

WESTERN AUSTRALIAN WILDFLOWERS.

No. XII.—THE RED QUILLS.

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

The Red Quills, although not very conspicuous for the size of their flowers or the masses in which they are borne, are nevertheless amongst the most common and well-known plants of the South-West. This is probably because they flower for the greater part of the year, and their brilliant scarlet serves to enliven the drab bush at this season of the year in many localities.

These plants belong to the genus *Calothamnus*, meaning "Beautiful bush"; but the name Red Quill is singularly appropriate, since all the known species have red flowers, and the staminal bundles, which form the conspicuous part of the flower, individually resemble abbreviated feathers, such as formed the quill pens of long ago. The genus contains twenty-four species, all of which are confined to Western Australia, and to the south-western part of the State. Only

one species—the one here illustrated—extends to the Goldfields. This species is *Calothamnus Gilesii*, named after the explorer who first collected it near Queen Victoria Spring, eastwards from Kalgoorlie.

Popularly the Red Quills are often confused with the Bottle-brushes, but the latter name should be reserved for species of *Callistemon* and the large red-flowered species of *Melaleuca*. A Bottle-brush is commonly regarded as any plant which bears spikes of flowers which are red with conspicuous protruding stamens. Four genera answer to the general description, but the following table should help you to distinguish which are the Quill flowers and which are Bottle-brushes:—

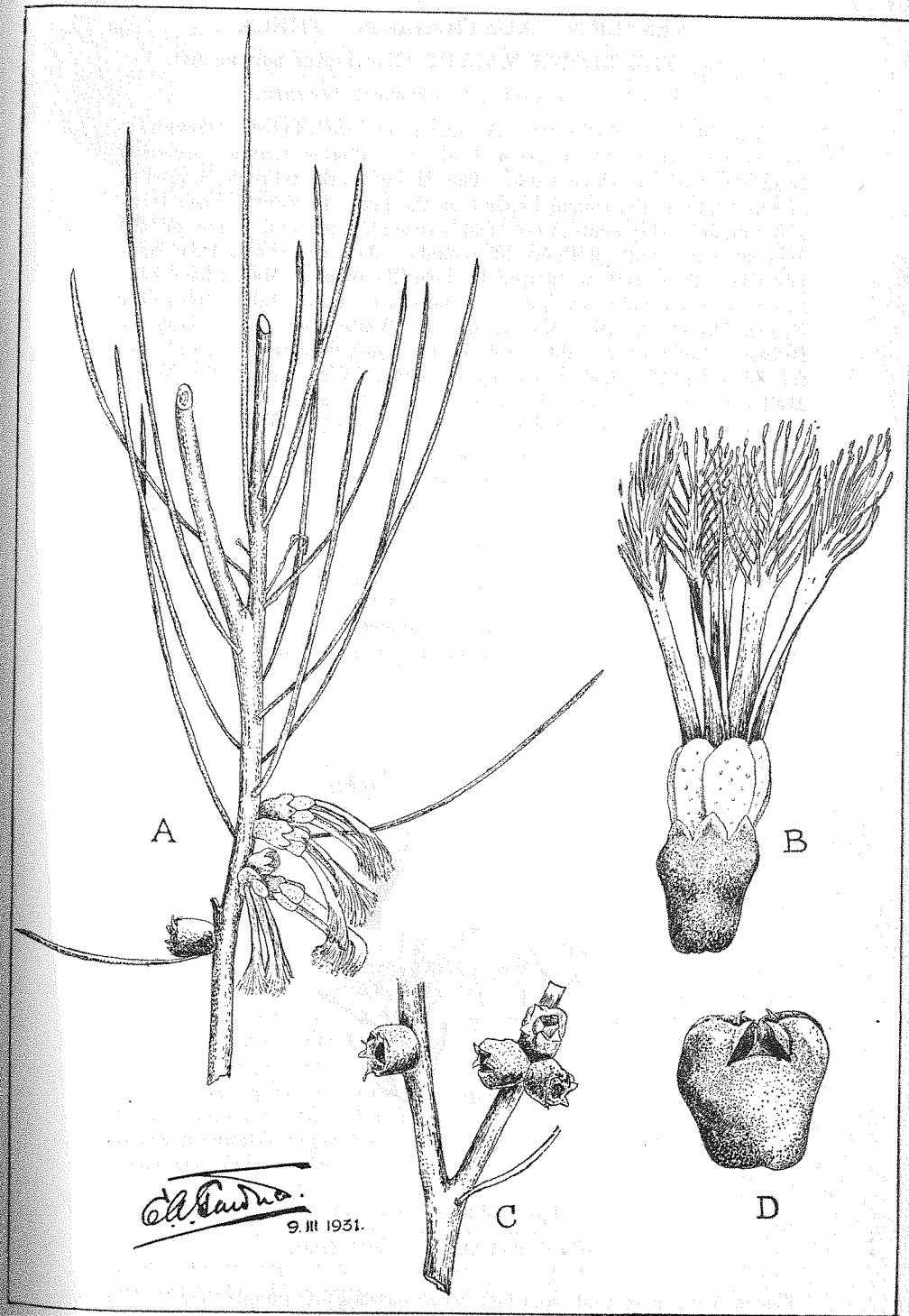
- A. Stamens free or essentially so, anthers attached about the middle, so that they swing on the apex of the filament—*Callistemon*. (True Bottlebrushes.)
- B. Stamens united into five bundles:
- (a) Spikes cylindrical, surrounding the stem, flowers regular—
- I. Anthers attached about the middle so that they swing freely on the apex of the filament—*Melaleuca*. (Tea-trees in part.)
- II. Anthers attached for their full length to the filament and appearing as a continuation of it, and without free movement—*Beaufortia*. (Swamp Bottle-brush.)
- (b) Spikes one-sided, not surrounding the stem, the flowers irregular—*Calothamnus*. (Red Quills.)

This key, while not botanically accurate, will suffice to distinguish the above types of Bottlebrush; but it is better to reserve the name Bottlebrush for *Callistemon*, of which there are two species in Western Australia, one of them being the glorious Albany Bottlebrush.

The Red Quills are divided into two groups according to the number of floral parts. In one group there are five calyx-lobes, five petals and five staminal bundles; in the other group there are four of each. The species illustrated has five floral parts. These bundles are rarely equal, the lowest two bundles often being reduced to a single stamen. The calyx enlarges to form the fruit, and this is often rendered distinctive by the presence of two incurved horn-like lobes—a character not observable in other plants of this type. Often the calyx is immersed in the corky branches, only the top being visible, and in one of these species the spike is fully sixteen inches long.

Having distinguished this type of flower, you will probably find many species of *Calothamnus* growing in your own district, especially near rivers and streams. A common one around Perth in the Darling Range is known as the "Death flower," but the name appears singularly inappropriate, since the species has flowers of a very bright scarlet which imparts a lively tone to the landscape. Another very showy species in the Geraldton district has dense spikes and flat leaves.

The accompanying plate gives full details of the floral structure.



THE RED QUILL (*Calothamnus Gilesii*, F.v.M.).
 A. Showing habit (about $\frac{2}{3}$ natural size). B. Single flower ($\times 2$). C. Fruits (about natural size). D. Single fruit ($\times 2$).