mination of all equations $F = 0$ whose characteristics form lines of curvature upon all integral surfaces and whose integral surfaces have for normals precisely lines of a given line complex. These prove to be equations having integral surfaces for which the complex of normals is the ∞^3 rays through a definite curve k. The characteristics are circles.

Geometrical intuition based upon configurations defined by Monge equations gives direction to the analysis. There is no introductory summary of the principles, although a desirable outline could have been given in a comparatively brief space and would have improved the exposition.

<div style="text-align: right">O. E. GLENN.</div>

The Trisection of the Angle by Plane Geometry: Verified by Trigonometry with Concrete Examples. By JAMES WHITE-FORD, B.A., M.D. Bowes and Bowes, 1911. 169 pp.

THE book under review is another illustration of how little the logic involved in the impossible construction proofs of Klein and others is appreciated by the ordinary mind. While actually quoting DeMorgan to the effect that the famous trisecting of the angle problem cannot be solved, yet the author claims to present a right line and circle solution of this famous problem. His confidence in his construction and proofs seems to rest upon the fact that they stand the test of trigonometry aided by logarithms in fifty concrete examples laboriously calculated to seven places of decimals. It is hardly necessary to say that he has not solved the famous trisection problem but simply exhibits a rather close approximation method. His construction is not even useful as a practical drawing-room approximation since simpler and more exact angle trisection methods are well known, although of course not euclidean methods. What a pity that so much time, patience, and labor should be wasted in such useless work!

<div style="text-align: right">ERNEST B. LYTLE.</div>

Practical Algebra, Second Course. By J. V. COLLINS. American Book Company, 1912. x + 303 pp.

THIS book is intended to meet the needs of a text for a second course in algebra in such schools as offer a second course, often elective, in either the junior or senior year. After a rather rapid review of the usual topics of a first course