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, 1910.

State.	Specially Reserved for	Total Forest	Percentas Ar	ge of State ea.	Percentage of Com- monwealth Area.		
	Timber.	Area.	Specially Reserved	Total Forest.	Specially Reserved	Total Forest.	
New South Wales	Acres. 7,660,496	Acres. 15,000,000	% 3.86	% 7.55	% 0.40		
Victoria	4,160,342	11,800,000	7.40	20.98	0.22	0.62	
Queensland	3,629,328	40,000,000	0.85	9.32	0.19	2.10	
South Australia	147.084	3,800,000	0.03	0.66	0.01	0.20	
Western Australia	11,148,487	20,400,000	17.85	3.27	0.58	1.07	
Tasmania	* 1,000,000	11,000,000	5.95	65.56	0.05	0.58	
Commónwealth	27,745,737	102,000,000	_		1.45	5.35	

^{*} Approximate.

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.

Country.		Total Pour View Country Area.			Total Forest Area.	Percentage of Total Area.	
Commonwealth		Sq. Miles. 159,375	% 5.35	Rumania		Sq. Miles. 4,312	% 8.50
New Zealand	***	26,678	25.65	Sweden	• • • •	90.241	52.20
United Kingdom		4,800	. 3.96	Norway	•••	26,685	21.50
77		36,005	17.58	Russia in Euro		859,375	43.04
41	••••	10,249	2.98	United States	- 1	860,000	24.08
	••••						
Germany	• • • •	54,015	25.90	Canada	••••	836,000	22.33
Switzerland	•••	3,290	20.60	Cape Colony		537	0.19
Italy	!	15,796	14.29	British India		128,890	11.74
Austria		37,700	31.66	Japan		28,450	19.00
Hungary		16,475	17.90	i -	İ	,	1

- 2. Characteristics of State Forest Areas.—(i.) New South Wates. Great diversity exists in the more dense distribution of timber trees in the coastal region, between the Great Dividing 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, taflowwood, 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, clive, 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, and 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. The principal forest districts of South Australia proper are restricted largely to the hill ranges in the neighbourhood of Adelaide and Spencer Gulf. The trees, however, have not the fulness and lofty growth of those of the eastern and southwestern 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 forestclad, and ti-trees inhabit low, damp situations. The sandalwood trees grow 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-sheeak, eucalyptus, and wattle-mostly of limited extent, rise from the plains like islands.
- (v.) Northern Territory. 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.
- (vi.) 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.

- (vii.) 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 flourish in 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.

§ 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. It is asserted 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. 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 to have followed on the planting of trees on denuded lands, or along eroding 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 forestal 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

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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 1910:—

STATE FORESTRY DEPARTMENTS, 1910.

Particulars.	N.S.W.	Victoria.	Q'land.	Sth. Aust.	West. Aus.	Tas
	Director of Forests	Conservator of Forests	Director of Forests	Conservator of Forests	InspGen. of Forests.	
Salaries of persons engaged in administration and control £ Salaries of technical experts.	2,602	2,785†	7,038‡	746	782	260
forest rangers, etc £ Incidental expenses £ No, of persons forming office staff No, of persons forming field staff	12,682† 10,448 14 66	14,540† 550 13 67	962 4 5	1,203 398 6 26	2,800 (988 5 14	§

^{*}Administered by Lands Department. † Including allowances. ‡ Including proportion of salaries of Land Commissioners and Crown Land Rangers. § Not available.

The revenue and expenditure of the State Forestry Departments from 1906-7 to 1910-11 are given below:—

REVENUE OF STATE FORESTRY DEPARTMENTS, 1906-7 to 1910-11.

St	State.				1907-8.	1908-9.	1909-10.	1910-11.
				£	<u>£</u>	£	£	£
New South Wales				50,397	56,048	57,593	66,030	87,618
Victoria	•••]	24,971	29,013	40,678	37,992	43,886
Queensland				14,560*	22,236	27,880	35,200	39.645
South Australia	• • •			2,981	3,474	3,416	3,089	3,756
Western Australia	• • •	•••		22,783	23,500	29,484	31,549	23,985
Tasmania	•••	•••	•	4,220	3,841	3,871	3,840	4,366
Commonwealth	•••	•••		119,912	138,112	162,922	177,700	• 203,256

^{*} For calendar year ended previous 31st December.

