

word in reference to the circumstances under which this book was written. It is well known among his many friends that Professor Holman's active participation in the work of the Rogers Laboratory of Physics was arrested two or three years ago by the development of an illness from which, unfortunately, he has not yet recovered. During this time he has been confined to a reclining chair, and, in his own characteristic words, 'even the familiar utilization of the convenient gamut of ether waves' has been denied. Although unable to move and unable to see, his courage has never faltered. There has been no loss in his power of thought, and he has gone on thinking the many fine things which he has put into this book, for which, even if it had not been prepared under conditions that would have defeated most men, all physicists, friends and strangers alike, will ever be his debtor.

T. C. M.

A Brief Course in Qualitative Analysis. By ERNEST A. CONGDON, PH.D., Professor of Chemistry in the Drexel Institute. New York, Henry Holt & Co. 1898.

The method of treatment adopted in this book consists in giving, first, a clear, concise statement of the most important reaction for each metal and acid, and then tables giving one or more schemes of analysis for each group. The tables are supplemented by explanatory notes. At the end of the book a series of questions, well designed to test the student's grasp of the subject, are given. While the tabular form always has the advantage of presenting the scheme for analysis very clearly, in the opinion of the writer, the same object is better attained by a tabular record prepared by the student. Because of their concise form, tables necessarily omit many details which are essential for the successful execution of an analysis, and the notes which follow do not entirely overcome this difficulty.

The selection of reactions and of schemes for analysis is excellent, and in the hands of good teachers the book will prove a useful one.

A Short Manual of Analytical Chemistry, Qualitative and Quantitative, Inorganic and Organic, following the Course of Instruction given in

the Laboratories of the South London School of Pharmacy. By JOHN MUTER, PH.D. Second American Edition. Illustrated. Adapted from the Eighth British Edition. Philadelphia, P. Blakiston's Sons & Co. 1898. Pp. xiii + 228. Price, \$1.25.

As the title implies, a very large amount of information is compressed into comparatively little space in this volume. In the qualitative portion the statements giving the deportment of metals and of acids toward reagents are given consecutively and are followed by tables of schemes for analysis. Then follow directions for the identification of alkaloids and of a number of common organic compounds. The quantitative portion includes volumetric and gravimetric analysis, ultimate organic analysis, and directions for the examination of air, water, food, alcoholic liquors, etc. It is in this portion that American chemists will find most to criticise; Gooch crucibles are nowhere described, not even for the cases where they should be used in place of weighed filters. Directions for the determination of 'citrate soluble phosphoric acid' are not given under the analysis of 'manures,' and no reference is made to the 'official methods.' The old uranium acetate method is given for the volumetric estimation of phosphoric acid instead of the more satisfactory methods with a reductor or with a standard alkali. Metaphenylene diamine is recommended for the detection of nitrites in water analysis, although the reagent is not sufficiently sensitive to be of any practical use in many cases. But, while the authors do not appear to be conversant with the best American practice in these and some other cases, and while some of the directions appear to be too much abbreviated for the satisfactory use of a beginner, it would be difficult to find another book which compresses so much information about analysis into so small a space and for so moderate a price.

W. A. NOYES.

Wild Animals I have known. By ERNEST SETON THOMPSON. New York, Charles Scribner's Sons. 1898. Square 12mo. Pp. 359. 200 illustrations. Price, \$2.00.

Rarely are the qualities of naturalist, writer and artist combined in one person, but Mr.