of interesting observations about them that are not recorded in any book.

Some people think a museum is a place for freaks; others that it is concerned only with dead things; but both these classes of people are wrong: the Museum is a home of education and research; and for much of this work it is absolutely necessary that we have living animals, so that we may study their habits and find out what they eat, and whether they do damage to the farmers' crops and the orchardists' fruit trees.

I hope I shall soon receive some living animals from the Museum's little friends, and I should like to add that if these animals are sent by train no charge is made for carriage.

No doubt the parents and brothers of my readers often catch small wallabies and kangaroo rats in snares and traps. I would repeat that the Museum is anxious to receive such material for its collections; the dead animal could be placed in a bag or box and forwarded as I have directed. The name and address of the sender should not be omitted.

Cats often form useful museum collectors, and the Museum would like to receive specimens of the "bush rats," "bush mice," and the small marsupials that pussy may bring in for her kittens from time to time.

WESTERN AUSTRALIAN TREES.

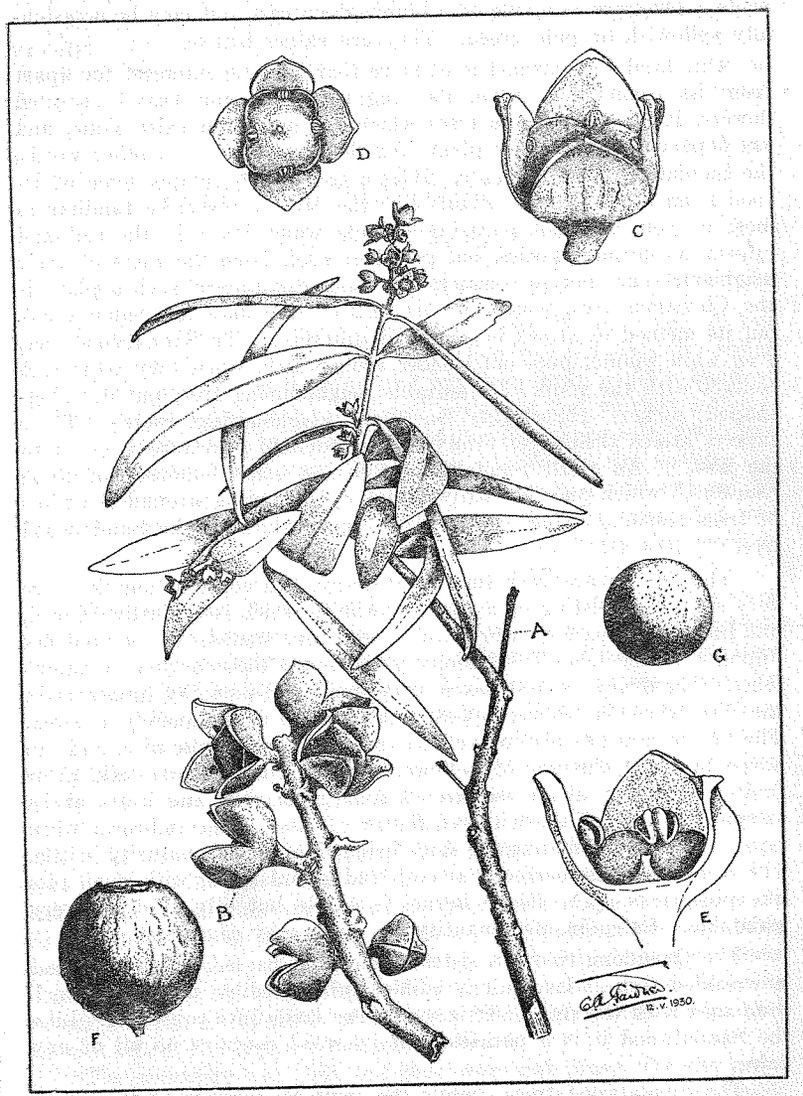
No. 9.—THE WESTERN AUSTRALIAN SANDALWOOD.

(By C. A. GARDNER, Government Botanist.)

Amongst the most valuable of our native trees is the Sandalwood, which is so ornamental in our Jam and York Gum country. The value of this tree was so early recognized, that the area which we now know as the Wheat Belt was thoroughly exploited fifty or sixty years ago by Sandalwood "pullers"—men who went through the bush with drays, by means of which they both pulled and loaded the Sandalwood. The old Sandalwood tracks, still visible in many places, and the dumps where the wood was collected and "trimmed," still bear evidence of the systematic activity of those days. The Sandalwood tree was once common round York and Northam, where it was known as the "Nut tree"; to-day it is difficult to find a well-grown specimen within sixty miles of any of our railways. Then it was a common tree thoughout large areas; now we are planting it, and the cutting of trees upon Government lands is controlled by regulations.

Sandalwood oil is the valuable product of two Sandalwoods—the Mysore wood, grown in India and the East Indies, and our own local tree native of Southern Australia. This valuable oil is yielded principally by the base of the trunk and the roots. The wood is exported to China in large quantities, where it is made into small fancy articles, such as carved caskets and other small goods, the sawdust being used in the preparation of joss sticks which are used for religious purposes among the heathens. Contrary to the popular ideas, Sandalwood has no connection with incense, which comes from Arabia and Somaliland, and is a valuable resin obtained from the Frankincense or

Olibanum (*Boswellia Carteri*). The oil of Sandalwood is used extensively in medicine, and also in perfumery. This oil is distilled in Perth by two firms, and large quantities are exported annually. It is because of this oil that the Sandalwood is cultivated both in India and in our own State, the oil being the most useful product of the tree.