EXPENDITURE ON STATE FORESTRY DEPARTMENTS, 1906-7 to 1910-11.

s	State.					1908-9.	1909-10.	1910-11.
				£	£	£		£
New South Wales]	20,259	19,545	20,169	24,510	26,695
Victoria	•••]	21,108	18,754	27,066	27,230	46,448
Queensland	•••			6,700	6,940	4,652	5,000	8,000
South Australia		•••		6,801	7,542	10,171	16,411	20,968
Western Australia		•••		6,270	6,271	8,755	10,110	8,572
Tasmania	•••	•••		426	424	1,492	260	240
			- [-					
Commonwealth	•••	•••		61,564	59,476	72,305	83,521	110,923

- 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 three forest nurseries, situated at Macedon, Creswick, and Frankston. 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 tallowwood, 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 eucalyptus 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, eucalyptus, 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 in forest reserves and plantations is 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 Forest 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 500 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.

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(iv.) South Australia. In this State there are several plantations, the most important being at Bundaleer (7337 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 dryness of the climate, the forests are not dense. Special attention has been given in South Australia to sylviculture, 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. other eucalypts found in South Australia, the white ironbark (E. leucoxylon), 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. 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. useful timber, but in these plantations have not yet reached an age suitable for utilisa-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-eight 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 planting of timber trees.

A substantial increase in the amounts voted for recent years has enabled great progress to be made in planting 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-afforestation by natural regeneration of a large area in the Penola State forest, under a thorough system of fire protection.

(v.) Western Australia. A State sylvicultural 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 two forest plantations where conifers, acacias, and sandalwood are cultivated, 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 1910 are given hereunder:-

SYLVICULTURAL NURSERIES AND PLANTATIONS, 1910.

Particulars.	New South Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tas- mania
Expenditure on plantations and upkeep of sylvicultural nurseries No. of persons engaged in nurseries No. of sylvicultural nurseries Area of sylvicultural nurseries No. of forest plantations Area of forest plantations Extent of public distribution of trees or number of trees issued	£964 11 1 85 ac. 3 180 ac. 39,000	£14,367 20 3 . 54 ac. 10 15570 ac. 27,000	nil nil nil nil 1 500 ac.	£18,621 20 7 7 ac. 107 9684 ac. 300,000	£2900 4 1 17 ac. 2 300 ac. 82,000	£200 2 1 1½ ac. 2 ac.

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 established at Creswick, in Victoria, as a School of Forestry. The site is near the State plantation and nursery. General class-teaching is given at the school, but the principal aim of the Forest Department is 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 employment 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 are also afforded to members of the present forests staff to qualify in special subjects by attending winter classes. The school was 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. Another red ironbark (E. leucoxylon), heavy, dense, and strong, is greatly valued for bridge beams and piles. Tallowwood (E. microcorys) is strong, heavy, very durable, not easily split, and turns and planes well. It

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

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 weår 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. Grev gum (E. propingua), 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 for use 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 purpose 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. corynocatyx) 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 is 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 also 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 good 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 coopers' work. (Grevillea robusta and Orites excelsa) is also in request for coopers' 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, cabinetmaking, 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, coopers' work, and masts. Other Australian brush timbers of minor importance are sassafras (Atherosperma moschata), used for saddletrees 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 1906 to 1910.

	Stat	e.		1906.	1907.	1908.	1909.	1910.
Queensland South Australia Western Australia	· · ·		 	51,103,000 82,801,846 130,763	Sup. feet. 122,998,000 55,873,000 91,752,000 143,000 110,395,000 35,228,000	Sup. feet. 123,152,000 54,602,000 100,760,000 436,000 165,766,000 44,335,000	Sup. feet, 134,070,000 50,000,000 108,391,000 240,500 171,825,000 45,035,000	Sup. feet. 138,845,000 51,000,000 116,438,000 210,000 133,631,000 54,933,000
Commonwealth			 	429,166,003	416,389,000	489,051,000	509,561,500	495,057,000

The only States for which annual returns are furnished of the value of locally sawn or hewn timber are South Australia and Tasmania. The values returned for South Australia for the years 1906 to 1910 are respectively, £230; £815; £1084; £411; and £330.* For Tasmania the values for the years 1906 to 1910 are respectively, £75,817; £110,689; £93,762; £138,492; and £194,106. The estimate for New South Wales, 1901 to 1906, is £4,050,000; for 1907, £1,440,000; for 1908, £763,241; for 1909, £801,456; and for 1910, £891,111. 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; and £248,315 in 1910. The output of Western Australian sawmills was valued at £5,268,235 for the years 1901 to 1907; £763,241 in 1908; £1,105,108 in 1909; and £681,213 in 1910. For Queensland the value for 1908 was £665,350; for 1909, £736,578; and for 1910, £858,741.

