

material which may be described as traditional, and requires considerable pruning.

Dr. Thatcher's aim has been to present the chemical and physical details in an elementary manner, to point out their application in plant life, and at the same time to instil a spirit of inquiry into his readers. We think he has succeeded in his efforts. A previous acquaintance of elementary inorganic and organic chemistry is assumed, and it depends upon the depth of this acquaintance whether the student will grasp the contents. There will be no difficulty with the chapters on plant nutrients and photo-synthesis, but unless stereochemistry has been previously well learnt, the carbohydrate chapter will scarcely be understood. Herein we miss the equations for the formation of osazones. Also we can scarcely agree with the author that tannins are glucosides. Chlorophyll and plant pigments are really the most complicated in structure of plant products, and might well have formed the last chapter, instead of preceding organic acids, esters, and fats. Too little space is given to the nitrogenous constituents—a single chapter includes amines, alkaloids, purine and pyrimidine bases, and nucleic acid—while the classification of proteins is more complicated than usual.

The last third of the book deals with enzymes, colloids, and physical chemistry, mainly to show their importance in plant life. Finally there is a brief reference to hormones, auximones, vitamins, and toxins. Altogether, the book gives an excellent orientation of the subject, and much should be learned from it by the student; at any rate, he could probe further if he so desires, for references are given at the end of each chapter.

Our Bookshelf.

A History of the Cambridge University Press, 1521-1921. By S. C. Roberts. Pp. xv+190. (Cambridge: At the University Press, 1921.) 17s. 6d. net.

MR. ROBERTS'S "History of the Cambridge University Press" is a very interesting account of the difficulties met with in the gradual advance from small beginnings, culminating in the highly efficient organisation of the present time. The numerous illustrations representing title-pages and the list of books published between 1521 and 1750 add much to its value.

John Siberch, otherwise John Laer of Siegburg, near Cologne, set up the first printing press in Cambridge in 1520, having settled there probably at the wish of his friend and patron, Erasmus, who in 1510 had come to live in the turret chamber of Queens' College, and to be the first teacher of Greek at the University.

There are examples of several books printed by

Siberch at Cambridge in 1521. He may thus be looked upon as the founder of the Cambridge University Press. Accordingly, 1921 is the four hundredth anniversary of University printing in Cambridge.

It is not clear that John Siberch was officially recognised as printer to the University, but in 1534 King Henry VIII., by letters patent, gave licence to the chancellor, masters, and scholars to elect from time to time three stationers and printers or sellers of books, residing within the University.

The Stationers Company of London repeatedly but unsuccessfully challenged the rights thus conferred upon the University, until they were finally confirmed in a Charter granted in 1628 by Charles I.

Although it appointed printers, the press did not come directly under the control of the University until 1697, when, by a grace of the senate, the first Press Syndicate was appointed.

A Text-book of Physics. Edited by A. Wilmer Duff. Fifth edition, revised. Pp. xiv+700. (London: J. and A. Churchill, 1921.) 16s. net.

No sweeping changes appear to have been made in the "Text-book of Physics," edited by Prof. A. Wilmer Duff, since the last edition, referred to in NATURE of March 15, 1917, p. 41, was published. The editor states in his new preface that "students of college Physics should have some acquaintance with such new and live topics of scientific, and even popular interest" as wireless telegraphy and telephony, sound-ranging, submarine detectors, the diffraction of X-rays, the instruments used in aeroplanes, and the principle of relativity, but with the exception of the paragraphs dealing with wireless telegraphy, the information afforded by the additional matter is of little value. Many of the illustrations, particularly those showing actual apparatus, are of a sketchy type.

The Elements of Illuminating Engineering. By A. P. Trotter. (Pitman's Technical Primers.) Pp. xii+103. (London: Sir I. Pitman and Sons, Ltd., 1921.) 2s. 6d. net.

THIS booklet contains, in a revised and condensed form, much of the information conveyed in the author's well-known larger volume; some additional practical hints are also included. The initial chapter deals with laws and definitions. The effect of light on vision and the origin of glare are then briefly treated. Next Mr. Trotter passes on to a discussion of the chief sources of light, illustrating the distribution of light in each case and pointing out the fundamental principles involved in effective shading. Finally there are chapters on photometry and the planning of lighting installations. The diagrams are invariably clear and informative, and the explanations are lucid. The author has made good use of the space available, and his work will form a useful introduction to illuminating engineering.