditing, Editorial and Assorted Engineers.

What is it that has popularized this title?

Its extraneous use in some cases may be due to its having adhered to a member of the engineering department who has entered some other department, for it must be remembered that an experienced engineer transferred to a different kind of work is still an experienced engineer, and some recognition of the fact may be desirable in the selection of his title. But the answer to the question will more likely be found in a study of the increasing agitation over

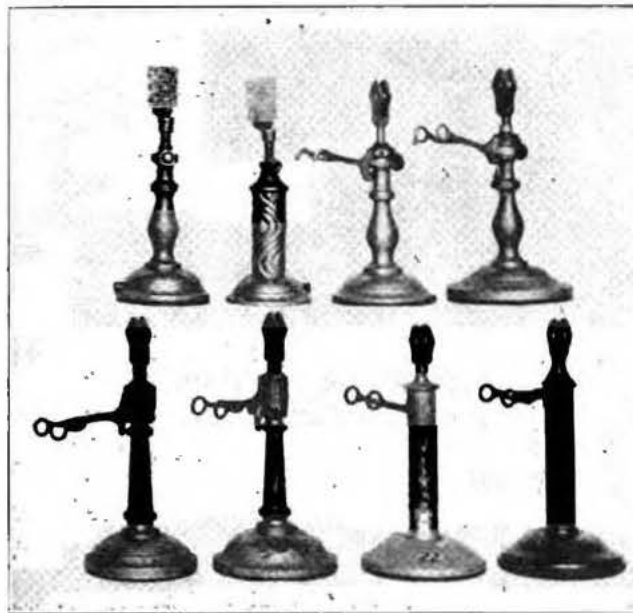
the pursuit of efficiency. If efficiency is to be pursued, overtaken and captured, who in the hunting party will be better equipped than the engineer, and who will make a more desirable member of the party than the man who is currently described as being "able to do with one dollar what anyone may do with two"? That, at least, is his

tained a total of 6.42 square miles in the southern part of the city, and included what is still known as the Englewood district.

In the years 1913 and 1914 another conduit plan was prepared for practically the same area, the difference being such that adjustments can readily be made to permit of a direct comparison of the two plans.

This comparison shows the following differences:

	1897 Conduit Plan.	1913 Conduit Plan.
(a) Total length of street reached by main conduit (total trench miles)	25.79	27.87
(b) Total length of duct provided for subscribers' cables (total duct miles)	115.67	74.35
(c) Average number of ducts required for subscribers' cables (b ÷ a)	4.5	2.7
(d) Total number of subscribers' lines for which conduit was planned	1,576	14,992
(e) Length of duct provided per subscriber's line (b ÷ d), ft.	390	26



DESK STANDS.

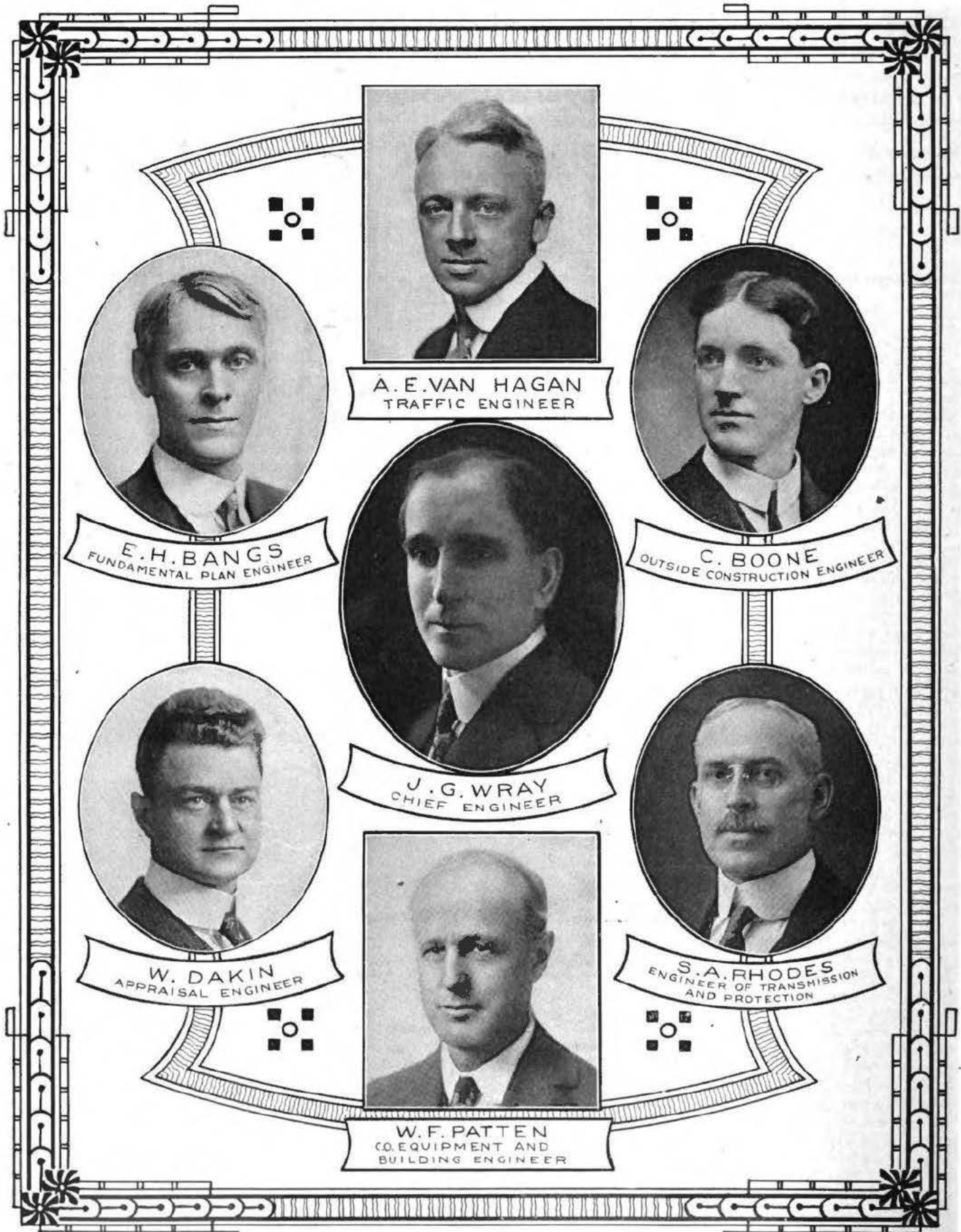
Various standard desk stands that have been developed from time to time to bring about improvements in methods of manufacture or maintenance.

earnest effort and his training and his methods of thought lie in that direction.

It would be possible further to generalize on the value of the engineer to the telephone business, but it is easier and certainly more impressive to cite a specific example of his efficiency. The only difficulty in doing so lies in choosing the particular example to be taken from the multitude that are available. Perhaps the following case will serve as well as another to illustrate the practical relation of the engineer to efficiency:

In the years 1897 and 1898 a conduit plan was prepared, to cover, according to the best practice of the day, the Wentworth office area in Chicago. This area then con-

In other words, the later conduit plan covered 8 per cent. more of the streets and required 36 per cent. less duct than the former plan. It provided for 851 per cent. more lines and required 93 per cent. less duct per line. The immediate cause of most of this gain in plant efficiency was the introduction, prior to the date of the later plan, of the use of large size cables—under the old plan the largest cable contemplated contained 130 pairs of wires, while under the new plan it had 600 pairs of wires. But this simple statement in regard to large cables does not tell the whole story of the engineering work that made them possible. In addition to the engineering research that permitted of the de-



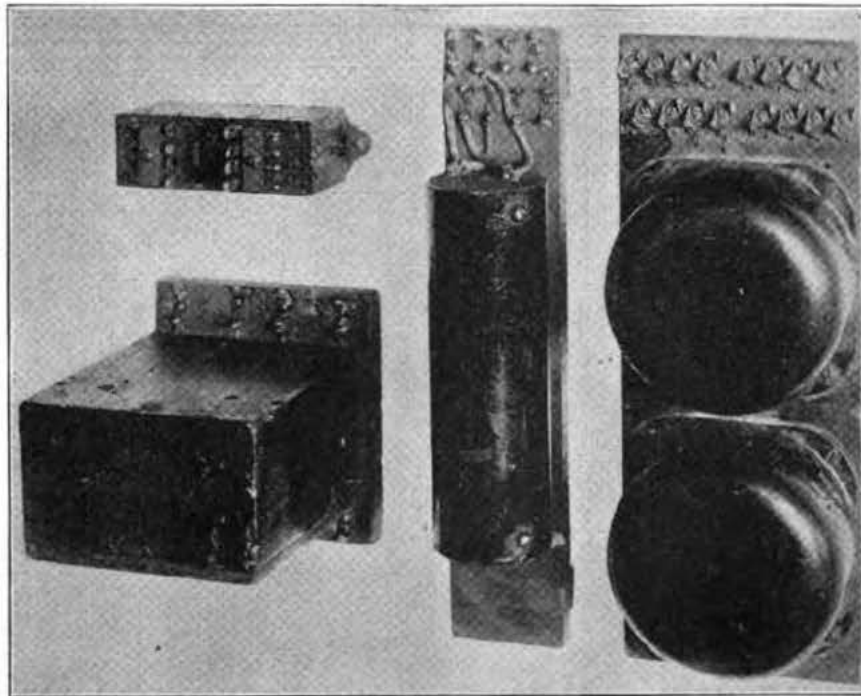
CHIEF ENGINEER AND STAFF, CENTRAL GROUP OF BELL TELEPHONE COMPANIES

sign and economical manufacture of large cables, there were engineering inventions and discoveries required to improve the general grade of transmission to a point where large cables could be used; there were involved engineering cost studies needed to show the economy of using large cables, in view of their reactions on other parts of the plant; and there were engineering investigations needed to prove in and standardize the methods of installation and maintenance of large cables. All of these things were essential to a successful, intelligent conscientious use of this efficient development in the art; and all of these things were accomplished through processes of engineering carried on not only in the regular engineering departments, but in the factories of the manufacturer, and in the work of the plant departments.

Improvement in cable design did not come to an end with the development of 600-pair cables; still larger cables have since been perfected; but the Wentworth office case is an actual example of the value of engineering methods. Perhaps it might be well before going further to try to define the present idea of the phrase, engineering methods. Probably to most technical men, in its ideal state, it implies the application to a problem of calm, sane, logical reasoning, based on a complete chain of honest facts. In other words, it is the same process that we try to use, or think that we try to use, in all of our affairs, the difference being that the engineer by his experience and training stands a somewhat better chance of realizing the ideal conditions connected with the problems that are ordinarily presented to him than does the average man in dealing with his personal and impassioned activities.

With this definition as distinguished from that in the opening paragraph, it will be seen that engineering methods are applicable to many of the problems of the telephone business and that there is a sound basis for the present situation under which all of the engineers are not confined to the engineering departments, and all of those who make use of engineering methods are not called engineers.

Some of the accompanying cuts show specimens of obsolete apparatus, and also modern apparatus of a similar type. The evolution indicated is not especially identified with engineering work in the Central Group. The pictures are included only



REPEATING COILS.

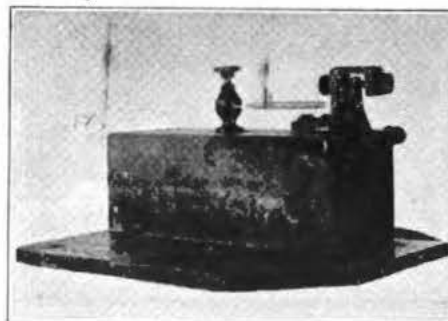
Four types of repeating coils developed and used at different periods.

for their historical interest.

Central Engineering Department

In the Central Group of Bell Telephone Companies there is a Central Engineering Department located at the headquarters of the group in Chicago, and there is an Engineering Department in the organization of each of the four Associated Companies. The following is a brief description of the organization of the Central Engineering Department, and elsewhere in this issue are articles on the state departments.

This department was organized in June, 1911, at the time of the formation of the Central Group of Bell Telephone Companies. Its offices were first located on the fifth floor of the Occidental building at the corner of Market street and West Washington street, Chicago. Upon the completion of the new general office building at 212 West Washington street in 1912, the department moved into its present quarters on the nineteenth floor of that



O'CONNELL REPEATING COIL RELAY.

A combined repeating coil and supervisory relay installed at one time in the Oakland Office (Chicago) on incoming trunks from the Main Office to the Drexel Unit. About 120 of these relays were in use in the Oakland office in the year 1894.

building. The force at this time is made up as follows:

J. G. Way, Chief Engineer.

E. H. Bangs (Fundamental Plans), C. N. Rowley, R. H. Hopkins, E. S. Moles, E. E. Rawles, E. F. Riddle, C. E. Kissell, C. G. Smith, C. E. Rominger, F. E. J. Young, F. H. Emrich, T. Vanden Bosch, F. F. Smith, T. Enright, N. Peterson.

C. Boone (Outside Plant), E. H. Spalding, O. W. McIndoo.

W. Dakin (Appraisal and Inventory), J. F. Casserly, W. M. Miller, E. J. Rotterman, L. W. Burget.

W. F. Patten (Central Office Equipment and Buildings), H. A. Harris, E. N. Anderson.

S. A. Rhodes (Transmission, Protection, and Materials), B. Smith, E. E. True, C. G. Hill.

A. E. Van Hagan (Traffic), W. A. Spencer, C. K. Brydges, F. R. Marks, O. Sandeen.

N. O. Rud (Chief Clerk), Grace M. Millis, Etta H. Manley, Sarah L. Arnold, Frances Hoffmaster, Harriet Boomgarn, Flora Fischer, Annie Abbott, Lucille Lohn, William Nachtigall.

Among the more important or more interesting problems that have recently been considered by the central engineering department are the following:

Plans for the installation of a total of eleven toll line repeaters in various offices.

Instructions relating to better protection of substations and central offices from dangerous exposure.

Studies, in connection with the United States Bureau of Standards, to reduce the danger to the telephone plant on account of electrolysis.

Observations to determine the grade of transmission desired by the public under certain conditions existing in Chicago.

Bulletin, relating to the planning of outside exchange plant.

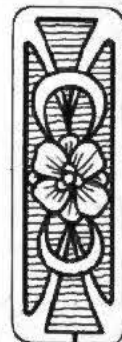
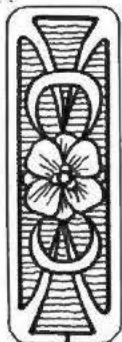
Bulletins, relating to the installation of various kinds of cable.

Plans and cost studies relating to various long toll cables.

Preparation and analysis of data required by the Interstate Commerce Commission's Valuation Order No. 18.

Fundamental plans for Grand Rapids, Mich., Kenosha, Wis., Milwaukee, Wis., and several smaller cities.

Inventory and appraisal of telephone property in Cleveland, Ohio, and in each of the following cities in Michigan—Detroit, Ypsilanti, Ann Arbor and Kalamazoo.



C. N. ROWLEY

C. K. BRYDGES

E. S. MOLES



E. J. ROTTERMAN

E. S. TRUE

W. A. SPENCER

E. F. RIDDLE



W. M. MILLER

BURKE SMITH

C. E. KISSELL

E. H. SPALDING



R. H. HOPKINS

E. N. ANDERSON

H. A. HARRIS

O. W. McINDOO

Coöperating with the engineering department of the American Telephone and Telegraph Company and with representatives of the four companies forming the central group, conferences have been held and standard practices have been adopted relating to such subjects as:

- Safety of Employés.
- Building Design.
- Methods of Illumination.
- Toll Operating Methods.
- Local Operating Methods.
- Service Observing Methods.
- Traffic Engineering Methods.
- Cable Splicing.
- Exchange Aerial Construction.

Telephone Business

"That man must be a good salesman," I said as I turned away from the 'phone.

"Why?" asked my husband.

"I asked him the same question I've asked two or three other furniture men, and he is the only one who has volunteered any information beyond the exact price. I'll certainly go there to look at chiffoniers, and while I'm there I may see some living room furniture that will be just what we want later."

Our living costs from \$1,800 to \$2,000 a year; \$350 of that goes for rent. What firms get a chance at the rest of it will depend largely on the telephone impressions I receive. I'm the buying agent of the family, and for several years have, of necessity, done the bulk of my trading by 'phone.

Thinking over recent experiences in telephoning, I've concluded that many concerns are losing business because they do not recognize the importance of telephone salesmanship.

For instance, I decided late one afternoon what meat to have for dinner that night. I called the store a block away and asked for the meat man. I heard the telephone girl speak to him, and then I sat and waited. The clock

stood near me, and I watched 'it for twenty-five minutes and then hung up. During the time central made several attempts to call the store again, but the receiver was down and nothing could be done.

I called the store later and asked for the

I called a grocery store when we came to the city where we now live to ask for a list of prices. I could not decide which firm to patronize until I learned what the different ones charged for certain articles. I kept the man answering questions for a few minutes. Then he broke off and asked if I couldn't come to the store for the prices I wanted, as he had customers waiting. That settled the matter so far as I was concerned.

The conclusion of the whole matter is this: The telephone is here to stay, and the man who realizes its possibilities as an added avenue of trade will get the business. —Rebecca W. King in *National Sunday Magazine*.

Busy Days

"Where's the president of this company?" asked the man who called at the general office.

"He's down in Washington attendin' th' session of some kind uv an investigatin' committee," replied the office boy.

"Take my card to the general manager, then."

"He ain't in, sir; he's over testifyin' before th' Public Service Commission.

"Well, let me see the superintendent.

"I am sorry, sir, but he's just gone out. He's attendin' a meeting of the Bureau of Standards on operatin' rules."

"Is the general sales agent in?"

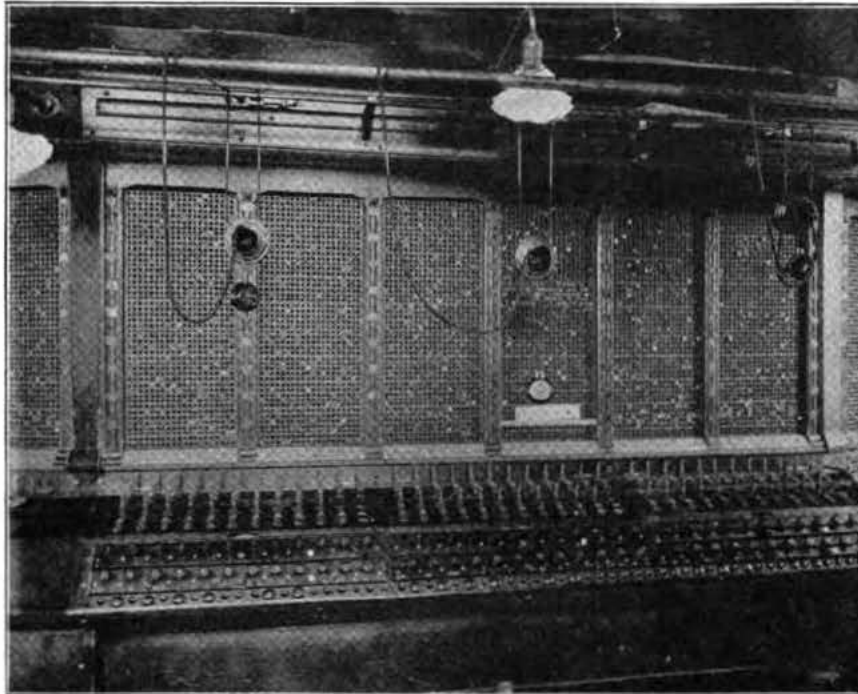
"No, sir. I think he's explainin' to the Board of Trade the difference between the power rates and the lightin' rates."

"Well, is the general counselor in?"

"I am very sorry, sir, but he, too, is away. Mrs. Jones' cat tried to walk the high-tension wires and was electrocuted. She brought suit and the general counselor is now in the county court tryin' the case."

"Well, who the deuce runs the company, anyway?"

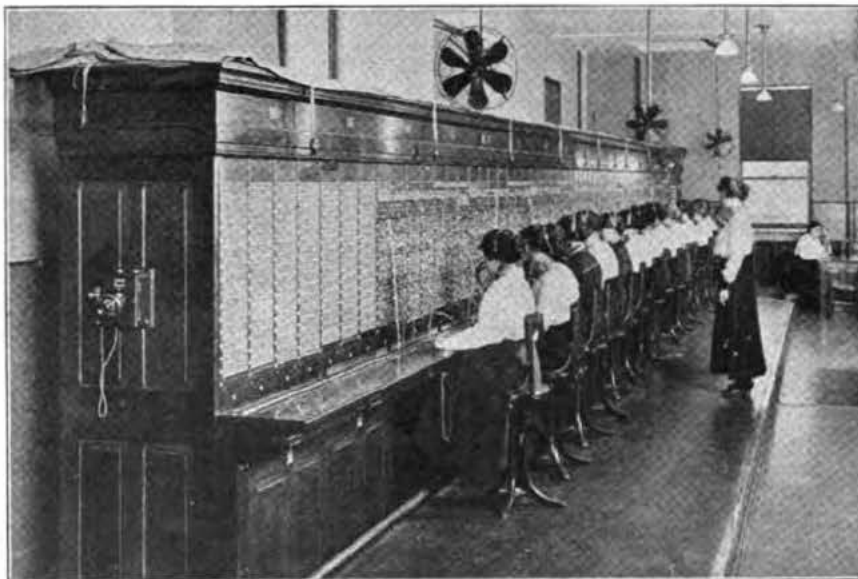
"The newspapers and the politicians." — *Exchange*.



MAGNETO MULTIPLE SWITCHBOARD.
B Positions Nos. 16, 17 and 18, Main Office, Chicago, May 1, 1896. The multiple type of magneto switchboard was installed in this office in 1887. Capacity of multiple 5,400 jacks.

proprietor. He informed me he had just discovered the receiver hanging, and no one seemed to know why it was down.

My dinner was late and we had no meat. The store had been closed to all telephone customers for half an hour just at the busiest time of the day. All because one telephone girl was visiting with customers instead of attending to her business and because the proprietor was lax.



COMMON BATTERY MULTIPLE SWITCHBOARD.
B Sections installed in the Prospect Office, Chicago, in 1915. Capacity of multiple, 10,500 jacks.

