



The
Telephone's
First 75
Years

1876

75 YEARS
OF SERVICE
TO THE NATION

1951



In a Single Lifetime

From one telephone to 35 million Bell telephones in 75 years — this astounding growth tells only a fragment of a great story of service. Better than anything else, the telephone meets our need to communicate quickly with other people in other places.

Throughout the telephone's brief history, in peace and war, Bell System men and women have striven constantly to make it ever more useful and valuable to more people. They have been able to build so well in such a short time because the people of America have given them the resources, the encouragement and the responsibility they needed to do the job.

As a result, the telephone has helped immeasurably to make America's production capacity and her standard of living second to none. We are confident the telephone will provide even greater service to the nation in the years ahead.



First Words



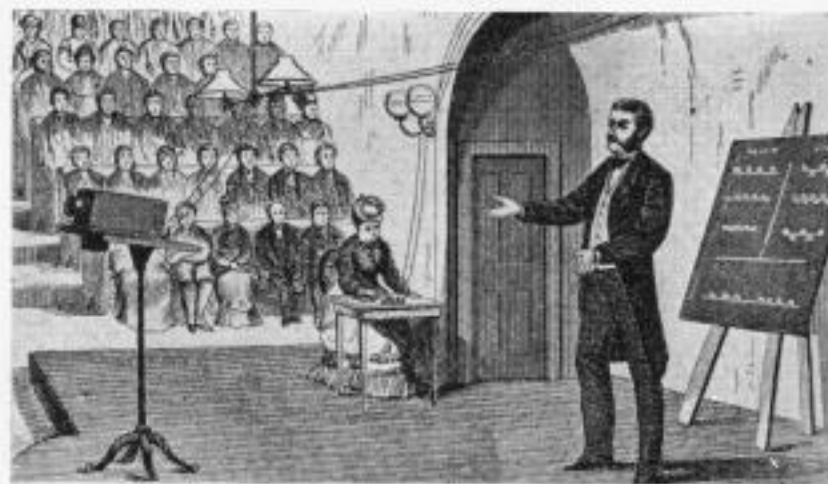
"Mr. Bell, I heard every word you said — distinctly!"

One evening, in a top-floor bedroom of a boarding house in Boston, Alexander Graham Bell was trying out a new liquid telephone transmitter. It was connected by wire to a receiver in another room down the hall. At the receiver was Thomas Watson, Bell's assistant. While Bell had earlier proved that speech sounds could be transmitted electrically, his first telephone had not been able to carry an intelligible sentence.

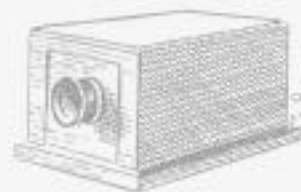
Would tonight's experiment be successful — or just another disheartening failure?

Suddenly Bell overturned a battery jar, spilling acid on his clothes. Impulsively he cried out, "Mr. Watson, come here; I want you!" Watson dashed in, shouting, "Mr. Bell, I heard every word you said — distinctly!"

This first sentence carried by telephone was spoken on March 10, 1876. It rewarded years of thought and experimentation, of ever-present hope yet painfully slow progress. A new and wonderful means of communication had been born.



Bell gives a successful demonstration of his telephone before an audience of 500 in Lyceum Hall, Salem, Mass., in 1877.



