

tion of the use he will make of his newly acquired freedom.

The first four chapters are devoted to a presentation of the theories underlying psycho-analysis, based on purely Freudian doctrines, but abundantly illustrated by the author's own observations and cases. After a description of sexual development, the unconscious and the censorship, the neuroses are considered in detail—the method of their production, their classification and individual psychology. A long description is given of a case of compulsion neurosis and its analysis, which is of considerable value in illustrating the preceding chapters on theory.

The book is evidently intended for, and will appeal most to, the student who has some acquaintance with psycho-analysis, and is desirous of extending his knowledge on the subject.

*Reinforced Concrete Simply Explained.* By Dr. Faber. (Oxford Technical Publications.) Pp. 77. (London: H. Frowde and Hodder and Stoughton, 1922.) 5s. net.

A VERY clear and simple account of the elementary principles of reinforced concrete design is given in Dr. Faber's book, and it will be found suitable for those who wish to have the knowledge required for the design of simple structures which will be safe, but not necessarily the last word in economy. The book covers the ground required for beams, slabs, and pillars. Both shearing and bending are considered in connexion with beams, and the effects of fixing the ends and of continuity are clearly explained. The design of pillars also includes a simple treatment of the bending moments communicated to the pillar by beams which are integral with it. There are very few blemishes, and these are of a minor character only, e.g. on p. 33, Fig. 7, the lower arrow for the dimension  $d$  is misplaced. On the whole the book is the soundest production of an elementary character which we have yet seen, and will be very useful to students of engineering who have to acquire a knowledge of reinforced concrete among other subjects in their course.

*Memoirs of the Geological Survey: England and Wales. The Geology of the London District.* (Being the Area included in the Four Sheets of the Special Map of London.) By H. B. Woodward. Second edition, revised, by C. E. N. Bromehead; with Notes on the Palæontology by C. P. Chatwin. Pp. vi+99. (Southampton: Ordnance Survey Office; London: E. Stanford, Ltd., 1922.) 1s. 6d. net.

THIS new edition of the brief general geological guide to the London District, issued at a moderate price, will be of interest to thousands of citizens who spend their daylight leisure in rambles beyond London's fringe. The nature of the ground below the city is well brought out; but the four sheets of the one-inch map covered by the memoir also include pleasant fields where the outcrops of the strata may be traced. The description of the gravels shows how much may be learned from material excavated in the urban areas, when this is correlated with the terraced deposits of the Thames valley as a whole. The description and classification of stone implements is brought well up-to-date.

G. A. J. C.

*Lecture Demonstrations in Physical Chemistry.* By Dr. S. van Klooster. Pp. vi+196. (Easton, Pa.: The Chemical Publishing Co.; London: Williams and Norgate, 1919.)

DR. VAN KLOOSTER has brought together a number of experiments suitable for lecture demonstrations in physical chemistry. These experiments, to the number of 253, include, in addition to the more obvious experiments such as the determination of molecular weights, a series of thirty experiments on colloids and adsorption, some eighteen experiments on actino-chemistry, and conclude with a short series of experiments in which liquid air is used. When physical chemistry is taught to advanced students, lecture demonstrations are often regarded as superfluous; but with the growing importance of the subject the demand for suitable illustrations is likely to increase. The volume before us will, therefore, be welcomed by many teachers who will find it a considerable help in introducing experimental demonstrations into their lecture courses.

*Manual of British Botany: Containing the Flowering Plants and Ferns arranged according to the Natural Orders.* By C. C. Babington. Tenth edition, with amended Nomenclature and an Appendix. Edited by A. J. Wilmott. Pp. lvi+612. (London: Gurney and Jackson, 1922.) 16s. net.

IN this edition Mr. Wilmott has endeavoured to bring the names up-to-date; and on the vexed question of nomenclature has, so far as possible, cited the author who first gave to the name employed the connotation expressed in these pages. In the appendix have been inserted the more important revisions of genera (e.g. Moyle Rogers "Conspectus of the Rubi"), additional species, and, in places, important information connected with the main body of the work; the inclusion of all varieties now accepted—many of which were deliberately rejected by Babington—having proved impossible. For its size and weight (7½ oz.) the manual might be deemed expensive; but it has a value possessed by no other for the serious student of the British flora.

*Le Mouvement scientifique contemporain en France. No. 1. Les Sciences naturelles.* By Dr. G. Matisse. (Collection Payot. No. 10.) Pp. 160. (Paris: Payot et Cie., 1921.) 4 francs.

THOSE desirous of keeping touch with the recent work of French biologists, but unable to consult the original memoirs, will find here useful epitomes of the results and views of some of the more prominent workers. The first chapter is devoted to Lacaze-Duthiers and the Roscoff laboratory. The subsequent chapters contain summaries (i.) of the work of Yves Delage and Bataillon on heredity, artificial fertilisation, etc.; (ii.) of Houssay's experiments in dynamic morphology, in which those dealing with the shapes of fish are of especial interest; (iii.) of the results achieved by Cuénot, Bohn, and René Quinton in their several fields of research; and on the botanical side (iv.) of Chauveaud's work on plant development and transitory tissues; Molliard's investigations of the structural effects of artificial nutrients, and of parasitism; and Matruchot's cultivation of basidiomycete fungi from the spore to maturity.