

1918.

VICTORIA.

REPORT

FROM

THE PARLIAMENTARY STANDING COMMITTEE
ON RAILWAYS

ON THE

UPPER ACHERON VALLEY DISTRICT
CONNECTING RAILWAY;

TOGETHER WITH

MINUTES OF EVIDENCE AND PLAN.

Ordered by the Legislative Assembly to be printed, 22nd October, 1918.

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RAILWAYS STANDING COMMITTEE REPORT No. 2.—[9d.]—15581.

EXTRACTED FROM THE VOTES AND PROCEEDINGS OF THE
LEGISLATIVE ASSEMBLY.

TUESDAY, 12TH MARCH, 1918.

9. UPPER ACHERON VALLEY DISTRICT CONNECTING RAILWAY.—Mr. Wynne moved, pursuant to notice, That the question of connecting the Upper Acheron Valley district with the existing railway system by a broad or narrow gauge railway to tap timber supplies be referred to the Parliamentary Standing Committee on Railways for inquiry and report.

Debate ensued.

Question—put and resolved in the affirmative.

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS.

(*Twelfth Committee.*)

J. MENZIES, Esq., M.L.A., Chairman ;

*The Hon. S. Barnes, M.L.A.,
The Hon. J. W. Billson, M.L.A.,
The Hon. A. Hicks, M.L.C.,

The Hon. D. Melville, M.L.C.
(Vice-Chairman),
R. H. Solly, Esq., M.L.A.,
†R. F. T'oucher, Esq., M.L.A.

* Ceased to be a member on becoming a responsible Minister of the Crown, 21st March, 1918.
† Appointed 27th March, 1918.

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REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON RAILWAYS, to which the Legislative Assembly referred the question of connecting the Upper Acheron Valley district with the existing railway system by a broad or narrow gauge railway to tap timber supplies, has the honour to report as follows :—

DESCRIPTION OF COUNTRY.

1. The Acheron River rises on the north side of the Dividing Range a few miles east of Healesville and north of Warburton and, flowing in a northerly direction, passes close to Narbethong, St. Fillan's, Granton, Buxton, and Taggerty, beyond which it joins the Goulburn River not far from Alexandra. Settlement took place about 50 years ago in the Acheron Valley and along the banks of the Steavenson River, a tributary of the Acheron River, which flows past the township of Marysville and enters the latter stream near Buxton. In those early days most of the settlers obtained a livelihood by growing agricultural produce on the narrow but fertile alluvial flats adjacent to those rivers and raising cattle and sheep to meet the requirements of the miners working at Wood's Point, or by carting merchandise to that gold-field. When mining operations at Wood's Point declined some years ago the Acheron Valley district retrograded, owing to the difficulty and cost of carting farm products over the steep Dividing Range, some 15 miles or so, to Healesville railway station on one side, or down the easier but longer road—about 25 or 30 miles—to the railway station near Alexandra on the other. There being little or no encouragement to continue agricultural pursuits, the settlers who remained in the district had mostly to rely on dairying and live-stock raising for a livelihood; and this is the position of most of them to-day.

2. In recent years, however, with the more general use of the motor car and motor cycle, coupled with the improvements made in the surface of the main roads traversing the district, the tourist traffic has considerably developed—Narbethong and Granton being within 55 miles of Melbourne. The road from Healesville, passing through the Maroondah watershed reserve, over the Blacks' Spur to Narbethong and on down the Acheron Valley, is probably the most beautiful in Victoria. This road winds its way for several miles through a forest as Nature left it, with tall eucalypts rising on either side of the track from a dense undergrowth of tree ferns, musk, dogwood, and other evergreen scrub, giving at every turn a fresh scene of bush-land in its primeval stages untouched by man. When the summit of the Divide is crossed an extensive and picturesque view is obtained overlooking the Acheron Valley and extending along the northern timbered slopes of the Dividing Range to Mounts Strickland, Bismarck, and Grant, below which the Acheron and Steavenson rivers and their tributaries have their sources. The Acheron Valley, being at an altitude of about 1,000 feet above sea-level, has a bracing, invigorating climate, which adds to its charm as a tourists' and health resort.

3. The population of the Narbethong, Marysville, Buxton, and Taggerty district is small. This is partly due to the district lying in a narrow valley, being shut in on the south by the Dividing Range, on the west by the Black Range—which runs northward from near Narbethong to beyond Buxton, and on the east by a chain of hills extending towards the Rubicon Range and The Cathedral, a bold, high hill overlooking Taggerty. The tablelands or crowns of these ranges and hills, as well as their side slopes into Acheron Valley, are more or less heavily timbered, and have consequently been reserved as State forests and all settlement excluded therefrom, although some of the land is of good quality. A further reason for the smallness of population in the Acheron Valley is that a fair portion of the privately-owned land, away from the immediate vicinity of the rivers and creeks where the alluvial soil washed down from the neighbouring hills has been deposited, is poor and unsuited for agricultural purposes, and is not likely to be so used even if railway facilities are brought close to these holdings. The opinion the Committee came to after inspecting the Acheron Valley and its surroundings was that any railway constructed into that district would have to depend to a very large extent on the transport of sawn timber for its revenue,

and that the freighting from the carriage of agricultural produce would be exceedingly small, as most of the locally-grown fruits, potatoes, and vegetables would be required for the sustenance of the families of employees of the saw-mills which would be established in the district, and the hay and grain for feeding teams engaged in hauling logs to those mills.

