

SECTION X.

FORESTS, FORESTRY, AND FORESTAL PRODUCTS.

§ 1. The Forests of Australia.

1. **Extent of Forests.**—Although no definite survey of forest lands has been made on a uniform basis for the different States of Australia, the following table gives the results of careful estimates made for each State:—

FOREST RESERVES AND FOREST AREAS, STATES AND COMMONWEALTH, 1909.

State.	Specially Reserved for Timber.	Total Forest Area.	Percentage of State Area.		Percentage of Commonwealth Area.	
			Specially Reserved	Total Forest.	Specially Reserved	Total Forest.
	Acres.	Acres.	%	%	%	%
New South Wales	7,690,771	15,000,000	3.88	7.55	0.40	0.78
Victoria ...	3,989,790	11,800,000	7.10	20.98	0.21	0.62
Queensland ...	3,817,353	40,000,000	0.89	9.32	0.20	2.10
South Australia ...	155,232	3,800,000	0.03	0.66	0.01	0.20
Western Australia	52,900	20,400,000	0.01	3.27	0.003	1.07
Tasmania ...	997,454	11,000,000	5.95	65.56	0.05	0.58
Commonwealth	16,703,500	102,000,000	—	—	0.88	5.35

The actual area of wooded land is probably in all cases much greater than shewn above. For example, that of Western Australia is estimated at 97,900,000 acres; Queensland has probably 143,000,000 acres; and Victoria has a considerable extent of "Mallee" country not included in the above estimate. The basis of estimation for each State in any case cannot be regarded as quite identical. Considerable areas not included as forest lands possess timber of local value.

The absolute and relative forest areas of Australia and other countries are shewn in the table on the next page.

In each of the States areas have been set apart as State forests and "timber reserves," in some cases the reservation being made in perpetuity, in others for a definite period, in others again the reservation may be cancelled at any time. The characteristics of the forest areas of the different States are referred to seriatim.

RELATIVE AREAS OF FOREST LANDS, AUSTRALIA AND OTHER COUNTRIES, 1909.

Country.	Total Forest Area.	Percentage of Total Area.	Country.	Total Forest Area.	Percentage of Total Area.
	Sq. Miles.	%		Sq. Miles.	%
Australian C'wealth	159,375	5.35	Rumania ...	4,312	8.50
New Zealand ...	26,678	25.65	Sweden ...	90,241	52.20
United Kingdom ...	4,800	3.96	Norway ...	26,230	21.13
France ...	32,407	15.65	Russia in Europe	859,375	43.04
Algeria ...	9,620	2.80	United States ...	1,000,000	33.67
Germany ...	54,015	25.90	Canada ...	836,000	22.33
Switzerland ...	3,290	20.60	Cape of Good Hope	537	0.19
Italy ...	15,796	14.29	British India ...	128,566	11.72
Austria ...	37,700	31.66	Japan ...	28,450	19.00
Hungary ...	34,775	27.72			

2. Characteristics of State Forest Areas.—(i.) *New South Wales*. Great diversity exists in the more dense distribution of timber trees in the coastal region, between the range and the Pacific Ocean. The areas of natural forest, however, are found in nearly every part of the State except the wide plains of the Murrumbidgee, Lachlan, and Darling districts, the level surface of which is chiefly covered with salt bush, scrub, and indigenous grasses, while the tree-growth is, as a rule, confined to belts of red gum, box, sheoak, and myall along the courses of the rivers and their tributaries, and to groves of cypress pine at intervals. The tree-clad regions of the State may be divided into open, brush, and scrub forests. The first class has the widest distribution, being found in every geological formation, and including some of the finest timbers, such as many species of eucalyptus, angophora, and other genera of the natural order of myrtles. Among the hardwoods, red gum usually marks the courses of streams, while on the rough and stony mountain and hill ridges, with their sheltered gorges, are found several varieties of ironbark, blackbutt, tallowwood, spotted gum, grey box, red mahogany, forest red gum, Sydney blue gum, and turpentine. The brush or jungle forests occupy a considerable tract of country between the Dividing Range and the coast. In this region, interspersed occasionally with large Moreton Bay and other figs, fern trees, cabbage trees, and palms, grow some of the most beautiful timbers known for cabinet work and veneers, such as the red cedar, rosewood, silky oak, beech, red bean, beefwood, tulipwood, and coachwood. In addition to these, there are considerable supplies of the colonial or hoop pine, and the brown or berry pine. The scrub forests are represented by the red or black and white varieties of the cypress pine, and many species of acacia and eucalyptus. These are chiefly situated in the western portion of the State, and although the pines and some of the eucalypts are useful for local building and fencing, the bulk of the timber is of little commercial value.

(ii.) *Victoria*. The mountain ranges, principal of which are the Dividing Range and the Australian Alps, constitute the true forest regions of the country, the trees attaining considerable height and girth, and the brush or scrub growth great luxuriance. The lower elevations of the ranges, remote from settlement, are densely wooded to their summits, but the peaks above the winter snow-line are either bare or covered only with dwarfed vegetation. Dense and luxuriant forests characterise the Otway Ranges and Gippsland, south of the Main Divide. The tree-growth in the Grampians consists chiefly of stringy-bark, white gum, grey and yellow box, and white ironbark, with some red gum and wattle. In the Pyrenees there are more valuable hardwoods, chiefly blue gum and messmate, with stringy-bark, grey and yellow box, red and white ironbark on the lower levels. In Wombat Forest, extending along both sides of the Dividing Range from Creswick to Mount Macedon, the timber is almost wholly young messmate of good quality, with peppermint and swamp gum. Further eastward along the range messmate

and stringy-bark prevail, with grey and yellow box and ironbark on the low country. In Delatite, and in the lower ranges of the Australian Alps generally, the timber increases in height and girth, and includes blue gum, messmate, and peppermint of fine quality, with ribbon gum, woollybutt, and silvertop on the higher levels, and grey and yellow box with stringy-bark along the lower slopes and valleys. The northern plains, extending westward from Wodonga to the Grampians, are thinly covered with open forests, the limits of the prevailing trees being defined in clearly-marked belts. Thus the main belt of red gum follows the course of the Murray and extends along the valleys of its tributaries, but is interspersed at intervals near the river with sand ridges bearing grey box and cypress pine. Southward of this belt, and between the streams, the prevailing trees are grey or yellow box, with red and white gum and stringy-bark on the low ridges. From Chiltern a line drawn westward through Rushworth, Heathcote, Bendigo, Dunolly, and St. Arnaud marks a long belt of ironbark, of both red and white varieties, interspersed with stringy-bark and grey or yellow box. In the north-west, between the Wimmera Plains and the Murray, the dwarf eucalypt known as the mallee scrub covers the plains, with belts of cypress pine at intervals, and red gum and box along the courses of streams and lakes. The south-west is poorly timbered, the prevailing tree being stringy-bark, with red gum along the streams, and white gum, box, lightwood, and honeysuckle on the plains and undulating country. In the Otway district are valuable timber forests; over 280 square miles are covered with blue gum, spotted gum, messmate, and mountain ash or blackbutt of fine quality, with some stringy-bark and white gum, while the valleys between the ridges bear valuable timber of fine grain such as blackwood, beech, satin box, olive, sycamore, and pencil cedar. Eastward of Melbourne, on the watershed of the Yarra, there is another fine forest region, the trees consisting of spotted gum, mountain ash, messmate, and white gum, with blackwood, beech, sassafras, and silver wattle in the valleys. The ranges of Southern Gippsland bear blue gum, spotted gum, mountain ash, and yellow stringy-bark, while in the western and northern portions of the same district grow the mountain stringy-bark, spotted gum, blackbutt, and the Gippsland mountain ash or silvertop, with woollybutt and ribbon gum on the higher elevations of the Main Divide. In the eastern part of the district, stretching from the Lakes towards the Genoa River, are found the Bairnsdale grey box, the Gippsland mountain ash or silvertop, white and yellow stringy-bark, red ironbark and bloodwood. The prevailing timber in this part of Gippsland is the white stringy-bark, which forms large forests from the foothills of the Divide to the sea-coast.

