

Plant Form and Function

By Prof. F. E. Fritsch and Prof. E. J. Salisbury. Pp. viii+668. (London: G. Bell and Sons, Ltd., 1938.) 17s. 6d. net.

STUDENTS and teachers of botany have in the past made good use of the two text-books by the joint authors: "An Introduction to the Study of Plants" and "An Introduction to the Structure and Reproduction of Plants". In the volume now under review the authors have, in response to many requests, united the subject-matter of both books into a single volume. This has been done successfully by dove-tailing the chapters of the two earlier books very ingeniously, so that the new volume forms a very harmonious whole, and its composite nature can only be ascertained by a careful comparison of the text with that of the component parts. The authors may therefore be congratulated on a clever piece of synthesis. The new volume will be appreciated even more than the two earlier text-books, for it gives a more complete as well as a consecutive account of the elementary features of botany and thus facilitates the study of the subject.

The authors have taken the opportunity also of bringing the subject-matter up to date. This is particularly apparent in the chapter on heredity and evolution, in which the more recent developments of cytology are dealt with and explained. In some of the physiological chapters new matter has been added, such as an account of the growth-promoting hormones. New discoveries in connexion with the alternation of generations in the Algae, heterothallism in the Fungi and recent work on the cytology of the basidium are all dealt with in the new volume. Students will appreciate the fact that to each of the more important sections a selected list of books is given for further reference and also conveniently listed under that heading in the index.

More than a hundred new illustrations have been added. An additional chapter on the British flora as well as the inclusion of additional families in the taxonomic section is a welcome sign that the importance of systematic botany is regaining recognition.

Bacteriology:

a Text-Book of Micro-organisms. By Prof. Fred Wilbur Tanner. Third edition. Pp. xiii+510. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1937.) 17s. 6d. net.

THIS book, though by no means elementary, is designed for the use of those who are studying bacteriology for the first time. The student making use of it should possess some acquaintance with the elements of biology, and the book may then be considered as continuing his biological studies in the domain of micro-organisms, more particularly the bacterial forms, though chapters on the yeasts, moulds and Protozoa are also included. It deals especially with fundamentals, and particular attention is devoted to the structure, nutrition, metabolism and classification of the bacteria, and the action of physical agents upon them; this matter occupies the first half of the book. The second half is devoted to a consideration of the processes involving

bacterial action, and chapters deal with the bacteriology of water and milk and canned foods, sewage disposal through bacterial action, and the various industrial fermentations dependent upon bacteria. Finally, the relation of bacteria to diseases, animal and plant, is considered, and the nature of immunity is briefly discussed.

The book gives an excellent survey of all the subjects with which it deals, it is very readable, and the biographical details included of the pioneers of the science increase the interest; it is also well illustrated. The only fault-finding we would register is that the author, in an appended bibliography, in many instances gives the date of old editions of text-books, when much later ones have appeared.

R. T. HEWLETT.

The Chemistry of Antigens and Antibodies

By J. R. Marrack. (Medical Research Council, Special Report Series No. 230.) Pp. 194. (London: H.M. Stationery Office, 1938.) 3s. net.

IN 1934, the Medical Research Council published, "for the assistance of workers in the field", a report on the chemistry of antigens and antibodies prepared by Prof. J. R. Marrack. The widespread interest in this report, not only of workers in the subject, but also of many others interested in biochemistry, has led to the decision to revise it in the light of discoveries made during the last four years, and the task has again been entrusted to Prof. Marrack.

The admirably wide view of the subject adopted by the author leads to the inclusion of a chapter on physico-chemical considerations, in which topics such as the electronic theory of valency and theories of the structure of proteins are discussed. To those engaged in the field of immunological chemistry, the two chapters on the nature of antigen-antibody reaction will be of particular interest, but to all those concerned in one aspect or another of the chemistry of biological phenomena, this report can be recommended as providing a lucid and comprehensive survey of a field which is, at present, expanding at an astonishing rate.

Mea Culpa:

and the Life and Work of Semmelweis. By Louis-Ferdinand Céline. Translated by Robert Allerton Parker. Pp. x+175. (London: George Allen and Unwin, Ltd., 1937.) 5s. net.

THIS little book consists of two unequal and unconnected portions. In the first, which occupies only 34 pages, the writer, who is a qualified medical man but is best known for his authorship of the unconscionably long and dreary novel entitled "Journey to the End of the Night", makes a frenzied attack on Communism as the result of a recent visit to Soviet Russia. The second part contains a lively and sympathetic account of the great Hungarian medical man, Ignaz Philip Semmelweis, who was a pioneer in the prophylaxis of puerperal fever in the pre-Listerian era, and died insane in 1841 at the age of forty-seven years after failing to convince his contemporaries of the truth of his doctrines.