

1926.

WESTERN AUSTRALIA.

REPORT

OF

THE FORESTS DEPARTMENT

FOR THE

Year ended 30th June, 1926,

BY

S. L. KESSELL, B.Sc., DIP. FOR.,
CONSERVATOR OF FORESTS.

Presented to both Houses of Parliament by His Excellency's Command.

[THIRD SESSION OF THE TWELFTH PARLIAMENT.]

PERTH :

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1926.

Forests Department,

Perth, 15th September, 1926.

The Honourable Minister for Forests.

Sir,

I have the honour to transmit, herewith, my Report on the operations of the Department for the year ended 30th June, 1926.

I have the honour to be,

Sir,

Your obedient servant,

S. L. KESSELL,

Conservator of Forests.

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MAP

OF AREAS UNDER WORKING PLANS

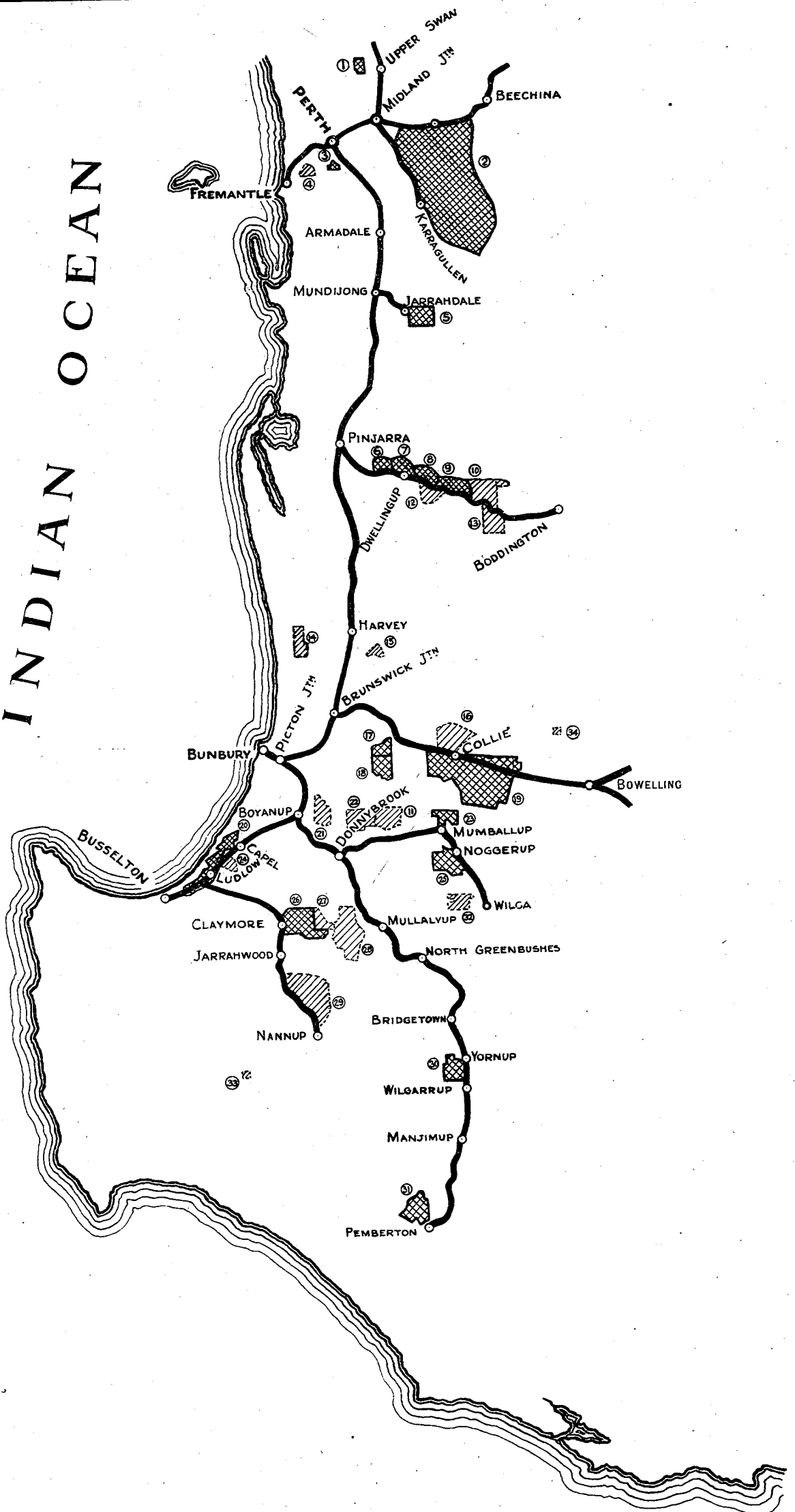
or for which Working Plans are in course of preparation.

NOT TO SCALE.

REFERENCE.

Reference No.	Working Plan.	Working Circle.	Species.
1	Working Plan No. 8	Gnangara	Pines
2	Working Plan No. 1	Mundaring	Jarrah and Pines
3	Working Plan No. 10	South Perth	Pines
4	... ..	Applecross	Pines
5	Working Plan No. 15	Jarrahdale	Jarrah
6	Working Plan No. 17	North Marrinup	Jarrah
7	Working Plan No. 16	Dwellingup	Jarrah
8	Working Plan No. 22	Holyoake	Jarrah
9	Working Plan No. 23	Inglehope	Jarrah
10	... ..	Pindalup	Jarrah
11	... ..	Wellington	Jarrah
12	... ..	Plavins	Jarrah
13	... ..	Wuraming	Jarrah
14	... ..	Myalup	Pines
15	... ..	Harvey Weir	Pines
16	... ..	Harris River	Jarrah
17	Working Plan No. 14	Worsley	Jarrah
18	Working Plan No. 13	Potter's Gorge	Jarrah
19	Working Plan No. 3	Collie	Jarrah and Pines
20	Working Plan No. 2	Ludlow (Stirling Block)	Tuart and Pines
21	... ..	Boyanup	Jarrah
22	... ..	Lowden	Jarrah
23	Working Plan No. 11	Mumballup	Jarrah
24	... ..	Ludlow (Coolilup Block)	Pines
25	Working Plan No. 12	Noggerup	Jarrah
26	Working Plan No. 7	Claymore	Jarrah
27	... ..	Upper Capel	Jarrah
28	... ..	Mullalyup	Jarrah
29	... ..	Sussex	Jarrah
30	Working Plan No. 6	Yornup	Jarrah
31	Working Plan No. 9	Big Brook	Karri
32	... ..	Wilga	Jarrah
33	Experimental Area	Nannup	Pines
34	Experimental Area	Bowelling	Pines

INDIAN OCEAN



REPORT OF THE FORESTS DEPARTMENT FOR THE YEAR ENDED 30th JUNE, 1926.

CHAPTER I.

PROGRESS FOR YEAR 1st JULY, 1925, TO 30th JUNE, 1926—A BRIEF REVIEW.

1. The area of forest country dedicated as State Forest under "The Forests Act, 1918," has been increased by 782,257 acres.

2. The gross revenue of the Department amounted to £227,061, showing an increase of £44,297.

3. Steps have been taken to restrict the output of timber from Crown lands and provide for more economic utilisation, with the object of extending the life of the timber industry. More intensive control of exploitation by tree-marking under the Group Selection System in lieu of minimum girth restriction has been introduced at 21 centres in the jarrah bush. 25,686 acres have been tree-marked for sawmilling, and 6,253 acres of heavily cut-over bush have been tree-marked for exploitation by hewers. On such prime forest country local hewing permits have been issued to 98 sleeper hewers.

4. An area of 4,095 acres have been silviculturally treated under the group selection system for the natural regeneration of Jarrah (*Euc. marginata*). 624 acres of jarrah in the vicinity of the Collie coal mines have been treated under the clear felling system, and a satisfactory crop of seedling and coppice regrowth secured.

5. Fire control measures have been maintained in all centres where work is in progress, and no country treated for the natural regeneration of indigenous species, or on which plantations have been established, has suffered from fire damage.

With the object of protecting immature timber on prime forest country where sawmilling or hewing work is in progress, "top disposal operations" have been carried out over 29,970 acres of Jarrah bush.

6. An area of 1,405 acres of Karri forest (*Euc. diversicolor*), recently denuded of marketable timber, has been treated for regeneration. Buds at present on the trees indicate the probability of a heavy seed crop next autumn, and final burning is being held pending the ripening of this seed.

An area of 1,029 acres of Tuart forest (*Euc. gomphocephala*) has been treated for regeneration under the group selection system, and a partial stocking secured by natural means.

7. The mapping of prime forest country has proceeded; five camps have worked over 297,650 acres, involving 2,780 miles of traverse, and 16 new lithographs have been issued.

8. Planting of exotic conifers has been extended, and 737 acres were planted during the past season with 700,000 young trees. 46,000 trees have been distributed at cost price to public bodies and land holders for planting in country districts.

9. For the better protection and more efficient management of forest areas, 10 new houses have been erected on high positions within Working Circles where intensive work is in progress. Two additional houses on suitable sites were purchased.

10. A number of lines of research have received attention, and results in connection with timber preservation and kiln-drying investigations respectively have been considered of sufficient commercial importance to warrant application being made for patent rights.

11. Experimental sowing of sandalwood nuts on Eastern goldfields areas has given satisfactory results, and a further area of 770 acres within the fenced portion of the Karamindie Reserve was sown. Large areas of country considered suitable for sowing, carrying a heavy stocking of host plants and many immature sandalwood trees, have been located and temporarily reserved.

12. Further scwings of Mallet (*Euc. astringens*) have been carried out over 176 acres, and many patches of natural regeneration protected from fire. Experimental sowings of the Golden Wattle (*Acacia pycnantha*) have been carried out in the mallet habitat west of Cuballing.

CHAPTER II.

CONSTITUTION OF STATE FORESTS.

Appreciable progress has been made by the Lands Department in arranging for the dedication of prime timber country as State forest. Assurances have been given that this work will continue steadily until the whole of the prime timber belt has been dealt with. In consequence, any analysis of the position is held over until the next annual report, when it is hoped that a complete statement may be presented, showing what Western Australia is able and prepared to do in providing the agreed quota of 3,000,000 acres towards the 24,500,000 acres of permanent forest required in order to safeguard the present and future timber supplies of Australia.

STATE FORESTS.

Under Forests Act, 1918.

—	June, 1925.	June, 1926.	Increase.
	acres.	acres.	acres.
Jarrah	125,735	896,946	771,211
Karri	Nil	7,200	7,200
Tuart	6,091	6,091	Nil
Other Species ...	2,470	6,316	3,846
Total ...	134,296	916,553	782,257

Included in the total area of State forests as at the 30th June, 1926, are 758,810 acres of jarrah and 3,846 acres of other species, which, owing to the work

involved in the preparation of plans and descriptions were not gazetted until subsequent to 30th June, 1926, although approved for dedication prior to that date.

Several minor adjustments were necessary regarding other State forests owing to surveys and additions.

TIMBER RESERVES.

Under Forests Act, 1918.

	June, 1925.	June, 1926.	Increase or De- crease.
	acres.	acres.	acres.
Jarrah	4,486	31,286	*26,800
Karri	1,807	1,807	...
Other Species (Eastern Goldfields)	874,979	741,271	decrease. †133,708
Total	881,272	774,364	decrease. 106,908

*The increase in jarrah is accounted for by the declaration of the following reserves:—

66/25 South-East of Bulading—2,460 acres.

68/25 South-East of Wonnerup—4,900 acres.

69/25 North-East of Collie—19,440 acres.

†The decrease in other species is accounted for by the adjustment to the area of Reserve 7/25 (Bullfinch—mining, timber and firewood), now subdivided for settlement.

Two additional reserves, as follows, were declared during the year for experimental pine planting:—

65/25 South-West of Nannup—150 acres.

67/25—North of Bowelling—142 acres.

CHAPTER III.

REVENUE.

(Gross Revenue £227,061.)

The gross revenue for the year ending 30th June, 1926, shows an increase of £44,297, or 24.2 per cent. over the previous year. This increase is mainly due to the higher royalties being obtained for our hardwoods, and to the fact that a number of timber leases, which were previously held on a rental basis, are now subject to the payment of royalty.

1.—THE TIMBER TRADE.

The total production of sawn and hewn timber for the year under review amounted to 20,806,685 cubic feet, valued at £2,581,000. Of this quantity 12,001,384 cubic feet, valued at £1,522,958, were exported. Although the quantity exported has been exceeded on three previous occasions, the declared value of the past year's overseas sales constitutes a record, being £44,961 in excess of the previous year.

It is interesting to note that the Eastern States of Australia again hold the position of being our largest buyers of timber. During the year they purchased 4,868,134 cubic feet to the value of £615,081. Our other chief markets were South Africa, New Zealand, United Kingdom, Ceylon, India, and China in the order named.

It is generally recognised by those closely associated with the trade that the quantity of timber cut annually cannot be increased if any consideration is to be given to the future of the industry, but much can be done to increase both the volume and the value of timber recovered from the logs milled. Greater attention to problems of grading and standardisation of sizes cut for definite uses is long overdue. Any forward move in this direction, to prove effective, must have the goodwill of all parties interested, and an attempt will be made in the near future to interest both the Council for Scientific and Industrial Research and the Australian Commonwealth Engineering Standardisation Association in the project, with the object of securing some uniformity in the export trade as well as in timber cut for local use. The increase in the volume of jarrah devoted to higher grade uses is not as rapid as the value of the timber justifies. In this connection it would appear that in certain overseas countries the name "Jarrah" is inevitably associated with railway sleepers and paving blocks, and to secure a footing among cabinet timbers it may ultimately prove necessary to adopt some other trade name, such as "Western Australian Mahogany." The success of a similar action in connection with stringy bark and its use in the manufacture of "Australian Oak" furniture is sufficiently recent to be generally known.

Of the total quantity of timber obtained during the year, 42.5 per cent. of it was converted with the broad axe. Most of the hewn timber, however, came from private property. Hewing operations on Crown lands were confined to country that is being released for settlement and areas that are being treated for regeneration, in connection with which the number of hewers kept in continuous employment is steadily increasing.

Sawmilling operations have been continued throughout the year without interruption. At the close of the year there were 75 mills operating on Crown lands, and from 30 to 40 small mills on private property. Some idea of the rate at which our forests are being cut out may be gathered from the fact that during the past 12 months it took 42,470,000 cubic feet of log timber to keep our sawmills going and approximately 31,000,000 cubic feet of logs to meet the demands of hewers.

Arrangements for the cutting of marketable timber from Group Settlement Areas in the Margaret River district have been continued with marked success. Fifty per cent. of the royalty collected, amounting to £7,082, has been credited to the Group Settlement Branch of the Lands Department during the year, and altogether a sum of £14,288 has been paid over in this way.

The Department has continued to purchase sleepers on behalf of the Railway Department, and during the year 116,739 sleepers were obtained at rates considerably lower than those ruling for export sleepers.

It is satisfactory to note that the value of imported timber (£144,989) shows a decrease of £16,909 on the figures for the previous year. This decline is particularly noticeable in the case of undressed timber, which has dropped from £103,145 in 1925 to £67,314 in 1926.

(a) *Concessions and Leases on a Rental Basis.*

(Rent on Concessions, £50; Rent on Timber Leases, £1,630.)

On the 30th June, 1926, there remained only one timber concession (Jarrahdale) and four timber leases operating on a rental basis under the provisions of the Land Act, 1898.

(b) *Leases on Royalty Basis; Sawmilling Permits granted under Section 11 of the Land Act Amendment Act, 1904.*

(Royalties: Sawmilling, £69,614; Hewing, £3,238.)

At the close of the year there were 13 timber leases operating under extensions granted in accordance with the provisions of Section 6 (1) of "The Forests Act, 1918." The remaining four leases will come in on a royalty basis during 1927.

Prior to the extension of the leases and concessions held by Millars Timber and Trading Company, Limited, in 1923, the Department was receiving in rent annually the sum of £7,646 for the cutting rights they held. During the past year, under the terms of their extensions, this company has paid in royalty on timber obtained from the same areas the sum of £23,392, and in rent on the leases not yet subject to royalty a rental of £1,680.

There are at present 24 sawmilling permits granted under Section 11 of "The Land Act Amendment Act, 1904," in force. A number of these expired during the year, but were extended for a further 12 months, subject to the conditions applying to permits granted under the Forests Act.

It was decided by the Government during November, 1921, that the Railway Department should not pay royalty on timber obtained from their permit area at Dwellingup (78/11), on the grounds that no reforestation work was being carried out on the permit area, and, further, that the timber was being used for local Government requirements.

It is considered, however, that as timber both for railway requirements and as a commodity paying a very satisfactory freight charge is of such importance to the Railway Department, they should contribute to the Reforestation Fund, particularly in connection with an area such as the Dwellingup permit, comprising some 80,000 acres, from which they are cutting the best of the timber.

With rapidly dwindling resources steps will have to be taken in the near future to limit the export trade with the object of reserving timber for home requirements, and in view of these circumstances the Forests Department must look to local consumers, among whom the Railway Department must rank prominently, to maintain the Reforestation Fund, so that the prime forest areas of the State may be kept permanently productive. In view of the fact that reforestation operations are now being carried out in this locality on an extensive scale, and that the Railway Department has been disposing of considerable quantities of timber annually through the agency of the State Sawmills, the decision referred to has now been amended to the extent of the Railway Department paying royalty at the prescribed rate on all timber which is sold by them direct or through the State Sawmills.

(c) *Permits under "Forests Act, 1918."*

(Royalties, Sawmilling, £59,721; Hewing, £10,637.)

There remained in force at the end of the year 46 sawmilling permits and 41 hewing permits granted under the Forests Act over 305,806 acres and 176,305 acres respectively. The royalty paid on timber from permits of this nature shows an increase of £33,534 over the previous year. The competition for permit areas during recent months has been very keen, and by following the practice of selling the cutting rights by auction on a royalty basis much higher rates of royalty have been obtained by the Department than hitherto.

Owing to the fact that the greater portion of our forest area is held under cutting rights, the Department has adhered to the policy of throwing open areas only to clean up country in advance of settlement or in conjunction with regeneration work.

The granting of local hewing permits over areas where regeneration work is in progress has been extended.

Three hundred and sixty-six of these permits were issued during the year, resulting in the employment of 98 hewers in localities adjacent to their homes.

2.—INSPECTION BRANCH.

(Inspection Fees, £22,046.)

The control of inspection work by Foresters in charge of districts has been continued throughout the year. Periodic inspections have been carried out by the Chief Timber Inspector, who has also been called upon to supervise the work of Assistant Foresters who have not had previous experience in this branch of the work.

The volume of sawn sleepers inspected was 2,663,042 cubic feet.

The volume of hewn sleepers inspected was 6,277,982 cubic feet.

Other sawn and hewn timber inspected amounted to 1,051,291 cubic feet.

Piles and poles inspected totalled 26,733 lineal feet.

Considering the large volume of timber inspected during the year, and the fact that a considerable quantity of it is subject to a further examination on arrival at destination by overseas buyers, it is pleasing to record that no serious complaints have been received regarding the manner in which this branch of the work has been carried out.

With a view to insuring the payment of royalty on hewn timber obtained from Crown lands, it was found necessary in November last to introduce a regulation providing for the inspection of all such hewn timber by officers of the Department.

For some months past the Railway Department has been placing orders for wandoo sleepers. Prices considerably in advance of those for jarrah are being paid, and inspection is being carried out on the same specifications as for jarrah.

It is considered that the standard specification for jarrah sleepers will not serve equally well in the case of sleepers cut from wandoo.

By insisting on the present specification, the cost of wandoo sleepers will be kept unduly high, and the number of first-class thoroughly serviceable sleepers from any particular area of wandoo country will be greatly reduced.

An amended specification was drawn up and submitted to the Railway Department, and a quantity of sleepers cut to this specification were supplied for demonstration purposes. The question is at present under consideration by the Chief Engineer, Way and Works, and pending some amendment on the lines suggested, the granting of hewing rights for the cutting of wandoo sleepers on Crown lands has been withheld.

3.—TIMBER CUT ILLEGALLY.

The proceeds from the sale of timber illegally cut amounted to £1,135. It was found necessary during the year to take proceedings in 20 cases for breaches of the Forests Act and Regulations, and in all but one case convictions were recorded. The majority of the offences were of a minor nature, and called for only the minimum penalties provided for under the Act. Action was also taken against a person offending under the Bush Fires Act by lighting fires during the prohibited period. The offence was regarded as a very serious one, and a fine of £25 was imposed by the Court.

4.—FENCE POSTS.

Prior to November last, any persons desiring to cut fence posts from Crown lands outside the main timber belt could do so by obtaining a quarterly license at a cost of 7s. 6d. irrespective of the quantity of posts he wished to cut. It was evident, however, that a shortage of fence posts was being felt in many of the agricultural districts, and complaints were being received that certain persons were obtaining licenses with a view to cutting posts and holding them for speculative purposes. In view of this, it was felt that the time had arrived for revising the method of dealing with fence post cutting.

Consequently it was decided that, in future, licenses limiting the quantity of posts to be obtained should be issued on a royalty basis of one penny per post, and that before being granted, inquiries should be made to ascertain whether the posts were required for immediate use, and if so, whether they could be obtained from the applicant's own land.

The managing trustee of the Agricultural Bank generously offered to assist in the matter, with the result that arrangements have been made for the issue of licenses by district inspectors on the recommendation of bank inspectors.

The system is working satisfactorily, and to the 30th June last licenses had been granted to cut 23,000 fence posts.

5.—SANDALWOOD.

(Revenue, £52,018.)

The system in operation during the previous year for the control of sandalwood getting from Crown land under license has continued, except that the provisions of the licenses have been somewhat altered to tighten up control and also provide for a more equitable distribution of orders. The responsibility of selecting persons to receive orders now rests with the Department. Two Boards have been established, constituted as follows:—

For sandalwood getters' orders—

Chairman—nominated by Forests Department.

Member—nominated by Sandalwood Licensees.

Member—nominated by Sandalwood Producers' Association.

For prospectors' sandalwood orders—

Chairman—nominated by Mines Department.

Member—nominated by Forests Department.

Member—nominated by Prospectors' Sandalwood Association.

The Boards act in an advisory capacity only, the class of person to receive sandalwood orders being a matter of Government policy.

Sandalwood Getters' Orders.

This policy aims at sandalwood getters' orders being equitably distributed among the men who have for years past been engaged in actually pulling sandalwood, as distinct from forwarding agents, and more particularly with those of them who, through age, family, or other ties cannot readily leave the back country and obtain employment elsewhere. Even restricting sandalwood orders to such persons it is not possible to allocate a large order to each one, but provided a man himself does the work entailed, the proceeds of a sandalwood order of 20 to 30 tons furnishes him with a very useful monetary recompense. It is a condition of a sandalwood order that the holder must himself pull the wood.

The following is a statement of sandalwood getters' orders, recommended for period of current licenses:—

Quantity of Orders.	Tons.							Total.	
	5	10	15	20	25	30	35	Persons.	Tons.
No. of persons—									
Getters	4	19	44	85	33	17	6	208	4,115
Prospectors	30	185	...	...	...	...	...	215	2,000
	...	...	...	...	...	...	...	423	6,115

Prospectors' Orders.