(iii.) *Queensland.* The extensive forests of Queensland yield a great variety of woods, esteemed for their strength, durability, or beauty. The principal merchantable timbers lie between the eastern seaboard and the Great Dividing Range, which runs roughly parallel to, and about 200 miles from the coast. At about the 21st parallel of south latitude, a spur runs westward nearly to the South Australian border, and bears on its crests and slopes much valuable timber. Forests are also found on the Denham, Johnstone, and Gilbert Ranges. The principal eucalypts are ironbark, grey, spotted, and red gum, blackbutt, and turpentine; Moreton Bay, brown, and Bunya Bunya pines represent the conifers; and red cedar, beech, tulipwood, rosewood, red bean, and black bean are among the brush timbers of fine grain. On the extensive plateaux west of the Divide there is but little timber; and towards the vast basin of the interior, the low ridges and banks of the short water-courses bear a growth of stunted eucalypts such as the gimlet gum, the desert sheoak, acacias, and mallee.

The chief supply of mill timber (eucalypts, Moreton Bay pine, etc.) is in the southern coastal region, from the New South Wales border as far north as Gladstone. In the regions between Rockhampton and Ingham the supply is not so plentiful; but northward of the latter town, the red cedar, kauri pine, and black bean are luxuriant. Large supplies of these valuable trees are found on the Barron Valley reserves, and in other localities between Ingham and Port Douglas. Inland from this zone of heavy forest is another, less densely timbered, bearing cypress and other pines, ironbarks and acacias. In the south-western regions of the State the cypress pine flourishes.

(iv.) *South Australia and Northern Territory.* The principal forest districts of South Australia proper are restricted largely to the hill ranges in the neighbourhood of Adelaide and Spencer Gulf, and the trees have not the fulness and lofty growth of those of the eastern and south-western borders of Australia. Red gum is widely distributed, though never far from water; and there are belts of timber where, from the general appearance of the surrounding country, they would hardly be expected. The stringy bark has its habitat principally in the hills, and is but rarely seen on the plains; other useful hardwoods are the white and blue gum and peppermint. Blackwood (in demand for cabinet work) is common in the south-east and along the eastern border, but is rare near Adelaide. Wattle also is cultivated for its gum and bark. Sheoak appears in districts less thickly forest-clad, and ti-trees inhabit low, damp situations. The sandalwood tree grows luxuriantly in Yorke Peninsula. On the great plains of the interior there is little vegetation, patches of forest country being occasionally found, while here and there fertile spots of grass land, but generally not of large extent, are met with. Groups of stunted shrubs, and small scattered trees—sheoak, eucalyptus, and wattle—mostly of limited extent, rise from the plains like islands.

In Central and Northern Australia there is little forest, until the hills where the waters of the northern river system take their rise are encountered. On the plains to the north of the McDonnell Ranges there is a thin clothing of mulga scrub, with gum trees marking the water-courses. Occasionally patches of heavier gum forests are met with. Stirling Creek is lined with the bean tree. The mulga scrub thickens, and with stunted and mallee gums furnishes a uniform vegetation as far north as Powell's Creek. Here, with red gums still lining the water-courses and flooded gums on the flats, the vegetation becomes more varied. On the ranges pines, fig trees, and orange trees (*capparis*) occur. Heavy timber clothes the uplands about the Roper River, and the tableland which stretches across the territory at a distance from the coast of from 30 to 100 miles bears large paperbark trees, Leichhardt pines, and palms. On the higher steppes there is also abundance of bloodwood and other varieties of eucalyptus, besides other kinds of trees. Many prominent fibre plants are native to the territory.

(v.) *Western Australia.* The coastal timber belt runs along the western shore from the Murchison River to the Leeuwin, and along the southern shore from that point to beyond Albany, clothing with trees the Victoria, Herschel, Darling, and Stirling Ranges. Pre-eminent among the trees of this State for strength and durability are the jarrah and karri. A great belt of the former stretches eastward of the Darling Range to upwards of 100 miles in breadth, with a length of 350 miles. Between this region and the coast are two well-marked belts of tuart and red gum. In the extreme south-west of the State the main karri belt stretches from Augusta to Albany. Eastward of the jarrah belt a strip of white gum encloses a narrow belt of York gum, its southern extremity almost reaching the coast, while its northern limit extends even beyond that of the jarrah tract. Still further east the forest thins, a poorer growth of white gum giving place to brushes, scrub, and dwarf trees. Along the shores of the Great Australian Bight there are stunted eucalypts, with casuarinas and wattle. In the north-west, on the King Leopold and St. George's Ranges, there are forest areas, but from Dampier Land to below Shark Bay there is no coastal forest, and in many cases the stunted bush and scrub lands infringe on the sea-coast.

(vi.) *Tasmania.* The Tasmanian forest consists chiefly of eucalypts, widely distributed over the island; and of conifers, such as the Huon, the King William, and the celery-top pines, flourishing in the western and southern parts. The principal hardwoods of the eucalypt family are the blue gum, stringy bark, peppermint, and silvertop iron-bark, while among woods of fine grain are the blackwood, beech or myrtle, sassafras, native cherry, and sheoak. Black and silver wattles also inhabit various parts of Tasmania.

3. *Distribution of Timber in the Commonwealth Generally.*—The more conspicuous timber regions of Australia as a whole are the eastern and southern portions, including Tasmania, and, again, the south-western portion northwards and eastwards from Cape

Leeuwin. In regard to distribution, on the eastern side of the continent the largest timber is found on the crests and coastal slopes of the mountain ranges, but in the south-west, in addition to the vegetation between mountains and sea, a large area of forest stretches inland from the coastal ranges. The hills encircling Adelaide and Yorke and Eyre Peninsulas also bear good forest. The Kimberley district is timbered, and in the Northern Territory and round the shores of the Gulf of Carpentaria there are considerable forest areas. But the coastal regions of West and North-west Australia, except in the case of the districts named and the shores of the Great Australian Bight and Encounter Bay, are devoid alike of mountains and forests. The interior of the continent is thinly timbered, or almost destitute of vegetation, an occasional limited area of forest, generally in connection with mountain systems (though these themselves are scarce), acting as a relief in the landscape, which but for these presents to the eye all the features of a dreary and arid waste.

