More information of this type is desirable in textbooks. It would be unnatural if a text of this size contained no "faults." However, they are of no special importance outside of taking up space and upsetting "uniformity." Thus in some instances the paragraphs under Special Remarks are captioned by the English Title; then again the Latin title is used with the English title and the synonym following in Italics. (See Solutions, Elixirs.) Inasmuch as a comprehensive synonymy is included in the tabular summary any one title would suffice under the "Special Remarks." Again, the tabular summary includes a general statement as to the ingredients and method used for the preparation. This information is sometimes repeated under "Special Remarks." Whereas there is no harm, but possible good in repetition, too much of this increases the initial cost of the text and may interfere with its general usage. It goes without saying that the new edition contains information relative to new products and methods introduced into the U. S. P. X and N. F. V, as well as many additional statements and paragraphs through the text resulting from the advances made in the pharmaceutical sciences, since the appearance of the sixth edition.

The following subjects are considered in Part I: "Pharmaceutical Standards," "Weights and Measures," "Specific Gravity, Specific Volume and Viscosity," "Heat," "Light," "Collection and Preservation of Crude Drugs," "Mechanical Subdivision of Drugs," "Solution," "Extraction or Partial Solution," "Separation of Non-volatile Matter," "Separation of Volatile Matter," "Sterilization," "Crystallization," "Classification of the Materials Used in Pharmacy."

PRACTICAL PHARMACY is considered in Part II in the following Chapters: "Waters," "Solutions or Liquors," "Infusions and Decoctions," "Emulsions," "Mixtures, Magmas, Gargles," "Pharmaceutical, Chemical and Therapeutic Incompatibility," "Syrups," "Mucilages, Honeys, Juices, Glycerites and Vinegars," "Elixirs and Wines," "Spirits or Essences," "Tinctures," "Fluidextracts and Fluidglycerates," "Extracts," "Oleoresins and Resins," "Powders," "Granular Effervescent Salts," "Pills," "Confections and Lozenges," "Tablets," "Capsules, Cachets and Ampuls," "Collodions," "Liniments, Petroxolins, Lotions and Oleates," "Ointments and Cerates and Allied Preparations," "Plasters and Plaster Mulls," "Suppositories and Sprays," "Antitoxins and Vaccines, Glandular Products and Digestive Ferments," "Standardization of Drugs, Chemicals and Preparations as to Their Strength," "The Prescription."—H. A. LANGENHAN.

Remington's Practice of Pharmacy. Seventh edition. By E. Fullerton Cook and Charles H. LaWall. Publishers, J. B. Lippincott Co., Philadelphia. 2090 text pages; illustrated throughout. Price $10.00.

Since its first appearance in 1885, "Remington's Practice of Pharmacy" has occupied an important place in the pharmacist's library. It is probably better known than any other treatise on pharmacy, both as a general reference book for the practicing pharmacist and as a textbook for students. The present volume (7th ed.) therefore comes as no stranger, but even those acquainted with earlier editions will be surprised by the comprehensive character of the present edition. No field of pharmaceutical knowledge and practice has been overlooked in bringing together this vast store of information in useful, well-arranged form.

For the student, anxious to acquire the knowledge necessary to serve the public as pharmacist and as guide for those engaged in the profession, there is probably no single more complete textbook and reference work on the art of pharmacy, the sciences related thereto and the business methods employed in its daily pursuit. Its scope is broad, in fact so broad that it is difficult to review it adequately. Opening with a brief but illuminating historical introduction going back to man's earliest knowledge of medicine, it proceeds to the intricacies of the modern practice of the pharmacist as dispenser, analyst and manufacturer, as a factor in community health service and as business man, merchant and citizen. To those outside of the profession but interested in it, it should give an interesting picture and splendid understanding of the service rendered to the public by the pharmacist as an individual and by the profession as a whole. The text and index require 2090 pages consisting of 126 chapters divided into 17 parts. There are 805 illustrations. It is printed on good paper but sufficiently thin to avoid unwieldiness.