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:—1906, £217,569; 1907, £244,170; 1908, £234,154; 1909, £255,650; 1910, £226,080. This is exclusive of hewn timber. No figures on a similar basis are available for Queensland. The estimates for South Australia for 1906 to 1910 are £610; £440; £1086; £1628; and £1450. Western Australia averaged 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, and £126,514.

[•] It is, of course, evident that the value of production was much greater than this.

§ 5. Oversea Trade.

1. Imports.—The timber imports are shewn according to countries of origin in the table below. Previously these figures were tabulated according to countries whence imported, and were so published in earlier issues of the Year Book. They are now presented in the improved form.

IMPORTS OF DRESSED TIMBER, COMMONWEALTH, 1907 to 1910.

Country of Origin.		Quar	ntity.*		Value.				
00 amor, 01 012gam	1907.	1908.	1909.	1910.	1907.	1908.	1909.	1910.	
United Kingdom New Zealand Other British Poss Norway Sweden United States Other For Countries	sup. ft. 45,554 17,810 5,333 52,377,370 7,122,102 1,710,306 1,153,309	sup. ft. 11,853 32,704 35,655,292 7,623,737 1,661,590 220,821	sup. ft. 14,003 49,598 41,759,024 12,104,559 1,361,253 541,804	sup. ft. 12,012 2,304 39,489 48,465,404 13,648,238 1,747,748 231,960	£ 553 111 32 303,173 48,056 19,950 4,730	£ 334 432 228,322 50,356 20,079 2,000	£ 298 602 258,061 84,752 15,985 4,757	£ 409 30 633 338,924 100,968 21,510 4,280	
Total	62,431,784	45,205,997	55,830,241	64,147,155	376,605	301,523	364,455	466,754	

^{*} Quantities are not included in classes not measured in super. feet.

IMPORTS OF UNDRESSED TIMBER, INCLUDING LOGS, COMMONWEALTH, 1907 to 1910.

		Quan	tity.*	Value.				
Country of Origin.	1907.	1908.	1909.	1910.	1907.	1908.	1909.	1910.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom	102,245	40,848	54,075	65,420	1,424	750	902	738
Canada	7,933,877	8,612,606	16,999,515	15,585,078	32,004	36,020	74,133	68,308
India	825,425	343,674	77,674	483,635	16,900	11,085	2,613	13,60
New Zealand	69,112,328	82,034,209	69,959,470	70,604,559	395,043	498,087	458,456	416,630
Straits Settlem'ts	147,757	135,871	231,025	295,525	736	745	1,254	1,799
Other British Poss.	2,816	62,858	111,592	75,033	44	1,447	1,086	909
Japan	12,290,109	9,199,839	6,990,717	7,138,554	33,966	34,429	28,590	29,12
Java	537	805,284	479,055	64,459	11	12,999	1,959	1,24
Norway		5,007,451	3,894,852	6,104,204	13,957	31,997	26,228	43,06
Russia	1,346,590	8,851,925	6,597,627	14,878,825	10,364	51,045	37,147	83,40
Sweden	6,268,170	4,229,960	4,741,846	6,506 762	39,269	29,693	44,187	44,378
United States	119,498,696	147,463,309	101,434,431	156,219,083	631,293	754,780	531,116	835,61
Other For. C'ntries	203,767	259,727	233,204	653,617	1,154	2,508	2,020	3,35
								
Total	220,031,028	267,047,561	211,805,083	278,674,754	1,176,165	1,465,585	1,209,691	1,542,178

^{*} Quantities are not included in classes not measured in super. feet.

The year 1907 shewed considerable decrease in comparison with previous years, both in quantity and value, but the export was again heavy in subsequent years.