4. As to the tourists' and week-end traffic being carried by rail to the Acheron Valley, strong objection was taken by the Melbourne and Metropolitan Board of Works to the railway passing through the Maroondah watershed, because of the danger of polluting the water supply of the metropolis, which is under the control of the Board. But apart from that aspect of the matter, which could probably be overcome by the adoption of certain safeguards, so that the purity of the water supply might not be endangered, the Committee believes that most of the visitors would still prefer to travel to and from Narbethong by the existing road over the wide-famed Blacks' Spur, so that they might enjoy the beautiful views along that track. Moreover, for reasons given later on in this Report, the Committee considers that it would not pay to make provision for the carriage by rail of tourists' or any passenger traffic whatever between Healesville and Narbethong.

5. Investigation has shown that the only justification for railway extension to the Acheron Valley is, as stated in the terms of the reference to the Committee by the Legislative Assembly, "to tap the timber supplies," and while opportunity will be afforded the farmers and fruit-growers in the district to send any of their surplus products by rail to Melbourne, and thus test the capabilities of the Acheron Valley as regards agricultural and horticultural expansion, the traffic over the railway will be confined to inwards and outwards goods. It will be a costly undertaking to reach the Acheron Valley by any route, owing to the rough, broken character of the country to be traversed, and this outlay would have to be largely added to and the working expenses of the line so increased, if passenger traffic at regular stated hours had to be provided for, that it would destroy any hope of the railway becoming a payable one, especially if the additional capital had to be borrowed at the present high rates of interest.

SUPPLIES OF TIMBER.

6. Mr. H. R. Mackay, Conservator of Forests, when giving evidence before the Committee, stated that the timbers growing on the mountain slopes leading down to the Acheron Valley are principally woollybutt on the tablelands and higher levels; mountain ash growing as a rule well up the hill slopes and on the sides of gullies; with messmate, white gum, spotted gum, and stringybark on the lower lands; and peppermint on the low ridges in the valley itself. Nearly the whole of this timber is on lands which are permanently reserved as State forests. The best of the matured timber, particularly the mountain ash, is growing in belts of about 1,000 acres or so each, scattered here and there throughout the Acheron Valley district at distances varying from about 2 to 14 miles of Narbethong. There are several of such belts, and Mr. Mackay said they are now ripe—some being over-ripe—for the saw, and if steps are not soon taken to utilize these timbers they will gradually decay and become unmarketable as hardwoods for building purposes, thus wasting a valuable national asset. Mr. A. W. Grainger, Chief Forester in the Upper Yarra district, who at the instance of the Committee made a special inspection of the State forests in the Acheron Valley district, comprising about 35,000 acres, reported that upwards of 20,000 acres of good timbered country would be tapped by a railway extension from Healesville to near Narbethong, as in no case would the tramway from the saw-mill site to that railway terminus exceed 14 miles. He estimated that these areas would yield from 10,000 to 65,000 superficial feet of marketable sawn timber per acre, the latter high yield being for an exceptional belt of 2,000 acres of mountain ash and gum in the vicinity of Mount Bismarck. The total yield of sawn timber from these several areas was estimated by him at 300,000,000 superficial feet, or over 800,000 tons, and he considered the duration of the supplies would be from about ten years in some instances up to twenty in others, according to the belts of timber operated on and the number and power of the mills cutting therein.

PROBABLE DEMAND FOR TIMBER.

7. Being satisfied, both from the evidence received and its inspection of the country, that ample supplies of good commercial timber exist in the Acheron Valley district, the Committee inquired into the probable demand for that hardwood and the likelihood of the demand continuing for fifteen or twenty years after the war so as to warrant the State expending borrowed money in constructing a broad or narrow gauge railway to tap those supplies. It was, of course, aware that the construction of a broad-gauge railway from Neerim South into the Latrobe Valley, across the range to the south of the Warburton district, was nearing completion, at a cost of £113,000, and that the expected annual output of timber from the Latrobe Valley is 12,000,000 superficial feet,

