

troduced into England from China, in 1852. But we have no occasion to go after these foreign species. The one native to this Continent is best suited to our circumstances, and in point of beauty is all that can be desired.

If any of our readers have planted this shrub, we wish they would communicate their experience with it for the information of others, especially with reference to its hardiness and the soil in which they find it to thrive.

### EASY LESSONS IN BOTANY.

BY H. B. SPOTTON, BARRIE.

#### LESSON III.

Our examination of the Buttercup blossom has made us acquainted with the various parts of the flower. In this particular blossom these parts are all separately attached to the receptacle, and the receptacle is simply the swollen top of the stem of the plant. Lower down on the stem we found *leaves* produced at intervals, and it is time now to state that all the pieces of which the flowers is made up *are leaves also*. This view of the matter has probably not occurred to you, because the flowers are so strikingly different in appearance from the rest of the plant. But let us see. First, there is the fact that the flowers are produced on the stem and its offshoots; this alone is suggestive of the notion that their parts must be leaves of some kind. Then if we examine a sepal we find it to be flat and thin and usually green, just like a common leaf, but of course much smaller. The petals are also like small leaves, but here we miss the green color; corollas are almost invariably of some color other than green, and we shall presently try to discover why this is so. You will be disposed to admit then, on reflection, that at any rate sepals and

petals are only modified forms of common leaves. But what shall we say of stamens? Can it be possible that these organs have anything of the leaf-nature about them? It may seem at first a hopeless task to try to trace any resemblance. But if you take any common leaf—say that of a lilac—you will see that the blade is equally divided by a rib which extends from the end of the petiole to the tip of the leaf. The anther of the stamen is divided in the same way by the connective; and the filament very fairly represents the petiole. The greatest difference is in the body of the leaf, as there is apparently nothing in an ordinary leaf-blade like the grains of pollen which are produced in the anther. As to the carpels, if you take the blade of a lilac leaf and double it lengthwise, you will have a very fair representation, on a large scale, of the carpel of the Buttercup, and it is exactly by such a folding process that the botanist conceives the carpel to have been formed. Let us, then, understand that all the parts of the flower are merely modified leaves. The crowding together of these parts in whorls is due to the same cause as the crowding of the leaves of the Dandelion, namely, the suppression of the growth of the stem at the place where the leaves are produced. The ordinary green leaves of the plant we shall call *foliage leaves*; those of the flower will be known as *floral leaves*.

Having settled the question of the true nature of the floral whorls, let us now examine a flower of *Hepatica*. Here we have at the outside a whorl of three little green leaves, which you will be pretty certain to regard as a calyx. But if you carefully turn back these leaves you will discover that *they do not belong to the flower at all*, being separated from the colored whorl next within by a short bit of stem. They are, in fact, three small foliage-leaves.