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## **Our own trees : a first book on the Australian forest**

AUTHOR(S)

Edward A. Vidler

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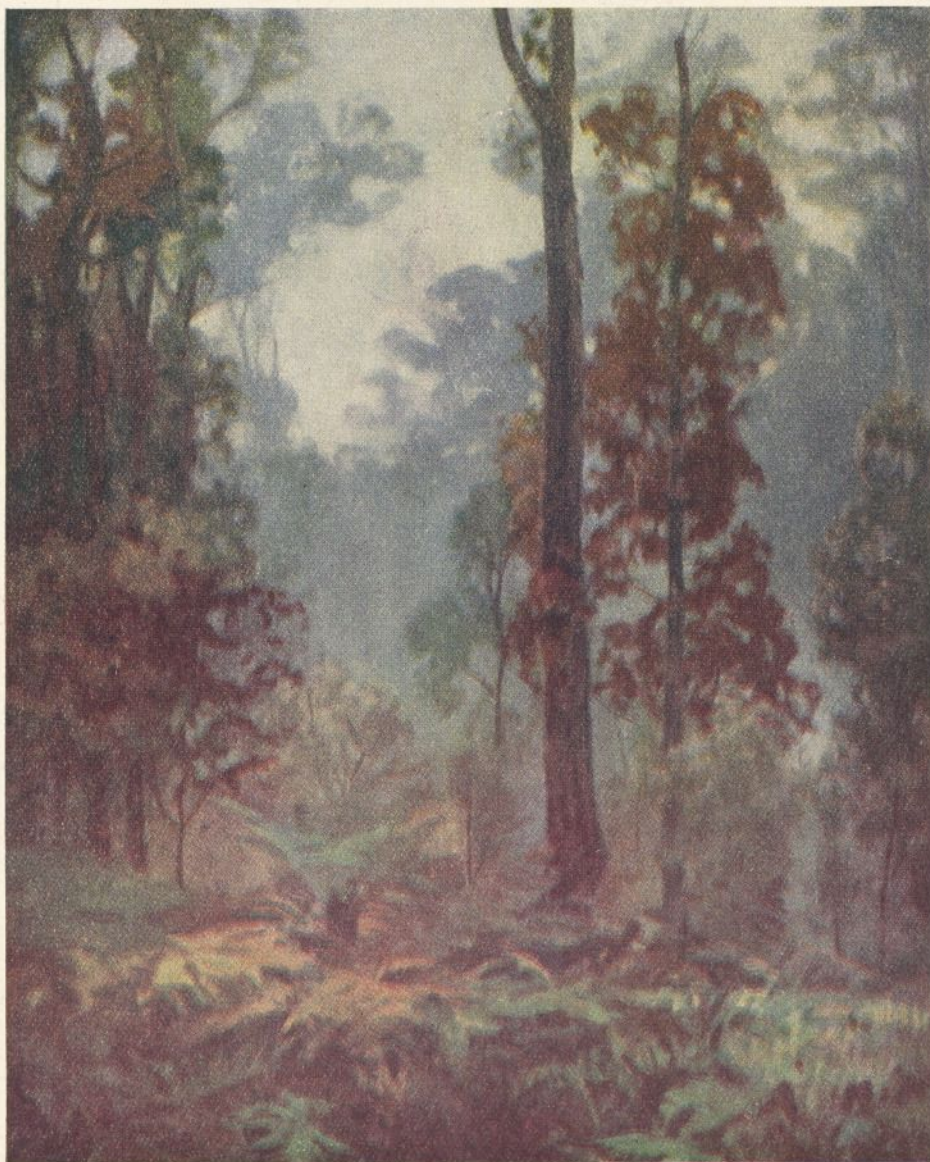
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# OUR OWN TREES

A First Book on the  
Australian Forest



*Painted by F. G. Reynolds*

*Price TWO SHILLINGS*



*Photographed from nature by Kerr Bros., Melbourne*

FLOWERS AND LEAVES OF THE FIREWHEEL TREE

(*Stenocarpus sinuatus*)



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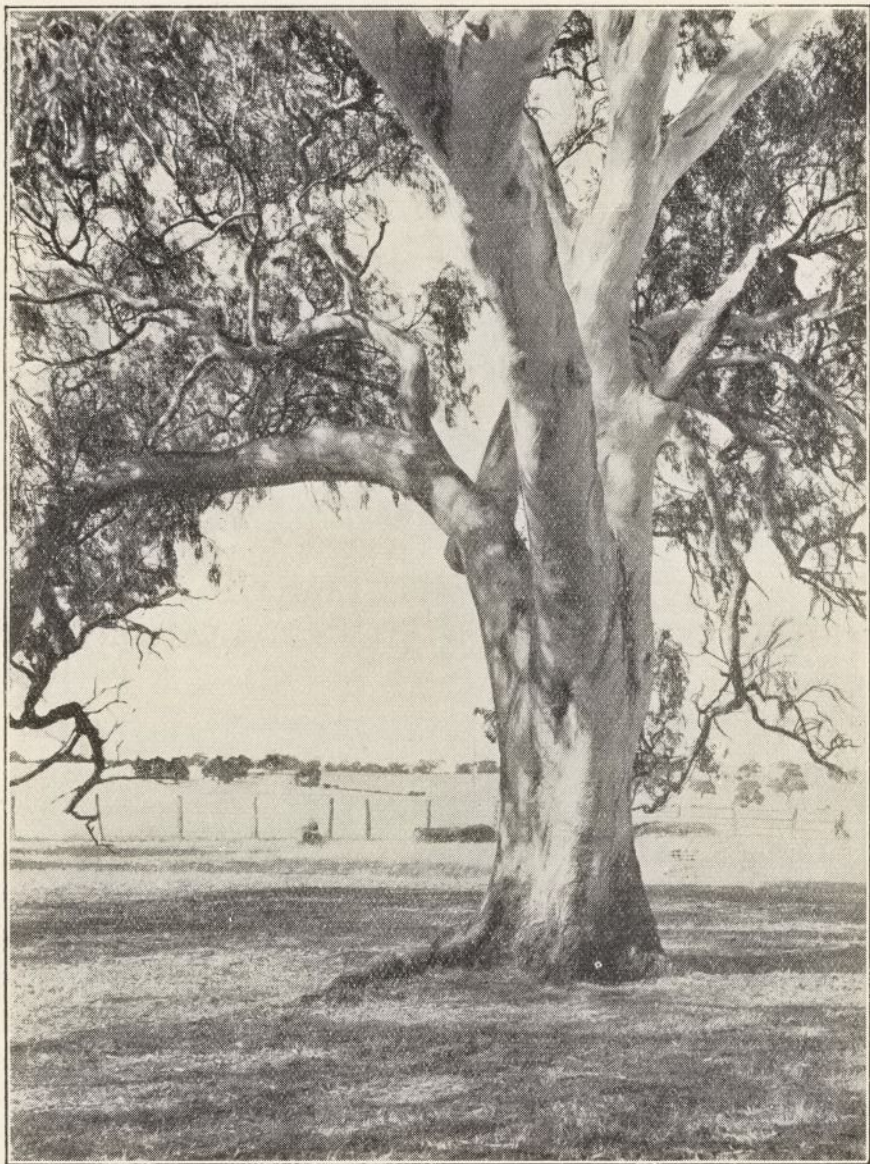
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OUR OWN TREES  
A FIRST BOOK ON THE AUSTRALIAN FOREST

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Forests Dept., Melbourne, photo.

A FINE RED GUM TREE  
(*Eucalyptus rostrata*)

# OUR OWN TREES

## A First Book on the Australian Forest

By  
EDWARD A. VIDLER

*"I think that I shall never see  
A poem lovely as a tree;  
A tree that looks at God all day  
And lifts her leafy arms to pray;  
A tree that may in summer wear  
A nest of robins in her hair,  
Upon whose bosom snow has lain,  
Who intimately lives with rain.  
Poems are made by fools like me,  
But only God can make a tree."*

—Joyce Kilmer

*Written, Illustrated and Printed in Australia*

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## INTRODUCTION



**H**ERE at last is the elementary book on Australian Trees that has been desired, and repeatedly asked for, during many years. The study of Forestry, the beauty and utility and general interest of individual trees, has long been urged as a most desirable part of a child's education, especially in Australia. With this book such a simple study can be commenced in an interesting way, by means of simple descriptions easily understood, leading it is hoped to a desire for more intensive study. For the latter purpose a more exhaustive, yet not too technical book is being prepared, giving a more or less complete survey of the Australian forest, under the title of "Native Trees of Australia."

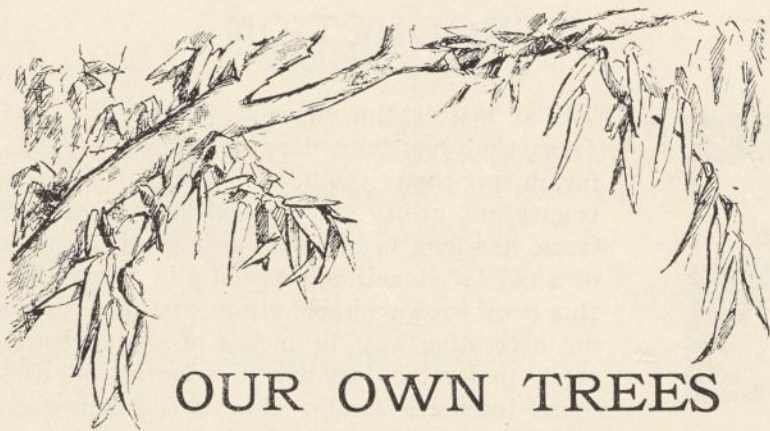
This book will also serve as an easy guide for adults in the choice of Australian trees and shrubs suitable for cultivation in gardens.

The writer gratefully acknowledges the sympathetic help received from Messrs. E. E. Pescott, A. D. Hardy and David G. Stead, whose revision of the manuscript has insured its scientific accuracy and comprehensiveness. Many leading educationists and foresters in the various States have cordially welcomed this long-deferred publication.



*Drawn by A. E. Oakley*

LEAVES AND FRUIT OF RED-FLOWERING EUCALYPTUS



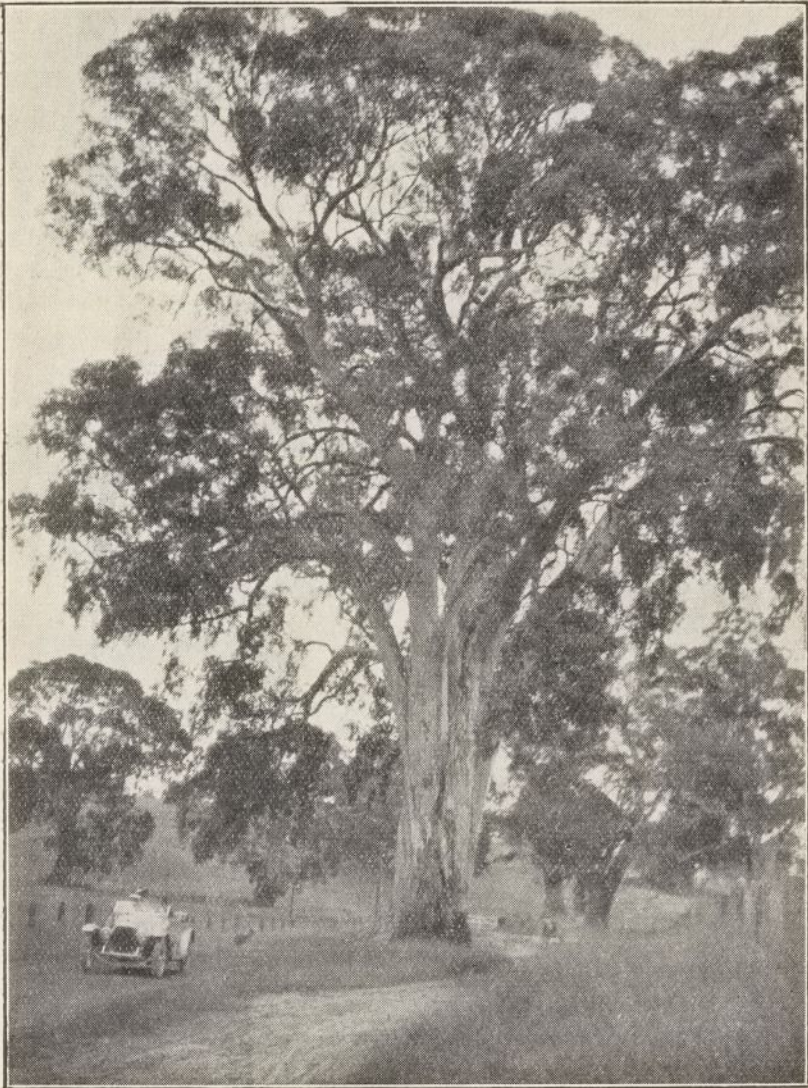
## OUR OWN TREES OF THE AUSTRALIAN FOREST

**W**E ARE so used to trees that we do not usually take much notice of them, though we like them, especially when we can sit under them on a hot day or climb them or swing on their branches. We think of them as the home of birds, in which they have their nests, and we like those best that have pretty blossoms, or nuts or fruit that we can eat.

