

## BOTANICAL CORRESPONDENCE AND NOTES FOR AMATEURS, II.

Conducted by W. A. KELLERMAN.

*Item 5.* In a paper read before the Society for Plant Morphology, an outline of which was published in *Science*, 13: 250, M. A. Carleton stated that the peculiar, thick-walled, one-celled spores of *Puccinia vexans* Farlow, after repeated failures, had been germinated. They are, however, not properly uredo spores nor teleuto spores, according to Mr. Carleton, but "partake of the nature of both. They make a distinct new spore for this order of fungi, and may be called *amphispora*."

*Item 6.* Arthur and Holway, in their descriptions of American Uredineæ, III, have very commendably extended and varied the use of signs for designating the spore stages of the Uredineæ. As is well known, the Roman numerals I, II and III have long been used to designate respectively the æcidium, the uredo, and the teleutosporic stage (usually called black rust, *Puccinia*, *Uromyces*, etc.). To this series has been added *O* for the spermatogonia. In the article alluded to still another sign is introduced, namely, *X* for the amphispores. The authors indicate relative abundance of spores in their Exsiccata by the use of both capitals and lower case letters—the former for maximum and the latter for minimum quantities. Thus, for example, i, ii, III, would indicate small proportion of æcidium and uredo, but a maximum amount of the teleutospores; iii, X, would denote a minor quantity of teleutospores and a major amount of amphispores.

*Item 7.* A Manual of Botany has just been published which should be in the hands of every teacher of this subject, and every botanical student, pupil and amateur should also possess a copy. It is up to date in every respect, contains all the flowering plants and vascular cryptogams of our region, gives keys to the orders, keys to the genera and keys to the species. The well-known author, Dr. N. L. Britton, has described every clearly recognized and distinct form as a species; he has also enumerated many varieties, these usually with quite ample diagnoses. The book is indispensable to the student of American botany, and no one interested in our flora can afford to be without it.

Too much praise cannot be accorded the publishers. The paper is thin but good; the binding is durable yet light; the names stand out black and bold; the type for descriptions is clear; the covers not awkwardly stiff; the number of pages 1,080, and yet the book is only an inch and three-eighths thick; even more remarkable for a book of this character and quality, the price is only two dollars and twenty-five cents.

The full title is as follows: Manual of the Flora of the Northern States and Canada, by Nathaniel Lord Britton, Ph. D. The author is the director-in-chief of the New York Botanical Garden and Emeritus Professor of Botany in Columbia University. The publishers are Henry Holt & Co., New York, and the price is \$2.25.

*Item 8.* A beginner asks, 'what a double citation of authors signifies'; he wishes to know also the reason for occasional "duplication of a generic name" for the species. Examples of the two cases, taken at random, are as follows:

1. Grape Fern; *Botrychium virginianum* (L.) Sw.
2. Marsh Muhlenbergia; *Muhlenbergia racemosa* (Mx.) B. S. P.
3. Kentucky coffee tree; *Gymnocladus dioica* (L.) Koch.
4. Upland white Aster; *Aster ptarmicoides lutescens* (Hook.) Gr.
5. Indian mallow; *Abutilon abutilon* (L.) Rusby.
6. Dandelion; *Taraxacum taraxacum* (L.) Karst.

In brief explanation of the above the following may be stated:

1. Linnaeus named this plant *Osmunda virginiana*, but it is not an *Osmunda* as that genus is now understood, and Swartz placed it in the genus *Botrychium*.

2. Muhlenberg placed this grass in the genus *Agrostis*, with the name *Agrostis racemosa*, and it was afterwards changed to its proper place by Britton, Stearns and Poggendorf.

3. The Kentucky coffee tree was first given a botanical name in 1753 by Linnaeus; then when the genus *Gymnocladus* was proposed the plant was rechristened *Gymnocladus canadensis* (a name used in Gray's Manual) by Lamarck in the year 1783; the first specific name was restored—according to the rule of priority now generally recognized by naturalists—by Koch in 1869.

4. This variety of aster was named by Hooker as *Diplopappus albus* var. *lutescens*; then Torrey and Gray placed it in the genus *Aster* with the specific name *A. lutescens*, and Gray subsequently published it as *Aster ptarmicoides* var. *lutescens*, hence the citation as given in the later publications.

5. The Indian mallow was first enumerated by Linnaeus as *Sida abutilon* in 1753, in his *Species Plantarum*. The genus *Abutilon* was published by Gaertner in 1791. This plant is an *Abutilon* as botanists interpret that genus; it was only lately (1894) that Dr. Rusby restored the original specific name, which is *abutilon*, but the fact that it is similar in form to the now recognized generic name does not invalidate it in the opinion of most American botanists.

6. The Dandelion was given in Linnaeus's *Species Plantarum* as *Leontodon taraxacum*, 1753; then Weber named the plant *Taraxacum officinale*, 1780; later Desfontaines called it *Taraxacum dens-leonis*, 1800; it was Karsten, 1883, who properly restored the original specific name, this being the same in form as the generic name long since recognized by all botanists.