or 33,333 tons, for which a market must be found. Mr. H. R. Mackay explained that the timber in the Warburton district is becoming cut out, as milling operations have been actively carried on there for the past seventeen years, the annual output of hardwood from the Upper Yarra forests having averaged about 80,000 tons for the last few years. Therefore the anticipated yearly yield of 33,000 tons from the Latrobe Valley would not do more than take the place of the diminishing output from the Warburton district. It was necessary, he added, that additional supplies of Victorian hardwood should be forthcoming to meet the existing shortage in imported softwoods used for the framework of wooden structures and for floorings, weatherboards, linings, &c., due to the war restricting the shipping available for the carriage of softwoods from the Baltic and from Oregon and other North American ports to Australia. Moreover, the limitations in the imports of spirits and the shortage in supplies of oak for staves had also led to a demand for the manufacture of casks from seasoned Victorian woods for the storage and transport of locally-made spirits, beer, wine, and tallow, and this cooperage trade was likely to expand. He further stated that the forests in South Australia were practically exhausted, and in consequence of the present dearth of shipping that State could not get hardwoods from Western Australia or Tasmania as formerly, and was looking to the Victorian forests for supplies. In normal times after the war he estimated that South Australia would require annually from 2,000,000 to 3,000,000 superficial feet of Victorian timber. Apart from this, the value of seasoned Victorian timbers for furniture-making—particularly the mountain ash variety, which closely resembled imported oak in colour, appearance, or figure—was now widely recognised, and this had added to the demand for our hardwoods. It is the intention of the Forests Department when granting milling areas in the Acheron Valley district to make such regulations or provisions as will insure a large proportion of the timbers cut there being properly seasoned, either naturally or by an artificial process, or by using partly both these means, before being marketed. He considered that these seasoned timbers would to a large extent take the place of imported softwoods in the construction of dwellings and other structures, as when so dried they are not much more difficult to work than softwoods. Machinery is now extensively used in planing timber, joinery, and furniture work, &c., so that the comparative hardness of seasoned Victorian woods does not cause much extra exertion to the carpenter, door or sash maker, or to the cabinetmaker.

MARKETING GREEN TIMBER.

8. Although the Forests Department has for several years had a seasoning kiln in operation at Newport, and has proved the efficacy of that method of drying Victorian hardwoods, only one saw-mill has so far availed itself of the Department's offer of the plans of the kiln and established one on similar lines in the country. It is easier to cut the timber when it is green, and saw-millers operating in the forests prefer to market the hardwood as soon as it has passed over the saw-bench, and thus obtain a quick return on their outlay, rather than stack the timber for natural or artificial seasoning, even with the certainty that by so doing higher prices will be obtained later on. When questioned on the matter, Mr. Mackay expressed the view that the use of green timber for the interior construction of buildings, such as the flooring, lining, door, and window stock, mouldings, beadings, dado, &c., should be prohibited. He also said that country saw-millers had shown little or no inclination to carry out their agreement with the Department to supply its seasoning kiln at Newport with hardwoods of the desired quality and sizes and in sufficient quantities to keep the kiln going. In the opinion of the Committee this agreement should long ago have been rigidly enforced in the interests of the Victorian timber industry, and immediate steps should be taken to secure adequate supplies of seasoned hardwoods to meet the requirements of State departments and the public.

IMPORTATION OF SOFTWOODS.

9. For the three years 1908, 1909, and 1910 the imports of softwoods into Victoria averaged about 100,000,000 superficial feet per annum. In the next three years the average rose to about 150,000,000. During 1914 the imports reached 160,000,000 superficial feet. But, in consequence of the war and the scarcity of shipping, they fell to 86,000,000 in the following year, and remained at that figure in 1916. During 1917 there was a further drop to 38,000,000 superficial feet. In the first six months of 1918, however, there was a marked rise, due to shipments from the Pacific coast, the figure being 50,000,000 superficial feet for that half-year, or at the rate of 100,000,000 feet for the year, thus returning to the 1908-1910 importations. Mr. H. R. Mackay thought the imports, especially from North American ports, would gradually rise again as the shipping difficulty was overcome. In European countries prior to the war the softwoods, coniferous timbers generally, equalled seven-tenths of the woods used, the remaining three-tenths being hard timbers, such as oak, ash, elm, and beech. In Victoria the consumption of soft and hard woods respectively is in a similar proportion, notwithstanding that nearly all our native timbers are of the latter variety. As already stated, the imports of softwoods into this State in the three years 1911,

1912, and 1913 averaged about 150,000,000 superficial feet per annum, whilst the quantity of our sawn hardwoods cut in that period reached but 60,000,000 feet a year, and since 1913 an average of 55,000,000 feet.

A NEGLECTED OPPORTUNITY.

10. No one can look at the foregoing figures and read the evidence given by the Conservator of Forests concerning the action of country saw-millers during the past two or three years in "trying in every way to evade their obligation to supply the Government seasoning kilns at Newport with supplies of hardwood for seasoning" without coming to the conclusion that these saw-millers, with one exception at Powell Town, neglected a splendid opportunity, with the diminution in the imports of softwoods, to create a good local market for seasoned Victorian hardwoods. Notwithstanding all that has been written and publicly said in recent years concerning the suitability of our seasoned timbers for a variety of purposes as an efficient substitute for imported softwoods, the fact remains that those engaged in the country saw-milling industry did very little in a practical way to meet the local demand for properly-seasoned hardwoods, which had been brought about by the shortage of foreign supplies of softwoods and the publicity given since the outbreak of the war to the suitability of such hardwoods for many of the purposes for which we formerly used imported timbers.