The image features seven individual portraits of men, each with a caption below it, all enclosed within a decorative Art Deco border. The portraits are arranged as follows:

- Top Center:** A rectangular portrait of J. S. Ford, Building Engineer.
- Top Left:** An oval portrait of U. M. Humiston, Facilities Engineer.
- Top Right:** An oval portrait of A. E. Helzer, Appraisal Engineer.
- Middle Center:** An oval portrait of W. R. McGovern, State Engineer.
- Bottom Left:** An oval portrait of U. J. Coyne, Chief Draftsman.
- Bottom Right:** An oval portrait of M. H. Riley, Facilities Engineer.
- Bottom Center:** A rectangular portrait of T. V. Field, Equipment Engineer.

Decorative elements include small squares and circles placed around the portraits, and a stylized banner-like shape at the top and bottom of the frame.

STATE ENGINEER AND STAFF, STATE ENGINEERING DEPARTMENT, CHICAGO TELEPHONE COMPANY

The Work of the State Engineering Department

By W. R. McGovern,
State Engineer, Chicago Telephone
Company

There is an old "saw" something to the effect that an engineer is a man who can do for one dollar what would cost the ordinary layman five. Whether or not this ratio will be admitted as correct, those who know will at least agree that the engineering of a telephone system provides great chances for economy and that this work has been developed to an extremely high degree of skill. Telephone engineering, also, probably embraces more divisions of engineering work than any other branch of the business, for it includes not only electrical engineering, but also mechanical, architectural, civil, structural, heating, ventilating and other subdivisions of the profession.

In the Central Group, the general staff of the American Telephone and Telegraph company, together with and through the central engineering department of the group, supplies each company with fundamental plans, approved methods and standard practices to be observed in the construction, operation and maintenance of the telephone system. The general manager in each company has reporting to him a commercial, plant and traffic superintendent and an engineer—in our organization called the state engineer.

The organization bulletin of the company provides, among other things, that "The state engineer shall under the direction of the general manager prepare plans, specifications and estimates, in accordance with approved standards, methods and practices, for all new plant and changes in and replacements of existing plant, including buildings. The state engineer shall make routine inspections of plant work to insure proper observance of approved methods. This statement is rather modest, but covers considerable ground—something like the statement of the man who said he could "lick" anybody in the world. We will take up some of the details to show in a measure what it means.

In plant engineering for a certain exchange or section the state engineer obtains from the commercial superintendent an estimate of the number of subscribers, and the respective classes of service required, for certain periods of time in the future. With this estimate in hand, the engineer prepares plans and specifications, covering the construction of underground conduit, installation of underground cable, the erection of poles and aerial cable, the placing of terminals and the stringing of wire. In all of this work it is his duty to see that the fundamental plans are followed and that all of the work is done in

accordance with American Telephone and Telegraph Company standard practices and approved methods.

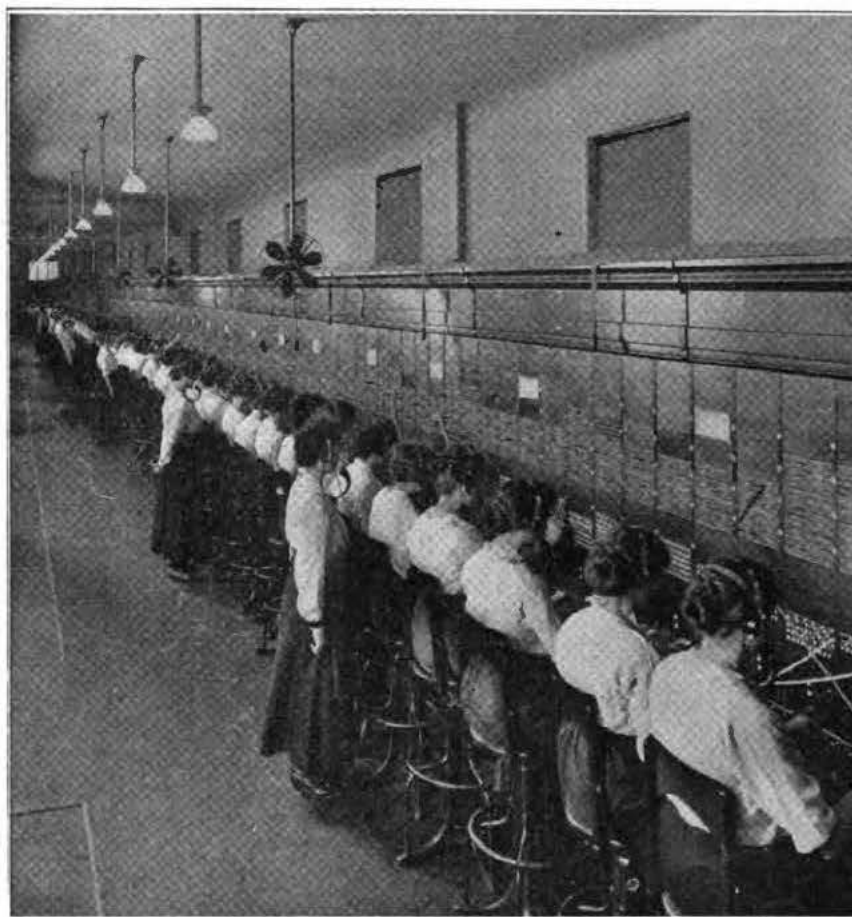
visé all of the work outlined above, and in the case of buildings and switchboards, where the work is generally done by other than the company's forces, this work is handled direct by the engineer.

In the case of multi-office exchanges, trunk cables must be provided under the plans and specifications prepared by the engineer to furnish trunks and call wires between the different offices. In a city like Chicago this is a very important part of the engineering work, as there are several millions of dollars invested in trunks and call circuits and their use is increasing at a very rapid rate. To get the greatest

practicable use out of the call circuits by the proper grouping of offices and use the trunk plant to the best advantage requires the closest accuracy and tested engineering skill.

One of the points that must be watched most carefully by the engineer is that the plant be kept well balanced; that is, that the amount and capacity of the building, switchboard, underground and aerial cable, etc., will be relatively the same. For example: There must be no excess of switchboard that cannot be connected up for service within a reasonable period; otherwise the company would have on its hands an idle investment on which proper earnings could not be made. Great study and forethought is given to this feature of the engineering work, as it is a most important one.

In studying the situation to make sure that the plant is well balanced, the engineer must also see that sufficient plant is provided for future growth so that service can be furnished new subscribers within a reasonable time and so that constant additions, which are uneconomical, will not have to be made. Take the case of a central office building. It would obviously be uneconomical to add a piece to the building each time additional switchboard was required, as small additions would not only be impracticable but would be much more expensive than one addition to last for a certain period. Buildings and their additions are therefore engineered on the basis of taking care of a certain number of years' growth, the time depending generally on future expectations and the size and condition of the other parts of the telephone plant. Switchboard equipment, cable and



COMMON BATTERY MULTIPLE SWITCHBOARD.
"A" Sections installed in the Hyde Park Office, Chicago, Ill., in 1915.

accordance with American Telephone and Telegraph Company standard practices and approved methods.

The classes of plant just mentioned are what is known as outside plant. Before the subscriber can be cared for, switchboard facilities must be provided and accordingly plans and specifications are prepared by the engineer for such equipment. Generally in common battery exchanges, at some period, a new building or addition has to be constructed, and in such a case building plans and specifications are prepared by the engineer. General specifications are furnished to cover the routine subscribers' installations, and it is unusual to prepare specific plans and specifications for such work. On all other classes of work specific plans and specifications are prepared by the engineer.

It is the duty of the engineer to super-



R. H. BENNETT
Gen. Electrolysis Inspector



T. J. CALLAHAN
Ass't Equipment Engineer



A. CARLSON
Toll Facilities Engineer



H. C. COPPOCK
Special Inspector



J. B. EBERT
Divn. Facilities Engineer



A. M. FORTH
Divn. Facilities Engineer



J. JAYNES
Bldg. Equipment Engineer



T. B. LAMBERT
Building Cabling Engineer



F. H. LAWRENCE
Gen. Outside Plant Insptr.



J. I. McDONALD
Gen. Building Inspector



J. J. NOVAK
Trunk Plan Engineer



J. J. O'CONNELL
Special Inspector



G. G. PHILLIPS
Suburban Facilities Engr.



J. O. STOCKWELL
Special Equipment Insptr.



F. H. WORK
Divn. Facilities Engineer



P. F. ZINKE
Ass't Equipment Engineer

SOME MEMBERS OF THE STATE ENGINEERING DEPARTMENT, CHICAGO TELEPHONE COMPANY

mates, the handling of contracts and supervision of the work during progress. Following the fundamental plans, standard practices and methods, all buildings are planned with a view to their ultimate use as well as the initial period that the building or addition is constructed for. The building program of the Chicago Telephone Company for the past four years has been a very active one, fourteen new buildings having been constructed and five additions made to present buildings. Mr. Ford is assisted by a staff of twelve men. J. J. Jaynes is building equipment engineer, J. I. McDonald, general building inspector, and J. J. O'Connell, special inspector.

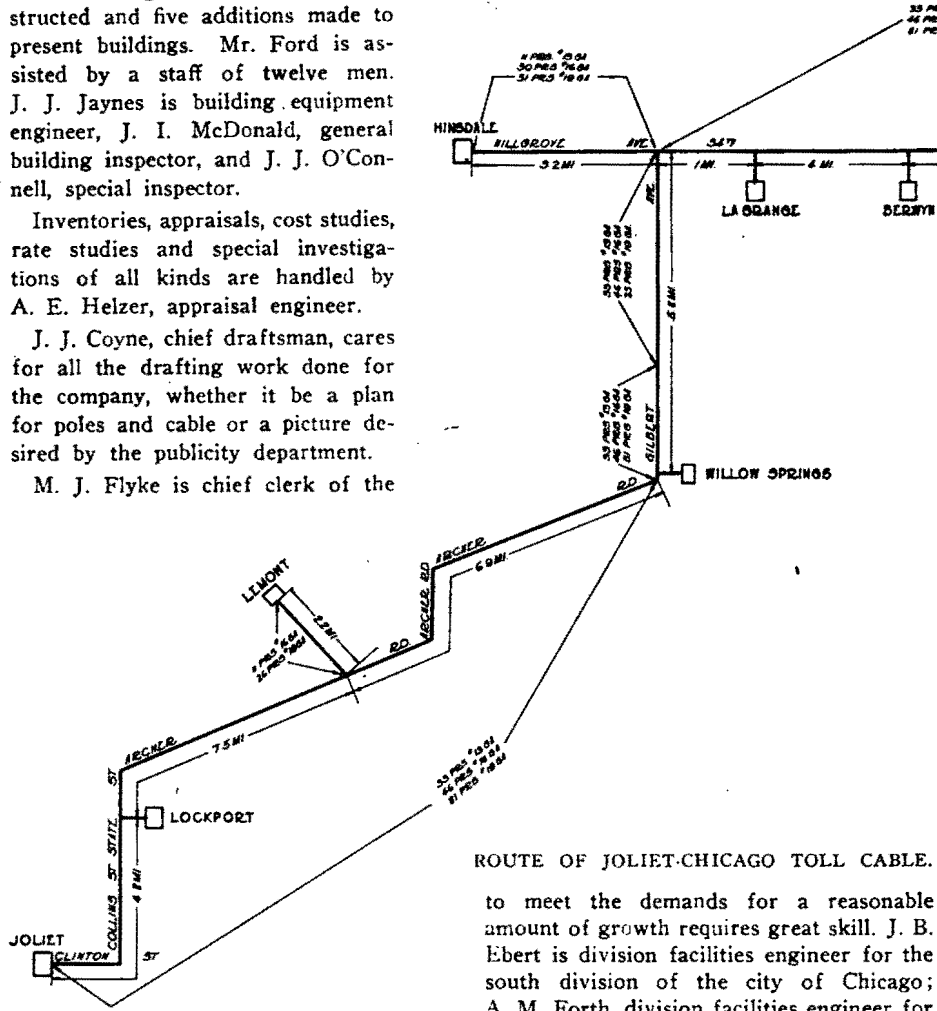
Inventories, appraisals, cost studies, rate studies and special investigations of all kinds are handled by A. E. Helzer, appraisal engineer.

J. J. Coyne, chief draftsman, cares for all the drafting work done for the company, whether it be a plan for poles and cable or a picture desired by the publicity department.

M. J. Flyke is chief clerk of the

department and has charge of the clerical and stenographic work and files. This work includes the preparation of plans and specifications for local and toll underground conduit, underground and aerial cable, pole lines and wire work. Pages might be written about the detail of this work. Suffice it to say that the conversion of the commercial department's estimates into plans for plant that is not wasteful and yet able

and mercantile buildings in Chicago require considerable specialization. The planning of this work as well as the inspection of all outside plant work, electrolysis, testing, high-tension interference and other special study work with reference to outside plant is under the supervision of Mr. Humiston, who is supported by a staff of twenty-eight men. T. B. Lambert is building cabling engineer; F. H. Lawrence,



ROUTE OF JOLIET-CHICAGO TOLL CABLE.

to meet the demands for a reasonable amount of growth requires great skill. J. B. Ebert is division facilities engineer for the south division of the city of Chicago; A. M. Forth, division facilities engineer for the central division, and F. H. Work, division facilities engineer for the north division. H. C. Coppock handles special studies and investigations. G. G. Phillips is facilities engineer for the suburban territory. A. Carlson is toll facilities engineer. An unusual and very important job now in hand by this division is the engineering of an underground toll cable between Chicago and Joliet, Ill., a distance of about forty miles. Mr. Riley has a force of fifty-five people.

As mentioned before, one of the problems of the Chicago Telephone Company is the engineering of the trunk plant. This branch of the work is under the direction of J. M. Humiston. The city of Chicago originates about 2,225,000 calls per day. As about ninety per cent. of these calls are trunked, it will readily be seen that proper designing of the trunk system is no small problem. J. J. Novak is trunk plant engineer. Cabling and wiring of the large office

general outside plant inspector, and R. H. Bennett, general electrolysis inspector.

“Movie” Engineer

The foregoing article outlines in a general way the diversity of the work in the state engineering department. An example of the versatility of this department is shown in the work done by T. B. Lambert of the state engineering department of the Chicago Telephone Company in taking moving pictures.

Recently the Chicago company wanted to produce a moving picture outlining the telephone business. It was the desire of the company to have this movie written, acted and photographed by telephone people only.

In looking about for a good man to take the pictures, make the set-ups, etc., they naturally turned to the state engineering department and T. B. Lambert was found to be the man for the occasion.

This movie, entitled “The Modern Seven League Boots,” consists of 2,000 feet of film (two reels), involves 32,000 pictures and is a great success.

Mr. Lambert is to be congratulated on this commendable piece of work.

Taking Time by the Forelock

A son of Erin, making some repairs at the top of a pole on the Little Rock-Poplar Bluff line, slipped and fell. On the way down his hand caught a drop leading to a farmhouse, and he hung swaying back and forth while other help below rushed to find a blanket in which to catch him. But before they arrived the Irishman had unfortunately let go.

In the house, while they waited for the doctor to set a broken arm, a broken leg and a couple of fractured ribs, his friend bent over him and sobbed: “Paddy, bye, why didn’t ye hang on? We were goin’ to catch ye. Why didn’t ye wait?”

“Sure,” replied the injured man in a weak voice, “I was afraid the wire would break.”—*Southwestern Telephone News.*

department and has charge of the clerical and stenographic work and files.

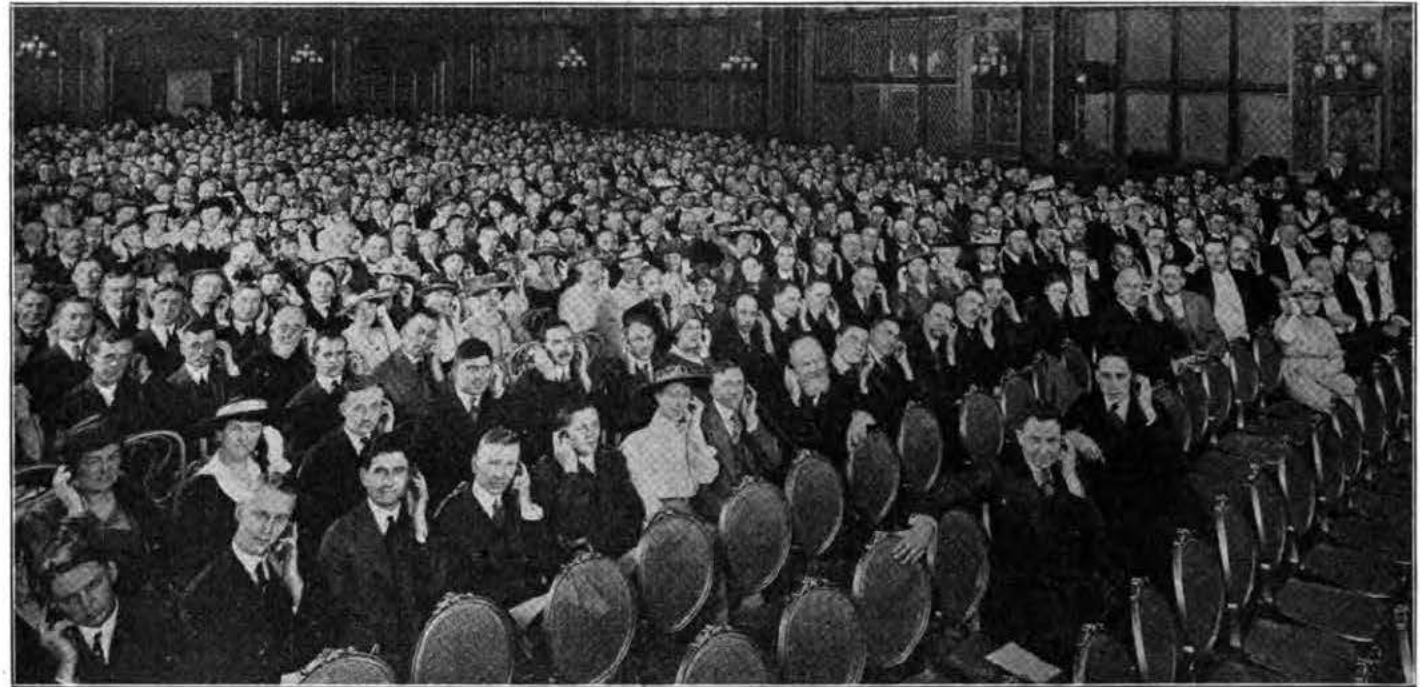
The equipment engineering division, in charge of T. V. Field, equipment engineer, has the preparation of all plans and specifications covering the installation of central office switchboards, private branch exchange switchboards and subscribers' station equipment. Estimates furnished by the traffic and commercial departments are converted into equipment requirements by Mr. Field's people. A recent important job engineered by this division is the new Hyde Park switchboard, where three units of switchboard were cut into service on the initial installation. Mr. Field has a force of seventeen men. T. J. Callahan, assistant equipment engineer, cares for the city work and P. F. Zinke, assistant equipment engineer, for the suburban.

The exchange and toll plant engineering, exclusive of trunks and building cabling, is

Engineers Enjoy Demonstration

The annual meeting of the American Institute of Electrical Engineers, on the night of May 16th, was held under novel and interesting circumstances. The sections were conducted by long-distance telephone and President John J. Carty in New York spoke to thousands of members gathered together in Boston, Philadelphia, Atlanta, Chicago and San Francisco. President Carty's address was followed by addresses by distinguished speak-

ers selected for each section, Dr. Harry Pratt Judson speaking in Chicago. These addresses were followed by a business meeting conducted over the long-distance lines of the Bell System in which parliamentary rules prevailed. Motions were duly made, debated and voted upon by all sections, and just before adjournment patriotic airs played on the phonograph were heard in the five cities.



TRANSCONTINENTAL DEMONSTRATION FOR AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, CHICAGO.

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W. J. Norton, chairman of the Chicago section of the American Institute of Electrical Engineers, conducted the proceedings in the Elizabethan Room of the Congress Hotel. He was assisted by Past President L. A. Ferguson.

Eleven hundred receivers had been installed in the Elizabethan Room for the use of the members of the institute and their guests. The orchestra of the Commonwealth Edison Company furnished the music for the meeting and the Chicago Telephone Company showed two motion pictures depicting various phases of telephone activity.

The impressive meeting was called to order at 8:30 o'clock, eastern time, the hour in Atlanta and Chicago being 7:30 and in San Francisco 5:30, the New York session being held in the Engineering So-

ciety Building. From that point the roll of the cities was called. President John J. Carty made an address of greeting to the various sections. A report of the election of officers was made, after which the president-elect was introduced, and made a brief address to his colleagues far and near. Greetings were also sent over the wire from the New York session by Dr. Alexander Graham Bell, Thomas A. Edison and Theodore N. Vail. After these, each section held a strictly local session, when ad-

resses were delivered to the respective audiences as follows: New York, Dr. John H. Finley, president of the University of the State of New York; Boston, Dr. A. Lawrence Lowell, president of Harvard University; Philadelphia, Dr. Edgar F. Smith, provost of the University of Pennsylvania; Atlanta, Dean C. E. Ferris, engineering faculty, University of Tennessee; Chicago, Dr. Harry Pratt Judson, president of the University of Chicago; San Francisco, Dr. Ray Lyman Wilbur, president of Leland Stanford, Jr., University.

At the end of the local sessions the long-distance receivers were again taken up and greetings and music were sent to the general gathering by each one of the sections, one after the other, the selections played at the various cities being as follows: Atlanta, "Dixie Melodies"; Boston, "Yankee Doodle"; Chicago, "America"; New York, "Hail, Columbia"; San Francisco, "Columbia, the Gem of the Ocean"; Philadelphia, "The Star Spangled Banner." The remarkable meeting closed with an address by Dr. Michael I. Pupin and greetings from the secretary of the association, Ralph W. Pope, each talking at New York.

While such a meeting would, from its remarkable nature, attract wide attention at

any time, just now it is of more than ordinary significance and importance. It illustrates in a notable manner the contributions of the nation's engineers to its "preparedness" and exhibits as nothing else could how much they have done to make this a really united country, by the development of an efficiency that cannot fail to gratify the pride of every American.

