ace 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.

<div align="right">ERNEST B. LYTLE.</div>

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

coordinates. Consequently, a book on coordinate systems, like the present one, necessarily lacks unity since a fundamental unifying principle, such as the group concept in the theory of transformations, has not yet been found.

E. J. WILCZYNSKI.

NOTES.

THE official list of officers and members of the American Mathematical Society will be published in January. Blanks for furnishing necessary information were sent out some time ago. To insure accuracy, members are requested to inform the Secretary at once of any changes of status or address.

THE following changes in the editorial staff of the *Transactions* will soon take place: Professor H. S. WHITE retires from the Editorial Board on February 1, and will be succeeded by Professor P. F. SMITH. Professor W. R. LONGLEY and Dr. R. L. MOORE have been appointed associate editors. Professor ARTHUR RANUM has consented to serve as associate editor until Professor HUTCHINSON is able to resume his work.

AT the annual meeting of the London mathematical society held on November 13, the following officers were elected for the present academic year: president, A. E. H. LOVE; vice-presidents, H. F. BAKER and W. BURNSIDE; secretaries, J. H. GRACE and T. J. BROMWICH. Also two members of the council. The following papers were presented at the meeting. By G. T. BENNETT, "The skew-isogram mechanism"; by G. H. HARDY and J. E. LITTLEWOOD, "Tauberian theorems concerning power series the coefficients of which are positive"; by G. H. HARDY, "Lambert's theorem"; by J. E. CAMPBELL, "The connection between surfaces the lines of curvature of which are spherical and surfaces the inflectional tangents of which belong to linear complexes," and "Surfaces the systems of inflectional tangents of which belong to systems of linear complexes"; by W. H. YOUNG, "Integration with respect to a function of bounded variation"; by W. W. JOHNSON, "The computation of Cotes's numbers, and their values up to $n = 20$"; by S. G. SOAL, "Some ruler constructions for the covariants of a binary quantic"; by T. C. LEWIS, "Analogues of orthocentric tetrahedra in higher space."