BOOK REVIEW

David R. Cox, Erneuerungstheorie. R. Oldenbourg Verlag München, Wien, 1966. VIII + 152 pages, price DM 32,-.

This booklet is a German translation of the book "Renewal Theory" which appeared in 1961 in "Methuen's Monographs on Applied Probability and Statistics". The get-up of the German book is handsomer than the original English edition.

The author treats the most important ideas of renewal theory and these are illustrated by a large number of examples. This part is to be found in the first six chapters. The next five chapters are devoted to somewhat more specialized subjects such as superposition of renewal processes, replacement models and maintenance problems.

The book is meant as an introduction to all these subjects. The discussion of the various topics is clear and well-argumented. The examples are well-chosen. Knowledge of elementary probability theory and also background in the theory of Laplace - transforms are needed for a fruitful understanding of the book.

The fundamental difficulties of renewal theory are pointed out but not extensively discussed. Within the scope of the author's aim this can be accepted although it is regrettable that the author does not give the necessary information about literature for the reader who is interested in the more theoretical parts of renewal theory; references to the important theorem of Blackwell are not provided.

Books on renewal theory are rather scarce and Cox' book is certainly a valuable addition to the literature on renewal theory. Specially, it is very useful to those who need renewal theory in applications.

J. W. Cohen.