^{2.} Exports.—The quantity and value of undressed (sawn) timber exported from 1906 to 1910 is given below, the countries of destination being also shewn.

EXPORTS OF UNDRESSED TIMBER (SAWN), COMMONWEALTH 1906 to 1910.

Country to which		Ó	Quantity	·.*				Value.		
Exported.	1906.	1907.	1908.	1909.	1910.	1906.	1907.	1908.	1909.	191Ö.
	1000	1000	1000	1000	1000	£		£	£	£
	Sup. ft.		Sup. ft.	Sup. ft.						
United Kingdom	25,561	14,156	20,760	21,689	10,879	167,081	88,010	139,223	151,724	77,003
Canada	568	368	1,314	492	610	5,566	4,240	13,143	5,267	7,038
S. African Union	6,282	6,503	1,104	3,768	11,687	35,211	36,693	7,234	24,712	80,223
Ceylon	25	21	3	2,235	303	213	211	23	14,864	1,833
Fiji	1,713	1,899	1,523	1,305	1,994	11,159	12,144	10,783	7,950	13,392
India	63,249	40,304	39,995	55,367	44,852	384,463	266,801	276,821	364,430	300,411
Mauritius	820	6	241	8	525	5,128	66	1,606	75	3,533
New Zealand	17,705	22,212	36,664	25,424	20,766	120,480	151,985	248,636	172,705	147,314
Ocean Island	574	705	974	416	268	3,935	5,579	7,914	3,296	1.605
Papua	142	94		160	357	1,260	899	1,146	1,366	3,497
Straits Settlem'nts	1.047	254	1,838	601	52	5,849	1,909	9,943	3,877	320
Other British Pos.	5	506	4,743	4,022	2,643	38	2,777	30,282	29,702	19.651
Argentine Repub.	2,948	1,142	1,590	1,134	3,007	19,652	7,618	10,594	7,499	19.797
Belgium	509	1,286	2.515	1,820	3,535	3,913	7,659	19,618	12,154	24.870
China	12,335	2.845	2.373	7.263	409	81.673	19,397	12,370	26,595	2,693
Egypt	20	91	7.831	10.176	15,708	136	635	52,207	62,096	104,600
Germany	3,985	2,199	4.616	2.027	1,944	32,716	19.824	37,354	17,987	18.555
Japan	403	527	333	73	26	2,695	5.329	2.889	484	317
Kaiser Wilhelm L.	30	65	26	75	43	195	475	199	556	333
Marshall Islands	503	562	460	162	229	3,418	4.177	3,770	1,325	1.643
Netherlands	1.175	869	245	35		5,745	2.854	1.660	256	1,010
Neu Pommern	121	170	204	211	562	841	1,242	1,454	2,504	4.838
New Caledonia	136	147	190	118	441	843	912	1,415	949	3.511
Philippine Islands	2.394	10,589	4.818	306	3,282	12,556	64.426	30,849	3,372	21,132
Port'g'ese E.Africa	3,262	825	1,296	3.539	4,720	18,636	5.039	7,720	24,230	31.036
South Sea Islands	0,202		1,200	0,000	-,	20,000	0,000	1 1,20	21,200	01,000
(so described)	415	421	248	337	388	2,760	3,233	2.069	2.965	3.247
U.S. of America	582	799	416	659	2.501	5,272	7,248	3,633	7,703	12,693
Uruguay	6.137	4.815	9.300	3,894	6,240	40.912	32,073	62,003	25,963	41,596
Other For. Count.	1,776	967	334	648	4.863	7,184	6,669	2,642	5,164	29,674
omer For. Count.			334						3,104	25,014
Total	154,422	115,347	145,954	148,064	142,834	979,530	760,124	999,200	981,770	976,355

^{*} Quantities are not included in classes not measured in super. feet.

QUANTITIES OF TIMBER IMPORTED INTO, AND EXPORTED FROM, THE COMMONWEALTH, 1906 to 1910.