LARGER AND LONGER MILLING LEASES.

11. There were several causes for this neglect. First, there was the feeling among some of the saw-millers that others engaged in the trade would season their timbers and create a local market, and after that had been done they would come in and share in the enterprise of the others. In the next place, very few of our country saw-millers have command of sufficient capital to enable them to stand out of their money for several months while the timber is being naturally seasoned in stacks or to erect the necessary seasoning kilns. A further reason is that the *Forests Act 1915* (section 24) restricts a saw-milling lease to an "area not exceeding 1,000 acres," and the duration of the lease to a "term not exceeding seven years." It has been the practice of the Forests Department to hold an additional 1,000 acres in reserve for a firm or company having an efficient saw-milling plant, and to renew the lease for a further period after the expiration of seven years. But, in the opinion of the Committee, if substantial firms or companies are to be induced to embark in a permanent and extensive way in the Victorian saw-milling industry which would justify them investing the necessary capital in up-to-date plant, with adequate seasoning kilns or having large stacks of sawn hardwood undergoing natural seasoning, and in assuming some financial responsibility in connexion with any railway or tramway built into the forest by the Government to enable the timber supplies there to be marketed, the Act must be amended so that larger areas of State forests may be leased to suitable lessees for periods of fifteen or twenty years. Nothing detrimental to State interests can result from the adoption of this suggestion, provided the leases contain conditions which will assure a minimum quarterly or half-yearly output of sawn timber so as to insure that the saw-milling areas will be worked and not merely "shepherded" pending a purchaser of the lease rights forthcoming. If a leasehold is not being adequately worked any one should have the right to apply to the local police magistrate for its forfeiture, the same as is the case with gold-mining or mineral leases. In passing, it may be mentioned that when in Queensland recently the Committee inspected saw-mills, especially at Maryborough, which had better labour-saving appliances for handling logs and the heavier pieces of sawn timber than it has seen at any of the mills visited in Victorian forests. There, too, the timber is stacked for seasoning in sheds with movable roofs, so that in fine weather the sun's rays and heat may penetrate the stacks, which can be readily covered on rainy days. If the public are to be induced to more largely use our hardwoods for interior building structure, such as floorings, linings, &c., it will be necessary for those engaged in the industry to at once bestir themselves by properly seasoning our timbers, otherwise it will be found that the demand will again, as soon as the war is over and supplies are once more available, be mostly for imported softwoods, which are more easily wrought than our seasoned hardwoods.

FOREST AREAS NOW BEING OPERATED ON.

12. Mr. H. R. Mackay was questioned by the Committee as to the probability of the forest areas now being operated on in Victoria by saw-millers meeting the expected increased demand for sawn timber during the next ten or fifteen years, thus avoiding any need of tapping the Acheron Valley supplies during that period. He replied that "a considerable area at Warburton has been cut over, and the Rubicon River area is a comparatively small one, not easily accessible for extended working, owing to the broken nature of the country to the southward. In the Cheviot district the available areas are limited. At Toombullup only a small portion is forest reserve, the greater part of the timbered country there having been ringbarked 30 years ago, when opened for selection.

As regards the Otway Forest and Beech Forest, the output at Forrest and the Eastern Otway will be gradually improved; but the Beech Forest area is a very small one, most of the timbered country there having also been selected many years ago. They are only working the selvages now. The opening of one or two forests is therefore imperative to meet the demand of the next ten or fifteen years." He further stated that neither the young spar forest closed at Bullarook and Wombat (80,000 acres), near the Daylesford railway, nor the young forest at Mount Cole (25,000 acres), in the Ararat district, will be opened for about ten years. He added that the opening up of the Latrobe Valley Forest alone would not be sufficient to meet the demand for Victorian hardwoods, "as the consumption is improving, and as the improvement in manufacture and seasoning goes on, I think there will be a steady increase in the demand, especially in the directions I have mentioned, and the two forests (Latrobe and Acheron Valley) it is now proposed to open will meet that demand and leave a surplus for export to South Australia."

ROUTES OF PROPOSED RAILWAY.