Two thousand tons were allocated this year for prospectors' orders; the definition of a person eligible to receive such an order being:—

“A person who, by himself, or in conjunction with other men as partners, is actually and almost continuously engaged in the search for minerals, and/or in the opening up and working of mines on any mineral discoveries made as a

result of such search and is in need of financial assistance.”

The total quantity which may be obtained from Crown land during the current 12 months for export is 5,643 tons, *i.e.*, 6,000 tons less last year's excess, but as roots and butts constitute about 15 per cent. of sandalwood consigned, the total quantity of orders which may be placed annually is about 6,900 tons. The balance was held in reserve to meet specially

necessitous cases, to cover confiscation of illegally pulled wood, to cover excess consignments, and to permit of orders being placed with settlers who have sandalwood on property they are about to clear. (Sandalwood on C.P. blocks approved subsequent to 14th February, 1924, being reserved to the Crown).

To stop the practice of persons taking up C.P. blocks with the main idea of obtaining the sandalwood therefrom, arrangements are now in force to withhold the proceeds of the sandalwood pulled on

C.P. blocks until the value of the improvements effected to the property exceeds the profit derivable from any sandalwood pulled therefrom.

Generally speaking the sandalwood consigned during the year under review has been of good quality and fairly well cleaned. Hereunder is a statement showing quantities of sandalwood below fair average quality, and also the deductions made in the price paid to the pullers:—

No deduction in connection with.	Deductions per ton on the tonnage listed.											
	5s.	10s.	15s.	£1	£1 5s.	£1 10s.	£1 15s.	£2	£2 5s.	£2 15s.	£3	Over £4
5,085 tons	tons. 21	tons. 138	tons. 189	tons. 212	tons. 106	tons. 100	tons. 30	tons. 38	tons. 5	tons. 8	tons. 22	tons. 18

Average price received by pullers per ton £15 16s. for logs.

Of the sandalwood confiscated by the Department, deductions were made in respect of 74 tons.

Royalty being fixed at £9 per ton, any reduction in price for poor quality wood, has in the past, fallen on the puller.

Several consignments of sandalwood, mostly obtained from conditional purchase locations, were found to be of such poor quality that an amendment to Regulation 55 was gazetted on the 14th May, 1926, which provides for a reduction of 50 per cent. in the royalty payable on such consignments. 18 tons have been paid for in accordance with this regulation.

During the year under review the investigations into private property sandalwood operations have occasioned laborious control, necessitating additional staff at head office and in the field. Investigations have been carried out in respect of some 239 private property contracts, necessitating inspections of 480 private property locations. Staff troubles aggravated the position, delaying inspections and causing an accumulation in the number of operations to be investigated. The temporary dislocation of work has now been overcome. Partly due to the diminishing of private property sandalwood supplies and partly due to market conditions, the purchases of this commodity have latterly been considerably reduced.

Confiscations have been made in respect of 69 tons, in which 21 persons have been involved. The proceeds of this confiscated wood represent a sum of approximately £909. This total does not include the proceeds of seized wood in respect of which there was no apparent intention to evade royalty (*e.g.*, over-consignment of orders). Confiscations under this heading have been made in respect of 96 tons, in which 27 persons were involved. The net proceeds of all confiscations amounted to £1,141 exclusive of royalty. The total quantity of private property sandalwood railed during the period of report was 1,738 tons.

Exclusive of export wood, 832 tons of roots and butts were received during the year under review.

Until 1st February, 1926, this quantity was allocated by mutual consent between the two firms distilling sandalwood oil, *viz.*:—

Messrs. Plaimar, Limited—429 tons.

Braddock Essential Oil Co., Ltd.—138 tons.

For this period royalty for roots and butts was charged at the rate of £1 per ton.

At present the stated requirements of roots and butts of the two sandalwood oil distilling firms totals more than the estimated supplies. This fact and other difficulties rendered necessary the establishment of a departmental depot to which roots and butts are delivered by licensees, and from which it is intended such supplies shall be sold by auction to oil distillers within the State.

To date 55 tons 5 cwt. 2 qrs. have been sold from the depot to the Braddock Essential Oil Co., and 1 ton 4cwt. 2 qrs. to Faulding & Co. These sales scarcely bear out the claims of the firms concerning their annual requirements, and to prevent over accumulation in the depot, 47 tons 12 cwt. 3 qrs. were disposed of to Messrs. John Hector & Sons by auction at an average price of £19 1s. 8d. per ton.

The quantity of sandalwood oil exported during the year was 61,676 lbs., having a declared value of £47,819.

Stocks of sandalwood at Fremantle, which at the end of last year had accumulated to the extent of many thousands of tons, are being gradually reduced. The slackening off in the rate of buying of private property sandalwood has further helped to relieve the position.

The members of the two Boards referred to in connection with the placing of sandalwood orders are to be congratulated on the success and comparative satisfaction which has resulted from this work. The selection of persons to receive orders was not an enviable task, and the fair and reasonable manner in which this work has been done is evident from the total lack of serious complaints.

The thanks of the Department are due to the following, who have served in the capacities listed:—

Board for sandalwood getters' orders—

Mr. H. R. Gray—Chairman (Conservator's Nominee).

Mr. H. M. Ross—Sandalwood Getters' Nominee.

Mr. H. J. Herbert—Licensees' Nominee.

Board for prospectors' orders—

Mr. T. Y. A. Lang—Chairman.

Mr. C. A. McParlin—Prospectors' Nominee.

Mr. H. R. Gray—Conservator's Nominee.

6.—REVENUE FROM OTHER SOURCES.

Firewood permits yielded a revenue of £711; mining timber, £815; sales of tuart, £2,047; registration fees, £514; license fees, £609; and sales of seeds and trees, £490.

Mining timber supplies are dealt with on page 15, and the sale of seeds and trees on pages 26 and 27 of this report.

CHAPTER IV.

EXPENDITURE.

(Total Expenditure from all funds, £101,321.)

1.—GENERAL ADMINISTRATION AND COLLECTION OF REVENUE.

(Charged against Consolidated Revenue, £23,191.)

This item shows a slight increase over the expenditure for the previous year, but that is offset by an increase of 24.2 per cent. in the gross revenue.

2.—REFORESTATION FUND.

The following statements show the position of the Reforestation Fund (Section 41, Forests Act, 1918) at the beginning and end of the financial year:—

	£	£
Revenue of Department, 1925-26, (excluding royalty on sandalwood)		169,164
Less—		
Consolidated Revenue Expenditure (excluding Sandalwood)	17,624	
Interest on Loan	2,196	
Sinking Fund	203	
Special Acts	756	
	20,779	
Net Revenue		£148,385

Three-fifths of the above sum, representing the net revenue of the department, is placed to the credit of the Reforestation Fund, the position of which is set out below:—

REFORESTATION FUND—		£
Balance at 1st July, 1925		82,377
Transferred from Revenue, 1925-26		89,031
Sundry Recoups, 1925-26		1,549
		172,957
Less Expenditure from 1925-26		71,780
Balance available for Reforestation Work, 1926-27.		101,177

(a) Working Plan No. 1—Mundaring.

(Reforestation, £5,434.)

Control of Utilisation (£131).—Control by tree marking of cutting operations to supply logs for six mills was continued. A total area of 3,476 acres was tree marked and cut over, almost all of which had been previously cut-over under minimum girth control. Three mills closed down for various reasons towards the end of the year.

Utilisation of any timber remaining after saw-milling operations were completed, was secured by hewing and by conversion of dead waste timber into firewood.

Seventy local permits were issued to 18 hewers, and 119 firewood cutters worked in the district. Hewing

was carried out over 1,192 acres for 35,173 cubic feet of hewn sleepers, an average of three-quarters of a load per acre.

Twenty-one thousand eight hundred and ten tons of firewood and 195 tons of charcoal were supplied for the City of Perth. 6,003 cords of firewood were supplied to Nos. 1 and 2 Pumping Stations (Water Supply Department).

The cost of tree marking 3,484 acres cut-over averaged ninepence per acre.

Sylvicultural Operations (Jarrah Forest).—295 acres, in compartments 157 and 123, were treated for regeneration under the group selection system at a cost of £132 14s. 2d., or nine shillings per acre.

On 550 acres, in compartments 155 and 117, final ringbarking was carried out as a full stocking of re-growth has appeared on these compartments, except in a few blanks where 26 pounds of jarrah seed were broadcasted in April.

Eight acres were treated for regeneration in compartment R1 in accordance with the Clear-felling system. In connection with these operations 11½ cords of firewood were obtained by direct conversion.

Fire Control (£943).—The area under control was 112,000 acres. Several hot dry days with strong Easterly winds were experienced early in November, and by the 15th of that month the bush would carry a running fire wherever the undergrowth was at all dense.

The first fire occurred on the 19th November. Mt. Dale Lookout Station was manned continuously from 15th November, 1925, to 11th March, 1926. Gungin Lookout Station was manned from 2nd December, 1925, to 13th April, 1926.

The season was not a severe one, the dangerous period being very short, owing to the rains which fell in February and March. A total of 1,158 points of rain fell during the months of November to April.

The worst period in the season was from the 15th November to 15th December, 1925, when strong Easterly winds were experienced. The last fire on the controlled area occurred on 30th January, but the bush would carry a fire on odd days up to the 13th April, 1926.

The number of fires occurring on the controlled area was remarkably small, totalling only 19, details concerning which are given hereunder:—

NUMBER AND AREA OF FIRE FOR EACH MONTH.

Area burned in acres.	Novem-ber.	Decem-ber.	Jan-uary.	Total.
0 to 1	1	...	...	1
2 to 10	3	1	4	8
11 to 20 ... ..	...	1	1	2
21 to 50 ... ..	...	2	1	3
51 to 100	1	1	2	4
101 to 200 ... ..	...	1	...	1
Over 200 ... ..	...	...	...	Nil
Total	5	6	8	19

Area under control	112,000 acres.
Area burnt	643 acres.
Percentage burnt ... ..	.57
Total Cost	£943
Cost per acre	2 pence.

Clearing and Forming Tracks (£148).—47 miles of bush tracks and old formations were cleared at an average cost of £3 per mile, to provide a means of access and for use in fire-control. In fire-control these tracks have proved of great value both for quick transport and as fire lines for back-firing.

Five chains of road near Illawarra Forest Station were formed and gravelled.

On the upkeep of the departmental road round the Weir. £96 was spent. In addition to departmental traffic over the road, eight miles was used for heavy traffic by motor lorries and wood drays, and the following forest produce was transported over the road:—

50,000 cubic feet of jarrah logs.
7,875 tons of firewood.

Permanent Plant (£1,465).—In furtherance of the policy of establishing resident forest overseers and other employees on the forests, one house has been purchased, one house being erected is nearing completion, and three huts for single men's quarters have been erected. Stables were built at the Illawarra Forest Station.

An office was erected at Forest Headquarters.

Twenty miles of telephone were erected to connect new forest stations with headquarters. A commencement was made with the establishment of five-acre horse paddocks at three forest stations. A well was sunk at the overseer's house at Helena.

(b) *Working Plan No. 2—Ludlow (Stirling Block)*
(Reforestation, £2,775.)

Control of Utilisation (£1,148).—The departmental sawmill at Wonnerup continued operations during the six months ending 31st December, 1925.

One thousand two hundred loads of tuart were cut on the Working Circle. The cost of falling was 3s. 5d. per load, and of hauling 14s. 6d.

Sylvicultural Work (£180).—1,029 acres in compartments 8, 9, 10, 12b, 14a, and 16 were treated for regeneration in accordance with the group selection system, at a cost of 3s. 9d. per acre.

Experiments in connection with the raising and planting of tuart seedlings, both as open-rooted plants and in bamboo tubes, was continued.

Fire Control (£115).—The area under control in the Ludlow Working Circle (Stirling Block) comprises some 6,000 acres of prime tuart forest. The fire season commenced at the beginning of December, 1925, but ended with the rains on the 15th April, 1926.

Forty miles of half-chain breaks were cultivated at the beginning of the season.

Two fires occurred on the protected area, but only two acres were burnt.

Survey (£45).—A classification of the tuart forest for the purpose of ascertaining the amount of millable timber was commenced in February. 1,375 acres were completed at a cost of eightpence per acre.

Permanent Plant (£86).—The linking of the Ludlow pine plantation, the sawmill at Wonnerup, and the tuart forest with seven miles of telephone line was completed. A fence telephone line seven miles in length was established through the boundary fences to connect the northern end of the Working Circle with headquarters. This line gave very satisfactory results during the dry months.

(c) *Working Plan No. 3—Collie.*

(Reforestation, £6,576.)

Control of Utilisation (£34)—

Mining Timber.—On the mining leases control by the restriction of the cutters to small coupes was continued with satisfactory results. Mining timber was supplied for five mines operating in and around Collie.

The area cut-over during the financial year under review was 3,030 acres, and the amount of timber removed was 4,317 loads. The large area cut-over was due partly to the increased consumption of mining timber, 1,000 loads more than the previous year, and partly to the fact that a considerable area of banksia country, with only scattered jarrah, was included.

The volume of timber on the different mining leases varied from one to five loads per acre.

Props varied in length from 5ft. 6in. to 9ft. 6in.

The total area now cut-over for mining timber under departmental control is 7,599 acres.

Sawmilling.—Operations were conducted by two mills on the Working Circle.

On Permit 454, 1,266 acres were cut-over for 9,380 loads, or about eight loads in the round per acre. The cost of tree-marking was £33, or seven pence per acre.

On Permit 428 log supplies were obtained chiefly from trees rejected as unsuitable for mining timber on the Premier Coal Mining Leases, and consequently no tree-marking was necessary. 1,800 acres were cut-over for 2,200 loads, or 1.2 loads in the round per acre.

Hewing.—Two permits, Nos. 330 and 564, expired early in the year, only 38 loads in all being removed.

Twenty-three local hewing permits were issued during the year to six cutters operating on country previously cut-over for mining timber and mill logs. The extent to which this bush was cut-out for other trade operations is illustrated by the fact that 2,100 acres were cut-over for 145 loads of hewn sleepers.

Sylvicultural Operations (£1,262).—Following trade cutting, regeneration cleaning was carried out with a view to promoting conditions suitable for the regeneration of jarrah.

On the Westralia, Proprietary, Shotts and Cardiff Blocks this work is carried out according to the clear-felling system.

The cost of treatment of 624 acres to a 15in. specification, and including subsequent burning, was eighteen shillings per acre.

The total area now treated for regeneration on the mining leases is 2,510 acres.

Final ringbarking of seed trees, following regeneration, was carried out on 672 acres at a cost of 2s. per acre.

In order to reduce fire hazards, the policy of clear-felling strips five chains wide on the boundaries of compartments was adopted. 590 chains were completed at a cost of £2 2s. per acre.

On the Arklow and Mungallup Blocks regeneration is carried out according to the group selection system.

In Compartments M20 and A3, 410 acres were treated at a cost of 7s. 10d. per acre.

Fire Control (£1,244).—The area over which fire-control measures were exercised totalled 59,200 acres.

Mild fires occurred in August, but the fire season really commenced at the beginning of November.

The fire-tower was manned from the 7th November, and the first fire occurred on 19th November.

The worst stage of the fire-season was earlier than usual, as from the 26th December, 1925, until the middle of February, 1926, bad fire weather was experienced.

Seven hundred and seventy-three points of rain were recorded from the 7th November to 14th April. The last fire occurred on 13th April, and the tower was vacated on 15th April.

The total number of fires which occurred in the protected area was 53, as scheduled hereunder.—

Area burned.	November.	December.	January.	February.	March.	April.	Total.
acres.							
0-1	3	1	3	...	4	...	11
2-10	3	3	3	6	5	3	23
11-20	...	2	2	1	1	...	6
21-50	...	...	2	3	...	...	5
51-100	...	...	...	...	1	...	1
101-200	...	...	4	...	1	...	5
201-300	...	...	...	1	...	1	2
Total	6	6	14	11	12	4	53

Area protected	...	...	...	...	...	57,000 acres.
Area burnt	...	...	...	...	...	1,864 acres.
Percentage burnt	...	...	...	...	...	3.7
Total Cost	...	...	...	...	...	£1,244 3s. 11d.
Cost per acre	...	...	...	...	...	5.2 pence.
Area of treated country burnt	...	...	...	...	...	$\frac{1}{4}$ acre.

Further experiments were conducted with the use of wireless as a means of communication supplementary to the heliograph and telephone.

Maintenance of Roads and Tracks (£99).—The clearing of bush tracks, necessary for access and fire-lines, commenced in the previous year, was completed, 68 miles being cleared at a cost of £1 0s. 7a. per mile.

Repairs to culverts and main roads were effected at a cost of £20.

Grazing Control.—Two forest grazing leases, at a total rental of £10, were held over portions of the Working Circle.

An arrangement has been made with the Collie Municipal Council for the establishment of a commonage of 500 acres, which will be fenced by the Department and leased at a peppercorn rental to the Council, which will enforce the Cattle Trespass Act. Considerable damage to the young pine plantations has been caused during the year by straying cattle.

Permanent Plant (£2,448).—A brick office and weatherboard house (type 6) were erected in Atkinson Street, Collie.

An overseer's house (type 6) is in course of erection at Shotts.

Four portable cubicles were received from the Departmental mill at Wonerup.

(d) *Working Plan No. 6—Yornup.*

(Expenditure, £984.)

Control of Utilisation.—849 acres have been tree-marked for the Yornup Mill at a cost of 11d. per acre. This area, together with 800 acres previously only partially cut out, was cut-over for 163,321 cubic feet. Local hewing permits were issued to 12 local hewers to operate on the country cut over by the mill. 298 acres were tree-marked at a cost of 11d. per acre, this area producing 102 loads of sleepers.

Sylvicultural Operations.—220 acres were treated for regeneration at a cost of 9s. 5d. per acre, and 167 acres of Compartment 3 were finally burnt. About

50lbs. of jarrah seed were sown on Compartment 3, after the final burn, to fill up the blank spaces.

The total area treated is 631 acres in Compartments 1, 2, and 3.

Fire Control.—An amount of £11 7s. 8d. was spent in burning 293 chains of fire breaks, and £13 8s. in suppressing uncontrolled fires.

Permanent Plant.—An overseer's house (type 6) and stables (type 3) were erected at a cost of £644 0s. 7d. £117 11s. has been spent in clearing house and stable sites, and in establishing cultivation and horse paddocks.

Direct Conversion.—The following poles, damaged in the course of felling operations, were cut by the Department's employees:—

14in. Crown—13/50 feet, 9/33 feet, 4/30 feet.

8in. Crown—25/30 feet.

The expense incurred in felling and cutting was £6 5s. 9d.

(e) *Working Plan No. 7—Claymore.*

(Expenditure, £746.)

Control of Utilisation.—Tree-marking has been carried out by the Department for the Claymore Mill over an area of 3,175 acres, at a cost of 8d. per acre.

The total area tree-marked is now 4,609 acres.

2,877 acres were cut-over for saw milling for 778,118 cubic feet, an average of 5½ loads per acre. The average volume per log was 76 cubic feet. The total area cut-over under tree-marking control was 4,311 acres.

Local hewing permits have been issued to two cutters following the fallers, to utilise short butts and "dryriders" unsuitable for milling. 330 acres were cut-over in this way for 35½ loads of sleepers, this being an average of 5.6 cubic feet per acre.

Advance burning was carried out over 2,560 acres, at a cost of 2.6 pence per acre.

Top disposal operations were carried out over 1,085 acres, at a cost of 11d. per acre.

Survey.—The survey of the bush tramlines, roads, and tracks, made as the work proceeded, was carried out by the Assistant Forester in charge.

Sylvicultural Operations.—779 acres were treated for regeneration, at a cost of 7s. 9d. per acre, and final ringbarking was carried out over 426 acres at a cost of 1s. 10d. per acre. Final burning was carried out over 1,065 acres at a cost of 4d. per acre, and spot sowing and broadcast sowing of jarrah seed was done to fill the blank spaces.

The total area now treated for regeneration on this Working Circle is 1,360 acres.

Fire Control.—Preliminary burning was carried out on 1,085 acres of fire belts and on adjoining untreated country at a cost of 2½d. per acre.

An amount of £9 5s. 2d. was spent for patrolling on dangerous days.

(f) *Working Plan No. 9—Big Brook.*

(Expenditure, £1,838.)

Control of Utilisation.—Saw milling operations were continued, under Sawmilling Permit 85/11, by the State Sawmills. During the year 1,750 acres of the Working Circle, including 750 acres of practically pure marri country, were cut-over and 60,656 loads of karri removed.

Sylvicultural Operations.—1,405 acres were treated for regeneration at a cost of 8s. per acre, in Compartments 3 to 25, 30 to 39, and 47 to 55.

Two thousand chains of fire-break (15-30 feet in width), chiefly old tracks, have been cleared of ferns, logs and debris ready for ploughing. The total cost of this work was £50, which included an amount spent in clearing around culverts and bridges on old tramway formations in order to protect them from fire.

It is intended to utilise the pure marri country on this Working Circle for afforestation with conifers. In this connection an area of about one acre has been cleared and fenced as a nursery site. Also 20 acres in Compartment 13 have been clear-felled at a cost of £2 per acre.

Permanent Plant.—An overseer's cottage (type 6a), stable, and tool and implement shed were erected at a cost of £851 4s. 7d. A commencement has been made with the clearing and fencing of eight acres of land as a horse and cultivation paddock. £165 has been spent on this work and in clearing house and stable sites.

Fire Control.—An amount of £11 6s. 6d. has been spent in suppressing uncontrolled fires coming in from private property adjoining the State forest.

(g) *Working Plan No. 11—Mumballup.*

(Expenditure, £703.)

Control of Utilisation.—480 acres, in Compartments 1 and 2, have been tree-marked for the Mumballup Mill operating under Sawmilling Permit No. 492.

The total area tree-marked is now 684 acres.

Four hundred and seventy-two acres have been cut-over for 208,584 cubic feet, an average of 9½ loads per acre.

The total area cut-over under tree-marking control is 666 acres.

Six hundred acres were advance burnt, in Compartments 1 and 2, at a cost of 1½d. per acre.

Permanent Plant.—An overseer's cottage (type 6) with stables (type 3) have been erected at a cost of £618 10s. 3d.

An amount of £61 8s. has been spent in clearing house and stable sites and establishing a six-acre horse paddock.

Fire Control.—In suppressing uncontrolled fires an amount of £3 5s. 7d. was expended.

(h) *Working Plan No. 12—Noggerup.*

(Expenditure, 809.)

Control of Utilisation.—Fourteen local sleeper cutters have been issued with local hewing permits to operate on the Noggerup Working Circle.

Seven hundred and ninety acres have been tree-marked and 843 acres cut-over in Compartments 14 and 13, 695 loads of sleepers having been obtained.

The total area tree-marked was 1,384 acres, and the total area cut-over 1,323 acres.

Seven hundred and seventy-five acres were advance burnt at a cost of 2d. per acre.

