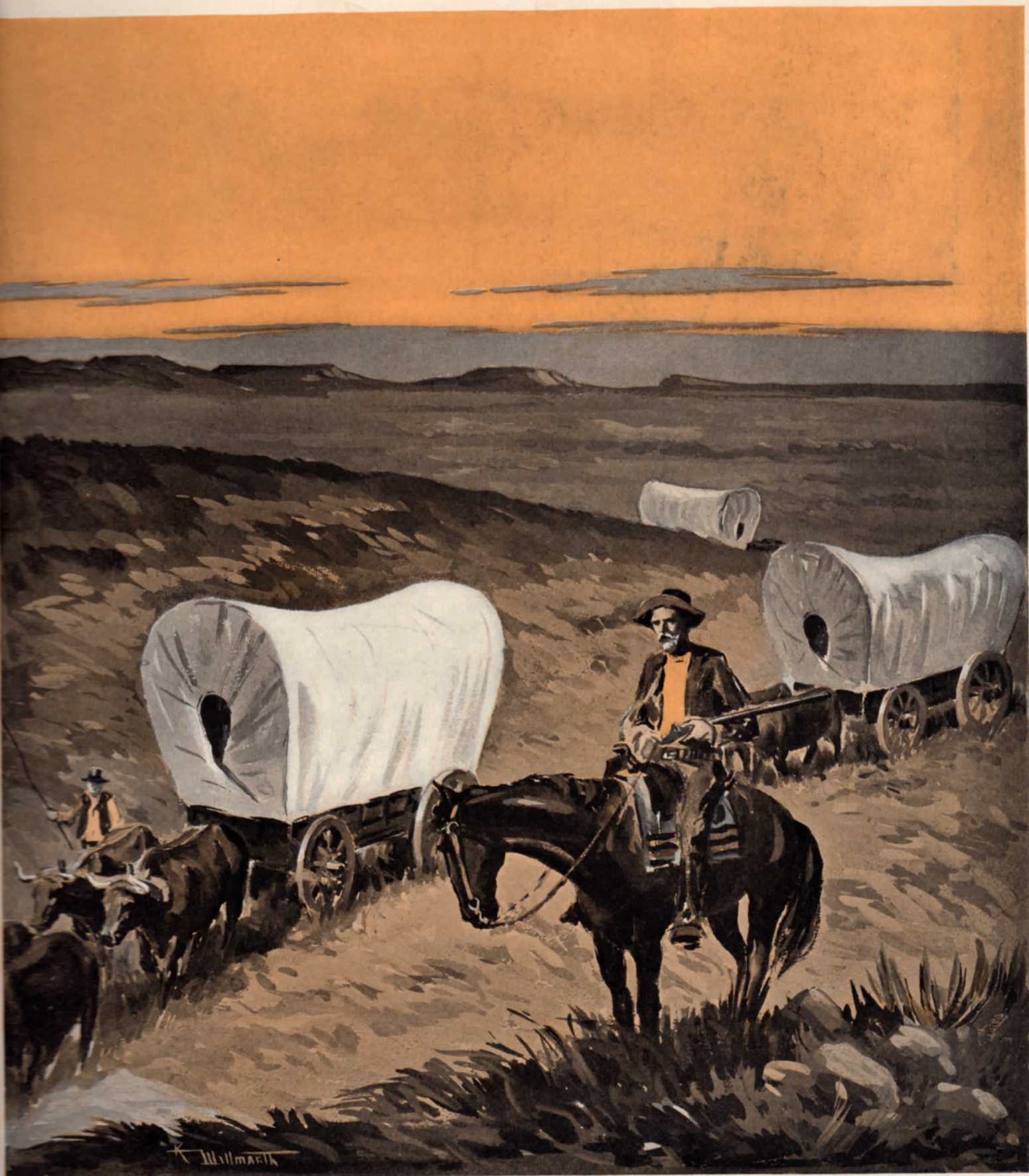
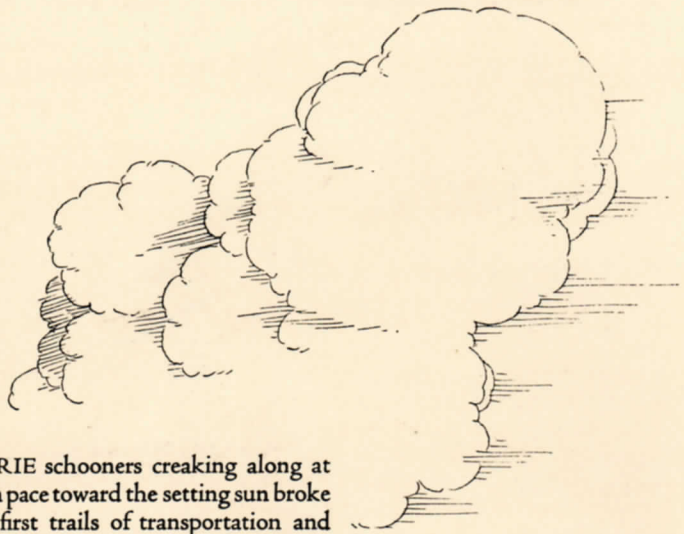


