

In the book which accompanies the stencils various methods of finding quadratic residues are discussed and the method by means of the expansion of the square root of the number in a continued fraction is found to be by far the most effective. Various examples are given illustrating the power of the stencils, and a reproduction of the first page of the list of primes accompanies the work.

The plan of the stencils was first conceived in November 1924 and has been carried on since then under grants from the Carnegie Institution of Washington. Plans for the distribution of the sets are not yet completed, but every effort will be made to place them where they will be of most use.

THE UNIVERSITY OF CALIFORNIA

ON A PROBLEM IN THE THEORY OF GROUPS
ARISING IN THE FOUNDATIONS OF
INFINITESIMAL GEOMETRY*

BY H. P. ROBERTSON AND H. WEYL

In another paper in this issue, † the fundamental problem of infinitesimal geometry is formulated as the problem of uniquely associating with an arbitrary coordinate system on the manifold M a normal coordinate system on the tangent plane T_P by means of the fundamental coefficients of displacement on M .

The importance of the other aspect of this problem raised by O. Veblen and H. P. Robertson, yet remains: to associate a transformation of the given group \mathcal{G} with an arbitrary transformation of the coordinates x in such a way that it gives rise to a representation by \mathcal{G} , that is, that to composition of arbitrary transformations of x corresponds composition of the associated transformations of \mathcal{G} . From

* Presented to the Society, June 21, 1929.

† This issue, pp. 716-725.