After the historical introduction and brief discussion of Pharmacopœias and other standard books on pharmacy, somewhat over 200 well-illustrated pages are devoted to a comprehensive discussion of the technical operations in pharmacy. The fundamental principles and physical laws underlying these operations are

quite thoroughly treated and considerable attention is given to the description, use, care and choice of utensils, apparatus and equipment. A large number of minor points and details in technic, usually acquired only through long experience and practice but quite necessary to successful operation, are given. While operations on the scale usually conducted in a pharmacy receive major consideration, large scale operations and equipment are not overlooked.

Parts III, IV and V, about 960 pages, are devoted to galenical preparations, inorganic compounds and organic chemicals and substances, respectively, and represent a thoughtfully classified discussion of U. S. P. X, N. F. V and many unofficial products. The arrangement and treatment is similar for all three parts and appears logical and practical. For instance, under Part V we find chapters on: "Theory of Organic Chemistry," "The Cellulose Group," "Coloring Principles," "Alcohols and Their Derivatives," "Volatile Oils," "Alkaloids," "Vitamins," etc., etc. Each chapter opens with a general discussion of the subject and then proceeds with a discussion of the official products coming under that classification and, in turn, arranged according to their natural relation. For instance, the volatile oils are grouped according to the plant family from which they are derived, and we find Peppermint Herb, Oil of Peppermint, Menthol and Camphorated Menthol discussed in successive paragraphs. This brings a vegetable drug and a pharmaceutical preparation under a chapter on volatile oils, but the arrangement has obvious advantages for the student and pharmacist and in no wise interferes with the use of the book as a reference work, as a complete alphabetical index is provided. The information given under the individual product goes further than that given in the U. S. P. or N. F., but is not quite as detailed as that generally found in a dispensatory. At the end of the chapter the unofficial products are discussed somewhat more briefly.

Part VI, "Perfumery and Cosmetics," furnishes in about 40 pages an unusually interesting and instructive treatment of the subject with some practical formulas for various odors and each of the popular classes of toilet products.

There is a good chapter each on commercial law and specific laws governing pharmacy.

About 160 pages that are well worth any drug store proprietor's time are devoted to "Business Requirements of Pharmacy." It covers Administration, The Store as a Place of Business, Buying, Selling, Advertising and Accounting. It is illustrated with pictures of store interiors and reproductions of various useful forms, etc.

An equal amount of space is devoted to "The Pharmacist as an Analyst." This part discusses the qualifications of the pharmacist for such work and gives detailed methods for the assay, testing and standardization of drugs, chemicals and biologics. There is a very good chapter on "Urine Analysis." Reagents are described and formulas given for test solutions and diagnostic reagents.

Part X discusses control methods employed in large scale operations.

Part XI is devoted to "The Professional and Prescription Pharmacist." As might be expected, it is thorough, requiring about 230 pages divided into 19 chapters. The prescription itself is taken up in considerable detail and the filling of prescriptions is discussed from physical equipment and fixtures to incompatibilities. A separate chapter is devoted to each class of extemporaneous preparations that a pharmacist may be called upon to prepare, such as Emulsions, Capsules, Pills, Tablets, Coating of Pills and Tablets, Suppositories, Surgical Dressings, etc. These chapters are very instructive and well-illustrated and should prove invaluable to both student and pharmacist.

Part XII briefly covers the essentials of Homeopathic Pharmacy.

"The Pharmacist in Community Health Service." Under this title Part XIII takes up Household Pests and Their Elimination and Disinfection, two subjects in which the pharmacist is daily called upon to give assistance. The information assembled in these chapters is practical and to the point and will surely prove of much value. So far as we know, this is the first time that it has been thus assembled in accessible form.

Biologics have acquired a very important position in medicine, hence the discussion of their scientific basis as well as immunity, found in Part XIV, should be interesting to the pharmacist. This part also takes up the various classes of these products available to-day and gives a description, method of preparation and use of the individual products.

Toxicology and Antidotes are discussed briefly in Part XV.

Part XVI is devoted to a laboratory course

in Manufacturing Pharmacy and Dispensing.

