

one, where the same ground is covered, indicating a lack of care in avoiding repetition, which is almost inevitable when articles on the same, or kindred, subjects are reprinted *in toto* from journals.

The weakness of the book as a whole, in fact, is that it consists of a series of such articles, useful and interesting in their way, but discursive, disjointed, and, in some measure, superficial. Chap. xi. deals with coast erosion; here again the information contained would have been more appropriately blended with that in Chap. vi. on coast defence. The concluding chapter (xii.) discusses dredging and land reclamation. There is a useful appendix on "The Land Drainage Acts examined from the engineer's standpoint," reprinted from *Water and Water Engineering*. B. C.

*General Botany: with Special Reference to its Economic Aspects.* By Dr. C. Stuart Gager. With three Chapters on Heredity and Variation in Plants, by Dr. Orland E. White. Pp. xvi + 1056. (Philadelphia, Pa.: P. Blakiston's Son and Co., 1926.) 4 dollars net.

THIS is a text-book written along very different lines from the majority of books used as introductions to the study of botany. The work gives the impression that its author has not considered college and examination syllabuses, but has attempted to deal with botany as an indispensable subject of general education. It must be acknowledged that he has largely succeeded in showing that plant life has been throughout history, and still is, closely interwoven with human life.

A general introduction is followed by four parts, subdivided into forty-one chapters, dealing respectively with the vegetative functions of plants, reproduction and life-histories, the great groups of seed-bearing plants, and genetics and evolution. Features of special interest are: the excellent photographic reproductions, the insertion of short historical and biographical notes, and the discussion at every opportunity of the relationship of plants to human affairs. A few of the text figures are not quite accurate and several unfortunate slips in terminology have been noted. The majority of the bibliographical references are to American papers and books, and, naturally, most space is devoted to American genera and species. Nevertheless, this text-book is one that should be of great use to teachers and students not only in the United States but also outside.

*The New Book of Trees.* By Marcus Woodward. Illustrated with Wood Engravings by C. Dillon McGurk. Pp. 310. (London: A. M. Philpot, Ltd., n.d.) 12s. 6d. net.

THE author of this work does not attempt to give elaborate scientific descriptions of trees, neither does he try to reveal anything that is new; rather, by delving into ancient tomes, he has brought to light much that is old but interesting. His researches are confined to the commoner kinds of trees and shrubs, and more particularly to native species. He has gathered together a good deal of historical information, and the chapter entitled "Remarks on Forest Scenery" is particularly

interesting, dealing as it does with English woodlands from the time of the Roman invasion to modern times. In his descriptions of the various species the author makes good use of the many legends and lyrics concerning trees and forests that are to be found in old sylvicultural works.

Whilst the book is not one to recommend to the student of botany or silviculture, it is well worth a place upon the shelves of other tree-lovers, whilst people who have no special interest in trees will find much interesting reading. There are numerous good engravings by Mr. C. Dillon McGurk, and both printing and paper are good.

*Hydrogen Ion Concentration of the Blood in Health and Disease.* By Prof. J. Harold Austin and Prof. Glenn E. Cullen. (Medicine Monographs, Vol. 8.) Pp. xi + 75. (Baltimore, Md.: Williams and Wilkins Co.; London: Baillière, Tindall and Cox, 1926.) 9s. net.

IN this monograph the authors have set out to give a brief account of our present knowledge of the hydrogen ion concentration of the blood. In the first chapter there is a short but complete theoretical survey of the subject; whilst in the last, methods of determining *pH* are briefly described. The second chapter gives our knowledge of normal blood *pH*, and the third, which accounts for half the length of the book, describes the variations met with in disease. The authors have confined themselves strictly to the subject in hand, though, even then, more than two hundred references are given in the bibliography. They also assume a fair knowledge of the subject from their readers: the clarity of certain portions of the monograph, especially those dealing with the more theoretical aspects of the subject, would be enhanced by somewhat fuller descriptions. The book should be of use to all those interested in the subject, as a work of reference to the latest researches.

*The Chemistry of Dyeing.* By Dr. J. K. Wood. (Chemical Monographs, No. 2.) New and revised edition. Pp. vii + 104. (London: Gurney and Jackson, 1926.) 3s. 6d. net.

THIS monograph, first issued in 1913, was written primarily for advanced students, but is of great interest to all who are engaged in processes involving dyeing. Commencing with a description of the physical and chemical properties of the more important commercial fibres, the book gives a short description of the principal types of dyestuffs and the methods of applying them to the various types of fibres. This is necessary in order to understand the following chapters, which deal with the numerous theories which have been advanced concerning the actual mechanism of the dyeing process. These theories are very lucidly explained with great attention to experimental evidence, starting from the first idea of a purely mechanical process to the modern conception of dyeing as a dual process, involving first the electrical precipitation of the dye on the fibre and then the chemical combination or physical solution in the cell walls. The references to the published literature are unusually copious.