

*Die Lehre von den Kettenbrüchen.* By O. Perron. Second edition, revised. Leipzig and Berlin, Teubner, 1929. xii+524 pp.

This second edition is still the most exhaustive and modern of all expositions of the theory of continued fractions. It is mainly a photomechanic reproduction of the first edition (1913), except paragraph 56, where some theorems on a type of almost periodic continued fractions have been extended considerably, and chapter 9, which deals with the continued fractions of Stieltjes. In this chapter, nearly all the proofs of the first edition have been greatly simplified, and a brief but very readable account of recent investigations of the moment problem has been added.

T. H. GRONWALL

*Mathematik und Logik.* By H. Behmann. (Vol. 71 of Mathematisch-Physikalische Bibliothek.) Leipzig and Berlin, Teubner, 1927. 59 pp.

This is a small text-book for elementary students of mathematics presenting in good pedagogical sequence an introduction to a calculus of logic. No deep philosophical speculations are offered, and no unsolved problems are suggested. Not only is illustrative material abundant but the pamphlet closes with a collection of exercises by which the reader may test his proficiency. The discussion is largely formal but is scholarly and is made concretely interesting. After preliminary remarks on the principles of negation, conjunction, distribution, etc., separate sections are devoted to the logic of classes, and the logic of correspondences. Finally the notions are applied to the concept of finite cardinal number, thus introducing the reader not only to the mathematics of logic but also to the logic of mathematics. The notation appears more clumsy and less adequate than that current in this country among the pupils of E. H. Moore, but this is a minor matter. It is just books of this sort that will develop among youthful readers a much-needed interest in the subject.

A. A. BENNETT

*Problèmes de Statique Graphique et de Résistance des Matériaux.* By L. Roy. Paris, Gauthier-Villars, 1929. 8+119 pp.

*Compléments et Exercices sur la Mécanique des Solides.* By G. Bouligand, with the collaboration of J. Dollon. Paris, Vuibert, 1929. 8+132 pp.

The first of these two little volumes has been prepared by Professor Roy for the use of his students in the Electro-Technical Institute and in applied mechanics at the University of Toulouse. It consists of a collection of problems and their solutions covering the ground of the second volume of the author's *Cours de Mécanique Appliquée*. The problems follow the order of the text, to which references for the theory are made.

The book by Professor Bouligand is a supplement to the first volume of his *Précis de Mécanique Rationnelle*. The first part, of sixteen pages, is devoted to the kinematics of solid bodies and consists of a brief chapter on the theory followed by a collection of exercises with their solutions.

In the second part we find a detailed consideration of problems involving friction. A treatment of the general theory is followed by chapters on impact with sliding friction and on unilateral constrained motion.

W. R. LONGLEY