Description		1906.	1907.	1908.	1909.	1910.
			IMPORTS.			<u> </u>
Veneers So Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, 6 Undresse	a iii	48,209,222 200,434,075 1,134,329 800,260 468,990 } 2,345,789	62,431,784 207,579,407 12,451,619 1,106,364 2,079,041 1,470,765	235,319 48,104,666 250,465,749 16,581,812 1,461,726 830,960 62,804 1,610,571	57,924,923 200,469,213 11,335,870 1,226,082 1,270,476 4,600	599,178 65,609,803 257,007,899 21,666,861 2,123,998 690,710 600 3,929,063
Laths for blinds ,, other Spokes, rims, fell Doors Architraves, mou	oes ,,		19,966,870 975 65,581	1,595,127 386 34,175	25,692,686 659,298 4	38,564,51 835,40 9,04

^{*} Quantity not available.

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

Description.	1906.	1907.	1908.	1909.	1910.
	<u> </u>	EXPORTS.			
Veneers	.)				
Dressed Sup. fee	745,800	669,647	701,801	1,280,703	990,924
Undressed ,	154,422,490	115,347,179		148,063,541	142,833,520
Logs ,,	1,740,775	4,261,379	3,326,259	4,254,472	2,195,219
Palings No.	656,170	730,825	826,900	718,550	608,602
Pickets "	91,594	7,147	6,050	3,000	19,570
Shingles "	48,268	38,312	47,100	12,944	100,540
Staves—Dressed, etc. "	1)	1	*	90	5,000
" Undressed "	\f		911		1,267
Laths for blinds "	1,533,040	1,571,705	*	*	*
,, other ,,	1,055,040	1,371,703	1,056,781	14,240	677,280
Spokes, rims, felloes "	ļ	,	*	*	*
Doors "	1,106	1,338	*	*	*
Architraves, mouldings	,				·
etc Lin. fee	56,886	50,616	46,848	90,458	94,054
Other \dots	. *	*		•••	
1	EXCESS OF 1	MPORTS OV	ER EXPORT	s.	
					1
Veneers	.		235,319		599,178
Dressed Sup. fee		61,762,137	47,402,865		64,618,879
Undressed "	46,011,585	92,232,228	104,512,135	52,405,672	114,174,373
Logs ,,	-606,446	8,190,240	13,255,553	7,081,398	19,471,642
Palings No		730,825	-826,900	-718,550	-608,602
Pickets ,,	708,666	1,099,217	1,455,676	1,223,082	2,104,428
Shingles ,,	420,712	2,040,729	783,860	1,257,532	590,170
Staves—Dressed, etc. ,,	2,345,789	1,470,765	f *	4,510	-4,400
" Undressed "	5 2,343,169	1,470,700	(1,609,660)	2,390,798	3,927,796
Laths for blinds ,,	23.834.953	18,395,165	*	* 1	*
,, other ,.	25,054,955	10,595,105	(20,603,402)	25,678,446	37,897,232
Spokes, rims, felloes "	i	•••	*	*	*
Doors ,,	2,237	-363	*	*	*
Architraves, mouldings,	·	1		!	
etc Lin. feet		14,965	-12,925	60,733	85,009
Other	*	* ;	* 1	*	*
* Quantity not avai	labla N	Toto diduit	fies excess of e	unauta arran in	nowto

VALUE OF TIMBER IMPORTED INTO, AND EXPORTED FROM, THE COMMONWEALTH, 1906 to 1910.

Description.			1906.	1907.	1908.	1909.	1910.					
IMPORTS.												
			£	£	£	£	£					
Veneers		•••	•••		8,289	8,778	14,814					
Dressed	•••	•••	311,358	376,605	324,997	376,732	478,162					
Undressed			948,021	1,141,199	1,388,224	1,158,445	1,432,301					
Logs			5,351	34,966	77,361	51,246	109,877					
Palings			•••									
Pickets			2,891	3,748	6,174	4,117	8,804					
Shingles	•••		435	2,987	913	1,873	851					
Staves-Dresse	l. etc.	- 1	00.010	i '	(1,173	342	145					
Undres		- 11	20,612	13,326	(14,215	18,178	24,542					
Laths for blind	·	- í l	10.000		1 44	83	24					
,, other		- 11	18,802	18,118	16,547	20.970	28,397					
Spokes, rims, fe				i	35,976	12,408	17,297					
Doors			1,373	438	251	1	1					
Architraves, mo	uldings, etc.		676	489	156	59	29					
Other			19,937	40,617	20,271	588	136					
	•••	• • • •		!								
Total	zalne		1,329,456	1,632,493	1,894,591	1,653,820	2,115,380					