The Northwestern Bell



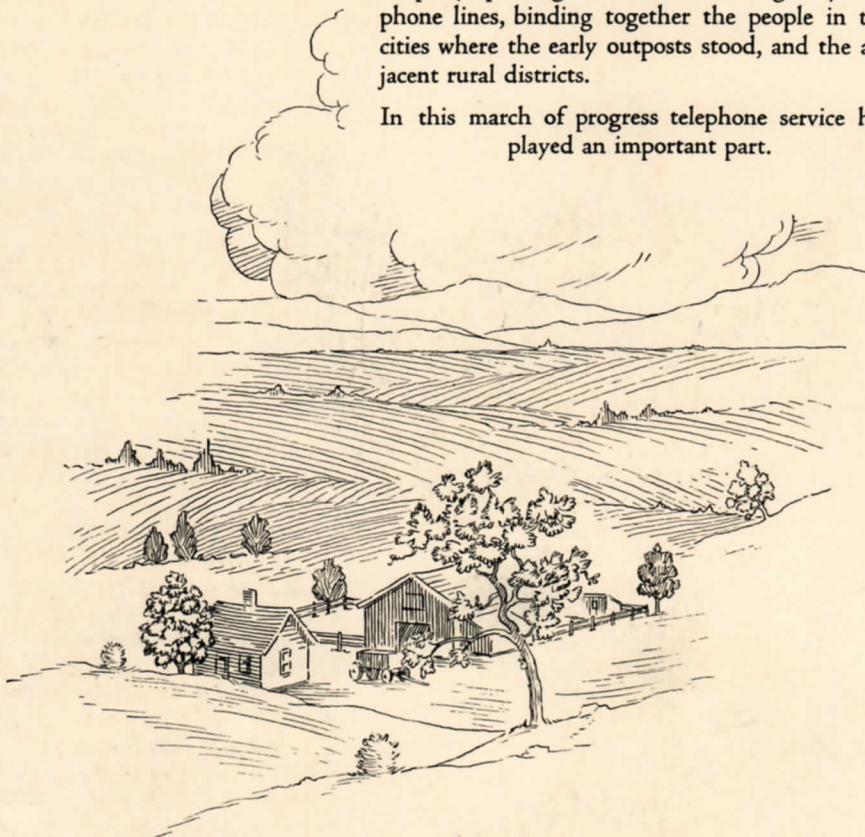


PRAIRIE schooners creaking along at oxen pace toward the setting sun broke the first trails of transportation and communication into the territory now served by our Company. They traveled in groups for companionship and protection.

Here and there along the westward trails these pioneer families would end their journey and build homes. Thus the outposts grew into settlements, the settlements into villages, the villages finally were grouped in territories, and charters were issued making them states.

Many of these famous old trails still span the states of Iowa, Minnesota, Nebraska, North Dakota and South Dakota. But they are broad highways now, swept by speeding motor cars and fringed by telephone lines, binding together the people in the cities where the early outposts stood, and the adjacent rural districts.

In this march of progress telephone service has played an important part.



The Northwestern Bell

A Monthly Magazine Issued by and for Employees of the Northwestern Bell Telephone Company

VOLUME VIII

OMAHA, NEBRASKA, AUGUST 1, 1927

NUMBER 8

Uncle Sam Has 61 Out of 100

Minneapolis and Omaha, Together, Have as Many Telephones as All of Russia,
According to Latest Statistics of the World

ALL of Russia, with 140,000,000 people, has about as many telephones as the total of Minneapolis and Omaha, according to telephone figures for the world which have just been compiled. It has taken some time to obtain authoritative data from the more distant countries and so the most recent date for which comparable figures are available is January 1, 1926.

In the list of representative cities of more than 200,000 population, San Francisco stands first in number of telephones per 100 population; Stockholm, Sweden, is second on the list, and Omaha is close to the Swedish capital in development.

Out of a total of 27,783,963 telephones in the entire world, the United States possessed considerably more than half. There were on the date mentioned 16,935,918 telephones in this country, or 61 percent of the world's total.

