The distance from Wellington to Woodville by the deviation would be 108 miles, as against 114¾ at present, but from Woodville to Wellington via Palmerston North would still be considerably shorter, it being only 105 miles, and will eventually be even shorter; while the running-time, including a stop for a meal at Palmerston, is one hour and a quarter less than the present time via the Rimutaka, and less even than the shortened time which would become possible as a result of the Rimutaka deviation.

The shortening of the line is not an unmixed blessing on a system where all charges are based on the mileage over which the goods are hauled. On the basis of the present traffic over the line the loss under this head will be between £11,000 and £12,000, unless, in order to justify the making of a deviation, the Railway Department is empowered to continue to charge on the original mileage. I doubt whether such a suggestion could be put into practice on a State undertaking like the New Zealand railways.

It must be recollected that even though the loss in revenue may appear to put the railways into a position £12,000 per annum less favourable, New Zealand as a whole, of which the railway is only a part, would gain to the extent of £12,000.

With regard to the saving in working: The average cost of maintaining the line between Mungaroa and Cross Creek may be considered as slightly higher than the average for New Zealand, or £350 per mile per annum. This for 14 miles represents £4,900, while maintenance of the 5½ miles of deviation, being almost entirely in tunnel, should be very considerably below the average cost, in view of the fact that there would be no bridges or other structures, permanent or temporary, and the line would be protected against all the elements, either sun, wind, frost, or rain; there are no fences to keep up, no fire risks on wooden structures, no weeding to be done, and the track itself, having a solid rock bottom, should be more stable than the average track in the open air. As against this there is the disadvantage that men when working in a tunnel cannot be expected to be as efficient as they would be in the daylight. Still, their only work would be fettling the line, and with a solid foundation and rock ballast I think the maintenance cost may be estimated to be not greater than £200 per mile, or a clear saving of £4,000 under this heading.

Between the two ends of the deviation the present line is so tortuous that the wear-and-tear of the rolling-stock—locomotives, cars, and wagons—must be greater than would be the case on a piece of straight and almost level line. I understand, however, that the Railway Department have not figures which would enable this saving to be actually expressed in pounds, shillings, and pence. Taking figures from recognized authorities on railway location for the extra cost of maintenance due to curvature, which on the existing line is excessive, the saving under this heading is not likely to be less than £2,000.

There would be no appreciable saving in the cost of working from the traffic point of view, as regards through traffic, except that a Stationmaster and assistants would not be required at Cross Creek, which station could be closed up altogether, and all the charges in connection with the running of the present incline and amounting to £27,500 would be eliminated.

The position, therefore, with regard to the whole question is that if the tunnel line recommended as most favourable be constructed there will be an increase in interest charges of between £40,000 and £45,000 per annum, while there would be a saving to New Zealand of £45,000, made up as follows:—

	£
(1.) Abolition of all expenses in connection with the incline	27,500
(2.) Saving in maintenance of way	4,000
(3.) Saving due to eliminated curvature	2,000
(4.) Saving through lesser distance to haul	12,000
Total	£45,500

Of these items, (1), (2), and (3) would be a direct saving to the Railway Department, and although the £12,000 would be an apparent loss to them, it would be an actual saving to New Zealand. In addition to such savings as can be assessed in pounds, shillings, and pence, there is also the improvement in travelling conditions to the general public and the live-stock carried on the line, and the saving of time, which cannot be assessed in money unless one knew the value of every person's time who travelled on the railway.

The conclusions to be drawn from the above report seem to me to be that while the deviation of the Rimutaka Railway may not be a crying necessity for financial reasons, yet when funds are available to put the work in hand it can be justified, and its benefit from a social point of view cannot be controverted.

It may be argued that the tunnel proposition does not meet the whole case, because the steep grades leaving Upper Hutt and just beyond Cross Creek have not been eliminated, but I maintain that these are minor matters until the traffic becomes much heavier than it is at present; and when the tunnel is finished, which will take many years, its effects upon the general business situation and the natural growth in trade will have brought about such an increased traffic on the line that the small extra expense required for these deviations will be easily justified by the advantage gained. At any rate, there will be plenty of time to go fully into these problems before the tunnel is actually in operation.

The grades between Upper Hutt and Mungaroa can be brought to the same standard as the rest of the line with an expenditure of £78,680, and the grade between Cross Creek and Pigeon Bush can be eliminated at the cost of relaying and culverts, because the greater part of the formation will be done by distributing the spoil from the tunnel in such a way as to form a bank between the points