

On the whole, the book is one of the finest of elementary-intermediate texts now in the field and should be one of the easiest from which to teach, except perhaps for three or four less superior chapters out of the thirteen. The present volume suffers somewhat in attractiveness as a result of wartime paper restrictions.

JOHN R. PLATT

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The chemical process industries. R. Norris Shreve. New York: McGraw-Hill, 1945. Pp. xiii + 957. (Illustrated.) \$6.00.

This is a most worthwhile reference text for all chemists, chemical engineers, chemical executives, chemistry and chemical engineering students, and others who are interested in an up-to-date and detailed account of the production methods for the manufacture of most of the more common chemicals and chemical products. Shreve's book is a welcome addition to our industrial chemical references, of which there are several excellent books of recent edition, for it brings together for the first time a closer relationship of the unit operations and unit processes involved with the actual industrial procedures. This is most essential for a better scientific and engineering understanding of these chemical processes.

The book is written from the viewpoint of the teacher and therefore serves well as a text for industrial chemistry courses. A discussion of the fundamental principles of chemical engineering as treated in a general way in the early chapters will provide the student with a better appreciation of the design, operation, and control features of the processes to be discussed later. Instead of arranging the processes in the usual order of sulfuric acid, phosphorus, soda, methyl alcohol, or aniline, the author covers these processes in a more logical fashion under groupings according to related manufacturing industries involving similar raw materials and chemical changes, such as fuels, ceramics, sodium salts, electrolytic products, paints, soaps, plastics, organic intermediates, etc. These are presented from an over-all standpoint to include the fundamental chemistry involved in the transformation of the raw materials into finished products, the process operations with specific conditions required, the essential design and construction features of the equipment, properties and industrial applications of the chemical products, and the economic aspects of the process. Interspersed with the descriptive material are many illustrations of the plant equipment as well as typical flow sheets of the processes which are of help in obtaining a clearer idea of the manufacturing methods. At the end of each chapter are problems and questions concerning the processes under discussion which enable the student or reader to determine in a practical way his mastery of these subjects.

There are few errors to be found in the text, which is a compliment to the author and aides for their careful collection of information, compilation of data, and painstaking presentation of intricate details of so many chemical processes. The only criticism to be offered by the reviewer is the reduced size of the flow sheets, which

NUTRITION OF THE DOG

By Clive M. McCay

Professor of Nutrition, Cornell University

Combining in this book his study of the literature of nutrition with his practical experience as a kennel owner and consultant in the preparation of dog foods, Dr. McCay has written a guide for managers of kennels or owners of a single pet, as well as for veterinarians and research workers. Emphasis is placed on the carbohydrate, fat, protein, mineral and vitamin requirements of the dog and many formulas for feed mixtures are included. NUTRITION OF THE DOG is an excellent and authoritative summary of the information needed for the proper and economical feeding of dogs.

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makes them difficult to follow. Also, the organic section, presented mainly in the last two chapters of the book, is considerably brief in many respects and might well have been expanded to include more specific information on these processes, in keeping with the importance of the synthetic organic chemical industry, which is fast assuming a major proportion of the whole chemical industry. The treatment of the organic processes is much below the fine standard of the remainder of the book.

JAMES M. CHURCH

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War neuroses. Roy R. Grinker and John P. Spiegel. Philadelphia: Blakiston, 1945. Pp. ix + 145. \$2.75.

This book was written in the military theater in Africa at the end of the Tunisian campaign and first published in September 1943 by the Josiah Macy, Jr. Foundation. Because of military restrictions it received limited distribution at that time—principally to medical officers in the Armed Services. In the present edition only a few deletions and minor revisions have been made.

The subject matter, facts, findings, and opinions are based on the authors' observation of patients with acute neurosis in both Ground Forces and Air Forces personnel of British and American troops. Nine clinical syndromes are described: (1) free-floating anxiety states, severe and mild; (2) somatic regressions; (3) psychosomatic visceral disturbances; (4) conversion states; (5) depressed states; (6) concussion states; (7) exhaustion states; (8) psychotic states; and (9) malingering. Each syndrome is illustrated by one case history or more. These are very brief and contain little in the way of personality evaluation. This is an understandable defect in view of the environmental situation under which the authors were working.

The types of therapy used were narcosynthesis with sodium pentothal, brief psychotherapy, convulsive shock therapy (with frenisol, a British equivalent of metrazol), continuous sleep, occupational therapy, group therapy, and general convalescent care. Emphasis is given to narcosynthesis, which is used to induce a seminarcoose state during which the patient relives his traumatic combat experiences. The authors do not mention that many workers for some years have been using this general uncovering technique with sodium amytal with some success in both military and civilian neuroses and psychoses. Credit for such work goes to Bleckwenn, Horsley (England), Broder, Palmer, Braceland, and others. No credit should be withheld from Grinker or Spiegel, for they probably are the first American psychiatrists to use this type of treatment in World War II.

War neuroses is a dramatic presentation of tense life-situations involving human emotions and body responses expressed in a time of unusual stress—a global war. Civilian psychiatrists and associated workers in the field should gain additional insight into the neuroses of war from this volume.

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Scientific Book Register

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