

LONG-FRUITED BLOODWOOD
(Eucalyptus polycarpa F. Muell.)

A—Leaves; B—Flower buds; C and D—Fruits; E—Section of Fruit

TREES OF WESTERN AUSTRALIA

Eight Eucalyptus Trees from the Tropical North

By C. A. GARDNER, Government Botanist

No. 47—LONG-FRUITED BLOODWOOD

(*Eucalyptus polycarpa* F. Muell.)

THIS tree which attains a height of 35 to 40 ft. is one of the common rough-barked trees of the open woodlands of the Kimberleys where the soil is sandy, and it is often associated with the woolly-butt (*E. miniata*).

The bark is usually a dark grey in colour, and it is sometimes, but erroneously called by the local inhabitants "Ironbark,"—a name that should be reserved for *Eucalyptus jensenii*. Unlike the ironbark which has a hard black or dark-grey bark, this bloodwood has a friable bark which is brown in fracture, and the timber is red and rather soft. The bark is also somewhat tessellated, while that of the true ironbark is deeply longitudinally fissured.

The tree has a wide range from southern New Guinea to the northern parts of Australia. In Western Australia we find it occurring from Broome and Derby, where it occurs in red sand, to the high plateau country to the north of the King Leopold Range, where it occurs commonly in the messmate woodland (*E. tetradonta*), being very common on the low sandy flats, especially between the Edkins Range and Karunjie.

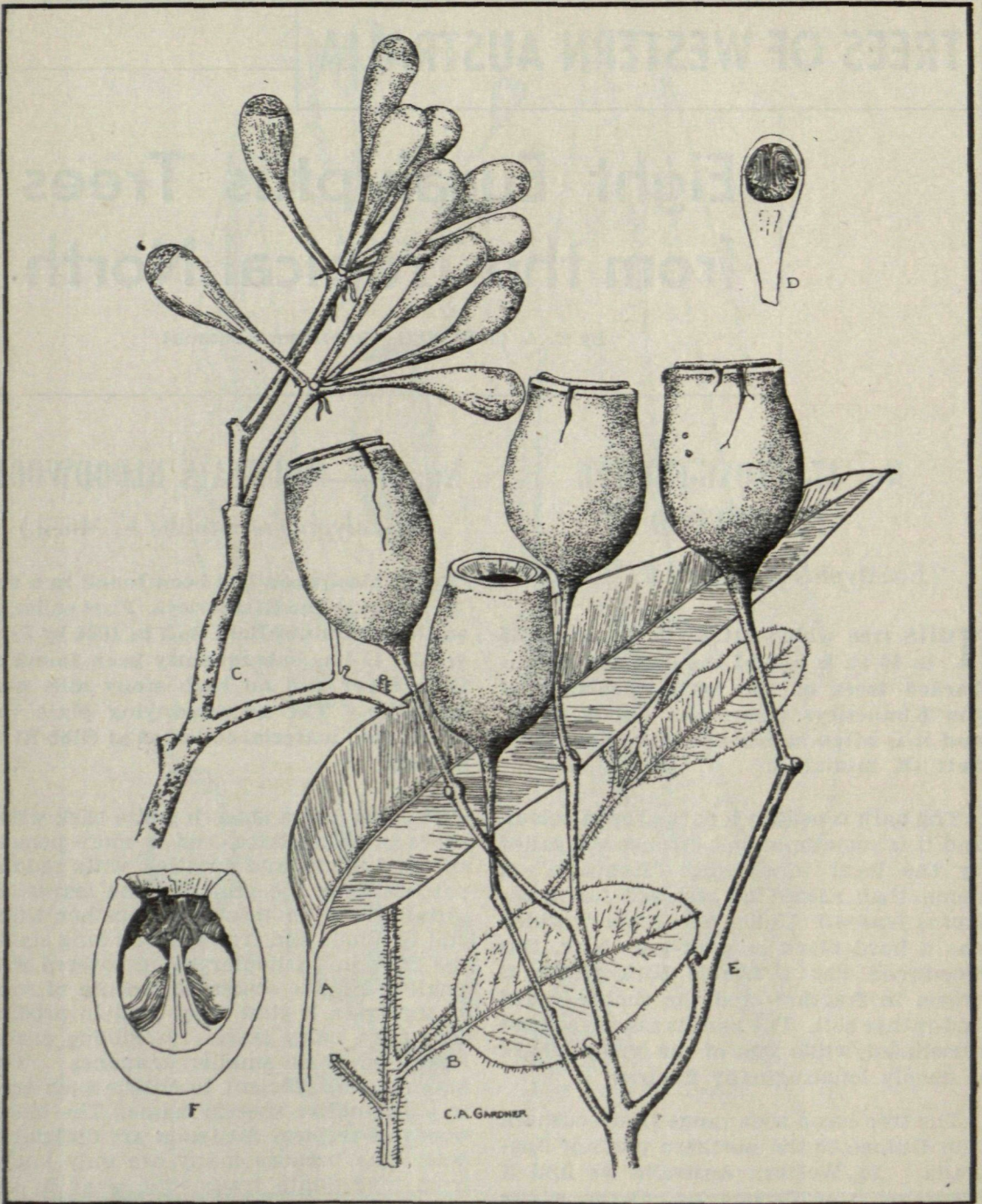
No. 48—MOUNTAIN BLOODWOOD

(*Eucalyptus terminalis* F. Muell.)

