facts presented are already well known through articles and books in English. These studies, however, have been woven together into a whole at the same time that the results of more recent investigations have increased their value. A study of language and script has been added. The chapter headings cover: *Babylonische Rechentechnik; Allgemeine Geschichte Sprache und Schrift; Zahlensysteme; Ägyptische Mathematik; Babylonische Mathematik.*

This work has broadened the world for the historian of mathematics. For this, as for much more, the historian is greatly indebted to the author.

LAO G. SIMONS

Aufgabensammlung zur höheren Algebra. By Helmut Hasse. Sammlung Göschen, vol. 1082. Berlin, de Gruyter, 1934. 175 pp.

The present collection of problems is a sequel to the author's two-volume treatise on algebra in the Sammlung Göschen. The main headings are: *Theory of fields and rings, Groups, Linear algebra and determinants, Roots of algebraic equations including the solution of equations by radicals.* Throughout the author takes the point of view of abstract algebra, trying to make the problems supplement and extend the theories of his textbook. Some problems are strikingly new. It is for instance rather surprising to find given as problems Zassenhaus' proof for the generalized Jordan-Hölder theorem and Witt's proof for Wedderburn's theorem that any field with a finite number of elements must be commutative.

Some problems are quite simple, but on the whole they become increasingly difficult until one reaches the last stage at the final problem where the author confesses that he cannot solve it himself. The book may be recommended to anyone interested in abstract algebra and it should form a suitable supplement to a more advanced course in higher algebra.

OYSTEIN ORE

Mathematische Grundlagenforschung. Intuitionismus. Beweistheorie. By A. Heyting. Berlin, Springer, 1934. iv+73 pp.

This pamphlet is one of the series *Ergebnisse der Mathematik* published by the editors of the Zentralblatt. It deals chiefly with the foundations of mathematics, and mathematical logic, from two points of view, the intuitionism of Brouwer and the formalism of Hilbert, and gives an able, clear, and concise account of the essentials of these two points of view and of the important results which have been obtained in connection with them. As explained in the introduction, no attempt is made to give an account of the logistic formulation of the foundations of mathematics, a subject which is to be treated in a later number of the series.

This work is recommended, not only to mathematical logicians, but also to mathematicians in general who desire an understandable survey of its field. The reviewer knows of no better such survey, indeed of none nearly so good.

The first section begins with a notice of Poincaré as historical forerunner of intuitionism, describes the point of view of the French semi-intuitionists as they are here called (Borel, Lebesgue, Baire), the first theory of Weyl, and