

ing primarily with theories, is of great importance and interest to the modern chemist in general since the applications of hydrogen-ion concentration are developing rapidly in all branches of this science.

In Part I of the book the chemical equilibrium of the ions is discussed, the laws of electrolytic dissociation, the theory of the quantitative determination of acidity and alkalinity, the ionic phases of salt formation and the electrolytic dissociation in non-aqueous solutions.

In Part II the potential differences of ions are considered particularly in the direction in which they are to have a probable physiological bearing. The several groups such as electrode potentials, diffusion potentials, phase boundary potentials, membrane potentials and absorption potentials are discussed.

An interesting phase of the book are the summaries of contents which precede each chapter. These represent abstracts of the work covered in any given chapter, in some cases covering more than a half page and enable one to obtain a bird's-eye view of the subject matter and scope of the particular chapter.

A large number of references are provided, thereby giving the reader a rather complete bibliography on the subject. It might be mentioned that the more recent advances in chemistry, those since the printing of the original German edition of the book have been included in the translation by a number of addenda to the text.

The book therefore offers the subject of ion concentration in a complete and thorough form not only to the research chemist but also to the advanced student. It is not a textbook for the average man studying chemistry but should be of the highest value to the biological and medical research student.

HUGO H. SCHAEFER.

*Textbook of Pharmacy.* By A. O. Bentley. Demy 8 vo., + 540 pp. Illustrated with 103 figures. Published by Baillière, Tindall and Cox, London. Price 15s. net.

The statement has frequently been made in this country, especially by members of the other professions, that pharmacy is nothing but applied botany and chemistry and that there is little justification for treating it as a separate subject in our schools and colleges. These critics point to our textbooks in pharmacy in support of their contention and this is a difficult argument to meet in view of the

fact that nearly all of our textbooks do attempt to cover the fields of botany, chemistry and physics and, in some cases, bacteriology, serology, immunology accounting, store management, etc. It is therefore a pleasure to review a book which deals almost exclusively with real pharmacy and which we as pharmacists may point to in support of our viewpoint.

The author states that the book is intended to cover the requirements in general and official pharmacy of the syllabuses of the Pharmaceutical Society of Great Britain and of the qualifying examinations of the various pharmaceutical societies and boards of the British Empire. The subject of dispensing, including the making of pastilles, tablets, etc., has not been dealt with for the reason that there are other excellent and specially written treatises on these subjects.

The subject matter of the book has been divided into three parts. Part I deals with the commonly employed pharmaceutical operations. Part II is concerned exclusively with the preparations of the British Pharmacopœia and Part III covers the additional subjects in pharmacy that are contained in the syllabuses for the Pharmaceutical Chemist Qualifying Examination of the Pharmaceutical Society of Great Britain and the B. Pharm. Examination of the University of London. These subjects are the preparation of vaccines, sterilization, surgical dressings and enzymes.

A special feature of the book which distinguishes it from our textbooks on pharmacy is that a number of practical exercises have been included. At the end of every chapter in Part II there is given a number of exercises which are intended to give the student practice in making the different types of preparations discussed.

The book is by an experienced teacher of pharmacy and is well written. While it cannot serve as a text in our schools of pharmacy, because of the fact that it is based on the British Pharmacopœia, yet it should find a place in our pharmaceutical libraries as a reference book and there is much material in it which recommends it to the practicing pharmacist.

A. G. DUMÉZ.

*Edible Oils and Fats. Their Chemistry and Examination, Their Substitutes and Adulterants.* By G. D. Elsdon, B.Sc., F. I. C., Liverpool. D. Van Nostrand Company, New York. 521 pp. Price \$12.50.