10. Mr. L. B. Robinson: *A generalization of the notion of covariants.*

Riquier has generalized the theory of complete systems. Mr. Robinson shows that a generalized complete system

$$\frac{\partial w_i}{\partial x_j} = \sum_{r=1}^{n} A_{rj} \frac{\partial w_i}{\partial t_r} + U_{ij}$$

can be utilized to generalize the notion of covariants. The generalized covariants are solutions of the above system and can be obtained by a finite number of differentiations or integrations.

11. Dr. G. A. Campbell: *Inductances of grounded circuits.*

Any network of conductors located on the surface of the earth with which it is conductively connected at any number of points will, for direct currents, have self and mutual inductances which are equal to the Neumann integral extended over the network alone. In other words, that portion of the complete Neumann integral for closed circuits which involves the return currents through the earth vanishes. The earth is assumed to be flat, of infinite extent, of unit permeability and of uniform conductivity.

R. G. D. RICHARDSON,
Secretary.

THE OCTOBER MEETING OF THE SAN FRANCISCO SECTION

The thirty-eighth regular meeting of the San Francisco Section was held at the University of California on Saturday, October 22, 1921. Professor Lehmer presided at the earlier part of the meeting, later relieved by Professor Allardice. The total attendance was twenty-five, including the following seventeen members of the Society:

Alderton, Allardice, Bernstein, Blichfeldt, Buck, Cajori, Daus, Edwards, Haskell, Hoskins, Lehmer, Moreno, F. R. Morris, Noble, T. M. Putnam, Pauline Sperry, A. R. Williams.

The following officers were elected for the year: Chairman, Professor Allardice; Secretary, Professor Bernstein; programme committee, Professors Blichfeldt, Lehmer, Bernstein.