A Service Begins

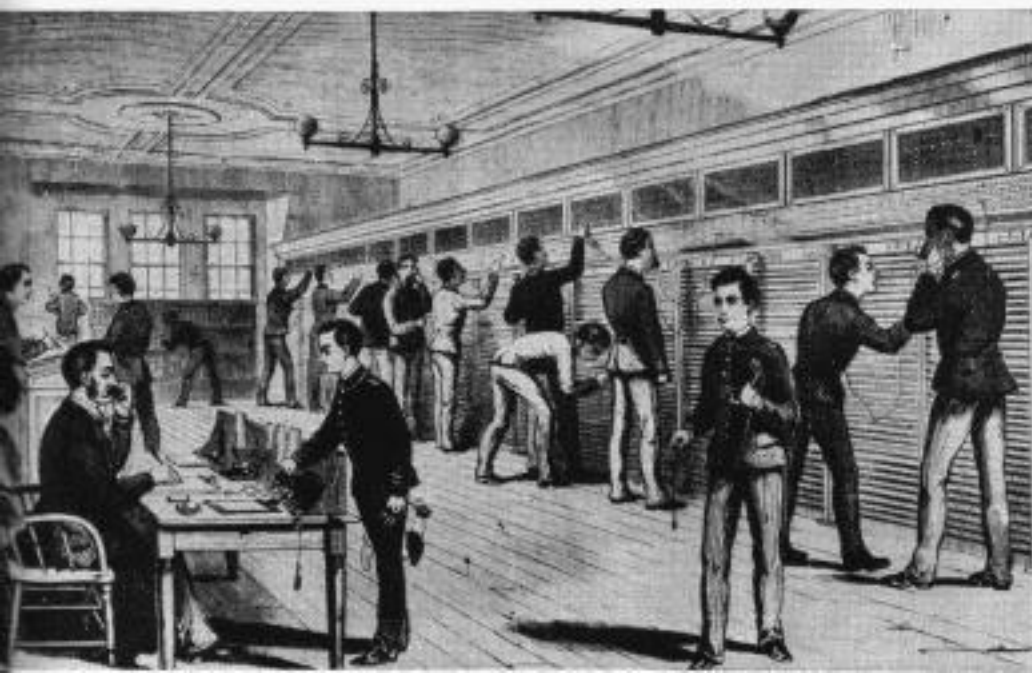
Mr. Bell never thought of his telephone as just another mechanical invention to be sold and forgotten. To him it was an instrument of *service*, and as such he saw it benefiting all mankind.

If the telephone was to fulfill its destiny, some means of interconnection had to be found so that any telephone could be connected quickly with any other. This led to the invention of the switchboard. The world's first commercial switchboard was

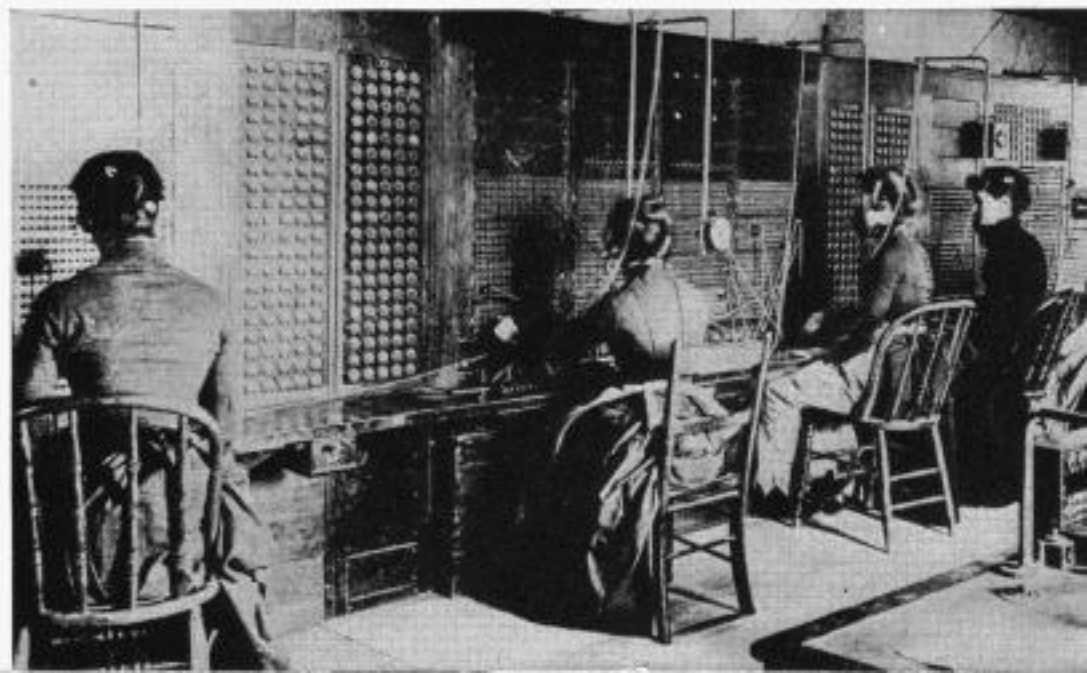
opened in New Haven, Connecticut, in 1878. It was operated by a boy, and boys operated other switchboards established later in other towns.

