

flora. Fascinating talks about the fertilization of flowers by insects, the modifications and adaptations of the floral organs, as illustrated by late Leguminosæ and Orchidaceæ, may be followed by a careful study of the Compositæ, which teach that union is strength and exhibit the extreme development of the dicotyledonous type. Then fruits and seeds, their structural differences, the use of floats, hairs, and of bright, fleshy exteriors, may be discussed, and the fact that in some cases seeds in others fruits are furnished with appendages for scattering them and increasing the range of species, should be noticed. At every point, nature's wonderful interrelations, which give children a vision of the mutual dependence of all things, are impressive, and supply both intellectual exercise and valuable moral training.

The knowledge of the Spermaphytes being now sufficient to justify the consideration of the lower groups, the Pteridophytes and Bryophytes may be discussed. The more important characteristics of *equisetums*, *lycopodiums*, ferns and mosses may be demonstrated by means of material pressed or preserved in alcohol. Though the study of the thallophytes, is more difficult, preserved specimens of algae and fungi may be used to illustrate the chief features of these groups. The alga, taken as a type in Spotton's Botany, is badly chosen. *Chara* is an aberrant form, the systematic position of which is in doubt. It would be better, therefore, to select a fucus or similar sea-weed for the lesson upon algae. In all the lower groups, there is much that cannot be observed without more time and apparatus than most teachers have at their disposal, but clear descriptions, illustrated by black-board drawings, will teach the facts necessary to a harmonious view of the plant world. Only ideas which have a parallel in the observed being advanced, nothing but good can result from such lessons.

In regard to detailed study of plant tissues, some facts may be demonstrated without apparatus, and will add to the interest of the work. As a rule, it is better to leave both histological and physiological questions until the end of the second year, when a review of the morphological work is undertaken. Then, when introduced in their proper connections, they will add freshness to that which would otherwise prove a dry resumé. A few examples of simple illustrations and experiments may be given. Cross-sections of any exogenous tree will show annual rings of