The number of telephones in Europe on the same date was 7,479,690, or 27 percent of the world's total, the remaining 12 percent being scattered over the globe in Asia, Africa, Oceania, South America and countries in North America outside of the United States.

During the year 1925 the number of telephones in the world increased by 1,727,465, or over 6 percent, a remarkable growth when it is remembered that there were only about 1,700,000 telephones in the whole world at the beginning of the century.

It is interesting to note that out of 19,389,360 telephones operated by private companies throughout the world, 16,935,918 were in the United States, and that the number of telephones per 100 population in this country is markedly greater than that in Europe. In the United States there were 14.8 telephones per 100 population, as compared with only 1.5 telephones per 100 population in Europe, where over 88 percent of the telephones were under government ownership and operation.

THE only country approaching the United States in the matter of telephone development was Canada, which on January 1, 1926, had 12.2 telephones per 100 of its inhabitants. Denmark and New Zealand followed with 9.2, Sweden with 7.2, Norway with 6.3 and Australia with 6.1. Germany ranks next to the United States in absolute number of telephones, having 2,588,016, but had only 4.1 telephones per 100 inhabitants. In Great Britain and northern Ireland there were 3.0 telephones per 100 population, while France had 1.8 telephones for every 100 persons.

In South America, Argentina led in development, having 1.9 telephones per 100 population. The telephone development of South America as a whole was only one-third that of Europe, which in turn was barely more than one-tenth that of the United States. In Asia the majority of telephones were in Japan, which had 1.1 telephones per 100 inhabitants.

A notable feature of American telephone development is the large number of telephones to be found in the smaller towns and rural districts. In communities under 50,000 population in the United States there were 11.7 telephones per 100 inhabitants, which indicates a development for smaller places in America greater than the total telephone development of any country except Canada. In Europe, rural development is almost negligible.

Telephones in the chief European countries are concentrated in the larger cities. London had more than one-third of the total

number of telephones in Great Britain. Paris, though it had only 255,561 telephones, also had more than one-third of all the telephones in France. In Germany, though telephones are more widely distributed throughout the country than in either Great Britain or France, they are still largely concentrated in the biggest cities.

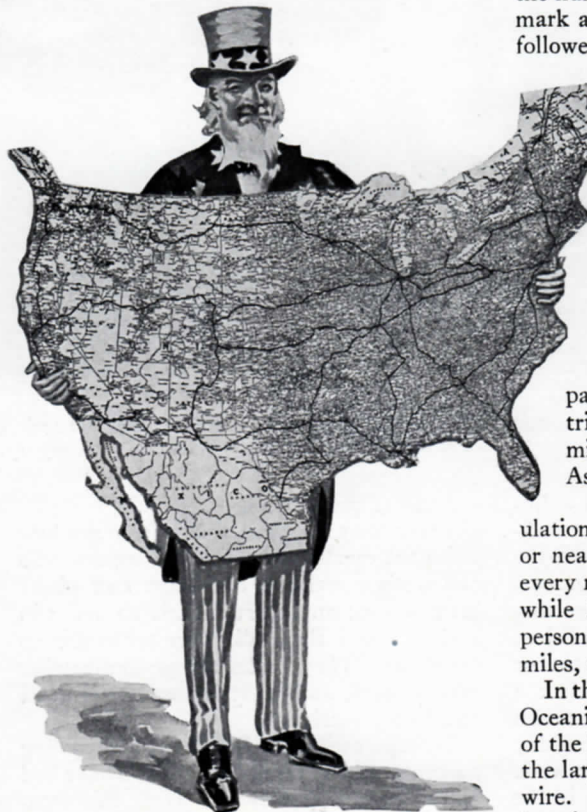
New York City had in actual numbers more telephones than the whole of Great Britain and northern Ireland. Chicago had more telephones than all of France. San Francisco had more telephones than Italy.

NOT only has the United States more telephones than all the rest of the world put together, but Americans use the telephone oftener than the inhabitants of any other country. There were 196 telephone conversations per capita in this country in 1925, as compared with only 32 conversations per capita in Germany, though that country ranked second to the United States as regards the number of telephones in service. Denmark averaged 135 conversations per capita, followed by Norway with 107 and Sweden with 106 conversations per capita. Japan, with 33 conversations, outranked Great Britain and France with 25 and 20 conversations per capita, respectively. There were in the United States during 1925 twenty-two billion, four hundred million completed conversations—equivalent to one every second for over seven hundred years.

