

## APPENDIX C.

## ANNUAL REPORT ON MAINTENANCE OF NEW ZEALAND RAILWAYS.

SIR,—

Chief Engineer's Office, Wellington, 10th June, 1896.

I have the honour to forward the following report on the maintenance of the New Zealand Railways for the year ending 31st March, 1896 :—

*Mileage.*—New lines were opened for traffic during the year as follows :—

|   | M.        | ch.       |
|---|-----------|-----------|
| Kaihu Railway, Opanake Extension                        | 0         | 5         |
| Te Aroha—Thames Railway, Te Aroha to Paeroa             | 12        | 66        |
| Wellington—Woodville Railway, Eketahuna to Newman       | 2         | 2         |
| Catlin's River Railway, Glenomaru Tunnel to Owaka River | 3         | 48        |
| <b>Total</b>  | <b>18</b> | <b>41</b> |
| Fernhill Railway (purchased)                            | 1         | 68        |
| <b>Total added</b>                                      | <b>20</b> | <b>29</b> |

During the year the Taonui Branch Railway was closed in accordance with the Act of 1894, thus reducing the mileage by 2 miles 14 chains.

The total mileage of railways opened for traffic at the 31st March, 1896, was therefore :—

|  | M.           | ch.       |
|--|--------------|-----------|
| Mileage at 31st March, 1895                              | 1,994        | 76        |
| Railways opened for traffic and purchased during 1895–96 | 20           | 29        |
| <b>Total</b>   | <b>2,015</b> | <b>25</b> |
| Less railway closed                                      | 2            | 14        |
| <b>Mileage open for traffic at 31st March, 1896</b>      | <b>2,013</b> | <b>11</b> |

*Permanent-way.*—The lines generally have been maintained in good running order.

*Rail Renewals.*—Renewals of rails have been effected to the extent of 36 miles 59 chains.

*Sleeper Renewals.*—214,474 new sleepers have been placed in the track during the year. Of this quantity, 25,212 have been used in increasing the number of sleepers per rail length. Those used in ordinary renewals represent average renewals of ninety-five per mile of railway.

*Ballasting.*—Ballast-trains have been kept at work on the Auckland, Napier–Taranaki, Christchurch, and Dunedin districts. Some ballasting has also been done on most of the other sections.

Experiments are being carried out in the destruction of weeds by chemical means.

*Slips and Floods.*—Storms occurred during Easter, 1895, causing severe damage to the railways, especially in the Wellington and Napier–Taranaki districts. By the flooding of Lakes Ellesmere and Forsyth traffic on the Little River Branch was stopped for about a week, but no serious damage was done. With these exceptions the year has been comparatively free from floods and slips.

To protect the sea-beach near Timaru a large quantity of rubble-stone was deposited. Some 28,000 cubic yards of rock have been used in beach-protection at this locality since 1879, at a cost of nearly £10,000.

*Bridges.*—The repair, renewal, and reconstruction of all bridges has been undertaken as found necessary. In addition to this, very considerable work has been carried out in strengthening bridges to adapt them for heavier traffic.

A contract for the supply and erection of ironwork for the Kopua Viaduct reconstruction was let on the 20th January last. The abutments and foundations for the piers, with necessary earthworks, have been constructed by the Department.

Kawakawa Section: Several bridges and culverts repaired.

Whangarei Section: One bridge rebuilt, and several repaired.

Kaihu Section: One bridge strengthened.

Auckland Section: Parnell Bridge partly renewed in iron. Nine bridges renewed; other bridges repaired.

Napier–Taranaki Section: Thirty bridges have been renewed, seventeen repaired and strengthened, and three new bridges built. Among the principal works executed have been the renewal of the Waitotara Bridge, foundations of new Kopua Viaduct, and reconstruction of the Waipawa Bridge.

Wellington Section: Twenty-one bridges have been repaired or renewed during the year, and one new bridge built.

Christchurch Section: Considerable repairs have been effected to the Pahau, Hurunui, Waipara, North Kowai, Rakaia, Ashburton, Hinds, Rangitata, Temuka, Opihi, Pareora, Otaio, Makikihi, Waihao, &c., bridges. Many of these have been considerably strengthened.

Dunedin Section: On this section the Oamaru Creek, Waiareka, Mill Stream, Pleasant Valley, Big Kuri, Pelichet Bay, Lovell's Flat, Balclutha South, Kaihiku, Awamoko, Taieri (near Outram), Waitahuna, and several other bridges have been repaired or renewed.

Invercargill Section: The Waipahi Bridge (near Arthurton), Oreti Bridge (near Lumsden), New River Bridge, Riverton Bridge, and Aparima, at Hazlett's, have similarly been renewed and strengthened, and a large number of other bridges repaired.

Greymouth District: Two bridges were rebuilt, and three others repaired.

Westport Section: Considerable repairs were carried out, principally to bridges on the Mokihinui Extension.

Nelson Section: The bridges on this section have all been rebuilt, with one or two exceptions which have not as yet required it.