work really begins with the two laws of thermodynamics, Carnot's cycle, and Kelvin's temperature scale. This is followed by chapters relating to the dissipation of mechanical energy, thermodynamics of a fluid, change of state, equilibrium of systems, osmotic pressure, thermoelectric phenomena, gas theory, and radiation, as well as chapters bearing on the application in engineering, refrigeration, and the porous plug experiments.

The material covered is such that a chemist or a mathematician should possess and is of the kind a student of physics or engineering would welcome as the first ground to be covered for his more advanced study. As a book to be used by students in American colleges it would find a place for our Junior Honor students. It is well written and has enough of historical statements to connect the various phenomena treated to make it of interest to the general student properly qualified with a fair knowledge of physics and calculus. The book can be well adapted to use for the class of scientific workers for whom it is particularly written, namely, those whose work would require some knowledge, though not exhaustive, of the subject of thermodynamics. The author might well have included further applications of thermodynamics in physical chemistry.

A. F. KOVARIK

Géométrie du Compas. By A. Quemper de Lanascol, with a preface by Raoul Bricard. Paris, Blanchard, 1925. xx+406 pp. 24 fr.

Professor Bricard begins his preface with the striking sentence "Le cercle est prestigieux." The statement is a true one historically and it is equally true scientifically. In nature, in decoration, and in geometry, "the circle is fascinating," and M. Bricard appropriately calls attention to its perennial interest by referring to the work of our Professor Coolidge on the circle and the sphere as a "témoigne de la vitalité de ce culte." The esteem in which the figure was held in the philosophical schools of the Greeks is well known; the geometry of a single opening of the compasses, which occupied so much attention in the Middle Ages is less often considered; while Mascheroni's classical treatise, *Geometria del Compasso* (1797) seems never to have received the recognition that it deserved. Written by one who was at the same time a priest, poet, physicist, philosopher, and mathematician, it naturally showed something of the dilettante in its style and was lacking in mathematical succinctness, but nevertheless it was a work of much originality and of genuine merit. Attracting the notice of Napoleon, it was by him brought prominently to the attention of the French mathematicians of the early days of the empire, and was translated into their language by Carette (1798), thereafter attracting the attention of such eminent scholars as Delambre and Monge.

What M. Quemper de Lanascol has done is to take the work of Mascheroni as a foundation on which to build, to add to it a large number of other constructions that have appeared in various books and journals during the past century and a quarter, and to increase the offering further by many original problems. He has replaced the prolixity of Mascheroni by a succinctness of statement that is much more in harmony with modern tastes in matters mathematical. Indeed he comments with much justice