That is what most children will say about trees, but they are really much more interesting and useful than that, as you will know when you have read this book, which has been written specially to tell children a good deal that they should know about the trees of Australia. It will tell only about those trees which are really our own because they have not been brought from other countries and were never known until they were seen here for the first time when Australia was discovered, and that was not a very long time ago. They have always grown naturally in this country of ours and are as much a part of the real Australia as its kangaroos and 'possums, its native bears and dingoes, its kookaburras and lyre-birds. They belong so much to us that we know, if they are seen growing in other countries, that they have been taken there from here or grown from seeds which at first could only have come from Australia. That is a fact I want you specially to remember.

When you have read this book, or had it read to you, I am sure you will be surprised to hear how many different kinds of Australian trees there are, besides those we know as "gums" and "wattles," and that there are very many kinds even of them. What will surprise you most of all will be the many interesting things that can be learnt about our own trees and how beautiful and valuable they are.





*E. A. Vidler, photo.*

A BIG GUM TREE IN SOUTH AUSTRALIA  
(Lindsay Park, Angaston)



## OUR OWN TREES

I never knew children who were not fond of flowers and who did not like their simple names such as roses, violets, heaths, lilacs, or want to learn the more difficult names, such as delphiniums, ixias, gladioli, and others harder still, but they do not often ask the names of trees or even those small trees that are called shrubs. They would find it very hard at first to say *sterculia*, *callitris*, *stenocarpus*, *grevillea*, which are names of Australian trees, though they are not really more difficult. They will say that trees are just trees, and that ought to do. It is only when the trees are covered with blossoms, like the golden wattles, the red-flowering gums, the deep-orange silky-oaks, and other beautiful trees, that children (or grown-up people, either) notice them very much or think them as nice to look at as garden plants.

We have heard a good deal about the idea of getting children to plant trees, and there is no doubt it is a very good one, not only because we will have more trees in the cities and towns, but because every child who plants one will know that there is one thing he or she has done which will last for a very long time and for many years will be adding to the beauty of the place where it is growing. Besides that, everybody who plants a tree will be helping on the idea of planting instead of destroying trees as so many people have been doing ever since white people came to Australia. Already there are a good many school plantations of trees on land that has been obtained for the school by the education department from the Government, and that splendid work should be carried on wherever it is possible. In any case, every school should have Australian trees planted round its playgrounds, and they should be of different kinds, so that children can see them for themselves and learn their names.

A tree is a noble thing to look at as it spreads its leafy branches wide and grows its strong trunk, standing up strongly in all kinds of weather, not minding the cold or the heat, and not afraid of the wind and rain, looking green and beautiful all the time. But it has often a great battle to fight so as to save its life from many troubles quite as bad as any storm and often very much worse. It may be attacked by a large army of tiny insects, so small that they can scarcely be seen, yet strong enough to do the trees more harm than the wind and the rain of a big storm. Then it will have to call in the help of its good friends, the birds, to kill the insects and so save its life. There are also diseases that may attack it, and one of the worst is caused by damp, such as standing all the time in stagnant water, which will rot its wood and make the trunk fall and break up.

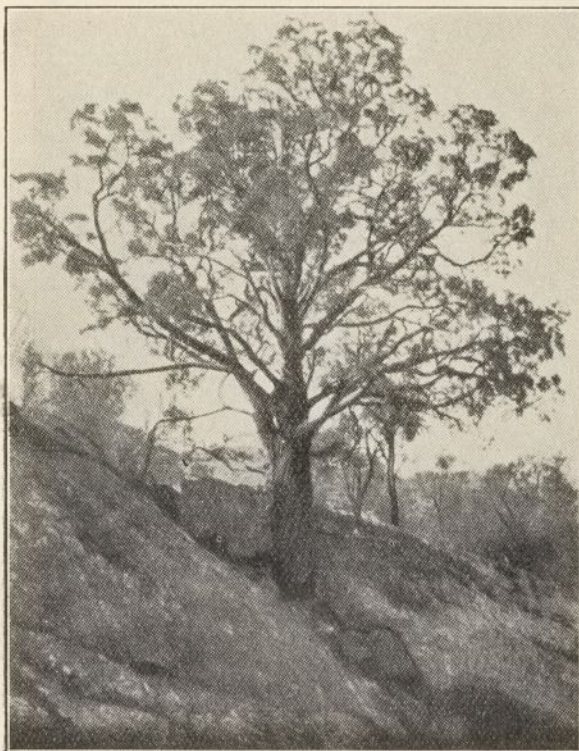
Of course a tree needs a certain amount of water to drink, for its life is in the sap that rises from its roots to the smallest leaves on the



topmost bough. Its roots are often very clever in finding water, even though there is only a little to be found. It may be growing on a rocky place where there does not seem to have ever been any water, but it will send its roots down and down through cracks or round boulders till at last they get to the water the tree knows is there. The Australian trees are nearly all hard and dry in their wood compared with British trees, which get much more rain, but all trees must have sap to run up through the soft outer wood of their trunks—that is why it is called “sap wood”—to keep them alive and make their leaves grow and their flowers bloom.

A tree breathes the air as well as drinks water, and it breathes through its leaves. There is one strange thing about our trees, and that is they are evergreen—they do not shed all their leaves in the winter. Most British trees, for instance, have bare branches in the winter,

all their leaves having died in the autumn and fallen off. But because this country has long and dry summers and the trees need to drink and breathe, nearly all our trees have leaves all the year round. They are not always the same leaves, of course, for new ones grow in the spring-time to take the place of the oldest ones that have died, but there are always plenty on the tree. The leaves not only breathe the air but take in at the same time what moisture is in the air, and so a tree has two ways of keeping itself alive—through its roots and through its leaves.



Keith Henderson, photo.

A TREE GROWING ON ROCKY GROUND



W. H. D. LeSoeuf, photo.

A NATIVE BEAR AT HOME



Trees are not only the homes of birds, but also of some animals, such as opossums and native-bears—there are even tree-kangaroos, but very few of them—which live in the branches or in holes in the trunk and eat the tender young leaves, especially of gum trees. Other animals, such as cattle and sheep, will eat the leaves of some sorts of gum and wattle trees—those of the “boree” and “mulga” acacias (wattles) and sugar-gum, for instance—when there is no grass, and it is said that these leaves not only feed them well but keep them free from disease. And then, of course, there is the timber of trees, which is always useful and often very valuable, the honey from the flowers, and even the bark and the leaves, the gum and resin, as I shall tell you in this book.

Now let us begin with the kings of the Australian trees, which are so much admired by everyone who sees them—

## THE GUMS (Eucalyptus)

When we think of the trees of Great Britain the oak comes at once to our minds, just as do the pines of Scandinavia, the redwoods of North America, the kauri of New Zealand, or the palms of India or Egypt. So do we think of the gums as the principal trees of Australia. There are none so truly Australian, and none so numerous here. As much as three-quarters of our trees are gums. No picture of an Australian landscape can be complete without at least one, and when an Australian who is travelling in other countries, such as Africa or America, sees a gum tree growing there he knows that it is as much a stranger as he is, though he is as glad to see it as he would be to welcome any other Australian friend.

Gum trees are planted in great numbers in the west of North America and in North, South and West Africa, where the climate is like ours. They are seen everywhere in South Africa, especially in the towns and cities, where they are more numerous than any other trees, except perhaps the wattles, which have also found a home there. The gum tree is the true Australian native among trees; it belongs to this country only, if we except a few small neighbouring islands, where it has also always grown. If it is found growing in any other country we know it has been planted there and is not in its true home.

This is what Mr. Frank Tate wrote quite recently while on a visit to Africa: “The towns of Rhodesia are well planted, and great use is made of eucalyptus and the Queensland silky-oak. The largest specimens I

## OUR OWN TREES

have ever seen of the lemon-scented gum are in the public gardens of Salisbury. They make a beautiful picture with their pale grey stems. Along some of the avenues long rows of these gums stretch for a half mile or so, three abreast on each side. On a warm evening after rain the scent of the dry fallen leaves is delightful."



*E. E. Pescott, photo.*

BUD, BLOSSOM, SEEDS AND LEAVES OF THE GREEN FLOWERING GUM

(EUCALYPTUS LEHMANNI)

Most people do not know that there are as many as two hundred quite different kinds (or species) of gum-tree, small and large, and are very much surprised when they hear it, and wonder how many sorts they have seen. When they think about it, they may remember that some gum-trees have very small flowers and some of the biggest trees have the smallest flowers, so small they scarcely notice them; others which are not much more than shrubs have much larger flowers, three or four times as large, and they are not all white but some red and of different shades of red, such as pink, crimson and bright scarlet, but few people have seen the gum-tree that has large green blossoms and quaint buds and large seed-pods, as you see in the picture on this page.





*Forests Dept., Melbourne, photo.*

WHITE GUMS AND "MESSMATE"  
(MOUNT COLE, VICTORIA)



## OUR OWN TREES

When we look at the buds of most gum-trees, with the light caps on the top, we understand why the trees are called eucalyptus, which word is made up of two ancient Greek words which mean "well-covered," and that is just what the little caps do. But I will say more about that soon. Just now I want to say something about these strange names of trees which children will find so hard to say. The reason for choosing ancient Greek and Latin names for all kinds of living things is so that people who speak different languages may understand. What would a foreigner



E. E. Pescott, photo.

BUDS, BLOSSOMS AND LEAVES OF BLACK IRONBARK  
*Eucalyptus sideroxylon*

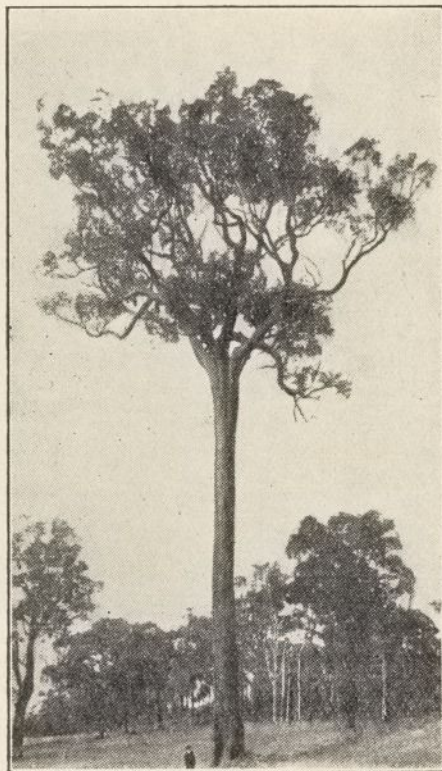
who does not know English make of such a word as "gum" for a tree, even if he did know what it meant? What would he understand by the name "wattle," which was given to the Acacia when the first settlers used its saplings as a base for clay-plaster which was thrown on—the whole being called "wattle-and-daub"; for "wattling" or weaving into wickerwork which they used for shelters? Then what about those strange names that the settlers gave to some trees that do not bear any real fruit, such as Native Cherry, Apple Tree, Peach or Plum Tree, which do not suit those trees at all, as you would soon find if you looked for such fruits on them. And the still stranger names, or nicknames, such as "Messmate"—a very well-known kind of gum-tree—or "Dead-Finish" or "Wait-awhile," when the pioneers found the scrub too thick or thorny to get through, or by the name of one of those men, "Jim Donnelly," a strange name to give to a tree. But you will like the native names for some Australian trees, such as "boree," "myall," "mulga," "karri," "jarrah," "gidgee," "bunji-bunji," "burra-murra," which have the quaint but pleasant sound of the aborigines' speech.

who does not know English make of such a word as "gum" for a tree, even if he did know what it meant? What would he understand by the name "wattle," which was given to the Acacia when the first settlers used its saplings as a base for clay-plaster which was thrown on—the whole being called "wattle-and-daub"; for "wattling" or weaving into wickerwork which they used for shelters? Then what about those strange names that the settlers gave to some trees that do not bear any real fruit, such as Native Cherry, Apple Tree, Peach or Plum Tree, which do not suit those trees at all, as you would soon find if you looked for such fruits on them. And the still stranger names, or nicknames,



Now to get back to the gum-trees. There are lots of things we must know about them that will be very interesting. These are their height, their bark, leaves, flowers, and their timber, and the uses to which they may be put. Those of us who have seen very big gum-trees in the dense bush where they usually grow straight and tall, have prided ourselves that our trees must be the tallest if not the biggest in the world. But we must not forget the great Redwood trees of North America, some of which have been positively known to have grown to 300 ft. high, but not very many. Most of the biggest ones have probably been chopped down and sawn up some years ago; so have our biggest gum-trees, which have also been as much as 300 ft. high, and the thickest part of the trunk of a few about 50 or 60 ft. round (girth) and about 20 ft. through (diameter). A gum-tree was cut down in West Australia which measured 40 ft. round and had a trunk 242 ft. high with branches nearly 100 ft. above that. This was called "King Karri," as well it might be. There was a big gum-tree in Gippsland, Victoria, in the hollowed-out trunk of which there was a church which would hold twenty or thirty people; and there have been large trees through the trunks of which a cart could be driven. There is a tree in the Beech Forest in which a farmer named Jack Gardner has his stable, as you will see in the picture. Gum-trees are often very old (from three to five hundred years, it is said) still growing well, healthy and solid. It is also said that gum-trees were growing in Australia 250,000 years ago.

