

First Telephone Exchange Opened Sixty Years Ago This Month

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Between the invention of a great help to man and the discovery of the best way of using it, there is often a great step. This step was taken, with regard to the telephone, in New Haven, sixty years ago, and became a physical fact when the first commercial telephone exchange the world ever saw was opened there on January 28, 1878.

The telephone had been known for two years. Alexander Graham Bell had discovered in 1875 the principal of transmitting the human voice by wire. On March 7, 1876, he had been granted a patent on his invention; and three days later he had spoken the first complete sentence ever transmitted by electricity—the now famous words, “Mr. Watson, come here, I want you.” The telephone’s possibilities for usefulness had been dreamed of; at the Philadelphia Centennial and subsequently at lectures given by Bell, it had excited amazement and curiosity. Telephones had been put to private use. But not until George W. Coy opened his pioneer exchange in New Haven, advertised the service as available to all, and offered to interconnect any subscriber with any other subscriber did the telephone become a public servant as we know it today.

Not only had telephones been used in pairs to connect two specific places, prior to the opening of service in New Haven, but there are authenticated instances of the furnishing of a switching service to private or restricted groups, notably in

Boston, Mass., and in Bridgeport and Hartford, Conn. And there are many instances throughout New England of privately operated telephone lines which were later connected to central offices and turned into exchange systems. But in no case does the proof, furnished by records and by personal recollections of men engaged in the service at that time, show as clear and convincing as that which gives Mr. Coy the right to be recognized as the pioneer in establishing the first commercial telephone exchange.

Telegraph Men Interested

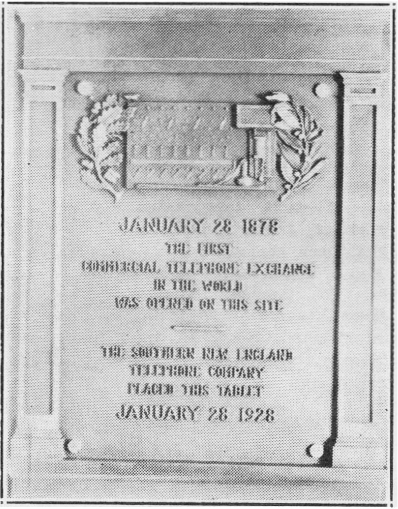
Among the first of Professor Bell’s public lectures to demonstrate the possibilities of the telephone was that at Skiff’s Opera House in New Haven on April 27, 1877. It was natural that telegraph men should have been attracted to the new device. It would have been strange if George W. Coy had not been in the audience; not only was he manager of the Atlantic and Pacific Telegraph Company but he also furnished the wires and batteries for Bell’s demonstration.

Coy was deeply impressed with the invention and with Bell’s expressed conviction that it would soon be in general use in homes and business places as a ready means of communication. He made an effort to secure the agency for the device in order to promote it in his home city. In the meantime, he set to work assiduously to devise a way of

utilizing the telephone as a means of intercommunication. Thoroughly convinced of its possibilities, he had conceived the idea that if many wires with telephones attached to them were brought into one place, some means could be devised of uniting them as needed so that any two of them could be made practically one and thus personal communication established at will among many widely separated people.

Mr. Coy was able to obtain the franchise he desired in September of 1877, and immediately started on his cherished project of a commercial exchange. Applying his knowledge of the telegraph, coupled with a good bit of Yankee ingenuity, to the new invention, he succeeded in devising a switchboard which would accomplish the desired result—intercommunication.

Coy found that he could not depend on other than his own effort and initiative to make progress. There was the greatest difficulty in securing outside help or information. Even those interested in the invention rather discouraged his exchange idea as being too complicated. His efforts to secure the required capital for the enterprise were fruitless at first, those to whom he enthusiastically as Coy and who advanced the sum of \$600 as working capital. Mr. Frost, optimistic and far-sighted, was exactly the type to aid the untried, undeveloped enterprise, and he entered with energy into Mr. Coy’s plans. Together with Walt Lewis, the three organized the New Haven District Telephone Company with a capital of \$5,000.



Plaque placed on site of Boardman Building in New Haven 10 years ago



A reproduction of the original switchboard which served the world's first commercial telephone exchange, opened for service in New Haven, Conn., on January 28, 1878. The youth in this picture represents a typical boy operator of the period

NEW DIAL PBX SYSTEM RECENTLY CUT INTO SERVICE FOR CULVER MILITARY ACADEMY

A new dial PBX system, designed and installed by the Indiana Bell Telephone Company, was cut into service for the Culver Military Academy at Culver, Ind., on Saturday morning, December 18. Brigadier General L. F. Gignilliat, superintendent of the Academy, called Colonel A. R. Elliot, post adjutant, to inaugurate the new system.

The system is located in the Administration Building and interconnects all buildings on the grounds of the Academy. It consists primarily of a 740-AX Dial PBX with a one-position manual switchboard, 6 central office trunks, 49 unrestricted stations and 19 isolated stations. With the new system, direct intercommunication between all stations and direct connection to the Indiana Bell central office is provided by the dial switching apparatus without the assistance of an operator.

