

its magnitude, but of Clifford's in its large number of brief, pointed papers on topics of general mathematical interest.

The arrangement is by sets, the articles from any one serial appearing together in chronological order. The monograph on the theory of invariants of binary forms is at the close of volume 1, those on the solution of the quintic and sextic are scattered through all of these volumes. Each has a table of contents and a well-executed index. Volume 1 contains the well-known portrait, and the concluding (fifth) volume is to furnish a classified index and a compendious life.

H. S. WHITE.

*Verhandlungen des dritten internationalen Mathematiker-Kongresses in Heidelberg vom 8 bis 13 August, 1904.* Herausgegeben von dem Schriftführer des Kongresses, DR. A. KRAZER. Leipzig, Teubner, 1905. Royal 8vo, x + 755 pages.

A CONGRESS that can attract four hundred members and hold them for a week, half of them coming from countries outside Germany, must show in its proceedings something worth the study of philosophers, still more that demands the attention of progressive mathematicians. Numbers count for little, but the names of the participants prove the representative and international character of this great gathering. It is gratifying to see Russia occupying second place in number of delegates, and our own country contesting with Denmark the fifth place.

The secretary's report contains the address of Professor Weber, of Strassburg, in opening the Congress, which, it will be remembered, was designed in part as a commemoration of the centenary of the birth of C. G. J. Jacobi. Then follows the address of Professor Königsberger on Jacobi's life and work — dignified, scholarly, full of particulars, but free from technicalities, in short the finished production of the one man who was qualified by his biographical studies and oratorical ability for this onerous task. Next come the four lectures delivered in the general sessions, and these will doubtless prove, for most readers, the most profitable part of this voluminous record. Their titles are as follows: P. Painlevé, "The modern problem of integration of differential equations"; A. G. Greenhill, "The mathematical theory of the top, considered historically"; C. Segre, "The geometry of the present day and its