

A Class Book of Practical Embryology

For Medical Students. By P. N. B. Odgers. (Oxford Medical Publications.) Pp. 64. (London, New York and Toronto: Oxford University Press, 1945.) 7s. 6d. net.

EMBRYOLOGY is a particularly difficult branch of anatomy for the medical student to tackle, since it involves a correlation of a time process with a sense of form. The student must learn to appreciate the shape of an organ from the examination of a series of sections, and many never succeed in developing this faculty to any extent. The ideal method of study—the preparation and examination of sections of embryos, and the construction of wax models of organs—cannot be applied to the ordinary medical student because of the time involved. A good compromise is to allow the student to study certain carefully chosen sections of an embryo, so that he can work out the form of any organ at one stage in its development at least. In this book Dr. Odgers has used twelve sections of a 6-mm. pig embryo, and fifteen sections of a 10-mm. pig embryo. The study of these two pig embryos forms part of the course in embryology at Oxford. Each section used is drawn on a large scale, the figures consisting of line drawings illustrating only the more obvious features of each section. The accompanying descriptions are sufficiently full for the purpose. Attention may be directed to the appropriateness of the diagram to explain the formation of the terminal portion of the inferior vena cava. This book should fulfil its function and be of assistance to anyone who desires to gain first-hand experience of the examination of embryological sections.

Organic Preparations

By Prof. Conrad Weygand. Translated and revised from the German Text. (Published and distributed in the Public Interest with the consent of the Alien Property Custodian under Licence A-6.) Pp. xiii + 534. (New York: Interscience Publishers, Inc., 1945.) 6 dollars.

THE German original of this text was published at Leipzig in 1938 as Part 2, "Reaktionen", of Prof. Weygand's "Organisch-chemische Experimentierkunst". Part 1 dealt with materials and operations, and Part 3 with the chemical and physical analysis of organic compounds; the publishers do not propose to issue an English translation of these two parts.

Part 2 affords a comprehensive and useful review of a very large variety of organic reactions, as conducted in the laboratory. Exact working details are given, and there are numerous references to original papers and to "Organic Syntheses". The reactions are arranged in thirteen chapters, according to the formation and fission of the many kinds of linkages characteristic of the carbon atom. The result is a thorough and reliable treatment of the subject. In the main, the account was up to date at the time of the original publication (1938); but there are some noteworthy lapses. Thus, no mention is made (p. 69) of the important method of forming halogenohydrins by the action of chlorine water or bromine water on ethylenic compounds; it is startling to read (p. 146) that *l*-menthol may be oxidized to *d*-menthone by means of a modified Beckmann reagent; and, in the experience of the reviewer, the conversion $\text{Ar}\cdot\text{CHBr}\cdot\text{CHBr}\cdot\text{COOH} \rightarrow \text{Ar}\cdot\text{C}\cdot\text{C}\cdot\text{COOH}$ (p. 327) may be greatly simplified by treating the dibromide directly with hot 50 per cent aqueous potassium hydroxide.

J. R.

Statistical Thermodynamics

A Course of Seminar Lectures delivered in January–March 1944 at the School of Theoretical Physics, Dublin Institute for Advanced Studies. By Erwin Schrodinger. Pp. vii + 88. (Cambridge: At the University Press, 1946.) 6s. net.

Elementary Wave Mechanics

By Prof. W. Heitler. Pp. viii + 136. (Oxford: Clarendon Press; London: Oxford University Press, 1945.) 7s. 6d. net.

BOTH these books are reprints from hectographs published by the Dublin Institute for Advanced Studies, and both have been reviewed in this periodical, the first by myself (*Nature*, 154, 782; 1944), and the second by Prof. H. T. Flint (*Nature*, 154, 101; 1944). I have nothing to add to my previous article.

Heitler's book has been extended by adding two chapters (8 and 9) on the quantum theory of the chemical bond and valency. They give an excellent account of this difficult subject. All essential ideas are not only mentioned but really explained. The little book is a remarkable achievement of the art of clear and condensed writing and can be warmly recommended.

MAX BORN

How Life is Handed on

By Cyril Bibby. Pp. vii + 96. (London and Edinburgh: Thomas Nelson and Sons, Ltd., 1946.) 3s.

OFFICIAL recognition by the Ministry of Education that instruction in sex matters should be included as a normal part of the school programme has led to a growing demand by teachers and parents for books which could be used as readers by children. For children aged about eleven years this book would be eminently suitable, both for its simplicity of style and absence of moralizing. The living kingdom is dealt with as a whole and all references to human reproduction and sex behaviour are carefully arranged to make them fit naturally into the text. There are many illustrations which are apt and well drawn, while three useful appendixes are concerned with the answers to questions which children frequently ask, further reading matter and a simple glossary. Exception might be taken to some of Bibby's dogmatic answers to questions on the grounds of unsubstantiated evidence, but even here he has erred on the human side to reassure children about certain fears which often do much to interfere with healthy development.

Great Adventure

Pioneer Studies for Action in Education. By N. and J. H. Higginson. Pp. x + 136. (Bickley: University of London Press, Ltd., 1945.) 4s. 6d. net.

LITTLE need be said of this book. It is a work of faith revealing the authors' belief in and readiness to work for the educability of the common man and woman. Over the past few years they have taken some part in rural adult education, in the vocational training of young people at one of the Government's training centres, in the educational schemes which have made considerable progress in H.M. Forces during the War, in the service of youth, in educational broadcasting and other experiments in all-embracing education for adults. Mr. and Mrs. Higginson's book is a record of their work and, although slight and occasionally racy, distils enthusiasm and humility which will be a source of encouragement to other workers in the increasingly important field of adult education.

T. H. HAWKINS