THIS bloodwood has been found in a few spots in the Kimberleys. First collected on the summit of Bold Buff in 1904 by Fitzgerald, it has subsequently been found at Gibb River and on high stony hills near Karunjie. The accompanying plate was made from material collected at Gibb River in 1952.

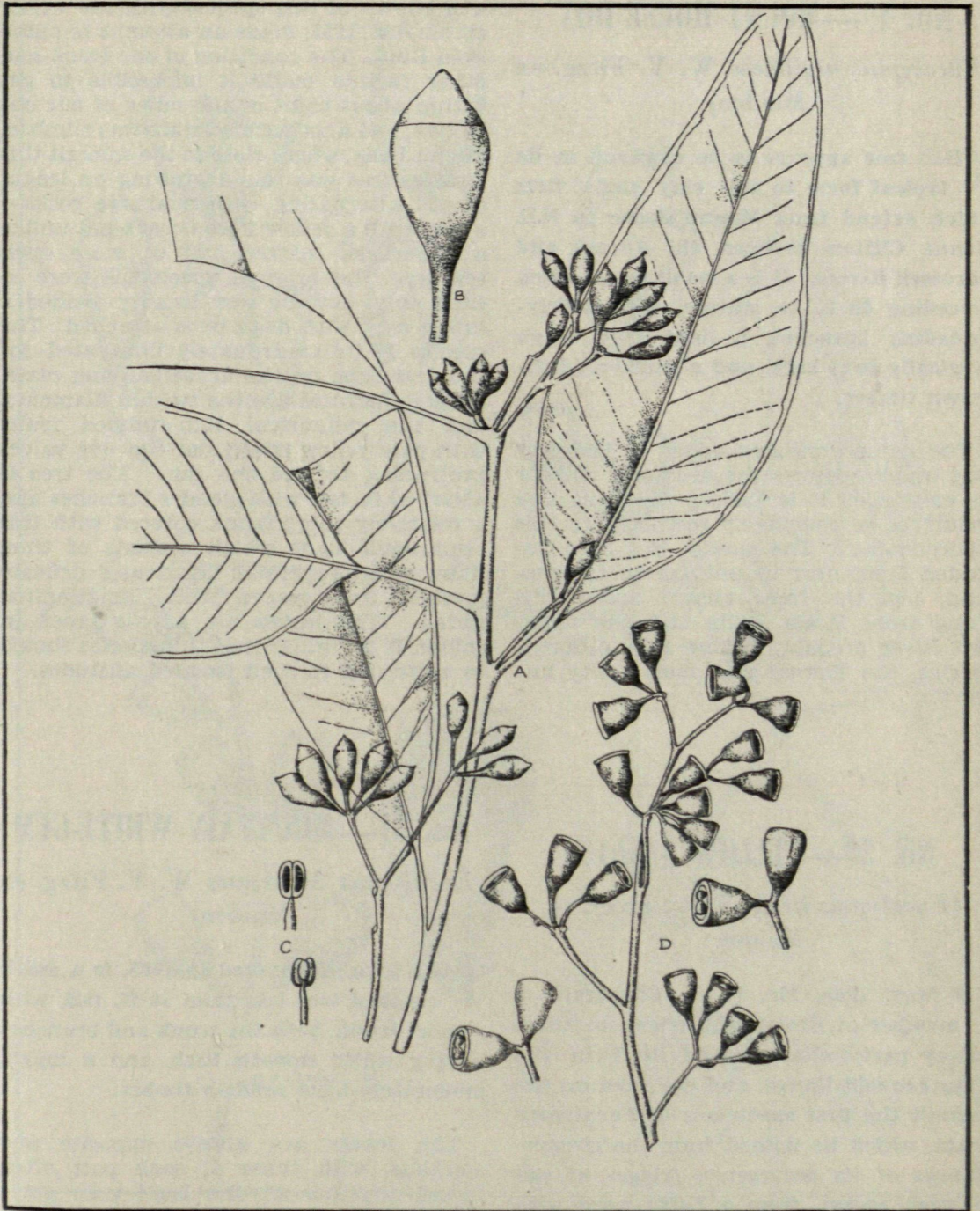
The tree has a smooth white bark which sheds in thin plates, and is more persistent and scaly and mottled with reddish patches near the ground. The leaves are a dull green in colour and rather thick, and the buds and fruits are on long stalks, the buds in particular being covered with small scurf-like scales. A feature of some of the trees is that they tend to produce thin grey hairy leaves resembling sucker leaves on their smaller branches. This may not be sufficient to entitle such trees to a distinctive specific name. The bloodwoods of tropical Australia are difficult to determine because many are only known from inadequate fragments, some in bud only, others consisting of fruits.

