

The minimum rate of 18s. for twenty-four words previously charged between Great Britain and this Dominion has been reduced to 15s. for twenty words. Received messages, instead of being posted at the cable-station, are now telegraphed over the whole route, and posted on Monday night at the office of destination for delivery by the first mail on Tuesday. Week-end cable messages between New Zealand and the Union of South Africa are now accepted for transmission via the Eastern route. The rate is 8d. per word, and the minimum charge 13s. 4d. They are also accepted for India, Burma, and Ceylon at a rate of 8½d. per word, with a minimum charge of 14s. 2d.; and for Canada (via Pacific) at 7d. a word, with a minimum of 11s. 8d. Arrangements are being made to extend the system to Germany.

#### WIRELESS TELEGRAPHY.

The increase in the number of radio-telegraphic messages over the previous year was 54 and 87 per cent. for the forwarded and received respectively. The increase, especially of messages received, can be partially accounted for in the opening of the high-power stations at Awanui and Awarua and the station at Chatham Islands.

There are now five New Zealand coast stations. These provide adequately for the needs of ship-stations in all directions around these coasts, and also secure communication between Chatham Islands and New Zealand.

The Chatham Islands station (opened on the 18th September, 1913) established a much-needed link with the mainland of New Zealand. It also serves to extend the range of communication with ship-stations to the eastward. The position of the station is 47° 57' S., 176° 31' W.—416 miles from Radio-Wellington. The wireless set is a 2½ kw. Telefunken, with a normal range of 300 miles by day and 600 miles by night. The prime motive power is generated by an oil-engine. A storage-battery of considerable capacity ensures reliability. The aerial is of the T type, and is suspended at a height of 150 ft. from two tubular steel structures 300 ft. apart. An earthed counterpoise completes the aerial equipment.

The high-power stations at Awanui and Awarua were both opened for commercial work on the 18th December, 1913. Awanui is situated in 34° 54' S., 173° 18' E., and Awarua in 46° 30' S., 168° 23' E. These stations are of 30 kw. primary power and have identical Telefunken equipments. The severe tests made prior to their being taken over by the Department proved them capable of fulfilling all requirements and of ensuring wireless communication with Australia at any hour of the day or night.

The radio-station at Auckland is now used only for daylight work.

When weather-disturbance is expected a free weather-telegram is sent out for the benefit of shipping from Awanui, Awarua, and Wellington, at 8, 9, and 10 p.m. respectively.

A continuous "listening" service is maintained at Awanui, Awarua, and Wellington, the latter station being open continuously for commercial work. The wireless coastal stations are connected with the land-line systems, and arrangements exist for promptly transmitting wireless messages over the land lines and immediately communicating distress-signals to the proper authorities.

Twenty-two ship-stations are registered in New Zealand.

The compulsory equipment of certain New Zealand vessels will operate from the 1st July, 1914. Regulations were prepared by the Marine Department under the powers conferred by the Shipping and Seamen Amendment Act, 1909, and were gazetted on the 23rd October, 1913. Provision is made, *inter alia*, for the installation of wireless telegraphy on every steamship registered in New Zealand and carrying passengers which is engaged in the foreign or intercolonial trade (except steamships trading to Chatham, Auckland, Campbell, and Antipodes Islands), and every home-trade steamship which is authorized by her ordinary survey certificate to carry not less than 150 passengers at sea. Such vessels are to be placed in the third class, wherein they have no fixed working-hours, are not bound to perform any regular "listening" service, and are not required to carry an emergency installation.

The regulations governing the use of wireless telegraphy on ship-stations registered in New Zealand, and licensed by the Minister of Telegraphs, have been revised and brought into conformity with the recommendations of the International Radio-telegraphic Convention, London, 1912.

The Post and Telegraph Amendment Act, 1913, provides for regulating the use of wireless telegraphy on British and foreign ships, not registered in New Zealand, while within its territorial waters. Regulations giving effect to this supervision have been prepared.

It has been arranged that the wireless coast stations of New Zealand shall co-operate with the British Association for the Advancement of Science in the collection of data of atmospheric electrical disturbances which interfere with the receipt of wireless signals. Observations will be made simultaneously in many parts of the world, and it is expected that this joint action will produce results of practical scientific value.

Amended radio-telegraphic regulations came into force on the 1st January, 1914. The charge for the transmission of radio-telegrams to or from ships trading exclusively between Australia and New Zealand or between ports on the coast of New Zealand from or to any telegraph-office in the Dominion was reduced from 10d. to 5d. a word.

Provision was made in the Post and Telegraph Amendment Act, 1913, for fuller powers to restrict the erection and maintenance of stations by amateur experimenters.

In the Christmas season of 1913 arrangements were made whereby greetings between Australia and New Zealand could be transmitted by wireless at 4s. per message of not more than four words, and with New Zealand and Australian vessels at 3s. per message.

The hill on which the Wellington Radio-telegraph Station is situated has been named "Mount Wakefield." The name of the station, "Radio-Wellington," is not altered.

Arrangements were made for the Chatham Islands Wireless Station to report the arrival and departure of vessels.

By Order in Council dated the 24th April, 1914, permission was given to the Corporation of Canterbury College to install a radio station and plant in the College buildings for scientific and experimental purposes in connection with the investigation of "strays" on behalf of the British