

## HISTORY OF THE TELEPHONE IN CANADA.

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As the object of this association is not only to foster the science of electricity, but to conserve its records, I have ventured to deviate from the usual plan adopted by members in their papers, in dealing wholly with the scientific aspects of the subject, and offer instead a brief historical sketch of the telephone in Canada—the country that can with truth be called the birthplace of the telephone.

Professor Alexander Graham Bell's home was, for several years prior to the invention of the telephone, at Tutello Heights on the outskirts of Brantford, Ontario, and it was there that many of his experiments in multiple telegraphy, and some of the earliest in telephony, were made. The first experimental telephone line erected in Canada and used in this connection extended from the residence of the inventor's father across his garden. This line being found workable, it was afterwards continued on to the residence of the Rev. Thomas Henderson, in Brantford. Its successful working soon became noised abroad, and the novelty of the invention attracted many visitors from various parts of Ontario to listen to the then wonderful performance of the electric telephone, and presently Brantford became known as the "Telephone City." At this time the much condemned "Hello" had not come into use as a signal for conversation to begin; the words "Hoy, Hoy" were considered most satisfactory. We must give a discriminating public the credit of choosing the less objectionable word, and be thankful that "Hoy, Hoy" did not survive.

When the Canadian patent was issued to Professor Bell, he presented it as a gift to his father, Prof. Melville Bell, and the latter, believing a company or partnership unnecessary, appointed a general agent to exploit the Bell telephone. The latter visited the principal cities and towns and exhibited the old-fashioned box telephone, with but little commercial success, however, as the difficulty of hearing the voice clearly rendered problematic its future value as a means of communication.

The first commercial telephone line was established at Hamilton, Ontario, in October, 1877, by the District Telegraph Company, who were quick to appreciate its value, and they therefore secured control of the invention for that district. This line connected together the residences of Messrs. Baker and Cory. Mr. Edison at this time was not neglecting Canada as far as telephony was concerned. He had opened up correspondence early in 1877 with the city electrician of Montreal, and forwarded two sets of his telephones for trial. These were placed on the telegraph line between Montreal and Quebec, a distance of two hundred miles, and worked with remarkable distinctness, notwithstanding the presence of several relays in the circuit.

On the 15th September, 1877, a contract was entered into between these gentlemen, whereby the latter secured the sole and exclusive right to the telephonic invention in Canada of Mr. Edison for a nominal sum, with the option of purchasing outright the patents for the sum of \$10,000. The element of competition was thus introduced at the outset of the business. Both parties claimed priority of patents, and threatened suit against all and sundry users; but while this rivalry continued until 1880, it was not known that Edison as early as 1877 had admitted Bell's claim to priority. This he did in a letter to his Canadian representative, under date of October 13th, 1877, wherein Mr. Edison stated that:

"Bell has done absolutely nothing new over Reiss, except to turn Reiss' from a contact breaking into a non-contact breaking telephone with permanent magnet, and worked the thing up to a success. The records of the patent office will show that myself (Edison) Bell and Gray started nearly together on acoustic telegraphy for Morse working, that Bell and myself dropped this for speaking acoustic and I dropped it first and was working on it before Bell. However, Bell got ahead of me by striking a principle of easy application, whereas I have been plodding along on the correct principle, but harder of application." The cry of infringement failed to deter

lessees from using the telephones, and numbers of private lines were erected in Montreal and Toronto. These lines formed the nucleus of exchanges in these cities, which were first put into operation in 1878. Montreal was equipped with the Edison apparatus, while the local company operating at Toronto adopted the Bell instruments. The Blake and Edison transmitters having been introduced, the business began to show some development.

The Western Union Telegraph Company, through its ally the Gold and Stock Telegraph Company, secured in 1878 control of the Edison patents for Canada, and the Montreal Telegraph Company were appointed agents for Ontario and Quebec, and the agents of the Western Union Telegraph Company in the Maritime Provinces were ordered to look after the telephone in the Lower Provinces. In telegraphic circles it was thought that whoever could control the telephone, could command the bulk of the telegraph business, and the telephone was used principally as a lever to this end. The Dominion Telegraph Company, then in fierce competition with the Montreal Telegraph Company, became alarmed at the apparently shrewd move on the part of its rivals, and immediately set about securing exclusive rights of the Bell telephone as a weapon of defence. Negotiations resulted in a contract between the patentee and the Dominion Telegraph Company, and the three telegraph companies started in a race to secure subscribers to their exchanges in the cities and towns from Windsor to Halifax, where exchanges inaugurated by local companies did not already exist. Some cities were, however, slow to appreciate the use of the telephone, notably Ottawa, and St. John, N.B. At Ottawa an active canvass was commenced, but in order to save time a complete telephone exchange outfit was shipped there; the canvass was unsuccessful; no subscribers were forthcoming, and the plant had to be stored until the public could be educated into the use of the telephone. At St. John only one subscriber could be secured after two weeks canvassing. A brilliant idea then occurred to the manager of the opposing company at this point and was carried to a successful issue. It was to open a free telephone exchange, on trial. This at once demonstrated the necessity for an exchange, and soon two competing exchanges were working, and unable to keep pace with the paying orders offered.

