methods. An excellent example of the use of graphs is given on page 58 in discussing the behavior of a quadratic function when the coefficient of x^2 approaches zero as a limit. It is easier to remember the method of expanding a three-rowed determinant by re-writing its first two columns, taking the right hand diagonals for positive terms and the left hand diagonals for negative terms, than the usual but more complicated method of forming these diagonals given by the author. The changing of x to $y - 2$ in separating into partial fractions expressions of the type $(3x^2 - 4x + 3)/(x + 2)^3$ is of so much advantage that one wonders why so many books fail to suggest it. That the fraction a/n approaches a limit when a is a constant and n a variable which becomes infinite is brought out in a dialogue between two speakers and serves as a relief from the hackneyed expressions which usually occur in that connection.

I believe that the author may be fairly criticized for not having given a more formal discussion of undetermined coefficients. If one is trying to find topics which must be used by the applied scientist and which may be used as a medium in which the foundations of theoretical algebra might be laid—the expressed intention of the author—I know of no subject which could be better used to advantage in this connection than undetermined coefficients.

The book is exceptionally free from typographical errors. I have noticed only one; on page 21, in the example at the bottom of the page, 3 75 should be 3.75.

All of the subjects taken up in this book except probability and infinite series have been treated in the author's former book on Advanced Algebra. Criticism of these topics over a period of about seven years has resulted in much improvement. It is my belief that the teacher will find the Higher Algebra a good text to follow closely in courses designed to give the student a thoroughly good workable knowledge of this portion of algebra.

JOSEPH EUGENE ROWE.

The Teaching of High School Mathematics. By GEORGE W. EVANS. Boston, Houghton Mifflin Company, 1911. x+94 pp. Price 35 cents.

THE little book under review is one of the Riverside Educational Monographs. When the reader meets in the preface a discussion of the modern demands of "the ideal of practicality," "sound educational sociology," and "sound rational psychology," he is led to expect some quite radical suggestions as to the material and methods to be used in high school mathematics. However one finds in the modern demands upon the teacher of mathematics, as discussed by the author, nothing very radical and only what progressive teachers have been practicing for some years; the large number of teachers who still believe the chief value of mathematics to be disciplinary, and who cannot accept all the claims made against the doctrine of formal discipline, will accept the suggestions of the author as helpful to better mathematics teaching.

The emphasis placed upon efficiency and self-reliance in computation, the equation as the central idea in algebra, geometry as a source of algebraic material, the importance of graphical work, broader foundations of proof in geometry, and a saner attitude toward the method of limits in elementary mathematics are now generally endorsed by progressive teachers. Possibly the most radical suggestions are those for the use of Simpson's rule for plane areas and the principle of Cavalieri.

The book gives the final impression of being written by a successful and progressive teacher; the few hours required to read it will give a teacher some valuable suggestions as well as inspiration to improve his own teaching.

ERNEST B. LYTLE.

Koordinatensysteme. Von PAUL B. FISCHER. Leipzig, Sammlung Göschen, 1911. 125 pp,

THIS little book gives a very readable and, on the whole, satisfactory account of the most important systems of coordinates which have been used in geometry. The discussion of cartesian point coordinates, Plückerian line and plane coordinates leads the author naturally to the homogeneous coordinates of Hesse and to the general projective systems of coordinates. He then discusses some of the most elementary properties of curvilinear coordinates in general and gives some more detailed account of certain special systems, especially polar and elliptic coordinates.

Although Fischer formulates the general notion of coordinates, one cannot help remarking how little has, as yet, been accomplished in the direction of a general theory of