But more important really than the size or age of a tree is the quality of its timber, and it is not the biggest tree that grows the best wood,



From "Australian Forestry Journal"

A "JARRAH" TREE



any more than it is the biggest man who has the best brains. A great deal could be said about the timber of different gum-trees, which was known at once to be very valuable when it was first seen by white people, though they found it was so hard that they were afraid it would break their axes and their saws. When they found how fine it was they sent a lot of it to England by the very first ships that went back, and ever



*From "The Gum Tree" (Journal of the Australian Forest League, Victoria)*

#### JACK GARDNER'S STABLE IN THE BEECH FOREST

since that time it has been known to be as good as any timber in the world, and in fact one of the very best. As it is so hard it is very durable. It is also sometimes very heavy. Some eucalyptus timber is the hardest, strongest, heaviest and most durable in the world.

There are several of our eucalyptus woods that are good for furniture-making, and almost every one of them is useful for such things as railway-sleepers, which are big blocks of wood on which the railway lines are laid for heavy and swift trains to pass over several times a day (so they have to be very strong), or for beams to support heavy floors and





N.S.W. Govt. Printer, photo.

LEMON-SCENTED GUM (*Eucalyptus citriodora*)

to span rooms for ceilings, or for high posts to carry telephone or telegraph lines, or big piles to support bridges or piers which have to stand in the water for many years without rotting, and for building ships or boats, and so many other useful purposes that it would take a whole page to tell them all.

The bark of gum-trees varies very much in various species and is so different that it is by the bark that many are known at once; so they are called ironbarks, stringy-barks, woolly-butts, black-butts, leather-jackets, and so on. So clever are some foresters, and people who know trees very well, that they can often tell what species a tree is, even from a distance, not only by its bark but by its shape and the way it

grows. It is not many people who can do that, but many more people who are not so clever about trees can group them at once by their bark. The iron-barks are so called because their bark is very close and hard, and it is also black or very dark. The stringy-barks are also well named because their bark is long, thin and loose, and often hangs from the tree in strips; the woolly-butts' bark is thick and rather soft inside, and the leather-jackets' is smooth and tough outside. The bark of some other gums is thin and peels off, leaving the trunk of the tree smooth, like the big tree in our first photograph (frontispiece). The aborigines cut a large slice of the bark off an ironbark or some other tree with a thick strong bark and shape it into a canoe, which they tie up with thongs of skin or some fibre and make it water-tight with gum or resin. White settlers in the Bush cut off slabs of bark for the roofs and sides of their huts, but that was chiefly in the early days before roads were made.



Some barks have a long and strong fibre which is being used for packing the seats of sofas and chairs, and which is also being made into all sorts of useful things such as wool-sacks, bags, even hats and slippers. The gum-tree bark is not so good for tanning leather as the wattle-bark and the kino to be got from most of them is not very plentiful or strong, but some give a resin which makes a good reddish stain for furniture and a varnish for floors.

There is so little gum in gum-trees that it is a wonder they have been given that name at all. They would be better called oil-trees, for the leaves of several of them give a quantity of very strong oil when boiled in a machine, the oil being much used for curing colds and rheumatism and healing sores, as a disinfectant, besides other purposes such as treating ores in mining, etc. Eucalyptus oil is known all over the world, but eucalyptus gum is never heard of. The leaves of some gum-trees have a smell like peppermint, and those are known as peppermint gums. There is another that has lemon-scented leaves, and this is known as the Lemon-scented Gum, its real name being *Eucalyptus citriodora*, which means the same thing, and it has been called the "lady" of the Australian forest on account of its gracefulness.

Gum leaves are usually long, narrow, hard, and of a dark green colour, but they are not always of the same shape, some nearly round



N.S.W. Govt. Printer, photo.

A "WOOLLY-BUTT" GUM (*Eucalyptus longifolia*)



and of a dull greyish-green colour. Nor are the leaves always dark green all the time—that is only the full-grown leaves. When they are young and growing at the tips of the new branches they are always very bright and often reddish or golden. We know and delight in these new leaves and are eager to pick what we call the “gum-tips” and take them home to make our homes bright.

Then there are the flowers. Though most gum-trees have only small white blossoms, there are several that have large and beautiful ones, pink, scarlet or crimson, yellow or creamy, and even pale green, which are the largest. Everybody knows the bright red blossoms of the beautiful “red-flowering gum,” as it is called, but also well known by its proper name of *Eucalyptus ficifolia*. These are not always the same kind of red but are sometimes a palish pink, or a brighter pink, or a crimson, or a bright scarlet, but the same colour on each tree. This kind of eucalyptus really belongs to West Australia, where its true home is the sandy ridges not far from the coast near Albany. The main avenue in the King’s Park at Perth is made up only of these gums and is nearly a mile long, so, when it is in flower, it is glorious. That is a fine way to grow our trees, as they are all the better for being looked after, and I think all our public parks and gardens should have plenty of Australian trees, so that people may know that they are in Australia. Visitors often wonder why we grow English trees in our streets and public places when we have even more beautiful trees of our own. If you live in Melbourne and would like to see one of the finest red-flowering gums (with scarlet flowers) you will find it in the garden of the club-house of the golf club at Oakleigh, where it was planted thirty-four years ago, and in the Melbourne Botanic Gardens there may be seen nineteen shades of red, and many shades are seen on the St. Kilda Road. This lovely tree also grows very well in private gardens, almost anywhere in Australia, as it is not very large, never growing to more than 35 ft. but usually much less. There are several other different kinds of gum-trees that have red flowers, but this is by far the best known. Most of the others grow only in the forests of some of the other States as well as Western Australian.

Even the small flowers of most gum-trees contain honey, so people who keep bees like to have gum-trees near their place, and also some wattles, as the bees get pollen from the wattle-blossoms from which they make the wax comb to keep the honey in. But gum-trees are not by any means the only Australian trees that provide honey. A great many different kinds have plenty of honey—the Banksias, Tea-trees, Hakeas,



Mintbush, Pittosporum, Sassafras, Grevilleas, even the curious Cabbage Tree, that you will hear about later.

There is a strange substance that comes from some (but only a very few) gum-trees which you should know of, though it is not really of any use. You will remember the "manna" mentioned in the Bible, which was very much the same. There is a "manna gum" in Australia which insects called locusts suck out of the leaves in a clear liquid that hardens into white flakes about a quarter of an inch thick, especially from a White or River Gum the natives called "Binnap" but which we call the "Australian Manna Gum," its true name being **Eucalyptus viminalis**. This manna, which drops out of injured parts of some of the leaves, lies under the tree until some birds or animals or insects find it and eat it up, for it is sweet to the taste and a good food. The natives and even the early settlers and travellers used to eat it.

The most important thing about anything is the use to which it can be put, even when it is chiefly an object of beauty; yet beauty is useful in its own way, for who can say that a flower, a picture, or a garden or music is not of any use or value? This we must always bear in mind when we are learning about anything we ought to know. I want to tell you as much as I can about our own trees in a small book, so that you may not only know more about them but also admire them more than you have done before. And I think you will be interested to hear still more about these kings of the Australian forest, the gum-trees. Though some of them are more wonderful than others, they are all very fine trees that we ought to know singly and not as just gum-trees. So let me tell you something about the beauty and value of some of them, one by one.

The greatest or most famous of all is the "Giant Gum" or "King Gum," the true name of which is **Eucalyptus regnans** ("regnans" means royal in Latin, as some of you will know), and this tree is said to grow as high as 300 ft., but of course very seldom. It is nearly always a large tree, and is very useful for splitting into palings for fences, a good worker getting as many as 500 palings from one tree in a day, but is most used for shipbuilding, as it is light and floats in water, house-building and furniture. Perhaps the handsomest gum-trees are the "Red Gums"—**Eucalyptus rostrata** is one of them, which grows to a good height with a large trunk and big wide-spreading branches and plenty of long straight leaves. The timber is of a bright red colour and very hard; it lasts a long time in the ground, so is much used for railway-sleepers, posts and piles on which wooden houses are built.





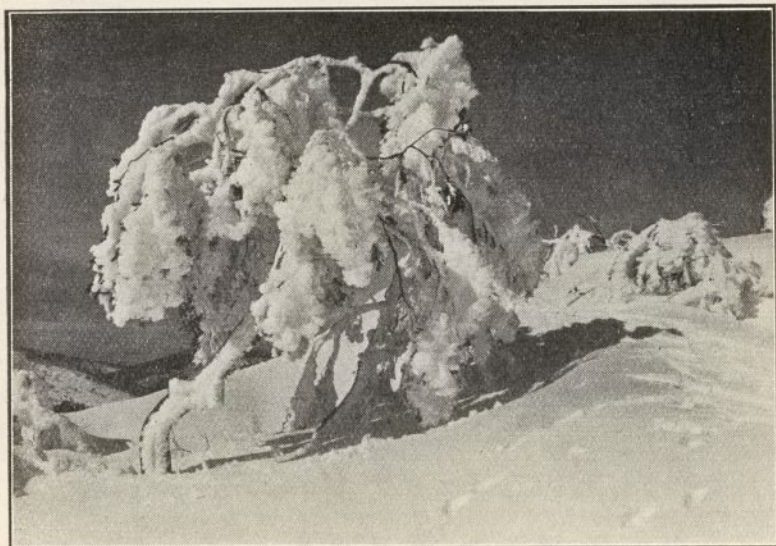
*Forests Dept., Melbourne, photo.*

CULTIVATED RED IRONBARK  
(*Eucalyptus sideroxylon*)



## OUR OWN TREES

Yet the best of the gum-trees when we think of the value of the timber are those called "Jarrah" and "Karri," which grow in West Australia, and also the "Red Mahogany." When you see a fine strong fence of red wood or even weatherboards of a house, you may be sure they are made of Jarrah, and they are usually not painted but only oiled. The best trees for Jarrah timber grow on rocky ranges, and it is one of the best hardwoods in the world. The Jarrah trees (which are *Eucalyptus marginata*) do not grow as tall as some other gums, and the biggest we have heard of was 145 ft. high, 95 ft. being solid trunk, the diameter 8 ft., and it contained 1900 cubic feet of timber that could be used. These figures may not mean very much to some of you, but if you measure off that number of feet in your playground or on the path of your street you will have an idea of what a fine tree a Jarrah can be, and that will show you what a 250 ft. tree is, too. Its wood is not only good for buildings because it is not easily burnt and insects do not bore into it; it also stands well in water, so is fine for the piles of bridges and jetties. The Karri (*Eucalyptus diversicolor*) timber does not stand well in water but is very hard and strong and is much used for many purposes. A tree that is very well known to bushmen is *Eucalyptus obliqua*, known as "Messmate," which grows to 200 ft., a few even more, in Victoria,



"The Gum Tree," photo.

A SNOW GUM IN WINTER ON THE VICTORIAN ALPS





The Australian Forestry Journal, photo.

A TYPICAL "KARRI" FOREST



New South Wales, South Australia and Tasmania—that is, the cooler States—and is also known as the “Paling Tree,” because its timber is so much used for palings. So is the Mountain Ash of Victoria. It was the early settlers who gave it that friendly name of Messmate, because it was always found growing among other gum-trees of different species.

Many other gum-trees are fine to look at and valuable when cut down, being used by builders and carpenters wanting strong and durable timber for big work, such as houses, bridges and even building ships. Others are more interesting because of their beauty, and among these is one that you often see in public streets and parks, and also in private gardens, and that is the “Sugar Gum” (**Eucalyptus cladocalyx**). It is a handsome tree that grows quickly, but the branches are sometimes rather brittle and insects bore into the trunk. It has roundish leaves, the red-green young ones being very much liked by people who pick the gum-tips to put in vases at home. These leaves are sweet to the taste (of animals), and the native-bears and ‘possums often eat nothing else. They prefer the young leaves, because they are softer and sweeter than the old ones.

