$$\sum l^2 = 1, \quad \sum l_1^2 = 1, \quad \frac{l_1}{a_1} = \frac{m_1}{b_1} = \frac{n_1}{c_1} = \frac{1}{\beta},$$

$$\begin{vmatrix} l & m & n \\ l_1 & m_1 & n_1 \\ l_{11} & m_{11} & n_{11} \end{vmatrix} = U$$

and the surface is defined by the equations

$$x = a + kuv,$$

$$y = b + \frac{kuv}{U\sqrt{1-k^2}}(\cos\psi + k\sin\psi\, U),$$

$$z = c + \frac{kuv}{U\sqrt{1-k^2}}(\sin\psi - kU\cos\psi),$$

where a, b, c are perfectly determinate functions of u, and

$$k = \frac{\alpha}{\sqrt{1+\alpha^2}}, \quad \sin k\psi = \frac{ku}{\sqrt{1-k^2}}.$$

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December, 1908.

NOTE ON ENRIQUES'S REVIEW OF THE FOUNDATIONS OF GEOMETRY.

BY MR. A. R. SCHWEITZER.

(Read before the Chicago Section of the American Mathematical Society, April 18, 1908.)

1. AS is well known, a continuous descriptive space may be extended to a projective one by the suitable definition of the projective points. For the definition of euclidean geometry on the basis of descriptive-projective geometry, we distinguish between the proper and improper points of the space and the assumption is made that all the improper points lie on the unique improper plane. This assumption may be provided for by means of a