Sylvicultural Operations.—120 acres have been treated under the group selection system for regeneration at a cost of 10s. per acre, and a five-chain belt 10 acres in area, along the Eastern boundary of Compartment 14, has been clear-felled at a cost of £2 per acre, to induce regeneration by seedling and coppice.

The total area treated for regeneration on this Working Circle is 412 acres, in Compartments 10, 11, and 14.

Fire Control.—An amount of £15 was spent in suppressing uncontrolled fires on the Working Circle.

Permanent Plant.—An overseer's house (type 6) and stable (type 3) were erected on Location 2033, in Compartment 8, at a cost of £562 10s. 7d.

For clearing house and stable sites, fencing house and horse paddock, and clearing a track to the house £57 was spent.

(i) *Working Plan No. 13—Potter's Gorge.*

(Expenditure, £393.)

Control of Utilisation (£106).—Tree-marking, commencing from 1st September, 1925, has been carried out by the Department for two mills operated by the State Sawmills on Sawmilling Permit 82/11, South of Worsley.

At the Potter's Gorge Mill 600 acres, in Compartments 9, 13, and 15, were tree-marked and this area, with the exception of 26 acres, was cut over.

Area tree-marked	600 acres.
Area cut-over	574 "
Volume of timber in the round obtained ...	6,327 loads.
Average volume per acre	12 "

At the No. 6 "B" Mill 1,728 acres, in Compartments 4, 5, 8, and 9, were tree-marked and this area, with the exception of 30 acres, was cut-over.

Area tree-marked	1,728 acres.
Area cut-over	1,698 "
Volume of timber in the round obtained ...	7,723 loads.
Average volume per acre	4½ "

The cost of tree-marking 2,328 acres was £35, or 3½d. an acre.

Top disposal operations were carried out on 1,400 acres of country which it was not intended to treat for regeneration in the immediate future. The cost of this work was £71, or 1s. per acre.

Sylvicultural Operations (£242).—On Compartment 5, 522 acres were treated for regeneration, and blackboys were cut on a five-chain fire-belt for a length of 230 chains, or 110 acres.

On Compartment 9, 90 acres were treated for regeneration, and blackboys were cut on a five-chain fire-belt for a length of 350 chains, or 175 acres.

On Compartments 4 and 8 blackboys were cut on a 10-chain fire-belt for a length of 100 chains, or 100 acres.

The cost of treating 612 acres for regeneration was £242, or 7s. 10d. an acre, inclusive of the cost of cutting blackboys on 385 acres of fire-belts, and final ringbarking on the area treated.

Track Clearing.—Ten miles of tracks were cleared at a cost of £36.

(j) *Working Plan No. 14—Worsley.*

(Expenditure, £102.)

Control of Utilisation (£36).—Tree-marking was carried out by the Department for a small mill operated by the State Sawmills on Sawmilling Permit 581. The Compartments in which felling was conducted are 4, 8, 9, and 10.

Area tree-marked	874 acres.
Cost of tree-marking	3·5 pence per acre.
Area cut-over	675 acres.
Volume of timber in the round obtained ...	1,769 loads.
Average volume per acre	2½ loads.

As no regeneration clearing was carried on in the year under review, top-disposal operations were conducted over an area of 200 acres felled-over during the summer at a cost of 1s. 3d. per acre.

Track Clearing.—Twelve miles of tracks were cleared at a cost of £39 per acre.

Permanent Plant.—A hut for the use of the Assistant Forester at Worsley was purchased at a cost of £24.

(k) *Working Plan No. 15—Jarrahdale.*

(Expenditure, £540.)

Control of Utilisation (£23).—Tree-marking has been carried out by the Department for a mill owned by Messrs. Millars' Timber and Trading Co., Ltd., and up to date 840 acres have been marked on the Working Circle. This mill is operating on Timber Concession 12/0, and has cut over 662 acres during the year, and a total to date of 796 acres on the Working Circle.

Advance burning was carried out over 801 acres at a cost of threepence per acre.

Sylvicultural Work (£420).—During the year 409 acres have been treated under the group selection system in Compartments 1 and 2 at a cost of 6s. 4d. per acre, and all blackboys have been cut round the boundaries of two Compartments in order to facilitate the burning of these areas as fire-belts.

“Subsequent burning,” preparatory to spot-sowing, was carried out over 272 acres at a cost of 1s. 4d. per acre.

Two hundred and fifty-one acres of forest country in Compartment 2 were spot-sown in April and May, 1926, at a cost of 4s. per acre; 50 per cent. of the country was thus sown. The spots were spaced 10 x 10 feet apart, and were cultivated to a depth of 4 inches before the seeds were sown. Three to six seeds

were placed in each spot, and ½lb. of seed was used per acre.

Final ringbarking was carried out over 380 acres at a cost of 3d. per acre. Portion of this area was subsequently spot-sown.

Top-disposal operations were carried out, in conjunction with regeneration cleaning, on the area in the Working Circle cut-over for sawmilling purposes.

Survey (£13).—A survey of tramways, tracks, formations, etc., is being made as the work proceeds on the Working Circle.

Control of Work.—Assistant Forester Kinsella was appointed to the Working Circle on 11th August, 1925.

Permanent Plant (£3).—A commencement was made with the clearing of the site chosen for the headquarters.

(l) *Working Plan No. 16—Dwellingup.*

(Expenditure, £333.)

A working plan, to govern the operations on Dwellingup Working Circle for a period of five years, was approved by the Governor in Executive Council on 23rd June, 1926.

This Working Circle comprises an area of 8,000 acres, and contains portion of Sawmilling Permit No. 78/11, and includes also what was the Dwellingup Experimental Area of 2,000 acres.

Control of Utilisation (£5).—Tree-marking has been carried out by the Department for sleeper hewers operating on Compartments 4 and 5. In all, 132 acres were tree-marked at a cost of 8d. per acre, and 132 acres were worked over, the volume of hewn timber removed per acre averaging one load. Local hewing permits, renewable monthly, commencing from 8th February, 1926, have been issued to three cutters, and satisfactory utilisation has been obtained, the hewers operating on a royalty basis of 10s. per load.

Survey.—The survey of the Working Circle on the general lines adopted in connection with the topographical survey of the jarrah forest was concluded during the financial year. Previously, the Dwellingup experimental area only had been surveyed.

Sylvicultural Work (£279).—43 acres in Compartment 5 were treated for regeneration. Including 288 acres in Compartment 2 treated previously, the total area in the Working Circle now awaiting final treatment pending a seed year is 331 acres.

All blackboys have been cut for a width of five chains of jarrah country around Compartments 2 and 5, in order to facilitate the burning of these strips as fire-belts.

Two plots, 50 acres and 30 acres respectively, in Compartment 2, were spot-sown with jarrah seed at a total cost per acre of 11s. 2d. The spots, 8ft. x 8ft. apart, were cultivated to a depth of four inches, and from three to six seeds were sown in each spot. About half a pound of seed was sown per acre. The sowing was carried out in April, and a general germination occurred about the end of May, four to six weeks from the time of sowing.

Fire Control (£22).—No serious fires occurred on the Working Circle, but one small fire was extinguished before it had done any damage. The origin

of this fire was due to a bush railway engine, which has since been fitted with a Cheney spark nullifier.

Sixty acres of country were burnt preparatory to spot sowing.

Control of Work.—Foreman W. White was appointed Overseer in charge of the Working Circle from 17th May, 1926.

Dwellingup Headquarters (£1,538).—During the year a Forester's residence (type 6a) and stables (type 1) were erected at a contract price of £992, and in addition the work of fencing and clearing the necessary paddocks has been completed.

In order to provide a system of roads through the various Working Circles in the district, chiefly from the point of view of fire control, a track-clearing gang of three men has been employed for some months, and a total of 68 miles of tracks and formations have been cleared at a total cost of £225. This work has proved most satisfactory and enables rapid transit to all portions of the Working Circle.

(m) *Working Plan No. 17—North Marrinup.*
(Expenditure, £963.)

A working plan, to govern the operations on Marrinup Working Circle for a period of five years, was approved by Executive Council on 3rd February, 1926.

This Working Circle comprises an area of 10,000 acres, and embraces Timber Lease 330/113 and Sawmilling Permit 571.

Control of Utilisation (£37).—Tree-marking has been carried out by the Department for the Marrinup Mill, and for hewing following the sawmilling operations. During the year 912 acres were tree-marked for the mill, at a cost of 7d. per acre, and 847 acres were cut over.

The volume of timber measured in the round, obtained per acre from the sawmill permit, averaged 18.5 loads. 200 acres in Timber Lease 330/113 yielded only approximately 3 loads per acre, but in some places the quantity of timber removed per acre was as high as 70 loads. These figures were obtained by measurement of several sample plots. The recovery of the mill was 33 per cent. of the log timber for the month of May, 1926.

Local hewing permits, renewable monthly, commencing from 8th February, 1926, have been issued, over portions of Compartment 1, to two cutters, and satisfactory utilisation has been obtained, the hewers operating on a royalty basis of 10s. per load of hewn sleepers. 293 acres were tree-marked and cut over at a cost of 9d. per acre. The volume of hewn timber removed averaged a quarter load per acre.

Survey.—The survey of the Working Circle was carried out last year by a topographical survey camp. A survey of additional tramlines, roads, and tracks, made as the cutting operations progressed, was carried out during the financial year under review.

Sylvicultural Work (£267).—During the year 243 acres of country in Compartments 1 and 2 were treated for regeneration under the group selection system.

Experiments were carried out in Compartment 1 in connection with the spot-sowing of jarrah seed. The object in view was to ascertain the result of the addition of an artificial manure to each spot. The sowing was carried out in April.

Fifty-eight acres were subdivided into six blocks. Five of these were treated with definite amounts of manure (sulphate of potash) per spot, in each block, and the sixth was untreated, for purposes of control.

The spots, 8ft. x 8ft. apart, were cultivated to a depth of four inches, and half a pound of seed was used per acre.

The total cost of spot-sowing was £56 8s., or 20s. 6d. per acre, and the cost of spot-sowing the control block (where no manure was used) was 11s. per acre.

Germination occurred, generally about the end of May, four to six weeks from the time of sowing.

The country which was to be spot-sown was burnt by a severe fire in January. A satisfactory burn was obtained at a total cost to the Department of £3 5s. 9d. Final ringbarking was afterwards carried out over the area sown.

Permanent Plant (£651).—A house and stables for the use of the Resident Overseer were erected on the Working Circle, being completed at a cost of £592 14s. by the end of June, 1926. This house is situated conveniently as regards fire control and general accessibility to all parts of the Working Circle.

The work of fencing the block and the establishment of a cultivation paddock and horse paddock has been put in hand, and £66 10s. has been spent for this purpose.

Control of Work.—Foreman H. Baker was appointed foreman-in-charge of the Working Circle from 17th May, 1926.

(n) *Working Plan No. 22—Holyoake.*
(Expenditure, £40.)

This Working Circle is situated on the Northern side of the Pinjarra-Dwarda railway, and lies between Dwellingup Working Circle on the west and the Inglehope Working Circle on the east. The northern boundary is the South Dandalup river. It comprises a total area of 8,450 acres.

This area was originally part of Sawmilling Permit No. 27/11, which has since been cancelled, and as a consequence of the intense timber-getting operations on this permit many excellent groups of regrowth occur generally over the Working Circle.

A working plan, to govern the operations on the Circle, was approved by the Governor in Executive Council on the 23rd June, 1926.

Control of Utilisation (£4).—Tree-marking has been carried out by the Department for hewers operating on Compartment 1, on an area of 100 acres, at a cost of 8d. per acre.

Hewing permits, renewable monthly, and commencing from 15th February, 1926, have been issued to three cutters, and the royalty charged was 10s. per load. About 70 acres were worked over.

Survey.—A topographical survey of the Working Circle was made during the year, when all prominent tracks, creeks, roads, etc., were traversed.

Sylvicultural Work (£27).—Regeneration cleaning was carried out on 22 acres in Compartment 1, following the hewers, at a cost of 6s. per acre.

Permanent Plant.—The Foreman-in-charge resides on his own property on the Working Circle. The situation is convenient in relation to the remainder of the Circle.

Control of Work.—D. Cameron was appointed Foreman-in-charge of the Working Circle from 17th May, 1926.

(o) *Working Plan No. 23—Inglehope.*

(Expenditure, £80.)

The Inglehope Working Circle comprises an area of 14,600 acres, and is situated north of the Pinjarra-Dwarda railway. The eastern and western boundaries consist of the Pindalup and Holyoake Working Circles respectively.

This Circle includes portion of Sawmilling Permit No. 81/11, and Sawmilling Permit No. 54. A working plan, to govern the operations on the Circle for a period of five years, was approved by the Governor in Executive Council on 23rd June, 1926.

Control of Utilisation (£22).—Tree-marking was carried out, on 428 acres in Compartments 1 and 2, by the Department for a mill operating on Sawmilling Permit No. 54, and this area was cut over for mill logs.

Local hewing permits, renewable monthly, commencing from 1st May, 1926, have been issued to five cutters, who are working on a royalty basis of 10s. per load of sleepers. 228 acres were tree-marked and cut over for hewn sleepers.

Survey.—The survey of roads, tracks, formations, etc., in the Working Circle was carried out in July and September, 1925, by a topographical survey camp.

Sylvicultural Work (£38).—A commencement was made with the cutting of blackboys for a width of five chains of jarrah country around Compartment 2.

Control of Work.—W. Keenan was appointed foreman-in-charge of the Working Circle from 17th May, 1926.

(p) *Working Plan No. 25—Plavin's.*

(Expenditure, £234.)

A Working Plan, to govern the operations of Plavin's Working Circle for a period of five years, was approved by the Governor in Council on the 23rd June, 1926.

An area of 8,250 acres, this Working Circle includes portions of Timber Leases 331/113, 261/113, and 299/113, and also Sawmilling Permit No. 54.

Control of Utilisation (£20).—Tree-marking has been carried out by the Department on portion of Sawmilling Permit No. 54 for Plavin's Mill, and for hewing following the sawmilling operations. During the year 420 acres were tree-marked for the mill on Compartments 2 and 3.

Sawmilling operations have also been conducted under the control of the minimum girth restriction on the remainder of Sawmilling Permit No. 54, and a total of 1,076 acres of the Working Circle has been cut over for mill logs. The recovery of the mill was 33.7 per cent. of the log timber for the month of May, 1926.

Local hewing permits, renewable monthly, commencing from 1st March, 1926, have been issued to three cutters, operating on portion of Compartment 2, previously cut over for sawmilling, on a royalty basis of 10s. per load.

One hundred and forty-four acres were tree-marked and cut-over during the year.

Sylvicultural Work (£147).—A preliminary ring-barking and felling, under the group selection system, was carried out over 164 acres in Compartment 2, making a total of 342 acres of forest country, on which final treatment is to be given.

The blackboys were cut for a width of five chains of jarrah country round the boundaries of Compartment 2.

Fire Control (£20).—In order to prevent serious damage by uncontrolled fires to the many groups of regrowth on the Working Circle, a preliminary burning was carried out on comparatively large areas by the Department. In this way much valuable regrowth has been saved.

Top-disposal (£39).—Top-disposal was carried out on 550 acres of the Working Circle at a cost of 1s. 5d. per acre, following on falling operations on Sawmilling Permit No. 54.

Control of Work.—Foreman E. Ballard was appointed to the position of overseer-in-charge of the Working Circle on 17th May, 1926.

(q.) *Working Circles for which Working Plans are in course of preparation.*(i.) *Lowden Working Circle.*

(Expenditure, £122.)

Control of Utilisation.—1,600 acres have been tree-marked for the Lowden and 1,320 acres for the Wellington Mills.

1,514 acres were cut over for the Lowden Mill on Permits Nos. 502, 322, and 587 for 442,191 cubic feet, an average of six loads per acre, and 1,192 acres for the Wellington Mill on Permits Nos. 619 and 574 for 341,197 cubic feet, an average of six loads per acre.

Advance burning was carried out over an area of 897 acres, at a cost of 4d. per acre.

Sylvicultural operations.—156 acres were treated for regeneration at a cost of 10s. 9d. per acre.

(ii.) *Sussex Working Circle.*

(Expenditure, £372.)

Control of Utilisation.—2,700 acres were advance burnt at a cost of 2.9d. per acre.

Tree-marking was carried out for the Sussex Mill over an area of 2,811 acres at a cost of 7d. per acre.

The total area tree marked on this Working Circle is 2,941 acres.

2,734 acres were cut over for Sawmilling for 648,000 cubic feet, the average volume of logs obtained being 62 cubic feet.

The total area cut over under tree marking control is now 2,874 acres.

Survey.—The survey of the roads and tracks, as the work proceeded, was carried out by the Asst. Forester in Charge.

Sylvicultural Operations.—622 acres were treated for regeneration at a cost of 9s. 11d. per acre, and final ringbarking was carried out over 208 acres.

208 acres, after being finally burnt, at a cost of 3d. per acre, was spot sown with approximately 2 lbs. of seed per acre, at a cost of 1s. 2d. per acre, in order to fill up the blank spaces. 470 acres were treated for top disposal at a cost of 4d. per acre.

Preliminary burning was carried out on 708 acres of firebelts and adjoining untreated country at a cost of 2½d. per acre.

In connection with sawmilling operations on the Jarrahwood leases, tree-marking was carried out over 781 acres for the Jarrahwood Mill, at a cost of 1s. per acre.

286 acres were treated for regeneration at a cost of 9s. 4d. per acre.

The total area treated for regeneration to date is 1,186 acres.

1,080 acres were finally burnt at a cost of 2.8 pence per acre, while 115 acres of this country were closed for regeneration after ringbarking had been completed.

The cost of final ringbarking was 1s. 7d. per acre.

(iii.) *Pindalup Working Circle.*

With the exception of the northern boundary, the boundaries of this Working Circle have been definitely decided, and a Working Plan is in the course of preparation. The Circle includes portion of Sawmilling Permit No. 34/11 (part 2) and 81/11, and it comprises the greater portion of the area formerly known as Amphion Working Circle. The total area will be about 14,000 acres.

During the year treemarking has been carried out by the Department for Messrs. Port & Co.'s Sawmill operating on 34/11 (part 2) and utilisation has been satisfactory. 2,097 acres, comprising portions of Compartments 6, 7, 8, 9, 10, and 11 have been tree-marked, and 2,065 acres cut over.

Local hewing permits for one month were issued in May to two cutters, who worked over portion of Compartment 1, under control by treemarking, and 115 acres were treemarked and cut over. These cutters have now been transferred to Inglehope Working Circle.

(iv.) *Mullalyup Working Circle.*

A preliminary Working Plan will be prepared in the near future for the area south of Kirup Townsite, situated in the Bridgetown District. A very fine crop of jarrah was carried in the past by this country which has been cut over by the Kirup Mill. Good regrowth of piles and poles exists and a good loadage of marketable timber still remains on the area.

Survey.—A topographical survey of this area was carried out during the year.

Control of Utilisation.—20 local hewers were granted local hewing permits to cut on the northern portion of this Working Circle.

448 acres have been treemarked at a cost of £47 10s. 3d.

448 acres were cut over for 247 loads of sleepers, an average of nearly half a load per acre.

Sylvicultural operations.—62 lbs. of jarrah seed were collected by apprentices receiving instruction in sleeper cutting.

(v.) *Boyanup Working Circle.*

Survey.—A survey of the natural features, roads, and tracks, in accordance with the general lines adopted in connection with the topographical survey of the jarrah country, has been carried out during the year.

The Boyanup Working Circle, situated in the Donnybrook District, lies with its nearest point about two miles and its furthest point about 12 miles north of the Donnybrook Railway Station.

A preliminary Working Plan for this area of about 16,000 acres will be prepared in the near future.

Control of Utilisation.—Tree-marking in accordance with the group selection system was carried out on Sawmill Permit No. 555, for the operations of the Boyanup Mill, over 1,582 acres.

1,466 acres were cut over and 269,364 cubic feet of mill logs were removed, averaging $3\frac{3}{4}$ loads in the round per acre.

Advance burning was carried out over 420 acres.

(vi.) *Wilga Working Circle.*

A preliminary Working Plan for this area, situated west of the Noggerup-Wilga Railway line, being portion of the old Timber Corporation Leases, will shortly be prepared. This country, although on the fringe of the prime jarrah belt, has carried a fair loadage of timber in the past on the ironstone ridges.

The Timber Corporation, Ltd., worked over portion of the area from their mill at Greenbushes, and are now operating the northern portion under Sawmilling Permit No. 216.

Survey.—The topographical survey of the country has been partly carried out, and will be completed during the coming year, when the boundaries of the Working Circle will be determined.

Control of Utilisation.—1,187 acres have been tree-marked on country previously cut over under the 90in. girth restriction, and 1,057 acres have been cut over.

(vii.) *Wuraming Working Circle.*

A Working Plan to govern the operations on this Circle has been prepared, and is now awaiting the approval of the Governor in Executive Council.

This Circle of 12,000 acres includes portion of Sawmilling Permit No. 34/11 (part 2), and is bounded on the north by the Pinjarra-Dwarda railway line, on the east by the private property (Loc. 703), and on the south by Sawmilling Permit No. 79/11, and the west by Timber Leases 299/113 and 244/113.

During the year treemarking has been carried out by the Department for a mill operating on portion of Compartment No. 9 and for sleeper hewers who are cutting on Compartment 1. 219 acres have been treemarked for the mill and 63 acres for the hewers, who have cut over 43 acres.

Local hewing permits, commencing from 1/5/26, and renewable monthly, have been issued to four cutters.

(r) *Education of Apprentices.*

(Expenditure, £3,808.)

1. *Ludlow Forest School*—£3,533.

During the year under review, two terms were completed at the Ludlow Forest School.

The school term for third year apprentices opened in September, 1925, and closed in December. The subjects studied were:—"Sylviculture," "Forest Protection," "Forest Mensuration," and "Valuation."

Field work carried out in conjunction with class work consisted of:—Nursery work (establishment and sowing of bamboo tube nursery), use of instruments connected with fire control, etc., formation and measurement of sample plots at Ludlow Pine Plantation, and demonstrations in timber inspection. At the close of the school term, these apprentices were distributed amongst the various forest districts for further practical experience.

P.T.O.

The school term for the junior apprentices opened in March, 1926, and closed in June. The subjects studied included part of the third year's work in addition to that for the second year, "Surveying," "Soils," "Systematic Botany," "Forest History and Value," "Forest Mensuration," "Forest Protection," "Sylviculture" (Nursery work).

Information given in the form of notes in class was supplemented by field practice and demonstrations on the following lines:—Nursery work, planting, thinnings in young pine stands, surveying, measurement and assessment of standing timber and logs, heliograph practice, and timber inspection demonstrations. At the close of the school term the apprentices were distributed amongst various forest districts for further field experiences.

2. *Sleeper-cutting Camp*—£275.

Seven forest guards and one apprentice received training in sleeper-cutting under a forest overseer during the year.

