

## BOOK NOTICES AND REVIEWS.

## HOW MUCH KNOWLEDGE OF DRUGS AS MEDICINES SHOULD THE PHARMACIST POSSESS TO PRACTICE PHARMACY PROPERLY?

There is considerable difference of opinion in relation to the question, how much knowledge of drugs as medicines the pharmacist should possess to practice pharmacy properly. One side takes the ground that no person is thoroughly competent to practice any medical or surgical art without a medical education, and the other side insists that a specialized training in any one art is all that is necessary to render the practitioner expert.

Those who hold the latter view in regard to pharmacy believe that the interests of the public are best served by pharmacists who know practically nothing about the action of drugs as therapeutic agents, and whose knowledge is limited to the mere fact that certain drugs are cathartics, others diuretics, etc., and who are acquainted with the average doses prescribed for adults and children.

Those who hold to the doctrine that a more general medical education and knowledge concerning the action of drugs on healthy and diseased tissues are necessary to practice pharmacy properly, call attention to the fact that "in the medical schools, over 200 hours are devoted to teaching students knowledge of the medical actions, uses and doses of drugs; and of the symptoms and treatment of poisoning. And, furthermore, the medical student, in order that he may understand these subjects thoroughly, must have pursued studies in anatomy, physiology and pathology for nearly two years; and before being able to apply the knowledge, the student is required to spend another two years or more in the study of disease." This long study, they point out, "is considered by all those capable of judging as absolutely essential to the safety of the public; therefore the pharmacist who, without this knowledge, undertakes to treat the sick by prescribing or recommending medicines over the counter, assumes grave moral responsibilities, and, sooner or later, may have occasion to face serious legal complications."

There are others who hold that pharmacy is a trade or commercial business, and in conducting it the pharmacist and manufacturer

should be guided by the same commercial uses pertaining to merchants and manufacturers in other lines. They believe in using advertising to create a demand for medicines and justify themselves in publishing exaggerated claims for therapeutic value by saying, "A certain amount of exaggeration in advertising is considered legitimate in all trades."

Into the midst of this conflict of opinions Dr. Torald Sollmann has injected a treatise on "The Actions of Drugs"<sup>1</sup> consisting of a course of elementary lectures for students of of pharmacy.

Dr. Sollmann is professor of pharmacology and materia medica in the School of Medicine of Western Reserve University, Cleveland, and a member of the Council on Pharmacy and Chemistry of the American Medical Association. The author states in his preface that his course of lectures was planned "with the intention of giving to the young pharmacist a concise survey of the modern conceptions and knowledge of drug action. It was aimed to make this course "sound," but elementary; demanding but little previous knowledge of physiology or anatomy; and not pretending to fit the pharmacist for the treatment of disease. In his introductory chapter he says: "It would be out of the question to give to students of pharmacy a course that would enable them to treat any kind of sickness. Indeed, it would be far better for the public, and even for the pharmacist himself, that the pharmacist should be entirely ignorant of medical actions, than that he should become possessed of the dangerous conceit that he is competent to advise or prescribe any treatment."

It is evident that the prescribing druggist and commercial merchant and manufacturer of medicines will find but little comfort in this statement of the object of Dr. Sollmann's book, though both may find much of interest in its pages; but the professional pharmacist, and the "tradesman" in pharmacy who really strives to give the public a square deal, will find the book of great practical value. The author states this in well-chosen language. He says:

"Nevertheless, to the sensible and tactful pharmacist, some knowledge of these matters is very useful, and indeed necessary. As a

<sup>1</sup> "The Action of Drugs: A Course of Elementary Lectures for Students of Pharmacy." By Torald Sollmann, M.D., Professor of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Philadelphia and London, W. B. Saunders Company, 1917. 213 pages. Price, \$1.50.

tradesman, the public expects the pharmacist to be familiar with the uses to which his wares are commonly put, and with the manner of their use. As a professional man, he can coöperate with the prescribing physician much better, if he has an intelligent understanding of the broad principles which guide treatment, of the objects which are to be accomplished and of the means that are utilized. The pharmacist himself will be protected against many blunders in the exercise of his higher professional function, the compounding of prescriptions. He will be able to protect the public against the errors of others, as well as his own. He may, by the exercise of some tact, put the physician under lasting obligations. In cases of poisoning, he has often the opportunity to institute preliminary treatment which may decide the patient's life."

