

	Cinnabar. gram.	Mercury found. gram.
(a).....	0.2011	0.0616
(b).....	0.2011	0.0622

Using aqua regia as solvent :

	gram.	gram.
(a).....	0.2030	0.0629
(b).....	0.2030	0.0631

NEW BOOKS.

THE SCIENTIFIC FOUNDATIONS OF ANALYTICAL CHEMISTRY TREATED IN AN ELEMENTARY MANNER. BY WILHELM OSTWALD. TRANSLATED BY GEORGE M'GOWAN. xviii, 207 pp. 8vo. London and New York : Macmillan & Co. Price, \$1.60.

The little book before us undertakes, as its title indicates, a scientific presentation of the principles which underlie the physico-chemical phenomena upon which the art of analyses depends for the separation, detection and determination of the various substances with which it deals. In this undertaking the electrolytic dissociation theory is freely made use of and with such success that a flood of light is let in upon many of the obscurer phenomena encountered in the ordinary course of analysis.

The presentation of the subject is elementary in the best sense, but little in the way of previous knowledge being assumed, while by the clearness of statement and logical order of ideas preserved throughout, the author has fairly deserved the right to be named with the great masters of scientific style, with Tyndall and with Hofmann.

The theory and its applications are separately considered. Under the former head we find a discussion of the theory of the washing of precipitates and of the adsorption phenomena which are of such importance in that process, further, of physical methods of separation, such as distillation, of the law of mass action, of supersaturation and of many other topics, the treatment of all being condensed and full of suggestions to the thoughtful reader.

In the special or applied part the analytical reactions of the metallic and acidic ions of the various analytical groups are taken up in detail, but briefly.

Lest it should be thought that this work is a piece of special pleading in behalf of the electrolytic dissociation theory, it is but just to the author to state that though written from the stand-point of that theory, the book is not *doctrinaire*, but is broad enough to be read with much interest by all chemists, whether they agree with the author's special views or not.

Much credit is due to Dr. M'Gowan for the smooth and scholarly translation now placed at the disposal of the English reading public, which annihilates the only excuse any English speaking chemist could offer for unfamiliarity with the most important work on the theory of analysis which has ever appeared.

LAUNCELOT ANDREWS.

PRACTICAL PROOFS OF CHEMICAL LAWS. BY VAUGHAN CORNISH.
New York: Longmans, Green & Co. Price 75 Cents.

This little work adopts a practical method for the explanation of "Dalton's Atomic Theory and the Laws of Combining Proportions." The first chapter is devoted to statements of these laws, and is followed by a chapter on the use of the balance. These prepare the student for the subsequent six chapters, which are devoted to the experimental part, in each case preceded by a list of the necessary apparatus and followed by an example and an account of the original experiments, together with references to the original literature. The experiments are well chosen, calculated to give good results with simple and inexpensive reagents and apparatus. The arrangement is a time-saving one, and where time for laboratory work is very limited, as in higher schools, this fact will figure largely.

HERMANN FLECK.

ORGANIC CHEMISTRY. THE FATTY COMPOUNDS. BY R. LLOYD WHITELEY, F.I.C., F.C.S. New York: Longmans, Green & Co. 1895. 8vo. viii, 291 pp. Price, \$1.00.

The publication of this manual, strikingly similar in purpose, arrangement and matter to the "Organic Chemistry, Part I," of Perkin and Kipping, issued last year, shows that the needs of elementary students of this department of chemistry are now recognized more generally than they have been heretofore, and indicates, perhaps, that the number of chemists, who feel able to