Book Reviews

Advances in Colloid Science, Vol. I, by ELMER O. KRAEMER, Ph.D. Biochemical Research Foundation of the Franklin Institute, Newark, Del. Interscience Publishers, Inc., New York, N. Y., 1942. 434 + xii pp., 161 illus. Price, $6.00.

The purpose of this volume is to provide a medium in which recent significant discoveries in colloid science may be presented in a more comprehensive manner than is possible in regular technical periodicals. In this first volume the following subjects are extensively discussed from the standpoint of modern advances:

1. "Measurement of the Surface Areas of Finely Divided or Porous Materials by Low Temperature Adsorption Isotherms," by P. H. Emmett.
2. "The Permeability Method for Determining Specific Surface of Fibers and Powders," by R. R. Sullivan and K. L. Hertel.
3. "A New Method of Adsorption Analysis and Some of Its Applications," by Arne Tiselius.
4. "Solubilization and Other Factors in Detergent Action," by James W. McBain.
5. "Recent Developments in Starch Chemistry," by Kurt H. Meyer.
6. "Frictional and Thermodynamic Properties of Large Molecules," by R. E. Powell and Henry Eyring.
7. "The Constitution of Inorganic Gels," by Harry B. Weiser and W. O. Milligan.
8. "The Creaming of Rubber Latex," by G. E. Van Gils and G. M. Kraay.
9. "Streaming Birefringence and Its Relation to Particle Size and Shape," by John T. Edsall.
10. "Synthetic-Resin Ion Exchangers," by Robert J. Myers.
11. "The Study of Colloids with the Electron Microscope," by Thomas F. Anderson.
12. "Anomalies in Surface Tension of Solutions," by Ernst A. Hauser.

Each chapter is carefully outlined and accompanied with many tables of data and illustrations of apparatus. The style of all of the writers is lucid and the book appears to be quite free from typographical errors.

The section on starch and its recent chemistry is especially recommended to the readers of THIS JOURNAL because of its numerous applications in the field of botanical drugs. The chapter on detergent problems contains valuable information to the pharmacist on bases for ointments and sprays. Of special interest to the medicinal chemist is Dr. Weiser's work on hydrous oxides, particularly that of aluminum which is now official.

The volume should prove interesting and thought-provoking to the investigator in the pharmaceutical sciences and the practical pharmacist.—JOHN C. KRANTZ, JR.

Standardized Plant Names, prepared for the American Joint Committee on Horticultural Nomenclature by the Editorial Committee, HARLAN P. KELSEY and WILLIAM A. DAYTON. Second edition. J. Horace McFarland Co., Harrisburg, Pa. 1942. 675 + xv pp. Price, $10.50.

The purposes set forth in the preface of the new and greatly enlarged second edition of this well-known work are: (1) to bring intelligent order out of the chaos in the names of plants and plant products; (2) to make buying easy by bringing about, as far as practicable, the consistent use of a single standardized scientific name and a single standardized common name for every tree, shrub and plant in American commerce; (3) to establish a well-organized mechanism for the registration and identification of horticultural varieties; and (4) the adoption of standard rules of nomenclature for the guidance of those naming horticultural varieties.

The book contains about 90,000 names of plants and plant products or more than twice the number that appeared in the first edition. The approved Latin scientific plant names are listed in alphabetical order in bold-face type and the approved English name is opposite each. Long-used scientific name synonyms follow certain Latin names in italics, parenthesized. The variety and class names of important groups of plants appear in small capitals, the class name preceded by the symbol ¢.

In addition to general list of plant names, there are 62 special plant lists all included in one alphabetical order. Among these are to be noted lists of drug plants, poisonous plants, cereals, lumber plants, range plants, economic plants, state flowers and trees, roses, irises, orchids, chrysanthemums, ferns, peonies, etc.

Several very desirable innovations have been made in the new edition. A most commendable one has been the close adherence of the revisers to most of the rules of the latest International Botanical Congresses. This was not done in the first edition which followed mainly the American Code. Exceptions, however, are made to these rules in the dropping of the final *i* in specific epithet and varietal names ending in *ii* and in the decapitalization of specific epithet names derived from persons. Again, each scientific name is pronounced by placing an acute accent close to the main syllable stressed.