13. As already stated, the Melbourne and Metropolitan Board of Works regarded the proposed extension of the Healesville railway through its Maroondah watershed "as a menace to the water supply of the metropolis," and it strongly urged that every effort should be made to find another route which would not cross the water reserves. Prior to this, the Committee, recognising the need of keeping the railway outside of the Board's watersheds, if practicable, had an examination made of the area to the north of Warburton leading up to that part of the Dividing Range at the head of the Upper Acheron Valley lying between the Maroondah and the O'Shannassy watersheds. This route would have avoided any encroachment on the Board's reserves. But Mr. Kernot, Chief Engineer for Railway Construction, reported that, owing to the short distance—less than 6 miles—between Warburton township and the summit of the Dividing Range at the head of the Upper Acheron Valley, and the fact that the railway would have to rise 2,000 feet in that distance, it would be necessary to have a zig-zag line to obtain the required grade, and, moreover, the traffic would have to be hauled 900 feet higher than the summit of the proposed line from Healesville through the Maroondah watershed to Narbethong. These factors and the high increased cost of the Warburton route, as compared with the Healesville extension, made it impracticable. Mr. E. G. Ritchie, the Board's Engineer of Water Supply, when giving evidence before the Committee, predicted from his knowledge of the country to the north of Warburton that this would be the result of the examination of that route. He therefore suggested that a route should be looked for in the Toolangi district to the north of Yarra Glen and Healesville, or possibly from Hurst's Bridge or Whittlesea, passing on the north side of Mount St. Leonard into the Acheron Valley. This route was also brought under the notice of the Committee by the Toolangi Progress Association. But, on having it examined, Mr. Kernot reported that the gap pointed out by the association was about 2,250 feet above the sea, and would involve an increase in the length of the line of at least 3 miles in very rough country. Moreover, this gap was not the real summit of the line to Acheron Valley by this route, but another saddle, which was on the north side of Mount Monda and would have to be crossed at a height of 2,415 feet, or about 800 feet above the highest level of the Healesville-Narbethong survey over Carter's Saddle. Mr. Kernot considered that this extra height, together with the much greater length to construct through rough country, made the Toolangi route impracticable.

14. Another suggestion looked into was to extend the Alexandra broad-gauge railway southward up the Acheron Valley for 25 miles to near Granton, terminating this line within 2 miles of the proposed terminus of the Healesville extension. The distance to Melbourne by the Alexandra route would be close on 130 miles, which is approximately twice the length of a railway connexion *via* Healesville to Melbourne, thus entailing a freight charge of 10s. a ton on sawn timber. Nevertheless, the Committee and Mr. H. R. Mackay, Conservator of Forests, considered the Acheron Valley timber, because of its good quality and comparatively low cost of felling and hauling, could stand that railway rate. But the objection to the Alexandra extension was its high capital cost, Mr. Kernot estimating that it would require an expenditure of £219,000 to reach Granton. The traffic forthcoming would not warrant that outlay. Therefore the Committee was forced to adopt the Healesville route, it being the only one which was practicable.

LIGHTLY-CONSTRUCTED NARROW-GAUGE RAILWAY.

15. In order to keep the expenditure on the Healesville route within a reasonable sum, so that the railway may have some likelihood of earning not only sufficient to meet its annual working expenses and interest charges, but also making some provision out of its income for a sinking fund to pay off the whole or greater part of its capital expenditure within, say, 20 years, when most of the available milling timber will have been cut out, the Committee decided that the

proposed railway should be a narrow-gauge one, but of much lighter construction than the existing 2 ft. 6 in. railways to Beech Forest and Gembrook. It did not come to this decision, however, until it had visited Queensland and inspected the cheaply-built, narrow-gauge 2 ft. and 2 ft. 6 in. railways in that State, and obtained reliable information as to their capabilities in hauling large tonnages of sugar cane, firewood, &c. On some of these lightly-constructed 2-ft. lines over 100,000 tons of sugar cane are hauled each season, which extends over a period of five or six months. Considering that the largest quantity of timber and firewood carried over our Beech Forest 2 ft. 6 in. railway in any year did not exceed 50,000 tons, and that the timber, firewood, and agricultural traffic from the Acheron Valley will not in the aggregate reach that tonnage, the Committee believes no apprehension need be felt as to the ability of the proposed lightly-constructed narrow-gauge line to deal promptly with the goods traffic likely to be brought to it. While in Queensland the Committee had the advantage of hearing evidence from Mr. George Phillips, C.E., and Mr. Harding Frew, B.E., both of whom have constructed narrow-gauge railways or tramways in that State. The former favoured a 2 ft. 6 in. gauge, stating that it would not cost much more than a 2-ft. line, and that trains could haul larger loads over it. Mr. Frew, on the other hand, had built 2-ft. lines with satisfactory results. In the case of both gauges the capital cost had been low, considering the character of the country passed through and the ruling grades adopted, namely, 1 in 29 in one instance of a 2 ft. 6 in. railway, with frequent curves of $1\frac{1}{2}$ chains radius, and 1 in 18 in the case of a 2-ft. line, with a 66-ft. curve in one place, necessitating the use of a Shay locomotive.