In miles of wire, the United States had 52,200,000 miles compared with 23,835,582 in European countries. South America had only a few miles over a million miles of wire, while Asia had 2,632,525 miles.

Figured in miles of wire per 100 population, the United States had 45.5 miles, or nearly half a mile of telephone wire for every man, woman and child in the country, while Europe had only 4.7 miles per 100 persons; South America, 1.4 miles; Asia, 0.3 miles, and Africa, 0.4 miles.

In the group of nations of the world appears Oceania, consisting of the numerous islands of the Pacific and Indian oceans. Australia, the largest, has 1,526,699 miles of telephone wire. The Hawaiian Islands, where American influence has been felt for a long time, has fairly high telephone development with 58,221 miles of telephone wire and a total number of 18,804 telephone stations.



Uncle Sam with a map of his country, black with the network of myriads of long distance telephone lines. The transcontinental lines are shown by heavy, dark lines.

Here Are Answers to Your Questions

WHAT is the limit of the number of shares of A.T. and T. Company stock for which employees may subscribe on the employees' stock subscription plan?

Answer: Employees having service records of six months' continuous service are entitled to subscribe for one share of stock for each \$300 or fraction thereof of their annual salary. Thus the employee earning \$100 a month has an annual salary of \$1,200 and is entitled to subscribe for four shares of stock. Should his monthly pay be increased \$5, an annual addition of \$60, this fractional part of \$300 annual salary would permit him to subscribe for a fifth share of stock.

Following are examples showing the number of shares of stock to which employees are entitled to subscribe, according to their salaries:

Annual Rate	Monthly Rate	Number of Shares
\$600	\$50	2
\$ 601—\$ 900	\$ 51—\$ 75	3
901— 1,200	76— 100	4
1,201— 1,500	101— 125	5
1,501— 1,800	126— 150	6
1,801— 2,100	151— 175	7
2,101— 2,400	176— 200	8

Weekly Rate	Number of Shares
\$ 8 to \$11, inclusive	2
12 to 17, inclusive	3
18 to 23, inclusive	4
24 to 28, inclusive	5
29 to 34, inclusive	6
35 to 40, inclusive	7
41 to 46, inclusive	8

WHAT is meant by "mileage charge" for city service?

Answer: For each exchange there is an area, usually including all of the continuously built up section and known as the base rate area, within which all classes of service, except rural, are furnished to any point at the quoted rates. This is sometimes spoken of as "city service" differentiating from "rural service" which is generally furnished outside of the base rate area. "City service" may, however, be furnished to subscribers outside of the base rate area at the quoted rates plus a charge for that portion of the circuit between the boundary of the base rate area and the location of the telephone. This is known as a "mileage charge."

WHY doesn't the telephone company have a manager in each town in which our Company operates?

Answer: The telephone company has many small exchanges having comparatively few telephones. Consequently the revenues derived in such exchanges are correspondingly small. If the Company should have a manager in each of such exchanges, it would in many, if not every instance, result in higher rates being required for service. This obviously would be burdensome to our subscribers and unnecessarily so when they can be served satisfactorily by a less expensive organization.

In those exchanges where the Company does not have a manager, the ordinary day-to-day business transactions are taken care

of by the chief operator or agent who is in charge of the office. Matters not of ordinary occurrence are handled with the assistance and advice of a manager of a nearby exchange.

CAN extension stations be located outside the building housing the main station? If this is possible, is there a special rate for this?

Answer: Extension stations are permitted



Bancroft Gherardi

THE American Institute of Electrical Engineers recently elected Bancroft Gherardi, vice president and chief engineer of the American Telephone and Telegraph Company, as president. The organization, regarded as the leading one of the country, has a membership of nearly 20,000. Mr. Gherardi also was one of the principal speakers at the 50th annual convention of the National Electric Light Association in Atlantic City in June.

Associated with Mr. Gherardi in the institute of engineers is Carroll O. Bickelhaupt, vice president of the Southern Bell, who was elected a vice president by the engineers. Mr. Bickelhaupt is a son of W. G. Bickelhaupt, president of the Dakota Central Telephone Company, and began his telephone career with that company in Aberdeen, So. Dak.

under certain conditions, as outlined in the tariffs, outside the building in which the main station is located, if on the same premises.

The regular excess mileage rate applies to that part of the circuit outside of the building housing the main station which connects the extension to the main telephone.

WHEN the toll traffic to certain cities is unusually great for some reason at some particular time, does the telephone company ever put a time limit on toll calls to that city?

Answer: A time limit on conversations over certain long distance lines and to or

from particular cities is occasionally placed where necessary.

