

seed is not simply the plumule and radicle, but includes also the cotyledons—we have not exhausted the list of inaccuracies.

Many of the illustrations are the work of boys at Oundle School and are of creditable draughtsmanship; but for teaching purposes we prefer outline with a minimum of shading in order that significant features may receive due emphasis.

*The Discovery of the Circulation of the Blood.* By Dr. Charles Singer. (Classics of Scientific Method.) Pp. x+80. (London: G. Bell and Sons, Ltd., 1922.) 1s. 6d. net.

THIS is the first of a new series entitled "Classics of Scientific Method," and whets our appetite for its successors. The series aims at providing in convenient form reproductions of the great masterpieces of science, together with an account of the action and re-action of ideas which, through process of time, led up to the crucial experiments carried out and described by some great master. This account of Harvey's discovery of the circulation of the blood is excellent. The first chapter, in language freed so far as is possible of technical terms, describes the structure and function of the circulatory system as we now know it—a modification of the paragraph on p. 8 dealing with the relation of carbon dioxide and hæmoglobin seems desirable—and contains a clear diagram. The subsequent chapters set forth in words and by illustrations the ideas held by the ancients regarding the vascular system, and how the Renaissance of the fifteenth century and the work of such men as Leonardo da Vinci, Servetus, and others, culminated in Harvey's great discovery, of which a detailed and most interesting account is given.

*Laboratory Exercises in Inorganic Chemistry.* By Prof. J. F. Norris and Prof. K. L. Mark. (International Chemical Series.) Pp. x+548 (every second page blank). (London: McGraw-Hill Publishing Co., Ltd., 1922.) 10s. net.

THE first question which must be considered in connexion with a book of this kind is the class of students for whom it is intended. The preface indicates that it contains a first year's course for students who have had "a good training in chemistry in the high school." It is unsuitable for such students in England, as many of the experiments would already have been done at school, and many of the remainder would be regarded as too difficult for Intermediate students. The "International" character of the book is therefore open to question. Although the book is not suitable as a students' manual in English colleges, it should be very useful in suggesting experiments to teachers, both for lectures and for laboratory work. Many of the directions are given in unnecessary detail for students of average intelligence: how to light a Bunsen burner, for example, and there is a good deal of repetition. The blank pages are included in the pagination.

*A Text-book of Organic Chemistry.* By Dr. A. Bernthsen. New edition, revised to date, by Prof. J. J. Sudborough. Pp. xvi+908. (London and Glasgow: Blackie and Son, Ltd., 1922.) 12s. 6d. net.

BERNTSEN'S text-book, in its English translation, has proved of great value to students. It is therefore satisfactory to note that the new English edition has

been carefully revised and large sections dealing with important recent advances in the science added, as well as numerous small supplementary paragraphs in the old text. For a book of this character the minor errors noted are surprisingly few, and are obvious to the reader. One important omission may be noted: on p. 78 it is stated that methyl alcohol "acts as an intoxicant like ethyl alcohol," without a word as to the very deleterious physiological action of methyl alcohol. The printing and get-up are excellent, but the binding is too weak for students' use. The moderate price of the book, as well as the clear and accurate character of its contents, will ensure its continued popularity among students. The very full references to physical properties make it also a handy book of reference in the laboratory.

*Plumbers' Handbook.* By Samuel Edward Dibble. Pp. ix+629. (New York and London: McGraw-Hill Book Co., Inc., 1922.) 20s.

THE author of this handbook has had the co-operation of several well-known American professional men, and the result is a very valuable compendium relating to plumbing, sanitary arrangements, gas-fitting, heating, etc. The book is equally suitable for the practical man engaged in carrying out schemes, and the student who is learning his business. Of special interest to the British reader is Section 14, dealing with codes, or byelaws, as we should call them. These are extremely suggestive, and if carried out systematically in the United States will excite the envy of many British workers who have still to endure primitive sanitary conveniences. There is so much of value in this section that it is impossible to quote any of the points in a short review.

Science is not neglected in this volume, and there are sections dealing with metallurgy and chemistry. There is also a section on elementary mathematics; we think that the arithmetical rule for cube root (p. 511) might have been omitted, especially as logarithms are dealt with on pp. 508 and 509. The book can be strongly recommended to all connected with sanitation.

*Diptera Danica: Genera and Species of Flies hitherto found in Denmark.* By William Lundbeck. Part VI. *Pipunculidæ and Phoridæ.* Pp. 447+137 text-figs. and index. (Copenhagen: G. E. C. Gad; London: Wheldon and Wesley, Ltd., 1922.)

ALL students of the order Diptera will welcome the continuance of this wholly admirable treatise. It is a model of what a faunistic work should be and, unlike so many volumes of a similar nature, it also includes a useful summary of existing knowledge of the metamorphoses and habits of the insects with which it deals. The author has also wisely added the dates of capture of the various species: elementary facts of this kind are so often omitted from faunistic works that the reader is usually left with no idea as to when a particular species is likely to be met with. Of the two families dealt with in the volume before us, the Pipunculidæ include 25 Danish species out of about 75 palæarctic representatives, and the Phoridæ include 210 Danish species out of a total of about 335 from the whole of Europe. The work is well printed, clearly illustrated, and written in excellent English.