Coming in these troublous times, there is something inspiring in the idea of this gigantic meeting of scientists so widely

separated and yet so closely connected, something reassuring in the thought that the picked men forming the great body, thoroughly trained in their art and so full of high achievement, are at the service of their country, something to be proud of in the knowledge that they are a part of this nation to whose greatness they have contributed so splendidly.

Function of Wireless Telephone

J. J. Carty, chief engineer of the American Telephone and Telegraph Company, was the guest at a reception at Symphony Hall, Boston, April 19th, given by 1,500 employes of the New England Telephone and Telegraph Company. Mr. Carty described some early experiences with the telephone and predicted that the time will come when it will be possible to talk around the world by wireless telephony. A demonstration between Boston and Tokio is not far distant, he said. Instead of reducing the use of wires, wireless will increase it, as it will not be possible for all mankind to use the air as one conductor. The real function of wireless will be between ships and with the shore, he thought. —*Telegraph and Telephone Age.*



S.H. WILLIAMS
DISTRICT LINE ENGINEER



F.R. TEMPLE
DISTRICT LINE ENGINEER



M.B. HUNTOON
EQUIPMENT ENGINEER



C. KITTREDGE
ENGINEER



F.A. WYCKOFF
APPRAISAL ENGINEER



J.F. LONG
ARCHITECTURAL ENGINEER



J.F. GRIBBLING
TOLL LINE ENGINEER

ENGINEER AND STAFF, MICHIGAN STATE TELEPHONE COMPANY

Engineering Department, Michigan State Telephone Company

To provide ample facilities to care for the demand for telephone service in a city whose population is increasing at the rate of 80,000 a year is a problem that has put the Michigan State Telephone Company to the test and has kept the engineering department busy making plans and specifications. The urgent demand for additional telephone facilities to take care of the telephone traffic of the city is the best barometer by which to judge the enormous growth of Detroit. In various sections of town it has already been found necessary to plan for the erection of new Central Office buildings. The capacity of the present East office is already entirely exhausted and as additional facilities are required for service in 1916, construction work has already commenced on the erection of a new fireproof building to replace the present structure. The new building which is to be located on Congress street near McDougall avenue will be when completed, the finest telephone building in the state. It is to be three stories and basement. The outside walls are to be of face brick with stone trimmings and all floors will be of reinforced concrete and tile. The gas engine, boilers and cable vault will be located in the basement. The first floor will be used as the apparatus room and wire chief's office. The operating room will be located on the second floor and the entire third floor is to be for the operators' quarters, dining room and rest rooms. The initial installation of central office equipment will consist of fourteen A sections and seven B sections of switchboard, two-position No. 8 chief operator's desk, two-position No. 12 test desk and service observing equipment.

From the rapid progress which is being made it is expected that the building will be completed and the equipment installed, ready for service, April 1, 1917.

Plans are being prepared for a new building to be located on Van Dyke and Whipple to relieve the Ridge and Hickory

offices and for a new building on Grand river near Chope place to relieve the present Walnut office. The construction of both of these buildings will be along the same lines as those of the new East building. It has recently been necessary to add additional stories to both the Walnut and North buildings, to be used for operators' quarters, the present quarters, in each case, to be used to care for additional apparatus which is being installed. It is expected



PROPOSED NEW EAST OFFICE, DETROIT.

that plans will be prepared shortly for the erection of an addition to the Market office to care for additional apparatus needed to relieve conditions in the Market and North districts.

The engineering and plant departments have also had to solve the problem of keeping Detroit and Belle Isle, the city's famous recreation park and public playground, connected by telephone.

Early in the summer of 1915 the bridge between the mainland and Belle Isle which carried the Telephone Company's cable was burned and a temporary twenty-five-pair cable was installed to establish service after the fire.

Due to the work of removing the old piers preparatory to building a new bridge this temporary cable is damaged quite frequently and in order to avoid a recurrence it has been decided to place an armored submarine cable from the mainland to the Island, parallel with and about 250 feet up stream from the line of the former bridge.

This cable is to consist of 100 pairs of

No. 22 gauge conductors enclosed in a single armored sheath and will be approximately 2,700 feet in length. On the mainland this cable splices into a 400-pair underground cable at the intersection of Jefferson avenue and East Grand boulevard, which cable terminates in the East office. On the Island the submarine cable terminates in the City Transformer house, from which point it is distributed through the city's underground conduit system on Island to various stations.

An agreement has recently been executed by the Consumers' Power Company and the Michigan State Telephone Company, which commits both companies to the policy of jointly owned poles instead of separate pole lines wherever the character of the circuits is such that the hazard from such joint use is not considered to be sufficient to be a bar to the satisfactory operation and maintenance of the lines of either company. The Consumers' Power Company which until recently was known as the Commonwealth Power Company has a very extensive system of electric light and power lines in the lower peninsula of Michigan consisting of

power houses, long distance, high tension transmission lines of voltages from 5,000 to 140,000 and distributing systems in many cities and villages where the Michigan State Telephone Company does business. The agreement is effective for an initial period of ten years from February 25, 1916, and thereafter for one year periods unless canceled by written notice from one party to the other nine months prior to the expiration of the initial period or any extension thereof.

The negotiations which led up to the signing of this agreement were opened by the engineer early in 1914 and it was only after long continued effort that an agreement satisfactory to both parties was secured. Numerous conferences were held with the officials of the Power Company, both on the agreement itself and also on the construction specifications which are a part thereof. It was necessary to smooth out difficulties and compromise on many points which were brought up and on which the representatives of the two companies did not at first agree. At several

of the conferences the chief engineer was represented as he was especially interested in the specifications, which in the form finally agreed upon do not differ materially from the joint construction specifications incorporated in the standard specifications for exchange construction No. 5003.

The agreement provides for the joint use of jointly owned poles only and does not make provision for the use of poles of one party by the other party on a contract rental basis. In this respect it differs from other agreements which have been executed with other companies. The rental feature was omitted to make unnecessary the bookkeeping or frequent "counts of contacts" which would be required to determine the amounts due each party for rental if that plan were followed. It is believed that the arrangement will be mutually satisfactory from all standpoints. It is certain that the operating hazard will be considerably less than where each company builds independently and without regard to the other except at main line crossings. In this respect all the bad features of both electric light and telephone "drop" construction will be eliminated which are present when separate lines are maintained on opposite sides of a street. Also, as standard methods and clearances are specified for all conditions, the construction and maintenance forces of both companies will have fewer obstacles to contend with and they will work under safer conditions. Wherever joint construction is used there will be a material reduction in the number of poles on the streets.

It is not expected that there will be any large reduction in pole line cost to the telephone company on account of the large number of small poles which would otherwise be used with present methods of construction, but nevertheless the other advantages of the agreement will, undoubtedly, be beneficial to the best interests of the company.

Demonstration at Hamilton Club

It was certainly "some party" at the Hamilton Club last Wednesday evening.

telephone celebrities beginning with Alexander Graham Bell's, the inventor, and concluding with Bernard Sunny's, president of the Chicago Telephone Company.

Then at a few minutes after nine Mr. Bell, division commercial superintendent of the American Telephone and Telegraph Company, opened the real ball. All the guests glued themselves to their earpieces and heard the process of establishing telephonic connection with the Union League Club of San Francisco. This was accomplished with extraordinary rapidity through Denver, Salt Lake City, and other exchanges. As each voice along the line responded it sounded unreal, like a ventriloquist's conversation, or a gramophone record. Finally

the president of the San Francisco Union League Club was introduced to Mr. Iles, president of the Hamilton Club. A series of speeches followed between different notables at the two ends of the line.

The final stunt was the picture of the great combers of the Pacific ocean cast on the screen by the "movies," while to those 300 pairs of listening ears the telephone brought the boom and roar of that same beautiful surf beating on the shores of San Francisco.

It was certainly a unique entertainment. Among the outside guests of the occasion were Mrs. Robert McGann and Henry Werner. With them were Mrs. Hobart Chatfield-Taylor, her guest, Mrs. Russell, better known as Miss Ada Dwyer; Mrs. Honoré Palmer, Arthur Heun and George Sheahan.

Others present were Mr. and Mrs. Alexander H. Revell, Judge and Mrs. Orrin Carter; Bishop Fallows, who invoked the blessing; Mr. and Mrs. Bernard Sunny, Francis Taylor, Mr. and Mrs. Clifford Arrick, Mr. and Mrs. W. Rufus Abbott, Mr. and Mrs. Henry Rathbone, Mr. and Mrs. W. B. Austin, Mr. and Mrs. A. R. Bone, Mr. and Mrs. George W. Dixon and Mr. and Mrs. C. F. Fishback.

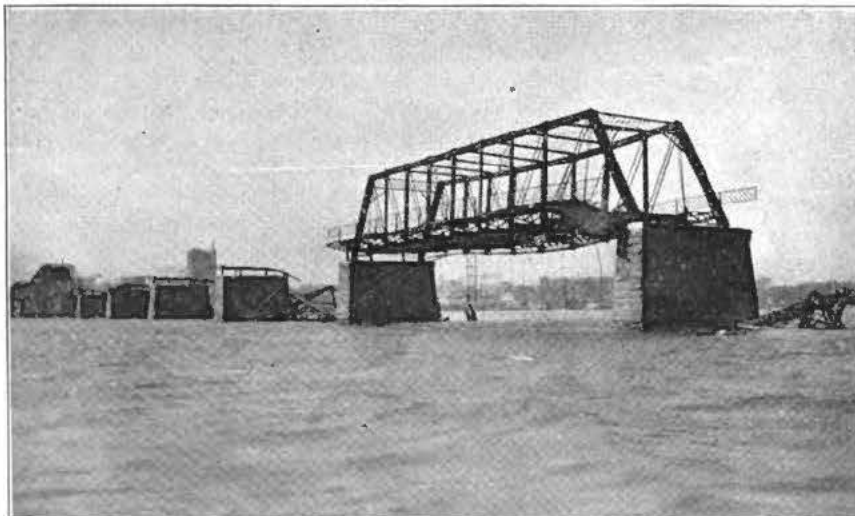


NEW LINCOLN OFFICE, DETROIT.

So stated the *Chicago Tribune* in describing the transcontinental demonstration given at the club on the night of May 10th.

The guest of honor, continued the *Tribune*, was our tried and true domestic friend, the Bell Telephone system, turned into a formidable presence of transcontinental proportions. Each of the 300 diners at the club that night found dangling under his or her place at table a telephone earpiece.

The first period of the evening was devoted to a few brief speeches, a general singing of familiar airs, with words written for the occasion, and an interesting series of moving pictures showing the process of building the huge web of the Bell system with portraits of various



A STRENUOUS JOB FOR MICHIGAN ENGINEERS.
The bridge, which burned, carried a telephone cable.

The Wisconsin Engineer

A Treatise on How Some of the Many Problems of Engineering Are Handled by the Wisconsin Telephone Company

The selection of land for telephone central office buildings involves the consideration of a number of features, chief among which are the location of the land with reference to the ultimate wire center of the district to be served from the office; the size and shape of the land to determine its suitability for a structure which will house the equipment arranged in an economical manner; the cost of the land with reference to other available and less desirable locations and the suitability of the location from a commercial standpoint. In addition to the above points, consideration must be given to the natural means of lighting the building; the nature of the surrounding structures to avoid disturbing noises and fire hazards; and the convenience of the location with respect to transportation facilities.

The size of a building initially erected is usually figured to provide facilities for the switchboard, terminal equipment, operators' quarters and office space for a ten-year period. The ultimate size of the building to provide for growth beyond the ten-year period must be planned in some detail before any part is erected. The ultimate size of a central office building is usually based on the capacity of the switchboard unit or units that will be installed.

Before the land is purchased or building studies are made, data is secured as to the number of lines that will be served by the proposed office in the initial and ultimate periods and the number of local, trunk and toll positions that will be required to handle the traffic in the proposed office. From studies made of the arrangement of the switchboard, frames and racks, power machines, quarters for the operating force, commercial offices, etc., the most suitable size and shape of building is selected as a basis for the architectural plans. These plans are worked up in great detail and illustrate to the contractors the manner in which all parts of the building are to be erected.

Central Office Equipment

Plans for central office equipment are based on data similar to that used in the central office building studies. This data is, of course based on the present and estimated future development in lines and stations in the district to be served by the central office. The type of switchboard selected depends on the number of lines that will have to be accommodated in the ultimate period. There are three types of common-battery switchboard which have been standardized by the American Telephone and Telegraph Company for use in new offices. The No. 9, the No. 10 and the No. 1 switchboard. In single office districts, toll

positions and, in some cases, separate lines of toll switchboard are required to handle the toll traffic. In multi-office districts there is usually installed a separate line of trunk switchboards in addition to the subscribers' switchboard in each office. In offices where the majority of the originating calls are trunked to other offices the subscribers' multiple in the local switchboard is omitted.

In the arrangement of the building and apparatus, we are of course guided by standards established by the American Telephone and Telegraph Company.

The plans for central office equipment must specify each circuit that is to be used. These circuits must be selected so as to provide the operating features necessary for the various traffic requirements in the office and so as to operate in conjunction with each other. For instance, jack-per-station offices require different operators' telephone and cord circuits from those used in jack-per-line offices. The particular method of ringing subscribers' stations that is to be used involves the selection of the proper cord circuits and ringing circuits. There are trunk circuits arranged for manual ringing; for machine ringing; for use between the subscribers and trunk switchboards in the same building; for use between different offices; to different types of operating room desks; to the different types of test desks, etc.

The plans for a new central office equipment must also outline the method of cutting the new equipment into service by transferring the lines from the office or offices to which they were connected.

The problems involved in the installation of equipment in rented quarters are similar to those in buildings owned by the telephone company. Such equipments are usually of moderate size and the best arrangement to fit the building selected must be worked out. Alterations in the building partitions are usually found necessary and the location of the heavier items of equipment is sometimes determined by the strength of the floor construction.

Private Branch Exchange Switchboard Installations

Each private branch exchange installation large enough to warrant cabling for extension circuits, is engineered. In new buildings with private branch exchange prospects, the building owner is requested to install conduit and conduit plans are prepared for the owner or architect. Cable plans are also prepared. Private Branch exchange switchboards of the multiple type are planned in the same way as the smaller central office equipments.

Exchange Outside Plant Facilities

In order properly to provide additions to and extensions of the outside facilities at an exchange, a fundamental plan should be available to serve as a guide in such work. Such a fundamental plan is based upon a careful study of the anticipated growth and provides the different routes that should be followed in supplying service

to the different parts of the exchange. It is essential that, as additions or extensions are made in an exchange whether in connection with routine work or in connection with work done under specific estimates, this work be done with due consideration of the routings provided on the ultimate plan.

In laying out extensions or additions to an exchange plant, especial attention must, of course, be given to utilizing the existing plant as far as practicable and until it can be economically replaced, in order that the full life of the existing plant can be realized and the existing plant utilized to the greatest advantage. In providing additions or extensions to existing cable plants, careful consideration must of course be given to keeping the transmission within the proper limits considering both the present and future office locations, in order that the proper standard of service can be rendered.

In providing outside facilities in exchanges, it is especially important to give careful consideration to so laying out the location and kinds of pole lines and the routing of cable and wire lines, as to secure an arrangement of plant which will be least objectionable to the property holders, city and other authorities.

Outside Toll Facilities

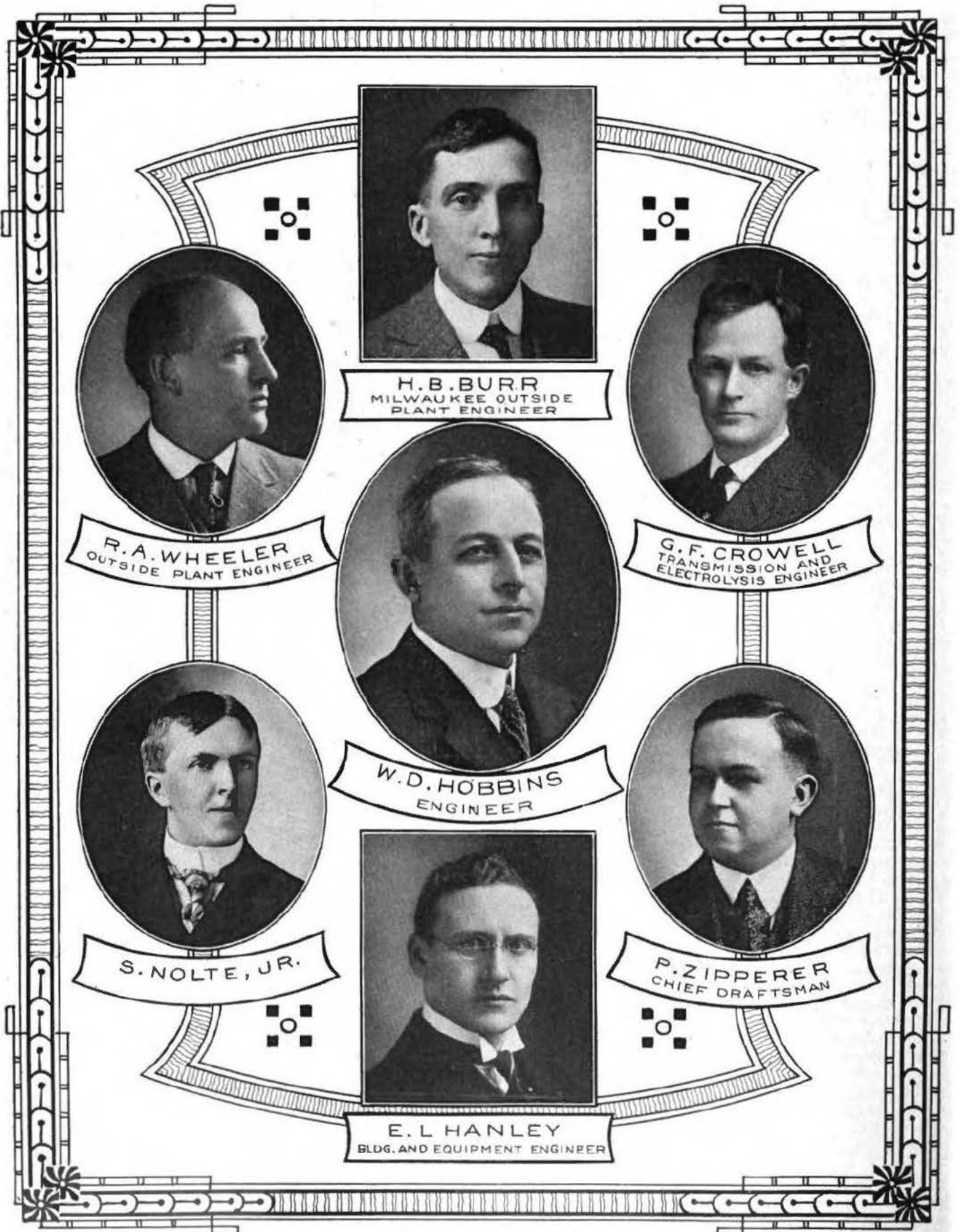
The provision of additions to or extensions of the outside toll plant requires careful consideration of the volume, kind and importance of the business that is to be handled and the utilization of the existing plant to its maximum efficiency. As extensions are to be made to existing toll lines and as existing lines are reconstructed, due consideration must be given to the future load that such lines will carry. In designing the circuit arrangement that is to be employed, especial care must be taken to utilize all of the phantom possibilities involved and so to arrange the connections that the transmission that will be obtained will meet the requirements of the business that is to be handled.

General Outside Plant Facilities

Handbooks of construction methods are provided the plant forces, which show in general the methods and practices that should be followed in providing both exchange and toll line facilities. The information contained in these handbooks is supplemented by specific files of instructions and drawings where such are deemed necessary in connection with doing any particular piece of work.

High Tension Lines

The securing of proper protection at points of crossing between our lines and lines of high tension companies and the securing of proper separation where such lines are constructed in the vicinity of our plant, especially open wire toll plant, is very necessary in order to reduce the danger of contact and the liability of damage to our force or service. It is especially important in a matter of this kind to get in touch with the people constructing or reconstructing the high tension lines before work is



ENGINEER AND STAFF, WISCONSIN TELEPHONE COMPANY

done, in order that they may properly construct their lines at the points of crossing and that proper arrangements can be made for so routing their lines that they will not interfere with our service or so to move or rearrange our construction as to accomplish the same result.

Transmission

The successful transmission of speech in telephone circuits requires that sounds originating at one point be reproduced at another point in sufficient volume and with minimum impairment of quality or clearness. The various parts of substation, central office, toll line and outside exchange plant affect the transmission volume or quality in some way.

In designing a telephone plant it is necessary, therefore, to select standard equipment suited to render transmission which will meet the service requirements. For example, transmission between subscribers in a small single office exchange is satisfactory with No. 22 B. & S. gauge cable used for subscribers' lines. In large single office districts cable having larger copper conductors is necessary to meet the transmission requirements. In multi-office exchanges shorter limiting lengths of subscribers' lines are necessary than in single offices. The subscribers' operators' cord circuits which are satisfactory from a transmission standpoint for a small single office exchange are not always suitable for a large exchange.

Communication between subscribers in different exchanges over toll lines requires large copper conductors (as compared with those used for exchange service), well insulated from the ground and each other, and with a separation of about ten inches between them, whereas the conductors in cables lie close together with a thin paper covering separating them. Operators' cord and telephone circuits and other equipment associated with toll lines are designed so that their use will cause as little transmission loss as possible.

Electrolysis

The lead sheaths of underground telephone cable systems form shunt paths for electric leakage currents in the earth from street railway systems, which use the rails for carrying current, or from other grounded electric current conductors. Although the cables lie in tile ducts, considerable current leaks to them from the earth in certain places and from them to the earth in other places because it is not practicable to keep the ducts and manholes dry. Generally it is necessary to provide drainage conductors in order to return this current to the system from which it originated and prevent appreciable current leaks from the cable to earth.

Periodical tests are made on underground telephone cables in order to determine whether danger of damage by electrolysis exists. Special studies are necessary where dangerous conditions are found in order to discover causes of leakage and determine what protective measures are necessary.

