## NOTES.

THE second (April) number of Volume II of the *Transactions* of the AMERICAN MATHEMATICAL SOCIETY contains the following papers : "Canonical forms of quaternary abelian substitutions in an arbitrary Galois field," by L. E. DICKSON ; "Certain cases in which the vanishing of the Wronskian is a sufficient condition for linear dependence," by M. BÔCHER ; "An elementary proof of a theorem of Sturm," by M. BÔCHER ; "On the determination of surfaces capable of conformal representation upon the plane in such a manner that geodetic lines are represented by algebraic curves," by H. F. STECKER ; "On the existence of a minimum of the integral $\int_{x_0}^{x_1} F(x, y, y')dx$ when $x_0$ and $x_1$ are conjugate points, and the geodesics on an ellipsoid of revolution ; a revision of a theorem of Kneser's," by W. F. OSGOOD ; "On the geometry of planes in a parabolic space of four dimensions," by I. STRINGHAM.

THE April number (second series, volume 2, number 3) of the *Annals of Mathematics* contains the following papers: "Sufficient conditions in the calculus of variations," by W. F. OSGOOD ; "Lagrange's equation in the calculus of variations and the extension of a theorem of Erdmann," by J. K. WHITTEMORE ; "On some points in the theory of the hypergeometric function, expressed as a double circuit integral," by R. M. HATHAWAY ; "A theorem in continued fractions," by D. N. LEHMER ; "Note on the dual of a focal property of the inscribed ellipse," by R. E. ALLARDICE ; "A simplified solution of the cubic," by EMORY McCLINTOCK.

AT the regular meeting of the London mathematical society held on March 14, 1901, the following papers were read : "An account of some algebraical identities of simple arithmetical application," by Professor E. B. ELLIOTT ; "Preliminary notice concerning the stability of motion," by Professor A. E. H. LOVE ; "On the composition of group characteristics," by Professor W. BURNSIDE ; "On the use of Cauchy's principal values in the double limit problems of the integral calculus," by Mr. G H. HARDY.

THE following papers were read at the meeting of the Edinburgh mathematical society held on March 8, 1901 : "Some elementary theorems regarding surds," by Professor G. CHRYSTAL ; "Note on the application of complex integra-