4. **The Timber Districts in New Zealand.**—Milling timbers occur chiefly in the Auckland district. Kauri, the finest New Zealand timber, is only found here; its gum is of considerable commercial value, and gives employment to large numbers of men. Totara, kahikatea, and rimu growths are also extensive. Other trees in less demand are tawa, beech, and puriri. The bulk of the timber in the Hawke's Bay district is rimu, with totara in lesser quantities. In Taranaki, rimu chiefly, kahikatea and totara are available for use. In Wellington, one-third of the available timber is rimu, the rest consisting of matai and tawa, with a little kahikatea and totara. Two-thirds of the timber in Marlborough is rimu, the remainder is composed of kahikatea, matai, and beech. In the Nelson district, four-fifths of the available milling timber is brown beech; there are also quantities of rimu, mostly in inaccessible country. Westland is the mainstay of the South Island; four-fifths of its milling timber is rimu, with kahikatea and totara making up the remainder. In Canterbury the chief timber is beech. The forest area of Otago is very small; rimu is the chief timber found, the others being matai and beech. In Southland there is a large quantity of milling timber, one-third of which is rimu, one-third beech, the remainder comprising kahikatea, matai, and totara.

§ 2. Forestry.

1. **Objects.**—Economic forestry, aiming at the conservation of forestal wealth by safeguarding forests against inconsiderate destruction, and by the suitable re-afforestation of denuded areas, is essential to the preservation of industries dependent upon an adequate supply of timber, and to the perpetuation of a necessary form of national wealth. Though in Australia large areas of virgin forests still remain, the inroads made by timber-getters, by agriculturists, and by pastoralists—who have destroyed large areas by "ringbarking"—are considerable; and it is not unlikely that climatological changes are caused thereby. For it would appear that variations in climate, and alternating periods of drought and flood, desiccation and erosion of soil, with loss or diminution of fertility, have resulted from forest denudation in countries bordering the Mediterranean. In many of the States of America diminished rainfall is said to have followed the destruction of large forest areas, and in Mauritius, clearing the hills of timber destroyed the even distribution of rainfall, causing floods and soil denudation. On the other hand beneficial consequences appear also to have followed on the planting of trees on denuded lands, or along encroaching coasts, and it is obvious that a forest covering tends to beneficially regulate the effects of rainfall.

Successful planting of exotics in various parts of the Commonwealth has demonstrated that the Australian climate is suitable for the cultivation of a large number of the most valuable and beautiful of the world's timber trees.

2. **Forestry Departments.**—Each State of the Commonwealth, excepting Tasmania, has organised a separate forestry department or branch of service specially charged with

forestral matters. Forest improvement work is carried on, areas of young forest being cleaned up by the felling and removal of stunted, diseased and suppressed growth, the burning of debris and the making of fire breaks. Provision is made for effective patrols in forest districts, to check the ravages caused by fires, often, it is believed, caused through carelessness. The following table gives a comparative indication of the attention paid to the subject, the particulars being those for 1909:—

STATE FORESTRY DEPARTMENTS, 1909.

Particulars.	N.S.W.	Victoria.	Q'land.	Sth. Aust.	West. Aus.	Tas.
Designation of officer in charge	Director of Forests	Conservator of Forests	Director of Forests	Conservator of Forests	Insp.-Gen. of Forests.	*
Salaries of persons engaged in administration and control	£ 1,705 †	2,475 ‡	6,710 §	475	7,774	...
Salaries of technical experts, forest rangers, etc.	£ 10,257 †	13,909		1,345		260
Incidental expenses	£ 251	373	888	317	1,600	*
No. of persons forming office staff	§	13	3	5	6	*
No. of persons forming field staff	67	65	5	17	26	*

* Administered by Lands Department. † Including travelling allowances. ‡ Including travelling and forage allowances. § Including proportion of salaries of Land Commissioners and Crown Land Rangers.

The revenue and expenditure of the State Forestry Departments from 1905-6 to 1909-10 are given below:—

REVENUE OF STATE FORESTRY DEPARTMENTS, 1905-6 to 1909-10.

State.	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.
	£	£	£	£	£
New South Wales ...	42,738	50,397	56,048	57,593	66,030
Victoria ...	21,508	24,971	29,013	40,678	37,992
Queensland ...	11,576*	14,560*	22,236	27,880	35,200
South Australia ...	2,832	2,981	3,474	3,416	3,089
Western Australia ...	21,216	22,783	23,500	29,484	31,549
Tasmania ...	3,505.	4,220	3,841	3,871	3,840
Commonwealth ...	103,375	119,912	138,112	162,922	177,700

* For calendar year ended previous 31st December.

EXPENDITURE ON STATE FORESTRY DEPARTMENTS, 1905-6 to 1909-10.

State.	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.
	£	£	£	£	£
New South Wales ...	16,639	20,259	19,545	20,169	24,510
Victoria ...	21,974	21,108	18,754	27,066	27,230
Queensland ...	5,200	6,700	6,940	4,652	5,000
South Australia ...	6,445	6,801	7,542	10,171	16,411
Western Australia ...	5,785	6,270	6,271	8,755	10,110
Tasmania ...	469	426	424	1,492	260
Commonwealth ...	56,512	61,564	59,476	72,305	83,521

3. Sylvicultural Nurseries and Plantations.—The growing recognition of the necessity for systematic sylviculture has led to the creation in most of the States of a number of sylvicultural nurseries and plantations.

(i.) *New South Wales.* In this State a small forest nursery is maintained at Gosford, between Sydney and Newcastle, from which young trees are widely distributed throughout the State, the bulk being issued to municipal councils and farmers, and for planting in parks, town reserves, hospital grounds, and cemeteries. Large sums have been distributed by the State in improvement fellings and the thinning out of young timber, principally in the Bogan, Narrandera, and Murray River districts. Over a quarter of a million acres of pine forest and red gum have been so treated.

(ii.) *Victoria.* In Victoria there are four forest nurseries, the largest being situated at Macedon, the smaller at Creswick, Havelock, and Tintarra. At Macedon the arboretum contains many fine specimens of the conifers and deciduous trees of Europe, America, and Asia. While the bulk of the yields are retained for the State plantations, there are considerable distributions for public parks and recreation reserves, "Arbor-day" planting of streets and roads, municipal councils and water trusts, mechanics' institutes and libraries, cemeteries, State schools, and other institutions, and farmers and private persons, the applications of those in dry districts receiving first consideration.

Among the principal native hardwoods raised and distributed are blue gum, sugar gum, and tallwood, with some jarrah for the plantations; among conifers, the Monterey, Corsican, Black Austrian, Canary Island, Maritime, and Aleppo pines, the blue pine of India, the American white and yellow pines, with several spruces; and among other exotics, peppers, Indian cedars, oaks, elms, planes, silver poplars, sycamores, and chestnuts. Great success has attended the establishment of a new nursery for conifers at Creswick.

The principal forest plantation is along the lower slopes of the You Yangs, near Geelong, where about 1000 acres have been enclosed and planted with eucalypts and conifers. Good results have attended the cultivation of the broad leaf and feather leaf wattles.

At another plantation, viz., at Sawpit Gully, among the foothills of the Dividing Range, near Creswick, conifers are chiefly grown. Minor plantations of blue gum and sugar gum are established at Havelock and Majorca, near Maryborough; and at Mount Macedon, the principal species of oak, elm, ash, plane, sycamore, pine, spruce, eucalypts, and willows are planted. During 1909 additional planting of conifers was carried out at Creswick, Frankston, and Warrnambool, and a large area was sown with tan-yielding wattles at You Yangs.

