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PROGRESS REPORT

OF THE

ROYAL COMMISSION ON STATE FORESTS AND TIMBER RESERVES

ON THE QUESTION OF

SLEEPER-HEWING IN FOREST RESERVES AND ON CROWN LANDS.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

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SLEEPER-HEWING IN FOREST RESERVES AND ON CROWN LANDS.

PROGRESS REPORT.

To His Excellency the RIGHT HONORABLE THOMAS, BARON BRASSEY,
Knight Commander of the Most Honorable Order of the Bath;
Governor and Commander-in-Chief in and over the Colony of Victoria
and its Dependencies, &c., &c., &c.

MAY IT PLEASE YOUR EXCELLENCY—

We, the members of the Royal Commission appointed to investigate the general question of forestry and forest control and management in Victoria, have the honour to present the following Progress Report on the subject of sleeper-hewing :—

This question has been brought under our notice by the Government as one of extreme urgency, in view of the large supplies of sleepers required by the Railway Department for construction and maintenance during the present financial year, and the proposal of the Conservator of Forests to close during the summer season (from the 15th of December to the 15th of March) the special areas now open to sleeper-hewers.

In the correspondence on the subject which has been forwarded to us by the Honorable the Minister of Lands, the Engineer-in-Chief for Railway Construction (Mr. F. Rennick) states that within the next six months about 200,000 sleepers will be required for new lines, while it is estimated that the Commissioner of Railways will need 360,000 for relaying and maintaining existing lines during the year ending on 30th June next. Mr. Rennick also points out that unless the present forest restrictions on sleeper-hewing, which he considers very stringent, can be relaxed, the cost of sleepers will be increased about 25 per cent., or from 9d. to 1s. each above the average rate paid during the period 1893 to 1897.

At the request of this Commission, the Engineer-in-Chief has specified the restrictions which, in his opinion, hamper the hewing industry, and cause an increase in the price of sleepers. They are as follows :—

1. A condition which requires hewers to deposit a sum of £12 10s. before they are allowed to cut sleepers on grazing areas leased under section 32 of the *Land Act* 1890.
2. A condition in the hewing permit which requires hewers to stack the tops and other débris of the felled trees, in readiness for burning. This, it is said, costs them 6d. per sleeper to carry out.
3. The closing of forests at Stuart Mill, Warrowitue, and elsewhere, and the "shutting up" of good timber within 10 or 15 miles of railway stations.
4. The forest royalty of 3d. per hewn sleeper, "the charge on sawn sleepers being about 2d."
5. Debarring hewers from cutting a quantity of redgum timber which has attained maturity, much of which is rotting from old age.
6. The proposed stoppage of hewing from the middle of December to the middle of March.

We have carefully investigated the circumstances under which these restrictions were made, and will deal with them in the order in which they are set forth above.

1.—DEPOSIT REQUIRED FROM HEWERS WHEN CUTTING ON 32ND SECTION GRAZING AREAS.

This condition is imposed by the Lands Department in the interest of lessees of grazing areas, in order that the land may not be littered with dead boughs and other débris as the result of sleeper-hewing operations, and the grazing value of the allotments thus be materially lessened. The State leases the grass for a fixed term, but retains control over the timber growing on such blocks, and when hewers are licensed to enter on these lands it is only just that the grazing rights of the occupiers should be protected as far as possible. The deposit is paid into trust fund by the forester or Crown Lands bailiff, and returned in full to the hewer if the débris is properly cleared up. Should the hewer fail to carry out this requirement the deposit is utilized wholly or in part in getting the work done to the satisfaction of the forest officer, any balance which may remain on completion of the clearing being refunded to the hewer. We are assured that no part of the money is paid over to the lessee as compensation for any damage to the grass. The deposit was originally £25, but some time ago it was reduced to £12 10s. As the Department has always power to cancel a forest permit for non-fulfilment of the conditions under which it is issued, we consider that £12 10s. is too large a sum to exact from a poor class of men such as hewers, who are almost wholly dependent on their earnings in the forests. We therefore recommend that the amount to be paid by this class of timber-getters in future in connexion with grazing areas be reduced to £5, and that if, on complaint being made by the Crown lessee, and personal investigation by the forester or bailiff, it is found that any hewer fails or refuses to clean up properly to the satisfaction of these officials the débris left by him in the course of his work, he should receive notice that a repetition of the offence will be immediately followed by the withdrawal of his permit for a period of three months.

