

**Kleine Kryptogamenflora von Mitteleuropa**

Von Prof. Dr. Helmut Gams. Band 1: Die Moos- und Farnpflanzen (Archegoniaten). Dritte verbesserte Auflage. Pp. iv+186. (Jena: Gustav Fischer, 1950.) 9.40 D. marks.

**T**HIS excellent little book should be brought to the notice of all 'rucksack' travellers interested in the lower plants. It is a complete and usable guide to the liverworts, mosses and ferns of Central Europe, although in size it is scarcely larger than a British passport. In format it resembles Pascher's "Süßwasserflora". Thanks to Prof. Gams's experience as a teacher, the analytical keys are eminently usable. Diagrams are numerous and clear, and very great care seems to have been taken in the compilation of synonyms, which are extensively quoted, and in the provision of information on habitats and localities. The two previous editions came out in 1940 and 1948 respectively, so that this one is fully revised. For its size it is a very remarkable achievement, and will have uses far beyond the geographical area for which it was designed.

**Organic Reactions**

Vol. 5. Roger Adams (Editor-in-Chief). Pp. viii+446. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1949.) 48s. net.

**T**HIS series of publications, invaluable to organic chemists, was begun in 1942, and the five volumes issued to date, containing altogether 1,740 pages, cover some fifty of the outstanding reactions of organic chemistry. The present volume follows the lines of the admirable scheme laid down at the outset, and the descriptions, documentation and tabulation conform to the high standard of accuracy and completeness characteristic of the series. The subjects of the ten chapters comprise the synthesis of acetylenes, cyanoethylation, the Gattermann-Koch and Leuckart reactions, selenium dioxide oxidation, the Hoesch synthesis, the Darzens glycidic ester condensation, together with further treatments of the Diels-Alder and Friedel and Crafts reactions and the preparation of organic fluorine compounds. JOHN READ

**The Use of Geography**

By Prof. Frank Debenham. (Teach Yourself Geography Series.) Pp. 206. (London: English Universities Press, Ltd., 1950.) 6s. net.

**P**ROF. F. DEBENHAM has taken a rest from his more serious studies on the formation and growth of the Ross Ice Barrier and the water supplies of Central Africa, and allowed himself to play with anecdote and incident in the problems of academic geography from which he has recently retired. This little volume is mostly an introduction to a small series of geographies written by Cambridge men, each of which is to illustrate one aspect of the Cambridge school. It gives a rapid survey of the history of geography and shows the different approaches to the study of place.

While Prof. Debenham more than once assures us that he is all in sympathy with the human geographer, he succeeds in showing that his preference, in fact his creed, is on the physical side, including cartography. In these branches the Cambridge school excels. He seems a little suspicious of the human and social side, but he must admit that it is prominent in many university schools; and he does admit that Cambridge is not the only school. Perhaps as a con-

cession Prof. Debenham allows the value of the individual student's regional essay in humanizing the physical basis. It is a most readable essay, for Prof. Debenham is never boring, but, as usual, is fresh, lively, full of ideas and tolerant of all opinions honestly held. As for the use of geography, the subject seems as much to interest and amuse us as to have any other end. But as taught by Prof. Debenham it could never be dull. R. N. R. B.

**Theory of Knowledge**

An Introduction. By A. D. Woozley. (Hutchinson's University Library, No. 33.) Pp. 196. (London: Hutchinson's University Library, 1949.) 7s. 6d. net.

**H**ALF a century ago, the theory of knowledge was regarded as a very advanced subject, only discussed by fellows of colleges, a few canons residentiary, and a headmaster or two (of the ancient foundations). Not so to-day, however; for that fashionable universal, the plain man, apparently wants to study epistemology, and indeed he is fortunate to have a book like this to begin with. Mr. A. D. Woozley gives all the essentials of judgment, the correspondence and coherence theories of truth, and much else besides, with commendable clarity, and not a little wit. If a comment is allowable, it is that the amount of space devoted to memory seems a little excessive. But apart from that, the balance is masterly.

There are several illustrations from natural science, showing the value of discrimination in the use of evidence. This should appeal to university students, whatever their subject, as well as to the amateur. In addition, the approach is to some degree historical, which enables the reader to discern how some of the tenets, at first sight outrageous, came to be modified and tempered in the flame of continuous criticism. The proof-reading must have been first-class: I have noticed only two misprints, in fact the same one twice. F. I. G. RAWLINS

**Structure and Development of the Vertebrates**

A Manual for an Integrated Course in Comparative Anatomy and Embryology. By Prof. Florence Moog. (Prentice-Hall Animal Science Series.) Pp. xiii+170. (New York: Prentice-Hall, Inc., 1949.) 4.65 dollars.

**T**HIS book is an interesting attempt to provide an integrated course built on the theory that "students should be thoroughly grounded in the essentials of embryonic form and development before plunging into the complexities of comparative anatomy itself". It is essentially a practical manual, but the subject-matter is dealt with more fully, and in a more interesting manner, than is usual in such books. The course begins with a study of the anatomy of the ammocoetes larva of *Petromyzon*, and then passes on to the embryology of the frog and the chick. Next follow two useful essays on homology and recapitulation, which serve as an introduction to comparative anatomy. This is discussed system by system, and there are also chapters on gametogenesis, fertilization and the placenta.

The standard most closely approximates to that of British sixth-form school, or first-year university, courses. However, while the novelty of the approach may attract some, the book is not closely adapted to British needs. The use of *Necturus* as a type limits its value; and, although the production is beautiful, it is sad to have to say that the artificiality of its price, the result of devaluation, is almost sufficient in itself to exclude it from British laboratories.

W. S. BULLOUGH