As a rule long distance facilities are adequate for ordinary peak loads or heavy traffic, but occasionally in times of storm trouble or emergencies it becomes necessary to either delay the calls placed during that period for a specified or indefinite length of time or to place a certain time limit on such conversations.

WHAT is the total number of employees in the Northwestern Bell Telephone Company?

Answer: The average number of employees on our payroll during the year 1926 was 11,171. This figure includes the temporary help.

DOES the telephone company ever prepare special dials with characters of foreign languages, such as Jewish, German, and so on, on them?

Answer: The telephone company has never prepared special dials with characters of foreign languages.

In certain instances, however, in connection with cutovers from manual to dial system service, we have provided cardboard discs on which were printed foreign language characters corresponding to and in the same relative position as the figures and letters appearing on the dial. Such discs were distributed to subscribers who could not read English to aid them in dialing desired numbers correctly.

WHAT quantities of gasoline, oil and tires did we purchase during the year 1926?

Answer: We purchased 465,037 gallons of gasoline, 21,574 gallons of oil and 1,826 tires during 1926. The total number of tires does not include, however, the tires on the new cars which were purchased during the year.

Casper E. Yost Chapter of Pioneers Elects Delegates

Casper E. Yost Chapter of the Telephone Pioneers of America have elected John L. McCollister of the construction department of our Company at Omaha, and Agnes Scouler, chief operator for the Lincoln Telephone and Telegraph Company, Lincoln, Neb., as delegates to the annual convention and get-together at Colorado Springs September 19, 20 and 21.

Alternates elected were Nels E. Nordquist, installer for our Company at Omaha, and Clayton Liebhart, wire chief for the Lincoln Telephone and Telegraph Company at Lincoln.

The election was held at a meeting July 15. The next meeting will be held August 15. It will be the annual picnic when the pioneers will gather with their families and enjoy a lunch, games and friendly visit with one another.

Recent Promotions and Transfers

AS announced in the July issue of the magazine, D. T. Patterson, former district commercial supervisor at Omaha, has been named division commercial agent for the Nebraska division, succeeding Cecil Hitchen who was transferred to the New York Telephone Company.

Mr. Patterson joined our organization in December, 1922, as commercial agent at Omaha. A year later he became a clerk in the local commercial office, and another year later was made directory salesman. His next duties were those of unit manager, first in the Kenwood-Webster unit and later in the Atlantic-Jackson unit. He was named district commercial supervisor in October, 1926.

Mr. Patterson's successor as district commercial supervisor is B. W. Packer, who was former commercial agent at Sioux Falls, So. Dak.

Other commercial changes are:

R. A. Alsop, manager, Hibbing, Minn., to commercial agent, Duluth.

Ralph S. Hanson, counter clerk, Minneapolis, to manager, Hibbing, Minn.

George W. Bielitz, counter clerk to cashier, Minneapolis.

Walter D. Lagerberg, office boy and messenger, division commercial office, to contract clerk, local commercial office, Fargo.

PLANT CHANGES

C. R. Fullerton, manager, Mapleton, Iowa, to non-functional manager, Cherokee, Iowa.

At the right: Grace Hickok, new chief operator at South Sioux City, Neb., and Margaret Elliott, new chief operator at Dubuque, Iowa.

Across the bottom: Otto Metsker, new division special agent at Des Moines; C. R. Fullerton, new manager at Cherokee, Iowa; Everett C. Hancher, new manager at Pocahontas, Iowa; George R. Coakley, new manager at Mapleton, Iowa; Byron O. Osborn, new manager, Hawarden, Iowa.



Left to right: H. C. Judd, new division employment supervisor, Fargo; F. W. Hill, new division supervisor of supplies, Fargo; B. W. Packer, new district commercial supervisor at Omaha, and D. T. Patterson, Nebraska division commercial agent.

George R. Coakley, combinationman, Storm Lake, Iowa, to non-functional manager, Mapleton, Iowa.

B. O. Osborn, manager, Pocahontas, Iowa, to manager, Hawarden, Iowa.

E. C. Hancher, combinationman, Webster City, Iowa, to manager, Pocahontas, Iowa.

Clyde O. Cunningham, lineman to assistant foreman, Iowa division construction.

Frank C. Casady, lineman to assistant foreman, Iowa division construction.

William Frissell, combinationman, Fullerton, Neb., to manager, Wakefield, Neb.

W. D. Johnson, combinationman, Grand Island, Neb., to wire chief, McCook, Neb.

L. H. Thorgaard, clerk to acting district plant chief clerk, St. Cloud, Minn.

H. M. Foss, clerk, division plant acctg., Minneapolis, to assistant district plant chief clerk, St. Cloud, Minn.

Arthur U. Walker, lineman to foreman, Duluth city construction.