But boys, it was soon found, were noisy, often impolite and indifferent. So, in 1879, the first woman operator was hired. With her began a tradition of the business that has persisted to this day — courteous, friendly, pleasing service, the "Voice with a Smile."

Boys operated the first telephone switchboards. Their efforts were accompanied more often by noise and confusion than by efficiency.



Friendly, pleasing service came into the business with the first women operators, three years after the telephone was invented.





From a single building in Chicago in 1872, Western Electric has become one of America's largest manufacturers.



Careful, thorough workmanship in the manufacture of telephone sets is one important reason why you get high quality telephone service.

Dependable Supply

From the very beginning the young telephone industry strode forward in seven-league boots. In 1882, the Bell company purchased the Western Electric Company because it was the best manufacturer in the telephone field. This assured the growing industry of a dependable source of standardized, high quality equipment at reasonable prices.

In 1901, Western Electric made the first agreement with a Bell company to act as purchasing agent for all types of material which it did not make. Today it purchases thousands of items for the entire Bell System. In addition, Western maintains a nationwide chain of distributing houses, set up to supply equipment at a moment's notice to the telephone companies.

From the beginning, Western also has installed Bell telephone central offices. Thus, by coordinating the manufacturing, equipment installation, and purchasing for the Bell System, Western Electric makes possible important economies, helps keep telephone service high in quality, low in cost.

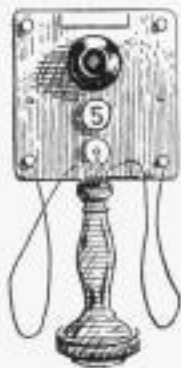
The *Q*uest for Better Service

In the '80s, city telephone poles had so many wires it looked as if the limit of growth was not far away.

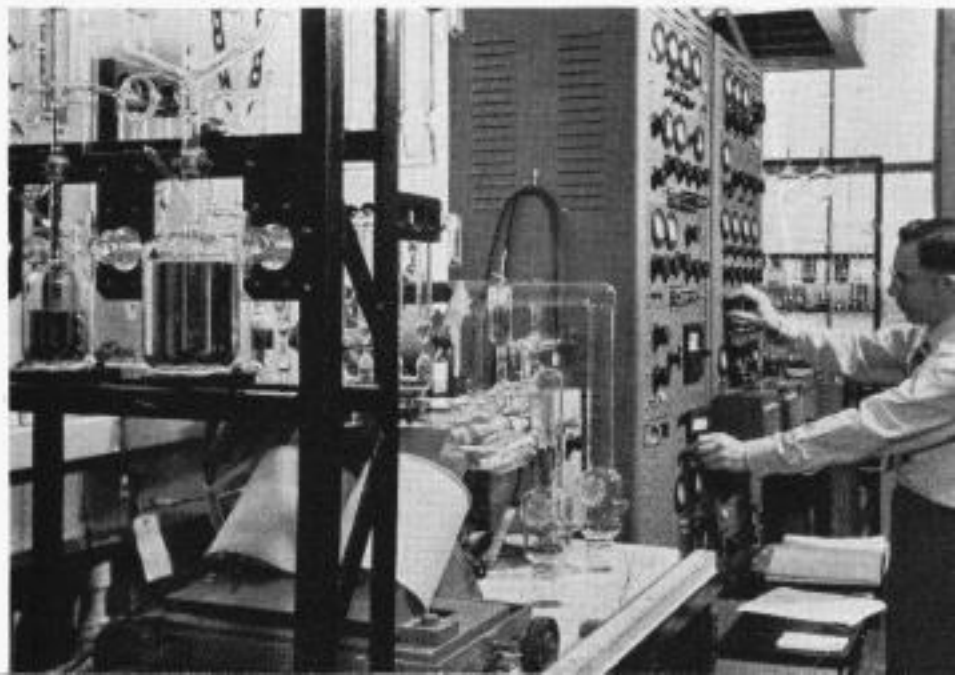
Research gave telephone men the answer to this problem: cables containing bundles of wires and run beneath city streets. Later, Bell engineers put the loading coil to work and developed the high-vacuum tube amplifier. These gave renewed energy to currents weakened by traveling along wires, made possible telephoning from coast to coast.