Sudden Death of H. N. Foster

The death of H. N. FOSTER, which came without warning on May 4th, has taken away a man who had not only stamped his personality very deeply on the traffic organization of the Chicago Telephone Company, but whose influence had also been felt in a much wider field.

Mr. Foster's entire business career of twenty years has been given to the Chicago Telephone Company, and his connection



H. N. FOSTER.

with traffic work began at about the time when the telephone business began first to realize the importance of traffic work, and to recognize it as a specialty. Many of the more important improvements and refinements of operating methods and rules originated in the keen and active brain of Mr. Foster, and no nation-wide conference of traffic experts was complete or representative without his presence.

While always striving for strict discipline and clearly defined rules and methods, no one appreciated more fully than Mr. Foster the human side of his problem. He had a ready sympathy and was always quick to catch the other man's or the other girl's point of view. He actually looked on the large group of telephone operators under his supervision as a great family, for whose happiness and well-being he was responsible, and there seemed to be no part of his company work that he more keenly enjoyed than the occurrences which brought him into close touch and acquaintance with our operators.

If he had to go, it was fitting that so active a man should drop in the midst of his activities, and further, it was fitting that the work in which he was engaged at the time of his death was the carrying out of one of his plans to bring about a better understanding of the telephone operator and her problems in the minds of the telephone users.

The motion picture film, "The Modern

Seven League Boots," was the creation of Mr. Foster, both in its inception and in the carrying through of the plan. Its purpose, as stated above, was to give to the telephone user a better conception of the way the telephone operator did her work, of the machinery that she worked with, the way she was trained, etc., and to produce in the mind of the subscriber, as nearly as possible, the same impression that we are always able to produce when we persuade the subscriber to visit an exchange.

With several of his force, Mr. Foster had gone out to the suburbs on the morning of May 4th to make one or two last pictures which he thought were needed to improve several sections of the film. The work had been practically completed, and he was in the midst of a remark to one of his men, when he suddenly sank to the ground and expired almost instantly.

It was an impossible thing for Mr. Foster to be in contact with any problem or piece of work without taking an active hand in it, and when several years ago, he became a member of the Chicago Association of Commerce, it was a foregone conclusion that he would be an active member.

Among those who grieved at Mr. Foster's death, none felt the loss more sincerely than the men who had worked with him on the Membership and Illinois committees of that association.

Mr. Foster was not quite forty-three years of age. He is survived by his widow and his daughter, Helene.

High Praise for Wisconsin Welfare Work

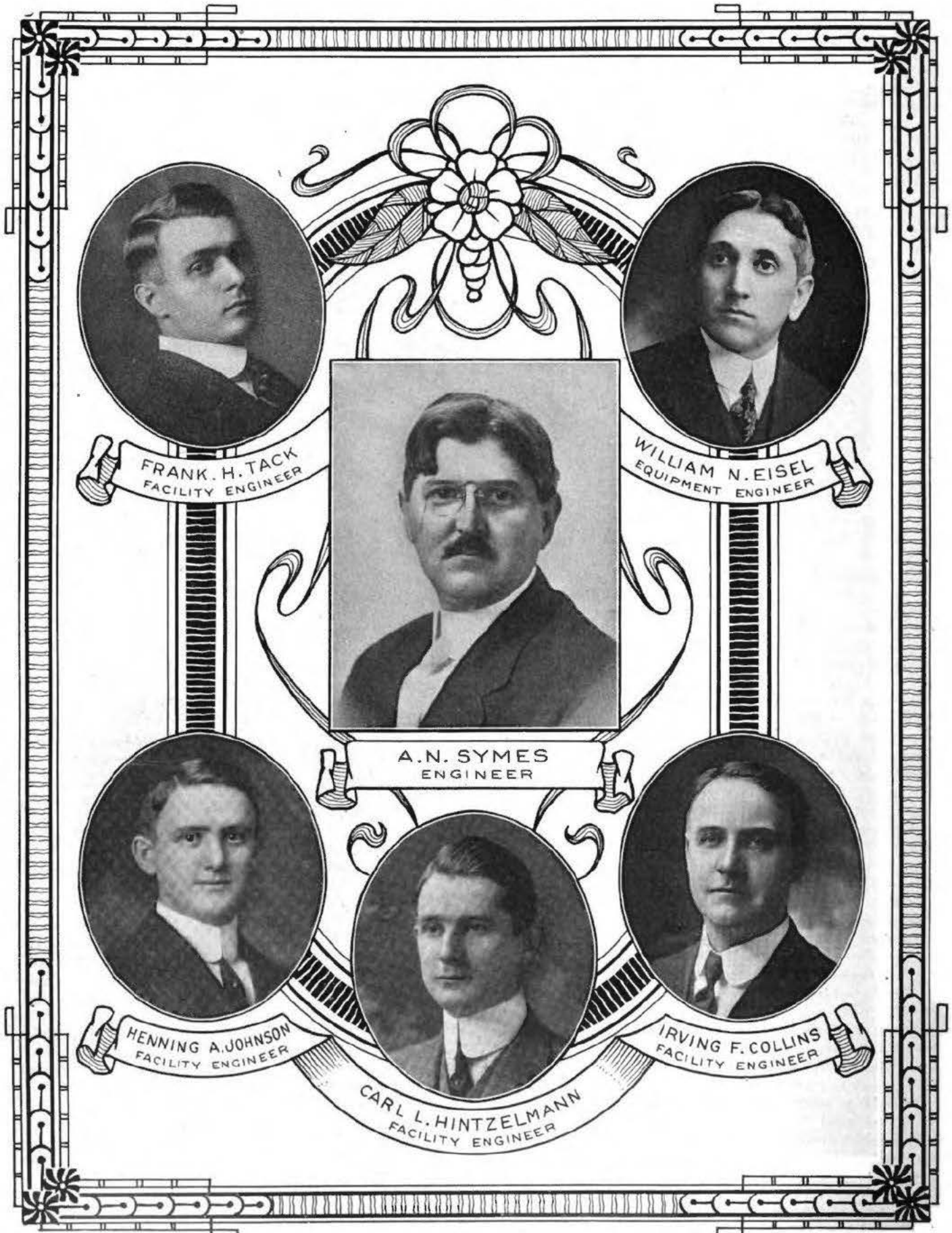
The unusually high character of the welfare work of the Wisconsin Telephone Company, and the high regard in which is held the work of Elizabeth Rosche, welfare and social secretary at Milwaukee, are shown by the following extract from a letter received by General Manager Seymour:

"As you know, it is neither the purpose nor function of the Public Health Service to indulge in offensive criticism of working conditions. Unless kindly, helpful and practical suggestions for the improvements of health can be offered we prefer to remain silent. In view of the comparatively excellent working conditions prevailing in your exchanges I do not feel that we can make many suggestions which will be of value to your company.

"In Miss Rosche I feel that you have the most energetic, sensible and useful social secretary in Milwaukee, if not in the State.

"Both Miss Watson and I will remember with lasting pleasure the many kindnesses shown to us by your company." Sincerely yours,

(Signed) ROBERT OLESEN,
Passed Assistant Surgeon, United States Public Health Service.



ENGINEER AND STAFF, THE CLEVELAND TELEPHONE COMPANY

War Prosperity Engineering

The war in Europe has been singled out, both justly and unjustly, as the cause of many unusual conditions that exist throughout our country and have existed for several months back. Everywhere we hear the explanation "Why that's on account of the war in Europe," whether it be a rise in

account of the war; third, unprecedented growth of the Cleveland Telephone Company due to prosperity; fourth, revision of engineering plans required.

Miles of duct line are being laid and new cables are being placed in all sections of the city. Each succeeding month establishes a new record in gains.

If there were no dates whatever on the

so accustomed to big gains that the only thought was "how much bigger will the gain be next month?"

Then April came with a gain of 1,634.

When a company plans on a growth of 6,500 stations per year and starts off at a 12,000 per year stride or better it means that the engineering department must rearrange its lines of defense and plan a

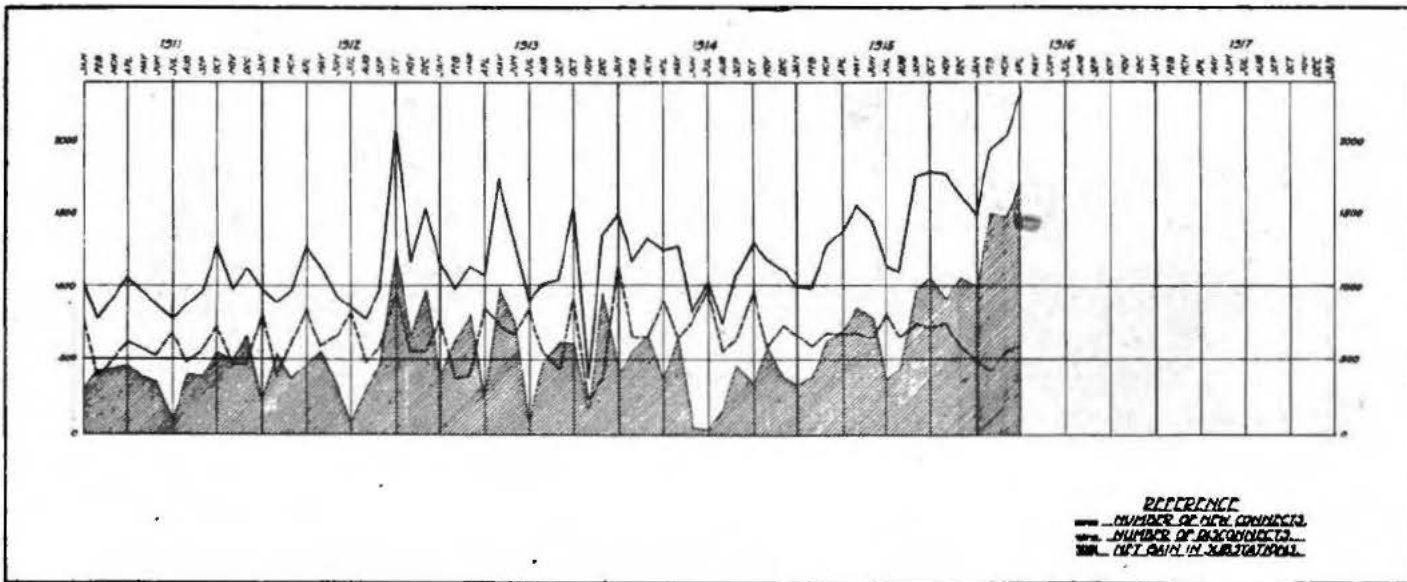


CHART SHOWING STATION GAINS IN CLEVELAND.

prices, a scarcity of material or the weather. We, therefore, do not hesitate to state that the war in Europe has affected the plans of the engineering department of the Cleveland Telephone Company in the following manner:

Based on the very careful estimates of future growth made by the commercial engineer, plans were drawn up for 1915 and 1916 by the engineering department, but "the best laid plans of mice and men gang aft agley."

A wave of prosperity swept our country from end to end, due to Uncle Sam being called upon to act as "Supply Agent" for the European countries at war. Cleveland, being a manufacturing center, has shared in this general prosperity to a greater extent probably than most of the large centers of population.

The result of this prosperity has enabled thousands of Cleveland people to enjoy privileges heretofore unknown to them and chief among the privileges first seized upon by the newly prosperous has been telephone service.

Neighborhoods where limited facilities had been ample for years back suddenly rose up in a body, so to speak, and asked for Bell service. Many of those who were already telephone users either contracted for better service or additional equipment, so that the engineering department has been kept exceedingly busy planning the necessary facilities to care for the great influx of new business.

So the chain is complete; first, the war in Europe; second, prosperity in Cleveland on

accompanying chart, one could easily tell the month in which war was declared in Europe. July, 1914, the gain in stations was thirteen, almost a negligible quantity. In February, 1916, the gain was 1,873.

When a gain of 521 was made last March it was a topic of conversation among employees, but when this March brought a gain of 1,547 Cleveland employees had grown

new campaign, and that is just what has happened in Cleveland. The chief engineer's office and the A. T. & T. engineering department both have representatives in the city making a new fundamental plan study; in other words, they are determining what telephone growth we may expect in the years to come, not counting on any such calamities as the European situation.

In addition to the cable and duct work a large extension to the Eddy office building has been completed and the Fairmount building on the Heights is rising rapidly. For next year the engineering department will plan two or possibly three new office buildings to provide equipment for the constantly increasing list of subscribers. A new switchboard has been installed at Nottingham and before many months have passed a second unit of Main office will have to be started on the fourth floor of Main building.

All in all, the Cleveland engineering department has some very busy times ahead of it and the Cleveland Telephone Company is well on the way to the 100,000 goal.

Notice.

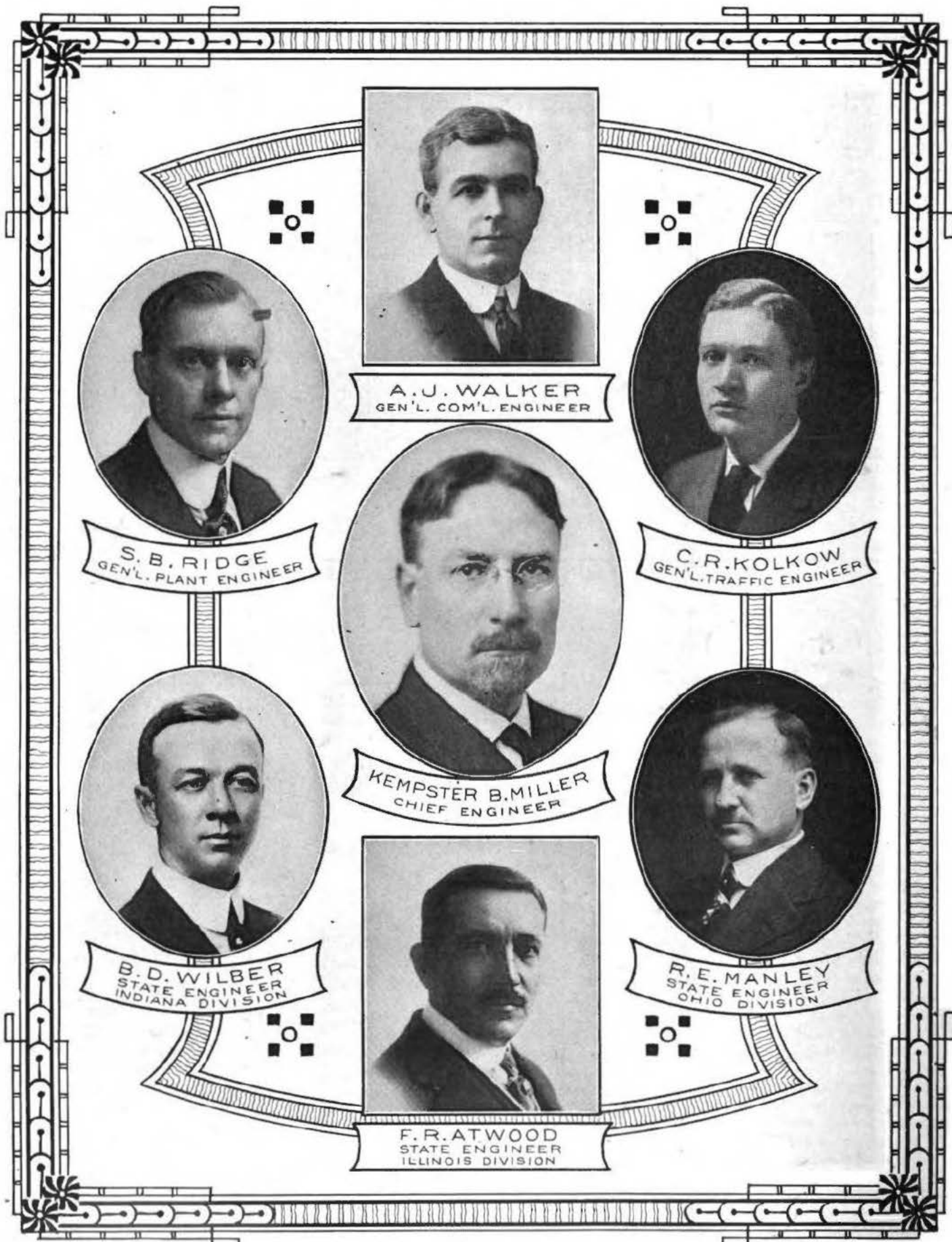
The Prize Contest inaugurated by the News for articles relating to Safety First and Accident Prevention has been extended until August 1, 1916. This will permit many who have been unable to complete their articles to do so and will also permit those who have already submitted articles to revise and submit them again.

Any employe of the Central Group of Bell Telephone Companies may submit an article or articles on any phase of the subject. It is, however, very desirable that accident prevention in telephone work be given special consideration.

All articles should be in the hands of the Editor on or before August 1, 1916. Announcements of the awards will be made in the September issue. Address Editor BELL TELEPHONE NEWS, 212 West Washington street, Chicago, Ill.

Dr. Carty Receives Degree

John J. Carty, chief engineer of the American Telephone and Telegraph Company, has received the honorary degree of doctor of science from the University of Chicago. The degree was conferred June 6th and was in recognition of Dr. Carty's services to science in developing the wireless telephone.



A. J. WALKER
GEN'L. COM'L. ENGINEER



S. B. RIDGE
GEN'L. PLANT ENGINEER



C. R. KOLKOW
GEN'L. TRAFFIC ENGINEER



KEMPSTER B. MILLER
CHIEF ENGINEER



B. D. WILBER
STATE ENGINEER
INDIANA DIVISION



R. E. MANLEY
STATE ENGINEER
OHIO DIVISION



F. R. ATWOOD
STATE ENGINEER
ILLINOIS DIVISION

CENTRAL AND STATE ENGINEERS, RECEIVERS, CENTRAL UNION TELEPHONE COMPANY

Engineering Organization for Receivers, Central Union Telephone Company

The engineering profession, especially engineers in all branches of utilities companies, have just passed through a period attended by very unusual circumstances.

The year 1914 started out quite promisingly, and work was planned accordingly and anticipated new business up to a point about mid-year was to a large degree realized. Then came rumors of the European war, with the war itself closely following. The shock stopped the wheels of commerce and an adjustment period of several months followed.

New commercial channels were then created, others diverted and some closed, but as a whole the business machine in this country was slowly got under way along changed lines. Shortly after confidence sprang to the fore and a new standard for high gears was established.

It was at a time during these circumstances that the Receivers, Central Union Telephone Company, undertook the creation of a Central Engineering Department as a separate organization to serve the property under the receivership.

During the latter part of the year 1914 Kempster B. Miller of the firm of McMeen and Miller, consulting engineers, was engaged by the receivers, Central Union Telephone Company, to act in the capacity of chief engineer. Mr. Miller, however, still continues his general consulting engineering practice in addition to his work for the receivers.

After giving the subject of organization much study and investigation, Mr. Miller decided to build up a functional organization, deeming it best suited to fit the needs of the large property involved, and best adapted to the then existing organization as a whole. These needs having been decided upon, left him with the problem of securing engineers of the kind and quality he desired. After canvassing the general telephone field, among his large circle of friends and acquaintances, for engineers, and making a number of journeys, he was then possessed of sufficient data to begin the negotiations.

The first position filled was that of general plant engineer, and S. B. Ridge of Atlanta, Ga., was chosen. Mr. Ridge is an engineer of wide experience, embracing telephone manufacturing and operating engineering work in both independent and Bell fields; he at one time served as plant superintendent for the Central District and Printing & Telegraph Company of Pittsburgh, Pa.

C. R. Kolkow was chosen to fill the position of general traffic engineer, and his valuable experience gained while with the chief engineer of the central group of Associated Bell Companies has well fitted

The general commercial engineer has three assistants: M. K. Toepen, formerly with the Chicago Telephone Company and the Southwestern Telegraph and Telephone Company, supervising inventories and appraisals and commercial routine work; Walter G. Schneider, formerly with the Wisconsin Railroad Commission and the Chicago Telephone Company, supervising the compilations necessary in response to government orders, and also engaged in commercial studies, and H. W. Lindaman, formerly with the state engineer, Ohio division, Central Union Telephone Company, supervising field work in connection with inventories and appraisals.

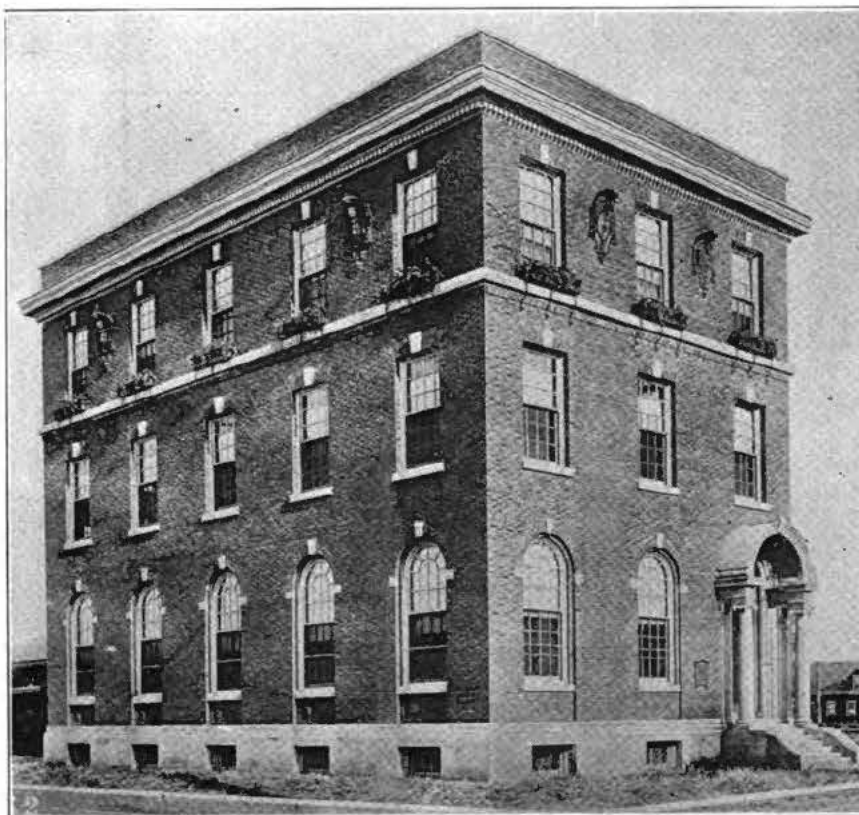
The general traffic engineer has two assistants: H. W. Fox, formerly with the central group and Central Union Telephone Company, supervising the rate and route work, and P. B. Best, formerly with the central group, supervising general traffic studies and traffic engineering routine work.