The timber of *E. terminalis* is red and the tree secretes an appreciable quantity of kino from its bark. The kino is deep red in colour and not unlike that of the common marri or red-gum of the South-West.



MOUNTAIN BLOODWOOD
 (*Eucalyptus terminalis* F. Muell.)

A—Leaf; B—Abnormal leaves; C—Flower buds; D—Section through flower bud; E—Fruits; F—Section through fruit
 Gibb River, Gardner 9923.



MOUNT HOUSE BOX
(Eucalyptus argillacea W. V. Fitzg. ex Maiden.)

A—Leaves and flower buds; B—Flower bud enlarged; C—Anthers; D—Fruits
 Mount House, Gardner 10051 (1952.)

No. 49—MOUNT HOUSE BOX

(*Eucalyptus argillacea* W. V. Fitzg. ex Maiden)

THIS tree appears to be confined in its typical form to the clay shale flats which extend from Mount House to N.E. Mount Clifton between the Adcock and Throssell Rivers. It is a small tree, seldom exceeding 30 ft. in stature, with widely-spreading branches, a light grey rough (typically box) bark, and a dense reddish-brown timber.

The name *argillacea* refers to the grey clay which supplies the necessary soil for its existence. It is curious that this tree should be so completely restricted to this environment. The species has been recorded from near Mount Isa in Queensland, but the trees known under this name from Moola Bulla and the upper Ord River probably belong to a different species, the flowers and buds being unknown.

No. 50—YELLOW JACKET

(*Eucalyptus lirata* W. V. Fitzg. ex Maiden)

IN May, 1905, Mr. W. V. Fitzgerald, a member of Crossland's trigonometrical survey party, climbed Bold Bluff in the King Leopold Range, and collected on the summit the first specimens of *Eucalyptus lirata*, which he named from the circumstances of its occurrence (ridges of soil between rocks), from a Latin word with this meaning, or more correctly ridges between furrows.

The small original specimens were in fruit only, and the only fragment collected came into the hands of the National Herbarium in Sydney. Nothing further