This struggle between the telegraph companies, which signally failed in its main objects of diverting telegrams to any one company, resulted not alone in cutting telephone rates to absurdly low figures, but in doing business absolutely without charge. To such competition there could be but one end, and it was soon reached. There had been a large capital outlay, and the revenue did not by any means meet the expenses. A proposition at this time to form a separate telephone company, independent of all telegraph companies was made by Mr. Charles F. Sise, the present chairman of the Bell Telephone Company of Canada, and Mr. Hugh C. Baker, manager of the District Telegraph Company of Hamilton. The suggestion of these gentlemen was gladly accepted by the interested companies and patentees and by the public at large, who were suffering in most cities from the annoyance of two telephone exchanges. The Bell Telephone Company was thereupon organized and incorporated in 1880, when it took over all the existing plants and patents, reorganized and consolidated the exchanges, and began the manufacture of all kinds of telephonic apparatus.

The work of constructing lines connecting adjoining places was begun on the single wire plan, and towns and villages within a radius of one hundred miles were given direct means of telephonic communication. This added to the value of the Exchanges, and as the business prospered a question was raised by interested parties, anxious to embark in the business as to the validity of the Bell patent. Two telephone companies were formed by these parties, and local competition at a few points ensued. The patent dispute was brought before the Minister of Agriculture at Ottawa, and as you all know the patent was lost to the Bell Telephone Company in 1885. A similar fate befell the Blake Transmitter Patent, and as the Minister's decision was final and irrevocable, the telephone field was open to all comers. Notwithstanding this blow, the Bell Telephone Company continued to rapidly increase its list of subscribers and revenue, and

their competitors were left to the tender mercies of their creditors, who found the venture, while it succeeded in breaking the patents, had proved an unprofitable financial undertaking. Later on competition appeared in several localities, but as the connections of these opposing concerns were necessarily limited, they again demonstrated the inutility of working a duplicate telephone system in a city or town, by disappearing from the scene without ever having paid a dividend.

A local company was formed in Nova Scotia and New Brunswick, and after a short struggle with the Bell Telephone Company an agreement was arrived at whereby each of these provinces would have a separate telephone company, the Bell Telephone Company withdrawing from the field but retaining an interest in each company. These companies have covered their territories with trunk lines and exchanges. The local company of Prince Edward Island, which had previously been formed by the Bell Telephone Company, has, however, reached the highest stage of expansion, it having a network of wires which reaches every town and village on the island.

The Bell Telephone Company were early in the field in Manitoba and the North-West, and have kept pace with the development of this territory by opening stations at all points where business would warrant. British Columbia is served by local companies, using the same type of instrument as Eastern Canada. These companies have been most energetic and progressive in their policy. As an indication of this we can note the fact that Vancouver, B.C., was the first exchange in Canada to alter its entire system at great cost, and give each subscriber a separate metallic circuit line.

Canada has kept pace with all the advances in the art of telephony. Metallic Trunk Lines between towns in Ontario and Quebec were erected and put into operation when the system was first introduced into the United States, and all the best and most modern switching and signalling appliances have been furnished, thus ensuring to the public a most reliable service. On some points it may be said that Canada is in advance of other countries; notably in the use of the system of Duplexing Telephone Trunk Lines, which is now in operation in Toronto. The vast number of country trunk lines, both metallic and single in the older Provinces, show that the service is appreciated and used by all classes of the community.

In a brief paper of this nature many interesting and instructive facts must necessarily be omitted; those that have been touched upon will not only show the rise and progress of the telephone industry in Canada, but should prove that we are in the van in this branch of electricity.

—Jagson says it would be money in some men's pockets if they had signed a *nom de plume* to their friends' notes.—*Elmira Gazette*.

—"What's the subscription price of your new paper?" "Two dollars a year." "Is it intended for any particular class of readers?" "Yes; it is for those who have two dollars."—*Truth*.

THE MONEY FAMINE IN THE STATES.—Owing to the financial stringency the Municipal Court at Seattle has reduced the fine for drunkenness from \$5 to \$3 for spot cash.—*Reading Times*.

—The circulation in this country is \$24.02 for every man, woman and child. Then who in thunder has our share of it? An invoice of stock shows a shortage of just \$24 this morning.—*Langhorn (Pa.) Standard*.

—A young clerk, whose literary education was somewhat limited, said the stinginess of the times had not seriously affected the trade of the store he was employed in. Upon which the *Michigan Christian Advocate* remarked, "We are afraid it will affect church finances."

—It is only proper that the man or men who have done so much to give exquisite pleasure to scores of thousands in devising the illuminations at the Chicago Fair should have especial mention. Frank Millet, the artist, is one of these. He has been one of the art directors of that wonderful enterprise for these two years. As Harper's *Basar* truly says: "None who have seen the wooded island illuminated, and the procession of lighted boats circling about the lagoon, and the great basin with its thousands of lights, can ever thank Mr. Millet enough."