The principal work of the year in forest reserves and plantations has been improvement thinning and felling, planting, fencing, and construction of dams. The planted area of some of the older plantations has been enlarged.

Officers of the Lands and Forests Departments have made joint inspections of portions of reserved forests, to discover what areas, suitable for settlement, can be excised from the forest and made available. As a result, the forests will suffer a further loss of 20,000 acres. The officers have also recommended the addition of large areas to the State reserves.

Recent legislation makes provision for the stricter control of grazing in forests, and for more efficient protection from fire.

(iii.) *Queensland.* In Queensland there is a forest plantation of 310 acres. The questions of replanting and further reservation have lately been attracting attention, and the prominence given to them will probably greatly influence forest policy.

(iv.) *South Australia.* In this State there are several plantations, the most important being at Bundaleer (7377 acres) and Wirrabarra (3633 acres), situated some 150 and 190 miles respectively to the north of Adelaide in the direction of Spencer Gulf. The total area of the enclosures for planting and natural regeneration of the indigenous

timber was on 30th June, 1910, 14,898 acres. Of the reserved area, about one-fifth only, it is said, ever bore timber of commercial value, the remainder having been covered for the most part with stunted vegetation. Owing to the absence of high mountain ranges and the dryness of the climate, the forests are not dense. Special attention has been given in South Australia to silviculture, and great success has been achieved in clothing areas of treeless plain and hillslope with belts of young trees, such as blue, sugar and red gum, and white ironbark. In some parts the Tasmanian blue gum (*E. globulus*) flourishes, but great success has also been attained with the sugar gum (*E. corynocalyx*), a tree indigenous to the State itself. It is found chiefly in the Flinders Range, and used for railway sleepers, telegraph poles, coachbuilding, and in wharf and jetty construction. Two other eucalypts found in South Australia, the white ironbark (*E. leucoxyton*), known locally as "blue gum," and the grey box (*E. hemiphloia*) furnish strong, tough, and durable timber, inlocked in grain and suitable for the same purposes as sugar gum. The common flooded variety of red gum, which has a fairly wide distribution, being found on clay flats and along streams and water-courses, has also been grown in the plantations, but not with the same success as sugar gum. Among conifers which have been grown with fair success are the Monterey, the Maritime, Aleppo, and Stone pines. The Monterey pine (*P. insignis*) outstrips all other trees in growth, and its timber, though softer than other first-class pines, has been utilised for deal tables, packing cases, picket fencing, shelving, and generally for purposes where common deal is useful. The Maritime, Aleppo, and Stone pines are naturally of slower growth. In Europe they furnish useful timber, but in these plantations have not yet reached an age suitable for utilisation. The upright poplar (*P. fastigiata*) growing well over a large area, serves for packing cases, flooring boards, etc. The locally-grown American ash (*Fraxinus americana*) has been used in coachbuilding work, and compares well in quality with the imported American ash. The area suitable for its cultivation in South Australia is, however, very limited, as it requires favourable conditions of soil and climate.

During the last twenty-seven years the Forest Department has issued very large numbers of young plants to the public free of charge, for wind breaks, avenues, and for the shelter of homesteads and buildings generally, over seven million trees having been so distributed. Formerly, bounties were paid under the Forest Act for the encouragement of private persons in planting timber trees.

A substantial increase in the amount voted for 1909-10 has enabled great progress to be made in planting in forest reserves, and a much larger area is now planted than has been the case for many years past. It is anticipated that on completion of the planting season nearly a thousand acres will have been planted. Plans have been prepared for re-forestation by natural regeneration of a large area in the Penola State forest, under a thorough system of fire protection.

(v.) *Western Australia.* A State silvicultural nursery is established at Drake's Brook, on the south-western railway, the site chosen being a ti-tree swamp, exotic trees of temperate climates being raised. The planting of the Monterey, Maritime, Aleppo, and Canary Island pines, the blue pine of the Himalayas (*P. excelsa*), the Indian cedar, Lawson's cypress, several kinds of poplar, the Virginian catalpa, white cedar, and American ash has been successful. A large number of pepper trees and sugar gums were raised, chiefly for shade purposes. The trees are sold or given away to settlers, being distributed chiefly in the goldfields region and other districts with little natural forest.

There are also forest plantations—for conifers at Bunbury, for Australian wattles at Spencer's Brook, and for the indigenous sandalwood at Meckering. The planted areas are flourishing, the trees making very healthy growth.

(vi.) *Tasmania.* There are at present only two small experimental plantations. In the State nursery a considerable area is being planted with softwoods.

Particulars regarding nurseries and plantations in 1909 are given hereunder :—

SYLVICULTURAL NURSERIES AND PLANTATIONS, 1909.

Particulars.	New South Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.
Expenditure on plantations and upkeep of silvicultural nurseries	£808	£4279*	nil	£14,748	£1039	nil
No. of persons engaged in nurseries	8	22	nil	16	5	nil
No. of silvicultural nurseries ...	1	3	nil	7	1	1
Area of silvicultural nurseries ...	85 ac.	54 ac.	nil	7 ac.	17 ac.	3 ac.
No. of forest plantations ...	2	10	1	107	3	2
Area of forest plantations ...	100 ac.	10620 ac.	310 ac.	9684 ac.	300 ac.	2 ac.
Extent of public distribution of trees or number of trees issued ...	84,000	29,284	†	317,000	49,000	nil

* Including improvement work in State forest. † There are no forest nurseries issuing trees in Queensland, but a small number of economic and ornamental trees are issued by the Department of Agriculture.

4. **A Forestry School.**—A suitable building, with adequate grounds, has been purchased at Creswick for the establishment of a School of Forestry. The site is near the State plantation and nursery. It is intended, to give class-teaching at the school, but the principal aim of the Forest Department will be to keep practical work in the foreground. The principal class subjects, in addition to theoretical forestry, are botany, geology, physics, and land surveying, while in outside work trainees will have regular teaching and experience in the preparation of seed-beds, seed-sowing, propagation, planting out, pruning, the general care and improvement of plantations and natural forests, and the conversion of timber to the best advantage. The desire is to catch the prospective forester young and give him a thorough training in all branches of the work. Facilities will also be afforded to members of the present forests staff to qualify in special subjects by attending winter classes. The school will probably be opened early in 1911.

In September, 1910, an Instructor of Forestry was appointed by the South Australian Government, to assist the Conservator in forest inspection, and particularly to conduct a course in forestry at the Adelaide School of Mines.

§ 3. Commercial Uses of Principal Australian Timbers.

