a given order and weight and that every invariant form for f_n is the source of a covariant for f_{n+r}. All these results are generalized to apply to a system of simultaneous forms.

The concept of an invariant is extended to apply to certain transcendental forms, including the logarithm and the elliptic integrals. By means of the former it is shown that every symmetric function of the roots can be rationally expressed in terms of the sum of the powers of the roots and a number of related theorems are derived (Waring's formulas). It is now easy to derive the expressions for the discriminant of an equation, the resultant of two such equations, and the expressions for the elementary relative invariants in terms of the roots. A second volume is in preparation which is to extend the preceding theory to ternary and quaternary forms.

To students of analytic geometry and of algebraic functions Professor Meyer's treatise will be of real assistance.

VIRGIL SNYDER.

NOTES.

THE April number (volume 11, number 2) of the *Transactions of the American Mathematical Society* contains the following papers: "The theorem of Thomson and Tait and natural families of trajectories," by EDWARD KASNER; "The introduction of ideal elements and a new definition of projective n-space," by F. W. OWENS; "The groups of classes of congruent quadratic integers with respect to a composite ideal modulus," by ARTHUR RANUM; "A simplified treatment of the regular singular point," by G. D. BIRKHOFF; "The strain of a gravitating, compressible elastic sphere," by L. M. HOSKINS.

AT the meeting of the London mathematical society held on March 10 the following papers were read: By W. F. SHEPPARD, "Forms of the remainder in the Euler-Maclaurin sum formula"; by J. W. NICHOLSON, "The scattering of light by a large conducting sphere"; by Miss H. P. HUDSON, "The 3–3 birational space transformation."

THE following papers have been read at recent meetings of the Edinburgh mathematical society. January 19: by R. SANGANA,