who have used Bernoulli's numbers before may have to make a preliminary and independent investigation to make sure of the notation used here.

The only other criticism is in regard to the omission in several cases of all signs of the negative part of a characteristic of a logarithm, especially in a table or among tables where a positive characteristic of more than 9 is not unexpected. The scheme followed in printing the tables no doubt had most to do with these omissions, but nevertheless the omissions are unfortunate.

The tables as a whole are excellent both in intrinsic value and typography, and are bound to be adopted widely as a standard in work for which they were designed. The feature which will probably commend them most is their completeness for work in finance with logarithms. Logarithms are a practical necessity in such work and a four-place table is in most cases scarcely less absurd than no table at all. Yet there is little doubt but that few of the many attempts made throughout this country to give courses in finance leave a satisfactory impression of the use of logarithms in such connections upon the mind of the student. There should be no further excuse for this kind of a situation with this book available.

The author's reputation for carefulness and reliability is enough to warrant the reliability of the tables. The author states in the preface that it is scarcely possible to compile so large a set of tables without a few errors creeping in somewhere.

C. H. Forsyth

Iamblichvs Theologovmena Arithmeticœ, edidit Victorivs de Falco. Lipsiæ in Ædibvs, B. G. Tevbneri, MCMXXII. xvii + 90 pp.

This booklet is a new edition of the Greek text of the *Theologovmena arithmeticœ* which is attributed by some critics to Iamblichus. It is edited after a careful re-examination of the various extant manuscripts and is accompanied by notes written in Latin. This publication will be of interest to students desiring to enter more intimately into the study of the relations of mathematics to philosophy and mysticism than is usually done in our histories of mathematics. It deals with the theologic aspect of numbers and their mystic relations to the various heathen deities, and with obscure cosmological speculations.

Florian Cajori

Vektoranalysis. By Siegfried Valentiner. Third edition. (Sammlung Göschen 354.) Berlin, Vereinigung Wissenschaftlicher Verleger, 1923. 132 pp.

This little manual is the slightly modified, rewritten edition of the original. The chief changes are in the use of smaller type and closer setting which has apparently reduced the amount. The only serious cut however is in the omission of the useful collection of formulas at the end of the preceding edition. Slight changes of the text occur, but none of importance.

J. B. Shaw