

Under the heading "Physiological Action," it would have been well had the authors adhered to the original idea somewhat more closely. For example, under PH_3 nothing is said in reference to its poisonous character; again, sodium phosphate and potassium nitrate are not referred to as having any physiological action, while zinc sulphate, which is largely used as a mild astringent, is only mentioned as an emetic.

On the whole the work is clearly and concisely written, and contains a vast amount of information in a comparatively small space.

The book is poorly bound, many of the leaves separating entirely from the volume during the reading for review.

J. A. MILLER.

CHEMICAL LECTURE EXPERIMENTS. BY FRANCIS GANO BENEDICT, PH.D.
New York: The Macmillan Co. 1901. xiii + 436 pp. Price, \$2.00.

Dr. Benedict's purpose in preparing this book is, as he says, "primarily to furnish teachers with a large number of reliable lecture experiments." His aim is, also, to suggest experiments that may be performed with an ordinary laboratory equipment. Although excellent manuals of this kind have been prepared in this country, in Germany and in England, no one will, I think, consider this book of Dr. Benedict superfluous. The experiments are so well chosen and so clearly described with so many valuable and practical hints, that even a novice should have no difficulty in making them successfully. The omission of many experiments requiring fragile or costly apparatus may cause some regret, but since descriptions of most of them are to be obtained from the text-books that will probably be found in nearly all school or college libraries, their exclusion does not detract seriously from the value of the book.

The greater portion of the text is devoted to the illustration of the properties of the non-metals, but some very interesting experiments on the metals and their compounds are described. Any teacher will, I think, find this work a useful addition to his library.

L. B. HALL.

RESEARCH PAPERS FROM THE KENT CHEMICAL LABORATORY OF YALE UNIVERSITY. EDITED BY F. A. GOOCH. In two volumes. 8vo. Vol. I, xvi + 411 pp. Vol. II, xii + 415 pp., with 20 figures in the text. New York: Chas. Scribner's Sons. Price, \$7.50.

These papers are reprinted chiefly from the *American Journal*

of Science in honor of the Bicentennial of Yale University. The mechanical execution of the volumes is superb. A large majority of the papers are by Professor Gooch himself and it is probable that he was more or less concerned with others where his name does not appear. Yale University and Professor Gooch may well feel proud of the amount and quality of the work carried to completion in this laboratory during the time covered by these volumes. The subjects treated are mostly in analytical chemistry, to which these papers are a most substantial contribution.

E. H.

AMERICAN HANDY-BOOK OF THE BREWING, MALTING, AND AUXILIARY TRADES. BY ROBERT WAHL AND MAX HENIUS. Chicago: The authors, 294 S. Water Street. $6\frac{1}{2} \times 4\frac{1}{4}$ inches; xvi + 1266 pp. Copiously illustrated. Price, \$10.00.

The chapter headings will give an idea of the contents. They are: Arithmetic; Algebra; Mensuration; Weights and Measures; Physics; Mechanics; Elements of Machinery; Power; Transmission of Power; Steam Engines; Refrigeration; Pumps; Brewery Buildings; Chemistry; Brewing Materials; Micro-organisms; Yeasts and Fermentation; Pure Yeast Culture; Malt House Outfit; Malting Operations; Brewery Outfit; Brewery Operations; The Bottling Department of a Modern Brewery; Figuring in the Brewery; The Brewers' Chemical Laboratory; The Brewers' Microscopical Laboratory; Lubricants and Lubrication; Legal Relations of the Brewer Beer Dietetics and Economics; Miscellaneous Information; Bibliography; Dictionary of Technical Terms; Publications Consulted; Index.

The book will be of use to others than brewers. The information given seems to be full and accurate, and shows evidence of great care in preparation. The mechanical execution—printing, binding, illustrations—is excellent.

E. H.

HANDBOOK ON SANITATION. A Manual of Theoretical and Practical Sanitation. For Students and Physicians; for Health, Sanitary, Tenement-house, Plumbing, Factory, Food, and other Inspectors, as well as for Candidates for all Municipal Sanitary Positions. BY GEORGE M. PRICE, M.D., Medical Sanitary Inspector, Department of Health, New York City, etc. New York: John Wiley & Sons. 1901. xii + 317 pp. Price, \$1.50.

This little handbook covers a large field very briefly and in very simple language. The first part is devoted to a brief discussion of the principal topics in sanitary science. Exception