

Educational Men and Matters

"Flower in the crannied wall,
I pluck you out of the crannies,
I hold you here, root and all, in my hand,
Little flower—but if I could understand
What you are, root and all, and all in all,
I should know what God and man is."

—TENNYSON.

The Morality of Plants

Part I.

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Every branch of Natural Science has, during the past fifty years, advanced by gigantic strides; and Botany has not lagged behind her sister Sciences. Popular magazines regale us with accounts of the latest discoveries, but from these accounts, one is led to infer that, insofar as botanical research is concerned, the average man is only interested in such as pertain to his palate or purse, and are expressible in terms of calories and vitamins, or dollars and cents.

Such is the reaction from the antiquated botany taught from the seventeenth century to within fifteen or twenty years ago, and even taught today in some schools, by teachers who have failed to keep pace with modern progress.

Up to the sixteenth century, plants were studied chiefly from a utilitarian point of view; most plants were believed to have some value for food or medicine. Early philosophers looked to the plants to furnish some part with a real or fancied resemblance to some part of the human body which would give a clue to the diseases they were intended to cure, thus we have Liverwort, Lungwort, Toothwort, Nipplewort, and other names given to the early so-called medicinal plants.

In those days plants were regarded as almost human; they were believed to possess a circulatory system, and a soul, trees could rejoice and clap their hands, and I have no doubt that high school and University students would have found more pleasure in studying the Botany of those days, than the Botany of the seventeenth century which followed.

The next phase of botanical progress followed the publication of John Gerrard's Herbal in 1636 which described all the medicinal and food plants known up to that time. His descriptions were so vague that botanists set to work and compiled a vocabulary of approximately 10,000 botanical terms which have been handed down as a legacy to us so that we may describe the minutest detail in precise language.

Then Botany became entangled in the wheels of the revolution which followed the publication of Darwin's "Origin of Species," and when it emerged, it was scarcely recognizable. The classification system was smashed, hundreds of terms were lost—they became obsolete—including such favorite terms as Phanerogams and Cryptogams. Characteristics which, it was thought, distinguished plants from animals, have gone, the microscope has revealed a new world with new plants, and new structures within the plant.

Some Plants More Sensitive than Animals.

The modern study of Botany is approached from an entirely different point of view; we no longer regard sensitiveness



Moss Campion in Rock Cleft.

and the power of locomotion as peculiar to the animal kingdom, plants are sensitive to a very high degree, much more so than many animals. The power of rapid movement or locomotion in animals is largely dependent on how they obtain their food, just as it is in plants; accordingly, many animals have no power of locomotion, while many plants have. Our ideas and definitions are modified in accordance with new facts as they are discovered. Our former ideas did not permit plants to have a moral standard, but as we advance in the study of the plant kingdom many phenomena are found which parallel those found in human society, and in presenting "The Morality of Plants," I hope to show some sociological parallels in our native flora.

With an earlier ancestry than that of man—plants have had more time to solve their sociological problems, and the study of plant sociology may help us toward a solution of some of the problems which confront the human race today.

Like all other living creatures—including the genus Homo—plants are governed by natural laws; and it is to our advantage to discover those laws, and work in harmony with them. If, in our ignorance, we work contrary to Nature's laws, we labour in vain. Many of our own moral laws are based on natural laws; for example, the sixth, seventh and eighth commandments are designed to prevent the extinction of the race through degeneration and disease; and non-observance of these laws is as detrimental to plants as it is to the human race.

Conscience and Morality.

Some one may ask, "How can you attribute morality to plants, which have no conscience to guide them as to what is right or wrong, good or evil?" If the possession of a conscience is necessary to morality, there is reason to doubt whether morality should be unreservedly attributed to the human race. Some men have a conscience.

As a result of modern researches in criminology, eminent psychologists and medical men contend that various forms of immorality and crime are due to disease which may be cured by a surgical operation. It is undoubtedly true that many criminal careers have been terminated by the dislocation of the cervical vertebrae, but it is contended that such individuals are the by-products of an unfavorable social environ-