a notice of the chemico-algebraic method of graphs devised by Sylvester and extended by Clifford, and of MacMahon's remarkable transformation of the question of seminvariants into a question of symmetric functions. Under the other heads of this division, and under the last division of the Report, that on "Specielle Substitutionsgruppen und Formen," the number of points that come up for treatment is so great that a continuation of even such cursory notice as we have been giving would be fatiguing. Suffice it to say, therefore, that whoever consults the Report will be impressed by the fact that the development of the Theory of Invariants in recent years, while overshadowed by the brilliant conquests made in the domain of the Theory of Functions, has been by no means at a standstill. Not to speak of the excursus into the field of differential invariants made by Sylvester and his followers, MacMahon, Hammond, and others, signal advances have been made in the central theory, especially by Capelli, Stroh, Study, and Deruyts. Dr. Meyer, in his preface, expresses regret that he found it impossible, except in a few instances, to include the geometrical applications of the theory in the scope of the Report. With this exception, the student of the theory of algebraic forms and invariants will find in the Report a remarkably full abstract of researches in this domain, accompanied by accurate bibliographical references, and will feel under great obligation for the assistance rendered by this result of Dr. Meyer's great learning and painstaking industry. It ought to be especially useful to any one undertaking to present, in a systematic work, the body of doctrine which is the outcome of the varied and often heterogeneous researches outlined in this compendious report.

F. FRANKLIN.

BALTIMORE, *April*, 1894.

CAJORI'S HISTORY OF MATHEMATICS.

A History of Mathematics. By F. CAJORI. New York, Macmillan & Co., 1894. 8vo, 14 and 422 pp.

IT is a long time since an American work has been awaited with so much anticipation by readers of mathematics as Professor Cajori's recent history. The book had been extensively advertised, there was and is a growing demand for such works, and the supply of material was well-nigh inexhaustible. But while few books have ever enjoyed such advantages, few books have ever so seriously failed to improve them. This is a harsh statement and should neither be lightly made nor lightly accepted. It is based upon the following