were read, and one by Rudel (Nürnberg) on " Die neue bayrische Prüfungsordnung für das Lehramtsexamen der Lehrer für Mathematik und Physik." This was followed by a long discussion on the questions involved in it and in the previous papers of Weber and Hauck.

Before closing, let me add that the mathematical papers mentioned here, together with many others, will appear ere long in the eighth volume of the *Jahresbericht* of the Vereinigung. The few remarks I have made will indicate sufficiently their importance and scope. I have, finally, the pleasure of thanking the amiable secretary of the Vereinigung, Prof. Dr. Gutzmer, for notes of the sessions I could not attend.

<div align="right">JAMES PIERPONT.</div>

YALE UNIVERSITY,
     March, 1900.

HILBERT'S FOUNDATIONS OF GEOMETRY.

Grundlagen der Geometrie.   Von DR. DAVID HILBERT, o. Professor an der Universität Göttingen.   (Festschrift zur Feier der Enthüllung des Gauss-Weber-Denkmals in Göttingen.   Herausgegeben von dem Fest-Comitee.)   Leipzig, Teubner, 1899.   8vo, 92 pp.

THE committee in charge of the unveiling of the Gauss-Weber monument at Göttingen has published a memorial volume intended to commemorate the celebration and to serve as a worthy tribute to the genius of the two great men of science. Two professors of the University of Göttingen present in this volume their investigations concerning the foundations of the exact sciences : Professor Hilbert treats of the foundations of geometry ; Professor Wiechert discusses the foundations of electrodynamics. The present notice deals only with the former of these memoirs.

It is the object of geometry to analyze and describe our space intuition. The abstraction from spatial intuition leads to three systems of objects : *points, straight lines,* and *planes,* which as elements of such intuition, must lie at the basis of any description of space. By means of definitions these elements are brought into certain correlations for which geometry tends to establish general laws. In order to obtain in this way a logically consistent system of propositions certain requirements, called *axioms,* must be satisfied by all imaginable mutual relations between the elements.