

APPENDIX B.

Mr. JOHN HENDERSON to the CHAIRMAN, Railway Management Committee.

DEAR SIR,—

Wellington, 10th September, 1877.

I have the honor to send the following details in reply to the questions asked by the Committee with reference to the comparison between steel and iron rails.

The strength of a rail with puddled steel top, as compared with an iron rail, to resist a dead weight or bending strain, is in the ratio of 7 to 6 nearly, or in other words a rail with puddled steel top 34·3 lbs. per yard will be equal to an iron rail 40 lbs. per yard. The ratio of wear will be much greater in favour of the puddled steel-top rail, being about 6 to 1. The ratio of price is about as 7 is to 8·5.

By using puddled steel-top rails 34·3 lbs. per yard, and which will in every respect be equal to the iron rail 40 lbs. per yard, there would be an actual saving in the first cost of about £14 per mile, and the steel-top rail would at the very least last four times as long; thus, taking the life of the iron rail 40 lbs. per yard in New Zealand to be thirteen years, the steel-top rail 34·3 lbs. per yard will last fifty-two years; and at the end of the fifty-two years there would be a saving in favour of the steel-top rail of nearly £8,000 per mile, or on 1,000 miles a saving of about £8,000,000 would be effected in fifty-two years.

Again, if we take a rail entirely steel and of the same weight as the rail with puddled steel top—viz., 34·3 lbs. per yard—the ratio of price being about as 7 is to 9·5—we find it will cost more in the first instance than the iron rail of 40 lbs. per yard by about £39 per mile; but, taking its life as fifty-two years, whilst the iron rail lasts only thirteen, by the time the steel rail is worn out a saving of £7,000 per mile would be effected, or on 1,000 miles no less a sum that £7,000,000 would be saved in fifty-two years by using the steel instead of the iron rail.

The foregoing figures are startling, and may at first sight appear to be mythical; but the calculation by which they are arrived at is simple—the interest alone, which is calculated at 5 per cent. compound, effecting about two-thirds of the whole saving.

The wear and tear of the rolling-stock would also be considerably reduced by substituting a steel for an iron rail.

The Chairman, Railway Management Committee.

I have, &c.,

JOHN HENDERSON.

APPENDIX C.

Mr. JOSEPH STOCK to Mr. THOMAS ARTHUR.

SIR,—

Invercargill, 4th September, 1877.

Referring to my letter of 21st August last (copy herewith), I have now once more to urge upon you the desirability of bringing the matter therein referred to before the Government, with a view to having it rectified at as early a date as possible. The Chamber is rather surprised that the same rates have not been adopted on the Invercargill line as those that exist on the Port Chalmers Railway for the carriage of goods, as it must be manifest to you that the reduction made in Dunedin gives the merchants there a decided advantage over the mercantile community here in supplying the up-country districts, especially those at an equal distance from their respective centres.

The Chamber understands that in consequence of the competition by water carriage from Port Chalmers to Dunedin the railway tariff has been reduced. The Government must be aware that this is manifestly unfair to this community, not so favourably situated, and should the present railway rates here be retained, it may give rise to opposition by water carriage in the same manner as at Port Chalmers. In proof of the injury done to us, I need only instance that it is a fact that Dunedin merchants can and are landing goods by sailing vessels from Dunedin to Invercargill Wharf at a less cost than the railway rates from the Bluff to Invercargill. This is not the only evil arising therefrom, as you will perceive that in both cases the railway carriage is evaded, causing thereby a loss to that department.

As to matters of detail you are fully aware of all these, as well as the Chamber, and I would express the hope that you will lose no time in bringing the matter at once before the Government.

I have, &c.,

JOSEPH STOCK,

Thomas Arthur, Esq.,

Chairman, Invercargill Chamber of Commerce.

Traffic Manager, Southland Railways, Invercargill.

APPENDIX D.

Mr. THOMAS ARTHUR to the SUPERINTENDING ENGINEER, C.R., Christchurch.

SIR,—

Invercargill Station, General Manager's Office,
23rd August, 1877.

In reply to your Memorandum of date and number quoted as below,* instructing me to report on the working of the new tariff, and to suggest any alterations I may deem advisable as likely to be conducive to the interests of the department,—

I have the honor to advert, in the first instance, to the working of the tariff as effecting sea-borne goods, i.e., goods carried on the Bluff Section, and coming under goods classification A, B, C, and D, such goods being railed as per B/L; and to state that in this instance the tariff has caused great dissatisfaction amongst the mercantile community. Although at first sight the new tariff would appear generally to be more favourable to the merchants than the old tariff, they (the merchants) find that, from the miscellaneous character of the goods imported by them, the rates at present charged are, in consequence, in excess of those under the old tariff. Formerly the rate for carriage of general

* 16th August, E. 189.