OUR PRINCIPAL TIMBER TREES.

AN INTRODUCTORY TALK

By C. A. Gardner, Government Botanist.

I have been asked by the Editor of "Our Rural Magazine" to write a series of articles dealing with plant life, and in acceding to his request I want to tell you that I propose to begin by discussing with you our commoner trees. These discussions will be followed by illustrated accounts of our principal wildflowers, and I hope that in time you will learn to take an interest in our commoner plants. You will be invited to ask questions relating to plants generally, and to send along specimens of plants which you would like me to deal with.

The series will be commenced next month with an article on Jarrah, and will be followed by articles on our other timber trees. All of our gum trees, and most of our timber trees belong to the group (genus) known as Eucalyptus. The name Eucalyptus is derived from two Greek words, *eu* meaning well, and *kalyptos*, covered, the reference being to the bud-cap which covers the fluffy part of the flower —the stamens—before they open out.

A flower is that part of a plant consisting of the organs which make reproduction possible. Plants as a rule grow from seeds, and the seed is formed from the flower. The usual flower consists of the following:—an undeveloped seed-case, on top of which is a process (projecting part) usually resembling a pin, the head of which is frequently sticky; a number of thread- or pin-like yellow stamens, the heads of which contain a dust known as pollen; and an outer ring of petals and sepals. The petals are coloured and usually five in number when separate, and the calyx is green with five parts which are outside the petals, and usually alternate with them.

You are all probably familiar with the geranium. If turning the flower face downward, and commencing from the outside, we examine a single (not a double) geranium, we shall see five small green or-

gans: these are the sepals. The five scarlet or coloured leaves are petals. Looking now at the flower from above and pulling off the petals, so that we may see the parts more distinctly, we shall notice in the centre a structure reminding us of an umbrella without its cover, an upright stem with five branches: this is the pistil. Outside this are ten stamens, five of which are longer than the others. If you now take away the stamens with a penknife you will see that the pistil widens at the base (the hairy part) to form the seed box (ovary) which contains the undeveloped seeds.

The Eucalyptus flower is the same in principle, but somewhat different in detail. Before the flower opens there is the bud from which falls the bud-cap. This bud-cap represents the petals. The cap breaks away from the cup (calyx) which, in Eucalyptus has no sepals. The stamens are the fluffy part of the flower consisting of stalk and anther, the anther being the head which contains the pollen. If we remove the stamens with a knife we shall see a stiff pin-like organ in the centre. The stigma at the summit is usually so small that you cannot see it. The seed box is inside the cup. Long after the flowers have faded, the cup with its seed box develops, and on the top you will see the slits, three to five in number, from which the seeds are shed. The seed box with its cup, is spoken of as the fruit or "gum nut."

Next month I shall deal with the Jarrah, our principal timber tree. Should you ask any questions they will be answered the following month. If there are any plants, the names of which you would like to know, press them between sheets of newspaper, and address the parcel to the Government Botanist, Department of Agriculture, Perth, when any particulars asked for will be supplied. When specimens are sent a note should be enclosed giving what information you can about the plant. The specimens should consist of leaves and flowers (also gum nuts when trees or mallees are sent), all attached to their twigs.