The Sandalwood Tree.

(A). Twig, showing habit. (B). Inflorescence (about three times natural size). (C). Flower (enlarged). (D). Flower (seen from above; enlarged). (E). Section of flower (enlarged). (F). Fruit. (G.) Seed.

The Sandalwood tree is little more than a shrub, of 10 to 20 feet in height, and of almost the same breadth. The trunk is relatively short and stumpy and covered with a purplish-brown bark thick and

rough on the outside, but reddish and sappy in fracture. The sapwood is almost white, while the heartwood is a pale yellow resembling box-wood; or in very old trees it may assume a brownish-yellow colour. The leaves vary remarkably in size and thickness—from leathery to somewhat thin—and in shape from broad and blunt, to narrow and acute. They are as a rule of a bluish-green cast, but may be occasionally yellowish or pale green. They are rather brittle.

Our local Sandalwood is of more than passing interest; for apart from its commercial value, its fragrant wood and heavily scented flowers, it is one of those trees which are unable to exist alone, and are dependent upon other plants for their existence. In other words, the Sandalwood is a parasite. It is a tree which obtains some of its food from other plants. Plants like the Mistletoe will be familiar to most of you, but root parasites—plants which grow in the soil and appear as normal species, but get their food from the roots of their neighbours—are not so common. Another example of such a plant is the Christmas tree, which in this respect resembles the Sandalwood, but its method of attack is somewhat different. The Sandalwood tree, even while young, puts out slender roots which, when they come into contact with the roots of a suitable neighbouring tree, put out slug-shaped suckers (haustoria) on these neighbouring roots. These suckers attach themselves firmly to the root and penetrate deeply into the host. An adult Sandalwood tree has some hundreds of these "suckers," which may be easily found upon digging around the roots of trees found growing within, say, seventy yards of the Sandalwood tree.

The flowers are very small and fleshy. In construction they are very simple, consisting of a simple perianth which is typically 4-lobed, and lined at the base by a broad disc, with four stamens in four notches opposite to the lobes. Occasionally there are three or five perianth-lobes. The ovary or seed box is very small and partially immersed in the disc when the flower opens, but later on is completely covered. The flowers are greenish or yellow with a reddish-purple disc, and are borne in small clusters, each flower having a very short stalk. The fruit is globular, about the size of a large marble, and bears at its summit the scar of the withered flower. The exterior is brown when ripe, the flesh surrounding the stone being thin, and at maturity brittle. The stone (seed) is perfectly smooth and globular, but with small pits like pin-pricks. The fleshy kernel is edible but oily, and not very palatable. Eaten in any quantity the seeds may cause sickness.

The Quandong tree is a sister species, but has a reddish fruit and a wrinkled stone. Its fruit is edible, but the edible portion is small compared with the stone. It is sometimes made into preserves. Like the Sandalwood it is a parasite, but its wood contains no oil of any value.

The Sandalwood tree inhabits the southern interior of the State, extending from the Swan River to the far east and as far north as the Gascoyne River and Leonora. It is not found in the Jarrah and Karri forests of the extreme South-West, but is most common in Jam country. It is rarely associated with Eucalyptus other than York Gum, and does not parasitize freely upon this tree.

The cutting or pulling of Sandalwood is restricted to trees of a certain size, and this regulation is strictly enforced by the Forestry Department. The tree is of slow growth, and therefore reckless cutting of young trees would soon result in the extermination of the species were some regulation not provided.

When planting Sandalwood for ornamental purposes, the seeds should be placed close to some Wattle, Sheoak, or Jam trees, or other suitable host. They should be covered to twice their diameter with soil, and the young plants should be protected from stock, fowls, and rabbits.

TALES OF THE DEAD-HEART.

(By John K. Ewers.)

No. 2: How the Rain came.

"It all happened so many years ago," said Woma, "that if you took every one of the three million seven hundred and sixty-five scales on my body, and picked them up and put them down again a hundred and seventy-six times, and called each scale you had touched a thousand years, you would have only half of the time since rain first came to drench the sand and worry the snakes who live in this country.

"In those days there was no water. Your men and women did not drink anything. When they were thirsty they ate grass that was as thick as your finger and full of sweet juice; or leaves that were as round as your head and full of clear jelly.

"Well, one day, Brilga and Djenjinni and a crowd of others were out hunting the kangaroo, when they came upon three enormous strange looking men sitting by a hollow in a rock. Great fellows they were, nearly half as big as Dangorra, the Emu you can see in the sky above your head, when the stars are bright. Their skins were white and their hair which was two miles long tumbled down to their waists. From their waists to their feet was another three miles, and only when they stooped did their hair touch the ground.

"They must have had big mouths," said Ngangan in amazement. "Yes, and big eyes and big noses," said Woma. "Why! Their faces were bigger than Kelje-bin! Well, Brilga drew his men into the bushes and for a while they watched the three strangers. They were dipping their hands into the rockhole and putting them to their mouths, and as they did so, something went drip-drip down their beards. Wondering what strange food this was that was as clear as the air and ran like pebbles of diamond from their hands, Brilga and his men lifted their spears and went forward.

"The strangers were big, but they were not brave like the great Ingada, and they took to their heels and ran with steps two miles long. But Brilga and his men bounded after them as swift as kangaroos in full flight.

"Presently two of the strangers were lost to view, but one they followed till he took refuge in a great cave all strewn round with roly-poly stones. It was dark inside and the hollow caverns rang with the echoes of the giant's tread, so that Brilga and his men were afraid to follow. So they pushed the largest roly-poly stone they could find in front of the entrance and went back to the place where the three