(s) *Advertising, Publicity, and Popular Education.*

During the visit of the Empire Press Delegation in October, a very fine exhibition of the timbers of the State was held in the Town Hall, Perth. Immediately in front of the platform was shown a section of a bridge built of karri and jarrah, while, ranged around the walls were suites of furniture made from jarrah, sheoak, banksia, and other State timbers. The members of the Delegation were very sincere in their appreciation of the beauty of the timber and the excellence of the workmanship.

As a standing advertisement of the value of jarrah for high class work, the Premier's office has been panelled with kiln dried timber. Panelling returned from Wembley Exhibition has also been adapted and placed in the Conservator's office. The manner in which sections of this panelling have stood the double journey through the tropics demonstrates the excellence of the timber for cabinet work when properly seasoned and treated in the first instance.

Descriptive leaflets of the trees and timbers of the State have been revised and reprinted. Publications of this nature have a wide circulation particularly in the higher classes of the State Schools.

Permanent storerooms where exhibits can be held and inspected by interested persons have been secured during the year, and this will enable a much more satisfactory collection for exhibition purposes to be built up.

(t) *Top Disposal Operations.*

(Expenditure, £2,824.)

Top disposal operations were continued at all the milling centres in the prime jarrah belt.

Operations were carried out at the following centres:—

East Kirup	Wuraming	Nanga Brook
Ellis Creek	Pindalup	Hotham
Jarrahdale	North Dandalup	Hoffman
Dwellingup	Plavins	East Mornington.
Marrinup	No. 8 State Mill	Wellington
Lowden		

The total acreage treated was 27,974, at a cost of 2s. per acre.

Top disposal operations were also carried out in conjunction with silvicultural operations at the following centres:—

Mundaring	Noggerup	Jarrahdale
Collie	Yornup	Plavins
Lowden	Claymore	Marrinup
Worsley	Sussex	Potter's Gorge

(u) *Topographical Surveys.*

(Field Expenditure, £3,049.)

Topographical surveys were carried out during the year over 297,650 acres, necessitating 2,781 miles of traverses at a total cost of £3,049, or £1 1s. 11d. per mile. Four camps (3 men in each) operated throughout the year, and 5 for a short period.

The Forester's compass (Coombe, Troughton, & Sims) introduced last year, was thoroughly tried out and gave complete satisfaction in every way. This compass (cost £10) has rendered the plane table and the verschoyle transit prismatic compass almost obsolete for topographical surveys in the South-West.

In addition to the survey of areas to be placed under immediate Working Plan control, a commencement has been made in the systematic survey of sections of country (120 square miles in area), comprising six of the original topographical sheet areas. From compilation tracings of these areas, block plans or lithographs of any desired portion of country can be readily obtained by photographic methods, e.g., for fire control (80 scale plan) or for general and progress work (20 scale plan).

(v) *Sandalwood Reforestation.*

The amount expended from the Sandalwood Trust Fund during the current year was £3,269.

Karramindie State Forest—£1,474.

Fencing.—1,650 acres were rabbit-proof fenced at a cost of £923. Suitable posts, which are scarce in the district, constituted a heavy item of expenditure, and for this reason chiefly, a "Peter Waite" type of fence was erected. Posts spaced 50 feet apart appeared quite effective.

For a variety of reasons it appears that rabbit-proof fencing will not prove justifiable for sandalwood reserves.

One hundred and twenty acres were stock-proof fenced at a cost of £82 7s. 6d. For experimental purposes different portions of the fence were constructed with posts 36 feet, 50 feet, and 1 chain apart respectively.

Sowing.

(a) *Sandalwood Seed*.—A further 770 acres was sown this year at a cost, including cost of seed, transport of labour, stores, water, etc., of £469 4s. 1d. This practically completes the sowing up of the best planting country at Karramindie. The sowing was commenced on the 5th January, and completed by the 5th February. The sowing was carried out early in the season to take advantage of any early rains there might be (over five inches falling before the end of February last year). To date insufficient rain has fallen to germinate the seeds. Small sample plots have been pegged for observation purposes.

(b) *Host Seed*.—10 acres were sown, in lines, with the seeds of two shrub species which act as good host plants, viz., *Acacia Graffii* and *Cassia eremophila*, on plots practically devoid of vegetation. The soil was lightly cultivated by dragging a mattock.

Cowine Soak Reserve—£320.

Fencing.—100 acres were rabbit-proof fenced at a cost of £320 7s. 6d., the same type of fencing was erected as at Karramindie, except that posts were spaced 40 feet apart, there being an abundance in the district.

Sowing—

(a) *Sandalwood Seed.*—Only a small plot, for observation purposes, was sown this year.

(b) *Host Seed.*—On account of the poor stocking of host plants and the presence of large timber on this reserve, its suitability for sandalwood growing depends on the silvicultural and economic possibility of clearing the large timber and establishing a good stocking of host plants. To ascertain this possibility the large timber on about 10 acres was felled, burned up as far as possible, and sown with seed of *Acacia Graffiti* and *Cassia eremophila*. One portion of the area was spot sown and two other portions broadcast with different quantities of seed per acre on each.

Bending—£46.

No further sowing was carried out during the period under review.

The above cost represents expenditure incurred in supervision, ploughing of firebreaks, and rabbit poisoning.

Location of Country suitable for Sandalwood Reserves—£1,167.

For the reasons given in last year's report this work has been undertaken chiefly on the Eastern Goldfields

A strip survey of an area of 7,700 acres approximately at Calooli, and one of 15,600 acres approximately at Yellarie was carried out, showing that these areas carried an average of six growing sandalwood trees to the acre, as well as containing large areas of country suitable for planting.

Conforming as nearly as can be judged with above standards, some 250,000 acres have been located to date within easy reach of railway lines.

Protection of Immature Sandalwood.

The practice of pulling small sandalwood trees has increased considerably during the year under review, many trees only five or six pounds in weight being pulled. As over 400 of such trees are required to make a ton, whereas a ton of sandalwood can be obtained from about 150 medium-sized trees, the practice of pulling small trees diminishes ultimate supplies much sooner than is necessary. Furthermore, these small trees contain a larger proportion of sapwood (a useless commodity) than older trees. It is very important, therefore, that pending the systematic working of sandalwood reserves, endeavours should be made to eke out other sources of supply.

As a temporary expedient a regulation was gazetted prohibiting the pulling of sandalwood within 15 miles of any railway. Obviously this is only a temporary measure, and in any case the pulling of immature sandalwood trees still occurs. The introduction of a minimum girth restriction is now under consideration.

(w.) *Mallet Regeneration.*

(Expenditure, £1,944—Cuballing, £905.)

Subdivision.—The Working Plan for the area west of Cuballing referred to in last year's Annual Report is being drawn up.

Two areas of approximately 2,055 acres and 1,286 acres respectively, including firebreaks, have been classified on an existing vegetation basis and subdivided into 56 compartments of approximately 50 acres each, and pegs erected at the corners of these compartments at a cost of £66 15s. 1d.

Clearing.—Owing to the poor burn effected last year, further stacking and burning on 63 acres was carried out at a cost of £25 10s., i.e., 7s. 11d. per acre.

The large timber on 299 acres was ringbarked and the undergrowth slashed at a cost of £202 7s. 3d.

Preparation of Soil.—Where possible the compartments cleared this year were ploughed with a 3-furrow mouldboard stump jump plough in strips 5ft. apart, at a cost of £35 16s. 6d. for an area of 71 acres.

It is possible that with the better burn to be expected of complete clearing, ploughing may not be necessary in future.

Seed Collection.—115 lbs. of seed were obtained chiefly by day labour at an average cost of 10s. 7d. per lb.

Sowing.—Owing chiefly to the abnormally dry winter, the 1925 sowing was only a partial success, many seedlings dying off. Those seedlings which had become established have grown vigorously, many attaining a height varying from 1 to 2 feet.

With the exception of 6 plots of 2 acres each selected from areas subjected to different forms of soil preparation or sowing, which are being kept as controls, Compartments 36, 40, 41, and portion of 46 were resown this year. In addition, Compartment 17 was sown. Spot sowing was the method adopted, spots being 7ft. x 7ft., and a few seeds sown in each. About 6oz. of seed per acre was used.

The total cost of sowing an area of 176 acres of mallet was £123 8s. 2d., or about 14s. per acre.

Experimental Work.—Experimental sowings of mallet and Golden Wattle seed were carried out on certain areas within the Working Circle, which were apparently not suitable for mallet sowing.

Small plots of the following species were planted on country adjoining mallet areas:—*Pinus insignis*, *Pinus pinaster*, *Pinus Coulteri*, *Pinus muricata*, *Pinus canariensis*.

A small area was also spot sown with *Pinus canariensis* seed.

Fire Protection.—On account of the presence of valuable patches of mallet regrowth, steps have been taken to minimise the fire risk on the whole of the subject area.

(a.) *Formation and maintenance of Fire-breaks.*

Permanent breaks are constructed when the adjacent compartments are cleared. £6 17s. 7d. has been expended in maintenance of breaks previously constructed.

391 chains of temporary breaks, 1 chain wide, have been made around certain external boundaries and on other portions of the subject area, by cutting down the undergrowth and small trees and burning, at a cost of £44 7s.

A strip 200 chains long and 3 to 5 chains wide was burnt between a ploughed line and a road in the southern area at a cost of £11 5s.

Burning by controlled fires of undergrowth to minimise the fire hazard has been carried out on Compartments 12, 25, 26, 29, 30, 31, 32, 33, and 34 at a cost of £32 15s. 6d. Prior to this burning breaks were made around mallet groups in certain of these compartments.

Patrol and rendering assistance to settlers in burning off cost £21 5s.

Utilisation.

(a.) *Wandoo Poles*.—During clearing operations some wandoo poles of various marketable dimensions were cut, and are being disposed of to the P.M.G.'s Department.

(b.) *Wandoo Sleepers*.—It is apparent that a certain quantity of wandoo sleepers can be obtained from areas being treated for mallet regeneration. It is proposed to issue local hewing permits, and if this proposal eventuates, clearing costs will be lightened and a certain amount of revenue will be derived to further offset the cost of clearing.

Permanent Plant.—An expenditure of £22 7s. 1d. has been incurred in boring for water at a site close to the overseer's house.

Fencing of paddocks cost £14 2s. 4d., and road making £50 9s. General equipment, including a horse and cart, cost £71 8s. 8d.

3.—AFFORESTATION.

Owing to the planting season extending from May until the end of July, it has been found advisable to deal with the full 1926 season's planting in the one report, instead of requiring returns extending from 1st July to 30th June. This practice will delay the publication of this report by a few weeks, and cause a slight discrepancy in financial statements, as all appendices refer to the period ending 30th June.

(A.) Working Plan No. 1—Mundaring.

In accordance with the provisions of the Working Plan in course of preparation, the poorer Eucalypt country to be afforested with conifers has been divided into four blocks: Greystones, Helena, Darkan, and Illawarra, and the operations on each block are dealt with separately.

The total area planted was 349½ acres.

(a.) Helena Block.

Clearing.—432 acres, including all breaks in Compartments 1 to 11, were clear felled and afterwards, with the exception of Compartment 8, burnt.

Preparation of Soil.—74 acres in Compartments 1, 3, 4, and 5 were ploughed.

Formation of Firebreaks.—272 chains of three-chain break, 172 chains of one-chain break, and 148 chains of half-chain break were established. The full width of the narrower breaks was cleared for ploughing, but on the three-chain breaks only a strip 15 feet wide was thus prepared, the remainder of the break being merely clear felled.

Planting.—284 acres were pit planted and 2 acres spot sown. 261 acres were planted with *P. insignis* with 8ft. x 8ft. spacing, 12½ acres with *P. pinaster* with 6ft. x 6ft. spacing, 6½ acres with *P. muricata* with 7ft. x 7ft. spacing, 2 acres with *P. canariensis* with 6ft. x 6ft. spacing, and 2 acres with *P. caribaea* with 8ft. x 8ft. spacing.

(b.) Greystones Block.

Clearing.—106 acres in Compartments 10, 13, and 18 were clear felled in order that the timber would be down for drying for over twelve months.

Planting.—29 acres were pit planted in Compartments 2, 4, 6, and 20. 14 acres were planted with *P. insignis* with 8ft. x 8ft. spacing, 8½ acres with *P. canariensis* with 6ft. x 6ft. spacing, 5 acres with *P. pinaster* with 6ft. x 6ft. spacing, 1 acre with *P. caribaea* with 7ft. x 7ft. spacing, and half-acre with *P. Torreyana* with 8ft. x 8ft. spacing.

1½ acres were spot sown with *P. canariensis* with 6ft. x 6ft. spacing.

84 acres in Compartments 4, 6, 19, and 20 were refilled with *P. insignis* and *P. pinaster*.

(c.) Darkan Block.

2 acres were pit planted with *P. muricata* with 7ft. x 7ft. spacing, and 2¾ acres with *P. pinaster* with 6ft. x 6ft. spacing.

(d.) Illawarra Block.

Clearing.—28 acres were clear felled.

Planting.—20 acres were planted with *P. insignis* with 8ft. x 8ft. spacing, and 8 acres with *P. muricata* with 7ft. x 7ft. spacing.

(B.) Working Plan No. 3—Collie.

1. *Clearing for Planting*.—In Compartment P2 42 acres, and on P19 12 acres, were cleared for planting.

In Compartment M20 30 acres were cleared.

2. *Planting*.—In Compartments P2 and P19 47 acres were pit planted with two year old stock *P. pinaster* spaced 6ft. x 6ft. apart.

In Compartment M20 15 acres were pit planted with one year *P. insignis*.

In Compartment M18 5 acres were pit planted with one year *P. pinaster* spaced 6ft. x 6ft. apart.

3. *Nursery Operations*.—In the arboretum nursery 20 lbs. of seed of *P. pinaster* and 2 lbs. of seed of *P. insignis* were sown in May, 1926.

(C.) Working Plan No. 2—Ludlow (Stirling Block).

Clearing.—38 acres, including firebreaks, in Compartment 12a were cleared for planting.

Planting.—30 acres in Compartment 12a were planted with *Pinus pinaster* with 6ft. x 6ft. spacing.

(D.) Ludlow Pine Plantation.

Clearing.—18 acres in Compartment 1 were clear felled.

48 acres in Compartments 2, 3, and 11 were burnt and pouched.

Planting.—10 acres in Compartment 1 were planted with *P. pinaster* with 6ft. x 6ft. spacing.

16 acres of blank spaces among the sown areas in Compartments 3, 10, and 11 were planted with *P. pinaster* with 6ft. x 6ft. spacing.

Experimental plots of *P. caribaea* and *P. taeda* were established in Compartment 43.

(E.) Working Plan No. 8—Gnangara.

Survey.—480 acres were subdivided into 14 compartments of approximately 25 acres each.

Clearing.—Compartments 119, 120, 121, 121a, 116, and 116a, totalling with the adjoining breaks 229 acres,

were clear-felled. All debris on Compartments 121 and 121a was heaped and burnt to permit ploughing.

Compartment 120 was ploughed before the big timber was felled.

Ploughing.—Compartments 121 and 121a and surrounding firebreaks, totalling 74 acres, were ploughed after burning.

Fencing.—Compartments 113 to 121a with external firebreaks, totalling 480 acres, were enclosed with a rabbit-proof fence.

100 chains of new fence were erected and netting was attached to 170 chains of existing fence.

Planting.—50 acres were planted in Compartments 121 and 121a:—6 acres with *Pinus caribaea* with 8ft. x 8ft. spacing, 2 acres with *Taxodium distichum* with 4ft. x 4ft. and 8ft. x 8ft. spacing, and 42 acres with *Pinus pinaster* with 6ft. x 6ft. spacing.

Formation of Firebreaks.—The clearing of firebreaks was carried out with the clearing of adjacent compartments.

In addition advanced firebreaks have been established throughout the fenced area with the object of protecting from fire the area to be cleared within the next three years.

Nursery Work.—With the exception of 10,000 *Pinus pinaster* planted in Compartment 121a, the seedlings raised from the seed sown in June, 1925, were carried over to provide two-year stock for the 1927 season 1½lbs. of seed of *Pinus caribaea* and 2lbs. of seed of *P. taeda* were sown in the Lawson's nursery in May, 1926.

60 lbs. of seed of *Pinus pinaster* were sown in the headquarters nursery in June, 1926.

Permanent Plant.—Two wells, one at headquarters and the other in Compartment 120, have been sunk.

A windmill and two thousand gallon tank and stand were erected at headquarters.

(F.) Working Plan No. 10—South Perth.

Survey.—263 acres were subdivided into 11 compartments of approximately 25 acres each.

Clearing.—Compartments 1, 2, 3, 5, and 6, totalling with firebreaks 156 acres, were clear-felled and burnt.

All the debris was heaped and burnt to permit ploughing.

Ploughing.—Compartments 1, 2, 3, and 5, totalling with adjoining firebreaks 124 acres, were ploughed and cross-ploughed.

Fencing.—Compartments 1 to 3 and 5 to 11, with external firebreaks, were enclosed with a stock-proof fence.

207 chains of new fence were erected and 48 chains of existing fence were utilised.

Planting.—50 acres in Compartments 2 and 3 were planted with *Pinus pinaster* with 6ft. x 6ft. spacing.

Nursery Work.—The seedlings raised from the seed sown in June, 1925, were carried over to provide two-year stock for the 1927 season.

40 lbs. of seed of *Pinus pinaster* were sown in June, 1926.

An additional area of one acre was cleared and cultivated.

Permanent Plant.—A well was sunk at headquarters, and a windmill and two thousand gallon tank and stand erected.

(G.) Applecross Pine Plantation.

Survey.—The subdivision of 945 acres into 30 compartments of approximately 25 acres each is almost completed.

Fencing.—The area subdivided has been enclosed with a stock-proof fence. The total length of fence necessary to join with existing fences was 270 chains.

Formation of Firebreaks.—Firebreaks around compartments cleared were cleared at the same time as adjacent compartments. In addition advance breaks have been established throughout the fenced area with the object of protecting from fire the country to be cleared in the next few years.

Clearing.—29 acres in Compartment 2 and adjoining breaks were cleared and ploughed in readiness for planting.

Clearing sufficient to permit ploughing has been completed over 30 acres in Compartment 1.

30 acres in Compartment 3 and 6 acres in Compartment 4 have been clear-felled.

Ploughing.—28 acres in Compartment 2 and adjoining breaks were ploughed with a stump-jump mouldboard plough.

Planting.—25 acres in Compartment 2 were planted with *Pinus pinaster* with 6ft. x 6ft. spacing.

Nursery.—The seedlings from the 1925 sowing are being carried over as two-year stock.

30 lbs. of seed *Pinus pinaster* was sown in June, 1926.

Permanent Plant.—20 acres of land, with a two-roomed house, within the boundary of the plantation have been purchased as a site for an overseer's house.

(H.) Harvey Weir Pine Plantation.

Survey.—A commencement was made with the subdivision of the area into compartments averaging 25 acres each.

Clearing.—67 acres were clear felled in Compartments 1, 2, 3, and 4. The remaining area of these compartments was cleared land.

12 acres in Compartment 3 were ploughed preparatory to spot sowing.

Sowing.—10 acres in Compartment 3 were spot sown with *Pinus canariensis* with 6ft. x 6ft. spacing.

Planting.—37 acres in Compartments 2 and 4 were planted with *P. insignis* with 8ft. x 8ft. spacing.

Permanent Plant.—A site was cleared for an overseer's house.

(I.) Myalup Pine Plantation.

Operations on this plantation were commenced in October, 1925.

Clearing.—150 acres were cleared in Compartments 1, 2, 3, 11, 12, and 21.

Formation of Breaks.—50 chains of two-chain breaks and 220 chains of half-chain breaks were established around the compartments to be planted.

Fencing.—The western and northern boundaries of the planting area, and also the paddocks and nursery, were fenced during the year.

Planting.—103 acres in Compartments 1, 2, 11, 12, and 21 were pit planted with *Pinus pinaster* with 6ft. x 6ft. spacing.

Nursery.—Three acres of Location 672 were purchased for a nursery site, and 20 lbs. of seed of *P. pinaster* were sown in May, 1926.

Permanent Plant.—An overseer's house (Type 6a) and stables (Type 2) were erected, and the necessary paddocks and yards established.

(J.) *Bowelling Experimental Area.*

(Expenditure, £248.)

In the country between Muja and Bulading, and bounded on the south by the Collie-Narrogin railway, and on the north by the Collie-Williams Road, there are many thousands of acres which cannot be classed as good jarrah country, nor as good agricultural or pastoral land.

With a view to testing the suitability of this country for afforestation with conifers, it was decided to establish an experimental area to be planted with several varieties of pines.

An area of 130 acres, situated near Reserve 8605 about seven miles north-east of Muja, was selected. This area contains the three chief types, viz.,

1. Jarrah hills.
2. Slopes of mixed jarrah and wandoo,
3. Wandoo flats,

occurring in main belts of country.

In order to utilise all marketable timber already growing on the area local hewing permits were issued to two cutters to operate on the area chosen. Up to date 90 acres have been worked over for 39 loads of hewn sleepers.

Operations were commenced by this Department in November, 1925, and the following work was carried out:—

Clearing for Planting (£155 17s. 1d.).

The total area on which the timber was felled was 64 acres, of which 28 acres were felled for planting and 36 acres were felled to reduce fire hazards adjoining firebreaks.

The cost of clearing, including burning, was £2 7s. per acre.

Fencing (£29 15s. 3d.).

As the experimental plantation is an isolated one without a resident employee it was decided to enclose the area with a four-wire fence.

So far, 500 posts have been split, and 26 chains of these erected along the northern boundary of Compartments 1 and 2.

Formation of Firebreaks (£32 18s.).

These breaks are in widths of 33 feet and 132 feet.

Strips twelve feet wide have been cleared for cultivating.

On the narrow breaks the strip is in the centre; on the wider breaks a strip is cleared on either side.

Approximately 3 acres have been cleared at a cost of £11 per acre.

Planting.—A total of 23 acres was planted with four different species:—*Pinus insignis*, *P. pinaster*, *P. muricata*, and *P. Coulteri*.

(K.) *Nannup Experimental Area.*

Operations on this area were commenced in December, 1925.

Clearing.—103 acres, including the surrounding firebreaks, were clear-felled in Compartment B.

It was intended to plant the first 50 acres of this experimental area during the past year. With this end in view seed of *Pinus insignis* and *Pinus pinaster*

was sown in a nursery in the Nannup Arboretum in May, 1925.

Owing to the fact that no suitable planting stock was raised in the local nursery this year, and that no surplus stock was available at Hamel, planting operations were held over until the 1927 season.

(L.) *Seed Store.*

The scope of this recently created branch of the Department is steadily increasing, and requests for seeds of indigenous trees, flowering shrubs, etc., are being received from all parts of the world. In addition to the handling of indigenous seeds for supply to private persons, public bodies and other Forests Departments, the Department's own seed requirements are also handled and stored.

The viability of the seed in stock is determined from time to time, and any seed not developing a reasonable germination percentage is destroyed, or, in the event of a further stock not being available at the time, is retained and sent out with a full statement of its germinative capacity, no charge being made.