The uses of the more important of Australian timbers are many and various. Four varieties of ironbark, viz., white or grey (*E. paniculata*), narrow-leaved (*E. crebra*), broad-leaved (*E. siderophloia*), and red (*E. sideroxylon*) are largely used for public works, preference being given to the white and narrow-leaved varieties. These timbers are used extensively in the building of bridges and culverts, for railway sleepers and fencing posts, and for framing, naves, spokes, poles and shafts in carriage and waggon building. Ironbark beams are of great strength, hence it is largely employed for girders and joists of upper floors, especially in stores for heavy goods.¹ Another red ironbark (*E. leucoxyton*), heavy, dense, and strong, is greatly valued for bridge beams and piles. Tallowood (*E. microcorys*) is strong, heavy, very durable, not easily split, and turns and planes well. It is used for bridge-decking, house-flooring (being peculiarly suitable for ballrooms), girders, piles, and fencing posts, and especially for paving blocks, giving even and regular wear under heavy traffic. Even better in this latter regard is blackbutt (*E. pilularis*), a fine hardwood for house and ship building, as well as street paving. Grey gum (*E.*

1. Ironbark girders do not burn rapidly and often stand a fire when iron girders yield through the effect of the heat.

propinqua), makes excellent railway sleepers, and is used for felloes and spokes in coach building. It makes very durable fencing posts, and is also sometimes split for shingles. Murray red gum (*E. rostrata*), the common river gum of all the eastern States, is one of the best hardwoods in contact with the ground, being largely used for poles, house foundations, wood paving, and railway sleepers. It is also extensively cut for mining shafts and public and municipal works. The forest variety of red gum (*E. tereticornis*) serves the same purposes as the river red gum. White mahogany (*E. acmenoides*) is used for posts, poles, girders, and similar classes of work, being an exceedingly durable timber. Red mahogany (*E. resinifera*) is largely employed for general building work, street paving, fencing, and weatherboards. It is very durable and hardens greatly with age. Grey box (*E. hemiphloia*) is very durable in contact with the ground, and is hence used for railway sleepers (lasting from thirty to thirty-five years in the track), telegraph poles, mine props, fence posts, piles, girders, and for heavy framing and naves, wheel cogs, shafts, dray poles, spokes, etc. Bairnsdale grey box (*E. bosistoana*) serves similar purposes. Brush box (*Tristania conferta*), another hard and durable wood, is used for tram-rails, bullock yokes, tool handles, planes, etc. Sydney blue gum (*E. saligna*) is greatly valued by shipwrights and wheelwrights, and furnishes ships' planks, felloes of wheels, etc. It is also used for buildings, and makes very durable paving blocks. Woollybutt (*E. longifolia*) is used for house building, fencing, felloes, spokes, and wheelwrights' work generally. Being durable in contact with the ground, and resistant to heavy traffic, it is also used for street paving. Spotted gum (*E. maculata*) is one of the best hardwoods for bending, even when cold, and is therefore specially valuable in wheelwrights' and coachbuilders' work for poles, shafts, crosspieces, naves, and spokes; also for framing and house building, tram rails, ship planking, decking of bridges, and wood paving. Turpentine (*Syncarpia laurifolia*) is of great durability in the ground or under water, being used for piles or jetties, wharves, bridges, pillars and girders of buildings, wood paving, and hewn posts and rails. Yellow stringy-bark (*E. muelleriana*) is chiefly used for jetty and pier work, and for fencing posts. Blue gum (*E. globulus*) is a valuable timber with straight, symmetrical bole, used for upper timbers and decking in jetty and bridge work, bridge piles, shafts, felloes, spokes and frame work of vehicles, and in general building and construction. Spotted gum (*E. goniocalyx*) furnishes a hard, heavy, and durable timber, similar in appearance to blue gum, and serving the same purposes. Yellow box (*E. melliodora*) bears a large quantity of blossom, and hence is a favourite tree with beekeepers. Its timber is used for piles and posts, squared beams, and stringers for bridges. Messmate (*E. obliqua*) is largely sawn by mills for weatherboards, studs, rafters, joists, etc., and is also used for railway sleepers and fencing posts. Stringy-barks (*E. macrorrhyncha*, *E. capitellata*, *E. piperita*) are sawn by mills into ordinary building timber, and split by settlers into posts and rails and rough building material. Mountain ash (*E. amygdalina regnans*) is sawn into building material, and is also split into palings, shingles, rails, and mining laths. Silvertop (*E. sieberiana seu virgata*) called also Gippsland mountain ash, green top, and white ironbark—is used for ordinary building purposes, and for fencing rails and rough construction. Sugar gum (*E. corynocalyx*) is held in high repute on account of its toughness and durability, and is chiefly used for railway sleepers, telegraph poles, coach building, and in wharf and jetty construction. White or manna gum (*E. viminalis*) is not a good weather timber, but is suitable for interior construction, such as house frames and floors.

The pre-eminent timber trees of the West are jarrah (*E. marginata*) and karri (*E. diversicolor*). Jarrah is in great request for piles in jetty and bridge construction, and for railway sleepers and street paving. It also furnishes a favourite material for boat-building, fencing, and rough furniture, and makes excellent charcoal. Karri is heavy, dense, elastic, and tough, not so easily wrought as jarrah, and used for bridge-decking, flooring, planking, spokes, felloes, shafts, and street-paving. Tuart (*E. gomphocephala*) is exceedingly strong and tough, suitable for the framework of railway waggons, bridge supports, buffers, keelsons, shafts, wheelwrights' work, and generally for all purposes where great strength and hardness are necessary. The red gum (*E. calophylla*) is a fine shade tree, and is valued for the shelter it affords to cattle and sheep.

Its timber, however, is not held in much esteem; but in short lengths it is employed for wheelwrights' work and agricultural implements. Its gum or kino has medicinal properties, and is used locally for tanning hides. Wandoo (*E. redunca*) is used for fencing, wheelwrights' work, and railway buffers and sleepers. The blackbutt (*E. patens*) York gum (*E. loxophleba*), and yate (*E. cornuta*) of the West are largely used for fencing, building, and rough construction.

The Moreton Bay or hoop pine (*Araucaria cunninghami*) is used for interior work (flooring, ceiling, and lining boards) and for packing cases and butter boxes. Brown pine (*Podocarpus elata*) is also used for interior work, and for bridge, jetty, and pier piles. Cypress pine (*Callitris*), including red or black pine (*C. calcarata*); Murray pine (*C. verrucosa*), Port Macquarie pine (*C. macleayana*), and the Richmond River cypress pine (*C. columellaris*) are used for buildings liable to attacks of white ants, being strongly resistant to these pests. Cypress pine is also suitable for bridge decking and makes fine fuel. Red cedar (*Cedrela australis*) furnishes timber of great beauty; it is easily worked and very durable, and is used for furniture and cabinet-making, doors, panelling, and interior fittings generally. Rosewood (*Dysoxylon fraserianum*) is easily wrought, and is used for furniture, turnery, carving, cabinet work, mouldings, planes, window joints, house fittings, and wine casks. Red bean (*Dysoxylon muelleri*) has a finely-figured grain and is an excellent furniture wood. White beech (*Glemina leichhardtii*) is durable and easily worked, and is in great request for decks of vessels, furniture, picture frames, carving, flooring, house-fittings, vats, casks, and general cooper's work. Silky oak (*Grevillea robusta* and *Orites excelsa*) is also in request for cooper's work, and makes handsome furniture and wainscoting. The silky oak has also been used for butter kegs, buckets, churns, etc., and makes good butter boxes for the local markets. Black bean (*Castanospermum australe*), or Moreton Bay chestnut, is used for furniture, cabinet-making, and gun stocks. Tulip-wood (*Harpullia pendula*) is highly esteemed for cabinet-work, being used for door panels, dadoes, and billiard tables. Coachwood (*Ceratopetalum apetalum*) is suitable for boat-building, cabinet work, and coach-building. Kauri pine (*Agathis palmerstoni*) gives a light, strong, and durable timber, and is used for general building and construction, wainscoting, furniture and joinery, railway carriages, and ship-decking. Blackwood (*Acacia melanoxylon*) is very strong and durable, diminishing, however, greatly in weight in seasoning, though shrinking very little in volume. Figured blackwood is a beautiful timber: it is used for furniture, such as billiard tables, chairs, secretaires, casings of pianofortes and organs, and general cabinet work; dadoes, panelling of railway carriages, boat-building, picture frames, wheel naves, gun stocks, walking sticks, and a great variety of useful and ornamental purposes; it is also split into staves for wine and tallow casks. Evergreen beech (*Fagus cunninghami*) yields also a handsome timber, used for furniture, sashes and doors, light joinery, wood-carving, picture frames, and cog-wheels. Huon pine furnishes a fine, strong, and light timber; it is almost indestructible in water, and hence is largely used for boat planking; its beautiful grain brings it into request for furniture, panelling, and wainscoting. The King William variety is very tough, being used for racing sculls; it is also a favourite timber in joiners' work. Celery-top pine is strong and heavy, suitable for furniture, flooring, house frames, coppers' work, and masts. Other Australian brush timbers of minor importance are sassafras (*Atherosperma moschata*), used for saddle-trees and boot lasts; and satin box, sycamore, olive, and pencil-wood, giving woods of beautiful grain for parquetry, veneers, carving, and picture frames. The sandalwood of Western Australia (*Santalum cygnorum*) is a very valuable forest product, and has been exported in varying amounts during the last fifty years.

