

too much time in studying more ambitious and special treatises on the subject.

ARNOLD EMCH.

*A Study of Mathematical Education.* By Benchara Branford. New edition, enlarged and revised. Oxford, at the Clarendon Press, 1921. xii + 420 pp.

Comparison with the 1908 edition shows the book under review to be a reprint rather than a completely revised edition; according to the preface "the changes in the original, though numerous, are in general of subordinate details," which changes are certainly minor judging from the obvious identity between the two editions even in the indexes. The last 40 pages, or Part III, are entirely new to this edition and under the caption "The Past, the Present, and the Future" discuss the subjects "Adolescent Technique," "Specialists and Cosmology," "Algebra and Mensuration," and "Comparative Algebra, Geometry and Mechanics."

Even though containing little new matter, "the world-wide welcome generously given the work, including a pre-war German translation and a Russian translation in course of preparation," seems to justify this reprint. The work may be characterized as the interesting and thought-provoking meditations on mathematical education of a teacher of twenty or more years' experience in nearly all grades of English schools. The reader feels some lack of unity in the book as a whole which is no doubt due to the fact that it is largely a collection of articles, courses of lectures and addresses written at various times and for various purposes. The following topics and phrases may give some idea of the type and range of the discussions: experimental mathematics, measurement in geometry, types of evidence, educational principles, suggestions from historical developments, nature of geometric knowledge, culture and occupation, presentation determined by ability and background of the learner, good and bad results of the dethronement of Euclid, degree of rigor best fitted to the maturity of the learner, the tongue-tied practical man, danger of discontinuity of logical treatment, need of smaller logically developed systems of propositions, relations of algebra and geometry, suggestions to teachers from non-euclidean geometries and the Einstein theories, the great unities of mathematics, teaching principles as ideals. The progressive teacher sensitive to new ideas and new viewpoints as suggesters in his own thinking and planning will profit by reading this book.

ERNEST B. LYTLE

*Lezioni di Statistica Metodologica.* By Filadelfo Insolera. Turin, Libreria Fratelli Treves, 1921. 191 pp.

This small volume deals with a large variety of topics, including approximate computation, averages, measures of dispersion, permutations, combinations, probability, binomial distribution of frequency, interpolation by the formulas of Newton and Lagrange, graduation of data, least squares, moments, correlation and contingency. The book gives brief elementary expositions of these topics, and will probably serve well its purpose as a means of preparation for certain examinations. On account of the lack of illustrative examples, the reviewer is of the opinion that the book would not be a suitable substitute for certain English and German books for the beginner in the study of statistics.

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