16. The Committee desires to acknowledge its indebtedness to both these experts for their information and for the technical details they supplied to Mr. Kernot, Chief Engineer for Railway Construction, Victoria, who accompanied the Committee to Queensland—not having previously seen these light lines at Buderim, Mapleton, and also in the sugar-cane-growing districts. The Committee, while recognising the capabilities of the 2-ft. lines in handling in a few months such large tonnages of goods, especially sugar cane and firewood, decided, after hearing the evidence of Mr. Phillips and Mr. Frew and the views of Mr. Kernot, to recommend the construction of a 2 ft. 6 in. light railway rather than a 2-ft. line from Healesville to Narbethong, provided it can be built for about £75,000, and that certain conditions as to guaranteeing a minimum traffic at remunerative rates referred to later on in this Report are accepted by those directly interested in the railway or tramway. Seeing that our narrow-gauge lines are 2 ft. 6 in., it was thought inadvisable to depart from that gauge, as most of the existing truck stock could be used on this light line, but the type of construction, method of working, and freight charges will have to differ considerably from those obtaining on our existing narrow-gauge lines if this new undertaking is to pay its way.

PROBABLE COST OF A LIGHT RAILWAY.

17. Mr. Kernot, Chief Engineer for Railway Construction, after making an inspection of the route of the proposed railway from Healesville, passing through the Maroondah watershed on an ascending grade and over Carter's Saddle down into the Acheron Valley to near Narbethong (including a deviation suggested by Mr. J. T. Noble Anderson, M.I.C.E.), informed the Committee that the proposed 2 ft. 6 in. line would be about 19 miles in length, as it would wind about, following closely the contour of the surface so as to reduce the earthworks as much as possible, not only to keep down the cost of the railway but also to lessen the cuttings and embankments which might at the outset wash for a little while and, if extensive, discolour the water supply unless expensive settling basins were provided. In consequence of the present high cost of rails—it is proposed to use rails of about 30 lbs. to the yard as in Queensland, as against 60-lb. ones laid on the existing narrow-gauge lines—the increased cost of other materials, and higher wages now paid to labourers, and also the stringent conditions which will be imposed by the Melbourne and Metropolitan Board of Works as regards the construction of the line and the sanitary arrangements so as to prevent the water supply being polluted, Mr. Kernot considered that even a light railway of the design desired by the Committee could not be built under present circumstances for less than £4,000 a mile, or £80,000, as some hard rock might be encountered. This figure was beyond the Committee's expectations, but as Mr. Kernot said a survey might show that the country was not so difficult or rocky as he thought, it was decided to ask the Honorable the Minister of Railways to authorize a survey to be made, and the surveyors are now at work. It is not anticipated, however, that a reliable estimate based on their work will be available till December, owing to the rough character of the country and dense vegetation.

18. It may be stated that an estimate made in 1891 for a broad-gauge railway from Healesville to Narbethong reached close on £20,000 a mile, or £300,000 for about 15 miles. But this route provided for wide curves of 15 chains radius and also expensive tunnelling. Since then the

Railway Department had in difficult country adopted curves of 8 chains radius, which largely reduced the cost. But even with this cheaper method of construction a broad-gauge line would, Mr. Kernot considered, involve an outlay of about £200,000. Mr. J. T. Noble Anderson, M.I.C.E., indicated in his evidence that, provided the route suggested by him were followed, the cost would be much less. But as he had not made a survey, and the Committee, knowing from experience the danger of accepting estimates for railway construction in rough country not based on reliable data, thought it advisable to get a survey made, including a close examination of Mr. Anderson's route, before accepting any stated sum.

A GUARANTEE ESSENTIAL.

19. The Committee is of opinion that Parliament should not be asked to build what will be almost wholly a railway for the transport of timber, the supplies of which in 20 years or so will become exhausted, unless those directly interested in the marketing of the hardwoods are prepared to guarantee that the undertaking will each year give payable results, and also leave a sufficiency of net annual income to make a 2 per cent. contribution to a sinking fund to cover the cost of the railway when the end of the period of usefulness of the line is reached, after allowing for the proceeds of the sale of the old rails and other removable material. It must be stipulated that the users of the line will not only bring a certain minimum tonnage each year to the railway, but that a stated rate for the carriage of the timber and goods must be paid throughout the period fixed upon, say 20 years, in order that the financial results of the railway as outlined above may be achieved. The Committee is prompted to set forth these conditions because of the small traffic on the Benalla-Tatong broad-gauge line each year since it was opened, the promised large tonnage of timber not being forthcoming, resulting in an unprofitable railway, and also because the freight rates on the existing narrow-gauge lines are the same as those charged on broad-gauge railways, though the train loads on the former are necessarily one-third smaller than those on the latter, thus making the 2 ft. 6 in. lines unpayable, as the larger the traffic the greater the loss. This uniformity in rates was brought about by the Railway Department in opposition to the recommendation of the Committee, which does not wish in any new undertaking to see such low rates again charged, especially when the expected traffic will be well able to pay much higher rates.

20. Assuming that the proposed light line and rolling-stock will cost close on £90,000, the Committee, with the view of placing the matter before Parliament in a way that can be readily understood, made a rough calculation that the interest on that expenditure would come to £4,500 and the annual sinking fund contribution to say £2,000, while the working and maintenance expenses of the railway would reach about £4,500, or a total yearly expense of close on £11,000. To meet these annual charges it would be necessary to impose a charge of not less than 5s. or more than 6s. a ton on the 40,000 tons of timber, firewood, and goods expected to be carried over the line between Narbethong and Healesville, or *vice versa*, as no passengers will be carried, as such traffic would have to be provided at regular stated hours, and being small, except on holidays and week-ends, would be unremunerative.

