

THE TELEPHONE.

THE Telephone is now in full operation at Huntington. It is contemplated to extend it to Dewittville and Ormiston, if adequate substantial aid is given by the residents of these two places. There is a report of its extension to Hemmingford. To be a general benefit however, it must reach Montreal, the market town of that District.

Mr. C. F. Sise, vice-president and managing director of the Bell Telephone Company, and L. B. McFarlane, manager of the eastern division, have recently been spending a few days in the city of St. John, N.B. Their visit there has been of special interest to Mr. J. H. Wagstaff, who has for only a short time been agent for the company, and who by close attention to business, both in the interest of the Company and the subscribers, has so improved the agency as to win the confidence of the managers, and has been rewarded by the appointment to the position of district superintendent, which covers the management and inspection of the Maritime Provinces, with the head office at St. John. Mr. Wagstaff will continue to control the affairs of the St. John agency. The advance has been earned within ten months and without any previous experience in the business, and is, therefore, more to be valued. The Company will shortly remove to new offices in the Bostwick building, which are being specially fitted up for them, and, when finished, will be very complete and comfortable.

THE Bell Telephone Co. are busy stringing in Montreal, a superior new steel No. 12 wire.

THE Bell Telephone Co. exchange office at Toronto, which occupies the southern wing of the Mail building, was burned out on the morning of the 24th May. The Bell Telephone Company employs about eighteen young women to answer calls and make telephone connections, six of whom were on duty at the time of the outbreak, their names being Miss Clarke, Miss Mackenzie, Miss Murphy, Miss Leitch, Miss Porter, and Miss McCarthy. Naturally they were very much alarmed at seeing the smoke, and did not care to leave the office. Had they done so and passed by the elevator to the iron doors leading to the composing room which were closed but not locked, they could easily have escaped by the north stairs without going through the experience which they afterwards met with. Mr. Hambly of the Mail editorial staff, re-entering his room, found the telephone girls at the windows of their office, which overlooks his, but one floor higher up. They called to him for help, and he begged of them to keep calm and he would get assistance. Some of them were preparing to take a jump diagonally to the roof of the white building adjoining THE MAIL building, and knowing the terrible risk they ran, for if they had missed the roof they would have fallen the distance of one hundred feet. Mr. Hambly urged them not to do it. One of them, Miss McCarthy made the leap, and by clutching at a batch of wires, and sliding along them reached the roof in safety. The other girls then went to the windows overlooking King Street, and screamed for help. Mr. F. Thompson, of THE MAIL business department got a ladder on the roof of the white building, and rearing it against the parapet of THE MAIL building, the girls were enabled to creep along one by one and passed into safety. The men were only just in time in doing this, as the girls had become terribly excited, and one of them was preparing to jump into King Street, which had she done she would have met with certain destruction. The reaction on her was such that when she was got down in safety she immediately fainted. The Bell Telephone Company suffered the most, and their hundreds of subscribers will be put to some little inconvenience for the next few days. It is expected the two hundred wires are now in working order again, the men working day and night to make the connections under the energetic direction of Supt. Neilson.

THE Bell Electric Light Co. were burned out in the MAIL building fire, at Toronto on the 24th May.

THE Bell Telephone Co. of Toronto have leased new quarters for their Exchange at 118 Bay Street.

ELECTRICAL INDUCTION IN UNDERGROUND

— AND — METALLIC CONDUCTORS.

BY F. N. GIBBORNE, C.E.; F.R.S., *Sup't. of Dom. Government Telegraph Lines*, OTTAWA, ONT.

THE Paper read before the Royal Society of Canada at its meeting on Wednesday afternoon, 21st May, at Ottawa, by Mr. F. N. Gisborne, Superintendent of the Dominion Government Telegraph Service, possesses peculiar interest at the present time in that it deals with the phenomena of induction in electrical circuits to compensate the effect of which, many and various means have been from time to time suggested, but the inefficiency of which to eliminate the evil, has been declared before the Committee appointed and at present in session at Albany, N.Y., to consider the question of the practicability of placing electrical conductors underground. Mr. Gisborne's paper was descriptive of a new system devised by himself. To overcome the difficulties referred to, diagrams were presented which graphically explained the condition obtained in neighboring circuits, and comparisons were made between two or more circuits arranged as heretofore considered best and the same circuits arranged according to his system. Proofs of the efficiency of his system were given in the production of a tabulated statement of tests made of a section of cable over 3,000 feet in length which was constructed under his direction, and laid between two of the departmental buildings in that city. The cable in question contains 20 insulated conductors; these are directed into ten pairs, two conductors being twisted together in each case, each pair being utilized as a metallic circuit, one conductor being used as a return, instead of the earth as is usual. The peculiarity of the cable consists in this twisting of the wires forming metallic circuits, in that both wires are thus made to occupy the same relative position with respect to any other conductor or pair of conductors in their neighborhood. The philosophy of this device is, that a current passing through any such circuit has necessarily to pass down one wire and up the other, and it is evident that the positions of both with respect to a neighboring circuit, being the same as above stated, the inductive effect of the current passing down one wire is neutralized by the inductive effect of the same current passing up the return wire. It would appear therefore, that Mr. Gisborne's system is in reality one in which the phenomenon of current induction does not obtain rather than one by which the effects are neutralized. Considerable interest in this connection has already been manifested and it is understood that letters patent are about to be issued in Canada and the United States to the gentleman in question.

IN connection with the International Electrical Exhibition to be held in September, it may be well to say that the meeting of the American Association for the Advancement of Science, which will be held this year in Philadelphia, and the expected presence of many representatives of the British Association, which will meet this year in Montreal, will attract a numerous and influential scientific gathering in Philadelphia during the time of the holding of the exhibition; and in order that so exceptional an opportunity to promote the interests of science shall not be lost, Congress has been requested to authorize the holding of a National Conference of Electricians, to convene in Philadelphia at this time.