2.—STACKING OF TOPS OF TREES AND OTHER DÉBRIS ON ORDINARY AREAS.

We consider this a salutary rule in the working of the forests, and one which can be enforced without undue friction by the exercise of tact on the part of the protective staff. In the past, many of our most valuable tracts of forest have been littered with tree-tops and other waste not utilized for domestic fuel, the boughs being left by the timber-getters in the position in which they fell. This waste material greatly increases the ravages of destructive fires, which, in addition to damaging mature timber, destroy immense numbers of young seedlings and shoots. The object of the rule is to prevent considerable areas of ground from being encumbered with dry boughs, and to insure the burning, in suitable weather, of these boughs, which, in the dry season especially, are very inflammable. As the rule is now carried out, the hewers are only called upon to lop-off and throw in a heap the small branches which carry leaves. They are not required to touch the limbs or larger branches. Taking into consideration the average size of the trees now available for sleeper-hewing, the statement communicated to the Engineer-in-Chief that it costs the hewers at the rate of 6d. per sleeper to carry out this work must be considered as an exaggeration. With regard to the burning of the bough-stacks, once the leaves are dry enough to be consumed, it should cause little trouble to set them on fire. We find on inquiry that in open forests such as the tracts of ironbark and greybox in the Bealiba and Tarnagulla districts, the foresters are now instructed to do as much as possible of the burning themselves. In other parts of the colony, where the foresters in the course of their duties have to travel over a larger area, the hewers are expected to burn the heaps of débris whenever they are called upon to do so. While we are not prepared to recommend the abolition of this rule, we uphold it on the distinct understanding that only the boughs carrying leaves are to be cut off the felled trees and stacked up. Further, we are of opinion that as many of the heaps may not be in a fit state for burning within a short time after being stacked, and in the meantime the hewers may be cutting at some distance in another part of the forest, the Lands Department should make such arrangements as will enable the burning of the bough-stacks to be carried out by the foresters and bailiffs.

3.—CLOSING FORESTS AT STUART MILL, WARROWITUE, AND ELSEWHERE, AND SHUTTING-UP GOOD TIMBER WITHIN 10 OR 15 MILES OF RAILWAY STATIONS.

Sleeper-hewing has hitherto been confined to areas which have been to a large extent stripped of mature milling timber, or to districts where, owing to the inferior character of the forest growth, there is no inducement to saw-millers to erect mills and take up special blocks. The total area of Crown lands now open to hewers is 2,968,680 acres, the largest block being in the counties of Gladstone, Kara Kara, and Borung (2,400,000 acres). There are other extensive tracts in the Heathcote and Murchison district, the King River district, the Stawell and Glenorchy district, along the Goulburn and Murray Rivers eastward of Echuca, and in the parishes of Barambogie, near Chiltern, and Wy Yung, near Bairnsdale.

The forest at Stuart Mill forms part of the Mount Cole and Tchirree reserves. It has hitherto been protected for the growth of milling timber, and has never been open to hewers. There are, however, very few mills now at work, even on the Elmhurst and Warrak side of the range, and, in view of the present urgent demand for sleepers, we recommend that as large an area as possible be opened to hewers in the Tchirree forest, but that their operations be restricted to ironbark and greybox trees marked by a forest officer. Should there be any other areas in the neighbourhood of the Pyrenees containing trees of the two kinds mentioned, which it is not desirable to reserve for milling, we consider that they should be made available forthwith for sleeper-hewing under the same restrictions.

With regard to Warrowitue, in the Heathcote district, we have no information before us showing that there is any necessity to open this tract of forest at present. The large area in the neighbourhood of Heathcote and Murchison (161,000 acres) now open to hewers is not yet cut out. There is also another area of 73,000 acres further eastward between Mooroopna and Murchison. As soon as these areas are exhausted of sleepers, the parish of Warrowitue should, we consider, be at once opened to hewers.