All plans and estimates made by the state engineers are forwarded by the general managers of each state division to the chief engineer for his consideration and approved before action is taken by the receivers. The chief engineer prescribes specifications and methods to be followed in the planning and execution of new and reconstruction work and

maintenance and operating. In general, he approves all matters pertaining to engineering before action is taken by the receivers, and supervises large and important engineering work in the field; in addition, he acts in an advisory capacity on such general matters as are referred to him by the receivers.

The state engineers, three in number, and their forces are, as the title indicates, located in the three states, Ohio, Indiana and Illinois, at the division headquarters, each state engineer reporting to the general manager in charge of the particular state division.

R. E. Manley, state engineer for the Ohio division, was appointed state engineer to fill the vacancy created by the transfer of A. J. Walker to the chief engineer's force. Mr. Manley was formerly outside plant engineer in the Ohio division and has had long experience in the Central Union organization in Ohio, which makes



NEW WASHINGTON OFFICE, INDIANAPOLIS.

him for this position.

The position of general commercial engineer was filled by A. J. Walker, formerly state engineer for the Ohio division of the Central Union. Mr. Walker has had wide experience as a telephone engineer in both independent and Bell fields, and is particularly well known from his long service in the Central Union and Chicago Telephone organizations, having served in various engineering capacities for the latter company in its Suburban Division and in its chief engineer's office prior to his connection with the Central Union Telephone Company.

The general plant engineer has three assistants: E. E. Hale, formerly with the Chicago Telephone Company, supervising central office and building matters; S. K. Baker, formerly with the Southwestern Telegraph and Telephone Company, supervising outside plant matters, and R. J. Lampman, formerly with the Illinois plant department, Central Union Telephone Company.



E. F. BIGGERT
Outside Plant Eng'r
Ohio



F. T. SHAW
Exch. Plant Eng'r
Illinois



P. B. BEST
Assistant Engineer
Central



D. SCHREGARDUS
Toll Plant Engineer
Ohio



M. S. GOULDING
Assistant Engineer
Indiana



C. F. POHLMAN
Assistant Engineer
Indiana



S. K. BAKER
Assistant Engineer
Central



E. E. HALE
Assistant Engineer
Central



R. J. LAMPMAN
Assistant Engineer
Central



H. O. SAUNDERS
Toll Plant Engineer
Illinois



C. O. PETCH
Appraisal Engineer
Ohio



H. W. LINDAMAN
Assistant Engineer
Central



M. K. TOEPPEN
Assistant Engineer
Central



W. G. SCHNEIDER
Assistant Engineer
Central



H. STUART
Special Inspector
Indiana



D. A. LEACH
Assistant Engineer
Indiana



E. L. MORRELL
Eqpt. & Bldg. Eng'r
Illinois



H. W. FOX
Assistant Engineer
Central



W. S. HAYS
Asst. Equip. Eng'r
Ohio



H. R. LEE
Chief Draftsman
Illinois

**CENTRAL AND STATE ASSISTANT ENGINEERS
RECEIVERS-CENTRAL UNION TELEPHONE CO.**

his services particularly valuable in this state.

The Ohio engineer has four principal assistants—E. F. Biggert, supervising outside plant matters; W. S. Hays, supervising central office equipment and building work; D. Schregardus, supervising toll plant work, and C. O. Petch, supervising records.

B. D. Wilber, state engineer for the Indiana division, was appointed state engineer during 1912 and still continues in this position. Mr. Wilber was formerly facility engineer for the Indiana division and is well known to many readers of the News through his years of service with the Central Union Company.

The state engineer, Indiana division, has four principal assistants—C. F. Pohlman, supervising outside exchange engineering work; M. S. Goulding, supervising outside toll plant; D. A. Leach, supervising central office equipment and building matters, and H. Stuart, engaged in inspections and special duties.

F. R. Atwood, state engineer for the Illinois division, was appointed state engineer for the Illinois division early in the receivership. Mr. Atwood has had long experience with the chief engineer of the central group and with the former chief engineer of the Central Union Company, which has well fitted him for his present duties.

The state engineer, Illinois division, has four principal assistants—E. F. Morrell, supervising central office equipment and building work; F. T. Shaw, supervising exchange plant matters; H. O. Saunders, supervising toll plant work, and H. R. Lee, chief draftsman.

In addition to the principal assistants, each state engineer has a force consisting of field men, draftsmen, stenographers and clerks sufficient to carry on his work.

The European war has had its effect on the area served by the Central Union in about the same proportion as in the neighboring areas, the general effect of which has resulted in an extraordinary demand for telephones. In addition it has produced a shortage of materials and supplies of many kinds, some of which are now nearly prohibitive in price for use and others out of market.

The effects of these causes present many problems for the engineer to solve in actual practice and have produced an experience seldom met during an engineer's career.

From the standpoint of interest and education the effect has been one of unceasing wonder as to what really can be done when necessity demands it.

Obituary

ENOS M. BARTON, founder of the Western Electric Company and a pioneer figure in the telephone industry, died May 3d at Biloxi, Miss.

Besides being the "human switchboard" of the Western Electric Company during its development, as he was termed by Herbert N. Casson, Mr. Barton had been a



ENOS M. BARTON.

director of the Merchants' Loan and Trust Company, had superintended extensive lumber holdings in Louisiana, and had managed his 1,100-acre estate near Hinsdale, Ill. Since he retired from the presidency of the Western Electric in 1908, he had given particular attention to the farm.

Mr. Barton was born at Lorraine, N. Y., December 12, 1842. He left the farm when



GOVERNEUR CALHOUN.

his father died and procured work as a telegraph messenger boy at Watertown. He worked as an operator during the civil war and was chief operator at Rochester in 1869.

A short time afterwards he got the offer which led to the establishment of the firm of Shaw and Barton, telegraph instruments, of Cleveland, the nucleus of the Western Electric. Later the partnership became Gray and Barton, Elisha Gray succeeding Mr. Shaw. In 1879 the plant was removed to Chicago, to make all the equipment for the Western Union, and the Western Electric Manufacturing Company was organized, with General Anson Stager as president and Mr. Barton as secretary. When peace was made with the Bell companies, Mr. Barton became vice president of the new Western Electric, and in 1887 he became its president.

When the Western Electric came to Chicago it was located in three small three-story buildings on Kinzie street near State. Under Mr. Barton's direction, a five-story building was built on South Clinton street. About it the plant spread for five blocks until it was forced to move to the suburbs. Mr. Barton selected the site at Hawthorne at the junction of the Burlington and Belt Line railroads.

In spite of Mr. Barton's duties at the head of the engineering and financial problems of the Western Electric and in his bank directorship, his lumber interests and his estate and its herd, he found time for various social and philanthropic activities. He was a governing member of the Art Institute, a trustee of the University of Chicago and a member of the Chicago, Union League, Commercial, Quadrangle and Hinsdale Golf Clubs.

GOVERNEUR CALHOUN, commercial representative of the American Telephone and Telegraph Company in St. Louis, Mo., died May 15th. Death was caused by dilation of the heart.

Mr. Calhoun was a son of the late John B. Calhoun of Chicago, the first treasurer in Illinois of the Illinois Central Railroad Company. Gouverneur Calhoun, who has left many friends in Chicago, graduated from Yale University in 1891. He was a member of the University Club and Country Club in St. Louis and was recently president of the Yale Alumni Association of that city. He was formerly the district superintendent in St. Louis of the American Telephone and Telegraph Company, and had more recently been its commercial representative, with headquarters in that city. He is survived by his widow, Felicia Calhoun, daughter of Frederick N. Judson, a leading member of the St. Louis bar and one of the executors of the Pulitzer estate. Mr. Calhoun is also survived by his sister, Mrs. Henry B. Mason, of Chicago.

Birthday Dinner for President B. E. Sunny

"Gentlemen, it is no small thing to have been able to complete sixty years of successful business life. We are here to-night to pay tribute to that fact and to the greater and much more far-reaching fact that the character of the man and the achievements which have been his are of such character as requires a meeting of this kind."

These were the words of Judge Charles S. Cutting when, as toastmaster, he arose to introduce the first speaker of the evening May 22, 1916, when more than a hundred close friends of Bernard E. Sunny, president of the Central Group of Bell Telephone Companies, gathered around the banquet table to do him honor on the occasion of his sixtieth birthday.

The scene of the dinner was the Crystal ball room of the Blackstone hotel, which had been transformed for the time being into a veritable garden of peonies and scarlet tulips, whose flaming petals contrasted beautifully with the quieter tones of the profusion of spring blossoms, the faultless napery and table equipment and the softly shaded lights and decorations of the room. A tiny switchboard marked the place of the guest of honor, from which extended a miniature toll line, the poles and wires running entirely around the two oval tables. At each plate was a tiny telephone set.

Immediately following the invocation the lights were turned out and Old Glory, brought into relief by spot-lights, waved majestically above the heads of the diners as they stood and sang "America." During the dinner (the room having been darkened again) a huge birthday cake, with sixty candles flaming about it, was brought in and placed before Mr. Sunny.

The brilliant appointments and surroundings made a fit setting for the brilliant company of men seated around the tables. There were executives of great corporations, the heads of large banking institutions, distinguished members of the bar, the clergy and the medical professions, manufacturers, merchants, publishers, scientists and men who have "made good" from practically every walk in life.

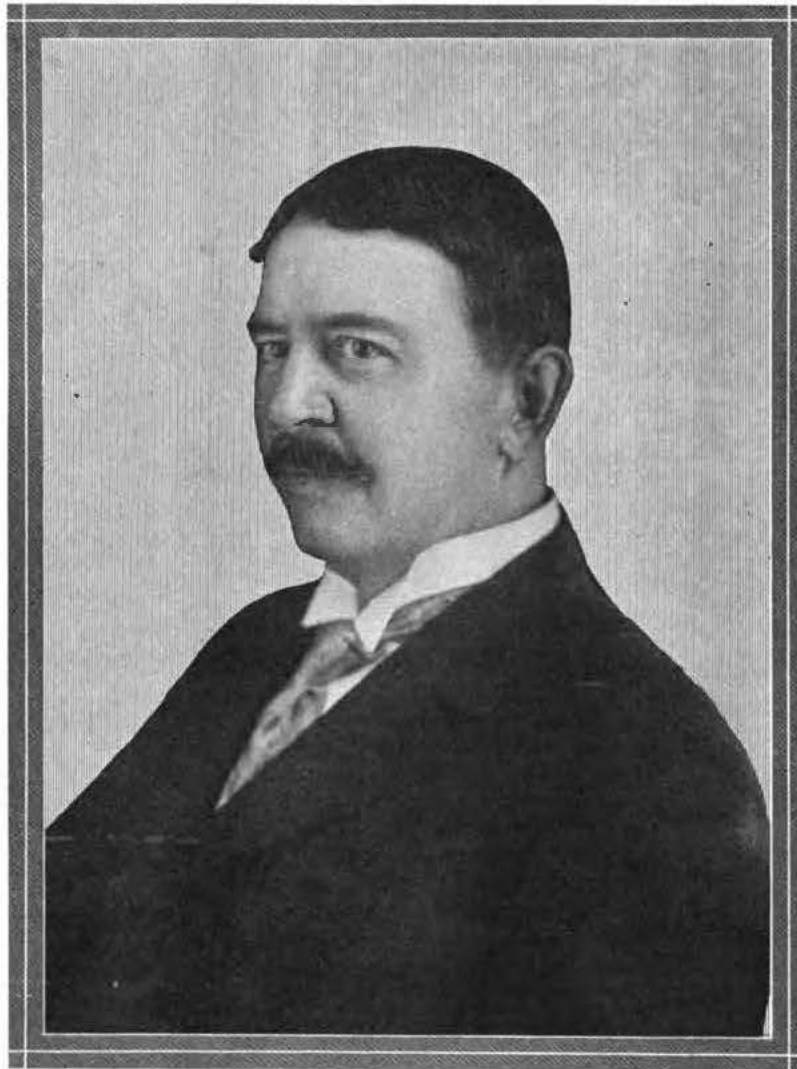
Mrs. Sunny, accompanied by a party of ladies, entered the gallery when the toasts began and remained through the speaking, an interested listener to the tributes paid her distinguished husband, in several of which her name was gracefully coupled with his.

Judge Cutting was delightfully genial in the rôle of toastmaster, conducting the

speakers. All vied with one another in giving expression to sentiments of friendship and personal attachment. The hearty applause which interrupted them indicated the accord of the listeners. Eloquent as were the addresses, warm affection for the man of whom they spoke was the inspiring motif and dominated the spirit of the speakers and their hearers.

The last to speak was Dr. Frank W. Gunsaulus, pastor of the People's church of Chicago, and president of Armour Institute of Technology, who presented the testimonial, a massive silver plaque, appropriately inscribed and bearing facsimile signatures of the dinner hosts. Doctor Gunsaulus not only eulogized the guest of honor in a manner that aroused those present to a high pitch of enthusiasm, but paid an eloquent tribute to Mrs. Sunny also, whose gentle influence and unwavering interest and devotion had contributed in no small measure to her husband's successful career.

Mr. Sunny's acknowledgment of the honor done him was characteristic; a quiet, earnest and effective appreciation, gracefully and gratefully expressed. At its conclusion he was surrounded by his friends, who showered him with congratulations and good wishes, after which they sang Auld Lang Syne, and "Sunny's Birthday" came to



B. E. SUNNY.

ceremonies of the evening with his usual brilliancy.

On Mr. Sunny's right sat Theodore N. Vail, president of the American Telephone and Telegraph Company, who came from New York for the banquet and who, in an interesting address, referred in terms of deep affection and high regard to the warm friendship and intimate business association which had existed between them covering a period of thirty years.

Samuel Insull, of Chicago, president of the Commonwealth Edison Company; E. W. Rice, Jr., of New York, president of the General Electric Company; N. T. Guernsey, of New York, general counsel for the American Telephone and Telegraph Company, and H. M. Byllesby, president of the H. M. Byllesby Company, were the other

a happy close.

Mr. Vail's speech follows:

"Mr. Toastmaster, Mr. Sunny, Ladies and Gentlemen: Never before in my life have I more deeply regretted my inability to respond in a fitting manner to an inspiration like this. It is with hesitation and reluctance that I attempt to speak to-night, feeling that it is impossible for me to voice my respect and admiration for the guest of the evening, but it did seem little for me to lay aside that reluctance and hesitation and join this notable group in this demonstration.

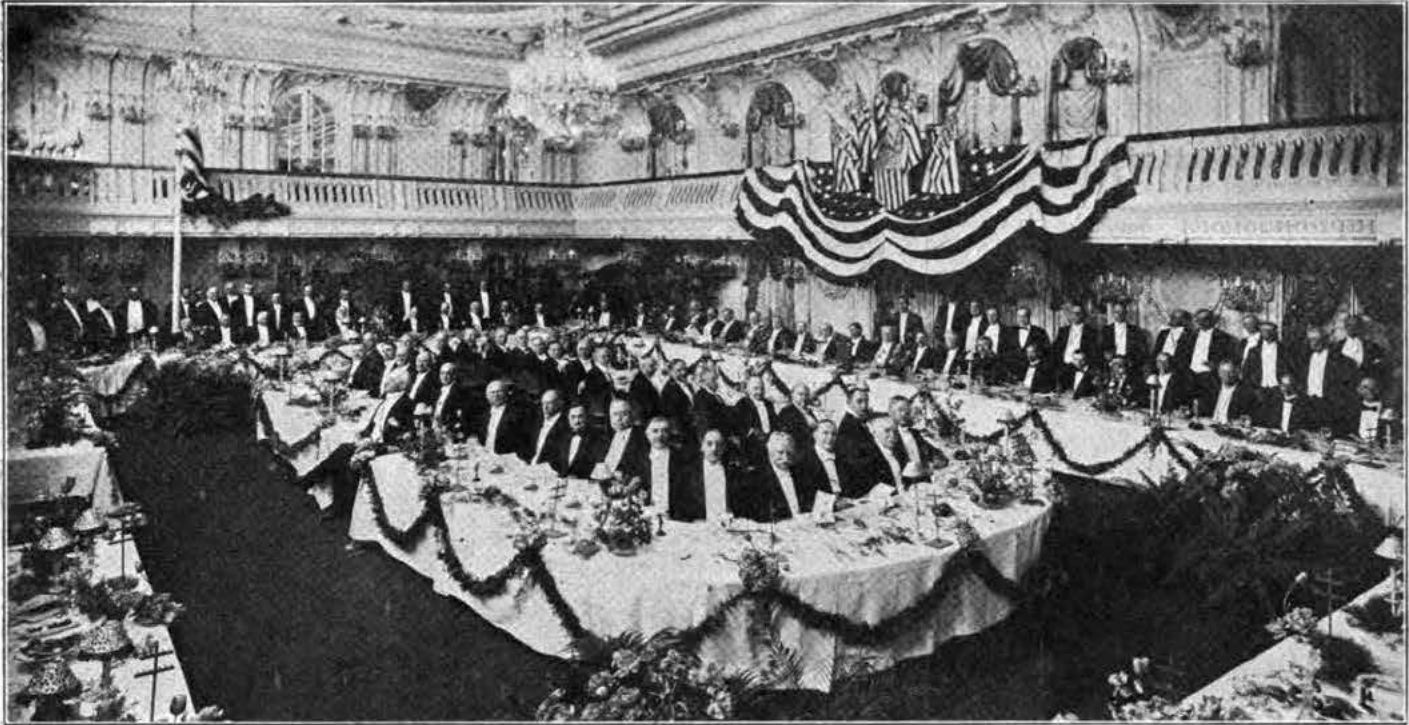
"It recalls to me to-night my first visit to Chicago in connection with the telephone business. I had been connected with the mail service, where I had achieved some reputation, and had left the mail service

to take up the 'Yankee Toy' as they called it, which gave me some notoriety, and my acquaintance with some people in Chicago gave me admission to a circle more or less representative as are the people who are assembled here to-night. I talked to them about the telephone. They listened, some with curiosity, some with badly concealed skepticism, some with slight credulity, but after deliberation there was no indication

proached, afterwards became permanently identified, financially and officially, with the Chicago Telephone Company.

"Mr. Sunny, as I said, connected himself with the business, became permanently identified with its progress for the next eight years, when he left it to occupy himself with the upbuilding of new industries, in which he gained experience and probably more material substance than he would

of possibilities, reflective deliberation and decision, and a persistent determination when once decided. He has established himself in the estimation of his fellows as one of the leaders of the country. When a man has spent his mature life in one community and has been identified with its social, economic, industrial and civic development, and has been foremost among those active in the betterment and progress, when



BIRTHDAY DINNER FOR PRESIDENT B. E. SUNNY, OF THE CENTRAL GROUP OF BELL TELEPHONE COMPANIES.

of responsiveness. After some work in other directions I assembled a group of young fellows, some of them who had been my associates in the mail service, with lots of initiative, lots of uncapitalized work and energy, but little money with which to bridge over the terrible gap between anticipation and realization. Just about that time the Western Union, headed by those names that you could conjure with in Chicago, Anson Stager, Norman Williams, and others, concluded that they wanted to go into the telephone business. This, of course, created a panic in my little band to such an extent that we had to take over the business ourselves in Boston. About this time Mr. Sunny became associated with the company and after a short period, which seemed very long at that time, we succeeded in convincing the Western Union that they did not want the telephone business; that they had better retire, so they retired and left the telephone business with us, and they continued the telegraph business. An attorney-general not very long ago concluded also that there should be a separation between the telegraph and telephone (laughter) which I think was much to the retardation of commercial development in many lines.

"Many of those who were first ap-

have, had he continued in the telephone business. It was after an absence of twenty years that he returned to his first love, where he found a much enlarged field and much greater requirements than when he left and to which he brought a sufficiency of all that was needed.

"We always like to speak of anything that will add to our self-respect. It is a coincidence that my direct connection with the telephone business was in 1878, one year before Mr. Sunny came. My separation from the active participation in the business was in 1887, one year before Mr. Sunny left. My return to the business was in 1907, after twenty years, one year before Mr. Sunny came back. There may be significance in this coincidence. The fact that I speak of it shows that I think there was some.

"Gentlemen, we are living in an age in which it does seem as if words, promises, assertions carry more weight than deeds, accomplishment or fact. If it were not for such occasions as this, it would seem as if a life of good work, of honest endeavor, had no reward except in the self-satisfaction that always comes from being at all times able to maintain your self-respect. Mr. Sunny's whole career has been one of deeds and accomplishments, modest and gentle in action with a quick perception

such a man has reached through his own efforts, through recognition by others of his own qualities, the highest administrative position in one of the chief enterprises of the section, and when at three score years he is honored, as is our guest this evening, by the best of the community to which he belongs and the foremost among those with whom he has associated, what can be said of any one to give such compliment greater expression? (Applause.) May he be given many more years in which to live and be an inspiration to the coming generation which must in the future fill our places." (Applause.)

In accepting the beautiful birthday gift Mr. Sunny spoke as follows:

"Ladies and Gentlemen, I never realized before that a man could be miserably embarrassed from an excess of spotlight and yet be supremely happy. The fact rather makes clear the paragraph in the letter from back home which said, 'At present Aunt Mary is enjoying poor health.' (Laughter.) Nor did I realize before that reaching sixty years of age was an event of special significance. In the olden time it generally meant that curfew was about to ring on one's activities, a period of carpet slippers, weak tea, stewed prunes and one cigar a day, and if your

wife happened to have more pull with the physician than you had you would lose the one cigar. (Laughter.) But we are living in an age of high efficiency, and all things are changed, and reaching sixty years of age now means that you must quit dawdling and do something. There is an abundance of evidence in the support of this theory.

"Mr. Vail went back in the telephone business at sixty-two, when there were three million telephones, and now there are nine million. We owe to his initiative, his enterprise and his courage the development of the transcontinental telephone, and later the remarkable achievements in wireless telephony. We could multiply instances where the rule has worked out in any number, but it is not necessary. We will concede that the theory is correct. So that I, therefore, realize that I have taken on a new and greater responsibility. The eyes of the world are on me, and I am



R. W. SULLIVAN.

expected to do something or somebody. (Laughter.)

