

*Railway Workshops.*

The railway workshops have been considerably extended, and a new workshop erected at Invercargill. Obsolete machinery has been replaced by modern machinery wherever practicable. Electricity has been installed as motive power in some of the shops, and, generally speaking, the improvements have been of a character that has brought the shops well up to date, making it possible for them to carry out annually an extensive programme for the building of rolling-stock, including the manufacture of locomotives, cars, and wagons. The amount expended on the equipment and extension of the workshops has been £246,294, of which £182,625 represents cost of new machinery.

*Maintenance.*

In the Maintenance Branch a large expenditure has been incurred in providing increased accommodation at both officered and flag stations. Eighty-four new station buildings have been erected, and hundreds of miles of additional sidings laid to provide for the requirements of the increased traffic and to enable the long trains hauled by the most powerful engines to be handled expeditiously. All wooden bridges on main lines of the North Island have been replaced by steel structures or renewed in ironbark. A ferro-concrete wharf has been erected at Picton, and a new timber wharf, capable of dealing with large oversea vessels, has been built at Nelson. The lighting and water services have been modernized wherever practicable. Verandas have been provided at a large number of stations, and a considerable number of new houses have been erected for the staff and material improvements made in the older dwellings.

Out of 1,995 miles of track operated in 1895, 71 miles were laid with 30 lb. rails, 1,847 miles with 40 lb., 52 lb., and 53 lb. metals, 17 miles with 56 lb., and 60 miles with 70 lb. rails. A large amount of relaying has since taken place, and up to the present time 1,070 miles have been relaid with 70 lb., 26 miles with 64 lb., 733 miles with 56 lb., 858 miles with 52 lb. and 53 lb. rails, and there now exists only 171 miles of 40 lb. track or under. During the last ten years 2,929,011 sleepers have been put into the track, and 4,061,269 tons of ballast were used during the same period. The expenditure incurred in relaying and respacing sleepers amounted to £2,672,451, all of which has been charged to working-expenses.

A comprehensive programme of regrading and, where necessary, deviating the lines for the purpose of obtaining reductions in grades and so increasing the hauling-capacity of the locomotives has been laid down. Several deviations and grade improvements have been undertaken and successfully carried out by the Working Railways Department, including the New Plymouth—Waiwakaiho River deviation, Aramoko—Wanganui deviation, deviation of the Napier line near Ormondville, and deviation near Riverton, including erection of new bridge over the Aparima River. In addition the Department has carried out the duplication of the lines between Auckland and Penrose, Addington and Rolleston, Milton and Clarkesville, Dunedin and Mosgiel, and Wellington—Lower Hutt road improvement and railway duplication. The expenditure incurred on these works was £1,061,368.

Safety appliances in the nature of electric tablet, interlocking, telegraph and telephones, lock-and-block, electric-train staff and ticket have been installed. The tablet is in operation at 299 stations, controlling 1,389 miles of line. Seventy-five stations have been interlocked. 1,441 telegraph and telephone instruments have been installed, 5,640 miles of telegraph and telephone wires have been laid on, and 2,096 miles of poles for carrying the wires. Lock-and-block working is in operation on 38½ miles of railway-line, and fixed signals have been erected at 215 stations.

*Maintenance Workshops.*

Maintenance depots have been established and new workshops erected and equipped at Penrose, Kaiwarra, Addington, and Dunedin.

As a result of the judicious expenditure incurred over a period of years in the betterment of the lines and their equipment, I assert with the utmost confidence that their condition at the present moment is better than at any other period of their history, and as a going concern their value is greatly in excess of the capital invested in them.

The rolling-stock equipment in use on the railways when I took over sole control in 1895 was found to be inadequate to meet requirements, and the increased prosperity which then set in resulted in an unprecedented advance in railway business. As it was impossible at that time to undertake the building of rolling-stock with sufficient rapidity in the railway workshops (which were originally designed and equipped for repairs work only), I was reluctantly constrained to recommend the importation of eighty-nine locomotives, sixty-three carriages, and one thousand wagons. Contracts for the construction of these were let in due course. At the same time close attention was devoted to the question of improving and extending the railway workshops and their equipment, so as to enable the rolling-stock required to meet future traffic expansion to be manufactured therein. By 1899 the workshops were in a position to undertake the manufacture of rolling-stock with sufficient expedition to justify me in stating that after the contracts referred to above were fulfilled it would for many years be unnecessary to go abroad for rolling-stock equipment for the New Zealand railways. From that date up to the present time the whole of the rolling-stock required has been manufactured in the New Zealand railway workshops, supplemented by fifty locomotives built in the Dominion under contract by the engineering firm of Messrs. Price Bros., Thames.

*Motor Services.*

The development of motor traction in other countries has been closely watched for some time past, and, after having investigated the results achieved by tests of different types of rail motor-cars, I placed an experimental order for two cars—one with the British Westinghouse Brake Com-