

method for investigating the geometry of the circle and triangle. However, the arrangement of the material is logical and successive topics are developed in a masterly fashion. It should be kept in mind that the author has attempted to fulfill not only the formal requirements of the *Wissenschaften* but also the demands of the student in geometry both as to the selection and arrangement of material. In this sense the book is a compromise; to quote from the preface "ein einführendes Lehrbuch soll in erster Linie ein Lernbuch sein." A few minor errors in type were observed but these do not detract from the merits of the book. It is a welcome addition to our libraries and will be a valuable reference for students in their first course in modern analytic geometry.

J. I. TRACEY

*La Logique des Mathématiques.* By Stanislas Zaremba. *Mémorial des Sciences Mathématiques*, No. 15. Paris, Gauthier-Villars, 1926. 52 pp.

In this number of the *Mémorial des Sciences Mathématiques*, Professor Zaremba, of the University of Cracow, views logic as a "theory of deductive demonstration" and sketches a "logistic" by means of which a "complete" mathematical demonstration can be effected. In the course of his exposition, in which he "carefully refrains from engaging in psychological and philosophic speculations," the author formulates fundamental problems in the logic of mathematics still awaiting solution, and gives an explanation of the paradoxes in aggregate theory based on a distinction between the notions *class* and *category*. The text is followed by a good-sized bibliography.

The author excludes from his logic the logic of classes and the logic of relations—theories that "really should not enter into the domain of a general theory of demonstration." His logic is a logic of propositions consisting (1) of a theory of "propositional identities" and (2) of a theory of propositions of logic of the "second kind." The first of these seems to be the theory of "elementary" propositions of Whitehead and Russell's *Principia Mathematica*, whose "theory of deduction" is "the most complete exposition of the theory of propositional identities." The second theory is presumably that of "apparent variables" of the *Principia*. The author, however, does not accept Russell's "theory of types," which has brought into logic "numerous obscurities and extreme complications."

B. A. BERNSTEIN

*Esquisse d'Ensemble de la Nomographie.* (*Mémorial des Sciences Mathématiques*, No. 4.) By Maurice d'Ocagne. Paris, Gauthier-Villars, 1925. 68 pp.

This is one of the little volumes on interesting mathematical subjects now being published under the direction of Professor Henri Villat as *Mémorial des Sciences Mathématiques*. It covers in four chapters of twenty-eight sections most of what is known of nomographic theory. To the advanced student the treatment offers interest and charm for the presentation has authority, brevity and elegance. The engineer or physi-