"Just what I shall do I have not determined. Colonel Roosevelt, we realize, cannot be with us always, so that I think I shall have to solve the problem of perpetual motion.

"I had word from a telephone subscriber a few days ago that I would be entitled to a niche in the Hall of Fame if I would suppress the operator on his end of the line who rolled her R's so recklessly. (Laughter.) He says, 'She not only rolls them but she spins them.' (Laughter.)

"I greatly appreciate the tremendous compliment that Mr. Vail has paid me by coupling me up even to the extent that according to the calendar we kept step together during the past thirty or thirty-five years or more. The incident rather recalls a story that was told some months ago of a revenue cutter in the New York harbor that used to start out about eight o'clock



F. A. DE PEYSTER.

in the morning if the weather was fine and work around the harbor and quit service at five o'clock at night. The captain and the officers were all very important, very dignified, and they were very much surprised one day to be told that they would have to go down to some point in Delaware. They were very much shocked, for the reason that this broke into their usual routine, and furthermore it kept them out all night. About three o'clock in the morning the officer on watch saw a great hull looming up in the darkness, and he called out, 'Who's there?' And a voice from the hull called back, 'This is the *Royal Bengal Tiger*, ninety days from Calcutta. Who are you?' 'Oh, this is the *U. S. Grant*, and we have been out almost all night.' (Laughter.)

"The comparison between Mr. Vail and myself leaves off, I am sorry to say, with



B. R. COOPER.

the calendar. My friends, you must know—I am sure you do know—how impossible it is for me fittingly or adequately to thank you for this beautiful evening or to express my appreciation of the many generous and complimentary things which have been said by the various speakers, and added to it all, I have this beautiful, this exquisite gift. It all makes me feel like an utter bankrupt. I simply cannot pay you the debt that I owe you. Rich as I am in so many splendid friendships, I am poor indeed in language to express the gratification which fills my heart. I accept it all, the little which I may deserve, the much you have lavished in such whole-souled affection—I accept it not for myself, but to share with my best friend and helper, one whose love and confidence have been true and constant and whose high ideals have been a daily inspiration—my wife. (Applause.)



L. W. LAYTON.

"And I thank you for your comradeship, for your friendship over so many years. I have regarded them always as among the earth's choicest blessings, and I pray that I shall always have them. Thank you."

Chicago Traffic Changes

The sudden death of H. N. Foster, traffic superintendent of the Chicago Telephone Company, City Division, made necessary the following changes in organization:

F. A. de Peyster, traffic superintendent, Suburban Division, was appointed traffic superintendent, City Division, succeeding Mr. Foster.

B. R. Cooper, traffic chief, City Division, was appointed traffic superintendent, Suburban Division, succeeding Mr. de Peyster.

R. W. Sullivan, division traffic supervisor, City Division, was appointed traffic chief, City Division, succeeding Mr. Cooper.

L. W. Layton, toll traffic engineer, was appointed division traffic supervisor, City Division, succeeding Mr. Sullivan.

Mobilization of the Forces of Communication

In case of war the United States has at its disposal the most comprehensive means of quick-voice communication between points on land and between battleships at sea and officials on shore, that there is in the world. This fact was amply proved by the remarkable demonstrations of wire and wireless telephony

of strategy at the Navy Department was essential.

This was the situation the mobilized forces of communication were asked to meet, and in doing so, they gave startling evidence of the possibilities of American-made wire and wireless telephone apparatus. From a preparedness standpoint the tests showed that the efficiency of the telephone makes it a tremendous factor in the scheme of national defense. The wire telephone service puts any point in the country within instant voice reach of Washington, while the wireless telephone gives the naval

ed by Captain Lloyd H. Chandler, son of a former secretary of the navy, and to order it to sea. Captain Chandler thereafter was in hourly communication by wireless telephone with Washington, the two-way talking being the first ever carried on by wireless telephone between shore and a ship at sea.

More than fifty guests were present in Secretary Daniels' office during the first hour of the mobilization test. Among the army and navy officers there were Rear Admirals Benson, Badger, Blue, Strauss, Taylor, Captain Bullard, who has charge



MOBILIZATION OF THE FORCES OF COMMUNICATION.

Secretary of the Navy Daniels talking from Washington to Captain Chandler, on board the battleship *New Hampshire*. In the picture are the faces of some well known men, including Union N. Bethell, N. C. Kingsbury, Frank H. Bethell, John J. Carty, Bancroft Gherardi, F. A. Stevenson and Captain Bullard, U. S. N.

which were conducted by the Navy Department in cooperation with the American Telephone and Telegraph Company during the period of 4 p. m. May 6th until 8 a. m. May 8th at Washington.

For forty hours the Naval Bureau of Communication was conducted strictly on a war basis. All its business was handled in accord with theoretical wartime conditions. The communicating services used were the wire telephone and the wireless telephone, supplemented by the telegraph and the printing telegraph.

Theoretically war had been declared. Instant voice communication between Washington and the various naval stations on the borders of the country, was imperative. An enemy fleet was approaching the Atlantic coast and the defending fleet, represented by the battleship *New Hampshire*, must be maneuvered under orders direct from Washington. Constant communication between the sea force and the board

authorities a service of voice communication between the shore and ships at sea such as no other nation possesses. The wireless telephone methods and instruments used are known only to the inventors and have been made available only to the department officials conducting the tests.

During the demonstration sixteen of the government naval stations scattered along the borders of the nation from Maine to California and from the Great Lakes to the Gulf of Mexico were brought into instant voice communication with headquarters at Washington. Secretary of the Navy Josephus Daniels, talked to the officers at these stations, thousands of miles distant, one after another, the destination of his voice being shifted with uncanny ease and speed. Supplementing these wire telephone tests, the wireless telephone apparatus perfected by Bell telephone engineers, was employed to reach the battleship *New Hampshire* at the Norfolk Navy Yard, command-

of the naval communications service; Brigadier General Scriven, chief of the army signal service; Captain Commandant Bertholf of the coast guard service, and Major General Commandant Barnett of the marine corps.

Participating in the test as representatives of the Bell telephone system were U. N. Bethell of New York, senior vice-president of the American Telephone and Telegraph Company; N. C. Kingsbury, vice-president in charge of the long-distance lines department; J. J. Carty, chief engineer; Bancroft Gherardi, engineer of plant; C. H. Wilson, general manager; F. A. Stevenson, general superintendent of plant; F. H. Bethell, president of the Chesapeake and Potomac Telephone Company, and Messrs. Colpitts and Arnold, representing the Western Electric Company.

On Secretary Daniels' desk was a telephone transmitter and radiating from the desk were wires to a dozen receivers.

Promptly at four o'clock Secretary Daniels asked prominent officers present to place the receivers to their ears. Then the secretary took his receiver from the hook and told the central operator in the navy annex building that he wished to talk with the battleship *New Hampshire*. Immediate connection was made with the Arlington radio station, and in less than a minute wireless telephone communication had been established between Secretary Daniels in Washington and Captain Chandler at Norfolk.

"Hello," said the secretary; "is that you, Captain Chandler?"

"This is Captain Chandler," came back the immediate response, which was heard by all who had their ears to the demonstration receivers.

"Where are you," asked the secretary.

"On the bridge of the *New Hampshire* at Hampton Roads."

"Take this order," said the secretary. "Get under way this afternoon, stand out to sea and report your position to me by wireless telephone every hour."

"The *New Hampshire* will not be able to get under way before ten o'clock tomorrow morning, sir," replied Captain Chandler.

"I will be in my office in the navy department at ten o'clock to-morrow morning," responded Mr. Daniels. "I will ring you up then and have another conversation. I can hear you as well as if you were in Washington, Captain Chandler. It will not be long before the secretary of the navy will be able to sit in his office and communicate with vessels of the navy all over the world by wireless telephone. That is something the captains may not like."

Secretary Daniels then asked Rear Admiral Benson, chief of naval operations, to step to the telephone. Admiral Benson did so, and gave an official order by wireless telephone to Captain Chandler.

"You will get underway at ten o'clock to-morrow morning," said Admiral Benson. "Stand out to sea, report your position every hour by wireless telephone and you will return in time to anchor off the mouth of the Potomac not later than noon Monday. On Monday afternoon the same program will be repeated in an exchange of wireless telephone messages with you from the naval academy at Annapolis."

For nearly half an hour Captain Chandler remained at the telephone on the bridge of his battleship at Hampton Roads talking with army and navy officers who stepped to the telephone at Secretary Daniels' desk. The secretary then asked for a connection with the Pensacola navy yard. It was made in less than a minute. Commander Mustin answered the telephone at Pensacola.

"Are you flying to-day at Pensacola?" asked Secretary Daniels.

"Yes, sir," replied Commander Mustin.

Supporting the use of the wire and wireless telephone were the telegraph and printing

telegraph, circuits for each being set up to connect the Brooklyn Navy Yard directly with the Navy Department at Washington. By means of the printing telegraph, eight telegraph messages were transmitted simultaneously over the same circuit; four of these messages being sent from the Brooklyn Navy Yard to Washington and four being sent from Washington to Brooklyn. All the messages were carried at the same time and were received on printed pages



MOBILIZATION OF THE NAVY DEPARTMENT.

Captain Frank M. Bennett, Commander at Mare Island Navy Yard, San Francisco, talking with the commander of the warship *New Hampshire*, in the Atlantic.

similar to those coming from an ordinary typewriter. The routine business of the department with the Brooklyn Navy Yard was handled by this method.

The speed with which the navy men talked over thousands of miles of territory is shown by the fact that one minute Secretary Daniels was conversing with the Commandant of the Brooklyn Navy Yard and the next minute he was talking with the Commandant of the Naval Station at San Diego, Cal. According to the watches held by some of those who witnessed the demonstrations, it took only twenty-eight seconds to make the telephonic connection between Secretary Daniels' office and the Naval Station at San Diego. In twenty-seven seconds the Brooklyn Navy Yard was connected with Washington; in thirty-six seconds Washington was in telephone touch with the Great Lakes, Ill., Naval Station, and in forty-one seconds it was in touch with the Norfolk Navy Yard.

Testifying to the swiftness of the communication was this telegraphic despatch from San Diego: "The rapidity with which orders can be transmitted by telephone was indicated to-day, when instructions were received at Point Loma, Cal., in this manner from the Navy Department in Washington and then flashed by wireless to the cruiser *Raleigh* at Corinto, Nicaragua, within four minutes after the message had been filed at the national capital."

The naval stations and navy yards kept in telephone reach of Washington during

the forty hour test were those at Bremer-ton, Puget Sound, Washington; Mare Island, Cal.; Charleston, S. C.; Norfolk, Va.; Washington, D. C.; League Island, Pa.; Brooklyn, N. Y.; Pensacola, Fla.; Annapolis, Md.; New London, Conn.; Newport Naval Station, Newport, R. I.; Charlestown, Boston, Mass.; Portsmouth, N. H.; Yerba Buena, Cal.; San Diego, Cal.; Algiera, opposite New Orleans, La., and Great Lakes, Ill.

Three large rooms were fitted up by the American Telephone and Telegraph Company with the necessary apparatus for carrying on communication by means of the four mediums employed. For the wire telephone tests, 53,214 miles of wire were set aside, which is less than one per cent. of the total wire mileage of the Bell System. While 170,000 persons are employed in the daily operation of the Bell System and all of them were available during the mobilization, only 600 were actually engaged in the program outlined by the naval authorities.

Following the demonstration Secretary Daniels sent to Theodore N. Vail, president of the American Telephone and Telegraph Company, the following telegram: "I congratulate you and all of the forces of your company on the splendid success of the mobilization of the forces of communication in cooperation with the United States Navy."

President Vail replied: "We appreciate and thank you for your congratulatory message. It is exceedingly gratifying to know that the plan of mobilization of the forces of communication in cooperation with your Department has been carried out to your satisfaction."

Award of Franklin Medals

Franklin Medal awards were made at the meeting at the Franklin Institute in Philadelphia on May 17th to Dr. Theodore W. Richards of Harvard University "in recognition of his numerous and important contributions to inorganic, physical and theoretical chemistry, and particularly his classical series of redeterminations of the atomic weights of the more important chemical elements," and to Dr. John J. Carty, chief engineer of the American Telephone and Telegraph Company, "in recognition of his long continued activities in telephone service, his important and varied contributions to the telephone art, his work in the establishment of the principles of telephone engineering, and his signal success in directing the efforts of a large staff of engineers and scientists to the accomplishment of telephone transmission of speech over vast distances."

The Elliott Cresson Medal was awarded to the American Telephone and Telegraph Company through its president, Theodore N. Vail.

The medalists were introduced and the presentations were made by Dr. Harry F. Keller of the Institute. In his introduction of Dr. Carty, Dr. Keller said in part:

"Whilst paying homage to the Faradays

and the Hertz, to the Lavoisiers and the Liebig, who have made the fundamental discoveries in electricity and chemistry, let us not forget to honor those who, by their inventive genius and engineering skill, have utilized these discoveries in creating and developing those marvelous industries of the electrical arts and the chemical manufactures.

to a successful conclusion. A comprehensive and effective engineering and scientific and development organization such as this is necessary, and years of expensive work are required before the idea can be rendered useful to the public.

"No one can tell how far away are the limits of the telephone art. I am certain that they are not to be found here upon

"When the telephone business was first organized the possibility, but not the magnitude of the future, was recognized. Then was adopted, after deliberation and discussion by the founders of the business, the comprehensive policy of making the telephone a useful utility, broad in its scope and universal in its application. This policy has been faithfully followed by those



PHOTOGRAPH TAKEN AT FRANKLIN INSTITUTE, PHILADELPHIA, ON OCCASION OF PRESENTATION OF MEDALS.

Seated, left to right—John J. Carty, Theodore N. Vail, Mrs. John J. Carty.
Standing.—Dr. Harry F. Keller, W. C. L. Eglin, Captain W. H. G. Bullard, U. S. N., Fred A. Stevenson, Union N. Bethell, Thomas A. Watson, Dr. Frank J. Goodnow, Mrs. Thomas A. Watson, Dr. Walton Clark, Dr. R. B. Owens.

"But it is a far cry, an almost inconceivable advance, from the infant invention of 1876, which then enabled Professor Bell to talk to his assistant, Mr. Watson, two miles away, to the vast Bell Telephone System of 1916, which, with its network of lines, covers all the states of the union, and, with the epoch-making wireless extension during the past year, now permits not only to speak without effort and distinctly across the continent, but to distant islands and to ships at sea.

Dr. Keller then sketched briefly the career of Dr. Carty and mentioned some of his important services to science.

In accepting the medal Dr. Carty said in part:

"More than any other, the telephone art is a product of American institutions and reflects the genius of our people. The story of its wonderful development is a story of our own country. It is a story exclusively of American enterprises and American progress, for, although the most powerful governments of Europe have devoted their energies to the development and operation of telephone systems, great contributions to the art have not been made by any of them. With very few exceptions, the best that is used in telephony everywhere in the world to-day has been contributed by workers here in America.

"A good idea may spring up in the mind of man anywhere, but as applied to such a complex entity as a telephone system, the countless parts of which cover a continent, no individual unaided can bring the idea

the earth, for I firmly believe in the fulfillment of that prophetic aspiration expressed by Theodore N. Vail at a great gathering in Washington, that some day we will build up a world telephone system, making necessary to all peoples the use of a common language or a common understanding of languages which will join all of the people of the earth into one brotherhood.

Dr. Keller presented The Elliott Cresson Medal to the American Telephone and Telegraph Company, through Mr. Vail, which award was made "in recognition of the constructive and far-seeing policy of that company in the development of the art of telephony, in the promotion of telephone engineering, in the establishment of its telephone system in every part of the United States, and for placing all of the States of the Union in speaking communication." Referring to President Vail and his connection with the vast development of the telephone service, Dr. Keller said:

"With a feeling akin to awe we think of the man whose prophetic vision, unerring judgment and matchless executive ability have guided the forces which have wrought this wondrous evolution."

In his speech accepting the medal Mr. Vail said:

"Mr. President and Members of the Institute, Ladies and Gentlemen:

"On behalf of the American Telephone and Telegraph Company I accept this most complimentary tribute.

who have been responsible for the operations of the business.

"We accept this tribute of to-day as a recognition by this great institute and by the public that that policy was a wise one, and that it has been wisely and successfully carried out.

"This tribute has another and even greater significance.

"The telephone service is an individual service, rendered to individual users by the individual members of the telephone organization.

"It is a service dependent upon the right thing being done at the right time, by the right person, in the right way. To the extent that all this is done the service is good; if any fail, to that extent the service is defective.

"This requires on the part of every individual member: To the organization, loyalty; to their obligations, fidelity, and in the performance of their duty, conscientiousness.

"This award is, therefore, a personal tribute to each individual connected with the service, to the full recognition, by them of their obligation to the organization and to the public and each one will so feel and appropriate it.

"Gentlemen, on behalf of my company and on behalf of my associates, on behalf of every individual connected with the Bell system, please accept hearty thanks and expressions of the highest appreciation of your action."

Locomotive in Cable Repair

Among appliances used in cable repair, a locomotive is one of the latest. A short time ago a twenty-pair quad cable, belonging to one of the railway companies in Chicago and running along the right-of-way, was found to be leaky and the Chicago Telephone Company was asked to repair it. A splicer, helper and an inspector were sent on the job with men from the railway company. The trouble was found to be due to a small cut at the mouth of the duct. Slack was needed before the hole could be repaired, but the cable was frozen so tight in the duct that it could not be moved. Application of force merely endangered the cable by stretching the armor. The boys finally corralled a switch engine. It had no heat line, so steam had to be taken from the dome. A connection was accordingly made on the dome and a steam hose was run under the rails of the several tracks between the engine and the vault, terminating in an iron pipe bent to allow its end to be thrust into the duct alongside the cable. In fifteen or twenty minutes the cable was thawed loose and the slack necessary for the repair pulled.

The first photograph shows the attachment from the locomotive to the vault and the second shows the steam coming from the vault at the other end of the section of hose.

Telephones in Hard Coal Mines

Steady progress is being made in the installation of telephones throughout the anthracite mines of Pennsylvania. There are now instruments in the mines of practically all the large companies at the foot of every shaft, at the head and foot of all main slopes, in the mine hospitals below ground, and wherever there is machinery for pumping or hoisting. Breakage of machinery, fires and accidents may thus be promptly reported, and the telephones form

a speedy method of communication between the footmen and hoisting engineers in case anything goes wrong with the signal system. Orders are transmitted

the main office and secured prompt assistance. This means that the wheels of the fire or rescue cars can begin to turn within a few minutes after the accident or fire is known, and that lives have been saved by the prompt summoning of a first-aid team from the nearest mine hospital.

There are now thousands of telephones in the mines in constant use. All vagaries of the air currents are promptly reported to the mine foremen, and when the presence of gas is detected or a pocket of it released, that part of the mine can be immediately vacated until the gas is swept away. The effect in reducing loss of life as well as in saving property has been enormous.

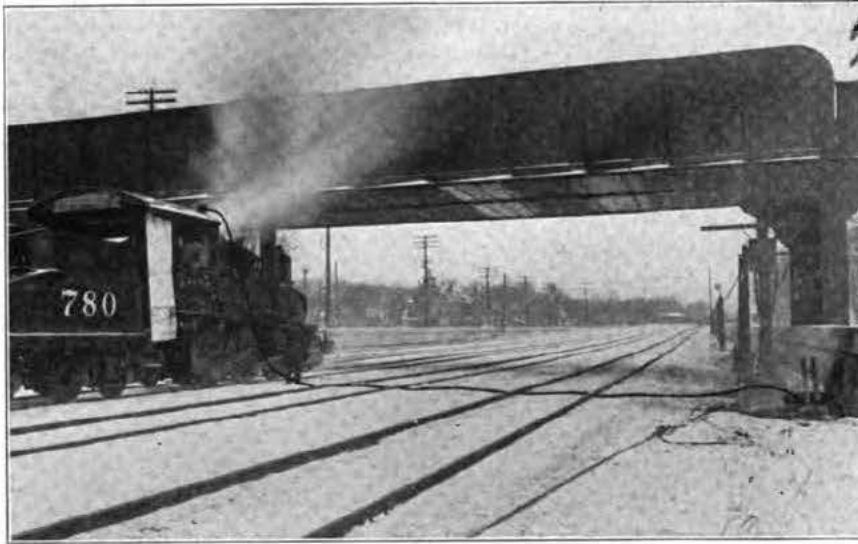
freely, the installations have proved a valuable adjunct to car dispatching, and some of the engineers in charge of this work pronounce it one of the greatest steps in efficiency, and consequently in safety, of recent years.

Credit is due to Chief James E. Roderick of the Pennsylvania Department of Mines, who strongly recommended the further extension of mine telephones three years ago. Some of the large companies have the mine systems connected directly with those on the outside, so that instead of taking the time to come out of the mines or having their messages relayed at the switchboards in the colliery offices, men wishing to report can call up the main office direct. In case of mine fires or accidents it has happened that a man at the scene of the accident or within view of the fire has called

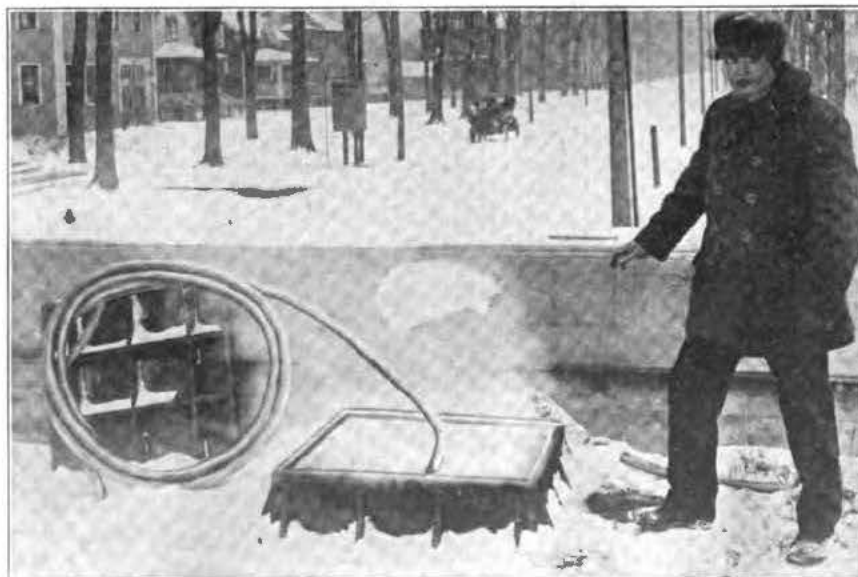
The miners no longer work silent and detached, but can communicate promptly with the mine hospital where first-aid corps are stationed, with all important points in the mines, and with their friends. In fact the telephone in these underground industrial villages corresponds exactly in its use with the system in any similar community above ground. If a mine worker felt like calling up San Francisco from the bowels of the earth there would be nothing to prevent him except possibly the toll.

