Esercizi di Analisi Matematica, by G. Fubini and G. Vivanti. 2d edition. Turin, Società Tipografico, 1930. x+366 pp.

This excellent collection of problems is intended to be used in conjunction with texts on the calculus written for students interested primarily in the engineering applications. It is not a mere list of problems with answers. Each of the ten chapters begins with a concise statement of those parts of the theory on which the problems are based. Of a total of nearly seven hundred problems, about two hundred and fifty are fully discussed in the text; for the others there is occasionally a hint, more frequently a mere statement of the result. Such problem collections are indispensible and very useful because the texts which they are intended to supplement but rarely contain worked-out examples, and much more rarely exercises for the reader. The ground covered by the book corresponds roughly to that treated in the introductory course in calculus and in the courses in advanced calculus and differential equations of our college curricula. It also includes an appendix which contains a short discussion of the problems of the elastic beam and a dozen problems discussed in detail. A student who has worked through this collection of problems should gain therefrom thorough mastery of the field of elementary calculus and differential equations. It is to be recommended strongly to the attention of teachers.

ARNOLD DRESDEN

Lezioni di Analisi Matematica, by Giulio Vivanti. Volume I. Torino, S. Lattes, 1930. viii+479 pp.

The present book was written to supply the need brought about by a reorganization of mathematical instruction in the Italian universities. In the words of the preface "in nearly all Italian Universities, in some by edict and in others by custom, the courses in higher algebra and in infinitesimal analysis have been fused into a single two-year course." Consequently in place of issuing a third edition of his well known *Lezioni di Analisi infinitesimale* (reviewed in this Bulletin, vol. 28 (1922), pp. 315–16), the author has written a new book, presumably in two volumes, the first of which is before us for review.

Of the fifteen chapters which make up this volume, those numbered I, VII, XIV, and XV, and part of chapter VI, altogether about half of the book, are essentially identical with corresponding parts of the second edition of the earlier book. It should be observed that of the changes which have been made, some have been dictated by the insertion of the chapters on algebra, while a few others represent modifications in the method of presentation.

The new chapters are devoted to algebraic topics. The material contained in them corresponds in the main to the content of the American college course in the theory of equations.

This book shows, in many places, the hand of a skilled expositor. It has a remarkably clear style; its proofs are models of presentation. I believe that many teachers of calculus courses could make good use of this book for supplementary reading.

ARNOLD DRESDEN