From these early but far-reaching achievements, telephone research has gone forward to many modern developments. At Bell Telephone Laboratories, 6,000 scientists, engineers, technicians and others search ceaselessly for new ways to make telephone service better and more valuable to more people.

Today, cables carry far more wires than poles ever could.



Bell Laboratories research assures ever-improving telephone service.





A Helper for "Central"

In the early 1920's, so many telephone operators were needed to handle the ever-increasing traffic it was obvious there soon wouldn't be enough qualified women to operate the growing number of switchboards.

Again telephone research came up with the answer. Dial equipment had been in use since early in the 20th century, but it was not suited for big cities where the need was most acute. So Bell engineers developed a new type of dial switching equipment answering needs of the large metropolis, and introduced it in 1921.

Since then Bell Laboratories has developed still better and more versatile types of switching apparatus. One of their most valuable functions is to extend the advantages of dial operation to toll and long distance service.

Today three out of four Bell telephones are dial. Yet telephones and telephone calls have increased so greatly that there are far more operators now than there were back in 1921. People and machines together operate a vast communications network that is one of the nation's greatest assets in peace or war.

By World War I switchboards in big cities were beginning to reach their limit of expansion.



There are far more operators today than there were when dial service was introduced.



Accurate, efficient dial switching equipment in a modern telephone central office.

Bigger and More Valuable

In just five short years since the end of World War II the Bell System added more telephones than it did in its entire first half century! But even with this vast expansion, supply has not been able to keep up with demand.

This tremendous growth has not been confined to cities alone. Telephones in rural areas have been added at the rate of 1,000 every working day.

Growth has added a big plus value to telephone service. You can now reach twice as many telephones in your local calling area, on the average, as you could in 1939. More people can call you, too.

To expand service in this way, the Bell System has had to raise nearly four and a half billion dollars of new money since the war. Most of this money has come from hundreds of thousands of people who were willing to invest their savings to make possible the extension and improvement of telephone service.

The Bell System is building to meet your telephone needs.



Service in rural areas is fast being extended and modernized.



Installer puts in one of the 13,500,000 Bell telephones added since the war.

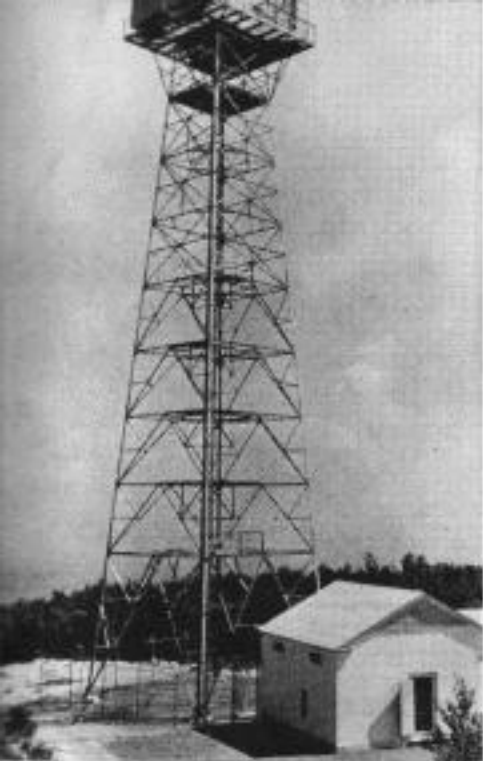
To Speed Voice and Vision

Two big developments growing out of continuing research have improved the nation's telephone service since World War II. One is the transmission of hundreds of telephone calls in a "package," either by microwave radio relay or coaxial cable. The other is the dialing of long distance calls.

Radio relay and coaxial cable, besides furnishing hundreds of additional long distance telephone circuits, also form the backbone of the nation's television networks. Already Bell System facilities are carrying network TV service to 73 stations in 43 interconnected cities in areas with a population of about 70 million. By late summer the Bell System plans to have a radio relay system ready to carry hundreds of telephone calls to and from the West Coast and by year's end it is expected that the route will be available for coast-to-coast television. This will make network service available to three more cities and 12 more stations.

Direct dialing of toll calls by operators reached approximately one thousand towns and cities all over the country early in 1951. Long distance operators were dialing a million and a half calls a day straight through to distant telephones. This service is being extended.

