to their own particular subjects, persuading authors to use everyday English rather than scientific English, and reducing to a minimum those points of overlap and repetition that ruin so many symposia. We might draw attention to two minor matters, the first the omission from the table of contents of the chapter on forestry, and the second the inclusion in the chapter on oceanography of a list of oceanographic workers. The first is a simple slip but the second disrupts the harmony of presentation of the whole since, for no other subject, is such a list presented. Coming, as it does, at the end of the last chapter, it is all the more obvious.

The two chapters of most immediate interest to foresters, the chapter on “Changed and Changing Vegetation” by C. M. Smith, and the chapter on “Science and Forestry” by A. L. Poole, are both good. Poole’s account is the more strictly factual. Its faults are those of over-condensation, faults almost inevitable in a book of this nature. The same criticism would probably be levied at most chapters by specialists in the subject matter of those chapters. But Smith has avoided this pitfall most adroitly and has presented us with an essay that is original, informative and provocative. We may not go the full distance with him when he argues the case against the naturalisation of Pinus radiata. We may not quite accept the dictum that invasive weeds, “Broadly speaking, . . . all follow the same pattern known for most epidemics, going through often inconspicuous initial stages into a prodromal phase and culminating in a sudden eruptive phase, which may or may not be followed by various phases of decline and even of disappearance.” This may seem to be speaking a little too broadly. And many of us will certainly disagree with him when he states, by implication, that it is only in the National Parks and Scenic Reserves that we have major examples of native vegetation unmixed with invading aliens. In the State indigenous forests and over vast areas of unalienated Crown land we have surely vaster areas in near to primitive condition than are to be found in the National Parks and Scenic Reserves. But it has already been said that Smith’s account is provocative. It is very good and stimulating reading.

And lastly, mention must be made of the chapter on the “History of Soil Science” by I. J. Pohlen. This is an extremely interesting and well-balanced account of the development of soil science in New Zealand and should be read by all New Zealand foresters. In fact the whole book should be read. It will at least broaden our outlook a bit.

—J.T.H.


This publication reflects the greatest credit on the sponsors, the planners, the contributors and the editors. The method used, the preparation of each section by a group of experts and the subsequent welding of the sections into the Handbook, is ideal for a work of
this kind. The result is comprehensive, well balanced and authoritative. The claim that the volume is a reference book of facts, working methods and vital data in all phases of practical forestry and its important allied fields is fully substantiated. It is well arranged for reference and is provided with a full index. It is not difficult to believe that it took six years in preparation.

Nothing of importance to the American forester seems to have been omitted and each subject is dealt with briefly, but clearly. The Handbook will be found invaluable as a quick source of information on matters handled only occasionally to bring them back to mind with a minimum of research. Its scope indicates the wide range with which the forester may be called upon to deal. Apart from the basically forestry subjects there are among others, sections on aerial photography, wildlife management, communications and mathematics, including—a sign of the times—several pages on statistics.

This is obviously not a book to sit down and read, but the introductory paragraphs to some of the sections are well worth perusal. Among the contributors' obiter dicta I particularly liked that in Section 16, Logging, where it states that “Thanks to his professional education (the forester) will think of tomorrow as well as today—not only of silviculture (in which logging is his principal tool) but of labor and management.” Another worthwhile point is made in Section 13, Materials, Structures and Facilities, in regard to maintenance of facilities in recreational areas—“Many foresters . . . are today reaping the whirlwind from the seed of rustic appeal.”

It must be presumed that the planning committee considered the possibility of a loose-leaf form for this publication and rejected it in favour of the permanently bound form adopted, though it is obvious that such material as yield tables and information about the capabilities of machinery will need amendment from time to time.

—F.A.


Foresters have long been interested in the “mechanical theory” of tree form, according to which a tree grows in such a way as to meet most efficiently the stresses caused by external forces. The classical exposition is that of Metzger (1893) who deduced a cubical paraboloid stem form. Because practical evidence does not give a great deal of support to the cubical paraboloid, foresters have been cautious about using the mechanical theory as a research tool.

The paper under review shows that, with an entirely plausible variation of Metzger’s basic assumptions, the mechanical theory leads to a simple paraboloid as essential stem shape. In practical terms, when sectional area is plotted against height of section, the profile should come close to a straight line—the “taper line”—for the major part of its length. The author has examined a great number and variety of tree measurements, and the evidence amply supports this...