

TELEGRAPH and TELEPHONE

THE APPLICATION OF WIRELESS TELEGRAPHY TO THE PROPOSED SYSTEM OF BUOYS.

By F. A. HAMILTON, M.I.E.E., M. Can. Soc. C.E.

My idea with regard to the possibility of using the Marconi system in conjunction with the electric gong buoys is based on the following considerations:

It is a generally recognized fact that some means of improving the approaches to Halifax harbor and other points on this coast must be provided. The subject has been discussed at intervals for years, but recent shipping disasters and more especially the increase of insurance rates have had the effect of so arousing public opinion that active measures are being taken with a view to carrying out some means of securing the desired result.

My proposal is to run a submarine cable from some suitable place near one of the headlands to a distance of about 12 miles off Sambro. Connected with the cable I propose mooring three buoys, placed in convenient positions, as described in the CANADIAN ELECTRICAL NEWS of October, 1898, page 206, and in the Halifax public press in 1891-92, each buoy being fitted with an electric motor and other apparatus, such as bell, hammer and switch. The current would be generated at the station on shore, and each buoy would sound its own signal or number. Such a system of buoys could be maintained at a considerable less cost than would be incurred in the case of a lightship, and with more satisfactory results, for the former could be placed well out in the offing in water that would be beyond the depth in which a lightship could be moored. One of these buoys could be fitted, in addition to its ordinary apparatus, with a Marconi transmitter of sufficient efficiency to admit of signals being projected for a distance of a few miles, say four or five miles from the outer buoy.

By means of this combination provision would be made whereby vessels bound in would not be running into danger when searching for the buoys, and the latter would be so placed that the course of the ship standing to and fro would be parallel with the land. On passing to leeward of one of the buoys its number would be ascertained and a safe course to the harbor assured.

Ships having the Marconi receiver would be doubly served, and other vessels, such as the smaller sailing craft, would not be ignored. Such is briefly the scheme in outline.

With regard to the mooring of these buoys, I may say that a long experience in connection with submarine cable repairs justifies my conclusions with regard to the possibility of maintaining the proposed service at a cost which would not be prohibitory, and at an initial expense considerably less than would be required to provide and equip an efficient lightship, allowing for argument's sake that such a vessel could efficiently serve the purpose intended under circumstances when visual signals would be absolutely useless, seeing that thick weather is almost invariably the accompaniment during a southerly wind, and that vessels approaching the land are then standing down the wind and consequently towards a lee shore, frequently in dense fog which no light could penetrate. It may appear a vain repetition to recite the oft quoted experience of each and all of those who have studied the question of marine signals, that it is no unfrequent occurrence during intermittent fog for the passing mariner to see the jet of steam from a fog whistle, but without the faintest sound therefrom reaching him; and so with the automatic buoy, whose doleful moan can be heard for miles to leeward, but is inaudible a hundred yards to windward. Taking these facts into consideration, it would seem reasonable that the suggestions here submitted would commend themselves as proper subjects for investigation.

Halifax, August 8th, 1899.

POLICE AND FIRE ALARM SYSTEMS IN CANADA.*

By GEO. F. MACDONALD, City Electrician, Ottawa.

You have asked me to prepare a paper on the progress and development of the fire alarm and police telegraph in the Dominion of Canada. Gentlemen, I appreciate the honor, I assure you. In my early occupation in commercial telegraphy we charged so much per word, therefore force of early training compels me to be as brief as possible.

The first alarm and police telegraph in Canada was established

in Montreal in 1863, just 36 years ago. The "A.B.C." or dial instruments were used for police purposes. Montreal started with 53 boxes; to-day that city has 255. Montreal introduced the modern police alarm on street corners in 1884.

Toronto, the next largest city, installed the alarm in 1871 with 40 boxes; to-day it has 183, with 10 circuits and one of the most complete telegraph and underground systems to be found anywhere.

Quebec, the third largest city, built the alarm in 1867 with fifty boxes; to-day it has 100 boxes.

St. John, N.B., introduced the system the same year as Quebec, commencing with 25 boxes; to-day it has 61.

Ottawa, the capital of the vast Dominion, the "Washington of the North," commenced in 1874 with 30 boxes; to-day we have 100, and I am trying to get 50 more of the up-to-date pattern.

Halifax, N.S., Hamilton, London, and many other cities all have the fire alarm system.

Montreal and Toronto are the only Canadian cities having a perfect police patrol alarm. Montreal commenced to use the gravity battery in 1867.

The cities I have mentioned are using the keyless, non-interfering boxes, more or less. The day is fast approaching when we will have nothing but underground wires, non-interfering boxes and the storage battery system. I cannot close without acknowledging the great benefits derived by the introduction of the Gamewell repeater and the telephone in connection with our signal service.

SHORT-CIRCUITS.

The town of Revelstoke, B.C., will install an electric fire alarm system.

The Bell Telephone Co. purpose renewing their line between Almonte and Pembroke, Ont.

The Bell Telephone Co. is said to be running a copper wire circuit from Montreal to Buffalo.

The bill providing for the payment by Canada of a proportionate share of the cost of the construction of the proposed Pacific cable was passed in the Dominion parliament on August 2nd.

The Georgian Bay Cement Company, Limited, of Owen Sound, Ont., have placed an order with the Canadian General Electric Company for the complete installation of an electric plant for 150 lights in their new works.

Mr. James Wilson, superintendent of C.P.R. telegraphs in British Columbia, returned a fortnight ago to New Westminster, after a three months' trip to Southern California. We are pleased to learn that Mr. Wilson's health is improving.

The annual meeting of the shareholders of the New Brunswick Telephone Co. was held recently at Rothesay, N.B., when directors were elected as follows: L. J. Almon, president; D. C. Dawson, secretary; Col. Tucker, A. O. Earle and James Kennedy.

A meeting of members of the town council and board of trade was held in Lindsay, Ont., recently, to decide whether a five years' exclusive franchise should be given to the Bell Telephone Company, or whether the newly organized Victoria County Telephone Company should be encouraged. The consensus of opinion seemed to be in favor of the Bell Company.

Messrs. A. E. Porter and W. A. Anderson, of Bennett, B. C., have made application to the Legislature of British Columbia for an Act to incorporate a company with the power to construct and operate a system of wireless telegraphy from some point at or near Bennett, in the district of Cassiar, to some point on the Canadian Pacific Railway between the eastern boundary of the province and the sea.

The demonstrations of Marconi's system of wireless telegraphy at the Toronto Industrial Exhibition are being conducted by Mr. W. J. Clarke, of the United States Electrical Supply Co., of New York. Mr. Clarke is a native of Trenton, Ont., and was for some years manager of the Hamilton Electric Light Co. The process of wireless telegraphy is shown operating with the receiver and transmitter about 15 feet apart.

Mr. Frederick Eli, of Newark, N.J., has patented a fire alarm box, intended to prevent the turning in of false alarms, as well as to give the fire department immediate notice of a fire. The invention consists of a cage, in which the fire alarm is located. When the door of the cage has been opened the door of the alarm box remains locked, and the door of the latter becomes unlocked as soon as the cage door is entirely closed. In this way the person ringing the alarm is compelled to remain in the cage until the firemen arrive to open the door by a key.

* Paper read at the annual convention of the National Association of Municipal Engineers, September 4, 1899.