1906.]

"Depending upon the character of the generatrix we have two classes of surfaces : first those which are generated by straight lines or those which have rectilinear elements; and second those which are generated by curved lines known as surfaces of double curvature."* Professor Ferris also states in Chapter IV on "Double curved surfaces" that "double curved surfaces have no right line elements" and he classes warped surfaces by themselves.

Monge's original sharp classification of surfaces into planes. single curved or *developable* surfaces, and double curved surfaces[†] has been mangled by several American writers including Warren ‡ and Church.§ The present classification by Dr. Randall into single curved surfaces, § 222; surfaces of revolution, § 223; and double curved surfaces of revolution, § 224; seems without adequate foundation.

Professor Ferris has a brief chapter on shades and shadows and one on perspective.

L. I. HEWES.

NOTES.

THE Thirteenth Annual Meeting of the AMERICAN MATHE-MATICAL SOCIETY will be held in New York on Friday and Saturday, Dccember 28-29. Friday morning will be devoted to a joint session with Section A of the American association for the advancement of science and the Astronomical and astrophysical society of America. President Osgood's address will probably be delivered at the opening of the Friday afternoon The Council will meet on Friday afternoon. session. The annual election of officers and other members of the Council will be held on Saturday morning. Special railroad rates will be available for this meeting.

THE concluding (October) number of volume 7 of the Transactions of the AMERICAN MATHEMATICAL SOCIETY contains the following papers : "Weierstrass' theorem and Kneser's theorem on transversals for the most general case of an extremum of a

^{*} See also Randall, 22 223, 224.

[†] G. Monge, Géométrie descriptive. Paris, 1858, p. 120. ‡ S. Edward Warren, Descriptive geometry. New York, 1860, p. 4 and p. 194.

[¿]A. E. Church, Descriptive geometry and shades and shadows. New York, 1870, p. 41.