Part XVII is a glossary of uncommon pharmaceutical and technical names, terms or substances.

There seems to be no question but that the hope of the authors of this edition as expressed in the preface will be fulfilled, namely, "that it will serve its day and meet the needs of this generation as fully as did the first volume when presented by its illustrious author, Joseph P. Remington, in 1885."—F. W. NITARDY.

The Akademische Verlagsgesellschaft, Murkgrafenstr. 4 Leipzig, well-known publishers of scientific works, submitted the 3 following books for review:

Theorie und Praxis der Massanalyse. Von Alexander Classen, under Mitwirkung von H. Cloeren. Octavo. 772 pp. Cloth. Mk. 15.

The French pharmacist Louis Nicolas Vauquelin, director of the École Supérieure de Pharmacie in Paris from its foundation in 1803 until his death in 1829, is generally named as the originator of Volumetric Analysis. Besides, Gay-Lussac deserves credit for having thoroughly tried out and introduced many volumetric methods, thereby replacing gravimetric analysis to some extent. However, it remained for the German Apotheker, Carl Friedrich Mohr (1806–1879) in Coblenz on the Rhine to become the real father of Volumetric Analysis by his many improvements that bear his name and the publication of his "Lehrbuch der chemisch—analytischen Titriermethode," Braunschweig 1855, 1862 and 1877.

The volume before us from the pen of an authority on this subject, Prof. Dr. Alexander Classen is a true successor to the older Mohr. Its division is as follows: General Principles, Indicators, Apparatus, Titration, Determinations by Neutralization, Alkalimetry and Acidimetry; Determinations by Oxidation and Reduction; Determination by Precipitation. These chapters are followed by a supplement and numerous tables occupying pp. 728 to 750. The Table of Contents is very complete and forms 23 pages in double columns. The work is indeed a real contribution to this field of chemistry. The treatment is modern throughout and everything is presented in such a manner so as to be readily understood. It is a great book, by a great man, on a great subject. Let us hope that the "Classen" will become better known on this side of the *Atlantic*

Vorlesungen über die Geschichte der Chemie. Von Prof. Dr. Richard Meyer. Lex. 467 pp. Cloth. Mk. 15.

As a motto to the book the author uses a quotation from a letter by Emil Fischer to him, which freely translated and abbreviated reads: "Science is but a product of human work, closely associated with the life of the workmen." The author, a brother of the late Victor Meyer, is professor of History of Chemistry at the Technical High School in Braunschweig, and herewith publishes his lectures in book form. The following few chapter headings which the referee has selected will give an idea of the thoroughness of the work.

Early Chemistry to the Birth of Alchemy; The Age of Alchemy; The Age of Iatro—Chemistry; The Age of the Phlogiston Theory; Period of Lavoisier; Dalton and his Atomic Theory; Development of Organic Chemistry; the Benzol Theory; the Periodic System; Stereochemistry; Important Discoveries in the second half of the 19th Century; The Rare Gases; Radioactivity; Relation between Chemical Constitution and Physical Properties; Progress of Organic Chemistry; the Chemical Industries in the 19th and 20th Centuries.

The Author herewith presents a real History of Chemistry for the earliest time to our present period, including the growth of chemical knowledge during recent times. Richard Meyer's Vorlesungen fully deserves a place next to Hermann Kopp's and Ernst von Meyer's "Geschichte der Chemie."

Die Methoden der Theoretischen Physik. Von Felix Auerbach. Lex. 436 pp. Mit 150 Figuren. Cloth. Mk. 15.

Within the last three centuries, physics and quite especially theoretical physics has made great strides, so as to make it a distinct science. The well-known author, an authority on this subject has laid down in 119 chapters everything pertaining to Theoretical Physics. The object of physics is the study of the phenomena presented to us by bodies. In early times the question was "What happens?" In the next period the question arose, "Why does this happen?" At the present time the question is "Why does not the opposite happen?" Auerbach in his clear logical style, which never leaves the reader in doubt as to his meaning, has written a book, which should be appreciated by every student of theoretical physics. The 150 illustrations help to visualize at a glance the sometimes complicated subject.