We predict a large sale for Dr. Sollmann's little treatise. The material is well classified and arranged; the text is written in a style both interesting and concise; the type is large and legible; the reading matter is frequently broken into short paragraphs with suggestive side heads, and the information is useful without burdening the reader with unnecessary data.

F. E. STEWART.

*Elementary Lessons in Latin.*—By Otto A. Wall, M.D., Ph.G., Professor of Materia Medica, Pharmacognosy and Botany in the St. Louis College of Pharmacy, second edition, 148 pages, cloth, \$1.50 net. St. Louis, C. V. Mosby Company, 1917.

The object of this book, according to the author, is to "enable the student to read the Latin edition of the German Pharmacopoeia," which he says is "as much Latin as is necessary for the pharmaceutical or medical student." The book is based upon Professor Kuehner's "*Lateinische Vorschule*" and shows throughout the German influence. The continental method of pronunciation is used.

The book is divided into two parts: Part I, consisting of eighty pages, is devoted to grammar, and Part II, containing sixty-eight pages, to vocabulary and reading matter. Grammar, by itself, is dry reading and it would seem that for a beginner it would be preferable to introduce the grammar gradually with the reading matter. The grammar might well be reduced also if the desire is to give only minimum amount of Latin necessary. The main object in using a pharmaceutical Latin text, I take it, is to give the student a technical vocabulary. This part seems compre-

hensive and very technical, the reading exercises suffer in consequence, necessarily, perhaps, in interest and continuity. For a beginner the book would be easier to use if a complete alphabetical vocabulary had been provided. For a book of its purpose, it might well be shorter and for a book of its length it might better be less technical. The type and paper used are good, the subject matter is easily read, a matter of importance in a text.

E. D.

*The Practice of Pharmacy.*—A Treatise on the Modes of Making and Dispensing Official, Unofficial, and Extemporaneous Preparations, with Descriptions of Medicinal Substances, Their Properties, Uses, and Doses, Intended as a Hand-Book for Pharmacists and Physicians and a Text-Book for Students. By Joseph P. Remington, Ph.M., Phar.D., F. C. S., Chairman of the Committee of Revision of the United States Pharmacopoeial Convention; Dean of the Philadelphia College of Pharmacy, etc., Assisted by E. Fullerton Cook, P.D., Associate Professor of Operative Pharmacy in the Philadelphia College of Pharmacy; Member of the Committee of Revision of the National Formulary. Buckram; 6 by 9 inches; pages 1990; \$8.00. Philadelphia: J. B. Lippincott Company, 1917.

Remington's "Practice of Pharmacy" has been the reference and text-book of American pharmacists for more than thirty years and the despair as well as the hope of thousands of students of pharmacy. This, the sixth edition, is a worthy successor of its predecessors and it is safe to say that it will maintain the position that this work has held as the dean of pharmaceutical text-books and one of the most valuable contributions to pharmaceutical literature.

This edition has been enlarged by about four hundred pages making in the single book a volume of over nineteen hundred pages. For convenience the present edition may be secured in two volumes. This review, covering Vol. II, is chiefly one of comparisons, to point out a few of the many excellent features added to and the improvements made in the text of this honored and worthy work. (See also p. 766, August 1917.)

The general plan of the book is the same as in previous editions. Part III treats of the Inorganic Substances; Part IV of Organic Substances, beginning with the Cellulose Group, the Alkaloids, and Products from Animal Substances with a final chapter on

Pharmaceutical Testing; Part V, Magistral Pharmacy; and Part VI a Formulary of Unofficial Preparations and Glossary of Uncommon Names.