CARTAGE CHARGE AND PROPOSED RAILWAY RATE.

21. The charge for carting sawn timber from Narbethong over the Blacks' Spur-road to Healesville is 14s. a ton, and the existing high selling rates for Victorian hardwoods enable this charge to be met. But when the war is over and shipping freights return to near their former level the present prices of timber must be reduced, owing to the competition which will then exist by shipments of hardwoods from Tasmania and Western Australia and softwoods from America and Europe. The railway rate on sawn timber from Healesville to Melbourne is 3s. 10d. a ton, so that the proposed through railway rate from Narbethong to Melbourne would be from 8s. 10d. to 9s. 10d. a ton, plus 6d. a ton for transferring the timber from the narrow to the broad gauge railway at Healesville. The through railway rates on sawn unseasoned hardwoods from other timber districts to Melbourne are as follow:—Warburton, 4s. 8d. a ton; Latrobe Valley, 7s. 8d.; Cheviot, 7s. 6d.; Alexandra (Rubicon Forest), 8s. 6d.; Beech Forest, 10s., plus 6d. a ton transfer charge; Forrest (Eastern Otway), 8s. 8d. As already pointed out, the timber around Warburton has largely been cut out, and, consequently, the saw-millers in that district have to go further back for their logs, thus increasing their tramway haulage charges. This will not be the case at Narbethong for some years, and, moreover, the royalty fee in that district is not likely to exceed 1s. per 100 superficial feet, as against 1s. 3d. in the Warburton district from 1st January, 1921. Therefore the difference in the cost of marketing hardwoods from the Warburton and Narbethong districts will not be so large as would at first sight appear from a comparison of the above figures.

A GUARANTEE PROFFERED.

22. Mr. Joseph Timms, a well-known railway contractor of Adelaide, and proprietor of the Narbethong Saw Milling Company, which has two saw-milling leases each covering about 1,000 acres in the Upper Acheron Valley, offered "to guarantee the Victorian Government a 5 per cent. return upon the capital cost of the railway, in consideration of the Government granting me a forest reserve of 20,000 acres in and around the Acheron Valley district under the existing royalty conditions." He offered to construct the railway at scheduled rates and in accordance with the plans and specifications of the Railway Construction Branch, and to accept payment in 5 per cent. Treasury bonds, the currency of such bonds to be a subject of arrangement. He also undertook to erect up-to-date mills, in addition to the large plant he has on his lease, and also seasoning plants. The Committee, while withholding any opinion as to his requirement for a lease of 20,000 acres of forest lands for an unstated period at the existing low royalty charge, deemed it inadvisable, for the reasons stated in paragraph 23 of this Report, to recommend the acceptance of his offer. Moreover, the Conservator of Forests was opposed to such a large extent of forest being leased to one person or company. He considered that an area of 6,000 acres would be sufficient to enable Mr. Timms or the company to guarantee an annual output of 33,333 tons of sawn timber, in addition to a few thousand tons of firewood, for a period of fifteen years.

RECOMMENDATIONS OF THE COMMITTEE.

23. The Melbourne and Metropolitan Board of Works strongly objected to any workmen but those directly employed by the Government being engaged in the construction of the proposed railway through the Maroondah watershed reserve. It stated that there would not be that discipline exercised by a contractor over his men in observing the necessary sanitary precautions to prevent the water supply of the metropolis being polluted which would be enforced by the Railway Construction Branch. Apart from this objection, however, the Committee considered that if the construction of the railway were let to Mr. Timms even at scheduled rates fixed by the Railway Construction Branch, some objection might be taken to that work being let to him without tenders from other contractors being invited. Moreover, all railways constructed during the past 25 years have been built by day labour under the supervision of that Branch without the aid of contractors, and during the whole of that period such work has been economically carried out, no charge of extravagance or waste having been made against that Branch.

24. Under these circumstances, the Committee is of opinion that—

- (1) The proposed railway from Healesville to Narbethong should be of 2 ft. 6 in. gauge, and should be lightly constructed, with rails of about 30 lbs. to the yard (and of about 40 lbs. on the curve); with curves of not less than $1\frac{1}{2}$ chains radius; and a ruling gradient of not less than 1 in 35 or 40. Such rails will carry the present narrow-gauge truck stock.
- (2) This work should be carried out by the Railway Construction Branch at an estimated cost of about £75,000 for the 19 miles; the line to be unfenced on those sections passing through the Maroondah watershed and the State forest; and the minimum of clearing to be done along the railway track.
- (3) In addition to the expenditure mentioned a sum of approximately £15,000 should be expended in providing suitable light rolling-stock for conducting the business of the railway.
- (4) No provision should be made for passenger or live stock traffic.
- (5) The proposed railway should be managed and worked by the Victorian Railways Commissioners.
- (6) In the summer months coal of the best quality used on the Victorian Railways should be used by the locomotives working this line, so as to lessen the risk of bush fires occurring in the water and forest reserves. The locomotives to be fitted with spark arresters of the same type as is used on the Victorian Railways.
- (7) The rate of carriage of all timber, firewood, and goods over the proposed railway be not less than 5s. nor more than 6s. per ton in addition to the charge of 6d. a ton for transferring the timber, firewood, and goods from the narrow gauge to the broad gauge or *vice versa*.
- (8) A sinking fund of 2 per cent. per annum on the cost of the railway should be established out of the net revenue of the railway.