Carl L. White, truck driver to foreman, Minneapolis city construction.

Fred L. Boos, driver to foreman, Minnesota division construction.

E. F. Hubbard, groundman, division construction, to clerk, division construction office, Fargo.

M. K. Rauk, combinationman, Harvey, No. Dak., to wire chief, Velva, No. Dak.

TRAFFIC CHANGES

Edna Hartzell, chief operator, Drake office, to p.b.x. supervisor, district traffic office, Des Moines.

Florence LaFebre, evening chief operator to chief operator, Drake office, Des Moines.

Mable Mohr, instructor to evening chief operator, Drake office, Des Moines.

June Sherman, supervisor to central office instructor, Drake office, Des Moines.

Gomonia Sommer, operator to supervisor, Drake office, Des Moines.

Helen Gabel, operator to supervisor, Maple office, Des Moines.

Ella Maher, operator to supervisor, Maple office, Des Moines.

Cora Quinn, operator to supervisor, Maple office, Des Moines.

Freda Hansen, operator to supervisor, Toll office, Des Moines.

Catherine Smith, operator to supervisor, Toll office, Des Moines.

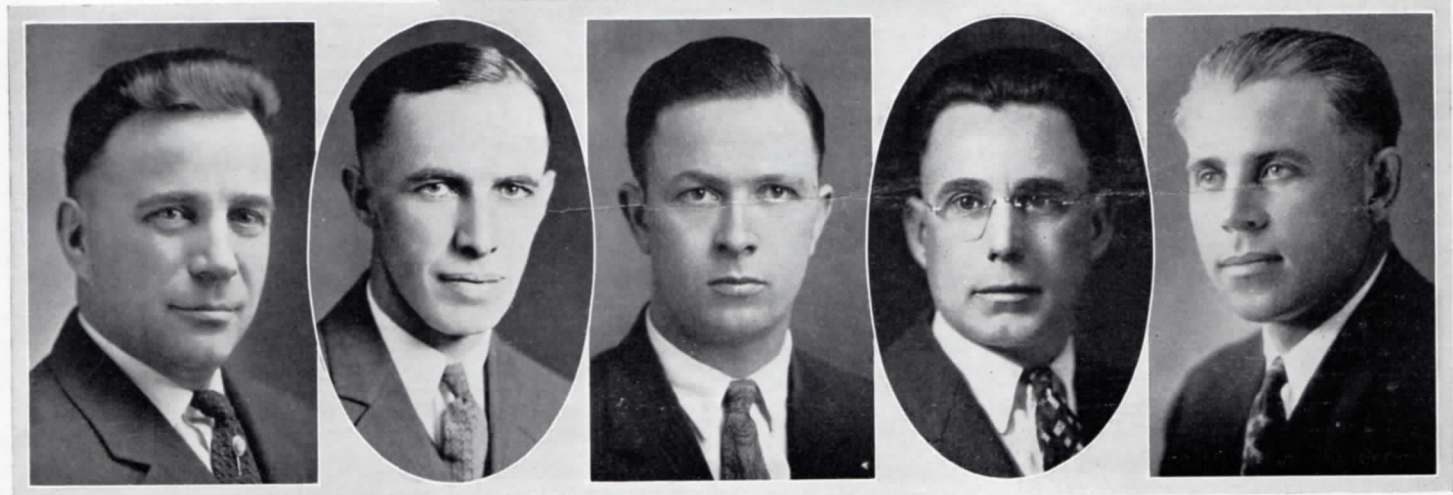
Doris Fowler, clerk, employment office, to matron, Drake office, Des Moines.

Addie Johns, matron, Drake office, to night matron, Walnut office, Des Moines.

Hester Ballard, evening chief operator to chief operator, Ottumwa, Iowa.

Annabelle Clark, chief operator, Ottumwa, Iowa, to district instructor, Davenport, Iowa.

Ethel Hills, clerk to supr., Iowa City, Iowa.



Picture Chats

From Here and There



Another muddy waters scene at Philip, So. Dak. The water had receded when the picture was taken. The building is our central office.



Ruth Roberts is a new agent at Carson, No. Dak.

Left: The parking group behind the "No Parking" sign are Anna Bradich, Mary and Frances Rakovetz, and Pauline Greben from Eveleth, Minn. Miss Greben is not an employee of our Company.

This is the view that greeted our folks at Cook, Minn., from a window of the central office one day during the May thaw.

