

algebraic side of the theory of numbers which has been overlooked. Without the great publicity which Ramanujan's work has given to these neglected researches, it is doubtful whether they would have survived oblivion. The conclusion of the whole matter is this: the man who is capable of reading will neglect the official and perfunctory abstracts of work that are ground out yearly in the reviews, and glance through the papers as printed in the journals themselves.

Ramanujan has been likened to Jacobi. To the reviewer he seems also to be akin to Eisenstein, Hermite in his earlier work, and to Galois, for the boldness of his thought. Whatever may be the ultimate estimate, it seems reasonable to predict that Ramanujan will be placed high among creative mathematicians. Above all he was an algebrist and an arithmetician of the first rank. The brilliance of his papers of the later period, written under the influence of the English school, which is today transforming the analytic theory of numbers, give us a just measure of our loss in the death of a man at the age of thirty-two who might also have been one of the world's great analysts.

E. T. BELL

Encyklopädie der mathematischen Wissenschaften. Volume III. Part 3. Leipzig, Teubner, 1902-1927.

Of the ten articles which compose this volume of more than 800 pages, mostly devoted to differential geometry, some were first published as early as 1902, some as late as 1927. As a result there is a certain inhomogeneity; it is probable that the earlier parts which cover the classical theory of curves and surfaces and which occupy about one half of the volume already have rendered the greater part of the services as a reference book of which they were capable and a more up to date reference book reflecting the advances made in the eventful last quarter of century seems desirable. Fortunately, the articles by Weitzenboeck and Berwald in which differential geometry of n dimensions is covered—a field that has received a great deal of attention lately, partly under the influence of the theory of relativity—bring the literature up to 1923. Differential geometries under groups other than the metric also are dealt with in these two articles. The references are very complete; if there are omissions they probably occur only in cases of dissertations which did not appear in a periodical (I noticed one such case). These two articles are of inestimable value to one who works in the field.

In addition to the articles mentioned, there is a comparatively recent article on triple orthogonal families (Salkowski) and two articles by Liebmann (dated October 1914) which are but loosely connected with differential geometry proper. One is devoted to contact transformations and the other to the geometrical theory of differential equations; what is meant here is the line of attack on differential equations by means of analysis situs considerations started by Poincaré.

G. Y. RAINICH