The shutting-up of "good timber" within 10 and 15 miles of railway stations is a general statement only, and no specific particulars in support of it have been furnished.

The forest at Gunbower on the River Murray, which with the Barmah reserve further eastward, forms the most valuable tract of redgum now remaining to the State, and comprises an area of about 53,000 acres (17,000 acres having been excised several years ago and thrown open for selection), has hitherto been closed to hewers, although sawmilling operations are carried on. A proposal has recently been made that hewers should be admitted into this forest. We made arrangements about a month ago to examine it, but owing to its being partly inundated by floods from the Upper Murray, which have not yet fully subsided, the inspection had to be postponed. A similar difficulty caused by floods has prevented us from completing the inspection of Barmah, a still larger reserve, having an area of 122,000 acres. We hope to be able to report upon both of these forests at an early date, and in the meantime we are not prepared to express any opinion as to the advisableness of throwing them open to hewing operations.

4.—THE ROYALTY CHARGE OF 3D. PER HEWN SLEEPER (DIMENSIONS 9FT. X 10IN. X 5IN., AND 9FT. X 9IN. X 4½IN.)

This is a common forestry charge imposed for the extraction of a certain class of timber from State Forests and Crown Lands. Having regard to the serious condition of many of the best reserves of the colony, and the increasing scarcity of sound mature timber of the most durable class for sleepers, such as ironbark, redgum, and grey box, the rate of royalty is not unduly high. Every country which has an efficient system of forest conservancy charges for timber cut in its reserves, whether the material is required for public purposes or not. In the neighbouring colonies, hardwood sleepers cut for the State railways are subject to a forest royalty of a like, and in some instances, a slightly higher rate. In New South Wales the average charge on ironbark sleepers 9ft. x 10in. x 5in., or 8ft. x 9in. x 4½in., the gauge being 4ft. 8½in., is 3d. each. In South Australia the charge on sleepers for the 3ft. 6in. gauge, the dimensions being 6ft. 6in. x 8in. x 4½in., is 3d. each, while on those cut for the broad gauge (5ft. 3in.), 8ft. 6in. x 10in. x 5in., the royalty is 4d. each. The statement that sawn sleepers are subject to a royalty of about 2d. only is

incorrect, and is manifestly made owing to a misapprehension of the real facts of the case. The most extensive sleeper-sawing in the colony is carried on in the Barmah reserves, on the Murray flats eastward of Echuca. This redgum forest has been worked by saw-millers for many years, and a large proportion of the best timber having been culled out, trees hollow or pipey, and greatly inferior in size to timber of the same class growing on the New South Wales side of the river, are now being utilized. All redgum cut in this forest is subject to a royalty of 5s. per 1,000 feet. From a return just received by us from the local forester, it appears that the average royalty payable by the millers on 9ft. x 10in. x 5in. sleepers is 3¼d., while for the lighter kind, 9ft. x 9in. x 4½in., the average rate is 2¾d. each. On the Stawell side of the Grampians, where the redgum still left on Crown areas is also of an inferior character, one miller has paid as high as from 4d. to 4½d. on many of the sleepers cut by him.

With respect to the cost of this line material in past years, in May, 1891, the Chairman of the Railways Commission (Mr. R. Speight) and the Engineer-in-Chief (Mr. Darbyshire), in the course of examination by the Railways Standing Committee, showed that the general estimate of 5s. each for first-class sleepers of ironbark, redgum, and grey box for the new lines then proposed was a reasonable one.* Mr. Darbyshire added that the Department was actually paying as high as 5s. 6d. and 6s. each for such sleepers. During the period 1875 to 1884, and to a less extent from the latter year up to 1890, inferior sleeper timbers such as bluegum, messmate, and stringybark were largely used in the construction of new lines. The average cost to the State of these sleepers was about 3s. 4d. each, while their average life was only 10 to 12 years, as compared with a life of 24 to 30 years for ironbark and grey box, and 18 to 30 years for redgum. In 1892-3 the average rate for sleepers, cut from the three kinds of trees last mentioned, was 3s. 3¼d.; in the three subsequent years it was 9d. to 10d. lower, while in 1896-7, the year in which the hewing royalty was imposed, the average price was 2s. 9½d., or about 5d. per sleeper less than in 1892-3.