As aids in the development of Commonwealth industries, the Government is experimenting with Australian woods for rifle stocks, telephone switch boards, etc. It has also made available a sum of money for the seasoning and storing of Australian timber. It is intended to establish seasoning depôts at the Federal Capital, and also at the principal centres in the various States, whence contractors will be able to obtain timber at scheduled rates. Other timber seasoning works have been established by private enterprise.

§ 4. Forestal Industries and Production.

1. **Timber.**—The returns for quantity and value of timber cut and sawn, as given by the States Forestry Departments, are at present very incomplete. Owing to this fact the figures given hereunder are, in some cases, necessarily merely estimates.

QUANTITY OF LOCAL TIMBER SAWN OR HEWN IN EACH STATE OF THE COMMONWEALTH DURING THE YEARS 1905 to 1909.

State.	1905.	1906.	1907.	1908.	1909.
	Sup. feet.	Sup. feet.	Sup. feet.	Sup. feet.	Sup. feet.
New South Wales	112,580,000	119,337,000	122,998,000	123,152,000	134,070,000
Victoria	47,635,358	51,103,000	55,873,000	54,602,000	50,000,000
Queensland	73,930,279	82,801,846	91,752,000	100,760,000	108,391,000
South Australia	155,662	130,763	143,009	436,000	240,500
Western Australia	137,250,340	136,294,697	110,395,000	165,766,000	171,825,000
Tasmania	40,273,429	39,498,697	35,228,000	44,335,000	45,035,000
Commonwealth	411,825,068	429,166,003	416,389,000	489,051,000	509,561,500

The only States for which an annual return is furnished for the value of locally sawn or hewn timber are South Australia and Tasmania. The values for South Australia for the years 1901 to 1909 are respectively, £23; £154; £413; £400; £340; £230; £815; £1084; and £411. For Tasmania the values for the years 1901 to 1908 are respectively, £117,734; £62,573; £89,227; £92,102; £75,817; £110,689; £93,762; £198,492. The estimate for New South Wales, 1901 to 1906, is £4,050,000; for 1907, £1,440,000, for 1908, £763,241; and for 1909, £801,456. For Victoria, the output of timber, from forest sawmills only, was £153,309 in 1906; £181,590 in 1907; £177,460 in 1908; £189,130 in 1909. The output of Western Australian sawmills was valued at £5,263,235 for the years 1901 to 1907; £763,241 in 1908; £1,105,108 in 1909. For Queensland, for 1908, £665,350; for 1909, £736,578.

2. **Forest Produce.**—Estimates have been made of the total value of forest production, but these must be regarded as mere approximations. Many of the items are very difficult, and some impossible, to obtain. Large returns are credited to firewood, but these have been omitted altogether, since estimates are subject to a wide range of uncertainty.

The Forestry Department of New South Wales estimates that the production in the seven years 1901-7 averaged at least £685,000 per annum. For Victoria the Government Statist gives the following figures:—1904, £230,567; 1905, £206,725; 1906, £217,569; 1907, £244,170; 1908, £234,154; 1909, £255,650. This is exclusive of hewn timber. No figures on a similar basis are available for Queensland. The estimates for South Australia for 1901 to 1908 are £187; £354; £590; £665; £610; £440; £1086 and £1628. Western Australia averages for the seven years 1901-7, £984,264. Tasmania supplies the following estimates for the years 1901 to 1906, viz., £152,102, £83,943, £114,227, £119,477, £94,987, £126,514.

§ 5. Oversea Trade.

1. Imports.—The timber imports are shown according to countries of origin in the table below. Prior to 1908 these figures had been tabulated according to countries whence imported, and were so published in the previous issues of the Year Book. They are now presented in the improved form.

IMPORTS OF DRESSED TIMBER, COMMONWEALTH, 1906 to 1909.

Country of Origin.	Quantity.*				Value.			
	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ...	31,006	45,554	160,315	182,062	512	553	3,484	3,562
New Zealand...	5,125	17,810	32,704	251	65	111	553	1
Other British Poss. ...	5,970	5,333	201,692	129,208	50	32	1,083	1,016
Norway ...	44,016,345	52,377,370	36,152,540	42,617,161	275,286	303,173	231,288	263,456
Sweden ...	2,412,087	7,122,102	7,959,297	12,821,586	15,054	48,056	52,890	89,209
United States ...	1,737,261	1,710,306	3,283,883	1,396,743	20,356	19,950	63,024	23,180
Other For. Countries	1,428	1,153,309	549,554	1,072,713	35	4,730	5,176	9,249
	*							
Total ...	48,209,222	62,431,784	48,339,985	58,221,724	311,358	376,605	357,498	389,673

* Quantities are not included in classes not measured in super. feet.

IMPORTS OF UNDRESSED TIMBER, INCLUDING LOGS, COMMONWEALTH,
1906 TO 1909.

Country of Origin.	Quantity.*				Value.			
	1906.	1907.	1908.	1909.	1906.	1907.	1908.	1909.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ...	162,204	102,245	40,848	54,075	1,630	1,424	1,020	912
Canada ...	7,320,589	7,933,877	8,612,606	16,999,515	31,540	32,004	36,527	83,938
India ...	229,350	825,425	343,674	77,674	3,579	16,900	11,085	2,613
New Zealand...	65,164,718	69,112,328	82,734,209	69,959,470	314,522	395,043	499,234	460,758
Straits Settlements ...	128,687	147,757	135,871	231,025	925	736	745	1,254
Other British Poss. ...	314,987	2,816	62,360	111,442	7,699	44	1,547	1,084
Japan ...	1,017,426	12,290,109	9,199,839	6,990,717	4,674	33,966	34,429	28,723
Java ...	...	537	805,284	479,055	...	11	12,099	1,959
Norway ...	1,299,269	2,298,711	5,007,451	3,894,852	7,021	13,957	31,997	26,228
Russia ...	327,550	1,346,590	8,851,925	6,597,627	2,157	10,364	51,051	37,147
Sweden ...	2,756,200	6,268,170	4,229,960	4,741,846	17,764	39,269	29,693	44,187
United States ...	122,753,533	119,498,696	147,463,309	101,434,431	561,126	631,293	823,786	570,960
Other For. Countries	92,891	203,767	107,791	233,354	735	1,154	2,780	2,205
Total ...	201,568,404	220,031,028	266,895,627	211,805,083	953,372	1,176,165	1,536,893	1,261,963

* Quantities are not included in classes not measured in super. feet.

