

from time to time meet with unfamiliar terms, for the meaning of which he will require to refer to the former.

A text-book secured, comes what is generally looked upon as a rather dry part of the study, viz, the reading of it. Many words are met with which are strange and difficult to remember, but let me tell you that the labor of learning technical terms is usually much over-estimated. With practice they soon become familiar, while the discipline taught the mind in learning them is worth all it costs. There is no royal road to solving the problems of nature any more than there is to deciphering the mysteries of mathematics or metaphysics, but at each step the way becomes easier till at last what was a wearisome task becomes a pleasant and absorbing recreation. The so-called drudgery is greatly lessened if the reading be pursued in a proper manner, and especially if the reader has before him the proper material to illustrate the more important points in each topic as it is taken up. He who has some older botanical head to advise him what material to provide beforehand for each chapter, is greatly blessed,² but, whether he has specimens to examine or only the plates in his text-book to guide him, I would strenuously advise him to make no effort to commit all the terms he meets to memory. Let him try to read slowly and understandingly, but let him bear in mind that the object of this primary reading, is only to get a general notion of plants and their parts, and to learn the meaning of a few of the most material technical terms, so as to be able to start collecting and naming plants for himself. Thus, in the first reading, he will gain an idea of the life-history of a plant, and discover that as a rule a miniature plantlet, the embryo, exists ready formed in the seed. If now this seed, say that of the maple, be placed in the ground and allowed to germinate, the miniature plantlet will soon be seen to develop in two opposite directions; downward into a root or descending axis, and upward into a stem or ascending axis. The stem as it reaches the surface of the ground will be seen to bear a pair of narrow green leaves, the seed-leaves or cotyledons. Soon between these seed-leaves will appear a little bud, which shoots upward into a second joint bearing another pair of leaves, which, however, differ in shape