In the first of these papers he determines all directions of a space R_μ of μ dimensions through a point P of R_μ, which are normal to all the directions of a second space R_λ containing the point P, when R_μ and R_λ are both immersed in a general space R_n whose arc element is given by

$$ds^2 = \Sigma a_{ik} dx_i dx_k.$$

In the second paper he develops the symbolic expression for Kronecker's extension of Gauss's curvature of a surface to a space of n dimensions R_n, immersed in a euclidean space of $n + 1$ dimensions, in terms of the symbols of the differential quantic

$$ds^2 = \Sigma a_{ik} du_i du_k \qquad (i,\ k = 1,\ 2,\ \cdots,\ n),$$

which defines the arc element of R_n, and then generalizes his results to a space R_λ of λ dimensions immersed in a general space of n dimensions, and defined by $n - \lambda$ relations

$$U' = \text{const}, \quad U'' = \text{const}, \quad \cdots, \quad U^{(n-\lambda)} = \text{const}.$$

Further applications are sure to follow, and Maschke's symbolic method will doubtless play in the theory of differential quantics a rôle similar to that of the ordinary symbolic method of Aronhold and Clebsch in the theory of algebraic quantics, thus, together with his contributions to the theory of linear substitution groups, securing him a permanent place in the history of mathematics.

<div align="right">OSKAR BOLZA.</div>

FREIBURG, I. B.,
    August 8, 1908.

NOTES.

AT the annual meeting of the AMERICAN MATHEMATICAL SOCIETY, to be held in the last week of December, President H. S. WHITE will deliver his retiring address, the subject of which will be " Bezout's theory of resultants and its influence on geometry."

THE second regular meeting of the Southwestern Section of the AMERICAN MATHEMATICAL SOCIETY will be held at the University of Kansas, Lawrence, Kansas, on Saturday, November 28.   Titles and abstracts of papers to be presented at this meeting should be in the hands of the Secretary of the Section, Professor O. D. Kellogg, University of Missouri, Columbia, Mo., on or before November 14.