

them in the form of a fluid, circulating through these vessels—which will necessarily lead him to the next part of his studies, viz. *The circulation of the sap in plants.*

The next division of the study of Botany is the *manner of propagating vegetables.* Man for the gratification of his curiosity, or for his support has adopted various methods of rearing plants, and materially contributed to the propagation of vegetables over the inhabited parts of the globe. But independant of his exertions, nature has contrived by an infinite variety of ways, to diffuse and preserve a regular succession of plants in situations to which the art of man has never reached. A knowledge of these means as far as it can be attained forms a part of the science, highly interesting, and not without its use.

Writers on this subject have not inaptly denominated the next part of the science *The Philosophy of Plants*—and under this term have ranked the chemical nature of vegetables and the theory of vegetation, &c. &c.

After having become acquainted with the foregoing branches the student of Botany will next have to turn his attention to the last and most important part of the science, namely *The classification of Plants.* That is a systematic arrangement of them into classes, orders genera and species, formed upon some characteristic mark which is so universal as to be found in all plants; but differing sufficiently to answer as a distinguishing mark by which to know one from another. By this part of the study the Botanist will be able to discover to what class, order, genera or species any plant he meets with belongs, and by a reference to the plants which are placed under those separate heads—he will know the name of the one in question, the first time he meets with it. His acquaintance with this branch, will give him at one view the leading characters and the distinctive marks of the whole vegetable world as far as they have yet been discovered; and may with justice be termed the main spring of the whole science on which its present improved state and its future progress both depend. A proper method of classification was an object of research among the earliest writers on Botany, and various systems have at different times been had recourse to, each new one adopted with the design of remedying the faults and deficiencies of that which had preceded it. But none was ever so successful in this discovery as the celebrated Linnæus; all the preceding ones have yielded to his famous Sexual system; and it is not perhaps too much to say that no science is more indebted to the exertions of one individual than Botany is to the labours of Linnæus.—His method of classifying the various vegetable substances is sufficiently comprehensive to include all the objects of the Botanist while at the same time its simplicity renders it easily retainable in the memory, and enables the young student at one glance to place any plant or shrub he meets with under its proper order and species.—There is perhaps one defect in this system of vegetable arrangement as adopted by Linnæus; but, none has yet been found out which did not possess more blemishes. What I allude to is the classing or arranging of plants, by the shape and arrangement or number of particular parts in the flower. For upon these his whole mode of distinguishing one plant from another depends: and it is obvious that