

NEW BOOKS.

THE ELEMENTS OF PHYSICAL CHEMISTRY. By J. LIVINGSTON R. MORGAN. New York: John Wiley & Sons. Price, \$3.00.

The third edition of this excellent work has been enlarged from 362 to 522 pages, brought to date, and revised with a view to making its subject appeal to the student as being a tool with which he may obtain results useful for other than simply theoretical purposes.

The revision of the text seems satisfactory: a rapid survey detected no more serious omission than the leaving of the mixture of alcohol and water in a class from which the experiments of W. A. Noyes removed it in 1901. The unnumbered equations on page 6 are true only in one case, which is not specified. Some of the problems on the less recent subjects need further revision. In problem 15, after a question as to the partial pressures in a mixture of gases, we read, "Ans. $H = 1.164$, $O = 1.164$, and $N = 0.774$;" and can only say with the humorist, "this is 2 mutch." The signs of equality involve absurdities, and the use of symbols of the elements as abbreviations of their names is quite out of keeping with the scholarly dignity of the text. In a few cases like this, denominate numbers are printed as abstract numbers. After problem 16, asking the specific gas constant of nitrogen, we read, "Ans. 3007 gr. cm." for 3007 grams per sq. cm. In problem 17, the atomic weight of nitrogen is given as 14.073 and that of hydrogen as 1.032; the answer given is actually that computed from these numbers.

The book is a well rounded and balanced presentation of its subject, and may be heartily commended, either for use in the class-room, or for reading without the aid of a teacher.

EDWARD W. MORLEY.

THE ELECTROLYTIC DISSOCIATION THEORY WITH SOME OF ITS APPLICATIONS. AN ELEMENTARY TREATISE FOR THE USE OF STUDENTS OF CHEMISTRY. By HENRY P. TALBOT, PH.D., Professor of Inorganic and Analytical Chemistry, and ARTHUR A. BLANCHARD, PH.D., Instructor in Inorganic Chemistry at the Massachusetts Institute of Technology. New York: The Macmillan Co. 1905. 82 pp. Price, \$1.25 net.

This little volume comes quite opportunely to fill a real want which has been felt by a number of those who have to present