The Te Karaka - Otoko metallic circuit was extended to Matawai on the 29th February, 1928, and the Te Karaka - Matawai - Motu earth-working line was converted to metallic. Matawai and Motu thus obtained additional outlets to Gisborne, while Gisborne obtained an additional outlet to Opotiki.

An important addition to the toll-line system in the Nelson district was the completion in July, 1928, of a copper metallic circuit between Murchison and Inangahua. This constituted the last step in the linking-up of the Nelson district with the West Coast. Direct telephonic communication is now available between most places in the Nelson and Marlborough Provinces and the West Coast centres. The new circuit also provides an alternative telegraph route between Blenheim and Christchurch when circuits on the east coast are interrupted. Additional toll facilities have also been provided between Nelson and Blenheim to meet the increase in traffic that has taken place over this section since continuous telephone service between Nelson and Wellington became available.

Canterbury Engineering District.—Although the actual length of wire in use for toll and telegraph purposes in the Canterbury District was not materially increased during the year, a considerable amount of work was carried out in the direction both of increasing the toll facilities by rearranging the wires and of improving the efficiency of the circuits. Increased efficiency was obtained by replacing iron wires with copper and by twisting the circuits, so as to afford, as far as possible, immunity from power-line inductive interference. Owing to the erection of power circuits, it was necessary to convert from earth-working to metallic the circuits between Barrytown–Rapahoe, Lower Kokatahi - Koiterangi, Arahura–Humphrey's–Hoho, Ngahere–Blackball–Roa, and on the Hazelburn circuit.

Of the works undertaken in the Canterbury District the following were the more important:—

Christchurch–Seddon: This circuit was provided as a link in the chain furnishing a means of telephone transmission between the North Island and the central and southern districts of the South Island. In addition, it gave the Nelson and Marlborough districts improved facilities with Canterbury and Otago.

Leeston–Dunsandel: The erection of this circuit gave Leeston direct communication with Dunsandel, its outlet on the Main Trunk Railway line.

Christchurch–Kaiapoi: This line was reconstructed, and the rusty iron replaced with copper, which greatly improved the efficiency of telephone transmission.

Cheviot–Parnassus: The iron wires in this section were replaced with copper. At the same time provision was made for the connection of a number of rural subscribers in the Leader Valley.

Kumara–Hokitika: The iron wires in this section were replaced with copper and the circuits twisted in order to improve their efficiency as well as to render them, as far as possible, immune from power-line inductive interference.

Christchurch–Sockburn: Copper aerial wires were erected in this section in order to increase the speaking efficiency of the main toll circuits between Christchurch and Dunedin, as well as to provide emergency outlets in case of a breakdown in the Christchurch–Sockburn underground cable.

Otago Engineering District.—The extension of range of the inter-Island toll service has enabled Dunedin people to communicate by telephone with the North Island, and good speech is obtainable as far north as Auckland. Although the service is not at present available until after 10 p.m., it is much appreciated by Dunedin subscribers and by visitors from the North Island.

The following additions have been made to the toll system in the Otago Engineering District: New metallic circuit between Lumsden and Kingston; new metallic circuit, Riverton–Orepuki–Tuatapere; new metallic circuit, Balclutha–Glenomaru–Owaka.

In addition, the Waimahaka–Waikawa and the Omakau–Poolburn circuits were converted to metallic-circuit working. With these additions and conversions, the congestion on toll lines in the Otago District has been practically eliminated.

MACHINE-PRINTING TELEGRAPHS.

The machine-printing telegraph apparatus installed at Napier in March, 1927, has given excellent service. The advantages of such an installation are very apparent during line-interruptions, when there is a general shortage of circuits.

MAINTENANCE OF LINES.

Auckland Engineering District.—The protracted drought caused abnormal and general interruptions to lines through poles in parched ground becoming displaced and straining and breaking wires. Fire damage was extensive, but not so serious as it would have been had scrub and vegetable growth not been kept cut well back from poles.

Wellington Engineering District.—Except for the dislocation of traffic in June and July, caused by severe snowstorms in the Raetihi and Ohakune sections, there were no serious interruptions to lines in the Palmerston North District.

Exceptional gales and floods in July caused considerable interruption to telegraph and telephone services in the Napier district. Otherwise communication was satisfactorily maintained.