There is a kind of Sugar Gum-tree that grows in Tasmania (**Eucalyptus Gunnii**), which is called the “Cider Gum” because it is possible to make a pleasant drink from its sap in spring-time, but I cannot say that if you asked for “Gum Cider” you would get it, any more than you would get any quantity anywhere of the clear cool water that the natives get from the roots of some other trees. And what do you think of a gum-tree called the “Fever Tree”? It is the Blue Gum and a big tree, growing to over 200 ft., and the natives call it “Ballook.” It has been planted in Italy, the Cape of Good Hope, California, and Southern India, because it dries up swampy land and so is believed to prevent malaria fever. Its name is **Eucalyptus globulus** and is known in Tasmania as Red Gum. There is a very hardy gum-tree known as the “Snow Gum” (**Eucalyptus coriacea**), which grows on the high places of the southern States and is sometimes 100 ft. high. You will see a picture of it here laden down with snow, but that does not often happen, of course, in our sunny Australia. Gum-trees are known by many names besides those already told of, some after other kinds of timber such as “Box,” “Ash,” “Mahogany,” “Blood-wood,” “Tallow-wood,” and some on account of its colour, such as red, white and grey Ironbarks, and red, brown, white and yellow Stringybarks.

Now I think you know quite a lot about our gum-trees, though there is much more to learn, but there is one other thing I must mention here, and that is that there is a species of tree so like the gums that most people



could not tell the difference, but they are not eucalypts because their buds have not the little caps on top meaning "well-covered." So their name is not Eucalyptus; it is **Angophora**, known in New South Wales and Queensland, where they belong, as "White Apple" Trees. They are not very tall but one kind grows to 100 ft. There are twelve different kinds of Angophora, but two only of much use for timber or even firewood. The most interesting thing about them is that it is said they were the very first trees of the family to which gum-trees belong that ever grew in Australia or anywhere else.



N.S.W. Govt. Printer, photo.

AN ANGOPHORA (WHITE APPLE) TREE





Drawn by A. E. Oakley

FLOWERS AND LEAVES OF THE "SILVER WATTLE" (*Acacia dealbata*)

Just as well known in Australia as the gum-trees are

## THE WATTLES (*Acacia*)

and they are also known well in some other parts of the world, especially in Africa. In fact, as you will be surprised to hear, for some strange reason, most of the wattle seeds that are bought in quantities in Australia come from South Africa, yet Wattles were first grown there from Australian seeds. That is one of the many things that "no fellow can understand," and I am not going to try to explain it. But, all the same, the wattles are our own dear native trees, though not quite so much so as the gum-trees, for there are a few *Acacias* that do not belong to Australia. We can say that in no other country are the wattles so abundant and so much a part of the landscape, though in and near the towns of South Africa they are very plentiful. They grow all over Australia and Tasmania, from the seashore and the gullies and the bush near the cities to the far-distant dense bush or the very dry, sandy or rocky places in the centre of this continent or in the far northern territories. They are so hardy that they will grow in sheltered places like well-watered valleys, or out on the wide and windy plains where there are storms or great heat, or on rocky hills where little water is to be found. And they will grow in our gardens where they can receive all the care we give to a tender plant; but they do not require care, being quite able to look after themselves. Although they are so hardy they seldom live any great number of years and several have short lives, so they make up for that by being as beautiful as they can while they do live.

By far the greater number of the different species of *Acacia* first grew here, so we are quite right to love them as our very own and also to call their lovely, fresh-scented, golden blossoms our national flower, at any rate



FLOWERS AND LEAVES OF THE "DOGWOOD" WATTLE (*Acacia verniciflua*)

Victoria. Probably New South Wales would prefer the handsome Waratah as its particular flower, just as South Australia might choose Sturt's Desert Pea, which is also called Sturt's "Scarlet Pea," and West



Australia the boronia or the quaint kangaroo-paw flower, because they belong so specially to those States. I think that would be quite reasonable, don't you? Still, the wattle blossom is very well suited to represent Australia because it is to be seen all over this vast continent and its golden colour is like our sunshine and its fresh sweet scent like our clear and healthy air. South Africa thinks so much of the Acacia that it has adopted its blossom as that country's national flower, and that we can take as a compliment. We certainly ought not to object to South Africa adopting the Australian flower as its own, and would not when we remember that the English rose, the queen of flowers, began its life in very simple fashion long before England was England, and in a far distant country, probably China.



You will probably be surprised to hear that wattle-blossoms are admired and bought in such unlikely places as the streets of Moscow and some other Russian cities and not in the springtime but in the winter, when the streets are deep in snow and the icy blasts are blowing in from the bleak plains, or "steppes" as the Russians call them. These blooms come from a part of Russia, the Caucasus, which is sheltered by the mountains, but it is a stranger thing still that the Acacias flower there in January, which is about the same season as they blossom in their native land, but in a very different climate.

They come from the Batum Close district where also other Australian trees, such as gums, callistemons, she-oaks, and even the strange grass-trees, have been planted. Batum Close is the same town as the classical Colchis of the legend of

Jason and the Golden Fleece, so that is quite a suitable place to grow our trees, as Australia is known as the "Land of the Golden Fleece," that is to say, the Land of Wool.

None of the wattle-trees grow to the same size as the great gums, or anything like it, but they are often tall and sometimes as high as 80 ft.; they are usually much smaller than that, and their trunks and

branches are much more slender than those of gum-trees. As many as five hundred different species of *Acacia* are known or, at any rate, put into



*Victorian Govt. Printer, photo.*

#### GOLDEN WATTLE BLOSSOM

a list by Mr. Pescott, but a great many are only shrubs and some are quite small plants, a few very small.

The name "*Acacia*" is believed to come from the Greek word "*akazo*" (I sharpen), referring to the spiny, thorny bushes which belong to



Africa, Asia and America and from which what is known as "acacia gum" is obtained. Acacias are sometimes called "mimosas" but none of our Australian trees should be so called, as we have no *Mimosa* plants in this country. As many of you know, the first white settlers gave the name of Wattle to our Acacias, the word "wattle" in allusion to a kind of wicker-work making called "wattling." It was given to these trees because the first settlers thought that the light saplings they saw the aborigines weaving together to make shelters were Acacias, but that is not quite correct. The first time this was referred to in an Australian book was in the first Governor's (Phillip) "Voyages," but the saplings used in the instances he mentions were the "Native Beech" (*Callicoma*), which was known as "black wattle" at that time, though it is not an Acacia. Its flowers were supposed to resemble those of that tree, as they are fluffy yellow.

Not content with giving our Acacias one nickname, we also call them by names the aborigines have given them, such as myall, mulga, boree, brigalow, milgee, cooba, gidgee, eumung, yarram, windi, balaar, and we have also given them names of our own which have not the same musical sound, such as hickory, sally, umbrella-bush, "wait-awhile," toney, kangaroo-thorn, needlebush, lightwood, blackwood, black apple, or even the ridiculous "dead-finish." We also give them many adjectives rather more appropriate in most cases, like silver, golden, black, green, weeping, prickly, narrow-leaved, line-leaved, broad-leaved, feathery, etc.

There are fifty quite different Acacia trees which grow as high as 80 feet, the various species being very varied in the shape of their leaves and flowers, and the same can be said of the ninety or so good-sized shrubs, from 5 to 10 ft. high. Some of them have true leaves of the feathery or ferny sort, like the Silver Wattle (*Acacia dealbata*), some are narrow and short, others narrow and long, some so small as to be scarcely seen, and others not true leaves at all but only stalks, like one of the most beautiful of them all, the Golden Wattle (*Acacia pycnantha*), where leaves are only seen when it is a young seedling. A few have spines or prickles.

The wattle-blossoms are also very different in various species, though those we know best are clusters of little fluffy balls. Others are not in clusters and some are longish brushes. But they are all alike in this, that if we examine the flower when it is not quite full-grown we will see that each little floret is in itself a perfect flower of four or five petals, sometimes quite single and sometimes joined together. About the wonders of a wattle-blossom that no one can see without a magnifying-



glass, a great British botanist said: "Each has a large number of stamens in its small compass, numbering from as low as ten up to two hundred, and in the middle a distinct style, straight in some species, curved in a number of ways," and more besides which I need not repeat. But I have said enough to show you what a wonderful thing a wattle-blossom is.

The blossoms were and still are the calendars of the aborigines. So punctually do some species in certain places burst into bud and blossom that the natives would time their wanderings and any other periodical tasks by them. To the white settler they are the first heralds of spring, the early promise of golden days of summer, of which their colour—from pure white to deep yellow—is the appropriate emblem. The Acacia known as the "Cootamundra Wattle" is the earliest of all to bloom, showing in full flower in May in the warm northern latitudes and early in July in the cooler south-east and Tasmania; in New South Wales the later-blooming "Black Wattles" abound and they are most rich in blossom in August and September. From May to November, Australia is somewhere rejoicing in its national flower, and a few will blossom more or less the whole year round.

The "Cootamundra Wattle" (*Acacia Baileyana*) is the one that is grown most in gardens but it is not much like most of the wattles, because it has such very small greyish leaves and its flowers are small and rather pale in colour. It is one of the most hardy of all and will thrive in any ordinary garden. It



W. Guilfoyle, photo.

GOLDEN WREATH WATTLE (*Acacia saligna*)



blooms very profusely in winter and grows to a good height, as much as 24 ft., with a spread of over 30 ft. It can be pruned after the flowering season. The "Golden Wattle" (*Acacia pycnantha*) is very fine, with large blossoms very bright in colour but not so fluffy as many of the others. It gives one of the richest tanning barks in the world. The "Silver Wattle" (*Acacia dealbata*), so called because of the silvery appearance of the leaves and the whiteness of the trunk, is the wattle seen growing most plentifully in the Bush. It has fern-shaped (sometimes called feather-shaped) and very graceful, greyish or silvery-green leaves, the blossoms being rather paler than the Golden Wattle, more fluffy, and very plentiful. This tree is much grown now in India. One of those called "Black Wattle" (*Acacia mollissima*), which does not live very long, is not so fine a tree and its flowers are almost white, its bark nearly black. This is the common tan wattle, and the Sydney "Black Wattle" (*Acacia decurrens*), which is a very similar tree, is also very useful for its bark, used for tanning leather, and also for its gum. Many other wattles are useful for their tanning bark. The "Golden Wattle" is the finest of the flat-leaved varieties and, besides being one of the earliest to flower, has a very good tanning bark, useful gum, and timber which, when dried, is almost as heavy as Red Gum. It is a shapely tree and is fairly tall though seldom more than 40 ft.

Then there are the brush-shaped flowers of *Acacia longifolia*, which has long thin leaves—that is why it is named "longifolia"; but it is only a shrub, and so is *Acacia linearis* (line-leaved) which has very thin long leaves; also the long thin leaves and not very thick-growing flowers of the small tree that is called "Leper or Scurfy Wattle," not a very nice name. Its real name is *Acacia leprosa*, which means the same thing but sounds better, and it has a good timber that is called "hickory."

Many of the wattle trees have delightfully scented wood, particularly the violet-scented "Myall" (*Acacia homalophylla*), called "Gidgee" by the natives, but when in flower its smell is unpleasant; the "Spearwood" (*Acacia doraloxylon*), which the natives call "Currawang," and the raspberry-scented wattle called "Raspberry-jam Tree" (*Acacia acuminata*), which grows in West Australia and makes very good charcoal. *Acacia elata* is known as the "Cedar Wattle" or "Tall Wattle" because it grows as high as 80 or 100 ft. in New South Wales; *Acacia excelsa* is also called "Lofty Wattle" for the same reason, growing in Queensland and also known as "Ironwood" and "Black Brigalow," but it is not a brigalow. Its timber is violet-scented and has a beautiful grain when polished up for cabinet-work. One that is a "brigalow" is *Acacia glaucescens*, which grows





*Development and Migration Commission, photo.*

A BLACKWOOD TREE, WITH A SPREAD OF 61 FEET (*Acacia melanoxylon*)

in western New South Wales and Queensland, and is a lovely tree, 30 to 40 feet high, one of the best in its bluish-grey leaves and its blooms, and having a pretty-grained wood that is very good for cabinet-making, and it has a gum which is very adhesive. The "Sunshine Wattle" (*Acacia discolor*) has large leaves and blooms, and the "Golden-Wreath Wattle" (*Acacia saligna*) has very rich golden flowers and long, thin, drooping leaves.

