

May this be a pioneer, not only in the subject which it represents, but also in the publication of accurate works on advanced mathematical topics in America.

E. R. HEDRICK.

THE UNIVERSITY OF MISSOURI,
COLUMBIA, MO.,
August, 1905.

TWO BOOKS ON ANALYTIC GEOMETRY.

The Elements of Analytic Geometry. 8vo. 424 pp. *Introduction to Analytic Geometry.* 8vo. 217 pp. By PERCEY F. SMITH and ARTHUR SULLIVAN GALE. New York, Ginn and Company, 1904.

It is a good sign for the university instruction in mathematics of the day that text-books are appearing more frequently in series than formerly. As a rule it means a better individual text-book, for it is the attempt of not one, but several members of the department collaborating to meet in the best possible way what actual experience has taught them to be the need of the student; and it certainly means a more organic, better coördinated mathematical curriculum in the institution which properly uses them. There is furthermore a considerable time economy for the student in the use of such a series. Take for instance the subjects: functions, graphs, partial fractions, and so forth, occurring in different lights in algebra, analytic geometry and calculus; considerable space and time can be gained in their second and subsequent treatments. Still another important gain is to be found in the clearing away for the student of all non-essential difficulties of a new subject, such as becoming accustomed to a new style, a new method of exposition, or a new notation. The books before us are two of a series called into being by needs at Yale University and now appearing under the editorial direction of Professor P. F. Smith.

In those of the works which are at present complete, the main object seems to have been to create drill books, which should be clear and minute in the exposition and analysis of method and rich in exercises, so that a course in one of them would leave the student a ready master of the more usual problems of the subject. If this is a correct conception of their