

cargill district. The North Rangitata Bridge in Canterbury was also damaged, being blocked for traffic for three days, until repairs were effected.

The district staffs concerned met these unusual difficulties in a creditable manner.

*Ballasting.*—Ballast to the amount of about 290,000 cubic yards was used on the track during the year. This is less than the average yearly quantity used during the previous five years. Scarcity of labour accounted for this decrease.

A steam navvy is being used for loading ballast in Invercargill district, and a Quertier excavator in the Wellington district. The provision of further mechanical loading plants is under consideration.

A second crushing plant is being installed in the quarry at Te Kuiti, and a crushing plant at Mount Albert, Auckland.

*Bridges, &c.*—Bridge structures have been maintained in a safe condition. The renewal of timber superstructures in steel has been continued. Where desirable, the alignment has been improved when rebuilding bridges.

New steel-girder bridges over the New North Road, Morningside, and Park Road (Auckland), and new steel viaduct at Manawapou (Wanganui district), are in hand.

*Fences.*—A good deal of work has been done in the way of enclosing the line, about 48½ miles of fences having been erected on the Manawatu line alone.

*Locomotive Water-services.*—Improvements have been made at a number of stations.

*Wharves.*—New ferro-concrete wharf at Picton completed. Additions to the Lake Wakatipu wharves have been completed, and a patent slip is being constructed. Heavy repairs to Port Chalmers wharves are in hand.

*Buildings.*—New engine-depots are in course of construction at Newmarket and Linwood (Christchurch).

The maintenance-works depot at Newmarket is being shifted to Penrose, to make room for the new engine-depot. The removal of maintenance-works depots to Kaiwarra and Addington has been completed.

Social halls for the use of employees have been provided at Auckland, Ohakune, and Marton. Bathrooms and other additions have been supplied at a large number of cottages.

Albert Bond building at Christchurch, recently purchased by the Department, is being converted to offices for district staffs.

*Miscellaneous Works.*—Additions and improvements were carried out during the year amounting to £26,101, which was charged to working-expenses. The principal works were: Additions and improvements at Whangarei, Helensville, Remuera, Ohinewai, Kiwitahi, Matamata, Ohakune, Ball Road, Pahiata, Carterton, Thorndon, Lambton, Christchurch, Temuka, Timaru, Glenavy, Ladbroke (part), Waimate, Allanton, Ocean Beach, Dipton, and Balfour; new station building at Henderson; additions to houses at Mount Eden, Tirau, Bennett's, Chertsey, Oxford East, and Tapui; new houses at Dargaville, Utiku, and Springfield; social halls at Frankton (part), Ohakune (part), and Marton; erection of verandas at Halcombe, Rolleston, and Waipara; new goods-sheds at Waikumete and Motumaoho; additions to goods-sheds at Runciman, Bonny Glen, and Hawarden; fire-break walls in goods-sheds at New Plymouth, Westport, Christchurch, Timaru, Oamaru, and Invercargill; new stockyards and improvements at Eureka, Methven, Otamita, and Glenorchy; additions to water-services at Hikurangi, Helensville, Mercer (part), Ohau, Thorndon, and Invercargill; erection of weigh-bridges at Helensville, Morrinsville, Te Aroha, and Granity; erection of turntables at Waipahi, Gore, Heriot, Tokanui, and Hedgehope; Dunedin, trial well at engine-depot (completion); drainage improvements at Whangarei, Pelichet Bay, and Dunedin; workshops improvements at Whangarei, Napier (part), Petone, and Addington; refreshment-rooms at Paekakariki (completion) and Cass (part); Otira, passenger-shelter; Paekakariki, new engine-depot (part); Auckland, extension of Pintsch-gas works (completion); Arahura, fencing-line; Frankton and Balclutha, improved coal-storage; deviation of line at Mercer (completion) and Bonny Glen—Turakina (part); erection of cranes at Taumarunui and Waikari; land for ballast-pits at Te Awamutu and Glasnevin; purchase of land, Otahuhu; foot-warmer furnaces at Upper Hutt, Ward, and Picton; additions to library at Petone and Hillside; Invercargill, fire-prevention water-service; Taumarunui, storeroom and goods-offices; Lyttelton, purchase of New Zealand Shipping Company's buildings; Lyttelton, lighting grain-shed; Ohakune, lighting with acetylene.

*Additions to Open Lines.*—£164,577 was spent on these works and charged to capital, the principal items being the following: Signalling, interlocking, block-working, &c.; additions to station buildings, yards, and sidings, at Whangarei, Motatau (part), Helensville, Pokapu, Taita, Auckland (completion), Auckland (Quay Street) (completion), Mercer (part), Otahuhu, Huntly (part), Taupiri, Mount Eden (completion), Mount Albert, Frankton, Morrinsville (completion), Paeroa, Te Kumi, Te Kuiti (completion), Poro-o-tarao, Taumarunui, Eltham (completion), Napier, Waipawa (part), Waipukurau (part), Pukerua, Pimmerton, Tawa Flat, Thorndon, Picton (part), Ikamatua (completion), Heathcote, Christchurch (part), Leeston, Waddington, Coalgate, Lincoln, Hinds, Dunsandel (completion), Mataura (part), Timaru (part), Dunedin, Stirling (part), and Invercargill (part).

*Miscellaneous.*—Additions to water-services at Ngaruawahia, Henderson (part), Morrinsville, Otahuhu (part), and Tokomaru; new houses at Waikumete, Frankton, Springfield, Duntroon, and Glenham; purchase of land at Ngaruawahia, Huntly, Hawera, Stratford, Napier, and Gore; additions to workshops at Whangarei (part), Newmarket (part), Petone, and Addington; extension of platforms at Te Kumi and Hamilton; extension of verandahs at Napier, Palmerston North (completion), Thorndon, Lambton, Oxford East, and Gore (part); additions to goods-sheds at Auckland, Kawa,