

tions of bases and acids are given with conveniently arranged tabular schemes of qualitative analysis. There are also a few examples of quantitative methods, and descriptions of the more important processes of drug assay. The work concludes with an appendix containing useful tables. R. A. WITTHAUS.

JOHN DALTON AND THE RISE OF MODERN CHEMISTRY. BY SIR HENRY F. ROSCOE. New York and London. Macmillan & Co., 66 Fifth Avenue, New York City. Price, \$1.25. pp. 216; 12 mo. Portrait and facsimile. The Century Science Series.

This is an unusually satisfactory book; it is a pleasure to read the biography of one eminent man written by another distinguished in the same branch of knowledge, who appreciates and sympathizes with his subject and his subject's labors.

Materials for a history of John Dalton and his contributions to chemistry were not lacking. W. C. Henry's "Memoirs" (1854), R. A. Smith's "Memoir and History of the Atomic Theory" (1856), Charles Clay's "Reminiscences" (1884), and Lonsdale's "Worthies of Cumberland" (1874), supply the necessary details of the uneventful, quiet life of the Manchester schoolmaster, and accounts of his momentous researches in chemical philosophy. Besides these sources of information, Sir Henry could refer to his own lecture delivered in the Town Hall, Manchester, in 1874. In this volume we find a summary of Dalton's parentage, school days, and teachers, his experience as a school teacher when only twelve years of age, his first attempts at scientific investigation (meteorological), his connection with the Manchester College, and his pain-taking researches on the relative weights of ultimate particles. The text is pleasantly anecdotal, clearly describing Dalton's personality. The volume is illustrated with a portrait of Dalton, facsimiles of letter and leaflet containing the atomic symbols. One remark of Sir Henry's greatly surprises us; speaking of decimal fractions he says they are "a snare and a stumbling-block even to some great men of the present day." Can it be that calculations in  $\mathcal{L}$ ,  $s$ , and  $d$ . are so deeply impressed on the British mind that they prevent comprehension of decimals familiar to every American school-boy? The book contains an excellent index.

H. CARRINGTON BOLTON.