All germination tests are carried out by sowing on sand contained in specially made galvanised iron trays. This method has been adopted as giving the most uniform results and as approaching most nearly the actual results obtained in the nursery or field. Specially designed electrically heated boxes have been constructed in which all tests are carried out.

To facilitate the drying out and cleaning of seed from the seed vessels, electrically heated drying ovens have been built which have proved most satisfactory.

For identification purposes a collection is being formed of samples of seeds and where possible, of the seed vessels of all genera and species stocked.

All seed containers have been standardised, and are all practically airtight.

For record purposes an efficient card index system has been devised, showing for each genus and species in stock, all seed received and issued together with particulars *re* costs, germinative capacity, source of origin, etc.

The stock of indigenous species being carried at present is far from being representative or adequate, but, as opportunity permits, is being steadily built up.

During the months of September to April, 698 lbs. of jarrah seed were collected at three centres—Mundaring, Mornington, and Mullalyup.

CHAPTER V.

PROGRESS OF WORKING PLANS.

During the financial year under review, five new Working Plans, covering a total area of 49,300 acres, have been approved by the Governor in Executive Council:—

Working Plan No.	Location	Area (acres)
16	Dwellingup	8,000
17	North Marrinup	10,000
22	Holyoake	8,450
23	Inglehope	14,600
25	Plavin's	8,250

The first revision of Working Plan No. 3, Collie (59,000 acres), has been completed and approved by the Governor.

The following Working Plans have been completed, and await approval by the Governor in Executive Council:—

Working Plan No. 1, Mundaring (124,500 acres), 1st Revision.
Working Plan No. 27, Wuraming (12,060 acres).

CHAPTER VI. SYLVICULTURAL NOTES.

Considerable attention has been paid to questions associated with the silviculture of indigenous species of economic importance, and problems in connection with the establishment of exotic conifers. A number of papers setting out observation, experiments, and conclusions were presented at the recent meetings of the Australasian Association for the Advancement of Science in Perth, and it is intended to deal with these various subjects from time to time in a series of technical bulletins as conclusions are confirmed by the result of large scale work.

It is not possible to more than indicate the trend of such work in this report.

(a) The failure of new pine nurseries to yield satisfactory planting stock from the first and at times the second sowing of seed has been a baffling problem not to be overcome by the ordinary expedients of watering, shading, and fertilising. Much information has been collected suggesting a biological explanation. It would appear that a necessary soil organism is present to a limited extent both in virgin soil and on old cultivations, but it is not until after the second or third year of continuous use as a pine nursery that the development of the organism is sufficient to promote the healthy development of pine seedlings. It has been further suggested that the failure of broadcast sowings of *Pinus pinaster* in certain districts, and the high mortality of planted pines obtained from comparatively new nurseries in other districts is also due to lack of the necessary biological factor in the soil. *Rhizopogon leuteolus* which have been found fruiting freely in long-established nurseries, and in the vicinity of older pine trees is suggested as a possible mycorrhizal fungus, but whether mycorrhiza or bacteria or both are needed is a problem requiring careful research.

(b) The extremely limited survival at the end of the first summer of seedlings resulting from plentiful natural regeneration after a heavy seed year of certain species such as Tuart (*Euc. gomphocephala*) growing as pure *sclerophyllous* forest has been the subject of careful study.

The only place in the forest where the seedlings have survived in numbers and show satisfactory subsequent development is on "ash beds," where lop and top from falling operations of similar debris has been burnt by the fire put through the forest prior to seed fall.

Investigations to date appear to indicate that this result on "ash beds" is due to the presence of mineral fertiliser from the ash, and if this proves correct it should be possible to determine the chemical compounds required and artificially reproduce similar conditions, thus greatly increasing chances of success in "spot sowing" of this and similar species of Eucalypts.

(c) Much additional information has been obtained concerning the parasitic habit of Sandalwood (*Santalum cygnorum*), and its relation to 76 host plants has been definitely determined.

The value of the parasitism in rendering economically possible the reforestation of the species in areas of 10 in. annual rainfall where necessary host plants are to be found growing freely over large areas, is becoming increasingly apparent. Many seedlings in this low rainfall have attained a height upwards of 15

in. (largest 2ft. 6in.) in one year from sowing, and the rather unexpected phenomena of their continued growth during the hottest and driest months of the year, when the infrequent showers of rain were hardly sufficient to penetrate below the surface, was noted.

It is hoped that before the issue of the next annual report work on the lines indicated above will be taken up on more scientific and systematic lines by a Federal Forestry Bureau, and the task commenced of correlating the mass of information available in the various States.

CHAPTER VII. ARBORICULTURE.

From the nursery stock raised at Hamel Nursery 46,160 trees were sold to the public at cost price, 4,620 were distributed free to public bodies and charitable institutions, and 23,040 were sent out to experimental plantations and arboreta.

Arboreta first planted in 1922 in Collie, Donnybrook, and Nannup, and in 1925 at Manjimup, have reached an interesting stage of development. It is unfortunate that the most extensive and representative collection at Collie should have suffered damage from recent floods.

A conference of Municipal Gardeners convened in Perth on 23rd November, 1925, served to bring together men interested in arboriculture, and provide means for an exchange of ideas. As a result of this conference a lithograph showing layout of trees and overhead wires for residential streets was prepared and submitted to local governing bodies. A number have signified their intention of adopting standards proposed. If the action taken in this connection serves to direct the attention of responsible individuals to the stupidity of planting young trees directly under overhead wires, and draws attention to the problem of selecting suitable street trees for local conditions, a very useful purpose will have been served.

CHAPTER VIII. FIRE CONTROL NOTES.

Local forests were fortunately not subjected to the same extensive fire damage as resulted from the very serious bush fires in the forests of the Eastern States. The summer experienced in the South-West of the State was severe, but the strain was relieved by exceptionally early rains in February. There is little doubt that extensive controlled burning carried out by the Department and efficient organisation in centres where extensive reforestation work is in progress were to a large extent responsible for comparative immunity from serious damage.

As the writer had opportunity to inspect certain of the fire damage in Victoria and New South Wales, and later attend a conference convened in Sydney by the Forestry Commission of New South Wales (March, 1926), the following views which have not yet found wide popular acceptance are briefly set out in view of the great national importance of the problem referred to.

1. Expenditure on protective works such as fire-breaks without an efficient fire fighting organisation is of little real value. Firebreaks, whether in the form of cleared lines through the forest or burnt strips

carrying growing trees should be regarded simply as effective lines from which to combat a fire and enable it to be confined within a known area.

2. Fire protection, control or suppression in the timbered areas of Australia will never be successfully handled as a separate problem. Fire control is one of the first fundamentals of forest management, and with the introduction of *Forestry* on sound lines in indigenous forests the fire problem will disappear. The final solution of the bush fire menace is through Forest Working Plans which with limited experience and still more limited trained staff cannot be set up in a day or a year. For this reason temporary expedients are necessary, but Australian forests need resident foresters who work the areas under their control as timber farms, rather than fire wardens and patrols.

The following standard layout for the break system on planting areas (conifers) has recently been adopted. The average size of compartments is fixed at 25 acres. These are divided by half-chain breaks cleared of log timber, but not stumps, to enable ploughing to be carried out until after the pines form a complete canopy. Four compartments are grouped and surrounded by one-chain breaks, which have a centre clearing of 15 to 20 feet. This is thoroughly cleared of all stumps, etc., and, it is intended, shall be kept clear by cultivation throughout the full rotation. Around every 300 acres or 12 compartments, a two-chain break is retained and two similar strips 15 to 20 feet wide are cleared for ploughing down either side, 15 feet from the planting line. Where the contour of the country is irregular or where other special circumstances apply, this design is not rigidly adhered to.

CHAPTER IX.

RESEARCH AND INVESTIGATION.

I.—WOOD TECHNOLOGY INVESTIGATIONS.

Research has been continued under the direction of the Wood Technology Investigations Committee, consisting of Mr. S. L. Kessell (Chairman), Professor H. E. Whitfeld, and Professor N. T. M. Wilmshire.

Air Seasoning.

In the air seasoning investigation on lin. jarrah boards which is being carried out in co-operation with sawmillers, the study of drying rate and of the factors such as methods of stacking, which influence it, has reached such a stage that a progress report has been prepared for printing. It is evident, from the data already acquired, that seasoning practice generally in this State leaves very much to be desired. Although, in some of the more carefully laid out yards, drying conditions are satisfactory, in a large number of cases faulty layout and unsuitable stacking methods, while resulting in no saving in the cost of seasoning, produce timber of poorer quality and in a much less seasoned condition, for a similar period in the stack.

Contrary to general opinion, the lowest moisture content which can be reached by boards stacked at mills throughout the jarrah forest is, to all intents and purposes, the same, irrespective of the district, although in the wetter localities a longer drying period is required to reach this condition, or, in other words, under suitable conditions, boards can be dried as thoroughly in the wetter southern portions of the jarrah forest as they can in the somewhat drier areas nearer Perth. Moreover it is usual to think that

all the boards in a stack are of approximately the same state of seasoning. The tests show, however, that the outside of the stack tends to dry more rapidly than the inside, while the higher portions of the stack have a more rapid drying rate than the lower. At any time the difference between moisture content of the driest and of the least dry board in the stack may be large, although, under the better stacking conditions, this variation is greatly reduced.

The building of stacks too close together restricts the circulation of air over the boards and retards the rate of drying, particularly in the lower layers. Similarly, placing the boards edge to edge in the stack without a space between, while it increases the capacity of the stack, retards the drying of the inside boards, the effect again being more pronounced in the lower layers.

It has been considered in the past that, for separating the layers of boards, and permitting the passage of air over their surfaces, lin. spacing strips were preferable to thinner sticks. In summer, however, thin strips give satisfactory drying conditions. In winter, these strips slow down the drying rate, although, in well laid out yards, the retardation is much less pronounced. Where yards have adopted proper stacking methods half-inch strips with their consequent saving in stacking costs are, therefore, now recommended.

One of the objections made in connection with jarrah flooring is that often, although the timber has been described as thoroughly seasoned, very serious shrinkage takes place after the floor has been laid. The probable reason for this has been shown by the test. It is not usual to provide rainproof coverings for seasoning stacks, so that, during the winter months, the top layers are wetted by the rain, and the water drips through the stacks to the lower layers of timber. As a result, the moisture content of the timber rises considerably during the winter months. Tests have shown that the boards in stacks reasonably dry at the end of summer absorb moisture rapidly during the winter months, a maximum moisture content of 25 per cent. to 30 per cent. being the average for a stack. Jarrah at 30 per cent. moisture content will shrink nearly half as much in drying as green timber, so that boards unstacked during the winter months cannot be expected to give satisfaction. Dry jarrah boards stacked under cover absorb comparatively little during the winter months, and it would therefore appear that, by the provision of coverings for seasoning stacks, a very great improvement in the seasoning of jarrah flooring boards can be effected.

As an evidence of the interest which is being taken in this test, it may be mentioned that several inquiries have already been received as to the layout of new stacking yards. The test is being continued throughout the present year, when several important factors in air seasoning, about which there is not yet sufficient information, will be studied. It is anticipated that the final report on the investigation will be completed in about a year's time.

Kiln Seasoning.

The problem of obtaining the best type of dry kiln for the seasoning of Western Australian eucalypts for high grade purposes has advanced a further stage. Some time ago samples of green jarrah and karri were enclosed in practically water-

tight coats of special paint and forwarded to U.S.A. These samples were then sawn into 6 x 1 boards and were dried out in a Sturtevant High Humidity Dry kiln. This kiln is of the external fan type, and is so arranged that the distance over which the air passes in contact with the timber being dried is not greater than 3½ feet.

A report on the test has been received, and this indicates that this type of kiln, like the Tiemann, is capable of drying Western Australian hardwoods for high-grade purposes. The answer to the question, as to whether the cost of drying will be within the limits of commercial possibility, will depend upon the circumstances of any instance, and the Department will, if requested, supply estimates of the probable cost of operation for any particular case.

Considerable progress has been made with the problems of drying flooring board stock by a combined air-seasoning-kiln-seasoning process. The air-seasoning investigation has indicated the desirability of such a method of seasoning, but existing types of kiln, generally considered suitable for this class of work, possess faults which are likely to militate against their successful operation with jarrah. A new type of kiln has, therefore, been developed.

The greatest difficulty in kiln operation occurs in the control of the circulation of the drying air. The new kiln was designed to give an even flow of air over the width of the stack, and throughout the length of the kiln. Moreover periodical reversal of the direction of air circulation also assists in the maintenance of an even drying rate throughout the stack. The kiln has also the following advantages. The cost of construction is low, and standard engineering supplies only are used. The design is not complicated. The steam consumption is low. The operation of the kiln is extremely simple. The kiln will operate for long periods without attention. This permits, by the use of banked boilers overnight, the reduction of attendance costs.

An experimental kiln of standard cross section, but only 7ft. in length, was built at the School of Mining and Engineering at Crawley, and two charges of semi-dry jarrah flooring stock were dried out in it. The charges were a conspicuous success, the kiln doing all that it was designed to do. The type of kiln has been adopted by one of the sawmilling firms of the State, and tests on a commercial scale are about to be commenced. The design is being patented.

Preservative Coatings.

The resistance of jarrah to weathering effects is so great that it is customary to use this timber in exposed locations with no protection other than a coating of oil. If the coating is not renewed at sufficiently frequent intervals the jarrah, in the case of material such as weatherboards, becomes somewhat unattractive in appearance and, in the case of flooring boards, suffers from warping. A test has, therefore, been commenced to determine the relative values of different oils in preventing these deleterious effects.

Of the two types of oils being tested, viz., drying oils and non-drying oils, the former appear to be giving far more satisfactory results, as far as appearance is concerned, although the test has not yet proceeded for a sufficient length of time for a pronouncement to be made.

Preservation.

About two years ago the Wood Technology Investigations Committee was asked by the General Manager of the State Saw Mills to report on the alleged failure of powellised karri sleepers in certain cases after some 8 to 10 years' life. The matter was duly investigated, and it was found that in some cases failures of powellised sleepers were undoubtedly taking place. It was, therefore, decided to make a comprehensive investigation into the conditions of powellised karri timber throughout the State. Under the direction of the Committee, assisted by the Chief Engineer for Ways and Works, Western Australian Government Railways, Mr. H. A. Cresswell, this work was carried out. It was found that, in localities of moderate and high rainfall, powellised karri was being attacked by a rot-producing fungus, which generally tended to cause failure after a period varying from 8 to 14 years. In drier localities this rotting was not encountered, and here the timber was giving excellent service, a notable example being the Trans-Australian Railway, where the behaviour of powellised karri was excellent. In other words, the powellising process was effective in preventing the ravages of white ants, but failed to combat the attack of rot-producing fungi.

It was, therefore, decided that a process was required which would provide protection against both white ants and rot. Information relative to rot-preventing chemicals was obtained, and a number of preservatives, most likely to be of use in protecting karri, were chosen. The relative toxicities of these preservatives, to the species of fungus attacking karri were next studied, tests being carried out both with culture media and with karri sawdust. On account of the low rate of moisture transmission of seasoned and semi-seasoned karri, it was considered essential that the preservatives selected should be suitable for a process using green timber, or, in other words, that they would be water soluble.

As a result of these tests, it was decided to carry out impregnation experiments on green karri using a solution containing selected fungicides to replace the molasses of the powellising process, the proven insecticide, arsenic, being retained. A small treatment tank, steam-heated, was erected at the University, Crawley, and this plant, at a later stage, was duplicated. Short lengths of karri sleepers with sealed ends were treated, and it was found that, by using an open tank process similar to powellising, with a treatment time not greater than that of the old process, sufficient penetrations of the preserving materials were obtained. The process could be carried out in the existing treatment plants at the mills with only a negligible amount of alteration to equipment.

On the recommendation of the Committee, the State Saw Mills decided to adopt the suggested process, and materials for commercial treatments were ordered and have now been received. The process is being patented.

The thanks of the Department are due to Professor Whitfield and Professor Wilmore for their assistance in the Wood Technology Investigations generally, to Mr. H. A. Cresswell for his co-operation in the Preservation tests, and to Mr. W. M. Carne, the Economic Botanist and Plant Pathologist of the Agricultural Department, for the identification of

fungoid species, and for co-operation in the culture tests on the toxicities of different preservatives.

2.—ENTOMOLOGICAL INVESTIGATIONS.

Problems of forest entomology have received the attention of the Government Entomologist (Mr. L. J. Newman). Mr. Newman reports that most of the work for the year has been conducted in the laboratory. This has consisted of breeding out life histories, and the mounting and arranging of same for reference and record purposes.

At the special request of the South African Entomological Branch we made efforts to obtain and forward to South Africa the various locally known natural enemies of *Phoracantha* borers. Many localities were visited in our search and have been noted for future operations.

The request was received too late in the year, as it was found that the parasites had mainly issued and that there were not sufficient numbers in any one place to warrant a trial shipment. Around Mundaring Weir the most suitable places noted were Greystones and Byfields. These should prove good parasite grounds about November. A quantity of timber has been felled at Sawyers' Valley and should prove a good source of supply about the same time.

The most prolific and effective parasites are the various species of Braconidae. There are others such as the Evanidae and Ichneumonidae, which will also be collected and forwarded. Parasitic beetles are numerous, but owing to the possibilities of these predaceous insects changing their habits, under new conditions, it is not proposed to forward them.

It is a curious fact that the *Phoracantha* borers here are secondary pests confining their attacks to dead and dying timber, whereas in South Africa they are evidently proving a primary pest attacking the growing trees.

The destructive wood boring moths of the family Hepialidae have been especially studied. A large quantity of infested material was collected from various districts, and this material, which was carrying both pupal and larval stages, was carefully incubated and yielded the adults of five species, only one being previously recorded in the departmental collection. The life history of each species appears to be similar, but only one, so far, has been definitely worked out.

A series of these moths, together with samples of their destructive work, has been arranged in the collection. Photographs of same have been made for future publication.

The Jarrah Leaf Miner—Tinea sp., is still an active pest of the coastal jarrah. A careful watch has been kept to detect any appearance of this serious pest in the hill-grown jarrah, but so far we have not found it away from the plain jarrah. During the year a special effort was made to discover any effective natural enemies of this moth. To date we have only found one or two minor parasites, which make but little effective check. A pamphlet entitled "The Jarrah Leaf Miner" was published, illustrated with seven original photographs, depicting the life history and work of this pest. An article on the same subject was also published in the "Journal of Agriculture."

The Marri Borer—Trypocharia hamata.—This pest was further studied. The results of this work were finalised and published in the "Journal of Agriculture," and also in pamphlet form. This was also illustrated with five original photographs showing the life history and work of the borer.

Ants reported to be attacking Pine seeds, State Forest Nursery, Mundaring.—Pine seeds were forwarded together with specimens of the suspected ants, and a careful examination was made of all the material. This clearly proved that the ants were not the cause of the damage to the seeds, which gave definite evidence of having been eaten by some weevil or other larger insect.

3.—BOTANICAL INVESTIGATIONS.

Marri Kino Investigation.—In consequence of the negative results obtained in experiments for tapping *Eucalyptus catophylla* last year, it was decided to close down this investigation for the time being, pending further developments which would justify resumption. Such developments occurred in the autumn of this year, when it was found that certain trees treated for tapping a year previously has excreted a large quantity of kino into the bark.

A collection and analysis of some of this kino impregnated bark was made, and it was found to contain 54.7 per cent. of kino. Such bark should yield over 30 per cent. tannin extract. The tapping and collecting cost of such bark, inclusive of delivery to local centres, should not exceed £6 per ton. These results justify further investigation; especially as the Department has recently received several inquiries concerning tannin resources of the State, both from the Eastern States and from overseas.

The results of all investigations to date on Marri Kino are now being collected and prepared for publication. Investigations are being continued.

Sandalwood Investigations.—A considerable amount of work has been done on the microscopical wood structure of the *Santalaceae*—particularly among the genera *Santalum* and "*Fusanus*"—and upon similar timbers that are sometimes mistaken for sandalwood. This work has not only enabled us to distinguish with certainty between true sandalwood and its kindred species, but has considerably increased our knowledge as to their relationship.

In addition, micro-chemical tests have also been carried out, which indicate that the statement of local distillers of Sandalwood Oil, that there is not the amount of difference between W.A. oil and Mysore oil that is claimed by some Indian and British investigators, is probably correct.

Recently South Australia has exported timber to China as Sandalwood. This wood has been stated to be known in South Australia as "Bitter Peach" or "Bitter Quandong"—*Santalum persicarium* (—"*Fusanus persicarius*"). From microscopical examination of the timber it is evident that the species is not *S. persicarium*. Nor is it either *S. spicatum* (—"F." *spicatus*) or *S. lanceolatum*. The question of its correct identity is an important matter which should receive the early attention of South Australian botan-

ists; the wood, although it has a smell somewhat similar to sandalwood, burns with an extremely unpleasant and quite different odour, and it is open to question whether it can continue to compete with the Western Australian species on the Chinese market.

CHAPTER X.

LEGISLATION.

The amending Act to the Forests Act, 1918, which provides that the revenue from Sandalwood shall be excluded from the provisions of Section 41 (2) of the principal Act and shall pass into general revenue was continued for a further period of twelve months. This Act further provides that one-tenth of the Sandalwood revenue or £5,000, whichever is the greater, shall be paid into a trust account for expenditure on works connected with the preservation and reforestation of sandalwood.

Amendments to Regulations.

The only considerable amendment to Forest Regulations, 1915, not dealt with elsewhere in this report, deals with the manner in which returns of timber cut on Crown lands shall be kept and submitted for the assessment of royalty. Previous practice was not satisfactory as has been shown by examination of the books of certain firms, and an examiner has now been appointed to inspect from time to time the books kept by permit holders and see that the necessary returns are regularly entered up in the manner now required under regulations gazetted 11th November, 1925.

CHAPTER XI. ADMINISTRATION.

During the seven years that the Department has been in existence steps have been taken to gradually standardise procedure, both in the field and in the office. For the direction and information of the field staff Part 1 of a Foresters' Manual has now been issued. This publication deals with General District Work in the South-West, and will later on be followed by other Parts dealing with Reforestation, Fire Control, Afforestation, Expenditure Control and Periodic Reports, Sandalwood Control and Regeneration and General District Work (Wheatbelt and Goldfield areas). Part 1 is the largest and most comprehensive portion of the proposed Manual, and Mr. H. V. Telfer is to be congratulated on his work in editing the publication.

An inquiry into the conduct of certain officers was necessary in the early part of the year, and as a result the services of one clerk and one field officer were dispensed with.

With this small exception the staff have given loyal and enthusiastic service and the year's progress has been due to the hard work and increasing efficiency of the existing staff, rather than increase in number of officers.

Recommendations made in connection with the reclassification of the service, it is hoped, will result in greater recognition being given to the importance of the work now carried out by responsible officers of the Department.

S. L. KESSELL,
Conservator of Forests.

Forests Department,
Perth, 15th September, 1926.

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APPENDIX 1d.

Mining Leases Royalty Account for Year ended 30th June, 1926.