The two groups at the left are winners of the third place banner in the Iowa "I. Will Tellem" campaign. They are teams No. 131 and 132 from Valley Junction, Iowa.



In the circle at the right are a trio from Montevideo, Minn.: Adeline Graves, Belle Sisson and Hattie Colby.



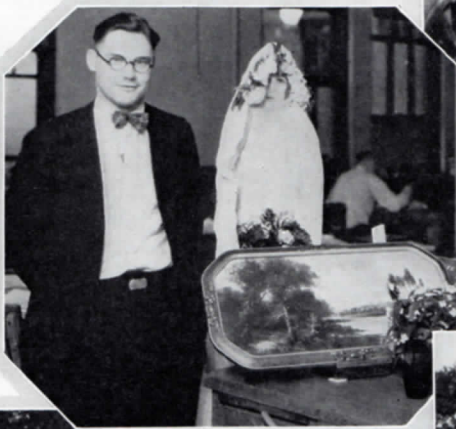
Gertrude Muldoon, operator at the Omaha Kenwood office, brings her "uke" along whenever she joins a hiking group from her office.



If the refreshments they served were as pleasing as their smiles, we know their mothers enjoyed them. The girls are Freda Shama, Evelyn Hill, Flora Colburn and Eleanor Richensperger of Minneapolis Kenwood.

Right: Helen Peters of Omaha Kenwood office, picking a tune on a summer's afternoon.

Below: Our Company car and pole trailer at Fullerton, Neb. The men are J. A. Kubik and W. W. Frisselle.



This array greeted F. R. Kappel, foreign wire relations engineer of the Minnesota division, when he returned from his honeymoon. The picture and a lamp were gifts from his office friends.

Right: An exciting game of kittenball followed a picnic breakfast by this group from Sioux Falls, So. Dak.



Along Our Line

The Northwestern Bell

Published monthly by and for the employees of the Northwestern Bell Telephone Company, which furnishes service in the states of Iowa, Minnesota, Nebraska, North Dakota and South Dakota.

SIGURD U. BERGH, *Editor*
IRMA SVOBODA, *Associate Editor*

Distributed free to employees of the Northwestern Bell Telephone Company; to others \$2 a year.

OMAHA, NEBRASKA

Vol. VIII August, 1927 No. 8

At Home Away From Home

HAVE you ever been away on your vacation and dropped into the telephone office at the city where you were staying, or run across fellow telephone workers who were out on their vacations, and noticed how perfectly you feel at home?

This probably is true in all lines of work, but in the telephone industry there seems to be even more of a family spirit than in other professions and trades. We're all akin.

Go to a faraway city and when you see an installer walk down the street with his familiar equipment, don't you feel like rushing right up to him and saying hello? Every time you telephone, don't you visualize the operator handling your call?

Fortunate is the man who learns a lot from a little experience.

Telephones and Research

"Seventeen million Bell and other telephones, 45,000,000 miles of wire, 6,000 telephone offices, 70,000,000 wire conversations a day, local calls completed in less than half a minute—impressive as such statistics are, they scarcely explain why our telephone service is without a peer.

"We lift a receiver from its hook. Something happens immediately. Every telephone on the continent can be connected with ours in ways for technical reasons still largely mysterious to most of us. The black instrument at our elbow is the offspring of 90 types of transmitter and more than 60 types of receiver, historic curiosities. If that instrument could tell us the story of service, it would be a story of research applied in creating thousands of parts concealed in switchboards and buried in conduits.

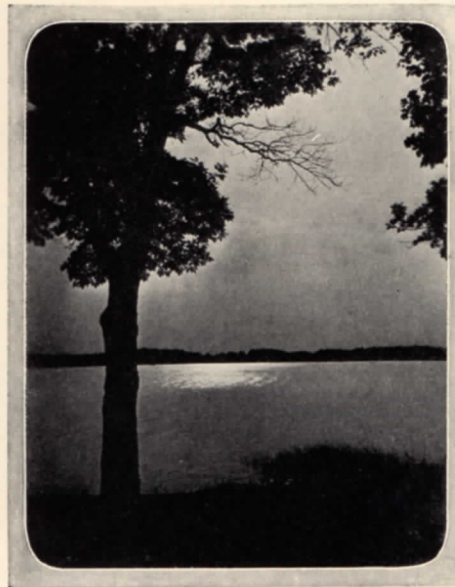
"Repeaters, for example. How many of us know of them? Research adapted the vacuum tube of radio to produce them. They are primarily service improvers. In the words of Bacon's 'New Atlantis,' they give 'back the voice louder than it came'—a million-millionfold louder as we talk across the continent. They conquer all distances. They quintuple the message capacity of a pair of wires and thus save millions in copper. Research discovers a way of lengthening the life of these repeaters. The result is a saving amounting to about \$1,000,000 a year.

