It is evident that a book of this kind provides difficult reading for both the mathematician and the electrical engineer. The mathematician will find the mathematical details exceedingly tedious, the derivations sometimes very obscure, and the technical terminology of the engineer unfamiliar. The engineer, on the other hand, may resent being called upon to learn a large amount of mathematical notation without the prospect of any corresponding gain in the computations he must perform. In spite of this, the book demands and is receiving attention from workers in both fields. Thus the investigation of singular transformations in tensor algebra and of tensor concepts in combinatorial topology were stimulated by this book. The introduction of concepts tending to unify special methods of approach to engineering problems will, in the long run, have an important influence on the development of engineering theory.

WALLACE GIVENS

Fourier Series and Boundary Value Problems. By R. V. Churchill. New York, McGraw-Hill, 1941. 206 pp. $2.50.

This book is a useful addition to the meager number of existing books of this general nature in English. Its major use will be as a textbook for students in engineering and the sciences interested in these topics.

The book contains no more subject matter than is implied by the title; that is, it leads up to and considers the solution of the usual several linear partial differential equations by series of trigonometric, Bessel, and Legendre functions. A considerable part of the book is devoted to an exposition of the concept of orthogonal sets of functions in general and Fourier series in particular.

The book contains some material of mathematical interest, but not very suitable to certain types of engineering students. However, it is so arranged that such material can be omitted.

From the point of view of mathematical preciseness the treatment is excellent. The book is also well planned for teaching purposes.

N. LEVINSON

The Weight Field of Force of the Earth. By William H. Roever. (Washington University Studies, New Series, Science and Technology, no. 1.) St. Louis, 1940. 84 pp. $1.50.

This monograph is an extension of the author's retiring address as Chairman of Section A of the American Association for the Advancement of Science. It deals with some statical and dynamical