

Book Reviews

Chemical Engineering Practice. vol. 1, *General*. vol. 2, *Solid State*. Herbert W. Cremer, Ed. Academic Press, New York; Butterworths, London, 1956. xiv + 494 pp.; xxii + 632 pp. \$17.50 per volume (\$13.30 per volume on orders for complete set).

The first two volumes of this comprehensive work (there will be 12 volumes in all), considered on merit alone, give evidence of a major contribution to chemical engineering literature. The editors (Herbert W. Cremer and managing editor Trefor Davies), the publishers, and the contributors of the many authoritative chapters are to be congratulated for undertaking the long-needed task of bringing together all that is chemical engineering. The fine preface by Cremer, the introduction on "The origins of chemical engineering" by D. M. Newitt, and chapter 2, "The chemical engineer," by F. H. Garner, should be required reading for all chemical engineering undergraduates. In approximately 58 pages, the contributors and editors give us an excellent survey of the chemical engineering field. The chemical engineer who reads the preface and chapters mentioned will be proud of his profession and will appreciate that it has come of age.

It is difficult to do justice, short of several pages, to the many topics covered in these first two volumes. They include a heterogeneity of subject matter, but this is peculiar to the field of chemical engineering and in no way reflects on the editing. Nevertheless, there is evidence of design in the arrangement of material.

Volume 1 deals with economics, material and energy balances, pilot and semicommercial units, and design and operation. There are two valuable appendixes, one on preparation of flow diagrams and the other on units and dimensions. In this volume, seven chapters, including the appendixes, are by British engineers and four, by Dutch engineers. None of the contributors is a teacher, but each qualifies as an expert. The number of problems given in the text, with their solutions, as examples is unusual by American standards. There is a minimum of verbosity. Our teachers appear to take

delight in setting difficult problems, so involved with data and grammar that more time is used in trying to understand what is wanted than in solving the problem, once it is understood. It should be realized that actual plant problems, while often difficult, are at least understood by those who must solve them. Little is gained by making things more difficult than they are, especially if one considers the rapid pace at which technology is developing and the need for keeping up with current developments. The editors and contributors appear to appreciate these points.

The second volume is in two distinct parts. The first deals with fundamental concepts of the solid state and with metallurgy, including powder metallurgy. The second part is concerned with flow principles in porous masses. A short final chapter on transpiration cooling seems out of place. Again, all but one of the contributors are British and Dutch practicing chemical engineers. The material presented is pertinent, clearly written, and carefully edited. It is significant that in this volume, as in the first, there is no "eruption" of g_c 's for conversion of mass to force units, so characteristic of American textbooks. So long as units are self-consistent and stated, there is really no reason for the intense devotion we exhibit toward this symbol.

Altogether, if the remaining ten volumes follow the pattern of the first two in excellence, *Chemical Engineering Practice* will become an indispensable encyclopedia for all practicing chemical engineers and teachers.

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Wire Brush Surgery. In the treatment of certain cosmetic defects and diseases of the skin. James W. Burks, Jr. Thomas, Springfield, Ill., 1956. 154 pp. Illus. \$6.75.

The publisher has made this monograph available at an opportune time, when interest in dermabrasive techniques of removing scars and cosmetic defects is keen. This is the first book to be published on the wire-brush method of der-

mal planing, a special surgical technique of which dermatologists are making increased use.

James Burks covers thoroughly the development of this type of dermabrasion, its indications and contraindications, the selection of patients and sites, psychological considerations, the histology of superficial freezing and of epidermal regeneration, pre- and postoperative management, equipment and refrigerating agents, technique, results and complications, and the handling of special problems.

The text contains sufficient detail on all aspects of wire-brush planing to serve as an excellent primer on the technique and on the fundamentals of the basic sciences underlying the procedure. Chapter II, on anatomical considerations, and chapter III, on histological changes during postoperative healing, are outstanding. The author acknowledges the contribution of Wallace Clark in the preparation of the latter section. Detail in the illustrations of technical procedure, operating-room layout, and equipment, is excellent.

The little volume is concisely written and well documented. Responsible for this, in part, is Lois DeBailey, medical editor, who assisted in its preparation, and to whom the author gives due credit. The monograph is based on the personal experience of Burks in 750 cases and on material used by him in a course of instruction at Tulane University and the Louisiana School of Medicine.

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Population Genetics: the Nature and Causes of Genetic Variability in Populations. vol. XX of *Cold Spring Harbor Symposia on Quantitative Biology*. Biological Laboratory, Cold Spring Harbor, N.Y., 1955. xvi + 346 pp. Illus. \$8.

Readers of the previous 19 volumes of this series do not have to be told of the high standard which the papers of each symposium invariably attain. Readers not familiar with the series will probably include those who are especially interested in the particular subject of the 20th symposium. This subject, population genetics, although perhaps without much appeal to the general public as yet, is one of tremendous importance and one in which enormous advances have recently been made. Geneticists, plant and animal breeders, and anthropologists, alike, can no longer afford to neglect this field.

The present volume is unusual in that it begins with a series of eight papers,