We think it well to show in tabular form the contract rates in force for sleepers in the three colonies of New South Wales, South Australia, and Victoria, from the year 1896-7 up to the present time:—

CONTRACT RATES FOR RAILWAY SLEEPERS IN NEW SOUTH WALES, SOUTH AUSTRALIA, AND VICTORIA.

Colony.	Timber Used.	Gauge of Lines.	Dimensions of Sleepers.	Contract Rates, 1896-7 and 1897-8.	Present Contract Rates.
New South Wales	Ironbark (hewn)	4' 8½"	9' x 10" x 5" ...	3s. to 3s. 7d. ...	2s. 11½d. to 3s. 6d.
			8' x 9" x 4½" ...	2s. 0½d. to 2s. 9½d.	1s. 9d. to 2s. 6d.
			8' x 9" x 4½" half-round	...	2s.
South Australia	Redgum, S.A. "bluegum" (E. leucoxyton), grey box, sugar-gum, (sawn)	3' 6" 5' 3"	6' 6" x 8" x 4½" ...	2s. 3d. to 3s. ...	2s. 5d. to 3s.
			8' 6" x 10" x 5" ...	4s. 9d. to 5s. ...	4s. 11d. to 5s.
Victoria	Red ironbark, grey box, redgum, (hewn or sawn)	5' 3" (Construction) (Maintenance)	9' x 9" x 4½" ...	2s. to 3s. 5d.† ...	{ 2s. 11d. to 3s. 6d. Average 3s. 3¼d.
			9' x 9" x 4½" ...	2s. 5d. to 3s. 1d.	{ 2s. 6d. to 3s. 3d. Average 3s. 1¾d.
			9' x 10" x 5" ...	2s. 6d. to 3s. 6d.	{ 3s. 3d. to 3s. 6d. Average 3s. 5½d.

It will be seen that, although New South Wales has immensely larger areas of valuable ironbark and redgum forest than Victoria, the minimum and maximum rates in 1896-7 and 1897-8 for the same class of sleeper (9ft. x 10in. x 5in.) were somewhat lower in this colony, while the maximum rate in the two colonies is at the present time equal. In South Australia, where the forests are of very limited extent, and mature timber of commercial value is much scarcer than in Victoria, a shorter sleeper for the same gauge as the standard one in this colony costs from 1s. 8d. to

* This estimate included carriage to the lines.

† Period 1893-7, average 2s. 4¼d.

1s. 9d. more than the minimum, and 1s. 6d. more than the maximum, contract price at present in force here. Taking into consideration the difference in the dimensions of the sleepers employed in the lines of the three colonies, and the exceedingly durable qualities of the timbers used here, the Victorian Railway Department has for several years past obtained its sleepers at remarkably cheap rates, which, in the present condition of the forests, cannot be expected to continue. The information obtained by us in the course of our inquiries all tends to the conclusion that, if the Railway Department continues to make such heavy drafts upon the forest resources of the colony for sleeper purposes, and confines the timbers used to redgum, red ironbark, and grey box, the supplies, which already show signs of serious diminution, must soon be completely exhausted. We think that a large quantity of secondary sleeper timbers might be employed on some of the railway lines, where the use of bluegum, selected messmate, stringy-bark, or spotted gum might preserve for a longer time the existing supplies of the best class of hardwoods.

The recent advance in the price of sleepers is, undoubtedly, to a certain extent due to the sudden announcement in the public press of the abnormally large number required during the current financial year. Considerable supplies of redgum and grey box sleepers are now obtained on private lands, and owners who have belts of redgum especially are carefully preserving this valuable timber, and demanding high rates from hewers and millers for it. In one case which was brought under our notice in the Stawell district, a saw-miller had to pay to the owner a royalty of 9d. for every sleeper cut on his land.

