Parts I and II, devoted to apparatus, reagents, and schemes for fire assays, contain so much useless and misleading information that the valuable portion is lost completely to the inexperienced reader. It would have been much better had the authors reduced these one hundred and thirty-nine pages to thirty.

HANDBOOK FOR THE BIO-CHEMICAL LABORATORY, INCLUDING METHODS OF PREPARATION AND NUMEROUS TESTS ARRANGED ALPHABETICALLY. BY JOHN A. MANDEL. New York: John Wiley & Sons. pp. 101. Price, \$1.50.

In this little book the author presents a very good compilation of laboratory processes for the production of a number of substances of physiological importance. Many of the descriptions of methods appear to be taken from well-known books of Drechsel, Halliburton, Gamgee, and others, but a distinct service has been rendered American students by bringing them together in compact form. Most of the processes described have stood the test of student practice and can be recommended as workable.

A list of common tests, employed mostly in laboratories of physiological chemistry, takes up about thirty-five pages of the book. Some of these tests are good, others could have been omitted without lessening the value of the book, as they are practically useless in investigation. In this part of the book several typographical errors have escaped the notice of the author. On page 76, for instance, "liquor of potassæ" should not have been overlooked, and on page 85, under the Molisch test "solution of a naphthol" should read "solution of  $\alpha$ -naphthol." Other errors noticed are of minor importance and not misleading. J. H. LONG.

## BOOKS RECEIVED.

Tables for the Determination of Minerals by Physical Properties. By Persifor Frazer. xii + 163 pp. J. B. Lippincott Co. 1897. Price, \$1.50.

The Wooly-Aphis of the Apple. Bulletin No. 35. Agricultural Experiment Station of the State of Missouri. Columbia, Missouri. July, 1896. 26 pp.

An Introductory Course of Qualitative Chemical Analysis with Explanatory Notes and Stoichiometrical Problems. By Henry P. Talbot, Ph.D. 125 pp. 1897. New York: The Macmillan Co. Price, \$1.50. Some Notes Concerning the Nitrogen Content of Soils and Humus. By Elton Fulmer. Bulletin 23. Washington State Agricultural College and School of Science. Pullman, Washington, October, 1896. 19 pp.

Experiments in the Culture of the Sugar Beet in Washington for 1895 and 1896. By Elton Fulmer. Bulletin 26. Washington State Agricultural College and School of Science. Olympia, Washington. December, 1896. 36 pp.

The Phase Rule. By W. D. Bancroft. 255 pp. Ithaca, N. Y.: Journal of Physical Chemistry. Price, \$3.00.

The Chemistry of Dairying. By Harry Snyder, B.S. viii+156 pp. Easton, Pa.: Chemical Publishing Co. 1897. Price, \$1.50.

Studies in Chemical Dynamics. By J. H. van 't Hoff. vi + 286 pp. 1896. Easton, Pa.: Chemical Publishing Co. Price, \$2.50.

Engineering Chemistry. By Thomas B. Stillman, M.Sc., Ph.D. With 154 illustrations. xxiv + 523 pp. Easton, Pa.: Chemical Publishing Co. 1897. Price, \$4.50.

Principles and Practice of Agricultural Analysis. By H. W. Wiley, Chief Chemist U. S. Dept. of Agriculture. Vol. III. Agricultural Products. xii + 666 pp. Easton, Pa.: Chemical Publishing Co. 1897. Price, \$3.75.

Corn, Cotton, and Forage Plants. Bulletin No. 40. Texas Agricultural College, College Station, Brazos Co., Texas. September, 1896. 24 pp.

A Clinical Report on the Chemical Examination of Two Hundred Cases of Human Breast Milk. By Vanderpoel Adriance, M.D., and John S. Adriance, A.M., F.C.S. 42 pp.

Thirty-Fourth Annual Report of the Massachusetts Agricultural College. Public Document No. 31. January, 1897. 356 pp. Boston: Wright & Potter Printing Co. 1897.

Experiments with Corn and Crimson Clover, and Growing Cattle Without Coarse Feed. Bulletin No. 46. January, 1897. 24 pp. University of Illinois, Agricultural Experiment Station, Urbana, Ill.

Dairy and Food Laws of Wisconsin for the Years 1895-1896. H. C. Adams, Commissioner. 315 pp. Madison, Wisconsin. Democrat Printing Company, State Printers.

Digest of Criticisms on the United States Pharmacopœia, Seventh Decennial Revision (1890). Part I, comprising abstracts of paper to July 1, 1896. 183 pp. Published by The Committee of Revision and Publication of the Pharmacopœia of the United States of America (1890-1900).

The paper on "The Distribution of the Precious Metals in Copper," by Edward Keller, printed in the March issue of this Journal, was presented at the February meeting of the American Institute of Mining Engineers. Mention of this fact should have been made.

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