The book is divided into three parts. Part 1 is concerned with the growth and organisation of forest crops, and deals briefly with considerations of growing stock, increment and rotation, with the sustained yield and normal forest concepts, and with the subdivision of a forest into management units. In Part 2, entitled Planning Management, the author launches straight into a full exposition of planning in general, and working plans in particular. He concentrates on the practical aspects of planning rather than, as other authors have done, on theoretical considerations of yield regulation. Yield regulation is still dealt with, but in its proper place, i.e. as just one of the many essential steps in working plan preparation, and not as a separate and even a mystical subject. Except for a lengthy discussion on Brandis' methods for teak in Burma the treatment of these chapters is concise, though for the New Zealand forester at least it is sufficiently comprehensive.

The author defines a working plan as "essentially the simplest possible statement of what is known about a working plan area, its configuration, soil and climate, what is growing on it, its possibilities, what has been done in the past, what should be done in the future, how it should be done and what records should be kept. Few people will disagree with this realistic concept. Here as elsewhere the author emphasizes the desirability of simplicity and conciseness; and he goes on to say "Part 2 should be kept as concise as possible" and "the prescription should be definite, concise, and clear, and should not include any reasons." At the same time he advocates the collection of all known facts and considerations in Part 1 and he devotes a considerable part of the book to explaining why this should be done and to describing the most appropriate ways and means. Like Jerram before him, he recommends the adoption of the late Ray Bourne's list of standardised headings. This arrangement is most logical and has other advantages, but New Zealand experience has been that it tends to lead to an over-elaborate and over-detailed document. It is somewhat difficult to reconcile these chapters on Part I of the working plan with the author's plea for simplicity and brevity. On the other hand he is at pains to point out that Part I need not be developed fully in all cases, and that working plan preparation should never be delayed just because all the detail necessary for a complete Part I is not available. It is far better for a working plan to prescribe that certain surveys should be carried out or certain facts should be ascertained, than to delay the commencement of planned management and of effective control because the facts are not at present known. In the extreme case, as the author says, "a plan to prepare a working plan is better than no plan at all."

Part 3 contains an historical account of the growth of forest management in Western Europe and discusses the latest developments. This is a most interesting review which shows clearly how long standing and how painstaking has been the search for perfection.
in yield regulation and in forest management generally. Of the Scandinavian countries, Norway alone is dealt with, and that briefly. One would have liked to learn something of the methods in use in Sweden.

Planned Management of Forests has been written for the forestry student but it should be of use in a wider field. It can be recommended not only for foresters who have to do with the preparation of working plans but also for those whose duties are to carry them out. The book's main defect is its complete lack of a bibliography, or of any references to other authorities.

A.P.T.

FOREST ENGINEERING: Roads and Bridges—By James L. Harrison. Published by Oliver and Boyd, Edinburgh. pp. 361. 9 photographs and 38 diagrammatic plates. 1951. 30/-.

In the Foreword to this book by Sir Laurence Mason, C.I.E., O.B.E., M.C., formerly Inspector General of Forests to the Government of India, it is stated that few are better qualified to write a text-book on Forest Engineering than the author. For Mr. Harrison is not only an Engineer but also a qualified Forest Officer of many years practical experience as such in the Indian Forest Service.

Now Lecturer in Forest Engineering and Utilization, Department of Forestry, University of Edinburgh, the Author was formerly Timber Development Officer, Forest Research Institute, Dehra Dun and Lecturer in Forest Engineering and Surveying, Forest Colleges, Dehra Dun.

In simple concise language the Author has set out to provide a manual to guide and assist a Forest Officer, with limited technical knowledge and little practical experience in the two branches of Civil Engineering with which a Forest Officer is more particularly interested, namely Roads and Bridges.

The first seven chapters comprising Part I deal with the location, construction and maintenance of Forest Roads of a type more particularly suited to the conditions and requirements encountered in India than in New Zealand. There is, however, a fund of useful information and data covering the basic principles of the subjects dealt with which, by virtue of the simple and precise presentation will be of much practical value to the Forest Officer and Forestry Student alike.

Part II deals with the design and construction of various types of Forest Bridges and includes separate chapters on Timber Testing, Timber Mechanics, River Training Works and Timber Joints. No attempt has been made to deal in detail with the theory and design
of structures but elementary theory has been briefly and adequately covered.

Calculations pertaining to bridges and other timber structures have been kept as simple as possible. The twofold aim of the author to compile a textbook for the Forestry Student studying this branch of Forestry and a concise Reference Book for the Forest Officer having occasion to deal with the problems presented in it, has been admirably dealt with.

With modifications of techniques where necessary to suit the particular requirements of conditions in New Zealand, the book will undoubtedly prove a valuable addition to the library of students and officers concerned in the branches of Forestry activities covered by it.

J.R.O.