$$r_3 + r_2 r_1 - f_3 + f_2 r_1 = 0,\ r_2 - f_2 + r_1^2 = 0.$$

Multiply the new second column by $-f_1$ and add to the first. There results

$$D_{25} = \begin{vmatrix} r_5 & r_4 & r_3 & r_2 \\ 0 & 0 & -r_1 & 1 \\ 0 & -r_1 & 1 & 0 \\ -r_1 & 1 & 0 & 0 \end{vmatrix},$$

the eliminant of $r_5 + r_4\rho + r_3\rho^2 + r_2\rho^3 = 0,\ -r_1 + \rho = 0.$

For $n = 4$, $s = 3$, D_{sn} is

$$\begin{vmatrix} b_{32} & b_{31} & b_{30} \\ b_{31} & b_{30} & 0 \\ 0 & 0 & 1 \end{vmatrix}, \quad \begin{aligned} b_{30} &= r_3, \\ b_{31} &= r_4 + r_3 f_1, \\ b_{32} &= r_4 f_1 + r_3 f_2, \end{aligned}$$

the term r_5 in b_{32} being dropped since $5 > n$ (§ 3). Multiply the third column by $-f_1$ and $-f_2$ and add to the second and first columns, respectively. Multiply the new second column by $-f_1$ and add to the first. There results

$$D_{34} = \begin{vmatrix} 0 & r_4 & r_3 \\ r_4 & r_3 & 0 \\ -r_2 & -r_1 & 1 \end{vmatrix},$$

the eliminant of $r_4 + r_3\rho = 0,\ -r_2 - r_1\rho + \rho^2 = 0.$

CHICAGO, *December* 8, 1904.

ON THE DEFORMATION OF SURFACES OF TRANSLATION.

BY DR. L. P. EISENHART.

(Read before the American Mathematical Society, February 25, 1905.)

IN the January number of the BULLETIN * Dr. Burke Smith states the following theorem : The only non-developable surfaces of translation which may be deformed so that their gener-

* "On the deformation of surfaces of translation," p. 187.