New Books

TECHNIQUE OF ORGANIC CHEMISTRY, vol. VII, Organic Solvents, Physical Properties and Methods of Purification, edited by Arnold Weissberger (Interscience Publishers Inc., 522 pp., 1955, $8.50). The order of presentation is quite logical, starting with the classification of solvents into chemical groups and followed by criteria for selecting certain physical constants and methods of determination of these constants for a wide variety of solvents. Following this comes an excellent section on criteria of purity and drying of solvents and determination of water. The last technical section deals with many purification methods and points out many references for more detailed study. A vast bibliography rounds out the book. The bibliography is catalogued by numbers as well as arranged in alphabetical order.

This book dwells on purification, exact physical constants, and complete listings of constants to a greater extent than the usual books on solvents that I, as a paint research chemist, come in contact with in normal usage. I think that the large and complete tables of physical constants of a great number of solvents contained in this book make it a valuable reference book for a physical or organic chemist doing physical or organic work where solvents are frequently needed for precise work. This book will be a valuable extra reference book to the paint research chemist, and a primary reference book for physical and organic chemists engaged in research requiring pure solvents. Thus it can be recommended as an important book for pure and academic research and as a valuable but not necessarily required reference book for developmental or applied research.

A book more concerned with evaporation rates, solvency power, and compatibilities would be somewhat more useful to a paint chemist. However the book is well written and thoroughly covers its subject.

R. W. MOORMAN
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CHEMICAL ENGINEERING MATERIALS, by Frank Rumford (Chemical Publishing Company Inc., 212 Fifth avenue, New York, 382 pp., $7.50). This English book does an excellent job of bridging the gap between mechanical engineering and chemical engineering with regard to the choice and methods of fabricating materials suitable for chemical processing equipment. It reviews first the various mechanisms through which corrosion occurs and then surveys the range of materials available, including not only the more commonly employed alloys, such as stainless steels, but also various refractories, precious metals, plastics, and others. The advantages and limitations of each are treated fully, and indications of relative costs (in England) also are given.

This text is a most practical tool and is especially well illustrated with drawings to show special methods of fabricating, making mechanical joints, etc. In many cases the sketches show both the right and the wrong way of welding, riveting, and other means of joining materials, applying cladding and the like. Structural considerations, foundations, and indeed practically every factor of importance to the equipment design engineer seem to be covered. It will prove a valuable reference to those concerned with the design or selection of chemical processing equipment.

W. H. Goss
Pillsbury Mills Inc.
Minneapolis, Minn.

A HANDBOOK OF TEXTILE FINISHING, by H. J. Hall (Chemical Publishing Company Inc., 212 Fifth avenue, New York, 244 pp., 1955, $6.75). In his preface the author states that "this book is written not particularly for the experienced textile technologist although no doubt he will find it useful as providing a broad outline of textile finishing. It is written for students, textile workers, and the many ordinary folk who are interested in textile finishing but who find other books too technical or difficult to follow. It should be useful to all who buy, sell, and use textile materials." Not only has this purpose been well accomplished, but the book should also be of interest and value to chemical technologists who are first approaching the textile finishing industry with the idea of developing, selling, or servicing chemical products.

The contents are divided into six chapters. The first two, entitled "The Textile Fibers" and "Yarns and Fabrics," occupy a full one-third of the book, and to some readers they might seem a disproportionately long introduction to the main

subject of finishing. The remaining four chapters discuss finishing processes on the basis of their over-all purpose or function under the following titles: The Modification of Appearance, The Alteration of Handle, The Promotion of Dimensional Stability, and The Improvement of Serviceability. Consistent with the more limited definition of the term "textile finishing," dyeing and printing operations are not dealt with.

It is surprising to this reviewer however that the author has also chosen to omit any discussion of bleaching, although a section on optical bleaching is included in the chapter on modification of appearance. Other sections in this chapter are devoted to mercerizing, calendering, rayon delustering, crepe finishing, and linen beetling. The topics relating to improvement of serviceability include waterproofing, wind- and rainproof finishes, protective finishes against insects and microorganisms, fireproofing, dye fixing finishes, and anti-slip finishes. The selection of topics as well as the emphasis throughout the book reflects British finishing practice, but this does not significantly detract from the value of the book to the American reader.

The subject-matter is presented as it might be in a lecture room, without references or documentation. The style is excellent: clear, unambiguous, easy-to-follow, and interesting. The perspective of the presentation is also to be commended, particularly the fact that the purely mechanical finishing operations as well as the chemical processes are given the attention which their importance merits.

The book is abundantly illustrated with more than 150 well-selected and well-reproduced photographs, diagrams, and drawings. A good index adds to the usefulness of this welcome addition to the literature of textile science.

ANTHONY M. SCHWARTZ
Harris Research Laboratories Inc.
Washington, D. C.

MICROBIOLOGY, AN INTRODUCTION, by Ernest A. Gray (Philosophical Library Inc., 175 pages, 1955, $3.75. The preface describes the book as a "simple introduction to microbiology—not intended to compete with the many excellent works which cover in detail the various fields of the subject." It is a small pocket-sized publication with chapters on the various microbial forms (viruses, bacteria, yeasts, molds, fungi, algae, and protozoa) their biology, culture and control, disease and immunity, and some applications (soil, water, food, and fermentations). It is so brief in many of its areas that it would be of value only to those seeking a very general impression of the fields covered. The effort to obtain brevity has resulted in a sacrifice of accuracy and clarity.

G. I. WALLACE
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Urbana, Ill.

In December, 1920

W. D. Richardson, J. J. Vollertsen, and T. C. Law are among those who attended a meeting of the Official Agricultural Chemists at Washington, D. C., in November.

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Applications for check meal work total more than 100, according to F. N. Smalley.

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Four pages in the Chemists' Section of The Cotton Oil Press are devoted to a paper entitled "The Baskerville Process for the Production of Edible Oils," by Charles Baskerville.

In January 1921

G. Worthen Agee reports on a visit to the laboratory of I. G. Priest at the National Bureau of Standards, Washington, in a paper entitled "The Priest Photometer" in the Chemists' Section of The Cotton Oil Press.

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"Errors in Official Method of Sampling Tank Cars" is the title of a paper by P. W. Tompkins and E. S. McElligot, of Curtis and Tompkins, San Francisco, Calif.

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H. P. Trevithick, chairman of the Soya Bean Oil Committee, reports on "Cooperative Soya Bean Oil Work."