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

	1906. 1907.		1908.	1909.	1910.	
		Expo	ORTS.	<u> </u>	'	
	1	£	£	£	£	£
Veneers			• • • • •	•••		
Dressed		6,886	6,603	7,438	12,104	11,39
Undressed ·		979,530	760,124	999,200	981,770	976,35
Logs		12,662	22,475	18,611	23,690	16,76
Palings	!	3,065	3,541	4,227	3,449	3,10
Pickets		569	66	52	26	17
Shingles		96	108	125	29	21
Staves—Dressed, etc.) [}		111	1	5
Undressed	- 11	•••	•••	17	i	6
Laths for blinds	- i !			1,073	1,179	1,13
,, Other	- ; !	1,685	1,706	1,139	20	70
Spokes, rims, felloes				6,131	5.191	8,68
Doors		746	1,027	732.	991	75
Architraves, mouldings, etc.		467	354	258	511	62
Other		6,405	9,129			
						
Total value	••••	1,012,111	805,133	1,039,114	1,028,961	1,020,04
Exc	ess	OF IMPOR	TS OVER	EXPORTS.		
Veneers				8,289	8,778	14,81
		•••			0,110	14,01
	1	204 479 1	970 009	217 550	264 629	466.76
Dressed		304,472	370,002	317,559	364,628	
Dressed Undressed		-31,509	391,075	389,024	176,675	455,94
Dressed Undressed Logs		-31,509 -7,311	391,075 12,491	389,024 58,750	176,675 27,556	455,94 93,10
Dressed Undressed Logs Palings		-31,509 -7,311 -3,065	391,075 12,491 —3,541	389,024 58,750 —4,227	176,675 27,556 —3,449	455,94 93,10 —3,10
Dressed Undressed Logs Palings Pickets		-31,509 -7,311 -3,065 2,322	391,075 12,491 —3,541 3,682	389,024 58,750 4,227 6,122	176,675 27,556 -3,449 4,091	466,76 455,94 93,10 3,10 8,62
Dressed Undressed Logs Palings Pickets Shingles		-31,509 -7,311 -3,065	391,075 12,491 —3,541	389,024 58,750 -4,227 6,122 788	176,675 27,556 -3,449 4,091 1,844	455,94 93,10 3,10 8,62 64
Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, etc.		-31,509 -7,311 -3,065 2,322	391,075 12,491 —3,541 3,682	389,024 58,750 4,227 6,122 788 1,062	176,675 27,556 -3,449 4,091 1,844 341	455,94 93,10 3,10 8,62 64
Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, etc. Undressed		-31,509 -7,311 -3,065 2,322 339	391,075 12,491 —3,541 3,682 2,879	389,024 58,750 4,227 6,122 788 (1,062 14,198	176,675 27,556 -3,449 4,091 1,844 341 18,178	455,94 93,10 3,10 8,62 64 9 24,47
Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, etc. Undressed Laths for blinds		-31,509 -7,311 -3,065 2,322 339	391,075 12,491 —3,541 3,682 2,879	389,024 58,750 -4,227 6,122 788 (1,062 14,198 (-1,029	176,675 27,556 -3,449 4,091 1,844 341 18,178 -1,096	455,94 93,10 3,10 8,62 64 9 24,47 1,11
Dressed Undressed Logs Plalings Pickets Shingles Staves—Dressed, etc. Undressed Laths for blinds , other		-31,509 -7,311 -3,065 2,322 339 20,612	391,075 12,491 -3,541 3,682 2,879 13,326	389,024 58,750 -4,227 6,122 788 (1,062 14,198 (-1,029 15,408	176,675 27,556 -3,449 4,091 1,844 341 18,178 -1,096 20,950	455,94 93,10 -3,10 8,62 64 9 24,47 -1,11 27,68
Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, etc. Undressed Laths for blinds , other Spokes, rims, felloes	· · · · · · · · · · · · · · · · · · ·	-31,509 -7,311 -3,065 2,322 339 20,612 17,117	391,075 12,491 -3,541 3,682 2,879 13,326 16,412	389,024 58,750 -4,227 6,122 788 { 1,062 14,198 } -1,029 15,408 29,845	176,675 27,556 -3,449 4,091 1,844 341 18,178 -1,096 20,950 7,217	455,94 93,10 -3,10 8,62 64 9 24,47 -1,11 27,68 8,61
Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, etc. Undressed Laths for blinds , other Spokes, rims, felloes Doors	· · · · · · · · · · · · · · · · · · ·	-31,509 -7,311 -3,065 2,322 339 20,612 17,117 627	391,075 12,491 -3,541 3,682 2,879 13,326 16,412 -589	389,024 58,750 -4,227 6,122 788 (1,062 14,198 (-1,029 (15,408 29,845 -481	176,675 27,556 —3,449 4,091 1,844 341 18,178 —1,096 20,950 7,217 —990	455,94 93,10 -3,10 8,62 64 9 24,47 -1,11 27,68 8,61 -75
Dressed Undressed Logs Palings Slingles Staves—Dressed, etc. Undressed Laths for blinds , other Spokes, rims, felloes Doors Architraves, mouldings, etc.		-31,509 -7,311 -3,065 2,322 339 20,612 17,117 627 209	391,075 12,491 -3,541 3,682 2,879 13,326 16,412 -589 135	389,024 58,750 -4,227 6,122 788 (1,662 14,198 (-1,029 (15,408 29,845 -481 -102	176,675 27,556 —3,449 4,091 1,844 341 18,178 —1,096 20,950 7,217 —990 —452	455,94 93,10 -3,10 8,62 64 9 24,47 -1,11 27,68 8,61 -75
Dressed Undressed Logs Palings Pickets Shingles Staves—Dressed, etc. Undressed Laths for blinds , other Spokes, rims, felloes	· · · · · · · · · · · · · · · · · · ·	-31,509 -7,311 -3,065 2,322 339 20,612 17,117 627	391,075 12,491 -3,541 3,682 2,879 13,326 16,412 -589	389,024 58,750 -4,227 6,122 788 (1,062 14,198 (-1,029 (15,408 29,845 -481	176,675 27,556 —3,449 4,091 1,844 341 18,178 —1,096 20,950 7,217 —990	455,94 93,10 —3,10

