

Geology for Engineers

By Prof. Joseph M. Trefethen. Pp. xi+620. (New York: D. Van Nostrand Co., Inc.; London: Macmillan and Co., Ltd., 1949.) 29s. net.

OF the twenty-two chapters in this book, only the two on geophysical exploration and on dam sites and reservoirs have special reference to engineering. There are incidental data in other chapters which are of some interest to engineers, but most of it could be regarded as a first-year course in geology for American students. A surprising matter to include is an account of an eruption of Mount Etna in 1928, reproduced from the *New York Times*. Whole chapters, such as that on metamorphic rocks, earth history and on the atmosphere, with its classification of clouds, appear to have no special interest for engineers and could well have been omitted. So could also the chemical formulæ of rock-forming minerals and the chemical equations which are supposed to represent what takes place in the weathering of rocks. An engineer might also be spared the cumbrous and unnecessary triangular diagrams illustrating the classifications of soil and sedimentary rocks.

The line diagrams are poor and of little value for their purpose. The references are almost exclusively to American sources and are of little interest to British engineers; this is particularly evident in Appendix I, sources of geological information. The elaborate tables on the physical properties of some common minerals, including cancrinite, idocrase and andalusite, and that on rocks, are unnecessary where a practical course is provided.

Seven full-page plates are included, but they have no plate numbers, and there is no description of any of them. One of these, an air-photograph of a dissected anticline showing the development of 'flat-irons', is of considerable interest, and one would have liked to know the locality where it was taken. The best feature is the inclusion of thirteen coloured American topographical maps showing a variety of geological land forms.

O. T. JONES

Tissue Culture Technique

By Gladys Cameron. Second edition, revised and enlarged. Pp. xii+191. (New York: Academic Press, Inc., 1950.) 4.20 dollars.

TISSUE culture is more often learnt by apprenticeship than 'from a book'; but Dr. Gladys Cameron's treatise is about as good as a technical manual of the sort can be. Its keynote is simplicity and straightforwardness. It is quite untainted by the *mystique* that is apt to surround procedures which (like photography and histological technique) are still to some extent empirical in standing; and, without belittling the difficulties of an elaborate technique, Dr. Cameron makes it clear that tissue culture can be practised with the resources of an ordinarily well-equipped laboratory. The publication of a new and thoroughly revised edition is justified by the major advances that have taken place in tissue culture practice since the publication of the first edition—the development of 'massive' culture techniques and of plasma-free cultures, the use of antibiotics as antiseptics, the provision (in America) of frozen-dried culture media, and so forth.

The general movement of tissue culture practice has been towards simplification, mechanization and functional analysis; it has long since fought free of its traditional enslavement to histology, although

great things are to be expected from the electron microscopy of cultivated cells. Twenty years ago it seemed as if orthodox tissue culture was to degenerate into a very minor adjunct of laboratory practice. To-day, one can look forward with reasonable confidence to the prospect of fundamental advances. It is to be hoped that later editions of Dr. Cameron's monograph will keep pace with them in due course.

Fishing Ways and Wiles

By Major H. E. Morrilt. New and enlarged edition. Pp. 192. (London: Jonathan Cape, Ltd., 1950.) 10s. 6d. net.

OUT of the rich experience of more than sixty years of angling, Major H. E. Morrilt has fashioned a book that will delight everyone who has had the luck to fish the tumbling trout streams of the north of England.

Like the author, I have done most of my trout fishing in the fast-flowing upper reaches of the River Tees. I found the book packed with river-lore which, had I known it before, would surely have doubled my catches.

The author takes the trouble to explain those practical points which so many writers of angling books avoid—where trout are most likely to feed when the water rises and falls, the best speed at which to work a wet fly or a sea-trout lure, and so on.

Major Morrilt, who owns the famous "Meeting of the Waters" stretch of the Tees at Rokeby, is no fly purist. His purpose is to help the reader to catch fish by any fair means. He does not decry fishing with minnows. He admits he gets great pleasure out of worm-fishing.

The only fault I can find with the author is his statement that every trout caught on a minnow is likely to be a cannibal which would be better out of the river. In my experience any trout can be caught on a minnow. Fishing with a two-inch minnow-bait I have frequently taken trout less than six inches long.

The volume, which is an enlarged re-issue of a book Major Morrilt wrote twenty-one years ago, carries only one of the author's fine paintings. I could have done with more.

CHAPMAN PINCHER

La biologie des diptères

Par E. Séguy. (Encyclopédie entomologique, 26.) Pp. 609+10 plates. (Paris: Paul Lechevalier, 1950.) 4000 francs.

THE most recent volume to be added to the "Encyclopédie entomologique" is this one by E. Séguy, which deals with the biology of the Diptera, a group of insects divided into 120 families and comprising more than a hundred thousand known species. The author claims that since the time of Redi some sixty thousand memoirs on the biology of Diptera have been published. In view of their immense diversity in form and in habits, that is not surprising; but it means that the author has been faced with an enormous task of condensation. On the whole, this has been very successfully achieved. In presentation the book is concise and pithy, with not a word wasted in its six hundred pages. It contains a fair amount of physiology as a background to the natural history of the group and is copiously illustrated, many of the figures being original. It is well provided with references.