

## NEW BOOKS.

TREATISE ON THERMODYNAMICS. BY DR. MAX PLANCK, Professor of Theoretical Physics in the University of Berlin. Translated by Alexander Ogg. London and New York: Longmans, Green & Co. Price, \$3.00.

This is a fairly elementary treatise on the general subject of thermodynamics, accessible, as the author himself says, to those "who have taken elementary courses in physics and chemistry, and are familiar with the elements of the differential and integral calculus."

The subject is treated under the four general heads: Fundamental Facts and Definitions; The First Fundamental Principle of Thermodynamics; The Second Fundamental Principle of Thermodynamics; and Applications to Special States of Equilibrium. It would be equally presumptuous to praise or adversely criticize a work on thermodynamics by Planck. The name of the author is a sufficient guarantee of the value of the work.

Although the English at times leaves something to be desired, the work of the translator, on the whole, seems to be satisfactory.

HARRY C. JONES.

VORLESUNGEN ÜBER THEORETISCHE UND PHYSIKALISCHE CHEMIE. VON J. H. VAN'T HOFF. Drittes Heft. Beziehungen zwischen Eigenschaften und Zusammensetzung. Zweite Auflage. Braunschweig: Friedr. Vieweg und Sohn. Ladenpreis, geheftet, Mk. 4.

The second edition of the third part of van't Hoff's now well-known lectures does not differ greatly from the text of the first edition, although some minor changes in favor of clearness have been made in several places and the number of references has been increased. The section on liquid volumes has been simplified and enlarged so as to include a graphic representation of volume relations. On pages 82-83 the author gives, in this edition, a retrospect of the methods for the determination of molecular weights of liquids. The general introductory passages to the section on the relations between chemical properties and composition have been enlarged to show that some of the formulas used for the relations between physical properties and composition can, with slight changes, be generalized to include chemical phenomena. But, on the whole, the added matter is slight, amounting to about ten pages in all.

FRANK K. CAMERON.