

inspecting all the important workshops, depots, and stations connected with the leading railway systems, and obtained much valuable information as to the methods adopted in dealing with all branches of railway-work. The International Conference opened on the 4th May and concluded its labours on the 13th May. The Conference was strikingly international in character. It was attended by the representatives of every important railway system in the world, and is an invaluable means by which railway experts can personally exchange views and acquire first-hand and reliable information on the many subjects connected with every-day railway-working.

After the conclusion of the Conference I visited the United Kingdom and the Continent, observing closely the methods adopted in the different countries and by various railway systems in dealing with every-day railway business. I arrived back in Wellington on the 31st August, 1905.

As a result of my observations, I am satisfied that, having regard to the circumstances and conditions of the colony, the New Zealand railways compare most favourably with the systems in operation in any of the countries I visited.

A full report concerning the deliberations of the International Railway Congress and the results of my observations of various railway methods has already been submitted to you.

MAINTENANCE.

Mr. J. Coom, Chief Engineer, reports as follows:—

Permanent-way.—The track has been well maintained, and at present is in thoroughly good condition.

Ninety-two miles of the main line have been relaid with 70 lb. steel rails, and the second-hand rails, mostly 53 lb. steel, taken out of the main line have been used in relaying 30 lb. and 40 lb. track on the branches. The rate of relaying for the year forms a record for the colony.

336,424 new sleepers have been laid: 26,732 were imported hardwood sleepers used mainly on curves, turnouts, and crossings; the balance, 309,692, were of native timber, of which 90,342 were creosoted.

The cost of track renewals this year is high, due to the length relaid, the higher cost of rails, and increase in wages.

Slips and Floods.—During the year some slips have occurred on the Otago Central and on the North Island Main Trunk lines, but there has been nothing of serious moment.

Ballasting.—A considerable quantity of ballast, amounting to 19,960 cubic yards of broken metal and 242,283 cubic yards of shingle and gravel ballast, has been used during the year.

Bridges.—Bridges have been maintained in a safe condition; a large amount of strengthening and renewal has been done. The principal works in hand or completed under this head are as follows: In the Wellington-Napier district, Ormondville Viaduct; in the Christchurch district, the Hurunui, Rakaiia, and Rangitata South bridges; in the Invercargill district, the Riverton bridges and deviation.

Water Services.—These have been maintained in good order.

Wharves.—These have been efficiently maintained.

Additions to the Nelson and Picton wharves are the most pressing works of the future.

Buildings.—The new station building at Dunedin is well on towards completion, and new stations at Petone and Lower Hutt have been completed. Station buildings at Gore, which were burnt down, have been rebuilt. New station buildings have been erected at Longburn, Temuka, and Seacliff, and a new building is in hand at Blenheim.

The expenditure under this head during the year amounts to £47,522, which is in excess of any previous year.

Miscellaneous Works.—Additions and improvements have been made during the year amounting to £12,235, which has been charged to working-expenses. The principal works are as follows: Additions and alterations to sidings—Marton, Woodville, Pigeon Bush, Kaiwarra, Lyttelton, Timaru, Barewood, Crichton, Waiwera, Palmerston, Invercargill, Riverton, Westport, Seddon. Additions to water services—Carterton, Palmerston, Omakau, Moana. Erection of new houses—Helensville, Te Kuiti (part), Cross Creek (part), Wellington, Gisborne Section (4) (part). Miscellaneous—Level crossing, Matamata; fencing, Mechanics Bay; drainage, Eltham; goods-shed, Longburn; purchase of land, Lower Hutt; library, Petone; overbridge, Petone; acetylene gas, Featherston; cattle-yards, Willowbridge; removal central filling George Street Pier, Port Chalmers (part); reclamation, Pelichet Bay; lining Mansford Tunnel; baths for trainmen, Christchurch, Dunedin, Invercargill (part); shifting locomotive depot, Bluff; verandah, Clifton; bracing piers Bridge No. 1, Arnold River; purchase of 7-ton crane for quarry, Aicken's; additions to twenty-seven dwellings; building twenty-eight portable huts; providing washing-coppers for twelve dwellings and bathrooms for twenty-six dwellings.

Additions to Open Lines.—The principal works carried out during the year are as follows:—

Additions to Station Buildings, Station-yards, and Sidings: Dunedin (part), Feilding (completion), Te Aro, Longburn, Palmerston North (completion), Seacliff, Rangiora, Invercargill, Mataura, Christchurch (part), Onehunga Wharf, Whangamarino, Temuka, Pareora, Paeroa, Hamilton, Utiku, Waipawa, Gore, Waipahi, Blenheim (part), Lovell's Flat (part), Upper Hutt (part), Trentham (part), Kumara (part), Huntly, Takapau (part), Hawarden (part), Woodville (part).

Purchase of Land: Christchurch, Seacliff.

Erection of New Houses: Mitcham, Balclutha, Middelmarsh, New Plymouth.

Erection of Weighbridges: Huntly, Frankton, and Rangiora.

Miscellaneous: Pile-driving engines and boilers, Wellington and Invercargill; additions engine-shed, Invercargill (completion); electric lighting, Port Chalmers (completion); additions Kaiwarra Wharf; oil-engines and pumps, Gore and Balclutha; lining Mansford Tunnel; fencing, Terrace End; Departmental Offices, Wellington; additions goods-sheds, Auckland and Wellington; filling-in, Mechanics Bay; viaduct, Mangarangiara (part); raising Manukau Road Bridge.