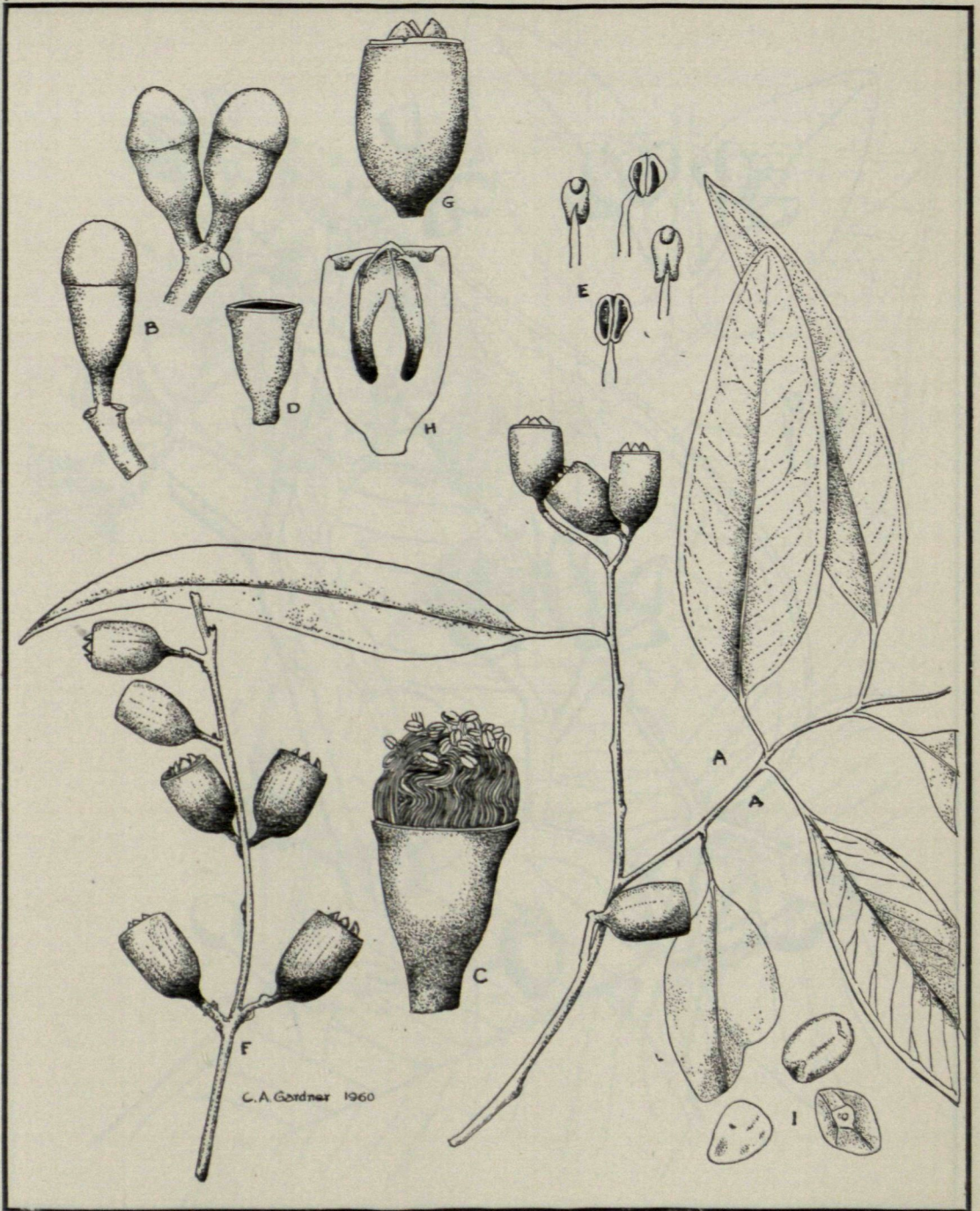
was known of this species until the writer on May 25, 1952, made an attempt to climb Bold Bluff. The condition of the track and other factors made it impossible to get within about eight or ten miles of our objective, and another mountain was climbed, Mount Felix, where close to the summit this strange tree was found growing on ledges of soil alternating with quartzite rocks—a tree with a yellow fibrous bark not unlike a paperbark teatree, but of more open texture. The original specimens were in fruit only, but the new locality yielded a fallen twig with dead buds attached. The species is thus adequately illustrated for the first time on the accompanying plate. Notable features are the twisted filaments, and the cylindrical thin-rimmed fruits with pale yellow triangular concave valves protruding beyond the rim. The tree is about 20 ft. tall with slender branches and a relatively short trunk covered with this remarkable bark which consists of thin, flaky, easily-separable layers of a delicate texture inter-spaced with longitudinal fibres. The leaves are a pale green in colour. It is curious that this species should be restricted to such isolated altitudes.

No. 51—MOUNTAIN WHITE-GUM

(*Eucalyptus Mooreana* W. V. Fitzg. ex Maiden)

THIS tree, discovered in 1905, is a small crooked tree less than 30 ft. tall, with a short trunk, both the trunk and branches having white smooth bark, and a tough, moderately hard reddish timber.