2. Exports.—The quantity and value of undressed (sawn) timber exported from 1905 to 1909 is given below, the countries of destination being also shown.

In the year 1905 the largest quantity of undressed timber was exported. The year 1907 showed considerable decrease from previous years, both in quantity and value, but the export was again heavy in 1908 and 1909.

EXPORTS OF UNDRESSED TIMBER (SAWN) COMMONWEALTH, 1905 to 1909.

Country to which Exported.	Quantity.*					Value.				
	1905.	1906.	1907.	1908.	1909.	1905.	1906.	1907.	1908.	1909.
	1000 Sup. ft.	1000 Sup. ft.	1000 Sup. ft.	1000 Sup. ft.	1000 Sup. ft.	£	£.	£	£	£
United Kingdom...	30,076	25,561	14,156	20,760	21,686	192,891	167,081	88,010	139,223	151,707
Canada ...	420	568	368	1,314	492	4,207	5,566	4,240	13,143	5,267
Cape Colony ...	15,244	4,456	4,960	143	261	102,886	23,855	25,629	1,353	2,385
Ceylon ...	1,765	25	21	3	2,235	6,179	213	211	23	14,864
Fiji ...	1,255	1,713	1,899	1,523	1,304	8,715	11,159	12,144	10,783	7,935
India ...	47,441	63,249	40,304	39,995	55,353	293,287	384,463	266,801	276,821	364,350
Mauritius ...	1,405	820	6	241	...	9,328	5,128	66	1,606	...
Natal ...	7,433	1,826	1,543	961	3,472	51,426	11,356	11,064	5,881	22,010
New Guinea ...	96	142	94	...	152	748	1,960	899	...	1,281
New Zealand ...	17,671	17,705	22,212	36,664	25,423	100,438	120,480	151,965	248,636	172,694
Ocean Island ...	224	574	705	974	407	1,502	3,935	5,579	7,914	3,200
Straits Settlements	290	1,047	254	1,838	601	1,952	5,849	1,909	9,943	3,877
Other British Pos.	769	5	506	4,743	4,021	5,495	38	2,777	31,428	29,694
Argentina Repub.	835	2,948	1,142	1,590	1,134	5,565	19,652	7,618	10,594	7,499
Belgium ...	90	509	1,286	2,515	1,820	537	3,913	7,659	19,613	12,154
China ...	8,221	12,335	2,845	2,373	7,263	54,816	81,673	19,397	12,370	26,595
Egypt ...	2,073	20	91	7,831	10,176	13,819	136	635	62,207	62,096
Germany ...	4,410	3,985	2,199	4,616	2,027	27,394	32,716	19,824	37,354	17,987
Japan ...	13	403	527	333	73	117	2,695	5,329	2,889	484
Kais'r Wilhelm's L.	77	30	65	26	70	535	195	475	199	504
Marshall Island ...	101	503	562	460	154	683	3,418	4,177	3,770	1,208
Netherlands ...	...	1,175	869	245	35	...	5,745	2,854	1,660	256
New Pommern ...	32	121	170	204	299	223	841	1,242	1,454	2,390
New Caledonia ...	153	136	147	190	116	883	843	912	1,415	929
Philippine Islands	2,567	2,394	10,589	4,818	306	21,901	12,556	64,426	30,849	3,372
Port'gese E. Africa	10,413	3,262	825	1,296	3,435	68,786	18,636	5,039	7,720	23,446
South Sea Islands (so described) ...	251	415	421	248	320	1,710	2,760	3,233	2,069	2,822
U.S. of America ...	452	582	799	416	659	4,683	5,272	7,248	3,633	7,703
Uruguay ...	1,928	6,137	4,815	9,300	3,894	12,852	40,912	32,073	62,003	25,963
Other For. Count.	142	1,776	967	334	583	961	7,184	6,669	2,642	4,538
Total ...	155,837	154,422	115,347	145,954	147,781	994,519	979,530	760,124	999,200	979,210

* Quantities are not included in classes not measured in super. feet.

QUANTITIES OF TIMBER IMPORTED INTO, AND EXPORTED FROM THE COMMONWEALTH, 1905 to 1909.

Description.	1905.	1906.	1907.	1908.	1909.
IMPORTS.					
Veneers ...	...	...	...	235,319	296,801
Dressed ... Sup. feet	38,151,816	48,209,222	62,431,784	48,104,666	57,924,923
Undressed ... "	163,799,852	200,434,075	207,579,407	250,465,749	200,469,213
Logs ... "	176,649	1,134,329	12,451,619	16,581,812	11,335,870
Palings ... No.	...	...	...	...	...
Pickets ... "	2,122,685	800,260	1,106,364	1,461,726	1,226,082
Shingles ... "	3,913,960	468,930	2,079,041	830,960	1,270,476
Staves—Dressed, etc. No.	1,968,153	2,345,789	1,470,765	62,804	4,600
Undressed ... "	...	...	...	1,610,571	2,390,888
Laths for Blinds ... "	17,279,293	25,367,993	19,966,870	21,660,183	25,692,686
Other ... "	...	...	...	...	...
Spokes, Rims, Felloes ...	...	...	...	1,595,127	659,298
Doors ...	8,799	3,343	975	386	4
Architraves, Mouldings, etc. ... Lin. feet	46,622	131,830	65,581	34,175	29,725
Other ...	*	...	...	...	...

* Quantity not available.

QUANTITIES OF TIMBER IMPORTED AND EXPORTED, ETC.—Continued.

Description.	1905.	1906.	1907.	1908.	1909.
EXPORTS.					
Veneers ...	...	...	...	...	...
Dressed ... Sup. feet	534,561	745,800	669,647	701,801	1,280,703
Undressed ... "	155,837,454	154,422,490	115,347,179	145,953,614	148,063,541
Logs ... "	1,688,258	1,740,775	4,261,379	3,326,259	4,254,472
Palings ... No.	972,479	656,170	730,825	826,900	718,550
Pickets ... "	15,990	91,594	7,147	6,050	8,000
Shingles ... "	26,796	48,268	38,312	47,100	12,944
Staves—Dressed, etc. No.	...	...	...	*	90
" Undressed ...	...	...	...	911	...
Laths for blinds ...	...	...	...	*	...
" other ...	1,516,120	1,533,040	1,571,705	1,056,781	14,240
Spokes, Rims, Felloes ...	...	...	...	*	*
Doors ...	747	1,106	1,338	*	*
Architraves, Mouldings, etc. ... Lin. feet	47,064	56,886	50,616	46,848	90,458
Other ...	*	*	*	*	...
EXCESS OF IMPORTS OVER EXPORTS.					
Veneers ...	...	...	...	235,319	296,801
Dressed ... Sup. feet	37,617,255	47,463,422	61,762,137	47,402,865	56,644,220
Undressed ... "	7,962,398	46,011,585	92,232,228	104,512,135	52,405,672
Logs ... "	-1,511,609	-606,446	8,190,240	13,255,553	7,081,398
Palings ... No.	-972,479	-656,170	-730,825	-826,900	-718,550
Pickets ... "	2,107,295	708,666	1,099,217	1,455,676	1,223,032
Shingles ... "	3,887,164	420,712	2,040,729	783,860	1,257,532
Staves—Dressed, etc. No.	...	...	...	*	4,510
" Undressed ...	1,968,153	2,345,789	1,470,765	1,609,660	2,390,798
Laths for blinds ...	...	...	...	*	*
" other ...	15,763,173	23,834,953	18,395,165	20,603,402	25,678,446
Spokes, Rims, Felloes ...	...	...	...	*	*
Doors ...	8,052	2,237	-363	*	*
Architraves, Mouldings, etc. ... Lin. feet	-442	74,944	14,965	-12,925	-60,733
Other ...	*	*	*	*	*

* Quantity not available.

