

$5\frac{1}{4} \times 8\frac{1}{4}$ in size. It is uniform in style and dimensions with the Year-Book published annually since 1870.

The first thirty-seven pages are given over to rosters of the officers of the Society; committees; boards of examiners; historical introduction; branches of the Society; statutory requirements in the dispensing and retailing of poisons; summary of regulations under the Dangerous Drugs Acts 1920 and 1923; scholarships and prizes; the School of Pharmacy; the Research Laboratory; the North British branch and the benevolent fund.

The next 227 pages comprise the abstracts relating to chemistry. This subject is subdivided into alkaloids; animal products; bacteriological and clinical tests; coloring matter; essentials oils; fats, fixed oils, and waxes; glucosides, ferments and sugars; gums, balsams and resins; inorganic chemistry; organic chemistry; plant analysis.

The *Materia Medica* abstracts occupy 156 pages, under the following classifications; new remedies; pharmacognosy; pharmacology; therapeutics.

The abstracts on Pharmacy fill 147 pages, with the following subtitles: dispensing; galenic pharmacy; pharmacopœia revision; notes and formulæ.

Something more than 200 pages are devoted to a report of the transactions of the British Pharmaceutical Conference, at the 60th annual meeting. The address of Chairman F. W. Gamble was replete with the subject of animal substances used to-day in pharmacy; his discussion of insulin filling more than two printed pages.

The name of Prof. J. A. Koch, Pittsburgh, Pa., is noted in the list of Corresponding Members.

A splendid subject index covers thirty-five pages and an index of authors some twenty-six pages.

The type is of such size as to make the text easily readable and there seem to be no typographical errors. The book is a credit to the Society and a valuable addition to pharmaceutical literature. . . . CLYDE M. SNOW.

The Essentials of Physiology, Including the Pharmacodynamics of the Important Typical Drugs. By George Bachmann, M.S., M.D., Professor of Physiology in the School of Medicine of Emory University, sometime Demonstrator of Physiology in the Jefferson Medical College of Philadelphia; and A. Richard Bliss, Jr., A.M., Phar.D., M.D., Professor of

Pharmacology and Physiology in the College of Medicine, Dentistry and Pharmacy of the University of Tennessee (Memphis). P. Blakiston's Son & Co., Philadelphia, 1924. Price, \$3.50.

The authors of this volume sent a questionnaire to the teachers of physiology in the schools of pharmacy of the United States and Canada, and the responses received established the fact that there is a real demand for a physiological textbook of this character, *i. e.*, one specially suited to the needs of the pharmacy student. The suggestions received in the replies have been incorporated in the finished product. The subject matter presented and the arrangement meet all the requirements for physiology of "The Pharmaceutical Syllabus." Each chapter is followed by a concise and suitable presentation of the pharmacodynamics of the drugs of major importance related to the physiological functions just discussed. This excellent feature of the book is in accord with the suggestions of numerous pharmaceutical teachers of physiology and the advice of the current edition of "The Syllabus" that instruction in pharmacodynamics is best given in connection with that relating to bodily function and as a part of the physiology course.

The first paragraphs of each physiological discussion are devoted to those portions of anatomy which are indispensable in the teaching of physiology to the pharmacy student, and thus provide him with that modicum of anatomical knowledge essential to an understanding of physiology. Hygiene is aptly introduced at suitable places throughout the text. The volume is also adaptable to the dental student whose physiological instructors were also consulted by the authors and whose needs were also carefully considered.

The material is presented in a manner specially suited to the student of pharmacy, and is partly based upon original investigations of the authors and partly upon those portions of the standard medical texts on physiology which are of special interest and value to the pharmacy student and the pharmacist. The authors have demonstrated a keen appreciation of the physiological needs of the student of pharmacy. Only the broad principles of pharmacodynamics are presented with but slight reference to therapeutic applications, thereby stressing the fact that "the whole spirit of professional pharmacy, its ultimate success and its moral and professional relation with medicine render the practice of counter-prescribing objectionable." The arrangement and

presentation are original and unique, and the book meets the pressing demand for a text on physiology specially suited to the needs of the student of pharmacy.