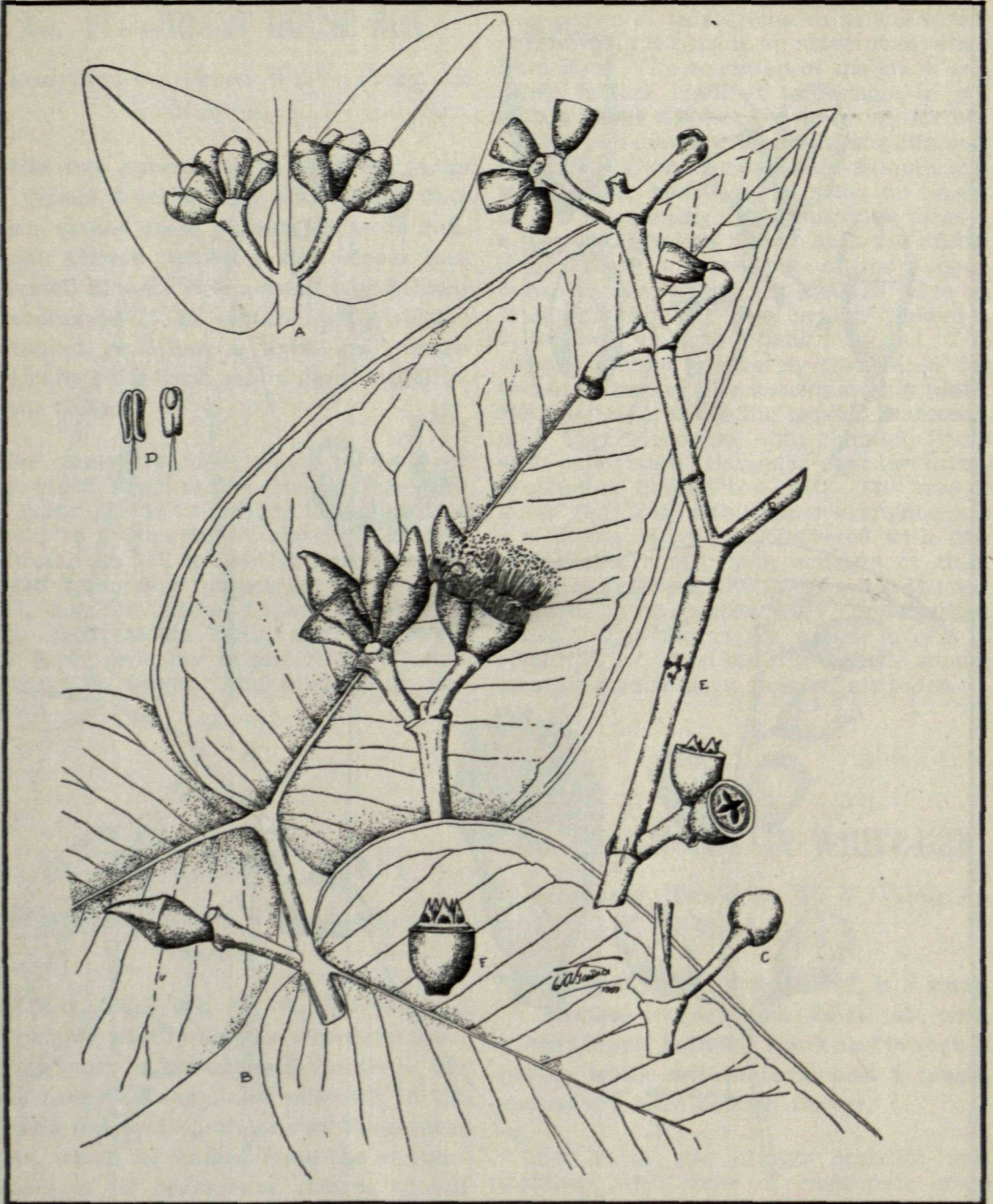
The leaves are always opposite and stalkless, with those of each pair often joined together at the base, pale grey-green in colour, and up to six inches in length and four inches in breadth, thick and rigid and conspicuously veined. The flowers are white. Little is known of this tree which was collected in the King Leopold Range in a few elevated spots: summit of Mount Rason (not far from Mount Hart); summit of Mt. Broome (3,040 ft);



YELLOW JACKET
(Eucalyptus lirata W. V. Fitzg. ex Maiden.)

A—Branchlet with fruits; B—Flower buds; C—Flower (enlarged); D—Calyx-tube after flowering; E—Anthers
 F—Branchlet with fruits; G—Fruit (enlarged); H—Section of fruit; I—Seeds

Gardner 11827 Mount Felix.

