

stances." Here are found the descriptions, physical constants, formulas and chemical behavior of the many different kinds of substances existing in volatile oils, *viz.* hydrocarbons, alcohols, phenols and phenolic compounds, aldehydes, ketones, esters, nitrogen compounds, etc.

The fifth chapter by the same author concerns itself with "The General Characters and Analysis of Essential Oils." While in the first chapter, methods for examining individual oils are given, in this chapter, general properties and methods are described. Brief *résumés* of the general methods of extraction and composition and general characteristics are followed by a very complete discussion of the methods for the detection and determination of the usual constituents.

In the second chapter, the same author discusses the more important "Resins" with the same thoroughness and detail so conspicuously evident in the chapters on volatile oils.

"India-Rubber, Gutta-Percha, Balata and Allied Substances" is the title of the third chapter of which John B. Tuttle, B.Sc., is the author. Here are found the description, source, properties, methods of analysis of the different kinds of rubber, reclaimed rubber and rubber substitutes. This chapter appears to be very complete.

References are numerous, the illustrations of apparatus are usually specific and really helpful, the type is easily read, the book work, as in the other volumes, very good, and while the size appears the same as its immediate forerunner, almost two hundred additional pages have been added.

In the forefront is found complete table of contents of volumes I, II and III. Volume IV will be a very valuable addition to the library of the analytic chemist, teacher, perfumer. Those having to do with resins or rubber will also find it indispensable.—JEANNOT HOSTMANN.

Caspari's Pharmacy. A Treatise on Pharmacy for Students and Pharmacists. By Charles Caspari, Jr. Seventh edition. Thoroughly revised by E. F. Kelly. Illustrated with 263 engravings. 663 pp. Published by Lea & Febiger, Philadelphia. Price \$7.00.

"Caspari's Treatise on Pharmacy" is a well-known and established Pharmacy textbook and needs no introduction. The seventh edition naturally includes changes from the sixth and the users of this text are interested in knowing about the improvements made.

In size the seventh edition is smaller than the sixth. This is due to the elimination of Part III. The preface offers the following remarks relative to this deletion; "With the extension of the course in pharmacy to a minimum one of three years, the student will receive a better training in chemistry before advancing to the study of applied pharmacy and will, as a result, be better prepared to understand the chemistry involved in the manufacture of medicinals. It has, therefore, been considered advisable and timely to omit Part III (pharmaceutical chemistry) from this edition and to devote the text entirely to the study of general and practical pharmacy."

A comparison of the two editions shows that Parts I and II of the 6th comprise 39 chapters totalling 554 pages while the 7th (representing Parts I and II) is comprised of 42 chapters totalling 621 pages of text material, showing an increase of three chapters or 67 pages of text. New chapters introduced are Chapter XL—"Antitoxins, Vaccines, Glandular Products and Digestive Ferments" (10 pp.); Chapter XLI—"Standardization of Drugs, Chemicals and Preparations as to Their Strength" (29 pp.). Some of the information of these two chapters was included in Part III of the 6th edition. The remaining additional chapter resulted from the enlargement and division of Chapter XIX—covering "Mixtures and Incompatibility." As to some of the individual chapters; Chapter I—"Pharmaceutical Standards" has been completely rewritten, enlarged and presented in a more comprehensive form. Chapter XIV—"Classification of Materials Used in Pharmacy," consists for 40 pages as compared with 17 of the 6th edition. Again a portion of this was contained in Part III of the former edition.

Part II—PRACTICAL PHARMACY offers a decided improvement over the same in the 6th edition. Not only does it contain a comprehensive summary of both the U. S. P. and N. F. products but it also includes those deleted from the U. S. P. IX and not introduced into the N. F. V, and those deleted from the N. F. IV. This additional information, besides being of value in itself, offers the student a better understanding of the relation between the two texts and the changes in revision. One phase of information featured by the *Treatise* is offered under "Special Remarks." Under this heading general information relative to the product is given. This may be about the chemistry involved, its history, common uses, etc

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 Pharmacopoeias 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