

Block-working.—During the year Paki Paki was converted into a “switch-out” tablet station and Hastings Racecourse was closed as a “switch-out” station. The Paki Paki installation is a special arrangement, the block being extended over three ordinary sections.

Lock and block working between Dunedin and Mosgiel has been superseded by automatic signalling. This was the final section of lock and block in the Dominion to be dismantled, and all double lines are now equipped with automatic signalling.

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

Total mileage equipped with tablet instruments	..	..	..	..	..	1,577
Number of tablet instruments in use	..	..	..	..	..	867
Number of tablet stations	..	..	..	..	..	356
Number of tablet exchangers	..	..	..	..	..	314
Mileage of double line worked by lock and block	..	..	..	..	..	Nil.
Number of stations	..	..	..	..	..	Nil.
Number of instruments	..	..	..	..	..	Nil.

TELEGRAPH AND TELEPHONE FACILITIES.

During the past year 160 miles of pole-line were rebuilt; 1,016 miles of copper conductors replaced iron conductors on these sections and 129 miles of copper wire were erected in new circuits.

The sections rebuilt were: Whangarei–Opuā, Morrinsville–Waihi, Upper Hutt–Masterton, Rolleston–Darfield, and Invercargill–Makerewa.

New long-distance telephone circuits were erected to facilitate inter-district communications.

The Auckland Station automatic-telephone exchange was extended with a junction unit and a four-position attendants' board. This installation released the Post and Telegraph Department's exchange and enables the railway exchange to work direct to and from the central exchange.

A 500 line automatic-telephone exchange has been installed in the new station at Wellington. This exchange is designed to give direct access to the Post and Telegraph exchange and to all the North Island lines of the railway system. The installation includes a public announcement system for the direction of passengers on platforms and in the main public rooms.

Obsolete pattern telephones were replaced by new instruments on the more important railway long distance circuits.

The statistics of communication facilities are as follows:—

Morse instruments	..	..	..	..	..	162
Telephones	..	..	..	..	..	3,112
Miles of wire	..	..	..	..	..	17,499
Miles of poles	..	..	..	..	..	3,086
Railway exchanges—						
Automatic	..	..	..	..	..	6
Manual	..	..	..	..	..	13
Public exchange connections	..	..	..	..	..	629

LEVEL-CROSSING ALARMS.

Flashing-light signals were installed at Benhar and removed from Styx during the year. The latter installation was removed as a result of an overhead bridge having been brought into use. Crossing-bells at Port Ahuriri were dispensed with.

The total number of level crossings now fitted with automatic warning devices is 123. In addition, there is a number of crossings protected by manually controlled bell signals.

TRACTION.

Otira and Christchurch–Lyttelton.—At Otira the original cable brackets through the tunnel were replaced with new brackets with insulators, and a start has been made to place the positive feeder, originally supplied in cable form, overhead alongside the catenary wire. A portion of the contact wire at Otira which was showing signs of wear has been replaced with standard 0.25 square inch grooved section.

Wellington–Paekakariki–Johnsonville.—Wellington–Paekakariki: During the year practically the whole of the electrical equipment for the rectifier and transmission line substations came to hand. This equipment has been erected and connected up. All work will be completed early in the coming year.

Wellington–Johnsonville: During the year the substation building at Khandallah was constructed and the electrical equipment which came to hand was installed.

The electrical equipment for the Kaiwarra substation portion of this electrification has also been installed and much of the overhead erected.

Wellington New Yard and Station Building.—All work in the main substation for supplying power to the new yard and station at Wellington was completed and power turned on. The ring-main around the yard was completed and livened up so that all the individual substations in the yard are now fed from the Department's bulk supply.

An additional flood-light tower was erected and brought into use.