work and hard work. Such matters as the Concept and theory of real number (very briefly set forth); Definition of a limit; Theorems on limits and on sets of points; Real functions of a real variable; Continuity; Uniform continuity; Differentiability; Rolle's theorem and the theorem of the mean; Summation and integration; Integrability, are taken up from the modern point of view and the modern rigorous theories and proofs are carefully and well given.

During the rest of the book references are freely made to this chapter, and occasionally an important or fundamental proof is put into modern rigorous form, but in the main there is a refreshing absence of epsilons and deltas and the rest of the paraphernalia of the critical mathematician.

As an avowed treatise on advanced calculus the book begins with Chapter III, and is almost encyclopædic in its range. Topics treated exhaustively, topics briefly sketched, topics merely hinted at and illustrated or suggested by problems chosen from the fields of pure analysis, of mechanics, of engineering, and of physics are almost without number, and are by no means fully revealed by the excellent table of contents, or even by the uncommonly detailed index.

To the teacher or to the working mathematician the work is invaluable. It probably was not written for the unaided student. He would certainly find it too condensed and too difficult. In the hands of a skilful teacher it might be an effective text book, but even then the class would probably find it rather hard sledding.

The labor of preparing the book must have been enormous and the author deserves the thanks of the mathematical public for a most valuable addition to the literature of the calculus.

W. E. Byerly.

## THE CALCULUS IN INDIA.

A Text-book of Differential Calculus. By G. PRASAD. Longmans, Green and Co., 1909. xii+161 pp.

A Text-book of Integral Calculus. By G. PRASAD. Longmans, Green and Co., 1910. x+241 pp.

TWIN texts on calculus from Benares, Holy City of the Hindus! If introduced in this country they would be pro-

1913.]