

One of Twiddie's dearest dreams was her "folks." She knew them by initials only; these she had learned from the trunks and valises on the stage-coach. They all wrote to her, and they all began their letters in a different way. One wrote, "Dear Miss Lewis": one, "Dear Miss"; another, "Dear Miss Twiddie"; and another, "Dear Twiddie." There was yet another who wrote every day, and he began, "Dearest Theodora," and signed his name "H.A."

When Hugh's friends became Twiddie's friends they wrote to her too, and thus her dream began to come true. All except the part about "Dearest Theodora"!

By the time Twiddie had grown into a beautiful girl of eighteen she had become indispensable to Hugh. But he did not realize it. It was only after she had gone to that world beyond the mountains to earn her own living that he began really to understand.

"The dreary, empty house! My eardrums were strained to the aching point in trying to catch some sound of the sweet voice and the joyous laugh. The routine of the work went on, day in, day out, without let or hindrance, unbroken by a jest or a merry retort."

Then he remembered Twiddie's dream, and how she had looked when he teased her about the imaginary H.A. Imaginary! And what were his own initials but H.A.? So the letter beginning "Dearest Theodora" was written, and Twiddie came home to her loved 'Lympus and Hugh found his Gift of God at last.

## WESTERN AUSTRALIAN WILDFLOWERS.

### No. 3: The Big Flannel Flower.

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

The Flannel Plant—one of the most interesting of our wildflowers, is well known to people in the Murchison district, but possibly those living in the south-west of our agricultural districts have never even heard of it. They may be familiar, however, with some closely related plant, which my description may help them to understand.

Flannel plants, also known as "Lamb's Tails" and "Blanket Plants," belong to the Verbena family. They are members of the carrot family and must not be confused with the common flannel flowers which resemble daisies. If you are familiar with the common Verbenas cultivated in gardens, you will admit that the resemblance between these and the flannel plants is not very striking. The flowers of the flannel plant are not readily perceptible: you can see at first sight nothing but balls or spikes of dense wool. Closer examination, however, reveals small flowers hidden away in the woolly masses. They are usually white or lilac in colour, and are conspicuous only during the short flowering period. Were the botanist to judge plants from their external resemblance, the flannel plants would have to be placed in a group apart, for they resemble nothing on earth.

