Further, formula (9) of §11 becomes for $q = m - 2$

$$\begin{vmatrix} i_1 i_2 \cdots i_{m-2} \\ j_1 i_2 \cdots j_{m-2} \end{vmatrix}_A = D^{m-3} \begin{vmatrix} i_{m-1} i_m \\ j_{m-1} j_m \end{vmatrix}_a.$$

Hence the transformation (12) takes the form*

$$(12_1) \qquad W'_{i_{m-1}i_m} = D^{\frac{m-4}{2}} \sum_{j_{m-1}j_m}^{1,\cdots,m} \begin{vmatrix} i_{m-1} i_m \\ j_{m-1} j_m \end{vmatrix}_a W_{j_{m-1}j_m}.$$

18. We may enunciate the results proven in §§16–17 for the individual transformations of the groups concerned:

To any given transformation (a_{ij}) *of determinant* D *of the general m-ary linear homogeneous group* G_m, *there corresponds a transformation* $[a]_{m-2}$ *of the* $(m-2)^d$ *compound* $C_{m, m-2}$ *which gives rise to a linear transformation upon its system of Pfaffian invariants, viz:*

1° : *for m odd, the m-ary transformation,*

$$\overline{F}_i' = D^{\frac{m-3}{2}} \sum_{j=1}^{m} a_{ij} \overline{F}_j \qquad (i = 1, \cdots, m),$$

which for $D = 1$, *is precisely the given transformation of* G_m.

2°. *for m even, the* $\frac{1}{2}m(m-1)$ *-ary transformation* (12) *or* (12_1), *where, for* $D = 1$, (12_1) *belongs to the second compound of* G_m, *and* (12) *to the* $(m-2)^d$ *compound of the* $(m-1)^{st}$ *compound of* G_m.

UNIVERSITY OF CALIFORNIA,
August 9, 1898.

A SECOND LOCUS CONNECTED WITH A SYSTEM OF COAXIAL CIRCLES.

BY PROFESSOR THOMAS F. HOLGATE.

(Read before the American Mathematical Society at its Fifth Summer Meeting, Boston, August 19, 1898.)

IN a paper read before this Society at its Toronto Meeting and published in the BULLETIN for November, 1897, I

* We may verify (12_1) directly, using the method of §6 for $q = 2$. The presence of the factor $D^{\frac{m-4}{2}}$ influences only the transformations $A_{kk'}$. There occurs, however, some difficulty as to signs in passing from the W's to the F's. Likewise the results of §§11–14 could doubtless be proved by the method of §6.