The drugs and preparations of the National Formulary IV have been incorporated in the text following the pharmacopoeial preparations of like classification and are discussed in the same manner as the U. S. P. subjects. This places at the disposal of the pharmacist the working formulas of both U. S. P. and N. F. in one book and adds greatly to the value of the work.

A review of Volume II shows thorough and careful revision of text as well as the addition of much new material. The introductions to several chapters have been rewritten. In Chapter LI on Sugars and Saccharine Substances a classification of sugars is given, based on that of Tollens. The Alcoholometric Table and Temperature Corrections of the U. S. P. replace Abridged Squibb Table in Chapter LII. Chapter LV on Volatile Oils classifies the volatile oils according to Wallach and their constituents into seven chemical groups. The alkaloids in Chapter LX are classified according to their chemical derivation. Bacterial Vaccines and Bacterins are briefly outlined in Chapter LXI following the article on *Virus Vaccinicum*. This consists of a number of definitions of common terms coming under this heading such as antibodies, opsonins, serobacterins, etc., together with a list of the most important stock vaccines. To Chapter LXIV on Prescriptions has been added the N. A. R. D. Prescription Pricing Schedule. Incompatibilities in Prescriptions, Chapter LXVI, has been improved by the addition of a large list of Incompatibilities of the More Important Newer Remedies. Incompatibilities of aspirin, adrenalin, ichthyol, theobromine, sodio-salicylate, veronal, etc., are explained and will serve as a valuable guide to the dispenser. Chapter LXVII, Solid Extemporaneous Preparations, has been enlarged and new illustrations added. The portion devoted to tablet manufacture has been largely rewritten and the process more fully discussed. Paragraphs describing granulation, diluents, disintegrators, excipients, lubricants and constructing a formula give to the reader a more comprehensive knowledge of this important branch of pharmaceutical manufacturing. A new chapter, LXIX, deals

with sterilization and ampuls. The uses of sterilization as applied by pharmacists are enumerated together with brief discussions of common methods whereby sterilization may be accomplished. Ampuls as a means of dispensing sterile solutions and suspensions and methods for filling are described. The student is urged, however, to secure laboratory training in general, bacteriological methods before undertaking work along this line. Part VI, Formulary of Unofficial Preparations, includes a number of new formulas, Paraffin Dressing for Burns, Carrel-Dakin Solution and others.

The charts of U. S. P. and N. F. substances following the various parts have been given the same careful attention in revision as the text. The lists of Unofficial Products that follow the several chapters have had a number of deletions and many additions. Unofficial Products from Coal Tar show addition of such important items as novocaine, novospirin, salvarsan, etc.

This work offers only such criticisms as are debatable. As a contribution of pharmacy its value has been greatly enhanced by additions and corrections that broaden the scope of the work to such an extent that the intention of the author to make this a comprehensive hand-book as well as a text-book are more fully realized.

C. A. DUNCAN.

#### PUBLICATIONS RECEIVED.

*Proceedings of the Pennsylvania Pharmaceutical Association.*—At its fortieth annual meeting, with the constitution, by-laws, roll of members, and new State pharmacy and narcotic laws. Also an abstract of the proceedings and roll of members of the Traveling Men's Auxiliary. Held at Hotel Schenley, Pittsburgh, Pa., June 19, 20, 21, 1917.

*Proceedings of the New Jersey Pharmaceutical Association.*—At its forty-seventh annual meeting. With constitution and by-laws, roll of members, the pharmacy act of New Jersey, list of registered pharmacists, the Traveling Men's Auxiliary and the Women's Auxiliary. Held at Lake Hopatcong, New Jersey, June 12, 13, 14 and 15, 1917.

*Proceedings of the California Pharmaceutical Association.*—At its eleventh annual meeting. Held at Hotel Oakland, Oakland, Cal., May 23, 24 and 25, 1917.