

*Gli Elementi d'Euclide e la Critica Antica e Moderna.* By Federigo Enriques (col concorso di diversi collaboratori), Libri I-IV. Rome, Alberto Stock, 1925. 323 pp.

The national institute of the history of mathematical and physical sciences has undertaken the preparation of a critical and comprehensive history of a number of the more fundamental branches of the subject. The plan in the present work is to accept the Greek text of Heiberg, and to accompany the new Italian translation with the development of each idea, occasionally referring the reader to more detailed discussions, when the adequate treatment could not be given within the plan of the present book. A list of the more important translations and of commentaries is given, and constant references are made to them. Each definition, axiom, postulate, and theorem is taken up, and its relation to the critical thought of the various ages is given. The text of the translation appears in large type, double leaded lines, and provided with excellent figures. The comments and criticisms are not relegated to foot-notes, but follow immediately that part of the text to which they apply, but printed in different type, and names of authors are displayed. The present volume contains books one to four; each is treated by a different author, but in such a manner that the presentation is homogeneous and unified.

The press work and proof reading have been well done. Apart from a few endings of German adjectives in the foot-notes the only error noticed is the date of the letter from Gauss to Bolyai, p. 50, there given as March 6, 1882.

The German and English mathematical public are well provided with similar discussions in the works of Simon and of Heath. Three quarters of a century ago Italy had one of the ablest in that of Flauti, but apart from the recent able treatment of Book I by Vacca it is not so well represented by modern treatises. The mathematical literature of Italy and of the world is enriched by this contribution from an entirely competent source.

VIRGIL SNYDER

*Traité du Calcul des Probabilités et de ses Applications.* By Émile Borel. Paris, Gauthier-Villars, 1925.

Fascicule I, tome I. *Principes et Formules Classiques du Calcul des Probabilités.* Leçons professées par É. Borel, redigées par René Lagrange. 160 pp.

Fascicule III, tome II. *Mécanique Statistique Classique.* Leçons professées par E. Borel, redigées par Francis Perrin. 148 pp.

These two works are parts of a proposed treatise on the theory of probability that evidently aims to be the most complete work of its kind. The first was written by René Lagrange from lectures by Professor Borel. It covers that part of the theory of probability which has come to be considered as classical. It is divided into two fairly distinct parts. In the first part, starting in the usual way with definitions, the author takes up the topics of discontinuous, continuous, and denumerable probabilities. The inclusion of this last topic is one of the characteristics of this work