The wood of many of the wattle trees is useful, though it is not very large because they are not big trees as a rule, but the one most prized for its wood is the Blackwood (*Acacia melanoxylon*—"melanoxylon" being "blackwood"). It is one of the tallest of the wattles and has been known to reach 100 ft., though more often about 50 or 60 ft. This is thought by some people to be the most valuable of all Australian timbers. It is hard and close-grained, and is much used for furniture (as you will see by the picture of a Blackwood wardrobe), panelling, staircases,



picture-frames, cabinet-work, railway and other carriages, boat-building, tool-handles, gunstocks, naves of wheels, parts of organs, sound-boards and actions of pianos, and billiard-tables. So you see what a useful wood it is, and it is good to look at, especially when it is polished, and is thought to be equal to American walnut. It is often very dark-coloured and sometimes shows a pretty broken grain.

The photograph printed on page 33 of a Blackwood tree must not be taken as of just an ordinary tree. There are many fine Blackwood trees but they do not all, or even a great number of them, have such a wonderful "spread" of branches as this one has. Most of the pictures in this book, however, are of good specimens of trees but not all of them the most wonderful that could be found.

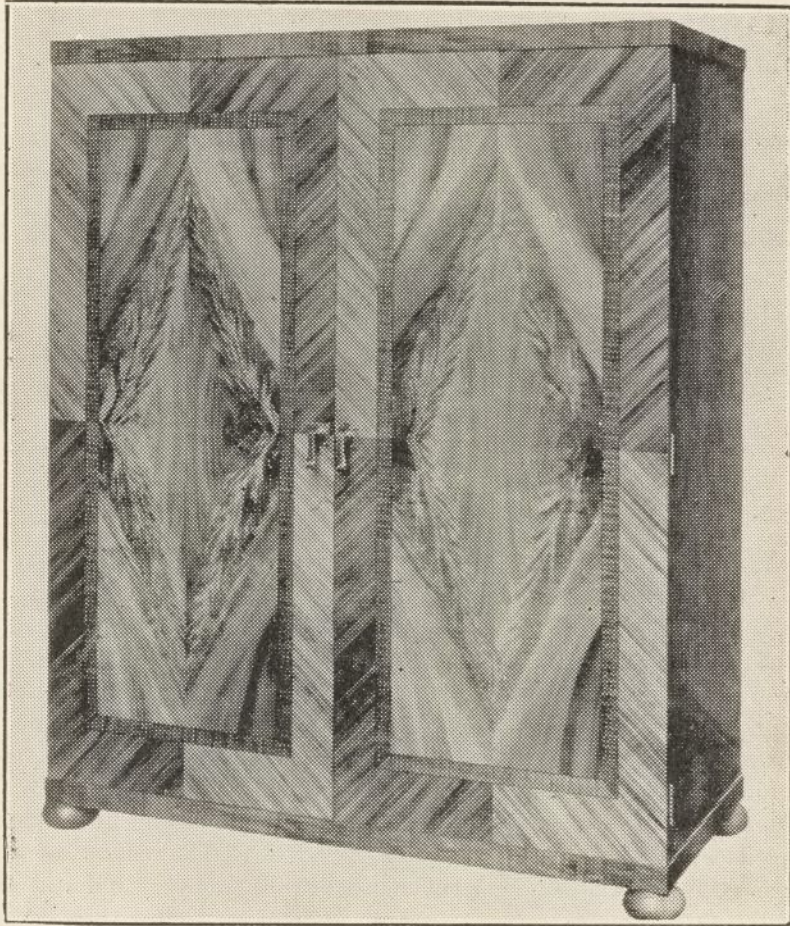
The aborigines made their weapons of Mulga wood because it is very hard; it is dark brown in colour. "Black Wattle" wood or "Hickory" (*Acacia binervata*) is of a dirty colour but tough and light in weight. Another "Black Wattle" with dark and heavy wood that takes a good polish is *Acacia Cunninghami* of Central New South Wales and Central Queensland; so is *Acacia homalophylla*, known as "Gidgee." The "Leprous Wattle," though small, has an excellent cabinet-work wood; the "Weeping Myall" (*Acacia pendula*) is a good timber, hard, of a rich dark colour, and beautifully marked as well as sweet violet-scented; in fact several of the *Acacias* have nice grained wood but the small size prevents it from being much used.

You will remember that I mentioned a tree called "Dead Finish" (meaning "dead stop") by the early settlers, because it shoots very thickly from the roots and so stops the traveller from pushing through it. This is the nickname given to *Acacia farnesiana*. Now I will tell you something better about it, and that is that its flowers have such a lovely perfume that the tree is much grown in Italy and the south of France, where its flowers are mixed with olive oil which becomes so sweetly scented that it is used as a pomade for the hair called "Cassie." Its timber is tough and heavy and takes a good polish. The tree grows only 12 to 18 ft. high.

The leaves of the wattles do not contain oil, like the eucalypts, but those of some are useful for feeding stock in drought time. Among these are the trees known as "Mulga" (*Acacia aneura*) and "Boree" (*Acacia pendula*), which is also known as "Weeping Myall." The leaves contain starch and gum, and sheep and cattle feed on them in the dry interior. The Mulga tree also sometimes has two kinds of edible galls which are called "Mulga apples." Early travellers, as well as natives, used to eat them, and children do still.



The seeds of most wattles grow in long, narrow, flat pods like peas only much flatter, and are shiny black with a yellow spot. They are so very hard that they have to be cracked by heat, such as soaking in hot



By courtesy of "The Age" Melbourne.

A WARDROBE—Made of Blackwood with Feathery Effects

water or naturally in the hot sun-baked earth, before they will grow. Wattle seeds have lain in the ground for a hundred years and have not started to grow there until a fierce bush-fire has raged over the ground.





Kerr Bros., photo.

LEAVES OF THE SILKY OAK (*Grevillea robusta*)

## THE "SILKY OAKS" (*Grevillea*)

The gums and the wattles are the two leading groups of Australian trees and the greater part of the Australian forest, but there are many others which are very interesting. I will tell you a little about some of the best known, those that are either beautiful, or useful, or curious, and a few that are all three together.

There is an important kind of tree that is becoming quite well known in the cities, as it is being planted a good deal in gardens as well as in the streets and parks, and a very handsome tree it is. This is known as the "Silky Oak," named after a patron of botany in the 18th century, the Hon. C. F. Greville, and so called **Grevillea**, quite an easy word to speak and remember.

The Silky Oak that is usually grown in the cities is known as the Robust Grevillea (**Grevillea robusta**), which belongs to New South Wales and Queensland, but also grows well down south. In about thirty years it will grow to as many feet high and sometimes reaches 60 or even 100 ft., and it is of a good shape with branches low to the ground, large

feathery or fern-shaped leaves of a light silvery green colour. For a few weeks in early summer, the handsome tree is covered with masses of long clustered flowers rather like a comb in shape and of a deep cadmium-orange colour, with a dark red spot in the centre of each little flower, these florets being in rows along one side of the broom-like stalk, which is about 6 in. long. The other tree is known as "White Silky Oak" or Hill's Grevillea. It belongs to Queensland, also growing to 60 ft., its flowers being similar in shape but white, but its leaves are long and oval-shaped, not like those of the better-known Robust Grevillea.

Most of the Grevilleas are only shrubs, but have very pretty flowers, not like those of the two trees, but quaint in shape, rather like a cat's claw, and bright in colour, mostly red. A few have leaves like holly, others like those of the olive, and others like rosemary. All the Grevilleas make good garden plants. I would recommend the Alpine Grevillea, which has lovely little clustering red flowers with a yellow spot on the curled end, and the Rosemary Grevillea, with dark green narrow leaves, like the English rosemary, and bright pink flowers.



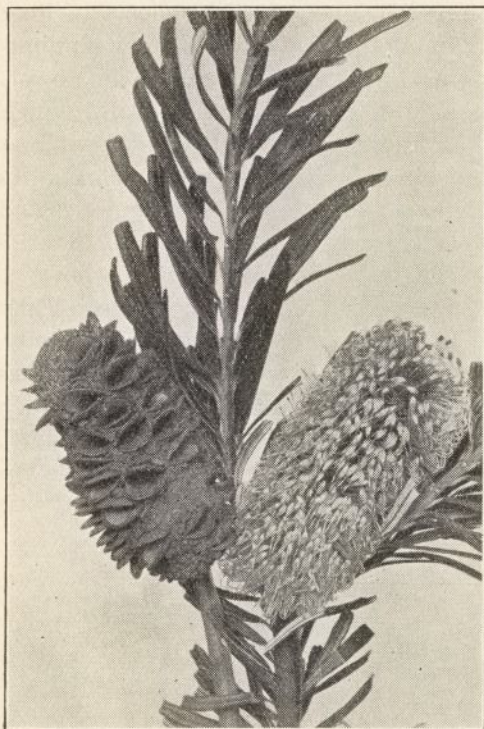
E. E. Prescott, photo.

FLOWERS AND LEAVES OF THE WHITE SILKY OAK

(*Grevillea Hilliana*)



## THE BOTTLE-BRUSH TREES



E. E. Pescott, photv.

LEAVES, FLOWER AND SEED OF THE  
HONEYSUCKLE. (*Banksia marginata*)

The **Banksia** trees were named after that famous botanist, Sir Joseph Banks, who was Captain Cook's principal companion on his wonderful voyage in the "Endeavour," but, though there are a few fine species 50 or 60 ft. high, they are usually rather stunted and often only shrubs. There are about fifty species of them and the most important thing about them is their large blossoms, which are yellowish in colour and shaped like bottlebrushes. They would have been more suitably called bottle-brush trees like another kind altogether, instead of being named after that sweet garden plant, the honeysuckle. The flowers certainly do contain honey but it is not very nice, being strong and highly flavoured, and is only good enough for food for the bees themselves.

When the trees are large enough, their timber can be used for furniture and cabinet-work.

Trees that are known as Bottle-brushes are the **Callistemons**, a species of small, charming trees with long drooping, or short stiff leaves and long fluffy blossoms, which are often grown in private gardens. The name is made up of two Greek words which mean beautiful flower; it may be called beautiful tree altogether. Some of the flowers are red, others yellow or cream or white in the eighteen different species. Just before the flowering season the leaves have bright-coloured tips, though the flowers may be light coloured.

There are several other Australian trees that have bottle-brush flowers, including some of the wattles and melaleucas.



THE "LAURELS" (*Pittosporum*)

Now I will tell you of a tree you ought to know fairly well, for it is sometimes seen in quite small gardens and often in large ones, and is also used as a hedge. It is a bushy shrub or small tree with low-growing branches and is delightful in the spring-time, covered with sweet-smelling small white flowers in clusters, as sweet as orange-blossom, and in the autumn looking quite as handsome, with its shiny bright green leaves and clusters of berries which are first green and then orange-coloured, bursting



Drawn by A. E. Oakley

LEAVES AND BERRIES OF THE VICTORIAN LAUREL

(*Pittosporum undulatum*)

open when ripe and showing black or dark brown seeds inside. It is one of the best plants for a hedge, as it is very hardy and strong, grows rapidly and can be trimmed close. Its name, **Pittosporum**, means "pitch-seed," from the sticky, pitch-like substance that surrounds the seeds in the berries. It is called by its proper name, but that is sometimes mispronounced "pittosforum," as if it was spelt with an "f" in the middle of the word, but it is a "p." It is also known but not often spoken



of as the Australian Laurel, and sometimes called "Mock Orange" because of its leaves and the orangey scent of its flowers. An account of its soft white or yellowish timber it is also called "Cheese-wood" or "Tallow-wood" by foresters, and "Engraver's Wood" because it can be used by engravers.

The one we know best, out of the four different species, is the one known as "Victorian Laurel" or "New South Wales Mock Orange," which grows in Victoria, New South Wales, Queensland and Tasmania, its full name being *Pittosporum undulatum*. It is usually a fine shrub, 10 to 15 ft. high, but sometimes grows to a good height, 50 ft. or so.

The Queensland *Pittosporum* is called "*rhombifolium*," which means diamond-leaved, on account of the shape of its leaves. The natives call it "Burrawingee." It is usually about 40 ft. high but sometimes almost double that height. It also has sweet-smelling flowers.

*Pittosporum bicolor*, which is known as "Banyalla" by the aborigines, who used its wood for making clubs, is called Tasmanian Boxwood, because it can be used instead of Box as a timber, but this tree also grows in Victoria and New South Wales. It grows to 20 or 30 ft.

*Pittosporum phylliraeoides* is known as Weeping *Pittosporum* on account of its hanging branches and its leaves, 2 to 4 in. long. It grows to 30 ft. high and is slender. Its seeds and leaves have been used to make a liniment for curing cramp and internal pains. Sheep and cattle are fond of eating its leaves.