A circumstance which must also be taken into account is that the Heathcote, Rushworth, and Barmah districts, which for many years furnished immense quantities of sleepers, have in some parts been stripped of mature trees. A further cause of scarcity is to be found in large areas of valuable ironbark and grey box, leased from the Crown under section 32 of the Land Act, having been illegally destroyed by ring-barking between Seymour and Whroo, and on extensive tracts of country stretching from Bealiba to Wedderburn, and from the Pyrenees range to the neighbourhood of Stawell.

We recognise that it is impossible for the Railway Construction Branch to furnish beforehand any estimate of its sleeper requirements in a given year, as the extent of new construction depends entirely on the additional mileage authorized by Parliament from time to time. But the maintenance of existing lines is in a different position altogether, and it should not be a difficult matter to furnish the Conservator, before the end of each financial year, with a fairly trustworthy estimate of the number likely to be wanted for ordinary renewals and relaying, in order that steps may be taken to allot sufficiently large areas of forest to sleeper-getters without unnecessary friction between the two Departments. On the 20th of November last the Railway authorities, in response to inquiries from this Commission respecting the use of indigenous hardwoods on the lines, stated that the number of sleepers required annually for maintenance "for the next three years" would be from 180,000 to 200,000. The Engineer-in-Chief for construction, in an official letter dated the 6th of September ultimo, stated that the maintenance requirements for the current financial year are estimated at 360,000, while in a press interview published in a Melbourne morning journal on the 13th inst., the Engineer for Existing Lines is reported to have said that in addition to the 360,000 sleepers wanted for ordinary maintenance, it is proposed to use 50,000 more for relaying certain lines with heavier rails. This makes a total of 410,000 for maintenance alone, or about 610,000 sleepers for new and existing lines, an enormous demand on the forest resources at such short notice.

The forests of this colony, although at present controlled with a very small staff, insufficient to protect the reserves efficiently and to exercise proper supervision over timber-cutting, are worked at a loss to the State of about £3,000 a year. As even since the imposition of the hewing royalty, and up to the present time, the Railway Department has been able to get large supplies of sleepers at an average price considerably lower than that ruling in former years, we are not prepared to recommend the abolition or reduction of the conservancy charges on this class of line material. Doubtless the Engineer-in-Chief has mainly in view the royalty as it affects sleepers required for new lines. It is only right, however, to point out that the ultimate cost of such sleepers is enhanced in a larger degree by the freight of a penny per ton per mile, which is paid for out of loan funds to the railway revenue whenever they have to be conveyed over existing lines. In the case of the new mallee extensions now being constructed, the sleepers will have to be carried an

average distance of 150 miles, and the increased cost due to the payment of this freight is estimated at 1s. 0½d. per sleeper. It can scarcely be seriously maintained that a forest conservancy charge of 3d. per sleeper unduly increases at the present time the cost of this material for the lines in question, while the Railway department exacts from the construction branch a freight payment of over 1s. per sleeper.

5.—DEBARRING HEWERS FROM CUTTING REDGUM PAST MATURITY.

