

An Introductory Course of Quantitative Chemical Analysis with Explanatory Notes and Stoichiometrical Problems. By HENRY P. TALBOT, Professor of Inorganic and Analytical Chemistry, Massachusetts Institute of Technology. Fifth Edition, Rewritten and Revised. New York: The Macmillan Company, 1908. Pp. 176. Price, \$1.50.

The introduction of the electrolytic dissociation theory is the new feature of this edition. The notes at the end of each analytical procedure have been increased to include a consideration of the more important ionic changes involved, and a short chapter on the theory itself has been added in the Appendix. The author assumes, as stated in the preface, that the instructor will present much in the way of additional detail and illustration, and that the student should be encouraged to read other and more extended treatises on the subject.

In other respects the book has not been changed materially. The partial analysis of dolomite has been replaced by a complete analysis of limestone and the number of problems in the chapter on stoichiometry has been increased. The book has been largely rewritten, revised and brought up to date, the former standard of excellence prevailing throughout.

WILLIS B. HOLMES.

Electroanalytische Schnellmethoden. VON DR. ING. A. FISCHER. Technische Hochschule Aachen—Verlag von Ferdinand Enke in Stuttgart.

This little book, which constitutes IV/V Band of "Die Chemische Analyse" now in course of preparation by a large group of German chemists, presents, in an interesting form, the results obtained in electroanalysis since chemists have resorted to agitation of the electrolyte to hasten metal deposition. The author seeks to impress the reader with the idea that agitation of the electrolyte is a particular contribution of his German colleagues. v. Klobukow undoubtedly did first call attention to the advantage of agitation in analysis, and here and there in the writings of other Germans casual reference is made to it, but the real point, *viz.*, that with agitation of the electrolyte it is possible to use high current densities and pressures without impairing the character of the deposit, was not mentioned by any of them. This, however, was the point emphasized by American students and thereby the determination of metals in exceedingly short periods of time has been accomplished with great satisfaction.

Considerable space is given to a theoretical discussion of the changes occurring in the rapid precipitation of metals, but when all has been said the solution of the problem is found in the fact that, by rotation of the anode for example, hydrogen is swept from the cathode and there occurs in the vicinity of the latter a concentration of ions, hence rapid deposition. The author declares that Americans have developed their studies in a purely empirical manner whereas our German brethren have endeavored to follow and explain the course of the changes. To the mind of the reviewer this