*Pittosporum revolutum* is a tall shrub with leaves 2 to 4 in. long, but with flowers less numerous, though it has numerous red or brown seeds in its oblong orange-coloured berries. It is a native of eastern Victoria, and also grows in New South Wales and Queensland.

## THE "PINCUSHION" TREES (*Hakea*)

Beautiful garden shrubs or trees which are becoming more popular the better they are known are those named *Hakea*. Although named after Baron Hake, a German patron of botany of the 18th century, all the 100 or so different species are Australian. They are never tall trees, but usually shrubs of 5 or 6 ft. in height or small plants. There are only six that can be called trees, even small trees, 20 or 80 ft. high. Those that are best known are shrubs or small trees, and you will like them specially for their curious shaped blossoms and pretty leaves.

Take the one whose real name is *Hakea laurina* as an example. It grows to 12 or 15 ft. and is one of the most beautiful shrubs that could be grown in a real Australian garden. The prettily-veined, dark green





*Donald Thomson, photo.*

BUDS, BLOSSOMS, SEEDS AND LEAVES OF THE HAKEA LAURINA



leaves are rather like most gum-leaves—that is long, narrow and flat—and the tips are golden in the springtime. When the blooms come in the autumn the leaves are a brighter olive-green colour with red stalks and a thin edge round the outside edge. You won't notice this unless you look for it. The blooms, which grow on the small branches, are very strange-looking, being about the shape and size of a golf-ball of bright crimson covered with thin short creamy spikes, like pins on a pincushion. Because of these strange blooms they are called "Pincushion Trees." The seed pods are extremely hard and sometimes as big as a pigeon's egg; they are solid and woody and open in halves, with a thin flat seed inside. The picture shows the buds from the earliest stage and as they gradually open to the full flower, and the seed pods. See if you can find each.

Quite unlike the pincushion Hakea or the Tree Hakea of Gippsland, except for the hard woody fruits and the winged seeds inside them, is another species of Hakea, which is found throughout a great part of the dry interior of Australia, especially on the sandy plains of the Mallee. This is the "Needle Hakea" or "Needle Bush," so called because the two-inch long leaves are as sharp as needles, and are about the thickness and shape of a piece of knitting needle. It has a useful reddish-brown, hard, fine-grained wood.

## THE "PEPPER-TREE" (*Drimys*)

A tree that is seen a great deal in the more settled parts of East and South Australia, in parks and gardens, is that bright green little tree with the drooping branches and thin leaves and the pretty hanging bunches of pinkish seeds, that we know as "Pepper-tree." But that one is not an Australian tree but has been brought here from South America and has made itself very much at home. Our Pepper-tree is not very much like it except for its seeds. It is not seen much as it prefers the damp highland forests of South-east Australia and Tasmania. Its real name is ***Drimys aromatica***, the first word being pronounced as if it was spelt "Drimmies," and it is an erect-growing shrubby tree with rather stiff foliage, dark purplish berries, and bark and leaves that are hot to the taste. There may be two reasons why it was called "pepper-tree."



Though it has nothing to do with the peppercorns that are ground up to make the pepper we use at dinner, its seeds certainly do look like peppercorns; and as I have said its bark and leaves do taste hot and peppery if chewed. Although the name *Drimys* means "wood," from the Greek word "drymos," its timber is of little use.



Donald Thomson, photo.

THE SHE-OAK TREE (*Casuarina*)

## THE "SHE-OAKS" (*Casuarina*)

A curious Australian tree which is often seen is that which is called "She-Oak." How it got that strange name is not known for certain, and some people think it came from the Canadian name, "Sheac," but that is not very likely, and as the aborigines called it "Sheoke" it seems much more likely that white people changed



## OUR OWN TREES

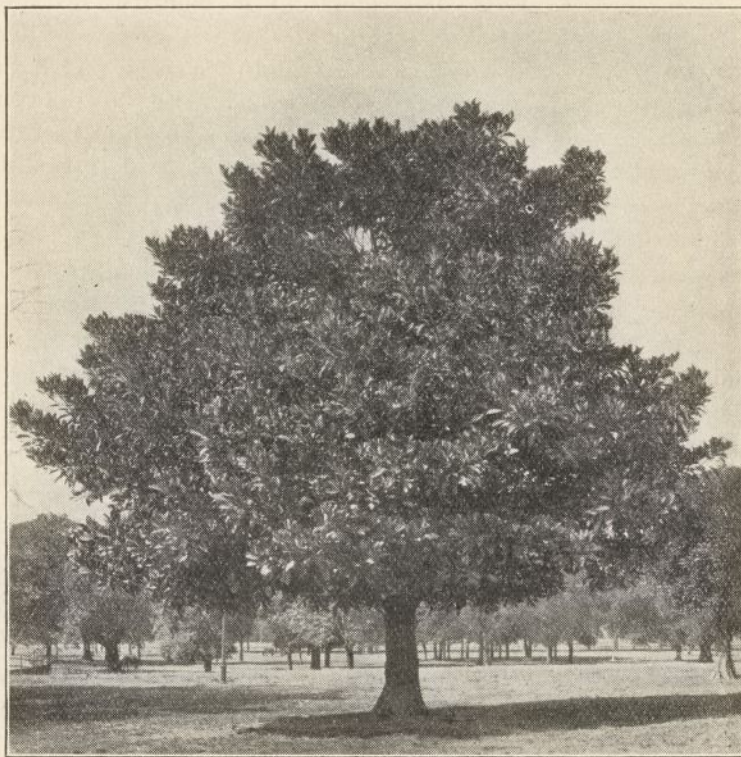
that name into two English words that sound like it. The one special thing about it is that it has no leaves. That does not mean that the branches are bare, for they have an abundance of long hanging twigs, a good deal like pine-needles, which are jointed and at each joint are a number of tiny growths, teeth-like, round the joint; these are incomplete leaves and are of a dull greyish-green colour. These horse-tail twigs make a rustling sound when blown by the wind and poets have written of the sighing sound of the She-oak trees. There are reddish flowers but they are very small.

The real name is *Casuarina*, and there are in all twenty-nine species, the largest of which grows to 20, 30, 50 ft., and even higher, though many of them are only shrubs. All of them have the same sort of "leaves," which taste like citrus acid and are chewed by thirsty travellers when they cannot get water (though that is not often the case now-a-days), and children sometimes chew the young seed-cones, which they call "oak-apples." Two of the She-oak trees, which the natives call "Belar"—and so do we—are big trees, sometimes 100 ft. high. Another is called "Bull-Oak," probably because the blacks called it "Buloke." Although these trees have the names "Fire Oak," "Swamp Oak," "Shingle Oak," and have in certain fibres of their reddish wood an oak appearance, they are not Oaks. Their timber has been used for heavy work such as waggons and also tables and chairs where weight and strength are needed, and it is also good for fishing-rods as it is tough and pliable in the smaller branches.

THE "FIG TREES" (*Ficus*)

The most important of our trees that are known as "Figs" is the great tree which is known as the "Moreton Bay Fig" and is often grown in the cities and towns even as far south as Melbourne, though it comes from Queensland and New South Wales. It grows to 60 ft. high or even 100 ft., and is very widespread, with thick branches closely covered with leaves, which are oval-shaped, dark-green and shiny. It is also known as the "Queensland Rubber Tree" because of the sticky, rather rubber-like juice that it exudes, but its seed-fruits do look like rather small hard figs, especially when they are crushed, for they are reddish inside and have hundreds of small seeds like those in the figs we eat. The natives called it "Waabie." You may see a great number of these little "figs" lying on the ground under a Moreton Bay Fig-tree in a public

park. The tree often has more than one trunk, and they divide at the ground and sometimes join again higher up, and it has very large roots that grow not only for a distance underground but often for some feet above the ground. These roots have been known to be so high that they could hide as many as fifty standing men, which is a wonderful thing for tree-roots to do. The timber is not of much use, being soft and



N.S.W. Govt. Printer, photo.

MORETON BAY FIG TREE (*Ficus macrophylla*)

spongy, but it has been used for making packing-cases. These wide-spreading trees make a good shelter in public places and look very noble when they have grown big. There are over forty different species of "Fig-trees," the real name of which is **Ficus**, belonging to Australia, but this one is much the best known.



## BERRY, NUT AND FRUIT TREES

The next tree I will speak about is a pretty one, with a nice name—**Eugenia** (after Prince Eugene of Saxony). There are sixteen species of **Eugenia**, ten of which are important ones. They are graceful trees and are often seen in gardens in most parts of Australia, especially that one called “Lilly-Pilly,” which is a native name for the tree named **Eugenia Smithii**. It belongs to East Australia and is plentiful on the Snowy River and other rivers of East Gippsland, where it grows as high as 80 ft. or even 100 ft. It is also called “Australian Myrtle,” and it has small glossy leaves, rather brownish green, and its white flowers grow into clusters of berries, pale purple outside and white inside, rather juicy and sweet to the taste. These berries could be made into a refreshing drink or a vinegar. Some settlers in the bush or back country make them into jam, and the aborigines are fond of eating them raw.

The **Eugenias** are all pleasing, bushy-shaped, bright-leaved trees, most of them 20, 30 or 50 ft. high. They have all sorts of names besides “Myrtle,” such as “Australian Rose Apple,” “Brush Cherry” or “Java Plum,” and one grows in Asia as well as New South Wales and Queensland, and so does the **Eugenia** that is called “White Apple Myrtle,” which the natives call “Wargoon.”

The **Eugenia** that is known as “Brush or Native Cherry” ought not to have that name, as the real Native Cherry (though it is not much of a cherry tree, as you would soon find if you expected to find cherries on it) is **Exocarpus**, which means “seed outside.” This is a tall tree, if 50 ft. can be called tall in speaking of an Australian tree, and it is one of those trees, like the “Messmate” gum, which likes to live with other trees which are not even of the same family. Its flowers are very small and its leaves are only scales, but the special thing about it is the way it grows its seeds. They are small, hard and brownish-green, and are attached to the end of a short, bright red, fruity stalk, but that stalk is not really like a cherry, except in colour. It certainly does look as if the seed grows outside the fruit, but that is not so, for the seed has not really anything to do with the “cherry” part. Anyway, talking about fruit reminds me that this “Native Cherry” is considered to grow on soil that specially suits real apple-trees, so it would be better to plant apple-trees there instead of growing unreal cherry-trees.

Another interesting thing about these so-called “Native Cherry trees” is that they are what is called root-parasites, which means that they grow



on the roots of other trees and take the sap from them for their nourishment, usually destroying the trees they grow on.

As I said before, a good many Australian trees have fruit names but no fruit, and have nothing to do with real fruit trees. But there are some, which are wild trees that grow in the back country, that have fruits that can be eaten and are pleasant and wholesome to eat but, of course, not the sort of fine fruit that is grown in orchards.

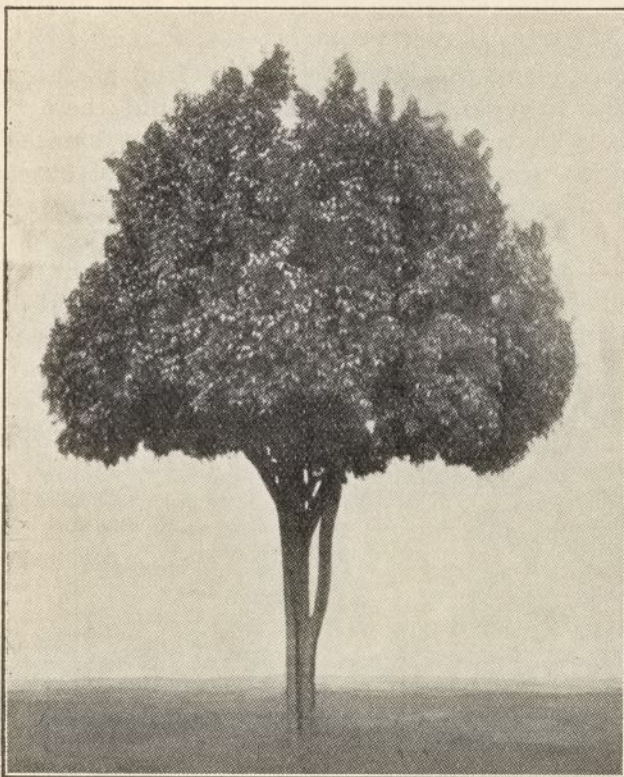


Kerr Bros., photo.

