equation. In addition to these, as has been mentioned above, there are discussions of error analysis, and finally applications to statistics and non-linear problems.

The young student will find the very numerous and extremely detailed illustrations helpful and he should profit from the carefully selected problems and list of references to the literature.

H. H. GOLDSTINE

Moderna teoria delle funzioni di variabile reale. By G. Vitali and G. Sansone. Part II. *Sviluppi in serie di funzioni ortogonali.* By G. Sansone. (Consiglio Nazionale delle Ricerche. Monografie di Matematica Applicata.) 3d ed. Bologna, Zanichelli, 1952. 7+614 pp. 7000 lire.

The first edition of this treatise was reviewed in vol. 45 (1939) p. 218 and the second edition in vol. 58 (1947) p. 736 of this BULLETIN. The fact that the second edition was exhausted in less than three years is as good a proof of the excellence of the book as could be desired. The new edition is 103 pages longer than the second one. This is partly due to a change of the format and the addition of a number of figures.

Various additions have been made in chapter II: a discussion of the Gibbs phenomenon, bounds for the partial sums of Fourier series of functions of bounded variation, and applications of Fourier series to the stationary state of temperature in an infinite semi-strip and to the isoperimetric problem. A number of additions have been made in chapter IV: expansions in Tchebychef-Laguerre and Tchebychef-Hermite series, discussion of the zeros of Hermite and Laguerre polynomials, their asymptotic behavior for large n, and the applications of these estimates to the expansion problem. In connection with the developments on pp. 357–363 the author might have found some use for the reviewer's paper *Contributions to the theory of Hermitian series* [Duke Math. J. vol. 5 (1939) and Trans. Amer. Math. Soc. vol. 47 (1940)]. The reviewer is gratified to see that the misspelling of the name of Walsh has been corrected. The discussion of convergent sequences of characteristic functions in chapter VI on the Stieltjes integral has been revised. May the author soon have to prepare a fourth edition.

EINAR HILLE

Contributions to the founding of the theory of transfinite numbers. By G. Cantor. Translated, and provided with an introduction and notes, by P. E. B. Jourdain. New York, Dover, n.d. [1952]. 9+211 pp. Paper bound, $1.25; cloth bound, $2.75.

A philosophical essay on probabilities. By Pierre Simon, Marquis de Laplace. Translated from the sixth French edition by F. W. Truscott and F. L. Emory. With an introductory note by E. T. Bell. Dover, New York, n.d. [1952]. 8+196 pp. Paper bound. $1.25; cloth bound, $2.50.

These are reprints, apparently by a photographic process, of translations originally published in 1915 and 1902, respectively; the introductory note in the second is new. Although a form letter accompanying the paper-bound review copies suggests that "for bibliographical accuracy" a review might mention the existence of the cloth-bound edition, the publishers nowhere give the slightest indication that these are merely reprints of old translations. They invite comment on their venture in making these works available in inexpensive form. In view of the current high cost of publication, any economy in the production of technical books is welcome. However, the publishers have chosen to bring out low-priced editions not of new books but of old ones which are now of interest only to historians or to adherents of the "great books" theory of education. It is to be hoped that students will not be misled into buying ostensible bargains with money which would be better spent in making at least a down-payment on a good modern work on one of the subjects concerned.

R. P. BOAS, JR.

Funzioni ellittiche. By F. Tricomi. 2d ed. Bologna, Zanichelli, 1951. 12+343 pp. 4500 lire.

The first edition (1937) was reviewed in Bull. Amer. Math. Soc. vol. 44 (1938) p. 610. The preface states that this edition is closer to the first edition than to the German edition of 1948 (reviewed in Mathematical Reviews vol. 10 (1949) p. 532).