"Lightning protectors are necessary if service is to be reasonably free from interruptions. Millions of subscribers are still connected by exposed wiring. Research produces a type of protector which makes it possible to save \$740,000 a year in maintaining these protectors and the stations of which they form a part.

"A hundred thousand parts must be made in quantities that run into the millions. Research scrutinizes them, redesigns one and effects an annual saving of \$8,000,000. It tests cords and proves that green is not so good as brown. Another saving of \$50,000 annually results. It foresees the day when increased electrical stability and a higher immunity from injury by storms will be demanded of telephone cables and proceeds to make the necessary improvements. At the proper time a new cable is installed between New York and Chicago, costing \$25,000,000.

"It is research of this character that has made it possible for the telephone to grow stupendously. In the laboratories lies the secret of telephone service—the laboratories where \$13,000,000 is spent annually and 3,600 men and women, trained scientists and their assistants, strive unceasingly to bring more and more of us within voice-reach of one another.

"In an ordinary manufacturing enterprise increased production is accompanied by reduced operating costs. Not so in telephony. It is several times harder to render service today with 12,000,000 Bell stations than it was ten years ago with 6,000,000, simply because technical complexities increase in geometrical rather than arithmetical proportion. Without research, which foresees obstacles years before they are encountered, the telephone systems of New York and Chicago would still be scarcely more than a romantic dream."—*New York Times*.



A scene from Lake Minnetonka, Minneapolis

"Up Till August Eighth"

It's a year old, this jingle, but it still holds true. Edith McBeth and Margaret Quirk, correspondents, tacked it on the bulletin board of the Iowa division accounting office:

You folks have a magazine—
Won't you have a heart?
Give us your contributions,
Help us get a start.

Perhaps you've been a'swimming
Or on a good long hike,
Maybe been a'fishing,
Caught a bass or pike.

Bring along your pictures
Right now, don't be late;
There's time for summer pictures
Up till August eighth.

If he's the life of the party after 7 p.m. he's probably a good deal of a grouch about 7 a.m.

This Punctual Spot

"The meeting was called for 4 o'clock. At one minute before the appointed hour the attendant closed the doors. As he did so he took notice that all the chairs were occupied.

"The room and its furnishings were in taste with the architecture of the building. A long table occupied the center of the room. Lewis Cass Ledyard was in the chair set for the presiding officer. At his right hand was Cardinal Hayes. Next to the cardinal sat J. P. Morgan, then came Payne Whitney and George F. Baker, Jr. At the table's end was Elihu Root and next to him Vincent Astor and Henry Walters. The engineering profession was represented by William Barclay Parsons and the law by two former justices of the Supreme Court, Morgan J. O'Brien and Samuel Greenbaum, and by John G. Milburn and Frank L. Polk.

"At a sign from President Ledyard, Mr. Whitney arose and proceeded to read the report of a committee of which he is chairman. It was the monthly meeting of the trustees of the New York public library. Every man was on time."—*New York Sun*.

The tiniest hamlet contains samples of all the different kinds of people—the big cities have more of each kind, that's all.

Have a Good Time!

Have you taken on that sunburn? In other words, have you been out enjoying the glorious summer days? Have you breathed in the fresh air and absorbed the sunshine?

The sun may beat down a little hot in the middle of the day, but it's cooler morning and evening. Picnicking, playing, hiking or fishing, here's hoping you have a good time!



All for One



SLEET storm descends, carrying down trees and wires. A wind turns outlaw and blows down a pole line. Or some swollen river rampages through a circuit of destruction. But wherever angry nature attacks the Bell Telephone System there are repairmen trained to meet the emergency, and everywhere trained in the same schools to the use of the same efficient tools. Supplies of surplus equipment and materials are kept at strategic points whence they may be rushed by train or truck to the devastated area.

Through the Bell System, all construction and practice are standard, so that men and supplies, when necessary, may be sent from one state or company to another.

There are 25 Bell Companies, but only one Bell System—and but one Bell aim and ideal, stated by President Walter S. Gifford as:

“A telephone service for this nation, so far as humanly possible free from imperfections, errors and delays, and enabling anyone anywhere at any time to pick up a telephone and talk to anyone else anywhere else in this country, clearly, quickly and at a reasonable cost.”

NORTHWESTERN BELL



TELEPHONE COMPANY