

## APPENDIX B.

## ANNUAL REPORT ON MAINTENANCE OF NEW ZEALAND RAILWAYS.

GENTLEMEN,—

Chief Engineer's Office, Wellington, 25th May, 1894.

I have the honour to report on the maintenance of the New Zealand railways for the year ending 31st March, 1894.

*Extensions.*—There have been about 60½ miles of new railway opened for traffic during the year. These are,—

	M.	ch.
Rotorua Line—Putaruru—Tarukenga ... ..	23	5
Hunterville Branch—Rangatira—Mangaonoho ... ..	3	72
Greymouth to Hokitika ... ..	24	17
Ngakawau—Mokihinui ... ..	7	12
Blenheim—Riverlands* ... ..	2	43
Total ... ..	60	69

*Mileage.*—The mileage of the railways is now 1,951 miles 30 chains.

*Permanent-way.*—The track generally is being kept up in good condition. Renewals of rails have been made to an aggregate length of 43 miles 67 chains, which is a greater length than has been relaid for many years.

*Sleepers.*—There were 177,502 sleepers laid during the year. About 155,502 were for ordinary renewals, and about 22,000 were laid to increase the number per rail-length. About fifty miles of main line were thus raised to a higher standard of stability. The consumption of sleepers in ordinary renewals amounts to eighty per mile, and an additional number of thirteen per mile is due to respacing. The rate of renewal of sleepers under ordinary maintenance shows a uniform rate of increase during the past four years.

The stipulations inserted in contracts for sleeper-supplies, with a view to securing winter-felled timber, are working satisfactorily, and an improved quality of timber is being obtained thereby.

*Improvements of Grades.*—An extensive alteration of grade in the railway has been carried out between Swainson's and Halcombe, on the Wanganui line. This is nearly completed. Another very heavy reduction of grade has been made near Makarewa, on the Invercargill and Kingston line, which will afford a great relief to the haulage towards Invercargill.

*Bridges and Culverts.*—There has been a considerable increase in bridgework generally. On the Auckland Section some very extensive renewals of truss-bridges have been made, replacing kauri trusses, which were getting to the end of their service, with ironbark. The Ngaruawahia Bridge has been redecked throughout, and ironwork painted. On the Wanganui Section provision has been made for extending the run of the heavier class of engines between Rangitikei and Palmerston North. Extensive renewals have been effected to the Rangitikei Bridge, to the bridge over the Oroua River at Aorangi, and also to bridges at Feilding, Taonui, Bunnythorpe, and Longburn. A new bridge has also been erected at the foot of Swainson's grade in connection with the alteration of grade. Several large bridges between Aramoho and Sentry Hill have also been extensively overhauled. Bridge repairs have been heavy on the Napier Section in consequence of damages caused by severe floods last December. Repairs and partial reconstruction were required at the Waipawa and Pakipaki bridges. On the Christchurch Section several new piles were driven for the Rakaia Bridge, to replace those washed out by flood; also a long length of the decking was renewed. On the Hakateramea Branch three 40ft. spans were washed down by heavy flood in the Waitaki River. These have been rebuilt. A considerable length of the decking was renewed on the Lower Waitaki Bridge. On the Greymouth, Westport, Nelson, and Picton Sections a great deal of bridgework has been required and carried out. Many other large bridges have had heavy repairs, and several bridges have been entirely renewed. Numerous small repairs to other bridges have been carried out. The painting of iron bridges and also the ironwork of timber bridges has had special attention.

*Wharves.*—Extensive wharf repairs have been carried out at Port Chalmers, Greymouth, Westport, and Nelson. At Westport the work has mainly been due to the severe damages suffered by flood in the Buller River in June, 1893.

*River Protection.*—Numerous river-protective works have been carried out, to protect lines from effects of floods.

*New Works.*—A great number of new works and additions have been carried out, a few of the principal of which are noted, as follow:—

Auckland Section: Verandahs erected at Mercer and Helensville. New road to goods-shed at Tuakau.

Wanganui Section: Overbridge at Patea erected for new road-bridge traffic. A verandah erected at Hawera platform. At Eltham, new well, windmill, and water-service; alteration of station-yard, and additions to offices for postal department. A new station and siding at Waiongona. Palmerston North—Additions to goods-shed, goods-roads, and sidings. Stratford—Extension of goods-shed.

Napier Section: Waipawa—Extension of sidings; new stock-yards. At Hastings, the station-yard has been rearranged; new platform built further back from street-crossing; new cattle-yards.

Wellington Section: Coal-shed and water-tanks erected at Wellington Station, and platform lengthened. Ngahauranga—Additions to station-buildings. Petone—New north and south home signals, and new water-tanks. Lower Hutt—Extension of platform, extra sidings, and new north

\* Taken over but not opened for traffic.