LEAVES AND BERRIES OF THE LILLY-PILLY (*Eugenia Smithii*)

Trees of the *Fusanus* genus, also root-parasites, grow naturally in all the States except Tasmania, but are not very tall, only 30 or 40 ft.—that is, two species are as tall as that—and one of these provides the wood that the natives like best for making fire by rubbing with wedges; the other is known as “Quandong” or “Australian Peach” and has a red



THE BUSHMAN'S TAMARIND (*Owenia venosa*)

fruit that makes excellent jam or jelly; it is rather like the black guava in flavour and is also edible when dried. The large hard seeds are used by the aborigines for ornaments such as necklets and bracelets, and the round kernels inside are oily and pleasant to eat. Its timber is almost white, rather difficult to work but useful for cabinet-work and joinery.

There are two other Australian trees that will be interesting, especially to young people, on account of their edible fruits and nuts. These are **Macadamia** and **Owenia**, named after two men called Macadam and

Owen. The first is a Queensland tree, but is sometimes found in northern New South Wales, which is not far away, and there are three kinds, one growing as tall as 60 ft. sometimes, which the natives called "Kindal-kindal," and the others 20 ft. and 30 ft. What you will like about the *Macadamia* is its seeds, which are nice-flavoured nuts, and the tree might be well worth planting for the sake of these nuts, though their shells are very hard to crack. If you should happen to be in the bush on a hot thirsty day in New South Wales, Queensland, North or South Australia, you might be lucky enough to come on one or both of the two species of *Owenia*, which are called "Sour Plum" and "Bushman's Tamarind" and have fruit about the size of a nectarine which is quite pleasant to quench thirst with when it is ripe. Only one species grows in Queensland. They grow to 30 or 40 ft. high, the branches being thick-leaved but not widespreading.



But before we finish talking about the "fruit" trees of Australia, you will want to hear about the pears and apples. I must tell you at once that you won't find any such fruits on native Australian trees. What is called a Native Cherry is not much of a cherry tree, is it? Well, the Apple Tree (turn back to page 25 and you will see and read about the one that was supposed by the first settlers to **look** like an apple tree, though not on account of any fruit) has even less to do with real apples than the Native Pear, which has very properly also been called the Wooden Pear, for it is only hard wood. It has the sort of "hard" name it deserves (**Xylomelum**) and it is just a seed-pod made of wood, certainly rather like a pear in shape, as you will see by the picture. There are two kinds, one that is a shrub and belongs to Western Australia and the other, a small tree about 20 ft. high, which grows in New South Wales and Queensland.

Now what will you say to an Australian Chestnut, which people in the north know, but not in the south? There is a tree which belongs to the north of New South Wales and the south of Queensland that is called a Chestnut Tree. Its real name is **Castanospermum**, which means chestnut-seed, the seed-pods of which are large (4 to 9 in. long and 2 in. broad) and which are made by ladies into pin-cushions because they are hard and of a strange boat-like shape. In these pods are large glossy seeds like chestnuts which are enjoyed by the blacks when cooked, and would be by the whites too, if they cared to cook them. The wood of the tree is one of the best in Australia for cab-



N.S.W. Govt. Printer, photo.

SEED AND LEAVES OF THE NATIVE PEAR (*Xylomelum*)



inet-work, as it has beautiful markings and is considered as good as walnut. This tree is also known commonly as Black Bean.

Then there is the handsome and interesting tree known as the "Bunya-Bunya Pine," with the really big edible nuts. Its real name is *Araucaria Bidwilli* and it belongs to Queensland, where it is often 150 ft. high. It also grows in the north of New South Wales. It is at its best



BUNYA-BUNYA PINE (*Araucaria Bidwilli*)

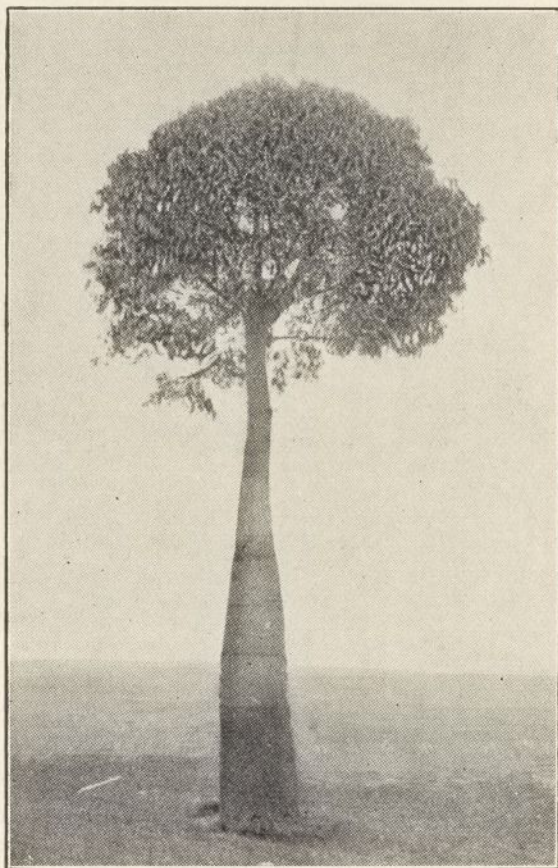
when it grows up in the hilly country, and its timber is fine grained and polishes very well, but it is mostly used for flooring and lining boards. One tree has been known to supply 10,000 ft. of such timber. But you will be more interested to hear about its large seed-cones, which were so much prized by the aborigines that each tree was held to be the property of one family and no one else was allowed to go near it. If anyone did, there would be a serious quarrel and sometimes the culprit would be killed. The reason for this is that there are a large number of seeds in each cone, weighing 30 to the pound, which are very good to eat. These seeds were sold in the southern cities a few years ago.

There are many other very interesting trees in Australia that supply all sorts of useful things, as the natives showed the first settlers by the uses to which they put various parts of the trees; it was wonderful how they found out what could be done with the bark, leaves, gum, seeds, roots and wood, even the pithy parts inside a few of them, for Australian trees are not quite all hardwoods.



THE "BOTTLE-TREES" (*Sterculia*)

"Bottle-tree" seems a curious name to give to trees, for they can't be hollow, can they? But when you look at these two pictures you will say, "Just like bottles," and so they are. These Bottle-trees belong to a genus that is called *Sterculia*, but they are commonly known by the native name of Kurrajong, and also by another name—Flame Tree—for a very good reason, on account of the flowers. The Kurrajongs really belong to the northern States, where they are very well known, but are also planted in the south. They, or most of them, are very unusual-looking, as they have a smooth, round, iron-grey trunk which always reminds me of an elephant's leg. Some species have large flowers of a rich red colour, the large bright leaves dropping off in the flowering season. The tree looks very gorgeous when there are plenty of flowers, which is not always the case. Here is one, the Queensland Bottle - tree, which is called "Gouty Stem" because of the swollen look of its trunk, from which an abundance of sweet juice like jelly and also cool clear water can be got by boring into the bark. Fibre from the bark is used by the blacks for making fishing lines and nets. They eat the roots of another kind which they call "Ketey," and cattle and sheep eat the leaves in a dry season. Another of the red-flowering kind is

THE QUEENSLAND BOTTLE-TREE (*Sterculia rapestris*)



also called "Lace-bark Tree." Another name for these trees, and a good one too, is "Tree of Splendour," on account of its brilliant red flowers.

The biggest and most curious of all the Bottle Trees is that known as the Baobab, which is also a *Sterculia*. It is found in Northern Australia, and it is certainly a remarkable tree, with its big fat swollen-



C. J. Dunn, photo.

AUSTRALIAN BAOBAB TREES (*Adansonia Gregorii*)

looking trunk, which is sometimes 60 ft. round though not more than 30 or 40 ft. high. What is most curious about it is that, in the hollows at the bases of the branches there is, during the summer, a great quantity of good sweet water, as many as 80 gallons in one tree, which can be drunk by travellers. They are very glad to get it sometimes when the season is very hot and dry, as it often is in the far north.



## THE "FIRE-WHEEL" TREE (*Stenocarpus*)

Another of our trees which has bright red flowers is that known as the "Firewheel Tree." Its real name is *Stenocarpus*. In Queensland it is called "Tulip Tree," but that is not a good name for it, as its flowers are not at all like tulips, as you will see in the coloured picture in the front of this book. It has long, evergreen, rather light-coloured leaves of what might be called a staghorn shape, and its flowers, which are very numerous and grow in thick bunches all over the tree, are of a very remarkable shape, being like a wheel with open "spokes" all round a yellow centre or "hub," the spokes being of a very bright scarlet with a little knob of bright yellow at the tip of each. These flowers are about 4 inches in diameter. The seed-pods hang in wheel-form, each containing about half-a-dozen long flat seeds with wings, making them look rather like tiny aeroplanes.

These trees grow well in gardens, if well watered in summer. Another kind has yellowish flowers and a silky and nicely grained wood, deep red in colour, for which reasons it is called "Red Silky Oak" or "Beefwood," and is used for cabinet-work. It is not one of those Silky Oaks that are Grevilleas.



Kerr Bros., photo.

THE FIREWHEEL TREE (*Stenocarpus sinuatus*)



## SOME OTHER INTERESTING TREES

It is impossible to describe or even mention all of those trees that are our own, but there are still some more that you will be glad to hear about for various interesting reasons, though there is not much chance of many of us even seeing all of them. It cannot be expected that people who are not foresters or travellers over the whole of this vast continent will know about the 150 quite different genera of trees that belong to Australia, and it would take a big book to tell of them all; but any book on our trees must mention some that are very strange or valuable.

I have told you about the Giant Bottle Tree which is called the Australian Baobab, though it is not really a Baobab. At a place where there is a big forest of them, that is, on the Victoria River, Northern Territory, and where the photograph was taken, Mr. E. J. Dunn, who is a well-known scientist, saw a tree which very few other people have ever seen, which was not known of until he saw it some ten years or so ago. It is really a Wattle or Acacia, though it is only in the flowers and seed-pods that it is like one. But there are so many Acacias; and many of them are not much like what we know as Wattles. Even those we know well have many kinds of leaves in the different species. This new and curious Wattle is only a small tree, but it has very large leaves, and what is most curious about it is that these leaves are shaped like an elephant's ear. Near the ground they are very large, as much as 17 in. long and 8 in. wide at the widest part. They become smaller towards the top of the tree, and at the ends of the shoots there are thin sprays of real wattle blossoms in the flowering season. Mr. Dunn brought away some of the leaves, flowers and seed-pods and sent them to people who know about Australian trees, and a great botanist in England agreed with him that it was an Acacia that had not been known before and gave it the name of "Dunn's Wattle" or *Acacia Dunnii*. This photograph of one of the large leaves will show you its strange shape and great size, which adds still another to the many shapes and sizes of wattle leaves.

A fine tree that was once plentiful in its natural home, Queensland and Northern New South Wales, but now scarce, is the "Red Cedar Tree" (*Cedrela*), which is highly prized because of its valuable timber. It grows to 100 to 200 ft., and used to be very plentiful about the Barron Falls in Queensland, but it has almost been cut out there. A giant Red Cedar gave 2,665 ft. of timber, large and sound enough to be sawn and made use of. Its wood is not very hard, so it is easy to work.



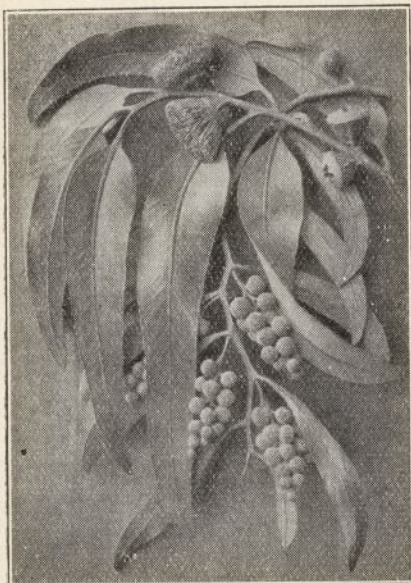
But, as you know, almost all Australian trees have hard wood, and there are two whose wood is much more than hard. The timber of the **Geijera**, of which there are two kinds, is so very hard that it is called "Ironwood" and "Axe-breaker." The natives' name is "Wilga" and one is known by that name, in New South Wales specially. They are fair-sized brush-trees with hanging branches, smoothish bark, and long leaves, and are found plentifully in the dry country of the western districts of Southern Queensland and Northern New South Wales, being unaffected by drought. Another species that is called "Axe-breaker" and "Iron Tree" for the same reason is the **Notelæa**, but its wood is very useful because there are few others hard enough to make the best mallets and things like that requiring very great hardness. But that doesn't mean that all mallets or even a few of them in Australia are made of Geijera or Notelæa wood. People seem to prefer to buy foreign goods instead of making them in this country, which is very strange, don't you think?

There is a tree that has quite a different kind of wood, and that is **Gmelina**, known as the "Queensland White Beech" or "Mahogany." It is very good for wood-carving as it is strong, does not shrink or crack, and has little or no grain. It is this wood that is used generally by Mr. J. K. Blogg, of Melbourne, for his beautiful carvings of Australian leaves and flowers, one of which is shown in the picture.



