

abundance of definitions would be out of proportion to its brevity of explanation.

N. W. LORD.

ENGINEERING CHEMISTRY. A MANUAL OF QUANTITATIVE CHEMICAL ANALYSIS, FOR THE USE OF STUDENTS, CHEMISTS, AND ENGINEERS. BY THOMAS B. STILLMAN, M.SC., PH.D., Professor of Analytical Chemistry in the Stevens Institute of Technology. Second edition. With 132 illustrations. Easton, Pa.: The Chemical Publishing Company. 1900. xxii + 503 pp. Price, \$4.50.

The first edition of this work was published in 1897, and reviewed in this Journal, in that year (p. 272). In this second edition there has been a transposition of subject-matter so as to bring under one heading, or chapter, the consideration of allied subjects, formerly distributed throughout the volume. The addition of new matter is comparatively small. Some fifteen pages of the first edition have been omitted. One of the valuable characteristics of the work is the number of references to original papers in American, English, German, and French scientific journals. These references have been brought up to date in this edition.

There are some few matters open to criticism. The author only occasionally directs attention to the necessity of repeating separations in gravimetric work, in order to obtain accurate results. In some of his schemes of analysis phosphorus pentoxide is weighed with, and calculated, as alumina. In the analysis of gases by Hempel's apparatus the explosions are made over water, a method Hempel himself has rejected. The table for Baumé's hydrometer for liquids heavier than water, is entirely incorrect.

The work is particularly valuable in that it treats of both the chemical and physical examination of many materials and factory products that are rarely noticed in ordinary laboratory manuals. In comparison with the downpour, we might almost say deluge, of these latter, a manual of this kind is comparatively rare. All that has been said in commendation of the work by the reviewer of the first edition can certainly be endorsed. It is a valuable book.

H. PEMBERTON, JR.

A MANUAL OF ASSAYING. BY ALFRED STANLEY MILLER. First edition. New York: John Wiley & Sons. 1900. 91 pp. Price, \$1.00.

This little book is to be recommended chiefly for its brevity and clear style. The various methods of fire assaying are so arranged and described as to afford in the minimum space a good, general idea of the subject. It is weak, in common with many