

in applying and understanding the laws, he can then construct his formulas if he so wishes.

The book consists of ten chapters divided as follows: calculations of chemical equivalents and atomic weights; formulae and percentage; mixtures having a common constituent; equations; use of factors; volumetric analysis; density of solids and liquids; gases; calorific power; electric and electrolytic calculations for direct currents. In addition there is a series of tables of weights, measures, specific gravities, factors, logarithms, etc., which will be found useful to any one having occasion to make any calculations. There will, probably, be a greater difference of opinion over the chapter on normal solutions than over any other. The author's development of the subject is satisfactory, but he has not exhausted the possibilities for clear treatment of a subject which can be made particularly attractive and instructive. The book, if used in connection with classroom work, will undoubtedly be of great value, and should help the student to a much clearer understanding of the quantitative values of chemical laws.

HENRY FAY.

COLOUR: A HANDBOOK OF THE THEORY OF COLOUR. BY GEORGE H. HURST. New York: D. Van Nostrand Co. 1900. Price, \$2.50.

The author of this book of 158 pages is a member of the Society of Chemical Industry, and is already known by his works on soaps, lubricating oils, painters' colors, and a "Dictionary of Coal Tar Colours." In this handsomely printed volume he endeavors to present to those familiar with the practical printing and dyeing of textile fabrics, and the mixing of colors for artistic effects, the theory of color, its cause and production, together with some account of the instruments used by scientific men in the study and measurement of color. The opening chapter treats of the prismatic colors, the spectroscope, wave motion, phosphorescence, fluorescence, luminosity, and so forth, in the compass of 31 pages. Other chapters deal with the theories of color as propounded by Young, Helmholtz, Brewster, and Maxwell, with the physiology of light, with contrast, and with the application of color to decoration and design. In his preface Mr. Hurst acknowledges his indebtedness to the manuals of Chevreul, Benson, Rood, and Church.

The book is illustrated freely, containing no less than 72 cuts and 10 full-page colored plates; unfortunately for readers the plates, many of which contain several figures, are simply numbered and bear no references to the pages on which the text occurs that explains the figures, or that the figures illustrate. The figures on plate IV refer to texts on pages 79, 105, 106, and 114, and yet the plate faces page 48, and no indication is given of these references. It is true that the plates should be regarded as illustrating the text, but if the latter is first examined it will be found that references are not much clearer; on page 63 a reference to "Fig. 2, Plate 3" should read "Plate II., Fig. 2," and that to "Fig. 3" of the same plate should read "Fig. 4." Throughout the book, the plates bearing Roman numerals are referred to by Arabic figures, and lack of uniformity in the sequence of "Plate" and "Fig." increases the confusion. This unhappy blemish prevents easy study of the brilliant plates, but can be corrected in a second edition. There is an index and the volume is well bound. H. CARRINGTON BOLTON.

A POCKET BOOK FOR CHEMISTS. BY THOMAS BAYLEY. New York: Spon & Chamberlain; London: E. & F. N. Spon, Ltd. Seventh edition. xii + 559 pp. Price, \$2.00.

This book is already well known to chemists. The new edition, according to the preface, has been "rearranged and to a large extent rewritten." In spite of this much is yet to be desired in the arrangement of the tables and many of them might be presented in a much simpler and more compact form. In the selection of matter, it seems to the reviewer, that the author has attempted to cover too much ground and that many of the tables are so seldom used and are so readily accessible to any one having occasion to use them that they could well be cut out, while others such as those under the sections X, alcohol, XI, beer, and XII, sugar, might well be left for the special pocket-books gotten out for these industries. Of course there is no objection to the insertion of these tables except that they add to the size of the book and make the useful tables less readily turned to. In spite of these defects the book contains much valuable information and many tables in every-day use by chemists.

RICHARD K. MEADE.