As a text for class-room use it will be found very suitable except perhaps for those whose interests center mainly in the geometrical aspects of the subject. Some of the analysis in Chapter IV may possibly be found rather difficult by immature students, but by suitable omissions no trouble would be experienced. Not only the author but the publishers as well are to be congratulated on their part in the production of the book.

HOWARD H. MITCHELL.

SHORTER NOTICES.

Elliptic Integrals. By HARRIS HANCOCK. New York, Wiley, 1917. 104 pp.

THIS volume is number 18 of the well-known series of Mathematical Monographs edited by Mansfield Merriman and Robert S. Woodward. It was prepared in response to a request from the editors for a work of about one hundred octavo pages on elliptic integrals which should "relate almost entirely to the three well-known elliptic integrals, with tables and examples showing practical applications." The monograph is confined to the Legendre-Jacobi theory and the discussion is limited almost entirely to the elliptic integrals of the first and second kinds.

After a short introduction (pages 5–8), mostly historical, there follows in Chapter I (pages 9–23) an elementary discussion of the three kinds of elliptic integrals and the Legendrian transformations. The Jacobi elliptic functions are treated in Chapter II (pages 24–40). Chapter III (pages 41–64) is devoted to elliptic integrals of the first kind and Chapter IV (pages 65–87) to numerical computation of the elliptic integrals of the first and second kinds and to Landen's transformations. Several miscellaneous examples and problems are given in Chapter V (pages 88–91). In the sixth and last chapter (pages 92–101) are three five-place tables as follows: Table I, the complete integrals of the first and second kinds, page 93; Table II, elliptic integrals of the first kind, pages 94–97; Table III, elliptic integrals of the second kind, pages 99–101.