A special feature of the new system is the twelve jack manual conference equipment. Several times each day special instructions and orders are issued to the orderlies of the various barracks. The conference equipment makes it possible for such orders to be given simultaneously from the Message Center in the Administration Building to the orderly of each barracks. This is an important function in the daily routine of the Academy. Prior to the installation of the new confer-

ence equipment, instructions and orders were issued over an army field set. The conference equipment also provides for connecting up to three trunks and nine stations, thereby permitting several officers of the school to be connected in on

a long distance call, if necessary. Negotiations with the Academy officers were conducted for the Indiana Bell Telephone Company by V. G. Kercheval, commercial representative and R. F. Helm, sales supervisor.



Aerial view of the beautiful campus of Culver Military Academy on the shores of Lake Maxinkuckee



Seated in the picture is Brigadier General L. F. Gignilliat, superintendent of Culver Military Academy, making a call over the new dial system. Standing, left to right: W. E. Friend, controller Culver Military Academy; F. L. Brooke, secretary to the superintendent; H. E. Bolt, district commercial superintendent; V. G. Kercheval, commercial representative; Colonel A. R. Elliot, post adjutant, Culver; R. F. Helm, sales supervisor; J. W. Quinlan, district plant superintendent

Public Apathetic

Public enthusiasm did not run high. One thousand circulars explaining the new service were sent out in New Haven. One contract for a telephone resulted—the Rev. John E. Todd became the first subscriber. But by late January, enough subscribers had been obtained to warrant opening the service, and on January 28, 1878, Coy’s switchboard was put into operation—the world’s first commercial telephone exchange, with eight telephone lines, and with 21 subscribers connected, each at the rate of \$18 per annum.

The crude switchboard was mounted on a partition of the small ground-floor office in what was then the Boardman Building. The operator—it was a boy’s job then—stood in front of it. At first, service was given only during the day and evening, but after a month it became necessary to keep the board in operation continuously. Naturally the board had its limitations. When two subscribers were connected to two others, another subscriber waiting to telephone had to wait. In such cases, however, if a subscriber was particularly anxious to hurry the call through, the operator would place a wet forefinger on a stud of the calling subscriber’s line, the other forefinger, also wet, on a stud of the line the subscriber wanted, thus completing the connection through the switchboard so that conversation went via the operator’s body.

Financial Difficulties

Cash was not plentiful with the infant company at this period, and for a long time after the exchange was launched, the payroll, modest as it was, proved a source of constant anxiety to the management. The outside plant covered an area of perhaps a mile square, with the bulk of stations located about the center. Construction of the exchange, both outside and in, was necessarily of the cheapest order. Iron wire, employed as a grounded circuit, was run on trees and housetops, and each wire carried from two to six stations. Occasionally poles were used, but they were quite small. The first subscribers’ sets consisted of one wooden hand telephone, used alternately as receiver and transmitter, making telephone conversation in those early days an absorbing occupation. There was also a push button to signal the central office, and a fusible wire lightning protector. At the outset there was difficulty in securing enough sub-

scribers’ sets to fill the demands of the exchange, resulting in retardation of growth very materially. The first calling apparatus at the switchboard is still referred to locally as “Coy’s Chicken,” although this part of the equipment was the invention of Thomas A. Watson.

The list of the first users of the telephone, though it contained less than two score names, is curiously like later lists in the variety of interests that were represented: retail and wholesale houses, doctors, lawyers, clergymen, hotels, banks and residences. Within a month, stations connected had grown to 50, the first directory was issued, and the success of the venture for commercial purposes had been fully demonstrated. Subsequent growth was fairly rapid, and the energies of the promoters were taxed to the utmost to finance it. By March, 1878, the first 100 subscribers had been secured, and the second directory, dated March 9, bore 126 names. The third directory, dated April 8, showed an increase of 102, a total of 228 stations.

Establish Toll Communication

At the outset, the company’s territory comprised New Haven and Middlesex counties in Connecticut. Later it added Hartford, Connecticut, and three Massachusetts cities, connecting two of the latter by a trunk circuit, one of the earliest steps taken to establish toll communication between exchanges. But the company soon found that its resources would be taxed to develop its Connecticut field, the Massachusetts exchanges were sold, and the promoters devoted their efforts to building and purchasing exchanges throughout Connecticut—for others had been put into operation soon after the New Haven opening—and bringing them together by trunk lines.

Progressing from a purely local service to one that was statewide, the company eventually became, through several corporate changes in name, The Southern New England Telephone Company, which now serves Connecticut. But no sooner had Coy’s vision become a fact than the industry made rapid strides elsewhere, and to record, even briefly, the marvelous expansion of telephone use from the beginning, when but 21 subscribers were connected, it is necessary to look far beyond the area served by the original company.