Dr.					Cr.									
30th June, 1926:					1st July, 1925:									
To Sylviculture	£	s.	d.	By Balance brought forward	...	...	...	£	s.	d.
„ Fire Control	134	2	3	30th June, 1926:	...	...	...	2,132	17	11
„ Grazing Control	510	8	10	By Royalties collected during year	...	...	...	814	18	6
„ Administration	1	2	6							
„ Raising Plants	69	16	2							
„ Utilisation	2	18	4							
„ Paddocks	3	7	4							
„ Balance carried forward	10	4	2							
					-2,215	16	10							
					£2,947	16	5					£2,947	16	5

APPENDIX 1e.

Sandalwood Trust Fund for Year ended 30th June, 1926.

30th June, 1925:					1st July, 1925:									
To Classification	£	s.	d.	By Balance brought down	...	...	...	£	s.	d.
„ Karamindie Fencing	...	1,005	5	8	1,096	4	4	„ Receipts in accordance with Forests Act	...	...	...	5,000	0	0
„ Karamindie Planting	...	469	4	1				30th June, 1926.	...	...	...	100	0	0
					1,474	9	9	By Sundry Recoups	...	...	...
„ Cowine Fencing	320	7	6							
„ Bending	46	9	3							
„ General Equipment	88	5	4							
„ General Expenses	243	9	5							
„ Balance carried forward	5,184	2	11							
					£8,453	8	6					£8,453	8	6
								1st July, 1926:	...	...	...	5,184	2	11
								By Balance brought forward	...	...	...

APPENDIX 1f.

Statement of Timber Inspected by the Inspection Branch of the Forests Department during the year ended 30th June, 1926.

Timber Inspected.	Inspection Fees.	
	Cubic Feet.	Amount.
Sawn sleepers	2,663,042	£ 5,500 10 8
Hewn sleepers	6,277,952	13,184 1 3
Sawn and Hewn timber	1,051,291	2,771 8 1
Piles and Poles	26,733	375 17 4
Miscellaneous Timbers (including Beams and Re-inspected sleepers)	(lineal feet)	214 1 7
	...	£22,045 18 11

APPENDIX 1g.

Revenue and Expenditure.

The following statement shows the Revenue and Expenditure of the Department since its inception in 1895:—

Year.	Revenue.	Expenditure.					Total.
		Consolidated Revenue Fund.	General Loan Fund.	Reforestation Fund.	Mining Leases Fund.	Sandalwood Trust Fund.	
1st January to 31st December, 1895	£ 3,175	£ 1,108	£ ...	£ ...	£ ...	£ ...	£ 1,108
1st January to 31st December, 1896	4,839	2,021	...	...	...	...	2,021
1st January to 31st December, 1897	12,320	3,490	...	...	...	...	3,490
1st January to 31st December, 1898	30,150	3,356	...	...	...	...	3,356
1st January to 31st December, 1899	17,000	2,438	...	...	...	...	2,438
1st January to 31st December, 1900	15,526	2,649	...	...	...	...	2,649
1st January to 31st December, 1901	18,478	2,747	...	...	...	...	2,747
1st January to 31st December, 1902	18,753	4,301	...	...	...	...	4,301
1st January to 31st December, 1903	20,478	3,789	...	...	...	...	3,789
1st January to 31st December, 1904	20,019	4,193	...	...	...	...	4,193
1st January to 31st December, 1905	18,480	5,090	...	...	...	...	5,090
6 months, 1st January to 30th June, 1906	10,974	3,385	...	...	...	...	3,385
1st July, 1906, to 30th June, 1907	22,783	6,208	20	...	...	...	6,228
1st July, 1907, to 30th June, 1908	23,499	8,802	443	...	...	...	9,245
1st July, 1908, to 30th June, 1909	29,484	9,031	584	...	...	...	9,615
1st July, 1909, to 30th June, 1910	31,549	8,531	1,833	...	...	...	10,364
1st July, 1910, to 30th June, 1911	37,477	8,863	2,888	...	...	...	11,751
1st July, 1911, to 30th June, 1912	44,561	10,469	3,135	...	...	...	13,604
1st July, 1912, to 30th June, 1913	48,237	11,463	3,842	...	...	...	15,305
1st July, 1913, to 30th June, 1914	53,039	12,093	4,432	...	...	...	16,525
6 months, 30th June to 31st December, 1914	22,906	5,469	1,063	...	...	...	6,532
1st January to 31st December, 1915	45,726	8,870	1,399	...	...	...	10,269
1st January to 31st December, 1916	29,821	9,575	911	...	...	...	10,486
1st January, to 31st December, 1917	36,129	10,263	842	...	...	...	11,105
6 months, 1st January to 30th June, 1918	22,113	6,199	268	...	...	...	6,467
1st July, 1918, to 30th June, 1919	42,051	10,873	594	...	...	...	11,467
1st July, 1919, to 30th June, 1920	59,220	12,962	...	7,241	...	...	20,203
1st July, 1920, to 30th June, 1921	75,469	16,128	11,742	*50,673	...	...	78,543
1st July, 1921, to 30th June, 1922	†88,530	16,439	2,324	27,794	965	...	47,522
1st July, 1922, to 30th June, 1923	†87,658	15,246	1,779	21,563	238	...	38,826
1st July, 1923, to 30th June, 1924	†127,253	15,835	873	31,625	...	...	48,333
1st July, 1924, to 30th June, 1925	†182,764	17,816	1,000	†65,497	778	1,648	86,739
1st July, 1925, to 30th June, 1926	†227,061	23,191	2,349	71,780	732	3,269	101,321
£	1,527,522	282,893	42,321	276,173	2,713	4,917	609,017

* This amount includes the sum of £15,448 paid to liquidate the advances made to the Department from Land Improvement Loan Fund. † Includes Mining Timber Royalty.

‡ Includes £9,316 recouped to Treasury on account of Sandalwood Trust Fund.

It will be seen from the above statement that to the 30th June, 1926, the revenue exceeded the total expenditure by the sum of £918,505.

APPENDIX 2a.

Production of Mill Logs for Year ended 30th June, 1926.

Species.	Crown Lands.						*Private Property.		Total.	
	Concessions.		Leases.		Permits.		In Log.	In square.	In Log.	In square.
	In Log.	In square.	In Log.	In square.	In Log.	In square.				
Jarrah	cub. ft. 3,567,147	cub. ft. 1,248,501	cub. ft. 10,182,915	cub. ft. 3,564,020	cub. ft. 23,190,358	cub. ft. 8,116,625	cub. ft. 1,144,926	cub. ft. 400,724	cub. ft. 38,085,346	cub. ft. 13,329,870
Karri ... ..	...	...	...	...	4,152,121	1,121,073	126,878	34,257	4,278,999	1,155,330
Tuart ... ..	...	...	...	...	59,201	20,720	...	...	59,201	20,720
Wandoo ... ..	...	...	...	...	...	...	40,354	14,124	40,354	14,124
Banksia... ..	...	...	...	...	...	...	786	275	786	275
Sheoak ... ..	...	...	...	...	6,131	2,146	766	268	6,897	2,414
Totals	3,567,147	1,248,501	10,182,915	3,564,020	27,407,811	9,260,564	1,313,710	449,648	42,471,583	14,522,733

NOTE.—Percentages of recovery of sawn timber from the round are :—Jarrah, 35 per cent.; Karri, 27 per cent.; and other timbers, 35 per cent.

* Reported to Forests Department.

APPENDIX 2b.

Inspected Hewn Jarrah Sleepers obtained during Year ended 30th June, 1926.

Locality.	Cubic Feet.
From Hewing and Saw Mill Permits	1,479,430
From Private Property	4,744,779
From Leases and Concessions	53,743
Total	6,277,952

NOTE.—The average recovery by the hewer is 20 per cent. of the log. The above total represents 31,389,760 cubic feet in the round.

APPENDIX 2c.

Total Production of Timber for Year ended 30th June, 1926.

(Exclusive of Mining Timber, Firewood and Piles, Poles and Beams.)

Appendix Reference.	In the Log.	In the square.
Total Mill Logs (Appendix 2a)	cubic feet. 42,471,583	cubic feet. 14,522,733
Total Hewn Timber (Appendix 2b)	31,389,760	6,277,952
Total	73,861,343	20,800,685

APPENDIX 2d.

Sandalwood pulled during the Year ended 30th June, 1926.

Locality.	Quantity in Tons.
From Crown Lands, South of 26th Parallel of South Latitude	6,012
From Crown Lands, North of 26th Parallel of South Latitude	162
From Private Property	1,728
Total	7,902

APPENDIX 2e.

Forest Produce obtained from Crown Lands during the Year ended 30th June, 1926.

Description of Forest Produce.	Number.	Weight.	
		Tons.	Lbs.
Eucalyptus Leaves ... ..	...	120	...
Barks and Gums ... ..	...	84	...
Blackboy ... ..	...	130	...
Boronia Blossom ... ..	...	...	6,066
Charcoal ... ..	...	303	...
Fencing Posts and Rails	23,000	...	...
Total	23,000	637	6,066

APPENDIX 2f.

Mining Timber and Firewood Consumed during Year ended 30th June, 1926.

Locality.	Wood Fuel Consumed.	Mining Timber Consumed.	
	tons.	tons.	cubic feet.
Greenbushes Mining Fields	2,214	...	...
Collie Coal Fields ... ..	...	...	215,848
Metropolitan Area	165,000	...	...
Golden Mile, Coolgardie, Norseman, Kuranalling, Golden Ridge, Kanowna, Mt. Monger, St. Ives, Carbine, Gibraltar and Kurnalpi... ..	209,465	6,324	...
Northern Goldfields, Broad Arrow, Bardoc, Ora Banda, Comet Vale, Menzies, Kookynie, Laverton, Mt. Morgans, Leonora, and Mt. Magnet Districts ...	21,274	741	...
Southern Cross, Marvel Loch, Mt. Rankin, Burbridge, Westonia, Manxman, and Bullfinch Districts	2,756	40	...
Goldfields Water Supply Pumping Stations, Nos. 1 to 8	19,637	...	...
Eastern Goldfields Districts (household)	16,950	...	...
Eastern Goldfields (bakers)	775	...	...
Eastern Goldfields Breweries, Cordial, Confectionery, and Soap Factories ...	2,207	...	...
Eastern Goldfields Batteries	433	...	...
Eastern Goldfields Electric Power and Light	74,134	...	...
Eastern Goldfields Producer Plants and Blacksmiths (as charcoal)	2,812	...	...
Engine Wood (used on Wood Lines)	18,000	...	...
Sleepers for Goldfields Firewood Lines	* 35,000	...	...
Total	† 535,657	† 7,105	† 215,848

* Number of Sleepers not included in total of volumes. † Exclusive of Mining Timber and Firewood consumed on the Murchison and other Distant Goldfields not mentioned above.

APPENDIX 2g.

Exports of Timber, Tanning Barks, Sandalwood, and Essential Oils for the Year ended 30th June, 1926.

Item and Country of Destination.	Quantity.	Value.	Item and Country of Destination.	Quantity.	Value.
<i>Timber, Dressed, N.E.I.—</i>	cubic feet.	£	<i>Sandalwood:—</i>	cwt.	£
Commonwealth of Australia	16,332	5,335	United Kingdom	20	7
United Kingdom	133	11	British Malaya	11,339	18,340
British Malaya	367	33	Ceylon	24	53
France	42	32	Hong Kong	91,974	140,535
Sweden	991	88	India	6,823	12,384
Total	17,865	5,499	China	45,095	66,639
			Java	140	245
			Total	155,415	238,203
<i>Timber, Undressed:—</i>			<i>Tanning Barks:—</i>		
Commonwealth of Australia	4,851,802	609,746	Commonwealth of Australia	21,760	11,939
United Kingdom	766,542	83,528	United Kingdom	104	58
British Malaya	359	25	Belgium	2,000	1,350
Ceylon	698,417	100,349	Germany	303	159
Egypt	43,150	5,156	Holland	3,033	1,550
India	660,017	79,890	Total	27,200	15,056
Mauritius	292	50	<i>Essential Oils:—</i>		
New Zealand	956,208	115,491	Commonwealth of Australia	...	2,351
South African Union	3,817,025	500,121	United Kingdom ... ..	...	35,961
Belgium	13,075	1,473	British Malaya ... ..	...	5
Germany	16,633	2,454	Ceylon ... ..	...	44
China	141,933	17,032	Hong Kong ... ..	...	2,661
Holland	14,558	1,671	China ... ..	...	1,451
Italy	1,450	250	France ... ..	...	163
Sweden	2,033	220	Germany ... ..	...	164
United States of America	25	3	Japan ... ..	...	141
Total	11,983,519	1,517,459	Java ... ..	...	118
			United States of America	...	4,760
<i>Casks and Shooks:—</i>			Total ... ..	...	47,819
Commonwealth of Australia	...	*5,319	Total, All Exports	...	1,834,108
<i>Wood Manufactures, N.E.I.:—</i>					
Commonwealth of Australia	...	*4,714			
United Kingdom ... ..	...	19			
Germany ... ..	...	2			
Java ... ..	...	18			
Total ... ..	...	4,753			
Total, Timber Exports	...	1,533,030			

* A very large proportion of this amount represents empty returns.

APPENDIX 2h.

Imports of Timber, Tanning Substances and Essential Oils for the Year ended 30th June, 1926.

Item and Country of Origin.	Quantity.	Value.	Item and Country of Origin.	Quantity.	Value.
<i>Timber, Dressed, N.E.I. :—</i>	cubic feet.	£	<i>Plywood and Veneers :—</i>		£
Commonwealth of Australia	530	275	Commonwealth of Australia	...	9,554
United Kingdom ...	25	17	United Kingdom ...	...	316
British Malaya ...	8	2	Esthonia ...	...	24
Norway ...	19,750	2,580	France ...	...	78
Russia ...	333	50	Germany ...	...	79
Sweden ...	56,667	7,637	Holland ...	...	147
United States of America	9	7	Japan ...	...	2,817
Total ...	77,322	10,586	Lithuania ...	...	189
			Philippine Islands	...	102
			Russia ...	...	34
			Total ...	...	13,340
<i>Timber, Undressed, N.E.I. :—</i>			<i>Spokes, Dressed :—</i>	No.	
Commonwealth of Australia	114,258	27,943	Commonwealth of Australia	34,656	1,029
United Kingdom ...	50	55	United States of America	500	19
British Honduras ...	8	3	Total ...	35,156	1,048
British Malaya ...	1,595	625			
Canada ...	506	131	<i>Barrels, Casks, etc. :—</i>		
India ...	17	17	Commonwealth of Australia	...	491
Brazil ...	8	5	United Kingdom ...	...	13
Dutch Borneo ...	1,025	129	Total ...	...	504
Japan ...	3,200	998			
New Caledonia ...	3,076	920	<i>Brushmakers' Woodware and</i>		
Norway ...	2,842	403	<i>Wood Tool Handles :—</i>		
Philippine Islands ...	3,993	1,410	Commonwealth of Australia	...	1,515
Russia ...	2,525	396	United Kingdom ...	...	288
Siam ...	125	96	France ...	...	8
Sweden ...	6,505	1,547	Norway ...	...	391
United States of America	229,348	32,636	Sweden ...	...	2
Total ...	368,081	67,314	United States of America	...	10,050
			Total ...	...	12,254
<i>Timber for making Boxes and</i>			<i>Clothes Pegs :—</i>		
<i>Doors :—</i>			Commonwealth of Australia	...	1,050
Commonwealth of Australia	4,053	779	Sweden ...	...	31
British Malaya ...	16,567	1,663	United States of America	...	199
Germany ...	75	45	Total ...	...	1,280
Holland ...	233	254			
Latria ...	1,675	241	<i>Doors of Wood :</i>	No.	
Norway ...	6,067	1,219	Commonwealth of Australia	680	845
Sweden ...	11,539	1,919	United States of America	509	406
Total ...	40,209	6,120	Total ...	1,189	1,251
<i>Architraves and Mouldings :—</i>			<i>Oars and Sculls :—</i>		
Commonwealth of Australia	...	11	Commonwealth of Australia	...	69
United Kingdom ...	...	108	United Kingdom ...	...	18
Germany ...	...	13	Japan ...	...	33
Total ...	...	132	Norway ...	...	12
			United States of America	...	324
<i>Laths for Blinds :—</i>			Total ...	...	456
Commonwealth of Australia	...	45			
Sweden ...	...	23	<i>Picture and Room Mouldings :—</i>		
United States of America	...	90	Commonwealth of Australia	...	1,600
Total ...	...	158	Germany ...	...	152
			United States of America	...	43
<i>Logs, not sawn, and Spars in</i>			Total ...	...	1,795
<i>the Rough :—</i>					
British Malaya ...	8	5			
Dutch Borneo ...	3,542	381			
Norway ...	67	5			
Total ...	3,617	391			
<i>New Zealand Pine :—</i>					
New Zealand ...	31,112	9,103			

APPENDIX 2h.—Continued.

Item and Country of Origin.	Quantity.	Value.	Item and Country of Origin.	Quantity.	Value.
<i>Wood Manufactures, N.E.I. :—</i>			<i>Tanning Extracts :—</i>		
Commonwealth of Australia	...	£ 13,285	Commonwealth of Australia	...	£ 372
United Kingdom	...	2,669	United Kingdom	...	363
British Malaya	...	24	British North Borneo	...	63
Canada	...	579	British Malaya	...	109
India	...	6	India	...	352
South African Union	...	2	South African Union	...	2
Austria	...	36	Argentina	...	380
Belgium	...	1	Sicily	...	24
China	...	116	Dutch Borneo	...	591
Czecho-Slovakia	...	31	France	...	114
France	...	109	Java	...	132
Germany	...	517	Norway	...	109
Holland	...	51	Paraguay	...	1,090
Italy	...	4	United States of America	...	216
Japan	...	62			
Norway	...	169	Total	...	3,917
Sweden	...	202			
Switzerland	...	14			
United States of America	...	1,398			
Total	...	19,275			
Total Timber Imports	...	144,989			
<i>Tanning Barks :—</i>			<i>Essential Oils :—</i>		
Commonwealth of Australia	cwt. 1,354	1,072	Commonwealth of Australia	...	1,221
South African Union	1,501	735	United Kingdom	...	514
France	98	102	Ceylon	...	697
Total	2,953	1,909	India	...	108
			Algeria	...	1
			Bulgaria	...	59
			China	...	28
			France	...	237
			Italy	...	553
			Japan	...	854
			Java	...	56
			Russia	...	1
			Sicily	...	31
			Spain	...	44
			St. Thomas (West Indies)	...	9
			Syria	...	5
			United States of America	...	31
			Total	...	4,449
			Total, All Imports	...	155,264

APPENDIX 2i.

Summary of Exports of Forest Produce since 1836.

Year.	Timber.		Sandalwood.		Tanning Bark.	Essential Oils.*	Year.	Timber.		Sandalwood.		Tanning Bark.	Essential Oils.*
	cub. ft.	Value.	Tons.	Value.	Value.	Value.		cub. ft.	Value.	Tons.	Value.	Value.	Value.
1836a...	10,000	£ 2,500	...	...	...	...	1882 ...	936,500	£ 93,650	9,605	£ 96,050	...	...
1837 ...	...	...	...	...	...	...	1883 ...	997,000	97,700	7,081	56,250	...	...
1838 ...	...	...	...	...	...	...	1884 ...	861,700	68,936	2,620	20,960	...	...
1839 ...	...	...	...	...	...	...	1885 ...	848,150	67,850	4,527	36,216	...	...
1840 ...	...	...	...	...	...	...	1886 ...	626,150	50,092	3,431	27,450	...	...
1841 ...	...	...	...	...	...	...	1887 ...	354,800	28,384	4,317	34,533	...	...
1842 ...	...	...	...	...	...	...	1888 ...	525,750	42,060	4,470	33,525	...	...
1843 ...	...	...	...	...	...	...	1889 ...	788,500	63,080	6,385	57,465	...	...
1844 ...	b	163	...	...	...	...	1890 ...	1,172,200	82,052	5,136	51,355	...	...
1845 ...	...	...	4	40	...	...	1891 ...	1,273,950	89,179	3,760	37,600	...	...
1846 ...	2,550	255	32	320	...	...	1892 ...	1,082,650	78,419	5,716	42,870	...	...
1847 ...	12,200	1,120	370	4,444	...	...	1893 ...	512,950	33,888	3,893	32,160	...	...
1848 ...	3,350	333	1,335	13,353	...	...	1894 ...	1,063,700	74,804	2,784	23,430	...	...
1849 ...	...	...	...	...	...	...	1895 ...	1,255,250	88,146	3,851	30,863	...	...
1850 ...	10,500	1,043	...	...	...	...	1896 ...	1,545,600	116,420	6,848	65,800	...	...
1851 ...	1,250	268	219	1,593	...	...	1897 ...	2,393,300	192,451	5,852	49,480	...	...
1852 ...	7,050	806	...	...	...	...	1898 ...	4,086,150	326,195	4,349	31,812	...	...
1853 ...	52,200	5,220	...	...	...	...	1899 ...	6,913,550	553,198	4,084	29,719	...	...
1854 ...	58,500	7,023	...	...	...	...	1900 ...	5,725,400	458,461	5,095	39,038	...	...
1855 ...	76,900	12,076	...	...	...	...	1901 ...	7,150,600	572,354	8,864	73,931	...	...
1856 ...	70,500	9,671	...	...	...	...	1902 ...	6,256,750	500,533	7,995	61,771	...	...
1857 ...	69,200	9,449	280	2,524	...	...	1903 ...	7,748,450	619,705	4,406	37,913	859	...
1858 ...	29,250	2,340	745	7,455	...	...	1904 ...	8,072,300	654,949	4,510	25,417	32,876	...
1859 ...	67,250	6,051	1,278	17,259	...	...	1905 ...	8,709,500	689,943	5,521	38,817	154,087	...
1860 ...	54,800	4,932	1,687	16,360	...	...	1906 ...	8,830,700c	708,993	8,848	70,958	140,720	...
1861 ...	27,750	2,497	2,558	24,945	...	...	1907 ...	6,409,550c	511,923	9,212	65,999	98,773	...
1862 ...	68,800	7,151	2,393	21,541	...	...	1908 ...	9,869,500c	813,591	9,564	76,668	79,934	...
1863 ...	32,900	2,963	2,307	25,265	...	...	1909 ...	10,830,450c	867,419	4,805	37,456	59,633	...
1864 ...	58,300	5,608	2,724	24,520	...	...	1910 ...	12,074,100c	972,698	8,223	70,775	93,733	...
1865 ...	183,950	15,693	1,686	13,490	...	...	1911 ...	12,449,500c	986,341	6,907	65,506	33,470	...
1866 ...	85,650	6,849	2,965	23,722	...	...	1912 ...	11,297,100c	903,396	3,154	27,533	49,094	...
1867 ...	56,750	4,541	2,305	18,442	...	...	1913 ...	13,619,850c	1,089,481	6,260	47,589	47,377	...
1868 ...	8,000	638	3,256	26,045	...	...	1914 ...	6,279,750c	502,153	4,702	39,800	18,197	5
1869 ...	179,900	14,273	4,124	32,998	...	...	1915 ...	9,968,500c	808,392	8,375	78,926	6,127	381
1870 ...	157,200	17,551	6,112	48,890	...	...	1916 ...	5,432,100c	441,991	6,271	61,381	10,208	1,102
1871 ...	218,500	15,304	3,366	26,926	...	...	1917 ...	3,890,650	310,893	7,230	72,669	18,959	2,060
1872 ...	37,000	2,590	3,942	31,536	...	...	1918 ...	3,436,250	274,141	6,504	81,834	16,886	3,995
1873 ...	68,150	4,771	6,292	62,916	...	...	1919 ...	4,185,750	344,119	8,998	117,072	18,875	3,981
1874 ...	345,600	24,192	7,057	70,572	...	...	1920 ...	5,065,300	487,666	14,355	240,579	22,121	3,701
1875 ...	342,350	23,965	6,646	66,465	...	...	1921 ...	9,816,250	1,162,735	10,839	181,801	23,073	10,101
1876 ...	219,050	23,743	6,577	65,772	...	...	1922 ...	8,309,750	1,063,475	3,990	54,769	13,323	6,871
1877 ...	336,150	36,979	4,247	31,851	...	...	1923 ...	7,911,310	1,009,831	7,705	103,958	21,161	20,077
1878 ...	580,900	63,902	4,675	35,064	...	...	1924 ...	11,126,861	1,379,022	14,081	348,713	29,607	39,877
1879 ...	627,250	69,742	4,667	35,001	...	...	1925 ...	11,844,303	1,491,925	6,243	186,775	40,136	42,051
1880 ...	662,550	66,252	5,197	51,970	...	...	1926 ...	12,001,384	1,533,030	7,771	238,203	15,056	47,811
1881 ...	792,762	79,277	7,716	77,165	...	...	Totals	261,114,708	23,839,360	386,354	4,181,833	1,094,290	182,04

a The exports up to the year 1834 consisted only of supplies to shipping of which no record is kept. b Not available. c Approximate figures only. d Six months ended 30th June. e Year ended 30th June. * Principally Sandalwood Oil.