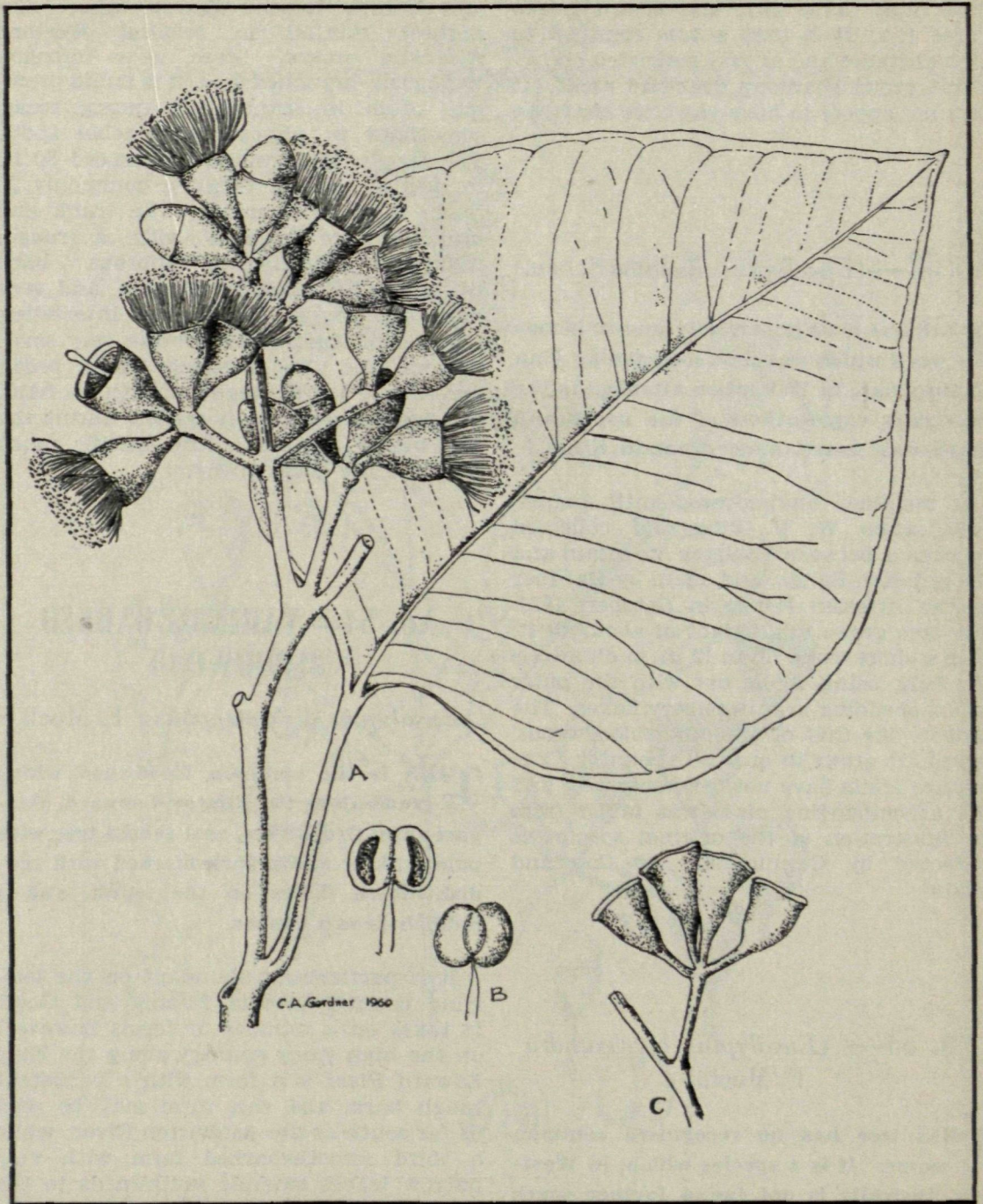


MOUNTAIN WHITE-GUM

(*Eucalyptus Mooreana* W. V. Fitzg. ex Maiden.)

A—Pair of leaves and two umbels of flower buds; B—Mature leaves and flowers; C—United bracts which protect the young flower-buds—the cluster of buds being inside this globular organ; D—Anthers; E—Fruits; F—Single fruit in profile

(The species is named after Sir Newton J. Moore, a former Minister for Lands, subsequently Premier, and then Agent-General in London for Western Australia)



Eucalyptus oligantha. Schau.

A—Specimen collected by A. Cunningham at Copeland Island; B—Anthers; C—Fruits

Bold Bluff (2,760 ft.); and Mount Leake (2,246 ft.). It is thus a tree confined to high altitudes and of very restricted occurrence, growing among quartzite rocks. It does not appear to have any close relatives.

No. 52—(*Eucalyptus oligantha* Schau.)

THIS tree is an imperfectly-known bloodwood which was first collected by Alan Cunningham in 1819, when attached to the Admiralty explorations of the north and north-west coasts under Captain King.

It remained undiscovered until August, 1905, when W. V. Fitzgerald collected specimens between Tabletop Mountain and the Artesian Range, and again by Gardner in the Artesian Range in October, 1921. The tree grows to a height of about 40 ft. with a short trunk up to 12 in. in diameter, the bark being thick, but with the outer layers shedding in thin papery flakes. The timber, like that of the other bloodwoods, is red. It grows in quartzite country. The mature fruits have not been observed, and the accompanying plate was taken from an illustration of the original specimens collected by Cunningham at Copeland Island.

No. 53— (*Eucalyptus brachyandra* F. Muell.)

THIS tree has no recognised common name. It is a species which, in Western Australia is not found further south than the Charnley River in the Kimberleys, although very common between the Charnley and Prince Regent River to the north, and eastward to the King Edward River.

