

Since the present volume covers nearly all the ground of Weber's volume 1 of 703 pages, as well as the first two chapters (of 68 pages) on abstract groups in Weber's volume 2, it may seem strange that Fricke's present book contains only 461 pages, besides the index. But Fricke's pages are larger than Weber's and the type is materially smaller.

The owner of a copy of Weber's algebra who uses it chiefly as a reference book will not find it essential to buy Fricke's book. But a person who expects to do considerable reading in one of these books will find it to his advantage to own the simpler book by Fricke. The advantage in favor of Fricke's volumes 2 and 3 will doubtless be relatively greater than in the case of volume 1.

It is a pity we do not have in English a treatise on algebra as good as either Weber's or Fricke's.

L. E. DICKSON

*Leçons de Géométrie Élémentaire.* By Édouard A. Fouët. Paris, Vuibert, 1924. xvi + 348 pp.

This is an elementary geometry for pupils who are familiar with theorems *les plus simples* on the straight line and circle. It consists of eight books: I and II on the straight line and circle, III on similar figures, IV on plane areas, V on the plane and line, VI on polyhedra, VII on the sphere, cylinder, and cone, VIII on the conic sections; together with a preliminary book (to be read last, or at least later), a résumé of definitions, transformations, loci, and methods for solution of problems. Intermingled in each book are paragraphs of three distinct natures, (1) an ordinary course in geometry, (2) a course in problems, (3) an excellent set of pedagogical and historical notes.

The ordinary course (1) needs only the obvious commentary that like most similar Continental works it is incomparably better than American geometries in the development of broad underlying principles. In appropriateness of application and in development of power the problem course (2) compares favorably with even such a specialized book as Petersen's *Methods and Theories for the Solution of Problems of Geometrical Construction*, while in wealth of advanced material it is only slightly inferior to Hadamard's *Leçons de Géométrie Élémentaire*. A superior book; but demanding superior teaching, for the course (1) must be accompanied by not too difficult problems (of which there is perhaps a scarcity), and those demanding more maturity must be left until later. But still these last are there, forming a part of the text, not grouped at the end of the chapter or book. This is perhaps the outstanding feature of this text.

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