This coaxial cable can carry up to 1,800 telephone conversations at the same time.



Radio relay systems carry either television programs or telephone calls.



Operators press keys to "dial" calls straight through to telephones in distant cities.

Serving Three Great Groups

Back in 1927, the A. T. & T. publicly stated in a very few words the basic policy which has guided the Bell System in serving the nation.

This policy is "to continue to furnish the best possible telephone service at the lowest cost consistent with financial safety and with fair treatment of employees." This historic statement recognized the Bell System's responsibility to treat equitably and fairly the three great groups of people most concerned: the customers, the stockholders, and the employees.

Since then, this threefold policy has guided the System's every action. Steering by it as they would a beacon, telephone people have been able to make telephone service ever better and more valuable. They have managed to earn and pay reasonable dividends regularly to hundreds of thousands of people who have invested their savings in the business. And, at the same time, they have made the telephone business known the nation over as a good place to work.



More than 600,000 employees find the Bell System a good place to work.



Business, social life are geared to good telephone service at low cost.



The Bell System is owned by a million stockholders.

They Want to Serve Well

Good telephone service is like good health; we're hardly aware of it if nothing goes wrong.

Telephone people, though, have to be constantly aware of the quality of service. They know that today your calls are handled faster and with greater accuracy than they used to be. Your voice is heard more clearly over the telephone, too, and the telephone equipment in your home or office is seldom out of order.



Friendly and courteous service is a way of life in telephone business offices everywhere.



Beyond technical excellence, though, it takes genuine courtesy, understanding and helpfulness on the part of telephone men and women to give you the kind of telephone service you want and are accustomed to. The skill, thoughtfulness and spirit of service of these employees are the most valuable assets of the Bell Telephone System.



Testing and trouble-shooting by highly skilled deskmen go far to make telephone service dependable at all times for every user.

Another Good Citizen

Rare is the person who hasn't stopped, particularly in recent years, and asked himself: "Where does my money go?"

We in the Bell System have been asking ourselves that question, and we find that by far most of it goes right back into circulation on Main Street in all the communities where we operate.

Here's how it worked in 1950:

The money paid to us for telephone service went to pay the expenses of the business — wages, taxes, purchases and, finally, dividends.

The Bell System's total payroll was more than \$2 billion, spread over every state in the union. Its local, state and federal tax payments were enough to have paid for educating almost two and a half million public school children. Its purchases, made principally by the Western Electric Company from 24,000 suppliers, big and little, in 2,400 cities and towns, totaled over \$300 million. Its dividend checks went regularly to nearly a million people in 19,000 communities in every state in the Union.

That's where our money goes — right back into the blood stream of America's economy.

Purchases by the Bell System make an important contribution to the community's welfare.



Telephone men and women share in many community activities.



In Time of Need



The telephone companies are going all out to furnish adequate service for service men.

Our nation's production for defense depends on quick communication by telephone to get things done on schedule.



Hurricanes, floods, disasters, war. At such times Americans depend on their telephones for aid.

To bring emergency assistance wherever it's needed with maximum speed, the Bell System has vast resources: 35 million telephones, 130 million miles of wire, in cable, and most important of all, the loyalty and skill of 600,000 employees. Emergency telephone supplies can be provided by Western Electric in a matter of hours. Telephone men, tools and equipment can be quickly dispatched to aid in restoration work in any section of the country.

Today, rapidly expanding communications requirements for the military and for defense production is the No. 1 telephone job. With experience gained in countless emergencies and in two world wars back of them, the men and women of the Bell System are moving ahead with confidence to help make and keep our nation strong.



In case of severe storm damage, telephone men swing into action like a well-trained army.