In June last, in the course of evidence taken by us at Inglewood, a statement was made by a witness that in the neighbourhood of Mount Kooyoora there were a number of redgum trees, long past maturity, which might with advantage be utilized for sleepers. The local forester supported the suggestion, adding that the timber grew on a granitic formation, and thus would never attain the size of redgum on river flats. The most valuable tracts of redgum forest in this colony are along the course of the Murray, eastward and westward of Echuca, along the Goulburn River north of Shepparton, and in the Victoria Valley in the Grampians. In view of the character of the soil at Mount Kooyoora, the age of the trees, and the isolated situation of the small belt of redgum there, we had no hesitation in recommending that the restriction should be removed, and the trees, where suitable for the purpose, converted into sleepers. Other localities mentioned by the Engineer-in-Chief where a similar restriction is still in force are—creeks near Costerfield and Greytown in the Heathcote district, the Wimmera flats between Glenorchy and Crowlands, and in the neighbourhood of Lakes Hindmarsh and Albacutya and Outlet Creek. Under a general proclamation issued in 1877 the cutting of trees growing on reserves along the courses of rivers is forbidden. We are informed that there are comparatively few trees of the kind on the creeks near Costerfield and Greytown. At present there are large areas of ironbark and grey box open to hewers in this district, but we do not see any objection to their cutting such redgum trees along the creeks as may be marked by the local forester, due care being exercised to preserve a sufficient number of trees for municipal works and for seed purposes. With regard to the Wimmera flats mentioned, there is a large area of nearly 82,000 acres now open to hewers in the neighbourhood of Stawell and Glenorchy. A great deal of the river frontage further south is held by private owners, there being in some parishes a narrow water reserve of a chain and a half in width only on either bank of the river. We do not think it at all desirable that the redgum trees growing on such frontages, which are useful for maintaining the banks of the stream, for shelter of stock, and for seed, should be allowed to be destroyed for the sake of the small supply of sleepers to be got from them. A similar objection applies to the destruction of timber on the foreshores of Lakes Hindmarsh and Albacutya and along Outlet Creek. As, however, a new railway about 18 miles in length is to be built from Jeparit northwards, we would raise no objection to the cutting of selected redgum trees at a greater distance than 3 chains from the lake and outlet frontages, and accordingly recommend that a forest officer be at once sent up to the district to allot areas to sleeper-getters, but that cutting be strictly confined to such trees as are marked by him.

6.—THE PROPOSED STOPPAGE OF HEWING FROM THE MIDDLE OF DECEMBER TO THE MIDDLE OF MARCH.

This restriction is recommended by the Conservator with the object of safeguarding the forests as far as possible from fire, as he holds that many destructive conflagrations are caused by the carelessness of hewers in the course of their operations. We have no evidence that this view is correct, and personal inquiries by us in many districts have failed to disclose a single case in which the outbreak of bush fires can be traced to carelessness or neglect on the part of these timber-getters. Indeed, as they usually have stacks of sleepers scattered throughout the forests in which they are working, they have every inducement to be careful to prevent fires. The Conservator, we find, is unable to specify any instance in which it has been clearly proved that a fire has been caused in this way.

In view of the urgent necessity of obtaining within a short period such a large supply of sleepers for the railways, we are of opinion that all hewing areas should remain open during the approaching summer season. The question of efficient fire protection for forests and Crown lands will be fully dealt with in our General Report, and provision for such protection, now recognised as essential in every country which

has a system of timber conservancy, should be an important feature in any Forest Bill which may be laid before the Legislature. In the meantime, no effective protection of the forests from the ravages of fire can be secured by closing them to hewers, while saw-mill employés, splitters, and wood-cutters are allowed to enter them at will throughout the summer season. Such a course, if adopted, would not necessarily prevent destructive fires, while it would deprive a large body of men of their usual employment for several months and delay urgent work in connexion with the construction and proper maintenance of the State railways.

We cannot close this Report without pointing out that one of the most serious objections urged by the Conservator against unrestricted hewing in the forests is the waste of useful timber caused by this mode of converting logs into sleepers. That such waste is considerable is fully borne out by the experience of the forestry authorities in New South Wales and New Zealand. The Railway Commissioners of New South Wales consider hewn sleepers to be more durable than sawn, and many efforts have been made to induce them to invite tenders for the latter kind, but without avail. For some time past, however, they have accepted half-round hewn sleepers for light "pioneer" lines, and these cause much less waste of timber than the rectangular kind. In South Australia, where the forests have to be very carefully preserved, hewing is not permitted, all the sleepers supplied to the State lines being sawn. If the railway engineers of this colony would consent to employ half-round sleepers on lines where the traffic is light and the trains run at a slow speed, the waste now unavoidable in hewing rectangular sleepers would be greatly diminished.

A. L. TUCKER, President.

ALF. S. BAILES.

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J. BALFOUR BURTON.

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Parliament House,
Melbourne, 20th October, 1898.