

The volume aims apparently to bring together in a concise form the striking features of books like Oettel's "Electrochemical Experiments," Oettel's "Exercises in Practical Electro-chemistry," Elbs' "Electrolytic Preparations," and those of the various books on electro-analysis. The author states in his preface that he had in view the making of a book which should stimulate experimentation in the great field of electro-chemistry. His effort will be helpful, and deserves a place among the many other books which have been written at various times and in different lands for the same purpose. As a student of electro-chemistry the writer feels himself indebted to Dr. Perkin for this contribution.

EDGAR F. SMITH.

LEÇONS SUR LA THÉORIE DES GAZ. PAR LUDWIG BOLTZMANN. Traduites PAR A. GALLOTTI ET H. BÉNARD. Seconde Partie. Paris: Gauthier-Villars. 1905.

The author notes that since the publications of the first part of the present work many objections against the kinetic theory of gases have appeared, but he is convinced that the objections rest solely on misunderstandings, and that the theory is to render further services to science. He gives many pages to the wealth of deductions from the theory which were obtained by van der Waals, and which have been found to agree with experience; and tells how Ramsay used the teachings of the theory in determining the atomic weight of argon and its place in the periodic system of the elements, and how after the discovery of neon good ground was afforded for accepting the number assigned to argon. He thinks it would be a disaster to science if any weight of authority arrayed against the kinetic theory should cause it to fall into temporary oblivion, as the authority of Newton caused the undulatory hypothesis to fall.

The topics considered in this second part are three: The theory of van der Waals, polyatomic gases and dissociation. The object here, as in the first part, is to examine, by rigorous mathematical methods, the consequences of certain hypotheses. Such a discussion, somewhat remote from chemistry and even from physical chemistry, leans so far towards mathematical physics that a journal of chemistry must mention it but briefly. It is the great work of the leading exponent of the kinetic theory on its mathematical side, and this clear translation into French will facilitate its study.

EDWARD W. MORLEY.