

fortunate candidate will be under the immediate supervision of the dean of the department, Dr. A. B. Prescott. Only a short time ago the Stearns art collection, comprising hundreds of beautiful water-color reproductions of Japanese fishes, executed at great expense by a famous Japanese artist, was given to the university to be placed in the general museum.

#### To Correspondents.

We have received several anonymous communications asking for formulæ, etc. To these and all correspondents we would repeat: *The name must in all cases accompany the communication, although it will not be published if so desired.*

#### Manual of Organic Materia Medica and Pharmacognosy.

An introduction to the study of the vegetable kingdom and the vegetable and animal drugs; comprising the botanical and physical characteristics, source, constituents, and pharmacopœial preparations, with chapters on synthetic organic remedies, insects injurious to drugs, and pharmaceutical botany. By Lucius E. Sayre, Dean of the School of Pharmacy, Professor of Materia Medica and Pharmacy in the University of Kansas. 555 pages. 543 illustrations. Cloth, \$4.50. Philadelphia: P. Blakiston & Co.

The absence of a good text book in the English language treating of the subjects Materia Medica and Pharmacognosy together has been increasingly felt each year during the past decade, and of late many teachers of these branches have viewed the idea of combining the subjects in a single text-book as being impracticable, yet Prof. Sayre has in the work before us solved the secret of combination in a very ingenious and satisfactory manner, and pharmaceutical educators have reason to congratulate him upon the successful conclusion of his efforts, in having furnished a new and prominent American text-book, and one which will be consulted for reference by both the pharmaceutical and medical professions.

The present edition, like all first editions, presents many glaring defects, which will undoubtedly be dealt with in subsequent editions, yet the scope, arrangement, and the judicious selection of subject-matter is indeed above comment. The author has divided the work into two parts, and included therewith three appendices.

Part I. treats on Pharmaceutical Botany, and Part II. on Materia and Pharmacognosy.

We cannot refrain from making the statement that in the 82 pages devoted to Part I. the author has scarcely grasped the needs of the pharmaceutical student in this direction, nor has he adjusted his instruction to the accomplishment of the object desired. Though the application of botanical knowledge to the practice of pharmacy is limited, it does not follow

that writers are justified in permitting their teachings to be superficial and indefinite. The curtailment of botanical instruction to the pharmaceutical student should be only as to the amount of the field covered, but the needed portions should be taught and illustrated fully, clearly, and with a simplicity of style all the more marked because the student is deprived of the more enlightening effect of those portions which are here necessarily omitted.

The portion of the book referred to is a mere series of definitions, many of them greatly abbreviated and vague; hence Part I. is mainly synoptical, and can therefore only serve as a guide to the teacher or student previously instructed in structural botany. A little more care should have been observed in the arrangement and naming of the illustrations; thus, Fig. 20 (see Page 28) is not the Pitcher of *Nepenthes distillaria*, as stated; it is *Sarracenia purpurca*.

In Part II. we meet the ingenious and practicable treatment of Materia Medica and Pharmacognosy.

The drugs are arranged, first, according to their most prominent physical characters, but we doubt if the method adopted will prove as efficient as that used in Maisch's work, owing to indefinite characterization by reference to taste only in the headings.

The second method of arrangement of this portion of the work is according to botanical relationship, the only satisfactory method of teaching the subject scientifically and practicably to the pharmaceutical or medical student. Here the drugs are taken up separately, after a brief description of the characteristics of the natural order, and a synopsis of the drugs belonging to the particular order. In treating of the drugs separately the official name (according to the U.S.P.) is presented with synonyms in English and German, then follow, in order, the definition botanical characteristics, sources, related and similar articles, description of drug, important constituents, action and uses, and a summary of official preparations, with strength and doses. There is generally included a cut of the plant and of the drug, gross and structural, thereby aiding the student greatly in familiarizing himself with the pharmacogostical characteristics. The animal drugs are similarly treated under their several zoological orders.

The careful student should note the following misleading statements, errors, and omissions which have met the writer's eye in a hasty examination of this part of the book:

Page 138—Omission, Habit of *Podophyllum*, United States.

Page 149—The statement is made that *sinalbin* is, by the action of the ferment *myrosin* and water, converted into volatile oil, glucose, etc., which can scarcely be considered correct, as the volatile oil of mustard cannot be prepared from the constituents of white mustard.

By the above mentioned reaction the glucoside *sinalbin*,  $C_{10}H_{14}N_2S_2O_{11}$ , of white mustard, yields *acrinyl sulphocyanate*,  $C_7H_7CNSO$  (which is not the volatile oil of mustard); also sinapin bisulphate,  $C_{11}H_{12}CNO_5H_2SO_4$ , and glucose,  $C_6H_{12}O_6$ . Volatile oil of mustard is obtainable only from *Sinapis nigra*, which contains *sinigrin* (a potassium glucosidal salt,  $KC_{10}H_{14}NS_2O_{10}$ ), and which, under the influence of the ferment myrosin and water, becomes *allyl sulphocyanide* or *volatile oil of mustard*,  $C_3H_5CNS$ , glucose,  $C_6H_{12}O_6$ , and potassium acid sulphate,  $KHSO_4$ .

Page 182—Strength of spir. aurantii compositus should be 5 p.c.; under oil of Bergamot, 5th line, read potassium hydrate for potassium.

Page 194—Read *anacardiæ* for *anacardiaceæ*.

Page 210—Last line read 20 p.c. for 30 p.c.

Page 214—Dose of copaliba should be  $\frac{1}{4}$  to 1 drachm, not 5 to 10 grs.

Page 221—Strength of aq. amygdalæ amaræ should be  $\frac{1}{6}$  p.c., not 1 p.c.

Page 231—Read *hamamelaceæ* for *hamamelidææ*.

Page 250—Strength and doses of preparations of oil of anise omitted.

Page 254—The statement that oil coriander "is one of the most stable of the volatile oils," etc., is incorrect; it develops a terebinthinate odor.

Page 266—Dose of ipecac omitted; expectorant, 3 to 8 grs.; emetic, 15 to 60 grs.

Page 267—Read 2.5 p.c. quinine for 25 p.c., 5th line.

Page 297—Ol. gaultheriæ, composition, dose, and preparations omitted.

Page 316—Read *hydrophyllaceæ* for *hydrophyllææ*.

Page 339—Doses of all drugs on this page omitted.

Page 347—Read *polygonaceæ* for *polygoneææ*.

Page 349—Dose of rheum omitted. Tonic  $\frac{1}{2}$ -1 gr., cathartic 20 to 30 grs.

Page 359—Acetum opii omitted.

Page 363—Oleum cinnamomi, preparations: Acid. sulph. aromat. omitted.

Page 385—Extract juglandis omitted.

Page 395—Preparations of ol. juniperi omitted.

Page 441—Read *acid* for *alkaline*.

In "Appendix A," the author gives an important contribution on "Insects injurious to drugs," while "B" treats on organic remedies formed by synthesis. The latter is decidedly out of place, and might have been omitted entirely without detracting in the least from the merits of the book.

"Appendix C," "Pharmacal Botany," is treated of in too superficial a manner to be found of much value. An exhaustive index concludes the work.

C. F. H.

Carefulness, experience, and \$1,000 will beat carelessness, inexperience, and \$10,000 any day.