Note. — signifies excess of exports over imports.

The exports of sandalwood were:—

EXPORTS OF SANDALWOOD, 1906 to 1910.

Country to which Exported.	l	Quantity.						Value.			
Country to which Experied.	1906.	1907.	1908.	1909.	1910.	1906.	1907.	1908.	1909.	0.	
Straits Settlements Other British Possessions China Other Foreign Countries	cwt. 134,769 9,369 4,364 28,025	7,284 4,593 31,637	1,484 14,680 17,560	12,890 5,163	15,223	3,721 1,782	2,542 1,803 10,886	589 5,604 6,238	5,036	3,319 6,30	
Total	177,005	184,412	192,168	——— 104,089	183,646	70,987	66,237	77,468	45,120	88,62	

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

EXPORTS OF TANNING BARK, 1906 to 1910.

Country				Quantit	y		Value.				
to which Exported.		1906.	1907.	1908.	1909.	1910.	1906.	1907.	1908.	1909.	1910.
United Kingdom	•	cwt. 46,825	cwt- 35,808	cwt. 5,878	cwt. 19,424	cwt. 12,159	£ 16,978	£ 12.976	£ 1,782	£ 8.188	£ 4,674
New Zealand		73,831	67,541	72,933	69,137 1,745	55,838	30,844	29,160	31,637	31,414	25,036
Belgium		6,864	$\frac{462}{27,011}$	1,655 25,154	15,910	1,868 40,556	218 2,695	214 10,241	793 9,432	902 5,966	860 15,815
Germany				328 142,382			676 110,754	192 78,352	167 53,329	105 43,063	319 70,449
Other For Countries		759	3,181	12,034	5,322	5,239	288	1,207	5,270	2,307	2,108
Total		431,896	358,167	260,364	225,872	295,616	162,453	132,342	102,410	91,945	119,25

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, 1906 to 1910.

Particulars.	1906.	1907.	1908.	1909.	1910.
QUANTITIES— Imports Exports Excess of exports over imports	cwt. 63 431,896 431,833	cwt. 344 358,167 357,823	260,364	cwt. 28,020 225,872 197,852	cwt. 12,648 295,616 282,968
Values	£	£	£	£	£
Imports Exports Excess of exports over imports	58 162,453 162,395		102,410	12,774 91,945 79,171	5,461 $119,254$ $113,793$