

Generally speaking, the expenditure of this department has been largely increased in consequence of the transition from original light-type railways to a more substantial one, in order to meet the demands of developing traffic. It has further been affected by the great increase in number of sleepers requiring renewal.

The rate of progress in reconstruction of track and structures has been greatly accelerated during the last few years, which also accounts for the increase of expenditure that has marked the same period. The necessity for this transition from a light to a heavier class of railway has become compulsory to provide for the great augmentation of traffic as well as the large additions made in the number of the heaviest classes of engines. Analysing last year's expenditure, it is found that the proportionate cost due to reconstruction is very large.

The items which come under the head of reconstruction are the actual relaying of tracks, exclusive of repairs; the respacing of sleepers, which increases the standard of stability; and the reconstruction of bridges, also exclusive of repairs. Reduced to money value the statement is as under:—

						£
Reconstruction of tracks	...	...	...	...	...	29,867
Re-spacing of sleepers	...	...	...	...	...	8,571
Reconstruction of bridges	...	...	...	...	...	18,317
Total	...	...	...	...	...	<u>£56,755</u>

With these items eliminated the ordinary maintenance of the New Zealand railways stands at the rate of about £148 per mile per annum.

Comparing the statements of cost of maintenance of way upon other colonial railways, it is observed that the South Australian rate per mile is the lowest. In that colony, according to the published analysis, the expenditure includes sleepers £6,604, and rails £7,874; together £14,478. On our railways £78,430 was laid out for similar materials. On the Queensland railways no relaying proper was done. On the New South Wales railways the Maintenance Account is not much detailed, but the whole of the materials for maintenance and renewals of permanent-way came to £48,078, as against £89,703 on New Zealand railways for the same class of materials. Most of the Australian railways use ironbark or jarrah sleepers, which have an immense advantage in point of strength and durability over the bulk of the sleepers in the New Zealand railways. These facts largely account for the disparity in the mileage rates of maintenance expenditure in the various colonies.

New Zealand has an item of expense which is peculiar when comparing with other colonial lines—that is, the mountainous nature of the country, its heavy rainfall, numerous and swift-running rivers, which, since the railways were constructed, have annually caused damages more or less costly to repair, and involving expensive works to hold the rivers in control. Expenditure on this head still exists, although it has been immensely reduced by the successful protective works established in former years.

Forecast.—Notwithstanding the large amount of conversion of light lines into more substantial ones that has been done in the past, there is yet a great deal to do in this direction. There still remains in the lines which carry the heavier traffic about 190 miles of 40 lb. way. This should be relaid within five years. After this there are branch lines carrying lighter traffic, having about 430 miles of 30 lb. and 40 lb. way, which should be provided for during the following five years or thereabouts. Besides the above there are 130 miles of 52 lb. and various other weights of iron rails in main lines, all of which should be relaid within the next five years; and a further amount must be provided annually for the renewal of 53 lb. and 70 lb. way on the main lines.

Having lately placed on the railways a large additional number of the heaviest classes of engines, and having a still further number already under order, it becomes imperative to provide for these in the estimates for the current year, and prudence requires that provision be made for future relaying, approximately at the following rates :—

Year.	Miles.	Year.	Miles.
1899-1900 ...	69	1904-1905 ...	98
1900-1901 ...	78	1905-1906 ...	97
1901-1902 ...	85	1906-1907 ..	97
1902-1903 ...	90	1907-1908 ...	94
1903-1904 ...	95	1908-1909 ...	93

Relaying.—The following statement shows the relaying that has been done during the previous eight years :—

TABLE showing WEIGHTS and LENGTH of RAILS REMOVED and RELAID during the Years 1891-92 to 1898-99 inclusive.

REMOVED.

Year.	30lb. Iron.	40lb. Iron.	40lb. Steel.	52lb. Iron.	53lb. Steel.	56lb. Iron.	64lb. Iron.	70lb. Iron.	72lb. Iron.	Total.
1891-92...	M. ch. 1 64	M. ch. 24 75	M. ch. 0 55	M. ch. 7 63	M. ch. ...	M. ch. 0 61	M. ch. 0 41	M. ch. ...	M. ch. 0 5	M. ch. 36 44
1892-93...	... 6 68	... 25 26	... 0 39	... 4 23	... ...	... ...	... ...	... ...	... 0 1	... 36 77
1893-94...	... ...	... 33 8	... 0 41	... 10 8	... ...	... 1 2	... 1 7	... ...	... ...	... 45 66
1894-95...	... 4 23	... 26 47	... 1 16	... 3 54	... ...	... 0 18	... 0 31	... 0 11	... 0 2	... 36 42
1895-96...	... 0 8	... 25 61	... 0 4	... 10 32	... ...	... ...	... 0 22	... ...	... ...	... 36 47
1896-97...	... 2 28	... 21 60	... 0 31	... 10 64	... 0 3	... ...	... ...	... 0 5	... ...	... 35 31
1897-98...	... 1 35	... 27 28	... 8 52	... 6 68	... 1 43	... 0 40	... 0 40	... 0 10	... ...	... 46 76
1898-99...	... 1 1	... 26 4	... 7 39	... 7 19	... 3 54	... 1 7	... ...	... 1 13	... ...	... 47 57
Totals	... 17 67	... 210 69	... 19 37	... 61 11	... 5 20	... 3 48	... 2 61	... 1 39	... 0 8	... 322 40