

1895.
NEW ZEALAND.

NEW ZEALAND RAILWAYS.

(REPORTS BY THE ENGINEER-IN-CHIEF AND MR. C. NAPIER BELL ON THE CONDITION OF THE OPENED RAILWAYS.)

Laid upon the Table by Leave of the House.

SUMMARY REPORT ON NORTH ISLAND RAILWAYS.

SIR,—

Wellington, 26th January, 1895.

We have the honour to submit herewith our summary report on the condition of the North Island railways.

We have, &c.,

WILLIAM H. HALES,
C. NAPIER BELL.

The Hon. the Minister for Public Works, Wellington.

THE full report of an inspection being very long, we think it is important to condense it into this summary

To summarise such a mass of observations, involving the examination of a great variety of objects, including 586 bridges, is by no means easy if strict accuracy is looked for, but for accuracy in details we must request that the body of the report be referred to.

The railways in the Auckland District are maintained in very fair condition considering the urgent need for economy which always haunts the railway management.

When these railways were constructed light rails and bridges to carry light engines were provided, but from that day to this the traffic keeps increasing, and the use of heavier engines has involved renewal of the rails by heavier sections and strengthening the bridges at great cost. All bridges and culverts were made of kauri and totara, and sleepers were mostly kauri. The rapid decay of these timbers has occasioned great expense for renewals and repairs, which have become urgent on the older lines. These repairs and renewals are carried on as fast as possible, but numbers of bridges are waiting their turn, and when they are finished those on the newer lines become ripe for repairs.

Notwithstanding the constant work of repairs, we found that the faulty bridges are carefully watched, and everything kept in safe working order

Open culverts have also been extensively repaired or renewed altogether, some are getting very old and decayed, and are repaired as they require it. Wooden box-culverts appear to last pretty well, except exposed ends, which are repaired as they decay, but many have been taken out and replaced with concrete pipes, of which a great number are kept in stock at Auckland, ready for use when necessary

All repairs of bridges, culverts, and beams of cattle-stops are now done in ironbark, and in time the constant anxiety and expense caused by rotten bridges will be obviated. It would have saved thousands of pounds if no New Zealand timber had been used in these bridges and culverts, the life of which timber for such uses is only from ten to fifteen years, while ironbark, which is as cheap as New Zealand timber, will probably last fifty years.

The fencing is in fair condition generally. Some parts are much decayed, other parts are repaired with old sleepers, and all is kept up in serviceable condition. Sixty-seven miles of line are unfenced, and sixteen miles are not according to the Fencing Act. Gates, signboards, and mile-posts are very good, and signals are in first-rate condition. Cattle-stops are under constant repairs; many are renewed in concrete walls and ironbark beams; many are much decayed, and are propped to carry the heavier engines, but all are kept safe.

The rails are of various sections. There are $66\frac{1}{2}$ miles of 40lb. iron, $2\frac{1}{2}$ miles of 56lb. iron, 2 miles of 52lb. iron, $30\frac{3}{4}$ miles of 40lb. steel, and $190\frac{1}{4}$ miles of 53lb. steel. The 40lb. iron is getting worn, and is continually being replaced by 53lb. steel. The steel rails are in good condition.

The ballast is excellent near Auckland, and on parts of the Whangarei and Kaihu lines, in other parts it is sandy, earthy, and poor—generally sufficient, but often scanty.

The sleepers, taken altogether, are good, although there are great numbers of poor, half-rotten kauri sleepers in these lines. They are, however, constantly renewed, and a total of 24,000 sleepers was provided last year in place of those which were found to be unserviceable. These are mostly puriri, which are considered the best and most durable to be had.

The stations and station fixtures are well kept and in fair condition. On the older lines there is some decay going on to exposed parts, but none of any importance. On the newer lines they are in very good condition.

Cattle-pens, loading-banks, and timber fronts of platforms suffer most; many have been repaired, and a number require early attention.