The largest trees to be seen are probably those which occur between the Glenelg

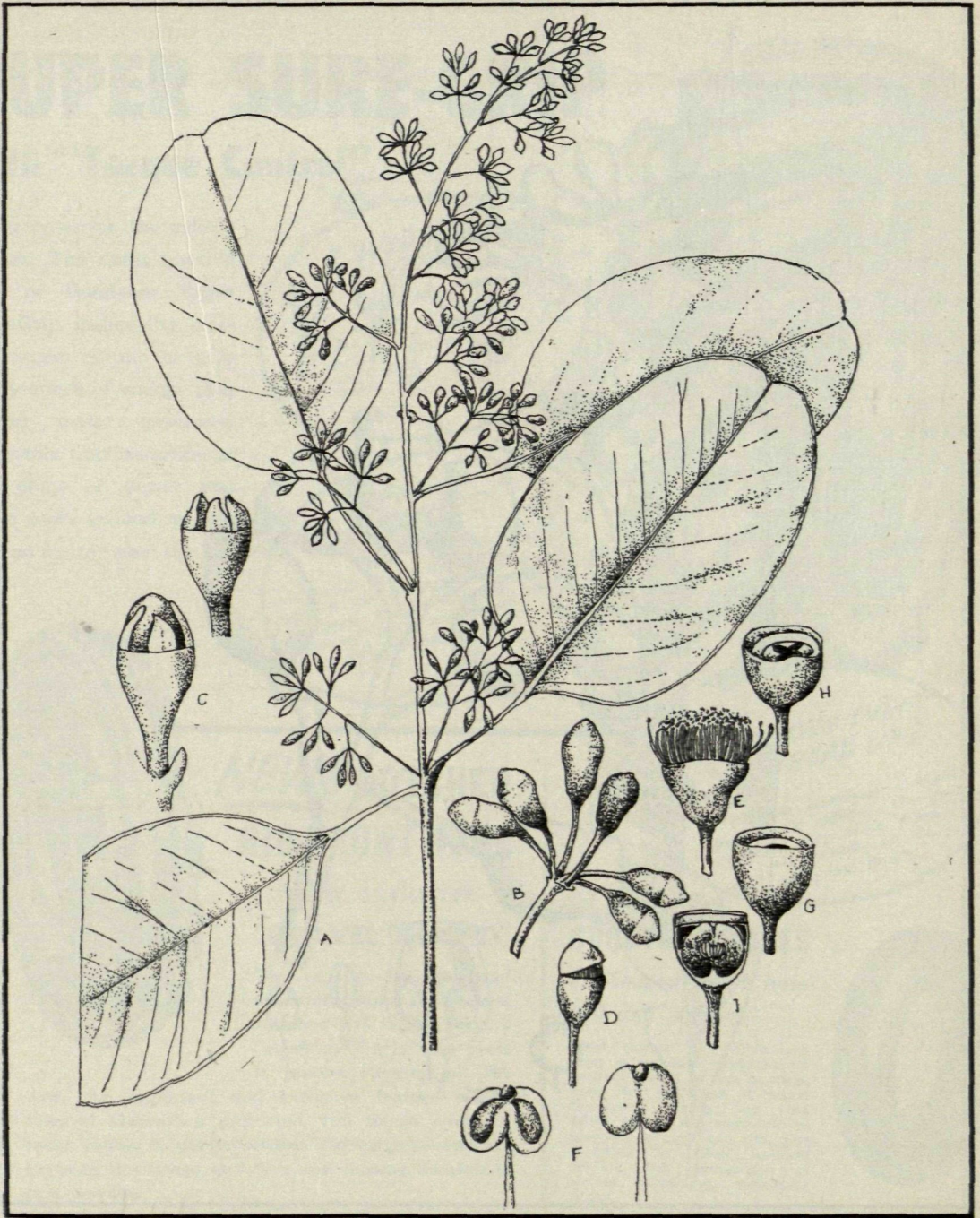
and Prince Regent Rivers, where the highest rainfall in tropical Western Australia occurs. Here, as a crooked tortuously-branched tree, it is found growing, often in scanty soil among rocks, sometimes in almost inaccessible spots. The largest trees would not exceed 30 ft. in height, but the trunk is commonly 20 in. or more in diameter. The trunk and branches are covered with a rough, fissured, reddish-grey fibrous bark throughout. The timber is deep, and very hard and tough. The most interesting features of this species are the very small flowers, and the relatively small, broad and obtuse leaves, together with its habit of becoming completely leafless during the dry winter months. The specific name refers to the short anthers.

No. 54—VARIABLE-BARKED BLOODWOOD

(*Eucalyptus dichromophloia* F. Muell.)

THIS is the common bloodwood which grows along the Fitzroy, Lennard, Margaret and Ord Rivers, as a robust tree with pale pink or white bark marked with reddish-brown flakes on the trunk, and a reddish-brown timber.

