

NUMBER OF TELEGRAPH-OFFICES IN DOMINION.

Offices opened during the year, 38; offices closed during year, 50; offices remaining open on 31st March, 1924, 2,295. Of this number 334 are operated by Morse and 1,961 by telephone, 9 having been converted from telephone to Morse-working during the year and 8 from Morse to telephone. The excess of offices closed over the number opened is due to the extension of the telephone-exchange system to rural and backblocks districts by means of party lines.

MACHINE-PRINTING TELEGRAPHS.

Additional multiplex telegraph instruments have been installed at Wellington and Auckland as part of the general scheme for linking up the more important of the provincial towns by means of the multiplex system of telegraphy.

On the 23rd October, 1923, direct communication over machine-printing circuits was provided between Christchurch and Auckland through the medium of multiplex repeating apparatus at Wellington.

Multiplex telegraph instruments are now being installed at Dunedin to provide for direct communication by multiplex from Dunedin to Christchurch, Wellington, or Auckland.

UNIVERSAL BATTERY.

The telegraph instrument-room at Christchurch has been transferred to the new building in Hereford Street. More modern methods of telegraph working have been introduced, including the universal-battery system, which is the first installation of the kind in New Zealand. The installation of this system involved the replacement of a large number of primary batteries by storage cells, which, in addition to providing a more efficient source of battery power, will effect a considerable saving in maintenance charges. Action is being taken to replace the primary-battery telegraph system at other chief centres.

NEW ZEALAND SUBMARINE CABLES.

Only one of the Cook Strait cables was interrupted during the year, and this was repaired in September last with the assistance of the Pacific Cable Board's staff and steamer "Iris."

WIRELESS.

GOVERNMENT STATIONS.

During the year radio communication has been satisfactorily maintained by all Government coast stations. An effective watch has also been kept for signals of distress from ship stations.

In September last arrangements were made to enable masters of vessels at sea to communicate with coast stations for the purpose of obtaining reports on the weather conditions prevailing in important nautical localities.

RADIO-AWARUA.

Satisfactory communication was maintained by Radio-Awarua with the Norwegian Whaling Expedition, headed by the factory steamer "Sir James Clark Ross," during the whole period of its operations in Ross Sea. Radio-telegraphic communication with the expedition was effected at 2,000 miles, and radio-telephone traffic was handled from the "Sir James Clark Ross" at a distance of 1,400 miles. Although conversations by radio-telephone have been conducted on many previous occasions by vessels trading in these waters, this in the first case in which this agency has been employed for the transmission of a radio-telegram to a New Zealand coast station.

The transmitting equipment at Radio-Awarua is being supplemented by an efficient short-wave transmitter, in order to provide a more effective means of communicating in daylight with ships on the southern steamship routes. When this transmitter is installed the period of transmission at Awarua will be increased and the duration of the watch extended.

RADIO-WELLINGTON.

In June last the two wooden masts at Radio-Wellington, which had been in service since 1912, were replaced by a new 165 ft. steel self-supporting tower. The semi-umbrella type of antenna erected on the new structure is proving equally as efficient as the "T" antenna erected on the old masts.

Consideration is now being given to the matter of equipping Radio-Wellington with a continuous-wave valve transmitter. The installation of this equipment would permit of the use of different types of transmissions for fixed and mobile service, facilitate long-distance communication with ship stations, and reduce to a minimum interference with adjacent radio-telephone broadcasting transmissions.

RADIO CHATHAM ISLANDS.

Reliable and uninterrupted communication has been maintained during the year between Radio-Chatham Islands and the mainland.

With a view to facilitating the despatch of radio-telegrams over long distances, and also reducing interference, arrangements were made in May last for Radio Chatham Islands to work overseas vessels on the Cape Horn and Panama transpacific routes on long waves.

RADIO-AWANUI.

The proposed modernization of the radio-stations at Awanui (New Zealand) and Apia (Samoa) by the installation of continuous-wave transmitters in place of the present spark equipment is being held in abeyance pending possible developments in connection with the erection in New Zealand of a high-power station, which would probably incorporate the specific services at present performed by Radio-Awanui.