

MAINLAND CONNECTED WITH ISLAND BY WIRELESS

Point Grey Stations Transmitted
Many Messages to
Victoria Yesterday.

WORKED WITHOUT A HITCH.

Service to Be Inaugurated Next
Month Will Be Extended
to Prince Rupert.

WIRELESS communication between the Government stations at Point Grey, near this city, and Victoria was successfully established yesterday. The tests proved of the most successful character. In all about two thousand words were exchanged. They were conducted under the direction of Mr. Cecil Doure, commissioner of wireless telegraphy, Ottawa, who is superintending the installation of the apparatus at the various stations. It is expected that a regular service will be inaugurated about the middle of next month. The Dominion Government, it is understood, will next spring build additional station along the coast as far north as Prince Rupert.

"The equipment of the Point Grey station was completed last Sunday, but on account of a delay in making several slight modifications in the apparatus the actual transmission of messages did not take place until yesterday," said Mr. Doure to The Province to-day. Our most sanguine expecta-

the two stations is about 100 miles. The speed attained in sending was somewhat in excess of thirty words per minute. This would be considered very fair speed over a land line.

Service is Instantaneous.

"The power is generated by a three-horsepower gasoline engine which drives a hundred-volt sixty-cycle alternator. The current is taken from the alternator as stated at 110 volts and 'stepped up' through the medium of a transformer to twenty thousand volts. This is again increased from twenty thousand volt- through the medium of an auto-transformer to a voltage ranging from forty to sixty thousand volts, there being a satisfactory means of testing the exact voltage. The remainder of the equipment consists of a condenser and a spark gap which are common to all wireless systems. The object of the condenser, which is known as the 'capacity,' acts as a reservoir for the current, storing up the very high energy from the outer transformer. The closing of an ordinary telegrapher's key releases the stored up energy in the condenser, which is instantaneously transmitted to the aerial wire and flashed through space in the form of Hertzian waves. These waves travel with the same velocity as light, or at the rate of 300,000 metres, or an equivalent of 180,000 miles per second. Needless to add that with waves of this high velocity the signals are received instantaneously.

"Mr. Arthur Morse, an expert who will have charge of the Point Grey station assisted me in making these tests. Mr. E. J. Houghton, late of the C. P. R. telegraphs at Victoria, has been appointed to the Victoria station. He also assisted at the Victoria end yesterday.

Will the Waves "Bend?"

"These two stations are in first-class working order. A regular service, however, will not be inaugurated until about December 15, when it is expected the other stations will have been completed. The next station to be tested will be the one at Pachena Point. In drawing a straight line between there and Victoria it will be seen that the transmission is directly over the land surface, exceedingly high mountains intervening. Consequently it has never been expected that the two stations would inter-communicate direct, but arrangements have been made with the United States Government to transmit messages through its wireless station at Tatoosh Island, off Cape Flattery."

Dr. Doure considers it not improbable after the splendid results attained yesterday that there is a possibility of the aerial waves "bending themselves" around the west coast of Vancouver Island and reaching the Pachena station. He, however, is not over sanguine of obtaining such satisfactory results.

It is understood that as soon as the service is inaugurated the various steamship lines, notably the C. P. R., will immediately equip their various boats with wireless apparatus. The Government stations will be available for communication with any vessel equipped with wireless apparatus, irrespective of

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