It is to be regretted that so many evidences of carelessness are noticeable, but even with these the book is sure to be welcomed by those who are unable to read the original, and who are interested in the scientific treatment of the constitution of iron and its alloys. The book comes from the press in very attractive form, but the reviewer can see no reason why the reader should be forced to accept with it thirty-five pages of advertising matter. HENRY FAY.

PHYSICO-CHEMICAL TABLES FOR THE USE OF ANALYSTS, PHYSICISTS, CHEMICAL MANUFACTURERS AND SCIENTIFIC CHEMISTS. BY JOHN CASTELL-EVANS, F.I.C., F.C.S., Superintendent of the Chemical Laboratories and Lecturer on Inorganic Chemistry and Metallurgy, at the Finsbury Technical College. Volume I, Chemical Engineering and Physical Chemistry. London: Charles Griffin and Co., Lim.; Philadelphia: J. B. Lippincott Co. 1902. xxxii + 548 pp. Price, $8.00.

This volume contains not only what its title in the narrower sense denotes—the physical constants of chemical substances, but also the values of various mathematical functions and of the relations of units in different systems, data pertaining to materials used in construction, and tables of many original calculations made by the author with the purpose of facilitating reductions and corrections and avoiding interpolations or calculations from empirical formulas. Most of the important quantities are expressed both in English and in metric units. The principal physico-chemical constants included in this volume are specific volumes and gravities and heat-expansions; specific heat-capacities and heats of fusion, vaporization, and solution; compressibilities; vapor-pressures; boiling-points, and melting-points.

The two most striking defects of the book revealed by a cursory examination are the absence of references to the original literature and the utter disregard of the significance of figures; thus in the mathematical tables many functions are given with three to seven more digits than the corresponding argument, and in the physical tables compressibility-coefficients are given with three or four figures when the unit is the atmosphere, with seven when the unit is the kilo per square millimeter or the ton per square inch, and specific heat-capacities and vapor-pressures are given with six figures, though the results of different investigators vary greatly in the fourth figure, etc.

In spite of these defects the book contains an enormous mass of data

within a small compass and in a form ready for practical use, and it may therefore prove of considerable value to industrial chemists and to chemical engineers. Scientific workers, however, will undoubtedly still prefer to utilize the original values of physico-chemical constants so well reproduced in Landolt and Börnstein's Tabellen, and to obtain mathematical functions from some work, like Holman's excellent Computation Rules and Logarithms, devoted especially to them. A. A. NOYES.

ANNUAIRE POUR L'AN 1903, PUBLIE PAR LE BUREAU DES LONGITUDES. Paris: Gauthier-Villars. 24mo. 666 + 96 pp. Price, 1 fr. 50.

One-half this annual is occupied by astronomical data, one-quarter by diverse information of the nature of a newspaper almanac, and the last quarter by miscellaneous physical and chemical tables. The latter are either so incomplete or so antiquated in their data as to be in most cases no better than none at all. Even in a table of gaseous densities contributed by Berthelot, are to be found such serious mistakes as mercury and cadmium vapors being given the formulae Hg_2 and Cd_2. Cheap book—unreliable information, at least as far as the physical and chemical tables are concerned. J. W. RICHARDS.

A CATALOGUE OF THE LIBRARY OF THE CHEMICAL SOCIETY [OF LONDON]. Arranged according to authors with a subject-index. London: 1903. 12mo. 324 pp.

This excellently printed volume shows on every page due care in its preparation, will admirably serve the purpose for which it has been compiled, and will prove useful to all interested in the bibliography and history of chemistry. Those handling it should bear in mind that it is a catalogue of the books in a given place and not a bibliography, and the absence of a book of intrinsic merit must not be criticized. To condemn a catalogue for its omissions is hardly just, when all the compiler can do is to include the books on the shelves of the library even though he may feel the need of certain volumes more keenly than the members of the Society themselves do.

The compiler of this volume, Mr. Robert Steele, deserves the thanks of all chemists and librarians.

HENRY CARRINGTON BOLTON.