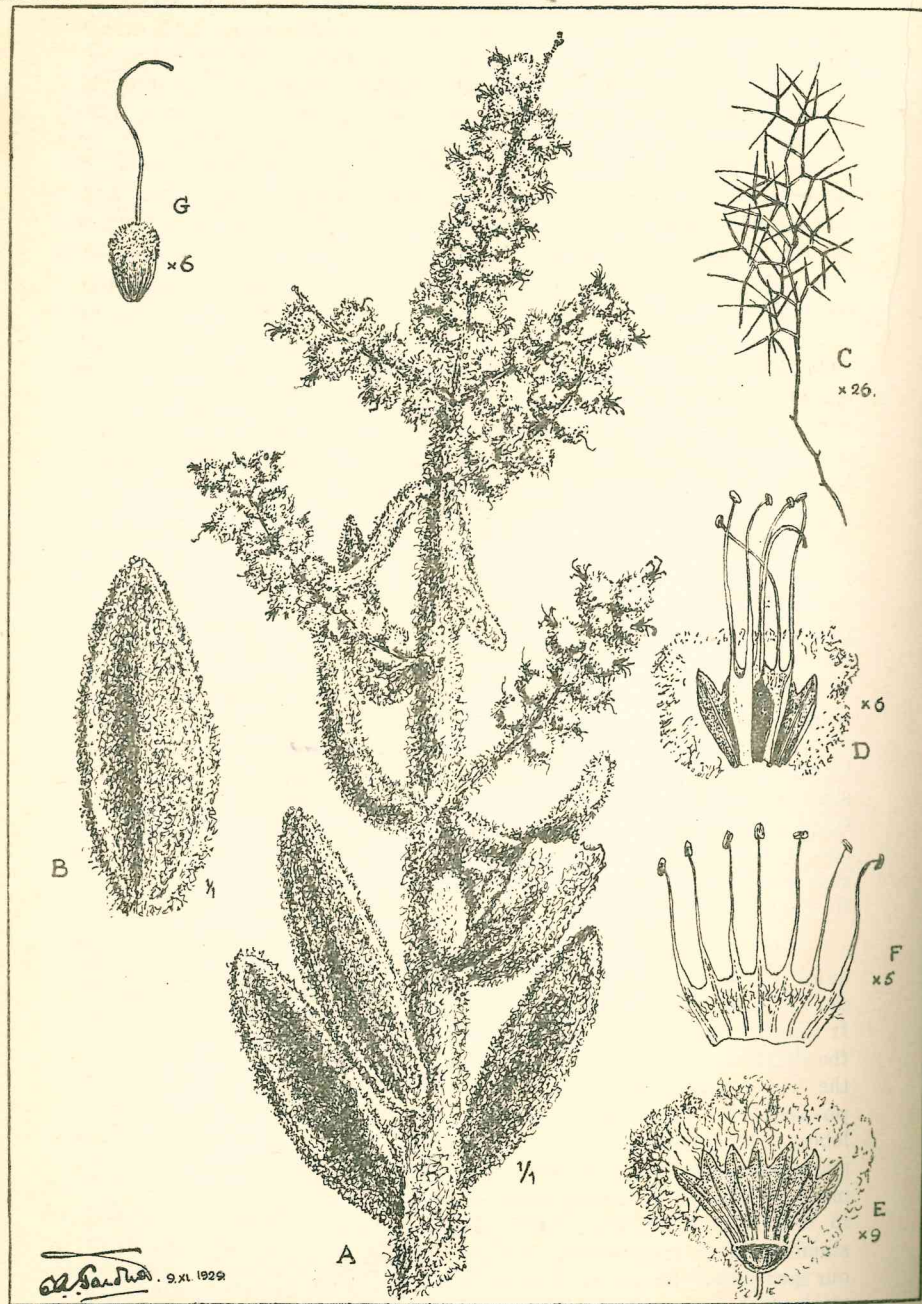
There are thirty-two kinds of these flannel plants in Western Australia, distributed over a very extensive area. About twenty of them belong to two genera: *Lachnostachys*, meaning "woolly spike," and *Newcastlia*, named after the fifth Duke of Newcastle who helped to equip the expedition of Augustus Gregory. The botanist Baron von Mueller was a member of this expedition. The species of *Newcastlia* and *Lachnostachys* resemble each other fairly closely. But there is a difference: *Lachnostachys* always has white wool and pallid flowers, and belongs to the South-West of Australia; *Newcastlia* frequently has coloured wool and various coloured flowers, including blue. The latter is found only in the arid interior, extending into South Australia.

The drawing here reproduced shows you the Big Flannel Plant. This is *Lachnostachys Cliftoni*, named after Mr Worsley Clifton, former Collector of Customs, who made several journeys into the outback country from Geraldton in the early days (between 1870 and 1878). He discovered this remarkable plant near the source of the Arrowsmith River, a point probably some distance east of where Morawa now stands. Its habitat, or home, extends northwards to Mount Magnet and Cue; and it is known in the Lake Austin country.

The Big Flannel Plant, as its name implies, is the largest of the flannel plants. It is also the most woolly. The stems, leaves, and flowers are covered with densely packed and very tiny branched hairs which give to them the appearance of soft wool. The plant is a shrub attaining a height of four or five feet. The lowest leaves may be as much as four inches in length, but they are the same in shape as the upper leaves, the size of which is shown in the illustration. The leaves are all opposite, and are quite flat except that the margins are slightly rolled. The flowers are in rather loose spikes and resemble small woolly balls on very short stalks. The spikes are at the ends of the branches, and are often branched. Figure C shows you a much enlarged hair, and enables you to see the complicated structure and form of branching.

