

*Handbuch der biologischen Arbeitsmethoden.* Herausgegeben von Prof. Dr. Emil Abderhalden. Lieferung 184. Abt. 9: *Methoden zur Erforschung der Leistungen des tierischen Organismus*, Teil 2, 1 Hälfte, Heft 4. *Methoden der Süßwasserbiologie.* Pp. 653-852 + xxiii. (Berlin und Wien: Urban und Schwarzenberg, 1926.) 10.20 gold marks.

THIS publication completes the first half of the volume in this handbook dealing with methods of research for the study of life in fresh water. It opens with a chapter, by August Thienemann, on life in inland waters, giving in broad outline the conditions to be considered in a study of this zone of life and the connexions between the animate and inanimate components of the environment. There follow articles by H. Thomasson on the study of the microphyta of the limnetic littoral and deep zones, and by H. Gams on the higher water-plants. Einar Naumann gives a long account of methods of demonstration for the purpose of teaching limnobiology, with special reference to the plankton and neuston. Finally, T. Freidenfelt contributes a chapter on the mathematics to be employed, especially by those working on plankton, for testing the accuracy of technique and finding the true significance of results obtained by sample methods.

For those taking up the study of fresh-water biology, the work should prove valuable as a guide to the methods that are now employed. At the same time, the papers, although not containing full bibliographies, give sufficient information and references to enable one, at once, to get on the track of the literature dealing with the results of research in any special branch of this huge subject in which interest may lie.

*Electrical Technology: a Textbook for the following Examinations, National Certificate, City and Guilds, A.M.I.E.E., B.Sc. Engineering.* By H. Cotton. In 8 weekly parts. Part 1. Pp. xv + 48. (London: Sir Isaac Pitman and Sons, Ltd., 1926.) 1s. net each part.

THE student will find this a very convenient form in which to acquire Mr. Cotton's book on "Electrical Technology." Besides the advantage of paying for the book by eight instalments, there is a decided benefit in not having a bulky volume to carry about.

Part 1, which has just been published, includes the necessary elementary work in the form of a short introduction. This work should, of course, have been done previously, but the student will find the introduction convenient for reference. The whole volume is divided into two parts, the first being devoted to direct current and the second to alternating current. Chaps. 1, 2, 3, and the beginning of Chap. 4, appear in the part just published.

A clear exposition of the magnetic circuit forms the first chapter, and the second chapter gives an account of electromotive force. Then follows the direct current technology. In the direct current part is to be included a chapter on illumination and one on electrolysis and cells. The alternating current part is to include chapters on furnaces and welding, electric oscillations, and measuring instruments. The descriptions are adequate and the diagrams good, so that the student should find it a useful work.

*Le problème de chimie: recueil de problèmes inédits avec leurs solutions à l'usage de la Classe de mathématiques spéciales des candidats au S.P.C.N., au M.P.C., au Baccalauréat (M.E.), aux Grandes Écoles et à divers concours. Lois générales, métalloïdes, chimie organique.* Par Jean Duval. Pp. 116. (Paris: Albert Blanchard, 1926.) 10 francs.

MANY years ago, the plan of teaching chemistry, or rather, of exercising the mind in chemical matters, by means of problems and answers, was very fashionable. Nowadays it seems to have fallen into disuse, except perhaps in schools, although the method was a good one which enabled the student to fix reactions and principles on his mind without making undue calls on his memory. Of course, much depends on the kind of problem selected and the manner in which it is treated, but if too much chemical arithmetic is avoided, and the problem chosen involves some theoretical principle which appeals to the mind, a great deal of useful knowledge can be imparted, often from an unusual viewpoint. M. Jean Duval has applied the method to a number of cases and has produced a book which should appeal to students generally. Both inorganic and organic problems are chosen, many of them being of surprising ingenuity. The French is so easy to understand and is so clearly expressed that many English students would do well to add this book to their library.

*Il Naturalista viaggiatore.* Per Gestro e Vinciguerra. (Manuali Hoepli.) Seconda edizione. Pp. xv + 204. (Milano: Ulrico Hoepli, 1926.) 14 lire.

THE first edition of this work, published in 1881, was a pioneer amongst collectors' handbooks, and its successor, extended, illustrated, and brought up-to-date, gives concise instructions for the collection and preservation of animals, vertebrate and invertebrate, so that they may be afterwards available for detailed scientific examination. Much study has been given to the fluids which best kill and retain in preservation the characteristics of the tissues and structures of different types of animals, and accordingly a chapter is devoted to each group, from mammals to protozoa, while additional chapters deal with general instructions for marine research, and the collection of plants and of mineralogical specimens. The work resembles in character the "Handbook of Instructions for Collectors," issued by the British Museum, but the paper binding is quite insufficient for a volume which is likely to see much and rough service in many climes.

*Chambers's Encyclopædia: a Dictionary of Universal Knowledge.* New edition. Edited by Dr. David Patrick and William Geddie. Vol. 8: *Penobscot to Saco.* Pp. iii + 871. (London and Edinburgh: W. and R. Chambers, Ltd.; Philadelphia: J. B. Lippincott Co., 1926.) 20s. net.

THE newest volume of this encyclopædia again bears evidence of careful revision and the addition of new articles. Events that have occurred within the last few months are mentioned. Many of the longer articles are admirable summaries and should prove invaluable for quick and easy reference. There are eight new coloured maps as well as many text illustrations and diagrams.