class m. Hence $w_x = 0$ *cuts* $C(n; m)$ *in an nm-line,* by Bezout's theorem.*

If we project the curves (11), (12) upon the x_3 plane, we may obtain the equation of the projected mn-line by interchanging point and line coordinates in Clebsch's proof of Bezout's theorem (see Vorlesungen über Geometrie, page 282). Every full invariant of this mn-line gives by our translation principle an equation of condition among the coordinates w_i.

An alternative method of procedure is to use equations (1), (3), replacing f_1 by g_m in (1). Rational elimination processes give a form in each variable p_1, q_1, p_2, q_2 with coefficients rational in w_i. Of these forms that in p_2 is the transformed of the one in p_1, say of $F_1(p_1)$, by a homographic transformation, and that in q_2 is likewise the transformed of the one in q_1, viz. $\varphi_1(q_1)$. But φ_1 is not transformable into F_1. As an invariant of the mn-line of intersection we may then select a simultaneous invariant of the binary forms $F_1(p_1)$, $\varphi_1(q_1)$, and by translation this invariant goes into an equation of condition in the variables w_i, representing a contravariant surface.

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SOME MATHEMATICAL BOOKLET SERIES.

Matematica dilettevole e curiosa. Di ITALO GHERSI. Con 693 figure originali dell'Autore. Milano, Ulrico Hoepli, 1913. viii+730 pp. Price L. 9.50.

Wo steckt der Fehler? Trugschlüsse und Schülerfehler. Gesammelt von Dr. W. LIETZMANN und V. TRIER. Mathematische Bibliothek, Nr. 10. Leipzig and Berlin, B. G. Teubner, 1913. 57 pp. Price M. 0.80.

ENGLISH and French mathematical literature is entirely lacking in such admirable booklets dealing with elementary topics, as those which have wide circulation in Germany and Italy.† I refer to the Mathematische Bibliothek of the

* Bezout, Theorié générale des Equations algébriques (1779).

† It may be suggested that the volumes on Elimination by Laurent and on Geometrography by Lemoine, of the excellent "Scientia" series (Gauthier-Villars, Paris) are elementary, but these are only two of a dozen volumes by Appell, Gibbs, Hadamard, Poincaré, etc., which certainly may not be classed in this way. And even these two brochures are more