LEAF OF DUNN'S WATTLE (*Acacia Dunnii*)





J. K. Blogg

WOOD-CARVING ON WHITE BEECH

(Gmelina)

Another tree that has a special kind of wood is the "Coral Tree," which is the *Erythrina*, which name is taken from the Greek word *erythros*, which means "red," and it is one of the few Australian trees that is not evergreen but sheds its leaves in winter. It gets its name from its bright scarlet flowers, and it grows in the hot parts of Australia and also in Asia, to 60 ft. high in many parts of New South Wales and Queensland, though usually it is from 20 to 25 ft. high. Its wood is very light in weight, soft and porous, and is used in India for making toys, light boxes and articles that are thickly varnished or painted, and its leaves are useful as medicine and are sometimes used for making curry-powder.

Though it is not likely that many of you will get to know it yourselves, you will be interested to hear of a tree that stings. *Laportea gigas* is called "Giant Nettle Tree," being much larger than a

nettle plant. Two kinds grow to 80 ft. and the other only to 15 or 20 ft., but the smaller one is more poisonous than the bigger ones. It gets its name from a stinging, poisonous fluid in the hairs of the leaves, which causes great pain to human beings, but it can be cured with the milky juice of a small plant with the name of *Colocasia macrorrhiza*, which is a "Taro," a tuber-rooted plant, and is itself poisonous and injurious to stock. But the trouble is that it is not by any means certain that a *Colocasia* would be growing so close to a *Laportea* as to be a ready cure, and it is quite possible that a person stung by a *Laportea*, because he didn't know it, would not know a *Colocasia* even if he saw one. The three kinds of *Laportea* are all stingers and one of them is well named "Touch-me-not Tree."

There is a very curious small tree or shrub which also has a name that is difficult to spell and pronounce, and two nicknames, Grass Tree and "Black Boy." Its real name is *Xanthorrhoea*, and it is called "Black Boy" because it looks like one when burnt in a bush fire, as it often is.

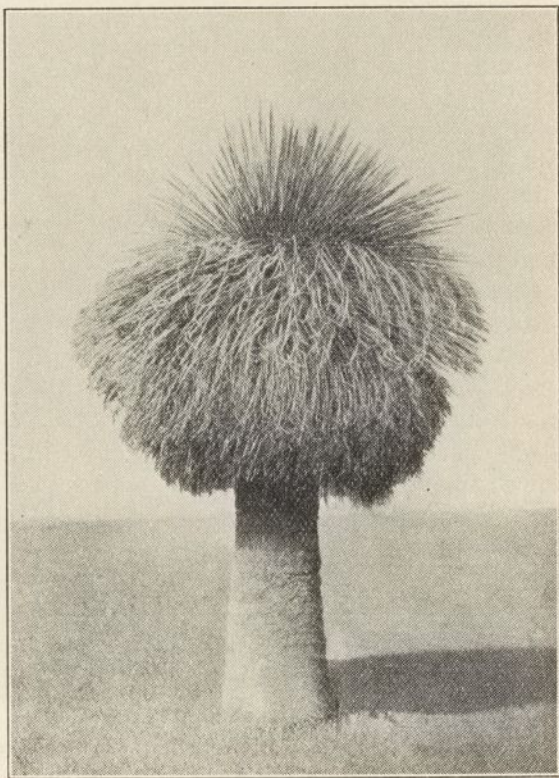


It has a round, stout stem or trunk, pulpy and fibrous inside, and on the top a large round tuft of long thin leaves like a mop of coarse straw; usually it has more than one of these tufts. This picture is of a specially neat one growing in a public garden and it looks as if it was specially selected to make a nice portrait. In the flowering season it sends up a very tall thin spike, often ten or more feet high, round part of which is clustered a great number of small white flowers which smell rather rank and contain nectar, but not real honey.

It is usually about 10 ft. high, though some reach almost 30 ft. Another name for it is "Resin Tree," because a useful resin can be got from it, and a great many other things as well. This resin is called in Western Australia, where the Grass Trees are very plentiful, "blackboy gum" and it is used by manufacturing chemists for making glucose, treacle, scents, alcohol and some tar products, from which two dyes have also been made. From the outside portion of the stem substitutes for drying oils and turpentine, useful in making paints and varnish, tannin and acetic acid, have also been distilled.

There is another species of Grass Tree which is named *Kingia australis*, but this has more than one stem, and they are tall and thin, with long green leaves in a tuft on the top of each stem, which has ring-like markings all the way up.

These Grass Trees are a very ancient kind of plant and they grew in the prehistoric ages of the world, and they are so slow-growing that the full-sized specimens are believed to be hundreds of years old.



MOUNTAIN GRASS TREE (*Xanthorrhoea arborea*)



## THE "PINE" TREES (Conifers)

There is a tall dark tree you often hear about and see, and that is the Pine. Many of these are to be seen in Australia, but if they are true pines they will not be Australian trees, for there are no real pines that belong to this country. By "belong" I mean, of course, that they have always grown here and do not come from other countries. The real Pine Trees grow mostly in the Northern Hemisphere in parts where the climate is very cold for several months of the year. So it is a wonder that they grow so well and quickly in Australia.

There are many kinds of trees which we call "Pines" that are Australian, but their true name is Conifers — that is, their seed vessels are cones—and have quite different names from each other. There are at least twenty different kinds. We will mention first the most famous of all, that wonderful tree of Tasmania called the "Huon Pine," which is so valuable for its timber that it is now scarce. It is a tall and stately tree, often 100 ft. high. There is another Tasmanian pine-tree (*Phyllocladus rhomboidalis*), which is called "Adventure Bay Pine," a tall, slender tree that is also known as the "Celery-topped Pine." There are also the *Callitris* and *Araucaria* trees, some called "Cypress Pine," "Hoop Pine" or "Butter-box Pine," the tallest growing to 90 ft. The *Callitris* trees belong chiefly to New South Wales and Queensland, but some are found in the other States as well. I have already told you about the great Bunya-Bunya Pine (see page 50).



N.S.W. Govt. Printer, photo.

WHITE CYPRESS PINE (*Callitris*)





*Victorian Govt. Printer, photo.*

TREE-FERNS IN A GULLY, VICTORIA



## TREE-FERNS AND PALMS

Conspicuous in an Australian gully are the graceful tree-ferns, without which a gully would be no more than a bit of the bush. The tall slender dark-brown stalks towering up into the air as high as 30 ft. or more are crowned by a circle of drooping bright-green fern-leaves about 4 or 5 ft. long, which almost shine in their golden greenness when shafts of sunshine send their rays of light upon them through the tree-tops. They are beautiful in their fan-like form and make even the most dense and gloomy gully a place of brightness. Sometimes they stand singly or in small companies, sometimes in such numbers that the place becomes a fern-tree gully in fact as well as in name.



W. Guilfoyle, photo.

BANGALOW PALM

Palms are very handsome anywhere, and are the pride of the tropical areas. Most of them are graceful and very ornamental, and, like the Tree-Ferns, are often grown in large gardens, sometimes even in small gardens, where they are not always suitable. The Palms, unlike the Tree-Ferns, are natives of the hotter northern States and thrive in warm, sheltered places. Queensland is the home of most of them. They have different shaped leaves as well as stalks, some leaves feather-shaped and some fan-shaped, the stems or butts of some are thin and swaying, others are thick and sturdily upright. The shape of some is shown by their popular names, such as "Umbrella," "Whipstick" and "Walkingstick" Palms. The well-known Zamia Palms of Western Australia are only short.

## SOME FLOWERING SHRUBS

It would not be quite fair in a book on Australian trees not to mention some of the shrubs, especially as I have told you about several which include shrubs as well as full-grown trees in the one genus. That is one of the things about Australian trees which make them specially interesting. for there are not many trees which belong to other countries that have so many forms and sizes, so many varieties of leaves and flowers, as ours have. I have told you that Acacias are often very small indeed and there are many others, not so small, but still only shrubs, hundreds of them, so that it is very difficult and in fact impossible to describe in a small book like this even a few of them. But we must remember that the Australian bush grows not only trees but shrubs, and also many small plants.

For instance, there is the glorious **Hibiscus**, sometimes called "Mallow." This large genus includes a little annual plant called by the natives "Cooreenyan," which is to be found growing wild in northern Australia and also in Asia; it also includes two trees as high as 20 or



Drawn by A. E. Oakley

FLOWER AND LEAVES OF HIBISCUS LILACINUS



30 ft., one known as "Hollyhock Tree" because of its large pink flowers and the other "Yellow Mallow Tree," its flowers being yellow and crimson. In between these in size are the shrubs which are so well known in New South Wales and the northern and western States but seldom seen in the colder southern parts of Australia. They also grow well in Asia and Africa. The Hibiscus, which is always known by its proper name, is one of the most showy of our plants, and few large gardens in Sydney are without at least one of these handsome bushes, with rather large and crinkly shiny green leaves, with jagged edges, and large flowers shaped



Drawn by A. E. Oakley

FLOWER AND LEAVES OF THE MINT BUSH (*Prostanthera lasianthos*)

like a trumpet and of very bright colours. On some plants the flowers are scarlet, on others white, yellow, blue or purple, and some of two colours, such as yellow with a purple centre, yellow and crimson, primrose with a dark base.

There are many other Australian shrubs, most of which have fine flowers, and a few are almost as high as trees, as is the beautiful "Mint Bush" (*Prostanthera*), with its numerous violet blossoms, which is often seen in large gardens and parks. There are more than forty species of

*Prostanthera*, a few of which have white flowers, some very small plants and only one of tree size, 20 to 30 ft. high, called the "Australian Lilac" (*Prostanthera lasianthos*), well-known in Victoria as "Christmas Bush," growing in Victoria, New South Wales, Queensland, South Australia and Tasmania, its flowers pinkish-white with purple spots. It is often grown in private gardens. The New South Wales "Christmas Bush" is *Ceratopetaluni*, the Tasmanian is *Bursaria*, and the West Australian is *Nuytsia*.

The true "tea-trees," as originally so named, for a reason that I will explain presently, are *Leptospermum*. The tea-tree we know best is called "Coastal Tea-tree" or "Captain Cook's Tea-tree," the first name because it grows on the sea-coast, and the second because, when Captain Cook first came here in "The Endeavour" he made a sort of tea by boiling the leaves and gave it to his sailors in the belief that it would cure scurvy, and they were also used by the early settlers to make a refreshing drink like tea. So never write it "ti-tree," as so many people do, though the word is always pronounced "tea." The flowers of *Leptospermums* are small, white and pink, and grow thickly in the season all over the shrubs; the leaves are small and dark-green.



Drawn by A. E. Oakley

COASTAL TEA-TREES (*Leptospermum laevigatum*)



## OUR OWN TREES

## PRESERVE THE AUSTRALIAN FOREST!

Keen is the axe, the rushing fire streams bright,  
 Clear, beautiful and fierce it speeds for man,  
 The Master, set to change and stern to smile,  
 Bronzed pioneer of nations. Ay, but scan  
 The ruined beauty wasted in a night,  
 The blackened wonder God alone could plan,  
 And build not twice! A bitter price to pay  
 Is this for progress—beauty swept away.

The Passing of the Forest . . . . . By W. PEMBER REEVES

Now I think you know a good deal about our principal trees, though I have not even mentioned a great number of them. It is a good thing to know as much as we can about our trees, as well as about our native flowers, birds, animals and insects, and now you know them you will agree our own trees are beautiful and very interesting, and some curious. Not only have we good reason to be proud of them but other countries think so well of them that they grow as many as they can. Why, then, should we neglect them ourselves? Ought we not to preserve them and plant them whenever and wherever we have the opportunity? Whatever may be said, it cannot be said we have no space to grow trees, or none worth planting. So it is very important to encourage people to be interested in and proud of Australian trees, and as the children will be the people in the future they should be encouraged to love them.

And what shall we say, as a last word, about the wasteful destruction of hundreds of thousands of trees that has been going on ever since white people came to Australia? Bush fires are bad enough and may be caused by carelessness as well as accident, but the greater number of trees have been destroyed by being chopped down and burnt off so as to clear land for making farms. This is sometimes necessary, but it is often done uselessly and too thoroughly, trees being "ring-barked"—that is a ring cut round their trunks so that the sap cannot rise and keep them alive—and the dead trees left standing, dry, gloomy and desolate. A few trees, at least, or knolls of trees, should be left untouched so as to give shelter not only to the farmer's house but to his cows and sheep in the hot weather. Besides that, trees will prevent the rain-water from draining away off the land altogether. Yet for miles and miles in the country not a single tree is to be seen, except dead ones, and often the houses stand out on the plain with no trees around them.



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