tion by polynomials. An example is the following theorem. Let $\sigma(t)$ be a nondecreasing function, $\sigma'(t)$ the derivative of its absolutely continuous part. Let $L^p(d\sigma)$ $(p \geqq 1)$ be the space of functions $f(t)$ $(0 \leqq t < 2\pi)$ with $\|f\|^p = \int_0^{2\pi} |f(t)|^p d\sigma(t)$. The set $\{1, e^{it}, e^{2it}, \cdots\}$ is total in $L^p(d\sigma)$ if and only if $\int_0^{2\pi} |\log \sigma'(t)| dt = \infty$.

The book is handsomely printed, but the list of typographical errors at the end is far from complete. In particular, the reader should be encouraged to read p. 233 before p. 232.

W. H. J. FUCHS

BRIEF MENTION

Equazioni differenziali. By F. G. Tricomi. 2d ed. Torino, Einaudi, 1953. 353 pp. 4000 lire.

The revised edition of this book follows very closely the pattern of the first edition, which was reviewed in this Bulletin vol. 56 (1950) pp. 195–196. The most important cases of inclusion of new material are: (i) Chapter II has been augmented by an introduction to the subject of relaxation oscillations; (ii) Chapter IV has been revised considerably, to provide a more comprehensive treatment of the asymptotic character of solutions of differential equations of the form $y'' + Q(x)y = 0$.

Details of discussion have been altered in various instances, notably in Chapter IV in the treatment of the polynomials of Laguerre and Legendre. Material on the "method of Fubini" that formed an Appendix in the initial edition has been incorporated in Chapter IV; also, a number of new references have been added to the bibliography.

In this new edition the author has produced a commendable improvement of the highly interesting and valuable first edition.

W. T. REID

Linear operators. Spectral theory and some other applications. By R. G. Cooke. London, Macmillan, 1953. 12+454 pp. $10.00.

This book contains an introductory chapter, and then a chapter on quantum mechanics. These are followed by a long section (three chapters) devoted to various proofs of the spectral theorem. For a textbook treatment of this, the reviewer prefers the snappy handling in [1]. A sixth chapter is concerned with "projective convergence and limit in matrix spaces and rings." Chapter 7, the final chapter, is a self-contained exposition of the elements of the theory of Banach algebras. The theory of Banach algebras without unit element is included (i.e. the theory involving adjunction of a unit element, with