ards of purity of foods so far as they have been established. These standards are helpful not only to the analyst but also to those engaged in the enforcement of pure food laws. Another useful provision is an exhaustive list of references at the close of each chapter.

The figures in the text illustrating apparatus and analytical methods will be appreciated, especially by chemists who are about to engage in food analysis for the first time. The same may be said of the excellent drawings showing the microscopical structure of spices, etc., as well as of the forty plates of photomicrographs at the end of the volume.

Finally the embodiment in the text of tables, which are in constant demand in food analysis, makes the book complete in itself and enhances its value as a convenient guide and work of reference in the examination of food products.

The compilation of methods and results, widely scattered through all kinds of publications, into a single volume together with the author's own large experience in food investigations has been a desideratum, and for this reason the work will doubtless be welcomed by chemists in general, and especially by those who are not in possession of the many sources drawn upon.

H. A. WEBER.

NOTES ON ASSAYING AND METALLURGICAL LABORATORY EXPERIMENTS. By RICHARD W. LODGE, Assistant Professor of Mining and Metallurgy in Massachusetts Institute of Technology. New York: John Wiley & Sons. London: Chapman & Hall, Limited. 1904. 8vo. viii + 287 pages. Illustrated. Price, cloth, $3.00.

This book is designed as a text-book for students who have already become familiar with the principles of chemistry, and is not intended for those who, without a previous knowledge of chemistry, desire to learn "practical assaying." Indeed there are a number of satisfactory books covering the subject sufficiently well for this latter purpose, but for those who desire information as to the principles involved, the variations in fluxes and manipulation necessitated by different materials, in short, those who really want to study the subject, this book is indispensable. Particularly valuable are the numerous tables of experimental data, such as those covering the effect of variations in the composition of the material assayed, and the losses in gold and silver during cupellation under various temperatures and conditions.

The author, in these tables, has freely used information from men who have had much practical experience, thus supplementing his own experience, which has evidently been largely that of the teacher.

The first twenty-two pages are devoted to the description of apparatus and reagents, and are followed by a chapter on sampling in which, as is the case throughout the book, the important points are in italics, which adds much to its value. Seventy-seven pages are devoted to the assaying of ores for silver, and fifty-seven pages to the assaying of ores for gold. A chapter on the fire-assay for lead follows, and the assaying of lead, silver and gold bullion is well, though briefly, treated. A short chapter on the assay of ores for copper and tin is followed by an excellent one on platinum and the platinum group, including a table covering the solubility of silver, gold and the rare metals, and also tables showing the loss of platinum during cupellation, its solubility when alloyed with various proportions of silver, and much other useful data. Much loose work has resulted from imperfect knowledge of the behavior of the platinum group when alloyed with other metals, which a careful perusal of this chapter should prevent.

The last chapter in the book on Metallurgical Laboratory Experiments and Notes is full of suggestion and indicates clearly the advantages of the use of small laboratory apparatus as a means of obtaining valuable information bearing on the metallurgy of ores.

This book should be in the hands of all those who are in charge of assay or metallurgical laboratories, as well as students of metallurgy for whom it was specially written.

WM. HOSKINS.

CORRECTION.

In the report of the Committee on Uniformity of Technical Analysis in this Journal for December, 1904:

On p. 1648 opposite chemist 3 under Sample C read 28.70 for 28.90.
On p. 1649 " " 26 " " A " 58.23 " 38.23.
On p. 1649 " " 30 " " A " 58.80 " 50.80.
On p. 53 lines 15 and 16 should be transferred to follow lines 17 and 18.