

Exchange.	Number of Subscribers or Connections:	
	March 31, 1908.	March 31, 1907.
Thames	113	100
Paeroa	56	43
Te Aroha	54	...
Waihi	84	67
Timaru	448	344
Fairlie	22	12
Geraldine	83	63
St. Andrew's	15	7
Studholme Junction	8	4
Temuka	32	24
Waimate	83	51
Wanganui	681	529
Bull's	21	15
Hunterville	26	15
Marton	116	76
Okaiawa	5	6
Taihape	53	...
Waverley	23	13
Wellington	3,781	2,706
Hutt	5	...
Westport	159	140
Whangarei	125	95
Totals	23,881	17,403

WIRELESS TELEGRAPHY.

Cable messages may now be accepted within the Dominion for transmission "by wireless" from certain land stations in Canada and the United States of America respectively to such of the steamers of the trans-atlantic steamship companies as are fitted with the necessary apparatus to receive them between the terminal ports. They are subject to additional prepaid post and telegraph charges. The address and signature of all cable messages are transmitted free of charge over the wireless system, but the usual cable rates are chargeable on each complete outgoing message to the terminal land station.

The first message by wireless telegraphy despatched from New Zealand to an oversea country was transmitted on the 3rd February, 1908, from the Prime Minister of this Dominion to the Hon. Alfred Deakin. The message was despatched from H.M.S. "Pioneer," at Wellington, to H.M.S. "Psyche" in Port Jackson, the battleship "Powerful" acting as "repeater" at sea within twelve of fourteen hours' steaming-distance of Sydney. The interval of time between losing the New Zealand signals and picking up the Australian was six hours.

A Radiotelegraph Division in connection with the International Telegraph Bureau was established at Berne on 21st May, 1907. The division was to begin its duties at a date to be fixed later.

While the system of wireless telegraphy has been brought into use to a considerable extent on ships of war and other ocean-going vessels for use between ship and ship, and ship and shore, it does not seem to have attained any great commercial development, and in a certain sense it must be considered as not having wholly emerged from the experimental stage.

The Marconi Company has erected a large and powerful station at Clifden, in Ireland, between which place and America Press messages are now being transmitted.

A wireless-telegraph station has been for some time in course of erection at Coltans, in Italy, and will be completed in a few months. It is expected that this will be the most powerful station in existence.

A little more than a year ago Mr. Valdemar Poulsen discovered a means of producing continuous undamped waves from an arc in hydrogen. By this means the loud noise that results from spark-transmission, and the need of transforming the low to very high voltages, were obviated, and it was claimed that the attuning could be done so closely as to permit of a much greater number of stations operating, without interference, in a given area. Experimental stations have been in operation for some time, but nothing definite seems to have been arrived at as to marked superiority of one system over another. Other systems claim to have equally good methods of producing undamped waves and of attuning.

At Cullercoats, in Northumberland, the company operating the Poulsen system has established a comparative station where, in a four-roomed building, they have a spark system occupying three rooms, and the undamped continuous wave system occupying one room. The power is about 8-h. With the spark system the voltage has to be raised to 50,000, and the highest voltage with the other system is about 3,000. One mast 220 ft. high does for both systems. Both seem to be equally effective on the open water, but it is claimed that the Poulsen system can attain further distances than the spark system over intervening land. Distances of 900 miles are accomplished with the power mentioned.

It is stated that some ships are discarding the spark, and equipping the Poulsen, system.

These experiments do not enable very definite conclusions to be formed as to the relative merits of the systems.