described. The section on PERT and CPM, whilst shorter than the main subjects, is particularly full of interest. When dealing with CPM, the resultant cost–time relationships are well described, with the student impressed as to the effects of crash project schedules, and (equally important) the treatment in such cases of non-critical activities.

The final segment on Simulation includes several pages on Forresters's work in the early 1960's, together with reproduced diagrams, and this leads on to mention of his work later on World Dynamics, suddenly slipping into reflective mood for the final few pages.

Let me conclude by saying this is no book for the browser, being designed and fitted for the serious business student. It has an alternative use as a repository and source of information on specific techniques under enquiry. There is now no shortage of books on the subject-matter of this volume, but few, I suspect, which give so masterly a demonstration of the pathway from the initial concepts of business analysis to the acquiring of a sound cross-section of theory, knowledge and understanding in each area.

W. MASON

Problem Solving for Managers

K. J. SHONE

Collins, U.K., 1976. 303 *pp.* £5.50

THIS USEFUL book is surprisingly far removed from what readers of this review will expect from the title, namely Operational Research techniques. Instead, it is a readable account of many ways of improving efficiency. The examples are mostly from industrial contexts, as one might expect since the author's background was mainly in industrial engineering, but a few are from the Health Service. Several of the references are drawn from quite wide-ranging psychological research.

The style is simple and direct, the printing clear and bold with comparatively few errors. An adequate number of diagrams is included. The subject matter, within my own methodological frame of reference, comprises, mainly, the generation of alternative ways of looking at a problem.

Some initial remarks are made about the reduction of managerial stress by reducing the rate at which information has to be handled, the total quantity of information and the value of step plans (of which five different ones are given, with little comment). The bulk of the book analyses problems on the basis of nine principles: "things", "operations", "patterns", "quantities", "groups", "time", "choice", "quality" and "fit". Sometimes it is hard to see why an example is in one chapter rather than another, and indeed one example, apparently from the author's experience, appears twice albeit with different calculations because one number has changed.

Nevertheless, for many in search of practical hints rather than an account on the plane of White's "Decision Methodology",[1] this book will prove a valuable source.

T. B. TATE

REFERENCE

[1] D. J. WHITE (1975) *Decision Methodology*. Wiley–Interscience, U.K. Reviewed in *Opl Res. Q.* **27**, 273 (1976).

Experiments—Design and Analysis

J. A. JOHN and M. H. QUENOUILLE

Charles Griffin, High Wycombe, 1977. 296 *pp.* £12.00

THIS IS the second edition of Quenouille's book originally entitled *Design and Analysis of Experiments* and published in 1953. It largely follows the pattern and content of the original but with revisions, rearrangements and two additional/substitute chapters.