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(For the SCIENTIST.)

BOTANICAL NOMENCLATURE.

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The species of the vegetable kingdom are so varied and numerous, that no botanist could have anything more than the most confused idea of the *flora* of any portion of the world were there not a good system of classification. In the pools of water in our swamps and marshes are found one-celled organisms, so minute that to the naked vision they never become visible. Such especially are the superbly picturesque green *desmids*, the exquisitely sculptured siliceous *diatoms*, and the still more minute but more redoubtable *acteria*. Then there come the filamentous algæ trailing the most gorgeous trains of nature's own spinning across the surface of the foul ditch under the guise of a dirty slime to the vulgar gaze, and the laminated or feathered denizens of the briny deep. The naked rock, the barren wall, the dry tree trunks, are frescoed with a hundred forms of various colored lichens, while the fungus rankles in the moister shades below. Then there are the dainty mosses and liverworts with

their capsuled spores and leaves of every shade of green; the graceful ferns, the glorious flower, with the murmuring pine and the hemlock. A natural system of classification as opposed to an artificial system, will group these, not according to some convenient mark or character simply, but in accordance with their general structure, or their natural relationship. Thus the diminutive strawberry is placed in the same family as the huge apple tree. A family of plants, then, according to the hypothesis of modern evolution, would indicate a group of species and genera which might have been descended from some single plant long ages ago. By such unaccountable changes as we see take place to a small extent in the cultivation of plants to-day, it is supposed that in the course of ages, by a wide distribution, under diverse climatic conditions, plants changed their forms as did the languages of men. Perhaps, then, all plants were ultimately derived from some one original form. Such an hypothesis is of course very difficult of proof; but as it forms a very convenient and natural basis of classification, which is not positively negated by any known fact, it is therefore at least a good working hypothesis to enable us to arrange our knowledge and ultimately discover new truths. We have all vegetation, therefore, divided on this hypothesis of general relationship into series, or classes and sub-classes, down until we come to the family or *Order*. These have their names ending uniformly in *æ*. The why of it is this: The name of the order is the Latin adjective qualifying, and therefore agreeing with the plural noun *plantæ*—plants. Thus *plantæ rosacæ* means "rosaceous plants," *plantæ leguminosæ*, "leguminous plants." For brevity, therefore, the Latin adjective is used as the full name.

The order is often divided for convenience into tribes and sub-tribes.