

from the earliest times down to those in present use are extremely good, and the historical account of the progress of the fire-engine is especially interesting. The principles on which modern pumps work are explained adequately, and multiple centrifugal pumps are included. Fire prevention and panic in places of public resort is a wide subject which concerns the whole community, and the author devotes a great deal of space to it. Such buildings are classified, and each type is treated separately. Remembering the wide experience which Mr. Gamble has had in London, his opinions must be taken as authoritative, and will be invaluable to surveyors under public bodies. We have nothing but praise for this book, and consider that the author has rendered service, not only to the members of his own profession, but also to the public, in presenting so much that is of value in such an acceptable form.

*Ergebnisse der exakten Naturwissenschaften.* Herausgegeben von der Schriftleitung der *Naturwissenschaften*. Fünfter Band. Pp. iii + 329. (Berlin: Julius Springer, 1926.) 21 gold marks.

THIS collection of articles by leading continental men of science possesses a great amount of interest for students of physical science, both pure and applied. Thus, we have an article on planetary radiation by Prof. Schoenberg, which is followed by a comprehensive treatment of the measurement of photographs by Dr. Seliger, and by an article on dynamic meteorology by Prof. Wegener. Prof. Bjerrum gives a very interesting account of the electric forces between ions and their effects, and Prof. Pringsheim gives an account of work on the photo-electric effect in gases, in which he describes the recent work of Foote, Mohler, and Auger. The article on atomic disintegration, by Dr. Kirsch, gives a survey of the experimental results obtained in Cambridge and Vienna, and the author attempts to interpret these results in terms of the explosion theory advanced by Pettersson. The experimental proof of the statistical nature of the law of radioactive decay is treated in a further section, by Prof. Kohlrausch, who pays particular attention to the work of Frl. Bormann, which provides, in his opinion, the first conclusive experimental proof of the correctness of the fundamental assumption on which the law is based. The absorption of gases under the influence of electrical discharge and allied phenomena are considered in full in an article by Dr. Pietsch, to which are appended several pages of references. Finally, we have an excellent and up-to-date account of the Compton effect by Drs. Kallmann and Mark.

*Edward Thring, Maker of Uppingham School, Headmaster 1853 to 1887.* By W. F. Rawnsley. Pp. iv + 103. (London: Kegan Paul and Co., Ltd., 1926.) 3s. 6d. net.

EDWARD THRING and Sanderson will rank as the two English headmasters of the last generation who left most personal mark upon their scholars and built up great schools on the foundations of small, ancient, and neglected grammar schools. Such reconstruction was a familiar feature of the last half-century, but Uppingham and Oundle will always recall the names of their re-founders. Thring's work was in one way more

heroic than Sanderson's, because he did it in the teeth of an obstructive and unsympathetic body of governors, while Sanderson was supported by the generous and loyal help of his.

In this short account of Thring's career, Mr. Rawnsley gives a vivid picture of the man and explains his extraordinary personal influence. Thring had in a high degree that combination of humour, sharpness, sympathy, and devotion which makes the strongest appeal to the English boy. Numerous examples are given of all these and of his cardinal principle in education that every boy is good for something and that you must make him work by appealing to his individual interests. Thring's own interests lay mainly in music and literature, and one does not hear anything of science or history. In this respect he and Sanderson would seem to have been rather complementary to one another. Both stand out as worthy types of the individuality of the great headmaster.

F. S. M.

*A Text-Book of Experimental Psychology: with Laboratory Exercises.* By Dr. Charles S. Myers and F. C. Bartlett. Third edition. Part 2: Laboratory Exercises. Pp. viii + 121. (Cambridge: At the University Press, 1925.) 7s. net.

IT is satisfactory to note that this excellent text-book is now in its third edition. The student who has carefully worked through these exercises will have gained considerable practice in the very difficult art of psychological experiment. There is a fairly common belief that psychology can be evolved from the writers' inner consciousness without the limiting effects of an appeal to facts demanded by other branches of knowledge. Much futile discussion and many fantastic theories would be avoided if all exponents of psychology could have the discipline of working through this book.

There are four sections, designed to cover about a year. The first part deals with the technique of psychological experiment, the second with problems of the special senses, the third with perception and the higher thought processes, while the fourth is supplementary, giving additional experiments.

This revised reprint will be very useful.

*Die Gattung Synedra in systematischer, zytologischer und ökologischer Beziehung.* Von Dr. Konrad Gemeinhardt. (Pflanzenforschung, Heft 6.) Pp. iv + 88 + 4 Tafeln. (Jena: Gustav Fischer, 1926.) 6 gold marks.

THIS monographic treatment of the abundant diatom genus *Synedra* will appeal chiefly to the specialist, but is not without points of general interest. The author supports a classification based on the features of the valves rather than on the characters of the chromatophores and throws out a suggestion that nuclear structure may afford a basis for distinguishing the larger groups of diatoms. No proper spindle is formed during nuclear division in *Synedra*, and a centrosome is lacking. In the considerable section devoted to ecological data it is made clear that all species of *Synedra* require water with a certain minimum lime-content. It is significant that, in the course of more than a year's continuous observation, no auxospore-formation was observed.