The new group term name "polybrid" and its symbol ∞ have been introduced by the Editorial Committee for hybrids from crosses between two particular species, varieties or genera, in order to serve as a warning to the genetic inconstancy and unreliability of certain group hybrid names from the standpoint of the breeder and grower. This should

be useful in horticultural practice in helping do away with the confusion resulting from giving the same name to plants which differ widely in their main characteristics although they have appeared from identical crosses.

Of special interest to pharmacists and physicians is the list of Drug Plant Names which was compiled by the Committee on Horticultural Nomenclature of the AMERICAN PHARMACEUTICAL ASSOCIATION composed of Professors Youngken, Ballard and Gathercoal. This list covers 28 pages of the text and includes practically all of the names of drug plants, vegetable drugs as well as the names of spice and dye plants, and their products used for medicinal and pharmaceutical purposes in the United States. The list is divided into two parts. Each page of the first part gives the Latin drug name of each entry immediately followed by its synonym in parentheses, the botanical name and the Standardized Plant Names common name. In the second part, the names of the plants are given in the first column, the S. P. N. common name in the second column and the drug name, with its chief synonym in parentheses, in the third column.

The compilers of this list of names have apparently spent a considerable time checking the scientific names for their validity according to the latest rulings of the International Botanical Congresses, which was a very necessary phase of this work. They are also to be commended upon the apparent thoroughness of their research on matters of nomenclature and taxonomy which entered into their decisions upon some of the names. For instance, the drug Coptis or Goldthread has long been stated to be yielded by *Coptis trifolia*, but in this list it is correctly stated to be yielded by *Coptis groenlandica*. *Coptis trifolia* is an Alaskan species and not the source of the drug as has been written in the pharmaceutical literature. Many other similar mistakes found in the drug literature have been corrected in this list.

The book as a whole is a great improvement over the first edition. The type is clear and printed on good paper, and the book is well bound. It should be found almost indispensable as a reference to the practicing pharmacist and teacher as well as to all having occasion to buy or sell plants or their products.—MAYNARD W. QUIMBY.

Introductory Organic Chemistry, with Certain Chapters of Biochemistry, by E. WERTHEIM, Professor of Organic Chemistry, University of Arkansas. The Blakiston Company, Philadelphia, Pa., 1942. 482 pp., 15 x 23 cm. Price, $3.00.

The purpose of this book is to provide a sensible background in organic chemistry for students of medicine, dentistry or pharmacy, and the book is, in this capacity, an excellent companion to the short course offered in many schools. The material presented is admittedly too abundant for a single-semester course, since it is intended to have the text adaptable to various modes of teaching and as a reference work.

The first twenty-one chapters are the usual progressive treatment of compound types, including short presentations of terpenes, dyes, proteins, glycosides, enzymes, hormones, with a more complete subchapter on vitamins. The chemistry of the organic compounds is quite logically the simplest, avoiding special and commercial applications and tending, instead, to a large number of medical references, which could profitably be even more numerous. The groundwork is excellent. Much emphasis is placed on the naming of compounds by the Geneva and popular systems, thus supplying a valuable tool for reference work. All functional groups and many special compounds are illustrated by photographs of space models, a number of which are actually scale models of the accepted structures. The development of formulas by analytical data is treated in the beginning chapters to provide something more than faith for the student's acceptance. Fifteen charts of relationships between compounds are quite useful in correlating and supplementing data given in the text. Numerous pertinent and thought-provoking questions append to each chapter, offering considerable aid to the teacher and the industrious student.

The last four chapters treat of digestion and absorption of foods, metabolism, quantitative considerations in nutrition, and foods and dietary necessities. These constitute an excellent bridge into the medical sciences.

The appendix consists of an atomic weights table, a glossary of organic and medical terms, a glossary of inorganic chemistry, reference books, analytical data on foods, and a very thorough discussion of stain removal.—EDGAR B. STARKEY.