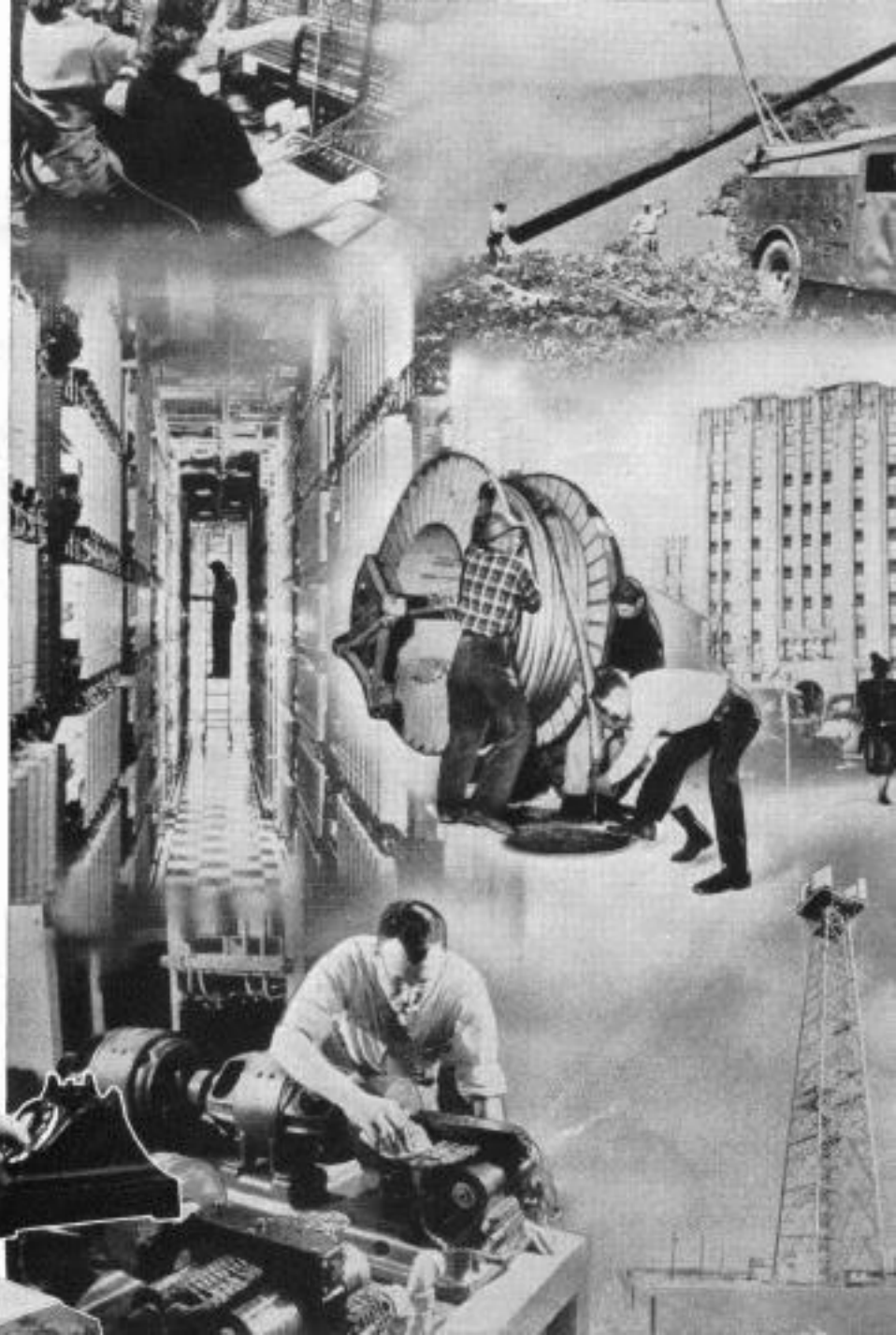
With Freedom to Serve

For 75 years the telephone has grown with America and helped America to grow. Its contribution to the welfare, productivity and security of this nation is literally immeasurable.

But the telephone's growth has only kept pace with public demand. The people of America have extended its usefulness many fold beyond the visions of the telephone's inventor and his early associates.

All this has been possible because the telephone industry has had the resources it needed to meet current demands and the freedom to plan soundly for the future.

The Bell System is confident that it will do no less in the years to come. With freedom to serve undiminished, with vigorous research and invention, and with earnings that are sufficient to continue to pay good wages to employees and to meet its responsibilities to investors, the telephone will always serve to the greater advantage and security of the people of the United States.



It is conceivable that cables of telephone wires could be laid underground or suspended overhead, communicating with private dwellings, counting houses, shops, manufactories . . . Not only so, but I believe in the future, wires will unite different cities, and a man in one part of the country may communicate by word of mouth with another in a distant place."

—ALEXANDER GRAHAM BELL (1878)

