

stance of a given formula will react under different conditions. In other words, it consists of a knowledge of the reactions of organic chemistry. It is of little value to have available or know numerous structural formulas unless one knows how to use them.

The descriptive matter might be improved by eliminating the loose terminology employed which is often confusing, *e. g.*, page 278, "Amygdalin is found in large quantities. . . .;" page 280, "A number of things have been called digitalin;" page 26, "This is 4, 2 methylpentene. As in all cases of this kind where two things are located by numbers the order in which the numbers are given must be the same as that in which the things are named."

The introduction of a comparatively detailed discussion of the volatile oils, their occurrence, methods of isolation, most important constituents, properties and the similar treatment of the glucosides, tannins, alkaloids, etc., is especially commendable since most textbooks of organic chemistry pass over these subjects which are very important to the student of pharmacy and medicine with slight consideration. In like manner, a great number of synthetic medicinal products are discussed. An insight into the subject matter covered in this portion of the work may be gained from the following paragraph headings selected at random: "Sejodin," "Thymol Iodine," "Thyroxin," "Thymol Carbonate," "Spiracin," "Saloquinine," "Intarnin," "Bromural," "Acridine," "Neoarsphenamine," and "Mercurochrome 220 Soluble." Generally, the structural formula and a brief description of the synthetic product are given and frequent reference is made to the descriptive matter contained in the U. S. P., N. F. and N. N. R. Approximately two hundred of the more recent remedial agents are taken up in this part of the book.

The book is well printed on a good quality of paper and well bound.—GLENN L. JENKINS.

Practical Materia Medica. By CLAYTON S. SMITH AND HELEN L. WIKOFF; Lea and Febiger, 300 pages, \$3.25. The book, prepared by the professor and instructor of physiological chemistry and pharmacology in the College of Medicine of the State University, Columbus, Ohio, represents an introduction to the study of pharmacology and therapeutics for medical students.

The names, preparations, their administration, the doses and the chemistry of the official

drugs are discussed in a general way in the *Materia Medica* (1), (2); *Toxicology* (3); *Prescription Writing* (4). In the appendix we find a discussion of reagents and test solutions.

The metals, acids and non-metallic elements are grouped together and the aliphatic and aromatic series, the terpenes, carbohydrates, glucosides, fats, aliphatic nitrogen compounds and alkaloids. Under toxicology the poisonous drugs are assembled, as corrosives, irritants and neurotics, but they are individually discussed under the classification of volatile poisons, non-volatile organic poisons and metallic poisons.

The authors, admittedly, have freely used the U. S. P., the N. F. and standard texts on organic and physical chemistry. Knowledge given is fairly up-to-date, though no specific reference is made to colloidal solutions, to the latest work on the chemistry of important drugs, as digitalis, the synthesis of thyroxin, the use of copper in anemia, etc. Surprisingly, senna is not mentioned among the emodin-bearing drugs, nor is ergosterol or any of the vitamins other than vitamin A of cod liver oil emulsions, nor all the hormones and important toxins. It appears hardly justified to include juniper and such spices as mustard, nutmeg and rosemary under the poisonous drugs, as done by the authors in their classification.

A glossary would appear to be a helpful addition in an elementary book of this kind. Pharmacists, interested in the graduate study of medicine have the advantage of a more extended training than is given to medical students through books of this limited scope. Nevertheless the book will prove suggestive and helpful in review work. Paper, print and binding are good.—ARNO VIEHOEGER.

Aids to Pharmaceutical Latin. By G. E. TREASE. Published by Baillere, Tindal & Cox. Price 3s., 6d. The author is a lecturer in pharmacognosy at University College, Nottingham, and joint author of "The Chemistry of Crude Drugs." The book is really a concise Latin grammar and written with the needs of the physician and pharmacist in mind. The list of abbreviations used in prescription writing is quite complete and also the phrases. In prescription writing and dispensing it will be found of value to the physician and in the drug store, and particularly, in the teaching of Latin to medical and pharmacy students in the use of such terms in prescription writing.