The flower, apart from its woolliness and one other feature, is quite of the normal type. If we carefully remove the wool we shall see the green calyx—the cup which protects the corolla when in bud. It is quite cup-shaped, and has five to eight lobes or teeth resembling the teeth of a saw. The usual number of teeth is six or seven: the illustration shows seven. Within the calyx is the corolla. This possesses one peculiar feature: instead of having distinct petals, or lobes, it consists of a funnel-shaped organ on the rim of which the stamens are placed. This is a very distinctive feature, not found in many flowers, and distinguishes *Lachnostachys* from *Newcastlia*, for in the latter there are lobes between the stamens. The number of stamens is the same as the number of lobes found in the calyx. In our particular plant the stamens are long, and protrude below the wool of the calyx: in other species they are often concealed. Within the corolla may be found the pistil consisting of ovary (seed-box) and style. The style is slender and usually curved like a sickle (see figures D and G), and the ovary is hairy when young. With age, however, this hairiness disappears, or at the most the fruit has a small patch of dense hairs around the top.





The Big Flannel Plant.

- (A) Part of branch. (B) A leaf. (C) A much enlarged hair.  
 (D) A dissected hair. (E) An opened calyx. (F) An opened corolla.  
 (G) The fruit with the style.

The figures denote the number of times by which the object has been enlarged.

The commonest of the flannel plants is that which is often known as "Lamb's Wool." It is a shrub with narrow leaves and small spikes of flowers arranged in dense bunches at the ends of the branches. A species growing near Mt Dale has dense cylindrical spikes of a pinkish-white, while one found between Kulin and Wickepin has small, pure white, dense spikes at the end of the branches. The finest of all the flannel plants is one growing near the Rabbit Proof Fence north of Ravensthorpe. This has magnificent white spikes much larger than the others, and very dense. It is by far the finest of the twelve species of *Lachnostachys*, but it is improbable that any of you have seen it.

[It is to be hoped that readers of "Our Rural Magazine" who live in a district where the flannel plant grows will use the illustrations and descriptions supplied by Mr Gardner to identify this plant. "My Flannel Plant Booklet" is suggested as a project. It may be possible to exhibit the best of these booklets at the next Royal Agricultural Show.—*Editor.*]

### THE CASE MOTHS.

(By H. G. ANDREWARTHA, B.Sc. Agric., Department of Agriculture.)

There is a group or family of moths in the insect world which entomologists have called the *Psychidae*. It is important to remember that the word "family," when one is speaking of insects, has a very different meaning from its ordinary one. It means simply a group of different species of insects all of which have some certain characters in common. Scientists group insects into such families because it makes it so much easier to study them and speak of them when they are so arranged. Most people, when they wish to speak of the group known as the *Psychidae*, call them Case Moths or Bag Moths; and indeed it would be hard to think of a better name for these eccentric creatures.

Most caterpillars, after hatching from their eggs, are content to live a simple outdoor life. Their only concerns are to find plenty of food and to dodge, if possible, their many enemies. But the Case Moth caterpillars have more varied habits. Their first instinct does not send them in search of a meal. Instead, they set to work to build a house in which to live. They are not even satisfied with an ordinary stationary residence, but instead they insist upon having a portable home. So each one spins itself a beautiful silken tube. The inside is lined with wonderfully soft silk, but on to the outside are plastered pieces of stick, grass, or leaves. The result is that each one has a very comfortable and convenient home; but what a bizarre-looking thing it is from the outside! There are many different species of Bag Moths, and each kind makes a different sort of case. The caterpillars of one species, however, always construct the same sort of homes, which they make out of the same sort of material. So an entomologist can generally say what sort of a caterpillar is inside merely by looking at the outside of its house.