APPENDIX 2j.

Summary of Imports of Timber, Tanning Materials and Essential Oils, since 1848.

Year.	Timber, Wood- ware, etc. (not including furni- ture, bamboo, cane, etc.)	Tanning Materials.	Essential Oils.
	Value £	Value £	Value £
1848	464	...	...
1849	...	...	...
1850	189	...	...
1851	3,216	...	...
1852	2,479	...	...
1853	790	...	...
1854	831	...	...
1855	1,464	...	...
1856	1,124	...	...
1857	774	...	...
1858	1,528	...	...
1859	690	...	...
1860	2,095	...	...
1861	1,459	...	...
1862	1,920	...	...
1863	1,568	...	...
1864	894	...	...
1865	548	...	...
1866	1,442	...	...
1867	1,727	...	...
1868	1,451	...	...
1869	1,408	...	...
1870	1,518	...	...
1871	736	...	...
1872	1,660	...	...
1873	1,008	...	...
1874	1,774	...	...
1875	2,707	...	...
1876	3,098	...	...
1877	2,036	...	...
1878	2,947	...	...
1879	2,340	...	...
1880	3,061	...	...
1881	3,639	...	...
1882	3,692	...	...
1883	6,667	...	...
1884	2,930	...	...
1885	11,479	...	...
1886	17,888	...	...
1887	8,136	...	...
1888	4,461	...	...
1889	7,686	...	...
1890	14,979	...	...
1891	18,406	...	...
1892	26,713	...	...
1893	14,493	...	...
1894	17,964	...	...
1895	47,128	...	...
1896	5,381	...	...
1897	164,552	...	...
1898	55,566	...	...
1899	45,689	...	...
1900	56,266	1,416	1,105
1901	80,134	1,740	1,546
1902	97,810	3,418	1,751
1903	102,383	3,556	1,348
1904	157,856	1,322	2,122
1905	98,494	582	1,592
1906	95,229	1,412	1,915
1907	122,016	2,767	1,549
1908	93,205	2,392	4,584
1909	90,502	4,129	4,003
1910	171,280	3,531	3,686
1911	152,133	2,912	4,938
1912	167,244	3,089	4,598
1913	202,640	2,651	5,392
1914	78,736	629	2,823
1914-15	107,763	2,082	4,988
1915-16	76,849	3,313	4,788
1916-17	75,681	2,848	3,484
1917-18	58,305	2,020	4,358
1918-19	62,824	1,181	4,168
1919-20	100,083	3,748	10,043
1920-21	171,654	*4,899	6,106
1921-22	92,448	5,865	6,577
1922-23	109,428	6,991	4,033
1923-24	133,893	2,790	3,301
1924-25	161,898	2,670	4,429
1925-26	144,989	5,826	4,449
Totals	3,590,138	79,779	103,676

*This and subsequent years include Tanning Extracts, not previously recorded.

APPENDIX 3a.

Timber Concessions in Force as at the 30th June, 1926.

Concessionaire.	No.	Locality.	Term.	Present Area.
Millars' T. & T. Co., Ltd.	12/0	Cockburn Sound	1-1-1889 to 31-12-1929	acres. 244,650

APPENDIX 3b.

Timber Leases in Force as at the 30th June, 1926.

Lessee.	No.	District.	†Original Term, under Land Act, 1898.	Expiration of extension of under Forests Act, 1918.*	Present Area.
Millars' T. & T. Co., Ltd.	186/113	Yarloop	1- 1-1899 to 31-12-1923	31-12-1927	acres. 16,012
Millars' T. & T. Co., Ltd.	227/113	Yarloop	1- 1-1901 to 31-12-1925	31-12-1929	2,743
Millars' T. & T. Co., Ltd.	228/113	Yarloop	1- 1-1901 to 31-12-1925	31-12-1929	4,130
Millars' T. & T. Co., Ltd.	229/113	Yarloop	1- 1-1901 to 31-12-1925	31-12-1929	3,962
Millars' T. & T. Co., Ltd.	230/113	Yarloop	1- 1-1901 to 31-12-1925	31-12-1929	4,480
Good, Frederick Daniel	244/113	Dwellingup	1- 7-1899 to 30-6-1924	15-7-1929	13,259
Good, Frederick Daniel	257/113	Donnybrook	1-10-1899 to 30-9-1924	31-8-1929	28,876
Millars' T. & T. Co., Ltd.	261/113	Yarloop	1-10-1899 to 30-9-1924	15-10-1929	22,937
Wittenoom, Edward Horne	269/113	Yarloop	1-10-1899 to 30-9-1924	30-9-1928	2,080
Ainslie, James	291/113	Donnybrook	1- 1-1901 to 31-12-1925	30-11-1930	17,308
Millars' T. & T. Co., Ltd.	296/113	Yarloop	1- 1-1900 to 31-12-1924	31-12-1928	3,868
Millars' T. & T. Co., Ltd.	297/113	Yarloop	1- 1-1900 to 31-12-1924	31-12-1928	12,771
Ainslie, James	299/113	Dwellingup	1- 7-1900 to 30-6-1925	15-7-1930	18,795
Wittenoom, Edward Horne	322/113	Yarloop	1- 4-1902 to 31-3-1927	15-4-1932	22,024
Wittenoom, Edward Horne	325/113	Yarloop	1- 4-1902 to 31-3-1927	31-3-1931	1,197
Smith, Henry Teesdale	330/113	Dwellingup	1- 7-1902 to 30-6-1927	30-11-1930	2,115
Smith, Henry Teesdale	331/113	Dwellingup	1- 1-1903 to 31-12-1927	15-1-1933	7,111
			Total ... ..	...	183,668

* On royalty basis. † On rental basis.

APPENDIX 3c.

Saw Mill Permits in Force as at the 30th June, 1926 (Granted under Section II. of the Land Act Amendment Act, 1904).

Permit Holder.	No.	Locality.	Term.	Present Area.
Port & Co., Ltd.	34/11	Pindalup	1- 7-1910 to 30-6-1931	30,450
Lewis & Reid, Ltd. (in liquidation)	37/11	Collie	1- 1-1910 to 31-12-1926	15,843
Wilgarrup Karri and Jarrah Co., Ltd.	42/11	Jarnadup	1- 4-1910 to 31-3-1931	14,948
Buckingham Bros.	44/11	Muja	1- 7-1910 to 30-6-1926	17,730
Commissioner of Railways	60/11	Yourdanning	1- 4-1912 to 31-3-1927	38,000
The Kauri Timber Co., Ltd.	61/11	Nannup	1- 1-1912 to 31-12-1926	55,405
Trees, Ltd.	71/11	Collie	1- 4-1914 to 31-12-1928	20,028
Minister for Works and Trading Concerns	73/11	Palgarup	1- 1-1915 to 31-12-1926	7,000
McGibbon, Sinclair James (Whittaker Bros.)	76/11	North Dandalup	1- 7-1915 to 30-6-1926	20,000
Commissioner of Railways	78/11	Dwellingup	1- 7-1915 to 30-6-1926	80,035
Minister for Works and Industries	79/11	Wuraming	1-10-1915 to 30-9-1926	35,061
Minister for Works and Industries	80/11	Bingham River	1-10-1915 to 30-9-1926	21,260
Minister for Works and Industries	81/11	Wuraming Hill	1-10-1915 to 30-9-1926	21,410
Minister for Works and Industries	82/11	Worsley	1-10-1915 to 30-9-1926	9,130
Buckingham Bros.	83/11	Bingham River	1- 7-1916 to 30-6-1926	20,130
McGibbon, Sinclair James (Whittaker Bros.)	84/11	North Dandalup	1- 1-1916 to 31-12-1926	15,430
Minister for Works and Industries	85/11	Pemberton	1- 7-1916 to 30-6-1926	80,883
Minister for Works and Industries	86/11	Manjimup	1- 7-1916 to 30-6-1926	147,030
Westralian Powell Wood Process, Ltd.	87/11	Donnelly River	1- 1-1919 to 31-12-1929	15,000
Wandoo Timber Co., Ltd.	89/11	Muja	1-10-1916 to 31-5-1927	34,956
Bunning Bros., Ltd.	94/11	Collie	1-10-1916 to 30-6-1926	10,123
Preston Valley Sawmills, Ltd.	95/11	Noggerup	1- 1-1917 to 31-12-1926	9,744
Bunning Bros., Ltd.	97/11	Collie	1- 4-1917 to 30-6-1926	9,986
Bunning Bros., Ltd.	99/11	Collie	1- 7-1918 to 30-6-1926	9,960
			Total	739,592

APPENDIX 3d.

Sawmilling Permits in Force as at the 30th June, 1926 (Granted under Forests Act, 1918).

Permit Holder.	No.	Locality.	Term.		Area.
			From.	To.	
Australian Lumber Co., Ltd.	54	Inglehope	15-10-18	14-10-28	acres. 1,770
Adelaide Timber Co., Ltd.	57	Wilga	28-11-18	30-9-26	19,026
Swan Saw Mills, Ltd.	91	Quilergup	22-8-19	21-8-29	19,340
Buckingham Bros.	106	Muja	25-11-19	31-12-26	5,039
Collie Land & Timber Co., Ltd.	107	Bingham River	29-11-19	28-5-27	8,143
Nicholson, John	145	Barabup	1-9-21	31-8-26	9,970
Australian Lumber Co., Ltd.	157	Bowelling	1-11-20	31-10-26	36,390
Bunning Bros., Ltd.	187	Glenlynn	1-3-21	28-2-27	4,160
Steele, H.	198	Albany	1-3-21	30-4-27	2,050
Timber Corporation, Ltd.	216	Greenbushes	1-4-21	31-3-31	7,240
Miller, E. E.	243	Donnybrook	1-12-21	30-11-26	50
State Saw Mills	310	Bridgetown	14-7-22	13-7-26	10,000
Lewis & Reid, Ltd. (in liquidation)	317	Collie	1-9-22	31-8-26	5,350
Margaret River Timber Co., Ltd.	328	Margaret River	1-11-22	31-10-26	20,635
Waters, A.	363	Sawyers' Valley	1-7-23	30-6-26	320
Adelaide Timber Co., Ltd.	380	Benjinup... ..	1-8-23	31-7-26	3,800
State Saw Mills	387	Pindalup	1-10-23	30-9-26	16,038
Australian Lumber Co., Ltd.	390	Palgarup	1-11-23	31-10-26	8,763
W. A. Jarrah Forests, Ltd.	403	Margaret River	22-10-23	21-10-26	15,705
Mitchell & Ryan	406	Hester	1-11-23	31-10-26	1,154
Trees, Ltd.	422	Collie	7-12-23	31-12-26	3,750
Harper, A. J.	427	Marbellup	1-2-24	30-4-27	2,095
Lewis, J. and Stirk, F.	428	Shotts	12-1-24	11-1-27	4,300
Bunning Bros., Ltd.	438	Wilgarup	1-4-24	31-3-27	1,750
Bunning Bros., Ltd.	451	Claymore	1-6-24	31-5-27	5,720
Connell, R. C.	454	Collie	1-7-24	30-6-27	5,884
Collie Land and Timber Co., Ltd.	456	Collie	1-7-24	30-6-27	800
Bunning Bros., Ltd.	485	Donnybrook	1-8-24	31-7-26	8,236
The Mumballup Timber Syndicate	492	Mumballup	1-9-24	31-8-26	6,568
Carrigg, John	496	Northcliffe	1-9-24	31-8-26	828
Busselton Saw Mills, Ltd.	508	Quindalup	1-10-24	30-9-26	6,956
Bunning Bros., Ltd.	517	Noggerup	17-10-24	16-10-26	5,180
Millar's Timber & Trading Co., Ltd.	524	Jarrahwood	1-1-25	31-12-26	19,540
Ashmore, Sydney	547	Mundaring	1-4-25	31-3-27	350
Timber Corporation, Ltd.	552	Wilgarup	1-4-25	31-3-27	4,440
Jackson & Rodgers, Ltd.	555	Boyanup	1-5-25	30-4-27	5,000
Millar's Timber & Trading Co., Ltd.	571	Marrinup	1-6-25	31-5-27	7,350
Harnett, P.	581	Worsley	1-7-25	30-6-27	2,790
Bunning Bros., Ltd.	587	Wellington Mill	1-9-25	31-8-26	1,405
Weston, Smailes and Liebow	615	Pickering Brook	1-1-26	31-12-26	4,120
Bentley, J. L.	616	Capel	1-1-26	31-12-26	2,816
Millar's Timber & Trading Co., Ltd.	617	Barton's Mill	16-12-25	31-12-26	4,600
McClure, W.	618	Walliston	1-1-26	31-12-26	205
Millar's Timber & Trading Co., Ltd.	619	Wellington Mill	1-1-26	31-12-26	2,350
Scott and Fletcher	625	Capel	1-3-26	28-2-27	2,000
Thompson, G. P.	630	Argyle	1-3-26	28-2-27	1,830
			Total ...		305,806

APPENDIX 3e.

Hewing Permits in Force as at 30th June, 1926.

Permit Holder.	No.	Locality.	Term.		Area.
			From.	To.	
Carter, A.	191	Jarrahwood	1-3-21	30-9-26	800
Aubin, L.	326	Margaret River	1-11-22	31-10-26	605
Jackson & Rodgers, Ltd....	392	Margaret River	22-10-23	21-10-26	8,970
Bailey, W. J.	396	Margaret River	22-10-23	21-4-27	2,400
Bailey, W. J.	397	Margaret River	22-10-23	21-4-27	3,865
Bailey, W. J.	398	Margaret River	22-10-23	21-4-27	4,680
W.A. Jarrah Forests, Ltd.	399	Margaret River	22-10-23	21-10-26	8,125
W.A. Jarrah Forests, Ltd.	400	Margaret River	22-10-23	21-10-26	5,795
W.A. Jarrah Forests, Ltd.	401	Margaret River	22-10-23	21-10-26	4,770
Bailey, W. J.	402	Margaret River	22-10-23	21-4-27	2,590
Jackson & Rodgers, Ltd....	404	Margaret River	22-10-23	21-10-26	14,380
Bonola, T. D.	405	Busselton	22-10-23	21-10-26	1,136
Jackson & Rodgers, Ltd....	411	Margaret River	1-12-23	30-11-26	17,000
Jackson & Rodgers, Ltd....	412	Margaret River	1-12-23	30-11-26	3,100
Jackson & Rodgers, Ltd....	413	Margaret River	1-12-23	30-11-26	8,300
Ryan, Joseph	488	Margaret River	11-8-24	10-8-26	14,850
Ryan, P. D.	489	Margaret River	11-8-24	10-8-26	12,280
Jackson & Rodgers, Ltd.	490	Busselton	11-8-24	10-8-26	5,984
W.A. Jarrah Forests, Ltd.	530	Margaret River	16-1-25	31-1-27	6,952
Bonola, T. D.	536	Busselton	1-3-25	31-8-26	149
Connell, W. R.	548	Bridgetown	1-4-25	31-3-27	1,973
Bailey & Davies	549	Bridgetown	1-4-25	31-3-27	1,136
Bailey & Davies	550	Bridgetown	1-4-25	31-3-27	573
Jackson & Rodgers, Ltd.	567	Bridgetown	1-6-25	31-10-26	312
Bonola, T. D.	572	Margaret River	1-7-25	30-6-27	3,035
Reilly, A. L.	575	Busselton	1-7-25	30-6-27	2,540
Chamberlain, E. B. I. & B. E.	578	Wilga	1-7-25	31-12-26	240
Bonola, T. D.	588	Busselton	21-9-25	20-9-26	5,300
R. C. Connell, Ltd.	589	Busselton	21-9-25	20-9-26	3,620
R. C. Connell, Ltd.	590	Busselton	21-9-25	20-9-26	8,830
Wilson & Galvin	591	Margaret River	21-9-25	30-6-25	1,030
Aubin, L.	592	Margaret River	21-9-25	20-9-26	1,337
Wilson & Galvin	593	Margaret River	21-9-25	20-9-26	4,147
Jackson & Rodgers, Ltd.	594	Karridale	21-9-25	20-9-26	3,500
Jackson & Rodgers, Ltd.	610	Hester	1-11-25	31-10-26	2,077
Viles, F.	611	Hester	1-11-25	31-10-26	1,975
Bunning Bros., Ltd.	613	Balbarrup	1-12-25	30-11-26	60
Ryan, P. D.	614	Cowaramup	1-1-26	31-12-26	2,112
Ulrich, W.	620	Busselton	1-2-26	31-1-27	3,040
Ulrich Bros.	622	Yarloop	15-2-26	14-11-26	497
Galloway, W. J.	629	Redmond	1-4-26	30-4-27	2,240
				Total ...	176,305

APPENDIX 3f.

Firewood Permits in Force as at 30th June, 1926.

Permit Holder.	No.	Locality.	Term.		Area.
			From.	To.	
Georgeff, M....	130	Balcatta	17-5-20	16-5-27	1,180
McMullen, W.	185	Warbrook	1-3-21	28-2-27	575
Young, Annie	203	Helena River	2-4-21	31-7-26	16,055
Hunter, C. H.	205	Clackline	1-5-21	30-4-27	600
Goodall & Pepper	230	Marbellup	1-10-21	30-4-27	590
Georgeff, M....	244	Balcatta	1-12-21	30-11-26	1,180
Dean, G.	264	Nannup	1-4-22	31-3-27	945
Gordin, A. A.	385	Byford	1-9-23	31-8-26	1,347
Gableish, A....	389	Albany	1-11-23	30-4-27	1,100
Shanhun, A. V.	434	Albany	1-3-24	30-9-26	130
Harvey, A. R.	458	Albany	1-7-24	30-4-27	940
Rowett & Farrelly	534	Jarrahdale	1-3-25	28-2-27	375
Fisher, G. W.	557	Albany	1-5-25	30-4-27	385
Fleming, David	559	Wundowie	1-5-25	30-4-27	3,950
Johnston, George	562	North Beach	1-6-25	31-5-27	180
Cook & Caldwell	563	Jandakot	1-6-25	31-5-27	425
Sexton, Robt.	573	Bedforddale	1-7-25	30-6-27	160
Martin, G. H.	596	Kelmscott	1-9-25	31-8-26	912
Mollison, G. J.	600	Wanneroo	1-10-25	30-9-26	230
Kirwan, W. A.	601	Jarrahdale	1-9-25	31-8-26	494
Ferguson, J. H.	623	Wooroloo	1-3-26	30-6-26	3,500
Wickham & Smith... ..	631	Bedforddale	15-3-26	14-3-27	1,700
Kirwan, W. A.	632	Jarrahdale	1-5-26	30-4-27	1,060
Ballard, B. T.	633	Jarrahdale	1-5-26	30-4-27	454
				Total ...	38,467

APPENDIX 3g.

Miscellaneous Permits in Force as at 30th June, 1926.

Permit Holder.	No.	Locality.	Term.		Area.
			From.	To.	
Hall, W. R....	104	Kalgoorlie	1-10-19	31-7-29	4,400,000
Atkins, Wilson & Hogg	539	Muehea-Gingin	1-3-25	28-2-27	120,000
Mollison, George	553	Wanneru	1-5-25	30-4-27	850
Barrymore, H. S.	634	Greenbushes	12-5-26	11-11-26	390
				Total ...	4,521,240

APPENDIX 3h.

Summary of Appendices 3a to 3g.

Number in Force.	Class of Holding.	Area.
1	Timber Concessions (Appendix 3a)	244,650
17	Timber Leases (Appendix 3b)	183,668
24	Sawmill Permits (Appendix 3c)	739,592
46	Sawmilling Permits (Appendix 3d)	305,806
41	Hewing Permits (Appendix 3e)	176,305
24	Firewood Permits (Appendix 3f)	38,467
4	Miscellaneous Permits (Appendix 3g)	4,521,240
157	Total	6,209,728

APPENDIX 4.

Table showing the number of various Timber Workers' Registration Certificates issued from 1st July, 1925, to 30th June, 1926, as compared with those issued during the year ended 30th June, 1925.

Class of Registrations.	Number issued for year ended 30th June, 1925.	Number issued for year ended 30th June, 1926.
Hewers	279	394
Fallers	736	924
Haulers, Teamsters, etc.	229	242
Carters	51	69
Managers and Bush Foremen	61	86
Swampers	195	263
Firewood Cutters and Carters	167	244
Charcoal-burners and Carters	1	7
Timber Getters *	21	19
Barrel Stave and Billet Splitters	5	3
Ropemen	2	2
Whistle Boys	4	5
Shoemen	1	1
Beam Squarers	3	2
Engine Drivers	2	2
Hookmen	7	6
Mill Hands	4	1
Chaser	1	...
Winchmen	8	7
Lorry Drivers	...	1
Signalmen	...	1
Permit Holders	...	4
Sandalwood Getters	929	795
	2,706	3,078

*Working on Coal Mining Leases.

APPENDIX 5.

Table showing the number of Licenses issued from 1st July, 1925, to 30th June, 1926, as compared with those issued during the year ended 30th June, 1925.

