



Public Utilities



TELEPHONE OF BIG SERVICE

Wonderful Growth Since Invention
Thirty Years Ago.

MODEL PLANT IS IN OMAHA

Nebraska Telephone Company Has
25,000 Phones in Operation in
Omaha and Suburbs—Con-
stantly Increasing.

Of all the great public service enterprises that have been of immense benefit to the development of civilization in this country, as well as other countries, no one has been so far-reaching in its scope as the telephone.

A little over forty years ago, when Alexander Graham Bell invented this instrument, he, little more than those associated with him, realized the future of this invention or probably little thought of its effect on the development of the country. The telephone was first exhibited to the public at the Centennial exposition in 1876. At that time an enthusiastic friend of the inventor prophesied that in 1900 there would

be 100,000 telephones in this country. This prophecy, at the time, was considered by many to be preposterous, but the result has been more marvelous than the most optimistic thought it possibly could be, and today there are more than 5,000,000 Bell telephones in use in the United States and Canada.

The Nebraska Telephone company, a branch of the Bell system, has more than 25,000 telephones now in use in Omaha. The system here consists of five exchanges, Douglas, Harney, Webster, Florence and Benson, all these being inter-connecting so that a subscriber on any other exchange can reach any one in Omaha, Council Bluffs or any of the suburbs.

Omaha's first telephone directory was put out July 10, 1878. This consisted of a single sheet of paper containing less than forty names. This directory contained the names of Omaha's pioneers, some of them still in active business life.

Those who are acquainted with the telephone only through the use of their office or home instrument, little realize the complicated machinery that is required to furnish telephone service to a city the size of Omaha, but to one who has seen the mass of 40,000 wires coming into the central station, or who tries to follow the message through the various tables in its twisting and turning until it reaches the operator and then back again through

another pair of wires on to the person who receives the message, or who has explained to him the complicated, but instantaneous working of the apparatus that is necessary to get instant communication between a local subscriber and a distant city, begins to realize the enormity of the enterprise.

Complicated Network.
Every telephone instrument in Omaha is entered into the exchange by two twisted wires running to the central switch-board. These wires run in bunches of twenty or more in absolutely water tight cables. These cables are moisture proof, for any drop of moisture within this cable would cause instant trouble and cause one conversation to jump from one line to another. Each of the 40,000 pairs of wires coming through the underground passage way into the eighteenth street exchange, represents an individual telephone or a party line.

Shortly after entering the building these cables are "fanned out," which means that the wires are separated and run into the individual connections along the rack in order that interference with lightning and other outside causes may be avoided. Each circuit is run through carbon connections so that a stronger force than the ordinary circuit can be thrown off and "grounded," so that any charge too heavy for the switch-board, for which the message must ultimately come, is by this means thrown into the ground before it can do any harm.

All of the wires from the rack to the basement are run to the second floor where there is another or an intermediate distributing rack, where the paired wires are connected with relays which supply a third wire for each telephone, these three wires being used in connecting with the second system by which the central communicates with subscribers.

The exchange room where the connections are made is a mass of switch-boards. A constant murmur fills this room as one must realize when it is understood that 300,000 calls are made through the switch-board every day in the year. Before every three or four feet of switch-board space a girl sits, constantly on the alert for calls coming in to her section. With her hands she is constantly manipulating the plugs, placing them in the "jacks," and listening to the calls from other subscribers at the same time.

Girls Require Rest.
On account of the rapidity of the calls during the "rush" hours, each one of the girls is given a rest period of fifteen minutes during each two hours of work.

When the subscriber takes down his receiver a small electric lamp, which represents his instrument on the board of the operator to whom he is connected, lights up. The girl reaches for a pair of cords and places the plug of one of them into the proper jack to connect her with the subscriber. Then she asks for the number. If he calls for a connection of the same exchange she puts the other plug cord into the proper jack that represents the telephone and presses a lever. The lever rings the second telephone, the one which is to receive the message. By the working of the signal light she can tell when the called receiver is taken down and when the conversation is over. When both receivers are hung up she takes out both the plugs and they do service again in connecting two others. If the subscriber imagines that he is causing the central operator any great discomfort when he jangles up and down on the receiver he is much mistaken, for it never reaches her only as the flashing of a tiny light.

For every ten or twelve girls there is an inspector who walks along behind them continually, supervising, watching, helping and working to insure patrons immediate service. There are in the employ of the company nearly 600 girls, of which number about 200 are at work in the Douglas exchange on regular lines and sixty on toll lines.

Rest Room for the Girls.
The girls have the use of a locker room and a rest room, which is well supplied with periodical reading matter. A dining room with covered tables is provided where they can eat lunch. Tea or coffee is kept hot and sold for a nominal price. There is a hospital room well equipped for emergencies.

The exchange room itself is ventilated with a special apparatus which sucks air in from above the roof by artificial means and forces it through water vapor to reduce the temperature before it goes into the room.

The operator's busiest time varies according to the exchange at which she works. At the Douglas street office, where calls come in almost entirely from business houses, the busiest time comes between 9 and 10 in the morning. About 8,000 calls come in during this one hour. At the other exchanges, which serve residence telephones, the maximum hour comes in the evening between 7 and 8. This is the time when the wires are used for "listening." The Webster exchange gets about 3,000 calls during this hour and the Harney about 2,000.

By means of this vast and complex machine all the wonders of modern telephoning are made possible. There is no doubt in anyone's mind nowadays as to the convenience of having a telephone in the home and the absolute necessity of it in a business office.

KEELEY INSTITUTE A SUCCESS

Omaha Institution Gets Patients from All Over Country—Has Been in City Ten Years.

Since moving to Omaha, more than ten years ago, the Keeley Institute, which formerly was located at Blair, has been actively engaged in assisting the liquor victim to gain back his self control. The people who come to the institute for treatment come from all over the country, even from the two sea coasts. The number of patients treated would be alarming were this fact not remembered. The yearly average varies from 150 to 200 patients. The institute accommodates about forty patients at a time.

His Fingers Stopped Upon.
"Why, dear," queried a mother of her small daughter, who was crying, "what's the matter?"
"My t-tooth stepped on my tongue," sobbed the little miss.

A Bachelor's Reflections.
All things get further ahead of him who waits.
The easiest things to reach doing are those that won't cause you any harm.
A man would rather drink and smoke his money up and a woman dress it up than eat it up.

Two Hot Weather Necessities

A Gas Range A Gas Water Heater

By cooking with Gas you can save the price of a Gas Range in a few months.
Heat your water with a Gas Water Heater—enjoy real comfort.

Our representative will gladly bring you one of our 1910 Catalogues, or we will mail you one on request

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J. A. SIMONES, Manager
Phone Douglas 1106



WATCH US GROW

Five hundred thousand people in Nebraska use the Bell telephone every day, because it is the only telephone that gives satisfactory and universal service.



Omaha's Census in 1950 Should Show 300,000 People

Our Census in 1950 Will Show 75,000 Bell Telephones in Use in Omaha

WE GROW FASTER THAN THE POPULATION

Four years ago Omaha had about 110,000 people, and the present census is likely to show about 130,000; four years ago there were 10,000 Bell telephones in Omaha, and now there are 25,000.



From City to Country

OUR GROWTH IS CONFINED TO NO LOCALITY

Like a mighty spider web our lines have extended over the state, reaching hundreds of new subscribers every month. Our growth in Omaha for the last four years has averaged more than a dozen telephones a day.

Reaches All the People Everywhere All the Time.

One Policy. One System. Universal Service.



Nebraska Telephone Company

Every Bell Telephone is a Long Distance Station