Telephones and Zeppelins

Since the Zeppelins have taken to visiting England, most of the railroad companies have installed telephones in the railway signal towers. These have direct connection, each with the other, for miles along the tracks. A London "Special," whose duties keep him in the tower in his own district all day and sometimes night, says the signalmen prefer the telephone to the telegraph, which was used on all the roads until within the last few months. The hurried warning that has to be given when a Zeppelin is sighted is much preferred by telephone than by telegraph. The operators have little time to write these reports on pads, therefore the telephone is so popular.



LOCOMOTIVE SENDING STEAM INTO MANHOLE TO THAW CABLE LOOSE FROM CONDUIT



THAWING CABLE BY USE OF STEAM FROM LOCOMOTIVE



Safety First and Accident Prevention

Member National Safety Council



THE OBLIGATION OF A SAFETY MAN

I WILL BE CAREFUL AND WORK FOR SAFETY ALL THE TIME

I WILL EXTEND WORDS OF ADVICE TO THE NEWCOMER AND WARN THE MAN WHO IS CARELESS

I WILL DIRECT THE FOREMAN'S ATTENTION TO ANY UNSAFE OR CARELESS ACT WHICH IS COMMITTED

The trend of advancing civilization is to place greater responsibility on the individual and, in industrial circles, still greater responsibility upon the man for whom he is working. No longer is it considered satisfactory to complete a certain job *only*, but it is necessary to complete the job *efficiently* and *with safety* to those doing the work, safety both as it refers to accidents and as it refers to sanitary working conditions. In the large organizations, which are constantly increasing in number, this responsibility for the safe and efficient conduct of work *must* be largely placed on the man in *immediate charge*. It is a true saying that a good soldier must be provided with ammunition, and, as far as equipment and a place to work are concerned, we have been improving steadily, but the need has arisen not only to provide the ammunition but to provide closer and more intelligent supervision. The person in charge of the work, be the position called master workman, foreman, chief operator, supervisor, manager or superintendent, must not only see that those

and supervisors alike to demonstrate their fitness for advancement to more responsible positions. It is particularly important that em-

bility for the safety of our operations, must know their people and supervise their work so closely and so well that dangerous practices and dangerous conditions are foreseen and guarded against. Accident prevention cannot result from a routine. It will only come from careful instruction, careful demonstration and intelligent discipline. We will get all this if they, the supervisory employes, think more carefully about the work in hand.

Twenty years ago, or even less, accidents and disease resulting from the operation of industrial organizations were regretted but were thought to be unavoidable because of the nature of the particular work being done. To-day, the kinds of accidents and occupational diseases common then would not be tolerated. We have learned that they are unnecessary and that they can be prevented by the cooperation of the worker, the supervisor and the employer. The responsibility in these cases rests most heavily on the supervisory force, for, unless the members of this force are good disciplinarians




A Good Lodgeman


**Protects his brother.
Visits the sick.
Helps those in trouble.
Buries the dead.
Cares for widows and orphans.**

A Good Safety Man

**Safeguards his fellow workman.
Prevents sickness and death.
Saves men from trouble.
Reduces the number of funerals.
Lessens the number of widows and orphans.**

WHY?

Should not every good lodgeman be a booster for Safety

working under his direction are provided with material and equipment properly safeguarded, *but must see to it personally that the safety devices are used and that the work is conducted safely*. Thus an additional standard has been set up by which to gauge the efficiency of a supervisor and a new opportunity for workers

employes understand the work they are doing, that they know the right way, the safe and efficient way to do their work. They must also thoroughly understand the safety bulletins that are issued from time to time. Supervisory employes, that is, foremen and men in similar positions, who have such a large share in the responsi-

and do some real thinking on the job, the instructions of the employer are neglected and the employes, always keen to notice the attitude of their superior, quickly take advantage of the laxity, so that accidents and insanitary disease-breeding conditions are of frequent occurrence.

If an employe is injured many times, it

is pretty good evidence that he is careless, or incompetent, or both, and the number of accidents in a division of an organization is an indication whether or not the supervisors of that division are good, careful executives.

Burning Brush

Fire is truly a faithful servant but an awful master, and when we employ fire in our work we must be extremely careful that it does not become master of the situation.

Recently, in connection with a considerable amount of tree-trimming, it was necessary to dispose of the branches cut off quickly. For a day or two before, the men had been burning this brush in a ditch alongside the roadway, and on this day also, disregarding the high wind which was blowing, a fire was started. One of the men was instructed to watch the fire to see that it did not spread. Just what he was doing and what the other men in the gang were doing is not known, but suddenly it was noticed that the fire had spread to the long grass in the prairie and before it could be controlled about 200 feet of a fence surrounding a cemetery had been burned. As it was, it was only possible to put out the fire with the assistance of the entire gang, the local fire department and an employé of the cemetery.

Just where the blame may be placed is not the purpose of this article. It is sufficient to say that poor judgment was used in starting such a fire on a windy day and that, once started, the fire should have been more carefully watched. In all probability, on the preceding days there was considerably less wind and such a fire was reasonably safe, but had the foreman and his men been "safety" men, had they been on the job, they would have noticed the added danger from the high wind and governed their work accordingly.

We must take proper precautions whenever it is necessary to employ fire. This is not the first case of this kind which has occurred to our people, but we must all work together to make it the last. A repetition of such an occurrence would be inexcusable.

Phoney Bowling League Celebrates

On Saturday evening, May 13th, the Phoney Bowling League of Chicago held its first annual banquet and entertainment at the New Kaiserhof Hotel. The entertainment which followed a very delicious menu was described in the official program as an "Entertainment Par Excellence" and those present voted unanimously that the program had not overstated its merits.

It was a stag affair and about seventy of the members and their friends were present. The Bell Telephone Orchestra was there with bells on and a most delightful repertory, while the Misses Lillian Jones and Beulah Bair and Messrs. Harry Scott

and L. E. Goss contributed no little to the delights of the evening. Much credit is due for the success of the affair to the banquet and entertainment committee, composed of W. H. Welsh, chairman; J. M. MacLeod, E. A. Toman, R. F. Harrington and J. V. Dunne.

The Phoney Bowling League has just closed a very successful season, as those who have been following their scores will be able to appreciate. The officers of the League are: W. H. Welsh, president; G. J. Mahoney, vice president, and W. L. Higgins, secretary and treasurer.

The bright particular stars of the season were:

Henry Rank, High Game—224.

The Majestics, High Team—896.

The Whales, High Average—3 Games—793.3.

E. R. Broadbent, High Individual Average—3 Games—190.3.

Chicago Telephone Tennis Team

The Chicago Telephone Company's tennis team defeated the team of the Peoples Gas Light and Coke Company by a score of eight matches to one on Saturday, May 6th. This was the first game of the season in the Chicago Commercial Tennis League, an organization which comprises the Peoples Gas Light and Coke Company, the Commonwealth-Edison Company, Sears, Roebuck and Company, Western Electric Company and Chicago Telephone Company. The match with the Peoples Gas Company was played on that company's courts at Thirty-first and Halsted streets, and consisted of six singles and three double matches. The individual scores follow:

Singles

Hill, Tel. Co. defeated John, Gas Co., 6-3, 6-4.

Riddle, Tel. Co. defeated Buttner, Gas. Co., 6-1,

6-1.

McNeil, Tel. Co. defeated Jacobs, Gas. Co., 6-1,

6-2.

Dohm, Tel. Co. defeated Hessler, Gas. Co., 6-2,

7-5.

Chapman, Tel. Co. defeated Day, Gas. Co., 6-4,

6-1.

Riddel, Tel. Co. defeated Harper, Gas. Co., 6-3,

6-0.

Doubles

Hill & Dohm, Tel. Co. defeated Johnson & Heil,

Gas Co., 6-4, 6-2.

Chapman & McNeil, Tel. Co. defeated Hessler &

Day, Gas Co., 6-4, 6-4.

Harper & Buttner, Gas. Co. defeated Riddel &

Riddle, Tel. Co., 6-2, 6-1.

Wolcott Finally Ditched

J. W. Wolcott, the Porfirio Diaz of the Plant Department League of Chicago, has at length fallen a victim to a successful revolution.

When the club reorganized for the season a few days ago R. J. Dubach was elected president, displacing Mr. Wolcott, who had occupied the chair since the league was founded years ago.

We were not informed as to the details of the revolt, but the results were decisive. E. J. Cady was chosen secretary and I. W. Boylan "arbitrator," whatever that may be

—possibly to settle disputes about "strikes." (Help! Police!) A complete schedule was adopted providing for games every Saturday afternoon from May 13th to August 12th. Teams and managers follow: Harrison, I. W. Boylan; Oakland, H. L. Fisher; Main, V. E. Code; Hyde Park, E. J. Cady; Central Construction, D. C. Robertson; South Construction, Chas. Keniston; Wentworth, E. J. Leach; Nights, C. A. O'Connor.

Outlaw Bowling League

The Second Annual Banquet of the Outlaw Bowling League, composed of seventy members of the Suburban Division of the Chicago Telephone Company, was held on Tuesday evening, May 23rd, at the New Morrison Hotel.

Following the banquet at which several impromptu and interesting speeches were made and the permanent trophy, a large loving cup, was awarded to the Wreckers team, as champions of the League, the entire company adjourned to the Majestic Theater, where a very good performance was witnessed. The event proved to be a very enjoyable one.

The Wreckers team which finished in the first place in the League with a percentage of .667 is composed of the following members: F. Mitchell, Captain; J. M. Hanson, H. L. Berg, A. J. Olson, S. Rashman, B. F. Burns, R. S. Ardoff.

Suburbans Defeat Auditors

The Chicago Suburbans defeated the Auditing Saturday, May 20th, by the score of 9 to 8. Stockhausen's homer in the ninth after two were out broke up the game. Osborne did some heavy stick work, the old Suburban getting four hits out of five times at bat. Bjoin showed up well in the box.

Telephone for the Deaf

A telephone receiver no larger than a bean has been brought out and was recently tested by a scientific body in London. The little receiver, which was designed primarily as an aid to the deaf, can be slipped inside the ear. It is said to give out more sound than the ordinary receiver.—*Exchange.*

Western Electric Employees

The number of Western Electric Company employes April 1, 1916, was 20,773. This compares with 14,662 on the same date a year ago.

The Editor

If you see an editor who pleases everybody there will be a glass plate over his face, and he will not be standing up.—*Thomasville Times.*

Of Interest to Our Girls

Conducted by Mrs. F. E. Dewhurst

Vacations

Again vacations are the main topic and hints on good places for an outing are gladly received. The BELL TELEPHONE NEWS for several years has offered to pass along information from the girls in the five states who would volunteer to tell the other girls of desirable places which they

Send for application blanks and train schedules for yourself and friends to the Eleanor Association, Stevens Building, 16 North Wabash avenue (eighteenth floor), telephone Central 5589, Chicago, Ill.

The pictures on this page also give a glimpse of Sandy Beach, Mich. It is beautifully situated on the wooded bluffs of

A few weeks ago a great company was gathered at the funeral services for the traffic superintendent of the Chicago Telephone Company. Every seat in the church was filled and in that place were gathered together representatives of every department of the Chicago company, together with many from other companies and a



have found. We show pictures of two well tested summer camps.

Many of our girls have taken advantage of the Eleanor Camp and are enthusiastic over the place. This year there are even more advantages. The camp now occupies about twelve acres of a beautiful wooded tract of land with 490 feet frontage on the lovely shore of Lake Geneva. It was established as an inexpensive and accessible outing place for the young women in business. It is open to any self-supporting young woman of good character, whether a member of the Eleanor Clubs or not.

Steamer excursions on the lake, bathing, boating, fishing, tramping, tennis, archery, croquet, picnics in the woods, hayrack parties, evening bonfires, marshmallow roasts, dancing, "stunt parties," and indoor and outdoor games are some of the diversions of the camp life.

Camp guests may take the morning or afternoon trains via the Chicago and Northwestern, or Chicago, Milwaukee and St. Paul railroads, arriving in an hour and three-quarters at Williams Bay or Fontana. Boats meet the trains at these points and bring guests to the camp in time for dinner or supper. The camp is also within walking distance of the Williams Bay station.

VACATION FORECASTS.
The center photographs were taken at Eleanor Camp, on Lake Geneva. Those at the right and left are scenes at Sandy Beach, Dewey Lake, Michigan.

Dewey Lake, in the very heart of Michigan's famous fruit belt, with an elevation of over two hundred feet above Lake Michigan.

Dewey Lake is one of a group of six lakes, all adjacent to each other, located in Cass County, Mich., eight miles northwest of Dowagiac, and sixteen miles southeast of Benton Harbor, and is one and one-half miles long by one mile wide, with an extreme depth of eighty feet.

For particulars address F. E. Tarrant, 1232 West Van Buren street, Chicago, Ill.

Friendliness

I wonder if our girls realize what an essential friendliness is in business. We often speak of coöperation, but that is a dignified word and doesn't express as much to us as the simple word, friendliness. We all appreciate what it is to have the friendly spirit and if we have it we coöperate in the best way.

host of people who knew him outside of his business; many of whom had met him as subscribers and who had formed a lasting friendship through a business introduction. In

that large company there was not a person who did not feel that the loss was a personal one. The beautiful flowers that were massed in such profusion all about the altar attested to the feeling which so many had for Mr. Foster, but the tears in the eyes of hundreds of operators when they read upon the bulletin boards the news of the sudden going of their superintendent was the finest tribute which could be paid. It was the proof that he had carried the friendly spirit into his work and it had been recognized and appreciated. There were many, that day, who recalled special incidents when he had been so considerate of their welfare; so wise in his counsel and so sympathetic in their troubles.

Is it not possible to perpetuate this spirit and to make it the law of our lives? The operator has a splendid opportunity every day to be a helpful friend to hosts of unknown subscribers. Each connection she makes may be done with the friendly spirit

which may make work joy and not drudgery. Supervisors may feel themselves the friends of both operators and the public and their gracious ways will make friends for the company of the girls in their division and of the subscribers whom they serve. The chief operator who is the friend of the force is the one who gets the best they have to give and her relations to operators and managers can only be successful as she cooperates in this way.

The public has been trained now to expect courtesy, and the pleasant voice and the friendly tone which have been cultivated by the traffic training is producing a friendly response. The subscriber is being taught the advantages of being friendly. "The Voice with the Smile" is winning its way. The people who succeed in the world are the ones who are giving themselves to their work, for friendliness is really the offering of ourselves.

It is not because it is a good policy, although it surely is that, but it must go deeper than that; it must be the real spirit of our life, and come from hearts which beat with kindness and good will.

Oldest Operator Dies

MARY BEDEL, the oldest telephone operator in the state of Ohio, and probably in the United States, died recently. She was chief operator for the Citizens Telephone Company at Kilbourne, a small exchange in Ohio. She was seventy-six years old.

Miss Beddel was stricken with heart failure while at her board.

Forgetting

One often excuses himself in errors of omission on the ground that he "forgot it," but every one knows that before one can forget a thing he must first have remembered it, and the time to do a thing is before one forgets it.

Most things are remembered at least once, and one opportunity is sufficient; for this reason we cannot justly complain if any given opportunity comes but once in a lifetime. It is well to meet obligations as they are presented. Procrastination is forever robbing us of opportunities, and it is our business promptly to put an end to its rule.—*Sentinel*.

Heard Out West

Operator: "Number, please?"
Subscriber: "789-J."
Operator: "We have no such number. Who are you calling, please?"
Subscriber: "Mr. Ole Olson."
Operator: "Mr. Olson hasn't a telephone."
Subscriber: "Huh?"
Operator: "Mr. Olson hasn't a telephone."
Subscriber: "Huh?"
Operator (in despair): "Mr. Olson ain't got no telephone."
Swede Subscriber: "Tank you."—*Mountain States Monitor*.

—M

Brief News Notes from the Field

Items of Interest to Michigan Telephone Employees Gathered from All Parts of the Territory

Julius H. Moeller, Correspondent, Detroit

Organization Changes

C. N. Hardy, manager at Wyandotte for the last four years, became manager at Flint on May 8th, succeeding W. C. Benschoten, who has been granted a leave of absence.

Mr. Hardy is succeeded at Wyandotte by James S. Allen, formerly manager of the Chelsea exchange. Mr. Allen has been with the company since April 1, 1911, when he entered the plant department at Detroit. He was in charge at Chelsea during the last three years.

H. H. Darling has been appointed to fill the vacancy at Chelsea, made by the promotion of Mr. Allen. He was in the employ of the Western Electric Company at Jackson, Grand Rapids and Kalamazoo during 1909 and joined the forces of the Michigan State at Jackson as assistant wire chief in 1910, later being employed as installer, testman and then wire chief. Since October 1, 1915, Mr. Darling has been switchboard man at Ann Arbor.

Albert Hall, until recently manager at Rochester, has been transferred to Plymouth to take the place of J. M. Young, who has joined the plant department as noted elsewhere in this issue. Mr. Hall is succeeded at Rochester by Smith W. Reed, clerk to the construction foreman in Detroit.

Effective May 16th, John A. Holman assumed the position of acting manager at Ithaca, succeeding Guy Smith, resigned.

Charles F. Rich, who has been chief clerk to the commercial superintendent for the last five years, has been transferred to the traffic department where he will serve in the capacity of assistant traffic manager. He has been in the employ of the company about eight years.

Mr. Rich is succeeded as chief clerk by John F. Wardle, who has been his assistant during the last three years. Mr. Wardle has been with the company eight years, also.

Traffic Department Changes

Cletus Kennelly, recently connected with the traffic department of the Suburban Division of the Chicago Telephone Company, has been transferred to Detroit as a traffic supervisor to suc-



CHARLES F. RICH.

ceed H. V. Weed. Mr. Kennelly was formerly traffic chief in several of the larger Illinois towns in which the Central Union Telephone Company operates. Together with L. J. Walley, he will take care of the traffic supervisory work over the state. Mr. Weed has been transferred to the staff of the traffic engineer.

Mr. Bradshaw, traffic superintendent, has reorganized his office force to a certain extent. He has appointed C. A. Kramer chief clerk. Mr. Kramer was formerly a Detroit service inspector, working under Mr. Glass.

E. C. Laskey, traffic chief in the Main and Cherry offices, has been appointed traffic chief for the entire Detroit district.



CLETUS KENNELLY.



JOHN F. WARDLE.

Interesting Traffic Meeting

Chief operators, traffic supervisors and others connected with the office of the traffic superintendent enjoyed a pleasant and profitable time at the Statler Hotel Thursday evening, April 27th. A splendid dinner was served. A program of speeches followed in which the subject of "Service" received the greater part of the attention of the speakers.

J. W. Bradshaw, traffic superintendent, took the rôle of toastmaster and master of ceremonies, executing his duties as such in so clever a manner that he established a reputation for himself. In a short address preceding the introduction of the other speakers, Mr. Bradshaw put in a plea for the new operators and other employes, urging that a spirit of mutual helpfulness be made the rule, thereby assisting the newcomer to become more readily at home in the strange surroundings. He proved himself an advocate of "the winning smile" in urging all to cultivate a pleasant and cheerful manner at the office.

General Manager G. M. Welch voiced a similar sentiment and branched out on the relation of employes to the public. He believes thoroughly that courtesy and a disposition to serve are essential in meeting the public and urged employes so to act that they will win the good-will of the people with whom they come in contact.

Banquet at Saginaw

Coöperation and the development of business through the medium of the organization of employes from the humblest workman to the chief officials was the keynote of a banquet tendered to the organization from Bay City and Saginaw and the management from Flint by District Manager H. R. Mason, of the Michigan State Telephone Company at the Hotel Vincent Thursday evening, May 18th. Covers were laid for seventy. Mr. Mason acted as the toastmaster for an evening of informal addresses which followed the

serving of a fine dinner at seven o'clock.

The gathering of telephone men saw on the moving picture screen excellent pictures of the laying of the submarine cable at Bristol street a few months ago. This is one of the achievements of the company in its working operations. Pictures were also shown of the work on the trans-continental line.

A. J. Peckham, commercial superintendent; J. W. Bradshaw, traffic superintendent, and C. G. Sharpe, plant superintendent, all of the Detroit office, were present. Toastmaster Mason sounded the spirit of the gathering in his talk on "Coöperation of employes with the company." He told of the remarkable growth of the business in the Saginaw District. Mr. Sharp talked on organization and urged safety first in telephone work as a preventive for accidents. He also alluded to the shortage of materials at this time. Mr. Bradshaw discussed traffic matters and miscellaneous subjects. Mr. Peckham's remarks were confined to the commercial end of the telephone business.

Discipline and Reward

SAVING money is discipline. But more than that, it is one of the greatest rewards of discipline. Few things which require as little sacrifice bring such definite gain.

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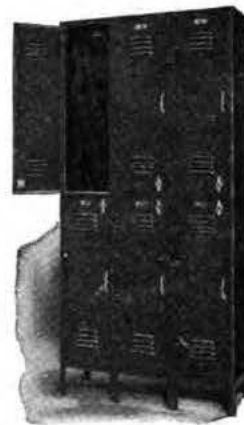
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Charles Chandler, plant chief at Saginaw; M. L. Saunders, manager at Bay City; John Stubler, foreman at Saginaw and the veteran employé of the exchange, with a record of twenty-nine years of service, and H. E. Fitzhugh, foreman at Bay City, also spoke briefly.

