

extensions, Henderson, Paeroa, and Papakura; provision of bicycle-shed on wharf, Greymouth; improved drainage, Helensville and Westport; water-service improvements, Morrinsville, Papakura, Greytown, Outram; fire-prevention services, Bridge No. 1, Awaroa Line, and Auckland goods-sheds; provision of loading-banks, Utiku and Centre Bush; improvements and additions to fifteen cottages; luncheon-room for shed-men, Auckland; Westinghouse-brake store, Addington; refreshment-room additions, Moana and Kaitoke; underbridge, Makarewa; pathway and fencing, Cross Creek; extension of Locomotive Foreman's office, Palmerston North; accommodation for women car-cleaners, Frankton; purchase of land for yard-extension, Mercer.

Expenditure.—The expenditure for the year was as follows:—

	£
Maintenance—charged to working-expenses	710,655
New works—charged to capital	164,770
Other Government Departments, public bodies, and private parties	28,321
Total expenditure	<u>£903,746</u>

The maintenance expenditure charged to working-expenses amounted to £240 per mile, compared with £243 in 1916–1917, £251 in 1915–1916, and £254 in 1914–1915.

As indicated in the earlier part of this report and in previous reports, much work has had to be held over owing to lack of materials and labour. When conditions become normal the expenditure will have to be increased materially to overtake arrears.

Mileage.—The mileage open for traffic on the 31st March, 1918, was 2,992 miles 67 chains. During the year 22 miles 70 chains additional lines were opened for traffic.

Lands and Leases.—Number of leases registered during the year, 380; annual rental, £2,727 5s. 3d. Leases current at 31st March, 1918, 5,298; annual rental, £34,906 17s. Private-siding agreements registered during the year, 61; annual rental, £2,027. Private-siding agreements current at 31st March, 1918, 428; annual rental, £10,419. Proclamations taking or giving up land, 29. Total amount of compensation paid during the year for land, £57,368 7s. 6d. Miscellaneous agreements entered into, 8.

Staff.—Maintenance Branch: Working staff, 3,414; office staff, 150; total, 3,564. The staff has been considerably affected by enlistments.

SIGNAL AND ELECTRICAL.

Fixed Signals at Officered Stations.

During the year nine stations have been equipped with fixed signals, viz.: Karaka Crossing, Paerata Junction, Claudelands, Walton, Otokia, Sefton, Balcairn, Prebbleton, and Ladbroke's.

Fifteen stations have been equipped with distant signals in addition to previous equipment of home signals, viz.: Hamilton, Ruakura, Eureka, Motumaho, Kiwitahi, Matamata, Hinuera, Allanton, Henley, Waihola, Milburn, Clifton, Awarua, Greenhills, and Bluff.

Distant signals have now been erected at all stations where home signals were provided on the North and South Island main lines from Auckland to Bluff. The erection of distant signals on the Rotorua Branch is now in hand.

The total number of officered (including tablet) stations is 492, of which 305 are equipped with fixed signals, 97 are interlocked, and 90 not yet equipped.

Interlocking of Points and Signals.

The electric pneumatic installation at Dunedin has given satisfaction during the year.

The only station equipped with signalling and interlocking was Johnsonville, where a complete scheme of electrical detectors was installed.

Alterations have been made to the signalling and interlocking at Palmerston North, Woodville, Christchurch (south end), Sawyer's Bay, Greymouth, Burnside, Makarewa Junction, and Conon Street tram-crossing at Invercargill.

The following flag-station sidings and private sidings were interlocked with the tablet system during the year: Kioreroa Junction, service sidings at 13 m. 2 ch. and 22 m. 15 ch. (two), (Auckland district); service siding near Lake Road (Ohakune district); Ngaroto Station; ballast-siding near Te Awamutu; Te Mawhai Station; Kiokio Station; Te Kumi Station; Kopaki Station; Mangapeehi Station; Waimiha Sawmilling Company's private siding between Waimiha and Ongarue; Te Koura Station; Taringamotu Station; ballast-pit siding at Matapuna; Manunui Station; Oio Station; ballast-pit siding near Burnham; Normanby Station (Christchurch district); ballast-pit siding near St. Andrew's; Otaio Station; Hook Station; Willowbridge Station; Invercargill Corporation's private siding at Greenhills; oyster siding at Bluff.

Special switch-locks (Wood's) interlocking the facing-points with home signals have been installed at the following eleven stations: Karaka Crossing siding, Paerata (for Waiuku Branch), Claudelands, Walton, Ladbroke's, Balcairn, Sefton, Prebbleton, Ashburton, Otokia, and Matawai.

Seventeen switch-out tablet stations have been equipped with special locking arrangements for points and signals, viz.: Karaka Crossing siding, Rangiriri, Taupiri, Te Rapa, Claudelands, Motumahoe, Hangatiki, Pokako, Ohingaiti, Porewa, Bunnythorpe, Maewa, Ohau, Te Horo, Paraparaumu, Paremata, Otokia.

A foot overbridge was erected from the signal-cabin at Palmerston North to the platform, for convenience of signalmen exchanging tablets.

Total stations now interlocked, 97; tramway crossings, 7; sidings and flag stations interlocked with tablet, 127; stations where Wood's locks are installed, 257.

The expenditure for the year on signalling and interlocking works was as follows: New works, £14,426 18s. 3d.; maintenance, £16,446 0s. 6d.

Block-working (Electric Tablet).

Eight additional tablet instruments have been installed during the year.

Te Horo, Ohau, Paraparaumu, and Paremata were converted to switch-out stations.