

VI contains sixteen simple experiments requiring a minimum of special apparatus to illustrate the foregoing text, together with appended questions intended to set the student thinking.

One adverse comment which the reviewer has to make is on the treatment of the semi-permeable membrane which the authors compare (pp. 7 and 8) with a fish net, distinctly, committing themselves to the idea of large molecules of solute and small molecules of solvent. This can hardly be accepted as up-to-date even for elementary work. Experience shows that the conceptions of the "membrane" as an intermediate layer of substance in which the "solvent" is itself moderately soluble but the "solute" is practically insoluble is easily grasped by the student, and gives him a far more useful analogy for the purposes of chemical instruction.

The work as a whole is well done, being clearly expressed and up-to-date and deserves a hearty welcome from the teaching force concerned.

F. G. COTTRELL.

ANNUAL REPORTS OF THE PROGRESS OF CHEMISTRY FOR 1904. Issued by the Chemical Society. Vol. I. London: Gurney and Jackson. New York: D. Van Nostrand Co. 1905. 280 pp. Price, \$2.00 net.

This is the first of a series of reports which are to be prepared and published each year under the auspices of the Chemical Society of London. The subjects treated in the present volume, together with the names of the reviewers, who will be seen to be men well-known in their respective departments, are as follows: General and Physical Chemistry, by James Walker; Inorganic Chemistry, by P. Phillips Bedson; Organic Chemistry—Aliphatic Division, by H. J. H. Fenton; Organic Chemistry—Aromatic and Other Cyclic Divisions, by Julius B. Cohen; Stereochemistry, by William Jackson Pope; Analytical Chemistry, by Alfred Chaston Chapman; Physiological Chemistry, by William Dobinson Halliburton; Agricultural Chemistry and Vegetable Physiology, by John Augustus Voelcker; Mineralogical Chemistry, by Arthur Hutchinson; Radioactivity, by Frederick Soddy.

Speaking generally, the progress of the last year is presented in these reports in a far more readable form than is usual in such reviews, which are apt to deteriorate into annotated bibliographies of publications. Special mention should be made of the article on radioactivity, which is not confined to the work

of the preceding year, but which consists of a brief review, covering 36 pages, of the present state of knowledge in this field.

A. A. NOYES.

METHODS OF ORGANIC ANALYSIS. By HENRY C. SHERMAN, PH.D., Adjunct Professor of Analytical Chemistry in Columbia University. New York: The Macmillan Co. 1905. 8vo. xii + 245 pp. Cloth. Price, \$1.75.

“The purpose of this work is to give a connected introductory training in organic analysis, especially as applied to plant and animal substances and their manufactured products.” “The descriptions of the methods were written primarily for the use of third-year students in the School of Chemistry, Columbia University, and therefore presupposed a knowledge of inorganic quantitative analysis, elementary organic chemistry and general physics.”

The subjects treated are, sampling and the methods for determining nitrogen, sulphur and phosphorus in organic compounds; alcohols, including glycerol, aldehydes and acids. These are followed by chapters upon the carbohydrates, oils, fats and waxes, soaps and lubricants, proteids and cereals, butter, and milk.

A feature of the book that commends itself, is a general presentation of the subject in one chapter, that on carbohydrates for example, followed by a chapter upon the special methods of analysis. Where it is impracticable to give all the methods for the analysis of the various compounds considered, references are made to standard works upon the subject; these are often supplemented by copious foot-notes, making the book encyclopaedic in scope.

While the work makes no pretense of covering the whole field of organic analysis, the subjects treated are well chosen and carefully and fully considered, and it deserves a place beside the treatises of Lunge and Allen.

A. H. GILL.

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#### RECENT PUBLICATIONS.

A CONTRIBUTION TO THE CHEMISTRY OF THE TELLURATES; A THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY, UNIVERSITY OF WISCONSIN, 1905. By Edgar Burton Hutchins. Madison, Wisconsin: University of Wisconsin. 1905. 39-84 pp. 25 cents.