License.	Number issued for year ended 30th June, 1925.	Number issued for year ended 30th June, 1926.
Firewood	2,470	1,946
Mining Timber	54	55
Bark Strippers	8	...
Timber and Fence Post (License Fee)	27	7
Fence Post (Royalty basis) ... ..	...	23
Sandalwood	29	75
Other	2	5
Totals	2,590	2,111

APPENDIX 6.

Summary of Prosecutions for Year ended 30th June, 1926.

Charge.	Number of Prosecutions.	Number of Convictions.
Unlawful removal of Timber... ..	17	16
Unlawful removal of Sandalwood	2	2
Unlawfully causing Fires	1	1
Other offences under Forests Act, 1918	1	1
Totals	21	20

LIST OF SAW MILLS.

Name of Sawmill Owner and District.	Date of Erection of Mill.	Saw Mill Site, Timber Lease or P.P. Location No.	Horse power of Mill.	Distance from Mill to Main Line Siding.	Distance from Siding to nearest Port.	Output in loads of Squared Timber per day.	Remarks.
ALBANY DISTRICT.							
Colmer, R. J., Matilda ...	Feb., 1925	P.P., Loc. 1409 ...	16	M. C. 7 40	M. C. 57 0	2	Cutting Wandoo from P.P. for truck timber and sleepers for W.A. Government Railways Department. Works intermittently.
Douglas, J. E., Denmark ...	1912	P.P., Town Lot 302	14	0 40	37 0	1	Cutting Karri, Banksia, and Yellow Tingle Tingle from P.P. for general wheelwright work. Works intermittently.
Drage, J. E., Mt. Barker ...	Nov., 1913	P.P., Loc. 79 ...	10	17 0	39 0	$\frac{1}{2}$	Cutting Jarrah from P.P. for fruit cases. Works intermittently.
Edgely, A., Redmond ...	April, 1921	P.P., Loc. 2698 ...	12	7 0	20 0	$\frac{3}{4}$	Cutting Jarrah scantling and fruit cases. Works intermittently.
Fitch, F. W., Millbrook ...	April, 1925	P.P., Loc. 1379 ...	25	13 0	At Port	...	Cutting Sheoak from P.P. for fruit cases. Closed down June, 1925.
Harper, A. J., Marbellup ...	May, 1923	S.M. Site, 37/33 ...	12	0 6	12 0	1	Cutting Jarrah and Sheoak from Permit 427 for barrel staves furniture, fruit cases, and firewood. Works intermittently.
Keith, A. E., Hay River ...	1910	P.P., Loc. 2685 ...	5	3 0	29 0	1	Cutting Jarrah from P.P. for fruit cases. Closed down 1922.
Livesey, S. C., Napier River ...	Sept., 1923	P.P., Loc. 1999 ...	12	18 0	At Port	$\frac{1}{2}$	Cutting Jarrah from P.P. for fruit cases for own use. Works intermittently.
Parsons & Sons, Nunigup ...	May, 1926	P.P., Loc. 1156 ...	18	10 0	61 0	1	Cutting Wandoo from P.P. for sleepers for W.A. Government Railways Department. Works intermittently.
Saw, C. H., Bow River ...	1919	P.P., Loc. 723 ...	5.7	26 0	37 0	$\frac{3}{4}$	Cutting Karri, River Banksia, Red and Yellow Tingle Tingle from P.P. Works intermittently.
Steele, H., Albany ...	May, 1921	P.P., Town Lot 43 ...	6	1 0	At Port	1	Cutting Sheoak from Permit 198 for fruit cases, staves, and firewood. Works intermittently.
Steake Bros., Porongorups ...	June, 1913	P.P., Loc. 1855 ...	18	17 0	39 0	$\frac{1}{2}$	Cutting fruit cases and scantling from P.P. Works intermittently.
BRIDGETOWN DISTRICT.							
Bunning Bros., Ltd., Yornup ...	May 1, 1923	S.M. Site 18/33 ...	20	2 2	70 0	8	Cutting Jarrah from Permit 187 and 438.
CConnell, W. R., Bridgetown ...	1923	P.P., Town Lot 773	8	2 40	60 0	2	Cutting Jarrah from P.P. for fruit cases and building timber.
Flint, J., Scott's Brook ...	Jan., 1925	P.P., Loc. 5263 ...	3	18 0	79 0	8	Cutting Jarrah from P.P. for small orders and fruit cases.
Holdsworth, C. J. H., Hester ...	March, 1921	P.P., Loc. 11	10	0 5	60 0	$\frac{1}{2}$	Cutting Jarrah and Karri for fruit cases from waste ends from various mills.
Machin, H. J., Glentaillock ...	1922	P.P., Loc. 768	20	8 0	75 0	$\frac{1}{2}$	Cutting Jarrah from P.P. for fruit cases for own use.
Mitchell and Ryan, Hester ...	Aug., 1919	P.P., Loc. 5290	13	3 0	...	1	Cutting Jarrah from Permit 406 for fruit cases, scantling, and sleepers.
Morrison, A., Tamar Gully ...	June, 1923	P.P., Loc. 1829 ...	6	30 0	89 0	$\frac{1}{2}$	Cutting Jarrah from P.P. for small orders.
BUSSELTON DISTRICT.							
Bentley, J. L., Capel ...	1923	P.P., Loc. 46	8	0 20	16 0	$\frac{1}{2}$	Cutting Jarrah from P.P.
Bonola, M., Yallingup ...	June, 1926	P.P., Loc. 1900	12	3 0	20 0	2	Cutting Jarrah from P.P.
Busselton Saw Mills, Ltd., Busselton ...	...	Private Property	20	...	1 0	4	Cutting Jarrah from Permit 508. Not working.
Donald, R., & Sons, Yallingup ...	1922	Private Property	12	4 0	23 0	2	Cutting Jarrah from P.P. for own use.
Margaret River Timber Co., Ltd., Margaret River ...	1923	S.M. Site 26/33	40	0 20	25 0	8	Cutting Jarrah from Permit 328.
malup							
Scott & Payne, Capel ...	July 30 1926	S.M. Site 61/33	10	8 0	...	$1\frac{1}{2}$	Cutting Jarrah from Permit 625 for fruit cases and building timber.

APPENDIX 7.—LIST OF SAWMILLS—continued.

Name of Sawmill Owner and District.	Date of Erection of Mill.	Sawmill Site, Timber Lease or P.P. Location No.	Horse-power of Mill.	Distance from Mill to Main Line Siding.	Distance from Siding to nearest Port.	Output in loads of Squared Timber per day.	Remarks.
COLLIE DISTRICT.							
Australian Lumber Co., Ltd., Bowelling	1920	Sawmill Site 16/33 ...	35	M. Chs. 0 30	M. Chs. 64 0	16	Cutting Jarrah from Permit 157.
Buckingham Bros., Buckingham's Siding	1911	Sawmill Site 30/33	40	0 53	53 0	17½	Cutting Jarrah from Permits 44/11, 83/11, and 106.
Bunning Bros., Ltd., Lyall's Mill ...	1918	P.P., Loc. 2519 ...	100	6 0	...	30	Cutting Jarrah from Permits 94/11, 95/11, 97/11, 99/11, and 517.
Bunning Bros., Ltd., Muja ...	Dec., 1914	P.P., Loc. 1676 ...	50	0 60	53 0	16	Cutting Jarrah from Permit 89/11.
Collie Land & Timber Co., No. 1, Shotts	Oct., 1921	Sawmill Site 8/33 ...	14	9 0	50 0	8	Cutting Jarrah from Permits 107 and 456.
Collie Land & Timber Co., No. 2, Shotts	Jan., 1925	P.P., Loc. 755 ...	35	3 40	50 0	15	Cutting Jarrah from private property.
CConnell, R. C., No 2, Collie ...	1925	S.M. Site 44/33 ...	16	7 5	38 0	11	Cutting Jarrah from Permit 454.
Forbes & Son, Worsley ...	1924	P.P., Loc. 1616 ...	20	2 40	29 0	1	Closed March, 1925.
Harnett, P. J., Worsley ...	1925	S.M. Site 58/33 ...	12	3 0	32 0	4	Cutting Jarrah from Permit 581.
Lewis & Reid, Ltd., Allanson ...	1917	S.M. Site 6/33 ...	30	0 5	37 0	4	Used as a Board Mill. Cuts fitches from No. 2 Mill. Closed October, 1925.
Lewis & Reid, Ltd., No. 2 Mill ...	1915	S.M. Site 15/33 ...	60	6 60	37 0	20	Cuts Jarrah. Operates Permits 37/11 and 317. Closed October, 1925.
Lewis & Stirk, Shotts ...	July, 1924	S.M. Site 38/33 ...	10	0 5	50 0	5	Cutting Sheoak and Jarrah from Permit 428.
Palmer, R., Collie ...	1920	Collie Town Lot 529	22	0 40	41 0	1	Cutting Jarrah.
State Saw Mills, No. 6, Potter's Gorge	1925	S.M. Site 57/33 ...	46	5 0	32 0	16	Cutting Jarrah from Permit 82/11.
State Saw Mills, No. 6, "B," Worsley ...	1921	S.M. Site 29/33 ...	16	7 0	31 0	6	Cutting Jarrah from Permit 82/11.
Westralian Timber & Trading Co., Ltd., Maroondale	1923	P.P., Well Loc. 1 ...	39	1 20	34 0	20	Cutting Jarrah from private proverty.
DONYNBROOK DISTRICT.							
Bendall, W.A., Donybrook ...	June, 1918	P.P., Loc. 989 ...	10	1 60	21 0	¼	Cutting Jarrah fruit cases only from P.P.
Bowman, J. H., Charlie's Creek ...	1916	P.P. Loc. 109 ...	12	...	...	...	Cutting Jarrah from P.P. for fruit cases for own use. Works only few weeks during year.
Bunning Bros., Ltd., Argyle ...	1904	P.P., Loc. 2354 ...	80	0 25	21 0	20	Cutting Jarrah from Permit 485.
Bunning Bros., Ltd., Lowden ...	Mar., 1920	P.P., Loc. 502 ...	28	1 0	35 0	12	Cutting Jarrah from Permit 587.
Davern, J. T., Lowden ...	1919	P.P., Loc. 89 ...	10	0 20	35 0	2½	Cutting Jarrah from private property for own use. Closed down.
Jackson & Rodgers, Ltd., Boyanup ...	June-Aug., 1925	S.M. Site 50/33 ...	18	6 0	16 0	6	Cutting Jarrah from Permit 555.
Martin, R. M., Upper Preston ...	1917	P.P., Loc. 3249 ...	8	1 20	33 0	1½	Cutting Jarrah from P.P. for fruit cases for own use.
Millar's Timber & Trading Co., Ltd., East Kirup	1910	S.M., Site 53/33 ...	120	12 0	37 0	55-60	Cutting Jarrah from Timber Lease 257/113.
Millar's Timber & Trading Co., Ltd., Wellington Mills, No. 6	Jan. and Feb., 1926	Private Property ...	30	12 70	9 0	12	Cutting Jarrah from Permit 619.
Miller, Thomas, Thompson's Brook ...	...	P.P., Loc. 61 ...	6	4 0	31 0	1	Cutting Jarrah from P.P. for fruit cases and scantling. Works intermittently.
Miller, E. E., Donybrook ...	Jan., 1922	P.P., Loc. 158 ...	6	0 10	28 0	½	Cutting Jarrah fruit cases and timber for own use from Permit 243.
Pinto, E. B., Preston ...	May, 1922	P.P., Loc. 1988 ...	6	1 40	31 0	¾	Cutting Jarrah from P.P. for fruit cases. Closed down.
Slattery, B., Ferguson ...	1926	P.P., Loc. 287 ...	5	0 40	17 0	½	Cutting Jarrah, Banksia, Marri and Peppermint from P.P. for fruit cases.
Thompson, G. P., Boyanup ...	May, 1926	S.M., Site 60/33 ...	8	3 0	19 0	1	Cutting Jarrah from Permit 630.
DWELLINGUP DISTRICT.							
Australian Lumber Co., Ltd., Plavin's...	1919	S.M. Site 34/33 ...	40	On main line	82 0	25	Cutting Jarrah from Permit 54.
Bailey Timber Co., Mandurah ...	1921	P.P., Loc. 16 ...	75	12 0	66 0	1	Cutting Tuart from P.P. for railway coach building.
Edgeworth & Co., Pinjarra ...	1920	P.P., Lot 14 ...	10	1 0	61 0	...	Cutting fruit cases from waste Jarrah from other mills.

Millars' Timber & Trading Co., Ltd., Marrinup	1910-1911	S.M. Site 55/33 ...	35	On main line	68 0	19	Cutting Jarrah from Permit 571 and Timber Lease 330/113.
Millars' Timber & Trading Co., Ltd., Nanga Brook	1909	Timber Lease 299/113	80	28 0	33 0	52	Cutting Jarrah from Timber Leases 244/113, 261/113, and 299/113.
Port & Co., Ltd., No. 1, Pindalup ...	1911	S.M. Site 13/33 ...	40	...	84 0	15	Cutting Jarrah from Permit 34/11.
Port & Co., Ltd., No. 2, Pindalup (Board Mill)	1923	S.M. Site 27/33 ...	25	3 40	84 0	8	Cutting Jarrah from Permit 34/11.
Port & Co., Ltd. (Duncan's No. 8), Holyoake	April, 1925	S.M. Site 47/33 ...	40	14 67	71 0	25	Cutting Jarrah from Permit 34/11. (Part 1.)
Railway Department, No. 2, Dwellingup	Nov., 1912	P.P., Loc. 1037 ...	100	4 40	75 71	50	Cutting Jarrah from Permit 78/11.
Rosenthal, C. H. A., Meelon ...	1921	P.P., Loc. 17 ...	12	1 0	67 0	1	Cutting fruit cases from private property.
State Saw Mills, No. 5, Holyoake ...	1911	S.M. Site 12/33 ...	56	...	71 0	50	Cutting Jarrah from Permit 81/11 and private property.
State Saw Mills, No. 4, Wuraming ...	...	S.M. Site 45/33 ...	40	10 0	93 0	27	Cutting Jarrah from Permits 79/11 and 387.
Taffs, W. H., North Dandalup ...	April, 1925	P.P., Lot A.744 ...	12	1 40	50 0	1	Cutting Jarrah from private property.
Whittaker Bros. (S. J. McGibbon, Receiver and Manager), North Dandalup	1902	S.M. Site 56/33 ...	80	4 0	47 0	31	Cutting Jarrah from Permits 76/11 and 84/11.
JARRAHWOOD DISTRICT.							
Colsen, F. N., Nannup ...	July, 1926	P.P., Loc. 5261 ...	12	11 0	...	5	Cutting Jarrah from P.P.
Forests Department, Wonerup ...	June 30, 1921	State Forest, No. 2 ...	40	0 20	6 0	2	Cutting Tuart. Bulk of output for W.A.G. Railways.
Kauri Timber Co., Ltd., Nannup ...	In course of erection	S.M. Site 28/33 ...	100	0 25	44 0	30	Cutting Jarrah from Permit 61/11.
Kauri Timber Co., Ltd., Ellis Creek ...	1914-15	S.M. Site 22/33 ...	75	14 0	44 0	40	Cutting Jarrah from Permit 61/11.
Millars' Timber & Trading Co., Ltd., Jarrahwood	...	P.P., Loc. 361 ...	40	0 5	26 0	23	Cutting Jarrah from Permit 524.
Nicholson, J. (Sussex Timber Co., Ltd.) Dellerton	Nov., 1923	P.P., Loc. 3898 ...	32	2 0	36 0	18	Cutting Jarrah from Permit 145.
Swan Sawmills, Ltd., Claymore ...	April, 1921	S.M. Site 4/33 ...	45	2 0	22 0	22	Cutting Jarrah from Permit 91.
MANJIMUP DISTRICT.							
Australian Lumber Co., Ltd., Alco ...	Aug., 1924	S.M. Site 35/33 ...	45	0 25	83 0	10	Cutting Jarrah from Permit 390.
Carrigg, J., Northcliffe ...	Dec., 1924	S.M. Site 43/33 ...	24	24 0	105 0	7½	Cutting Jarrah from Permit 496 and Group Settlement Blocks.
Edwards, R. H., Balbarrup ...	Sept. 1920	P.P., Loc. 2200 ...	8	13 0	90 0	½	Cutting Jarrah from P.P. for fruit cases and own use.
Hornby, H. J., Balbarrup ...	1920	P.P., Loc. 1622 ...	6	7 0	90 0	1	Cutting Jarrah from P.P. for fruit cases and own use.
Johnson, J., Balbarrup ...	1906	P.P., Loc. 1098 ...	12	5 0	90 0	...	Cutting Jarrah and Blackbutt from P.P. for fruit cases and own use.
Ralph, W., Balbarrup ...	Oct., 1910	P.P., Loc. 2384 ...	7½	9 0	90 0	½	Cutting Jarrah from P.P. for fruit cases and own use.
State Saw Mills, No. 1, Manjimup ...	June 10, 1926	Reserve 1655 ...	16	4 0	90 0	8	Cutting Jarrah and Karri from Permits 73/11, 86/11, and 310.
State Saw Mills, No. 2, Pemberton ...	Jan., 1914	Reserve 16354 ...	400	17 0	105 0	54	Cutting Karri from Permit 85/11.
State Saw Mills, No. 3, Pemberton ...	Jan., 1914	Reserve 16354 ...	280	17 0	105 0	21	Cutting Karri from Permit 85/11.
State Saw Mills, Pemberton ...	Jan., 1914	Reserve 16354 ...	Power from No. 2 Mill	17 0	105 0	4	Cutting Karri from Permit 85/11 for fruit cases.
Timber Corporation, Ltd., Palgarup ...	Feb., 1921	P.P., Loc. 1024 ...	41	1 40	83 0	17	Cutting Jarrah from Permit 552.
Wilgarrup Karri & Jarrah Co., Ltd., Jarnadup	April to Sept., 1911	S.M. Site 7/33 ...	75	0 20	93 0	25-30	Cutting Jarrah and Karri from Permit 42/11 and private property.
MARGARET RIVER DISTRICT.							
Bonola, T. D., Alexander Bridge ...	Jan., 1925	Permit 643 ...	10	11 0	50 0	4	Cutting Jarrah from Permit 643.
W.A. Jarrah Forests, Ltd., Margaret River	June, 1925	S.M. Site 48/33 ...	290	1 20	42 0	20	Cutting Jarrah and Karri from Permit 403.
METROPOLITAN DISTRICT.							
Buckingham, W. S., Kelmscott ...	...	P.P., Loc. 33 ...	15	3 40	29 0	¼	Cutting Jarrah from P.P. for fruit cases and timber for own use.
Curtis, Chisholm, & Co., Bedfordale ...	April, 1921	P.P., Loc. 520 ...	14	7 0	...	2½	Cutting Jarrah from P.P. for fruit cases and scantling.
Dennis, H. J., Wanneroo ...	June, 1922	P.P., Locs. 2737 and 3074	11	...	...	¼	Cutting fruit cases from P.P. for local settlers.
Millars' Timber & Trading Co., Ltd., No. 1, Jarrahdale	1913	P.P., Cockburn Sound Loc. 282	110	7 0	30 0	50	Cutting Jarrah timber from Concession 12/0.

APPENDIX 7.—LIST OF SAW MILLS—*continued.*

Name of Sawmill Owner and District.	Date of Erection of Mill.	Saw Mill Site, Timber Lease or P.P. Location No.	Horse power of Mill.	Distance from Mill to Main Line Siding.	Distance from Siding to nearest Port.	Output in loads of Squared Timber per day.	Remarks.
METROPOLITAN DISTRICT—<i>continued.</i>							
Millars' Timber & Trading Co., Ltd., No. 2, Jarrabdale	March, 1922	P.P., Cockburn Sound Loc. 282	55	M. C. 7 0	M. C. 30 0	27	Cutting Jarrah Timber from Concession 12/0.
Millars' Timber & Trading Co., Ltd. (Board Mill), Mundijong	July, 1918	P.P., Cockburn Sound Loc. 524	20	1 0	30 0	16	Cuts boards only from fitches supplied by other mills on Concession 12/0.
Railway Department, Midland Junction	1904	Midland Junction Workshops	80	...	...	10	Cuts Tuart and Wandoo for own use.
MUNDARING DISTRICT.							
Ashmore, S., Bickley	May, 1924	P.P., Locs. 24 and 25	6	0 20	36 0	4 doz. fruit cases	Cutting Jarrah and Marri from Permit 547 for fruit cases.
Bettenay, J., & Sons, Karragullen ...	June, 1921	P.P., Canning Loc. 403	12	2 0	...	1	Cutting Jarrah from P.P. for fruit cases. Closed down.
Millars' Timber & Trading Co., Ltd., New Canning	Aug., 1924	S.M. Site 59/33 ...	40	8 25	38 0	14	Cutting Jarrah from Permit 617.
Waters, A., Sawyers' Valley	Sept., 1921	P.P., Loc. 297/55 ...	8	...	35 0	1½	Cutting Jarrah from Permit 363.
Weston, Smailes, & Leibow, Pickering Brook	Feb., 1926	Permit 615	8	0 30	36 0	4	Cutting Jarrah from Permit 615.
Walliston Orchardist Co., Walliston ...	Aug., 1924	Town Lot, Walliston	12½	0 5	33 0	3½ doz. fruit cases	Cutting Jarrah from Permit 618 for fruit cases. Works intermittently.
NOGGERUP DISTRICT.							
Adelaide Timber Co., Ltd., Wilga ...	1908	S.M. Site 14/33 ...	44	...	58 0	11	Cutting Jarrah from Permit 57.
Bunning Bros., Ltd., Noggerup ...	1906	S.M. Site 13/11a ...	40	On main line	48 0	14	Cutting Jarrah. Closed down.
Mumballup Timber Syndicate, Mumballup	April, 1925	S.M. Site 42/33 ...	23	3 40	43 0	8	Cutting Jarrah from Permit 492.
Timber Corporation, Ltd., Wilga ...	1926	S.M. Site 49/33 ...	17	5 0	58 0	8	Cutting Jarrah from Permit 216.
Whistler Bros., Dinninup	May, 1921	P.P., Nelson Loc. 1356	32	6 0	79 0	8	Cutting Jarrah and Wandoo from private property.
YARLOOP DISTRICT.							
Millars' Timber & Trading Co., Ltd., Hoffman	March, 1920	Timber Lease 322/113	32	18 0	37 0	37	Cutting Jarrah from Timber Lease 322/113.
Millars' Timber & Trading Co., Ltd., No. 1, Mornington	1898	P.P., Loc. 50 ...	60	6 60	26 0	45	Cutting Jarrah from Timber Leases 186/113, 227/113-230/113, 269/113, 296/113, 297/113, 325/113, and 322/113.
Millars' Timber & Trading Co., Ltd., No. 2, Mornington	1898	P.P., Loc. 50 ...	60	6 60	26 0	40	Cutting Jarrah from Timber Leases 186/113, 227/113-230/113, 269/113, 296/113, 297/113, 322/113, and 325/113.
Trees, Limited, Treesville	1920	S.M. Site 36/33 ...	30	32 0	27 0	20	Cutting Jarrah from Permits 71/11 and 422.