

CHAPTER II

The Flowers



WE learned that the Buttercup family lived within the petals of the Buttercup House. And we learned that the pollen from the stamen or father must reach the pistil or mother before the little eggs or seeds contained in the mother can begin to grow and develop into new plants. But the flowers cannot move about as can animals, so they must depend on insects and outsiders to bring the pollen into the little nest where the eggs are. But unless there is some object attracting insects, bees, moths, and butterflies, etc. to visit the flowers, they would not come to them, so the flowers have many attractions, such as their color and their odor. But the most important, and one which is sweet, is the little bag of nectar or honey contained in many flowers, which all insects love and will go far to get. When the insect visits the father, it rubs against his pollen, the pollen sticks to his head or legs. Then as he visits the mother, if the stigma (which is the top of the pistil or mother) is ready for the pollen, it shows this by becoming moist and sometimes sticky. Then the

pollen cling to the stigma and down it goes through its tiny tube to the little nest of ovules or seeds where it mates and at once causes the seeds to become alive. Then they grow and grow until their time comes to burst forth and develop new plants themselves.

Now it is also important that the little visitors who come for the nectar or honey should fly from flower to flower and not crawl because in doing so the pollen would drop off and never reach the mother flower who is anxiously awaiting this important substance so that the little seeds or babies may begin to grow. Consequently they have many ways of keeping out the crawling insects. Mrs. Buttercup has a very hairy stem which makes a very hard journey for Mrs. Ant and others to come into the Buttercup house for a little sip of honey. She often starts there but gets so tired out that she gives up the trip and returns to her family without any honey for them. This plan of growing a hairy stem is only one of the interesting ways the flowers have of keeping out the insects who cannot help them carry out the one object for which they exist—to make more flowers.

Some of the flowers have a little trap door to their sac of honey which only the weight of the bee can open. Others keep their nectar in long tubes so that only bees with long tongues

can reach it. An example of this is in the Orchid of Madagascar which has a nectar tube eleven inches long and depends upon one certain kind of moth for its existence.

It is related that when Darwin was confronted with the evidence of this flower as against one of his theories he insisted that such an insect must live—even before it had been discovered! Again other flowers keep their petals closed and the petals must be forced apart in order to get the honey by a strong bumblebee. The flowers that are fertilized by the insects are called insect loving. Those that are fertilized by the wind are called wind loving etc.

The buttercup was thought not to need the insects to carry its pollen to the stigma—it was for some time thought to be what is called self fertilizing. But the discovery of the small sac of nectar shows that it must have a purpose and that purpose to attract insects to bring pollen from other father flowers to fertilize the tiny seeds.

The stigma is not always ready to accept the pollen but when it is ready it becomes moist and in some flowers sticky which shows it is in condition to accept the pollen or is ready to mate and that the seeds are ready for their development. This condition often lasts only a few hours but sometimes a few days.

The boys had now been taught and had seen how the pollen reaches the baby seeds. They had been taught the importance of the pollen for the growth of the seeds. They had seen that after the pollen reaches the seeds that they are given new life that they remain right in their little nest and are nourished by the pistil or mother flower until they are full grown or matured. Now as this process is the whole object of the individual plant what happens then?

The boys were shown that as soon as the seeds begin to grow the petals on the mother flower begin to wither and it seemed as if the flower gave of its beauty form and youth in order that the baby seeds should grow and mature.

The boys were then taught that the plant depends on the earth and air for its nourishment and as the various flowers have various ways of keeping the crawling insects out of their honey sac so have they different ways of spreading or scattering their seeds after they have matured. If all the seeds of all plants fell right down near the parent plant there might not be nourishment enough to provide all the seeds with food.

So again the outsiders assist them as they did in carrying the pollen. This time it is the wind which does much to assist them in this

work The birds too eat of the seeds and drop some of them on other ground The wind serves the milkweed and dandelion the birds help the fruits and berries and the burrs help themselves by catching on the clothing of passersby or the fur and hair of animals

Then there are those seeds which are in pods—sweetpeas beans peas etc Some of these dry and curl up and as this is done it throws the seeds in various places Then there are those seeds which are in burrs nuts chestnuts etc which also burst open at a certain time some of them explode and this process scatters the seed over an area of several yards But the wind seems to be the most important messenger in helping the flowers scatter their seeds

The boys were also taught that the plants breathe and need care that their struggle for existence is intense They are also taught of the beautiful development of the flower under cultivation and Mrs Buttercup and Mrs Daisy were both taken from the field and cultivated given plenty of light water and the proper soil best suited to the needs of each and the results were wonderful

The boys each were given small gardens of wild flowers which they cared for themselves and the following year they each had small vegetable gardens

Every flower had a life story they were told and each a different story—interesting in tense and true

Bobby's mother found that the boys absorbed this information readily and very quickly. Although they studied the flowers for an entire year they also studied the frogs and birds together with the flowers. The mammals and humans were taken up during the winter.

They were also told that every baby seed continued this life of producing more flowers that every girl is like the mother flower who has the little seeds hidden within her ever since she was born while every boy is like the father flower and has the sac of pollen like him.

That the seeds are hidden way back in the abdomen and when she grows big enough the seeds will grow also and she too may be a mother of little boys and girls.

That the pollen in the boy is kept in the scrotum until he grows up big and strong when it too will be ready to add life to little seeds and then become the father of strong boys and girls.

On a later occasion when Bobby was taking his bath he felt greater freedom now to ask all kinds of questions. He pointed to the umbilicus and asked his mother what that was for. He was told that that was the naval so called and it was where the cord had been which had tied him to mother when he was a little seed and

through which he had received all his air food and drink This caused great surprise so much so that upon the first occasion in talking with the boys he gave this information in his own way which led one to understand all boys were interested and curious about this depression in the abdomen

This information had a most marvelous effect in establishing the truth in their minds it seemed as if they needed proof and here indeed it was

Much more time could have ben spent on the flowers but once the idea is given that each child is like the flowers and that the flowers are like people the rest is simple

The frogs then took their attention but never wholly for on every occasion when a new flower appeared it was examined as to its color and possibilities of family rearing