

The present position with regard to block-working is as follows :—

Total mileage equipped with tablet instruments	1,570
Number of tablet instruments in use	877
Number of tablet stations	357
Number of tablet exchangers	315

Telegraph and Telephone Facilities.—During the past year 69 miles of pole-line were rebuilt, 89 miles of copper conductors replaced iron conductors on these sections, and 90 miles of copper wire were erected in new circuits. In addition, 21 miles of wire for earth-working circuits were converted for metallic circuits.

The sections rebuilt were—

Masterton—Woodville	49 miles 22 chains.
Paeroa—Thames	19 miles 24 chains.

A metallic circuit was installed between Westport—Conn's Creek—Ngakawau.

A two-channel carrier-telephone system was installed between Auckland and Wellington and single-channel carrier systems between Wellington and Wanganui and Auckland and Frankton Junction.

The automatic telephone exchange in the Wellington Station was completed and a teleprinter service introduced between Auckland and Wellington.

In the Wanganui District Traffic Manager's Office a fifty-line automatic telephone exchange was installed with direct access to the Post and Telegraph Exchange and lines rearranged to give a more comprehensive service.

A small twenty-five-line automatic exchange was installed in the District Traffic Manager's Office, Christchurch, and manual exchanges were installed at Napier, Whangarei, Taumarunui, and Marton.

The erection of a train-control circuit, Wellington—Palmerston North, via Wairarapa, is in hand.

Orders have been placed for the supply of telephone-exchanges for Dunedin and Frankton Junction stations.

Pole-lines are being built in conjunction with the work being undertaken by the Public Works Department on the Napier Gisborne and South Island Main Trunk lines.

Platform announcement systems were installed at Auckland and Christchurch stations.

The statistics of communication facilities are as follows :—

Morse instruments	148
Telephones	3,250
Miles of wire	17,801
Miles of poles	3,086
Railway exchanges, automatic	8
Railway exchanges, manual	13
Public exchange connections	625

LEVEL CROSSING ALARMS.

Flashing-light signals were installed at Mangaiti and at Kelso during the year.

Following the erection of overhead bridges level-crossing alarms were removed from Ruatangata ; Tarukenga ; Davis Street, Wellington ; Kiwi Road, Brunner ; Deborah ; and Kartigi.

The total number of level crossings now fitted with automatic devices is 120. In addition, there is a number of manually controlled bell signals.

Traction.—At Otira further progress has been made with the erection of the positive feeder overhead alongside the existing catenary wire. Approximately three-quarters of the worn original contact wire in the tunnel has been replaced with standard 0.25 square inch grooved section.

Tenders have been invited for the supply of the necessary equipment for a new mercury arc rectifier substation at Otira to replace the existing steam-generating power-house there, which is to be abandoned. This action was taken following a decision reached during the year to take power from the national power network which is being extended through Otira to the West Coast. Arrangements are also in hand to effect the change-over of the local reticulation of Otira Village.

Main Workshops.—Systematic maintenance of the substations attached to the main workshops has been carried out during the year.

Considerable alterations and additions to various workshops have taken place and are in hand at the different centres, and electrical reticulation work has followed closely on these alterations.

Additional lighting-points and motors have been wired by the workshops' electricians under permit, and this work has been inspected.

Electrical Reticulation.—During the year electric lighting was installed in the station buildings and yards at Woodcocks, Kaipara Flats, Ahuroa, Tahokeroa, Sturgess Road, Rangiriri, Ruakura, Eureka, Motumaoho, Kiwitahi, Taringamotu, Whangamomona, Silverhope, Maewa, Takapu Road, Pigeon Bush, Cross Creek, Southbrook, Oxford East, Omakau, Balfour.

Dwellings reticulated for electric lighting during the year totalled 162.

Statistics of electrical equipment are as follows :—

Number of houses electrically lighted	2,910
Number of stations electrically lighted	389
Number of substations	21
Total capacity of substations	12,890 kVA.
Number of station yards flood lighted	13