

Aside from the debated question, the book has much to commend it. The matter is well arranged. The directions for the study of each analytical group, given under the heading "exercises with the ions," are admirable. They include such instructive experiments as the determination of the delicacy of the various separations and tests.

There are very few inaccuracies in the book. On page 51 in discussing the reduction of compounds of arsenic by means of potassium hydroxide and aluminum, it is stated that phosphoric acid interferes with this test for arsenic through the formation of phosphine.

THEODORE WHITTELEY.

LOGARITHMISCHE RECHENTAFELN FÜR CHEMIKER. VON F. W. KÜSTER.

Dritte Auflage. Leipzig: Verlag von Veit and Co. 1902. Price, M. 2.00.

The success of this little book, as shown by the appearance of a second and third edition within a few years, is well deserved. It contains five-place logarithms and four-place mantissas; tables of atomic weights with multiples and logarithms; tables for the calculation of analyses; for the calculation of nitrogen and other gases; constants for molecular-weight determinations; a table for the determination of the volume of a flask from the weight of water or mercury which it contains at 18°; electrochemical constants; solubility of some substances at 15°; and tables for the preparation of normal solutions. The atomic weights used are the most recent, on the basis of O = 16. Unusual pains seems to have been taken to secure accuracy.

W. A. N.

THE ANALYSIS OF STEEL WORKS MATERIAL. BY HARRY BREARLEY AND

FRED IBBOTSON. Longmans, Green & Co. 501 pp. Price, 14 shillings.

This book is divided into thirteen parts and an appendix. They comprise: I. The Analysis of Steel; II. The Analysis of Pig Iron; III. The Analysis of Steel-Making Alloys; IV. Rapid Analysis at the Furnace; V. The Analysis of Ores; VI. Analysis of Refractory Materials; VII. Analysis of Slags; VIII. Analysis of Fuel; IX. Boiler Water, Boiler Scales, etc.; X. Analysis of Engineering Alloys; XI. Micrographic Analysis of Steel; XII. Pyrometry; XIII. Miscellaneous Notes; Appendix, Bibliography of Steel Works Analysis.

The authors state in their preface that they "have dealt with