master of lucid exposition, and the book is to be warmly recommended to physicists and mathematicians and to those members of the public who are interested in getting a general view of modern theoretical physics. The book is well turned out, shows only a few trivial misprints (the omission of "h" from "psychological" in the table of contents is the most shocking), and has a much fuller index than those found in other books of this sort (if there are other books of this sort).

J. L. SYNGE

Colloque Consacré à la Théorie des Probabilités. Edited by M. Fréchet and E. Borel. (Actualités Scientifiques et Industrielles, nos. 734–740.) Paris, Hermann.

The proceedings of this colloquium are published in eight small volumes. They comprise an excellent collection of articles which would be an extremely valuable addition to the library of anyone interested in the theory of probability. Although very little of the material is of a purely expository nature, these volumes furnish a rather complete picture of the modern developments of this theory. The following is an outline of the contents of the various conferences.

Volume I. *Conférences d'Introduction et d'Initiation.* 1938

This volume contains two introductory addresses, 1. *Introduction*, by R. Wavre, 51 pages, and 2. *Allocution*, by M. Fréchet. These addresses are followed by:

3. *Les principaux courants dans l'évolution récente des recherches sur le calcul des probabilités*, by M. Fréchet. The author outlines the contributions, trends, and methods of the modern theory of probability. This paper constitutes only the first part of Fréchet's discussion. The remainder appears in Volume II.

4. *Promenade au hasard dans un réseau de rues*, by G. Pólya. The author considers certain probability problems leading to linear partial difference equations of the second order. Limiting cases of these problems admit of physical interpretations. In the limit the difference equations become differential equations. Moreover the solutions of these differential equations with suitable boundary conditions give asymptotic values for the solutions of the difference equations. The author discusses a promenade along a street of infinite length in which the direction of promenade is settled by the tossing of a coin at the end of each block. The corresponding physical problem is the diffusion of a salt solution in a tube. Furthermore the motion of rocks