
BOTANICAL CORRESPONDENCE AND NOTES FOR AMATEURS, III.

Conducted by W. A. KELLERMAN.

Item 9. Mr. F. H. Burglehaus, of Toledo, sends the following note: "I have found in working over *Rubus americana* Britton, that the description in Gray's and Britton's Manuals—"stems annual, herbaceous, or slightly woody"—does not accurately cover the common form here. All the specimens taken here have six inches or more of woody stem of previous year's growth. The new flowering stems are delicate, herbaceous, generally branching from the stem of the previous year. Is this generally the case in Ohio?"

Mr. F. J. Tyler examined the specimens in the Ohio Herbarium and found "the branches coming from a stem of previous year's growth. This old stem was in some cases three inches high, but mostly it had been killed to the surface of the ground; the young branches started from buds which had been protected by leaf mold or soil. Probably the description in the floras referred to by Mr. Burglehaus is correct for all cases except where the plant is protected.

Item 10. Occasion will be taken here to call attention to a note which Mr. Burglehaus published in *Torreyia*, 1: 55, relative to specimens of *Circaea lutetiana* found at Toledo, July 29, 1900, with *smooth fruit*. These were growing with the ordinary *Circaea lutetiana*, which otherwise they resembled. Dr. Britton stated

that "it necessitated a modification of the characters of *Circaea*"; it matches a specimen received by Dr. Torrey, from Agardh, collected in Scania, Sweden, and named *C. intermedia*, but the true *C. intermedia* Ehrh., from Central Europe is evidently different."

Item 11. The Botanical Gazette gives a brief notice of a paper by Bernard, printed in Comptes Rendus, which is of such interest as to warrant reproduction here. "Bernard makes the surprising statement that it is his belief that the tubers of the potato are essentially galls and due to fungus infection. He shows that *Fusarium solani* is always present in the tubers, and it seems likely that this fungus causes the arrest of the terminal bud and the development of hypertrophied tissues, which become filled with starch. The author's experiments, while not yet conclusive, strongly support his theoretical conclusions, since a decided parallelism is seen to exist between the amount of tuber formation and the development of the fungus. However, no cultures entirely free from fungus have yet been made. Bernard notes that when the potato was introduced into France, tubers could not be produced from seed cultures, presumably because *Fusarium solani* did not then infest the soil."
