Church's Laboratory Guide. By EDWARD KINCH. D. Van Nostrand Co., N. Y. 8th ed., 1906. pp. 349. Price, $2 50.

This book is largely devoted to the quantitative analysis of agricultural products. The first edition was published in 1864 and found extensive use in Great Britain, India, Italy, Japan, etc. The present edition has been carefully revised and largely rewritten and brought up to date. Part I consists of a general introduction in chemical manipulation. Part II is devoted to qualitative analysis, especially in relation to those elements of agricultural interest. Part III, comprising about 200 pages, deals with the quantitative analysis of agricultural materials, such as soils, manures, farm crops, cattle foods, dairy products, bread, etc. The book is clearly written, well arranged and, in most respects, well up to date. We notice that, in common with most European works, the Babcock method of determining fat in milk and its products (almost exclusively used in America) is entirely ignored by the writer. As a rule, European writers on chemical methods of agricultural analysis do not prepare works that are entirely satisfactory for the use of American students in our agricultural colleges. It is not difficult to see why this should be so. L. L. VAN SLYKE.

Dairy Laboratory Guide. By CHARLES W. MELICK. D. Van Nostrand Co., N. Y. 1907. pp. 129. Price, $1.25.

This book is intended for use in short dairy courses covering only a few months of work. It treats from the standpoint of laboratory practice a large number of subjects connected with milk and its manipulations in connection with the processes of butter and cheese making and preparation of other dairy products. The treatment given to each topic is brief and necessarily superficial but is undoubtedly intended to be supplemented by class work with lectures. We question the wisdom of using chemical formulas in a book of so elementary a character with students who have studied chemistry little, if at all. The statements are for the most part clear and accurate. The book has no index, a serious fault in any book, however small. We notice that the author adheres to the old theory of the cause of mottles in butter, attributing it exclusively to the action of salt and ignoring the essential part played by the presence of buttermilk. On the whole, the book, if properly used, can be recommended for the purposes intended.

L. L. VAN SLYKE.

Annuaire pour l'An 1908. Publié par le Bureau des Longitudes. 16 mo., 950 pages. Paris: Gauthier-Villars. Price, 1 franc 50 centimes (by mail, frs. 1.85).

Nearly one-half of the volume consists of astronomical and geomagnetic data, one-quarter is physical tables, nearly one quarter chemical tables, and an appendix contains special articles on the distances of the fixed

stars (G. Bigourdan), solar researches (Deslandres), the observatory of Montsouris (E. Guyon), and obituary notices of M. Loewy and Chas. Trépied. It is impossible to obtain anywhere else so much physical and chemical data for such a small price, and the data given are in the main reliable. The criticism made on previous volumes still holds true on this, *viz.*, that data obtained by famous French scientists continue to be given even where some of them have been proved in error and replaced by better observations by scientists outside of France: *e. g.*, Regnault's determination of the vapor tension of mercury below 100°.

J. W. RICHARDS.

RECENT PUBLICATIONS.

ARRHENIUS, S. IMMUNOCHEMIE. Anwendungen der physikalischen Chemie auf die Lehre von den physiologischen Antikörpern. Leipzig: 1907. 203 ss. M. 7.

AUTENRIETH, W. QUANTITATIVE CHEMISCHE ANALYSE, Massanalyse, Gewichtsanalyse, und Untersuchungen aus dem Gebiete der angewandten Chemie, zum Gebrauche im chem. Laboratorien. Zweite völlig umberarb. Aufl. Tübingen: 1907. gr. 8. 380 ss. M. 9.40.

BEARD, J. T. MINE GASES AND EXPLOSIONS. Text-book for schools and colleges and for general reference. New York: John Wiley & Sons. 1908. 380 pp. 68 fig. 12 mo. $3.

LINCOLN, AZARIAH T., AND WALTON, JAMES H. EXERCISES IN ELEMENTARY QUANTITATIVE CHEMICAL ANALYSIS FOR STUDENTS OF AGRICULTURE. New York: The Macmillan Co. 1907. 518 pp. 12mo. $1.25.

LOW, ALBERT H. TECHNICAL METHODS OF ORE ANALYSIS. 3rd Ed. revised and enlarged. New York: John Wiley & Sons. 1908. 12 + 344 pp. 8vo. $3.

MAIRE, F. MODERN PIGMENTS AND THEIR VEHICLES: their properties and uses, considered mainly from the practical side, and how to make tints from them. New York: John Wiley & Sons. 1907. 266 pp. 12mo. $2.

MÜLLER, A. ALLGEMEINE CHEMIE DER KOLLOIDE. Leipzig: 1907. M. 10.

NAMIAS, R. THEORETISCH-PRAKTISCHES HANDBUCH DER PHOTOGRAPHISCHEN CHEMIE. I. Band. Photographische Prozesse und orthochromatische Photographie. Nach der 3. italienischen Auflage übersetzt von A. Valerio und C. Stürenberg. Halle: 1907. 406 ss. M. 8.

NESSLER, J. BEREITUNG, PFLEGE UND UNTERSUCHUNG DES WEINES. 8 Auflage, neubearbeitet von K. Windisch. Stuttgart: 1907. gr. 8. 508 ss. mit 134 Figuren. M. 11.

NEUBURGER, A. HANDBUCH DER PRAKTISCHEN ELEKTROMETALLURGIE. München und Berlin: 1907. M. 14.

NISSENSON, H. UND POHL, W. LABORATORIUMSBUCH FÜR DEN METALLHÜTTENCHEMIKER. Halle: 1907. gr. 8. M. 3.

OSTWALD, A. LEHRBUCH DER CHEMISCHEN PATHOLOGIE. Leipzig: 1907. gr. 8. 614 ss. M. 14.

PASSON, H. DIE HOCHOFENSCHLACKE IN DER ZEMENTINDUSTRIE. Würzburg: 1907. M. 7.