

and emphasizes the importance which it seems likely to take in the near future in the teaching of analytical chemistry.

F. C. PHILLIPS.

THE COMPENDIOUS MANUAL OF QUALITATIVE CHEMICAL ANALYSIS OF C. W. ELIOT AND F. H. STORER, AS REVISED BY W. R. NICHOLS. By W. B. LINDSAY, Professor of General and Analytical Chemistry in Dickinson College, and F. H. STORER, Professor of Agricultural Chemistry in Harvard University. Nineteenth Edition, Newly Revised. New York: D. Van Nostrand Company. 1899. vii+202 pp. Price, \$1.25 net.

The publication of nineteen editions in thirty years of a scientific book is ample evidence both of the value of the work and of the general appreciation of its value. This is particularly true of a work of this kind when every teacher of qualitative chemistry seems to find it necessary to publish a book covering this course for the special benefit of the pupils in the institution to which he is attached.

The plan of the work is excellent and follows the course which should be pursued by any one beginning the study of qualitative analysis. Beginning with examples of the separation of two elements, the student is led gradually on to the separation of the groups and the different members of each group. The treatment of an unknown substance follows, and so through the entire range of the subject. The descriptions are uncommonly clear and the language is simple and vigorous. The changes from the first revised edition are very slight and are in line of improvement, but some of the old cuts of apparatus are antiquated and below the standard of the rest of the book.

ANDREW A. BLAIR.

BOOKS RECEIVED.

The Compendious Manual of Qualitative Chemical Analysis of C. W. Eliot and F. H. Storer, as revised by W. R. Nichols. Nineteenth edition, newly revised by W. B. Lindsay and F. H. Storer. New York: D. Van Nostrand Co. 1899. vii+202 pp. Price \$1.25 net.

Wheat. Bulletin No. 83. Kentucky Agricultural Experiment Station of the State College of Kentucky, Lexington, Ky. August, 1899. 20 pp.

The Elements of Blowpipe Analysis. By Frederick Hutton Getman, New York: The Macmillan Co. 1899. x + 77 pp. Price, 60 cents.

The Chemical Composition of American Food Materials. By W. O. At-

water and A. P. Bryant. Bulletin No. 28. (Revised edition.) Washington: U. S. Department of Agriculture. 1899. 87 pp.

Description of a New Respiration Calorimeter and Experiments on the Conservation of Energy in the Human Body. By W. O. Atwater and E. B. Rosa. Bulletin No. 63. U. S. Department of Agriculture. 1899. 94 pp.

Studies on Bread and Bread Making. By Harry Snyder and L. A. Voorhees. Bulletin No. 67. U. S. Department of Agriculture, Washington, D. C. 1899. 51 pp.

A Course in Quantitative Chemical Analysis, Gravimetric and Volumetric. By Nicholas Knight, A.M., Ph.D. New York: A. S. Barnes & Co. 1899. x+110 pp. Price, 80 cents.

Indicators and Test-papers: Their Source, Preparation, Application, and Tests for Sensitiveness. By Alfred I. Cohn, Ph.G. New York: John Wiley & Sons. 1899. ix+249 pp. Price, \$2.00.