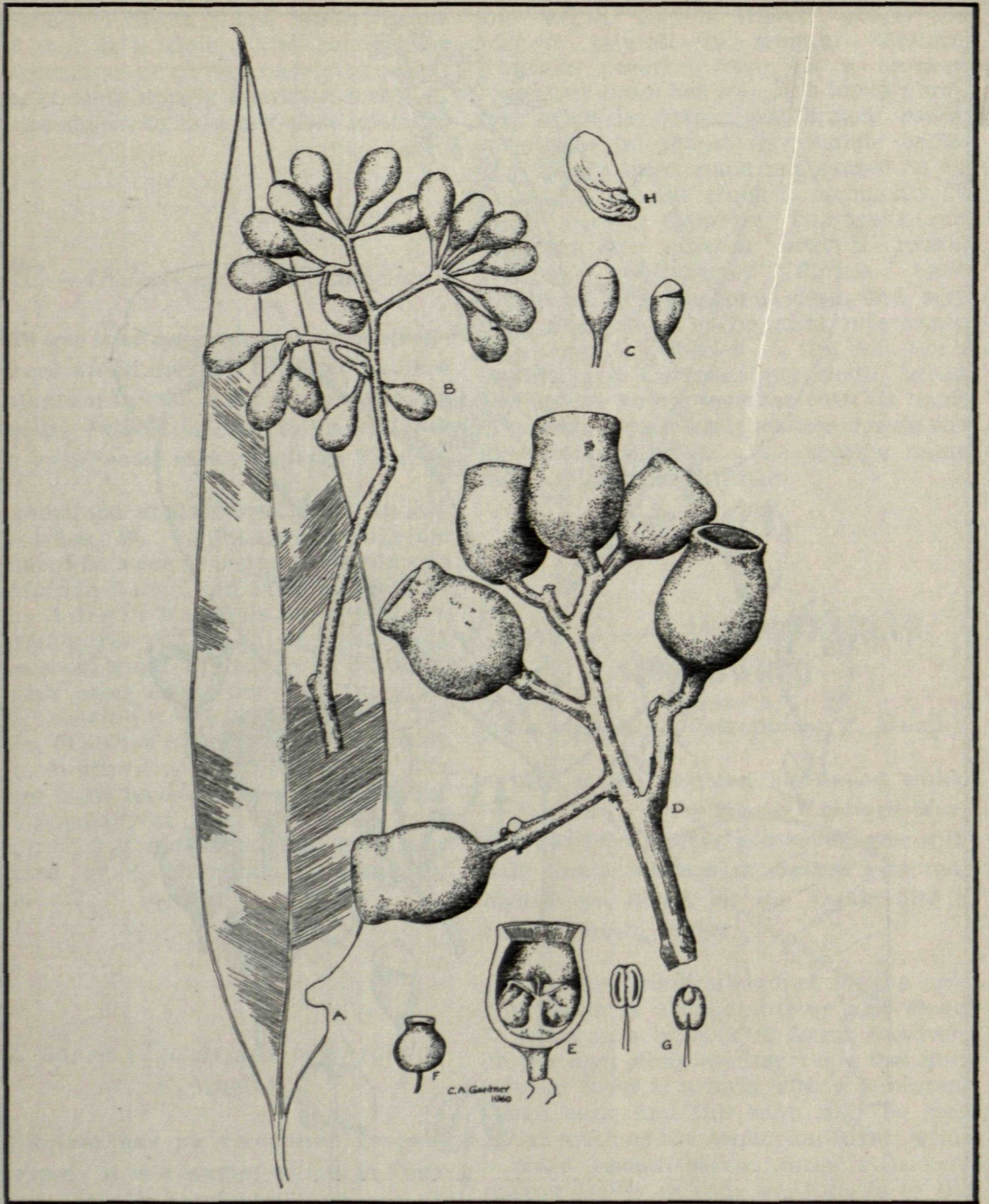
It is particularly abundant on the low-lying country around Fitzroy and Gogo. It takes on a number of forms however: on the high stony country along the King Edward River is a form with a persistent rough bark, and this form may be seen as far south as the Ashburton River; while a third smooth-barked form with very narrow leaves extends southwards to the Murchison River near Mount Narryer. The shape of the fruit is fairly constant, although some forms are much more contracted at the orifice of the fruit than those depicted, while in length they vary from about half to one inch. The name *dichromophloia* refers to the variable colour of the bark.



(*Eucalyptus dichromophloia* F. Muell.)

A—Branchlet with leaves and panicles of flower-buds; B—Flower buds (enlarged); C—Two buds showing the deciduous calyx teeth; D—Flower bud about to open; E—Flower; F—Anthers; G and H—Fruits; I—Section of fruit

Artesian Range, Gardner 1621.



VARIABLE-BARKED BLOODWOOD
 (*Eucalyptus dichromophloia* F. Muell.)

A—Leaf; B—Flower-buds; C—the same; D—Fruits; E—Longitudinal section of fruit; F—Small fruited form; G—Anthers; H—Seed

A-C Gardner 10067. D-E-G-H, Gardner 9727, Gogo, October 1950;
 Fossil Downs Gardner 10067, Apl. 1951;
 F—15 miles N.W. from Kalumburu, H. N. Speck, 4909.