"Honorary waitresses" were: Beatrice Thomson, Florence W. Henny, Erna Landskroener and Helen Wallace, employés of the district office. Commenting on their presence, Mr. Bradshaw said: "The presence of the ladies makes me feel more at home," and thereby he voiced the sentiment of the entire gathering.

Changes in Plant Department

Ray V. Hurlbut, plant supervisor, has been placed in charge of exchange maintenance and will be responsible for the inspection and supervision of this branch of the service, according to a circular recently issued by C. G. Sharpe, plant superintendent. He will be assisted by J. M. Young, formerly manager at Plymouth, and S. N. Gregorie, formerly a Detroit inspector. They will investigate exchange conditions, study maintenance methods and plant routines, under the direction of Mr. Hurlbut. Special attention is to be given to the building up of the plant force in the various exchanges.

Mr. Hurlbut's long experience in maintenance work makes him especially well qualified for his new position. Mr. Hurlbut hails from Minneapolis, where he was formerly in the employ of the Northwestern Telephone Exchange Company. He came to Detroit in 1910 as an installation and maintenance inspector. Later he served as plant supervisor, district equipment foreman for the Eastern district and then Detroit plant chief during the consolidation of the Bell and Home companies in Detroit. Following the reorganization effected early in 1914, he became plant supervisor.

Connecting Company News

The Citizens' Telephone Company of Howard City has signed a contract to connect with the Michigan State.

The Ontonagon Telephone Company, which operates in the copper district, reports great improvement in business conditions over a year ago.

W. J. Moore, who operates the telephone exchange at Caro, has ordered a new common-battery switchboard from the Western Electric Company and it will be installed in the near future.



MABEL PARRISH.

Mabel Parrish entered the telephone field in 1901. Starting with the Citizens Company at Traverse City as a local operator she continued until 1906, then entered the employ of the Michigan State Telephone Company as a toll operator at Kalamazoo. She was transferred to Traverse City as a toll operator in 1907 and was still in this position when the Grand Rapids office sent out a call for additional toll operators in 1910 and she was transferred to that place. She came back to Traverse City in 1911 as acting chief operator. In 1912 she was transferred to Kalkaska as chief operator and in 1913 to Petoskey in the same capacity.

Miss Parrish was recently appointed traffic chief for the Petoskey district.

The Livingston County Mutual Telephone Company, which operates in practically all of Livingston county, outside of Howell, is preparing to develop the territory to its fullest extent. The campaign is made possible by a change in the plan of operation.

Charles F. Halsey, who operates the telephone exchange at Warren, Macomb county, has signed a new connecting company contract which supercedes the old contract of rural form.

The Anchor Bay Telephone Company, of New Baltimore, has recently incorporated. F. E. Andrews is president and R. Friday general manager and secretary.

The Lenawee County Telephone Company recently completed a cut-over into a new common-battery switchboard at Hudson. The new equipment, together with the new office built at Hudson last year, gives that town one of the finest telephone plants of any place of its size in the country. The company reports excellent business conditions at all of its exchanges.

The Southern Michigan Telephone Company is showing a nice increase in business from month to month.

New toll lines are being built from Dowagiac west to Eau Claire and from Grand Rapids to Saginaw.

Preparations for Annual Picnic

All abroad for Bob Lo! Write Saturday, July 22d, down in your note book or in some other place where you will not forget it. That is the date of the annual telephone picnic which is to be the biggest and best ever had. The boats have been chartered and arrangements are being made to give the Detroit employés the very best time they have ever had at any telephone picnic or at any other picnic, for that matter. There is no doubt about that, for Mr. Glass says so and he is the generalissimo of the occasion.

If you have ever been on a telephone picnic before, you may think you know just what to expect; but as a matter of fact, you don't know a thing about it. The same Mr. Glass, heretofore and hereafter mentioned, declares that it is going to be different this year and so far superior to anything else that the Detroit employés have ever pulled off that comparisons will be odious. He claims to have something up his sleeve which he will not allow the News even to intimate till the next issue appears, a few days in advance of the big event.

The annual outing is going to be held on Saturday so that the greatest possible number of employés will be able to attend. All departments are working to make the occasion a grand success. No one is to be "docked" even a cent if he takes a day off to join in the fun. Those who don't



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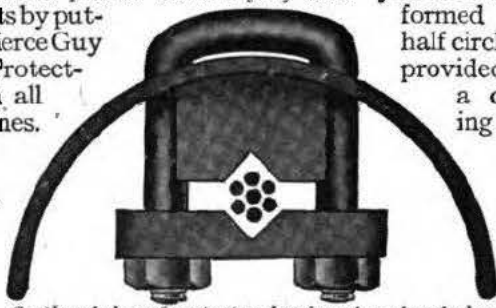
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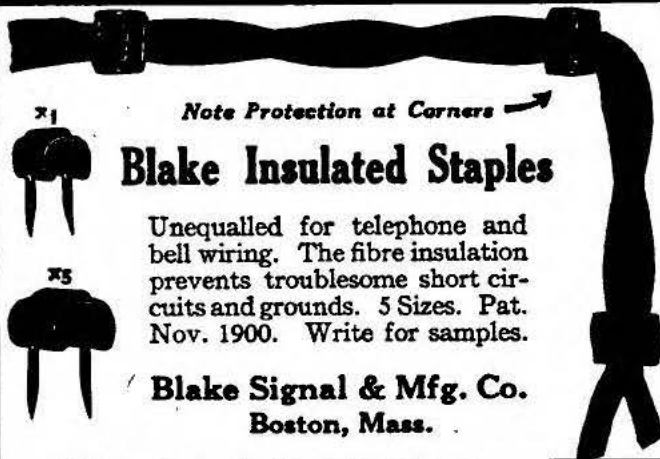
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go will suffer the penalty, self inflicted, of missing a jolly, good time. The palatial steamers *Columbia* and *Ste. Claire* will take the telephone crowd to the popular down-river resort. The *Columbia* will make the trip in the morning and the *Ste. Claire* will take those who cannot get away before afternoon. Mr. Glass vouches for the statement that there will be plenty of music aboard to satisfy those who simply cannot keep their feet still and besides, there will be a fine cararet performance. Further than that, he will not declare himself till the next issue.

The committee on arrangements, consisting of Mr. Glass, guarantees a lively session at the island. There is to be a program of sports, with elegant prizes for successful competitors in the various events, which is to crowd the hours spent at Bob Lo full of fun. Mr. Glass hereby issues a challenge to run any other fat man a mile race as one of the headline events. The diamond has been secured for the day and baseball games will be in order both morning and afternoon. At noon, all employes are to gather as one big family for a basket lunch. It is planned to have a common spread made of all lunches and for all to brush elbows during the midday repast, fraternizing as only employes can who share a common loyalty such as is found in Bell organizations.

If the plans do not go awry, there will be a short entertainment following lunch. General Manager Welch has promised to make a determined effort to induce some of the officials of the company from Chicago to attend and if he succeeds, a few remarks, suitable to the occasion, may be looked for from them.

Judging from the hearty coöperation that is promised from all departments and from the attractive features that are being planned, which certainly ought to have tremendous drawing power, there will be between 1,000 and 1,500 in attendance at this 1916 jollification of Bell employes in Detroit.

From now on and until you set foot aboard the *Columbia* or *Ste. Claire* on the eventful day, let your slogan be "Meet Me at Bob Lo, Saturday, July 22d."

A Spring Zephyr

A frolicsome breeze, which reached a velocity of sixty-three miles an hour, swept over the entire Marquette and Menominee Districts and portions of the Soo and Petoskey Districts May 8th. The continued force of the wind at this velocity produced conditions briefly described in the following paragraphs:

Between Houghton and Nestoria, all toll lines were out of service as a result of falling trees which broke through the lines at eight different places. No poles were broken, however, at any of these places and all circuits were restored to service at noon on May 9th.

The lines between Nestoria and Marquette also suffered many breaks due to falling trees and in this section there were ten poles broken off three miles west of Marquette. These poles were restored within three hours after the report reached the Marquette exchange and all breaks were repaired through to Nestoria at noon, May 9th. Leased wire service from Chicago to Houghton and Calumet was restored at this time, both leases being routed via Menominee and Marquette.

All toll lines were also put out of commission between Nestoria and Ironwood and although only one pole has been reported broken in this 100-mile stretch of toll lead, it is estimated that there were 100 distinct breaks caused by falling trees. These breaks are confined within a distance of thirty-nine miles between Thomaston and Lake Gogebic where the land is quite swampy. All circuits were clear by noon May 12th.

In the Menominee District between Iron Mountain and Crystal Falls, falling trees were the cause of three different breaks in all circuits, and the breaking of ten poles. Also between Crystal Falls and Iron River three circuits were out of service from the same cause. The Iron Mountain-Republic circuit was still out on May 13th on account of trees but being covered as

rapidly as possible. Twenty-four trees fell across the Menominee-Marquette lead between Brampton and Beaver, a distance of three miles, taking down all circuits and breaking ten poles. Two breaks were found between Escanaba and Manistique and two on the lead from Escanaba to Metropolitan and Whitney, both due to trees. Five poles were broken off between Powers and Wallace. All poles have been restored and service reestablished on all circuits except as noted above.

In the Soo District between Trout Lake and Manistique, ten trees put out three circuits.

In the Petoskey District, fifteen poles were broken off; seven of these were on the Petoskey-Traverse City lead and six between Boyne Falls and Elmira on the Swaverly lead. All were restored at 5:30 p. m., May 9th. Three breaks on the Petoskey-Mackinaw City lead were caused by falling trees and one on the Petoskey-Reed City lead by the same cause. There were in all, twenty-six cases of toll circuit trouble due to the wind in this district and these cases have been cleared.

The exchange and farm line troubles were also unusually heavy in the wind swept area.

Severe electrical storms followed in the wake of the wind and caused an additional number of troubles which demanded a considerable part of the time of the local forces. In the Petoskey district alone, the troubles caused by lightning and not included in the foregoing list, numbered 252. Almost all these were either blown fuses or grounded carbons.

Girl's Social Club, Detroit

The progressive peanut party held by the Girls' Social Club Friday evening, May 12th, was an unqualified success. "Pinning the tail on the donkey" afforded a lot of fun and brought about that free and hearty spirit of good fellowship that the club strives to cultivate. Prizes for the games were awarded to Anna Schoenemann, Lillian Weigert, Kareta Mackey and Marion Evans. Again the accounting department claimed the honors. The "fern raffle" was a splendid financial success, exceeding expectations. Mrs. Myrtle Fulmer, of the plant department, was the winner. The club accepted with regret the resignation of Estella McGraw as president. The girls are all very sorry to lose her. A vote was taken and Effie M. Brown was chosen for the office. May Finan was elected to succeed Miss Brown as treasurer.

Costume Party at Grand Rapids

Monday evening, May 8th, about forty girls from the Main and South offices entertained with a costume party in compliment to Edna Schmidt, whose marriage to Louis Bauman took place the latter part of the month. Many clever and comic gowns were worn. Armina Gibbs in her great grandmother's wedding dress and bonnet was awarded first prize. Ellen Reagan won the prize for the "funniest" dress, while Evangeline Snowflake, in a brocaded old rose gown of the civil war period was the center of attraction. The evening feature was a grand march led by Miss Schmidt and Mary Verdonk. The former was gowned in an old fashioned bridal costume, while Miss Verdonk was clad in a Dutch General's uniform, a "Family Heirloom." Esther Lofquist sang a number of solos in her inimitable style. Refreshments were served, after which the bride-elect was presented with a beautiful Haviland china tea set.

Detroit Girl's Will "Hike"

The Cherry B operators, under the direction of Grace Meyerells, have organized a club to take long hikes once a week during the spring and summer months. About twenty-five girls have joined to date. They gather every Monday afternoon and walk several miles, taking the street car back into the city.

Letter of Appreciation

Appreciation of the service rendered the Detroit Reduction Works, at French Landing, during a fire May 5th, is expressed by the following letter:

"French Landing, Mich, May 7, 1916.

Mr. Baker, Mgr.
Michigan State Telephone Co.,
Ypsilanti, Mich.,

Dear Sir: I desire to thank you in the name of the Detroit Reduction Company for the excellent service rendered us by your exchange operator at Belleville, last Friday during the trying time we had at this plant fighting fire and also getting in communication with officials of this company, etc. Your operator I must say certainly put forward every effort on her part to aid us to her utmost.

I also desire to say that your Ypsilanti exchange (or Long Distance) gave us the same service, for which we are very grateful.

Thanking you again, I remain, yours very truly,
(Signed) FRED W. CUMMINGS, Manager."

Party at Benton Harbor

The "Blue Bells," a social, literary and musical organization, composed of employes of the Benton Harbor traffic department, gave a very successful party in the rest room Saturday, April 29th. Through the ingenuity of the Misses Snape, Branch and N. Horan the room presented a gala appearance. The girls used daffodils, chrysanthemums, Japanese parasols and lanterns to splendid advantage in decorating. The early part of the evening was devoted to dancing and Victrola music after which a debate on "Woman's Suffrage" was participated in by Catherine Hilliard "affirmative" and Emma May Becker "negative." The speeches of the young debaters were ably given, but no verdict rendered, the consensus of opinion being that women should and will be given the ballot. After the debate a repast of chop suey and rice was served. Much to the surprise and delight of the guests the refreshments committee appeared in costume. Misses Stein, M. Horan and Anna Murphy appeared as dainty Nipponese maids and the Misses Wilson and Freeman represented the sterner sex of the far east.

Detroit Surprise Party

The first A section of East office gave a surprise party on their supervisor, Edna McCarmick on the evening of April 25, to show their appreciation of the way she has helped them along during the past month. They gave her a large bouquet of flowers. Games were played at which Miss G. Young, Miss R. Roe, Miss M. Decker, Miss E. Krüger and Miss Phillips won prizes. Miss M. Decker of Cedar and Miss I. Hayes were invited guests. A luncheon was served, after which the girls danced.

A very pleasant surprise was given on Miss M. Simpson, supervisor of Hickory office. The girls presented her with a beautiful bouquet of flowers. Games were played and prizes were won by Misses L. Fisher, M. Renslow, L. Parmetter, M. Stotz, M. Thiel and M. Hensbach. Seventy operators were present and all enjoyed a good time. Miss I. Hayes was guest of the afternoon.

Dinner Party at West

On the afternoon of April 25th the evening girls of the West office gave a dinner party in the retiring rooms. An outdoor party had been planned but on account of the rainy weather the girls had to have the party inside. Many games were played and the most enjoyable was a peanut hunt in which G. Horan won the first prize. The refreshments were the feature of the afternoon and after the lunch the girls spent the rest of the time enjoying the beautiful boxes of candy presented by the day chief operator. The evening chief operator was presented with a beautiful corsage bouquet of roses and lilies of the valley and the party wound up with a peanut shower.

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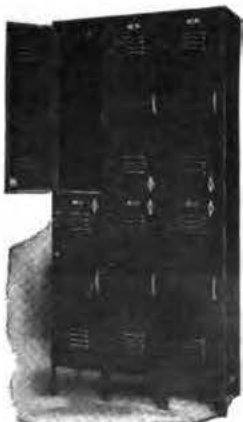


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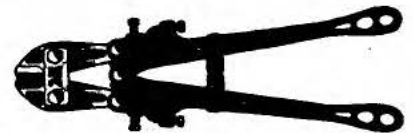
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ALSO FOR SALE BY
Western Electric Company Ltd.
New York and Branches

Patented No. 35
Quart

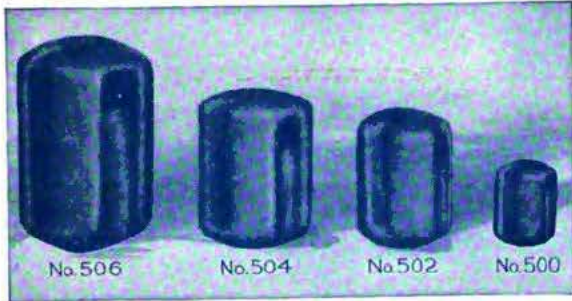
GEORGE WASHINGTON
Didn't Tell Lies

Neither do we when we say that our No. 35 is the best kerosene torch on the market. It is fitted with our PATENTED "Snail" burner which can be cleaned very easily, also our PATENTED "Never Leak" pump. With these improvements, this torch cannot be beat as a practical article. TRY SOME AND CONVINCE YOURSELF.

Catalog free on request.

OTTO BERNZ,
NEWARK, NEW JERSEY

ADVERTISING
in the
**Bell Telephone
News**
**BRINGS
RESULTS**



Thomas Guy Strain Insulators

The severe service to which guy strain insulators are subjected requires the best. Thomas guy strain insulators have been giving satisfaction for many years.

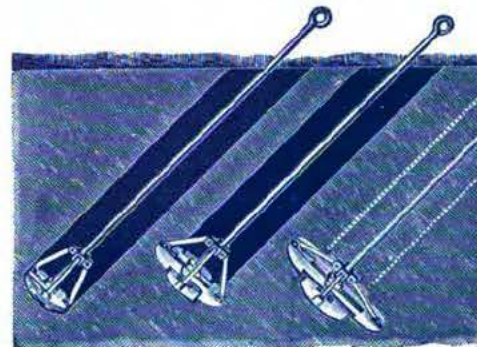
Manufactured by
The R. Thomas & Sons Co.
EAST LIVERPOOL, OHIO

Distributed by
Western Electric Company
INCORPORATED
Offices in all principal cities.

EVERSTICK ANCHORS

are used by every Bell Telephone Co. in the United States except one. We feel this one has made a mistake. Lighting Companies and Electric Railway Companies not using Everstick Anchors have also made a like mistake, for there is but one best Anchor.

THE EVERSTICK ANCHOR CO.
ST. LOUIS, MO.



1 2 3
Fig. 1—Represents Anchor Placed at bottom of hole.
Fig. 2—Partially Expanded. Fig. 3—Fully Expanded.

The Pittsburgh Shovel Company PITTSBURGH, PA.

Manufacturers of

SHOVELS SPADES SCOOPS

All Styles for Every Class of Work. Our
High Grades Fully Warranted.

**Telegraph Shovels and Spoons
a Distinctive Specialty**

WRITE FOR PRICES

Suite 1832 Oliver Building, PITTSBURGH

"DIAMOND X" Expansion Shield for Lag Screws Equal Results at Lower Cost

REDUCES

Original Cost of the Expansion Bolt
Diameter of hole to be drilled
Cost of drilling
Time required to install
Your total cost of making attachment



Screw enters
shield on center

Screw emerges at
side and contacts
directly with wall

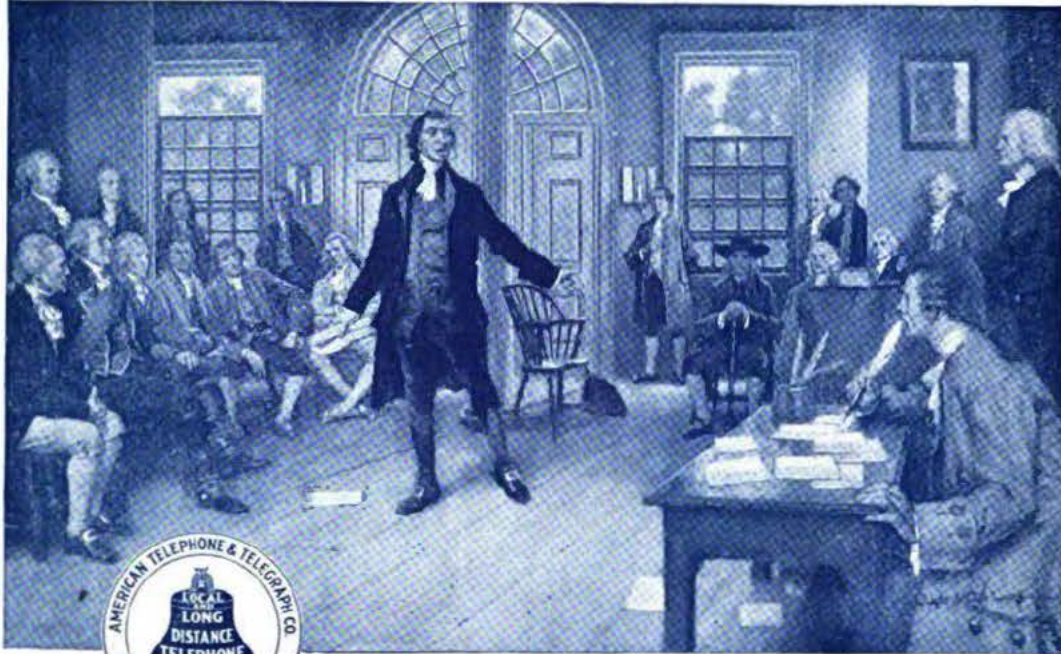
This new expansion shield is designed for heavy work. Its simplicity, being composed of but one single unit, will recommend itself to telephone engineers for construction work requiring attachment of equipment to stone, brick or concrete buildings.

Its principle of operation is the most radical development in expansion bolt design. The screw contacts on one side directly with the hole in the wall. The enormous displacement of metal at the further end is what gives it its powerful expansion at the inner end.

SEND FOR SAMPLE

Diamond Expansion Bolt Co.

Manufacturers of Diamond Specialties 90 West St., Cor. Cedar, New York



Patrick Henry Addressing the First Continental Congress, Philadelphia, 1774



One Nation; One People

WHEN Patrick Henry declared that oppression had effaced the boundaries of the several colonies, he voiced the spirit of the First Continental Congress.

In the crisis, the colonies were willing to unite for their common safety, but at that time the people could not immediately act as a whole because it took so long for news to travel from colony to colony.

The early handicaps of distance and delay were greatly reduced and direct communication was established between communities with the coming of the railroads and the telegraph. They connected places. The telephone connects persons irrespective of place. The telephone system has provided the means of individual

communication which brings into one national family, so to speak, the whole people.

Country wide in its scope, the Bell System carries the spoken word from person to person anywhere, annihilating both time and distance.

The people have become so absolutely unified by means of the facilities for transportation and communication that in any crisis they can decide as a united people and act simultaneously, wherever the location of the seat of government.

In the early days, the capital was moved from place to place because of sectional rivalry, but today Independence Hall is a symbol of union, revered alike in Philadelphia and the most distant American city.

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

One Policy

One System

Universal Service