- (9) Should the Government reserve for itself any forest area in the Acheron Valley district for the purpose of a State saw-mill, the Government should be subject to the same conditions as regards the proposed railway as any person, firm, or company.
- (10) The *Forests Act* 1915 should be amended to permit any person, firm, or company, after entering into an agreement with the Government to carry out all the conditions of tenure, to hold a working saw-mill lease of 3,000 acres as a maximum for a term of fifteen years, subject to renewal for a further term of five years, and, in addition, a reserve saw-mill lease of 3,000 acres as a maximum for a term of twenty years, subject to renewal for a further term of five years, provided that if there is not from the working saw-mill lease or from it and the reserve saw-mill lease a certain minimum half-yearly output of timber, to be fixed by the Forests Department and stated in the leases, any person is to have the right to apply to the police magistrate for the district for the forfeiture of the leases subject to the right of appeal to the Minister of Forests or other controlling authority of the State forests, under somewhat similar conditions to those applicable to the forfeiture of a gold-mining or mineral lease.
- (11) At any time after the expiration of one month from the date when the Act authorizing the construction of the proposed railway became law and before the construction of the railway is entered upon, the holders of and applicants for leases of saw-mill areas in the Acheron Valley district and the lease-holders or owners of such privately-owned timbered lands in such district as the Conservator of Forests may summon shall appear before the Parliamentary Standing Committee on Railways, and shall sign an agreement, which will be enforceable by law to—

(a) contribute according to the acreage of forest lands leased or to be leased to them by the Forests Department, or according to the acreage of privately-owned timbered lands held by them, to the cost of any land which may have to be purchased, or compensation which may have to be paid in connexion with this railway ;

(b) give the Victorian Railways Commissioners a bank or other substantial guarantee (to be approved by them) for a period of ten years in the case of timbered areas of less than 2,000 acres, and of fifteen years in the case of timbered areas of between 2,000 and 3,000 acres, and of twenty years in cases where a reserve saw-mill lease is granted, that the person, firm, or company leasing or holding such area will in each year during the period stated place on the railway for carriage over it his stipulated share of the 40,000 tons which is the minimum annual tonnage required to make the railway a profitable undertaking. Such share to be based on the acreage of timbered country leased to or held by him and the average yield per acre of the timber of commercial value thereon, as certified by the Conservator of Forests. The guarantee to be equal to £3 per acre of forest land leased or of timbered land held, and guarantees aggregating £25,000 to be tendered and accepted by the Railways Commissioners before the construction of the railway is entered upon.

Any excess of the stipulated share of freightage brought to the railway in any one year by any of the guarantors shall be reckoned as part of his required tonnage for any succeeding year.

If the required tonnage in any year is not forthcoming, so much as may be deficient, after allowing for any excess of tonnage as provided in the preceding paragraph, shall at the rate of carriage fixed upon, *i.e.*, not less than 5s. nor more than 6s. a ton, be payable under the guarantee given by the person, firm, or company concerned, and the Railways Commissioners may realize on the security given them under such guarantee so as to make good the amount of any deficiency caused by the non-reception of the stipulated annual tonnage from the person, firm, or company;

- (c) pay the prescribed ground rent and a royalty charge on all sawn timber cut in the State forest, and on all firewood cut in any reserved or protected forest in the district, for transport over the railway. The Forests Department in fixing such royalty charges to take into consideration the high railway rate imposed for carriage of timber and firewood over the new line.
- (12) In consideration of their guarantees the timber and firewood brought to the railway by the guarantors to have preference of conveyance over the railway to timber or firewood brought by others to the railway for carriage over it. But this preference is not to operate against the Railway Department as regards the carriage of sleepers and timbers for public purposes.
- (13) If, after the agreement referred to above is entered into, any person, firm, or company should apply for a saw-mill lease in the Acheron Valley forest reserve, or in any of the forest reserves adjacent thereto, the Parliamentary Standing Committee on Railways may recommend to the controlling authority of the State forests before such lease is granted what share, if any, the lessee should assume of the guaranteed sum of £25,000 and of the 40,000 tons of annual traffic required to be carried over the proposed railway.

JAMES MENZIES,
Chairman.

Railways Standing Committee Room,
State Parliament House,
Melbourne, 22nd October, 1918.

[Minutes of Evidence are not printed.]