On the Direct Numerical Calculation of Elliptic Functions and Integrals. By Louis V. King. Cambridge, University Press, 1924. viii + 42 pp.

The author undertakes in this little brochure to connect the theory of elliptic functions and integrals with the so-called "arithmetico-geometric mean scales" in order to relate more directly that theory with the computing machine. Using the series of numbers (a_n, b_n) where $a_n = \frac{1}{2}(a_{n-1} + b_{n-1})$, $b_n = \sqrt{a_{n-1}b_{n-1}}$, $a_0 > b_0 > 0$ he derives computation formulas for the various elliptic functions in terms of these.

The undertaking appears to be in line with other efforts now being made to use the computing machine to avoid tedious and uncertain interpolations. Large tables will of course always be necessary and for most purposes sufficient, but the use of anything but first differences will always involve danger of errors. This little book contains in convenient form many well known formulas and also many new ones.

D. N. LEHMER

Über Paraboloide, Hyperboloide und Ellipsoide von Archimedes. (Ostwald's *Klassiker der exakten Wissenschaften*, No. 210.) Translated and annotated by A. Czwalina. Leipzig, Akademische Verlagsgesellschaft, 1923. 73 pp.

This little book consists of 66 pages of translation of Archimedes' work on quadric surfaces of revolution, together with 7 pages of notes. It will doubtless prove to be a useful addition to the materials for the study of the history of mathematics in German schools; but for English-speaking students it is without significance, on account of the existence of Sir Thomas Heath's definitive edition of Archimedes in English. The reviewer will merely state that the translation has been carefully done, and that the notes give in modern notation concise explanations of the less evident parts of Archimedes's discussion. The statement of the last theorem on page 64 contains a misprint in that the words "Hälfte der" should be inserted before "Verbindungsstrecke." Some of the figures lack portions of their lettering. Otherwise, no typographical error of consequence was noted.

R. B. MCCLENON

An Introduction to the Theory of Statistics. 7th edition. By G. Udny Yule. London, Charles Griffin and Co., Limited, 1924. xv+415 pp.

The seventh edition of this reliable text differs very little from the preceding edition. Chapter III, on Association, has been practically rewritten; the supplementary list of references has been brought up to date; and some minor alterations and corrections have been made. Additional matter incorporated in all the recent editions has been added in the form of Supplements.

C. H. FORSYTH