The volume is richly illustrated by 178 excellent and suitable illustrations, many of which are in colors. Quite a number of the illustrations are original. There are 322 pages, and the page size ($6\frac{1}{2} \times 10\frac{1}{4}$) adopted by the publishers has enabled the authors to use their illustrations to best advantage. An exceptionally good index, one of the most important parts of any text, completes this splendid volume. This book by Doctors Bachmann and Bliss is one of the most noteworthy contributions to pharmaceutical literature, and those interested in the teaching of physiology to pharmacy students will find it an ideal and invaluable guide. A. B. LEMON.

Urine Examination. By Florin J. Amrhein, Ph.G., Ph.C., Assistant Professor of Chemistry at the Massachusetts College of Pharmacy. Price, \$2.00.

The subject of this review was undertaken, as the author informs us, to arrange a Manual, which will supply the necessary laboratory work in a course of instruction, given at the Massachusetts College of Pharmacy. Though we are also informed that this work is not intended as a complete treatise or textbook on the subject, one cannot help but feel that if the author had added a few extra chapters, the finished product would go far toward increasing the value of this work; for, as it is, it is more than a manual.

The work is well planned, and with a few minor exceptions is well executed. The systematic arrangement is excellent. The text is clear.

Immediately after an interesting introduction, the last five lines of which should be in italics, so as to give it the emphasis it deserves, there follows Part I. Here the author impresses one with the important general principles, as Method of Collection, Preservation, Constituents, and Physical Characteristics of the Urine. No mention is made of toluene, a urinary preservative, most frequently used in many quarters. It seems inadvisable to regard as the author suggests, on page 35, that the terms "Neutral" and "Amphoteric," for practical purposes, are synonymous. It would be better practice to give a detailed method for obtaining the Total Solids, if this is required, than to depend upon the use of the so-called Coefficients.

In Part II, there is found a review of the chemical characteristics of the normal constituents of urine, followed by Part III, in which there is considered the chemical characteristics of the abnormal constituents of the urine. In Part III no mention is made of Roberts' Test, which is widely used and more satisfactory as a test for albumin than is Heller's Test. It is also impossible to see how the author accounts for the statement that the gravimetric method for the quantitative estimation of albumin is too complicated. Surely it is not as complicated as the quantitative determinations of some of the other urinary constituents. It would be well to have Scherer's Coagulation Method included. No mention is made of urosoein and urobilin, two pigments, at least one of which is tested for routinely by some. It seems advisable that mention should have been made of Ehrlich's Diazo Reaction and some of the Kidney Efficiency Tests, as the practical worker should be familiar with these.

Part IV contains a detailed description of the constituents of the urine as found when examined microscopically. The last chapter in this section, which contains an interesting description of the colorimeter, seems out of place in this work. It should be excluded or, if it is to remain, there should be added the important colorimetric determinations of the constituents of the urine.

Part V and VI contain condensed laboratory directions for the chemical examination of the urine together with the formulas for the many Test Solutions and Reagents.

On the whole, this will prove a useful guide for the pharmacy student and especially to those whose education in urinalysis was very limited. The user of this book will not fail to have a fair basic knowledge and a clear understanding of the subject.

LOUIS GERSHENFELD.

The German publisher Georg Thieme in Leipzig, well known in pharmaceutical and medical circles the world over, sent us the two following works for review:

Gesammelte Abhandlungen. Band II. Abteilung I: Untersuchungen über Hydrochinone und Chione. Abteilung II: Untersuchungen über Azine und Azoniumverbindungen. Von Dr. F. Kehrman. Mit 2 Abbildungen. Lex. 599 pp.

The author, who occupies a chair at the University of Lausanne, together with his associates, assistants and students, have rendered an excellent service by the publication