Note. — signifies excess of exports over imports.

VALUE OF TIMBER IMPORTED INTO, AND EXPORTED FROM, THE COMMONWEALTH, 1905 TO 1909.

Description.	1905.	1906.	1907.	1908.	1909.
IMPORTS.					
Veneers ...	£ ...	£ ...	£ ...	£ 8,289	£ 8,778
Dressed ...	264,843	311,358	376,605	324,997	376,732
Undressed ...	748,817	948,021	1,141,199	1,388,224	1,158,445
Logs ...	1,469	5,351	34,966	77,361	51,246
Palings ...	...	...	...	...	...
Pickets ...	4,361	2,891	3,748	6,174	4,117
Shingles ...	2,959	435	2,987	913	1,873
Staves—Dressed, etc.	...	...	...	1,173	342
" Undressed ...	15,539	20,612	13,326	14,215	18,178
Laths for blinds ...	...	...	...	44	83
" other ...	12,316	18,802	18,118	16,547	20,970
Spokes, Rims, Felloes ...	...	...	...	35,976	12,408
Doors ...	3,197	1,373	488	251	1
Architraves, mouldings, etc. ...	509	676	489	156	59
Other ...	18,235	19,937	40,617	20,271	588
Total value ...	1,072,275	1,329,456	1,632,493	1,894,591	1,653,820

VALUE OF TIMBER IMPORTED AND EXPORTED, ETC.—Continued.

Description.	1905.	1906.	1907.	1908.	1909.
EXPORTS.					
Veneers ... ..	...	...	...	...	...
Dressed	5,358	6,886	6,603	7,438	12,104
Undressed	994,519	979,530	760,124	999,200	981,770
Logs	12,988	12,662	22,475	18,611	23,690
Palings	4,952	3,065	3,541	4,227	3,449
Pickets	117	569	66	52	26
Shingles	41	96	108	125	29
Staves—Dressed, etc. ... ..	...	...	...	111	1
Undressed ... ..	...	...	...	17	...
Laths for blinds	1,899	1,685	1,706	1,073	1,179
" Other ... ..	...	...	...	1,139	20
Spokes, rims, felloes ... ..	...	...	...	6,131	5,191
Doors	486	746	1,027	732	991
Architraves, mouldings, etc.	235	467	354	258	511
Other	7,013	6,405	9,129	...	...
Total value	1,027,603	1,012,111	805,133	1,039,114	1,028,961

EXCESS OF IMPORTS OVER EXPORTS.

Veneers ... ..	...	...	...	8,289	8,778
Dressed	259,490	304,472	370,002	317,559	364,628
Undressed	—245,702	—31,509	381,075	389,024	176,675
Logs	—11,519	—7,311	12,491	58,750	27,556
Palings	—4,952	—3,065	—3,541	—4,227	—3,449
Pickets	4,244	2,322	3,682	6,122	4,091
Shingles	2,918	339	2,879	788	1,844
Staves—Dressed, etc.	15,569	20,612	13,326	1,062	341
Undressed ... ..	...	...	...	14,198	18,178
Laths for blinds	10,417	17,117	16,412	—1,029	—1,096
" Other ... ..	...	...	...	15,408	20,950
Spokes, rims, felloes ... ..	...	...	...	29,845	7,217
Doors	2,711	627	—589	—481	—990
Architraves, mouldings, etc.	274	209	135	—102	—452
Other	11,222	13,532	31,488	20,271	588
Total value	44,672	317,345	827,860	855,477	624,859

Note. — signifies excess of exports over imports.

The exports of sandalwood were :—

EXPORTS OF SANDALWOOD, 1905 to 1909.

Country to which Exported.	Quantity.					Value.				
	1905.	1906.	1907.	1908.	1909.	1905.	1906.	1907.	1908.	1909.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
Hong Kong	68,657	134,769	140,586	153,444	54,337	27,306	55,970	50,903	65,037	25,546
Straits Settlements	14,145	9,369	7,234	1,484	12,890	4,479	3,721	2,542	589	5,036
Other British Possessions... ..	...	4,364	4,593	14,680	5,163	...	1,782	1,803	5,604	2,358
China	27,564	28,025	31,637	17,560	31,649	7,008	9,299	10,886	6,238	12,180
Other Foreign Countries	61	478	312	...	...	23	215	103	...	...
Total	110,427	177,005	184,412	192,168	104,089	38,816	70,987	66,237	77,468	45,120

Tanning bark is largely exported from the Commonwealth, as the following table shews:—

EXPORTS OF TANNING BARK, 1905 to 1909.

Country to which Exported.	Quantity.					Value.				
	1905.	1906.	1907.	1908.	1909.	1905.	1906.	1907.	1908.	1909.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom ...	48,306	46,825	35,808	5,878	19,424	17,499	16,978	12,976	1,782	8,188
New Zealand ...	69,945	73,831	67,541	72,933	69,137	27,553	30,844	29,160	31,637	31,414
Other British Poss. ...	3,016	519	462	1,655	1,745	1,179	218	214	793	902
Belgium ...	14,932	6,864	27,011	25,154	15,910	5,667	2,695	10,241	9,432	5,966
France ...	728	1,879	424	328	206	270	676	192	167	105
Germany ...	368,200	301,219	223,740	142,382	114,128	135,321	110,754	78,352	53,329	43,063
Other For. Countries ...	5,179	759	3,181	12,034	5,322	2,210	288	1,207	5,270	2,307
Total ...	510,278	431,896	358,167	260,364	225,872	189,699	162,453	132,342	102,410	91,945

The import of bark was very small, and the net export is little below the gross export.

QUANTITIES AND VALUES OF BARK IMPORTED INTO, AND EXPORTED FROM, THE COMMONWEALTH, 1905 to 1909.

Particulars.	1905.	1906.	1907.	1908.	1909.
QUANTITIES—	cwt.	cwt.	cwt.	cwt.	cwt.
Imports ...	960	63	344	38,711	28,020
Exports ...	510,278	431,896	358,167	260,364	225,872
Excess of exports over imports	509,318	431,833	357,823	221,653	197,852
VALUES—	£	£	£	£	£
Imports ...	632	58	156	16,289	12,774
Exports ...	189,699	162,453	132,342	102,410	91,945
Excess of exports over imports	189,067	162,395	132,186	86,121	79,171