

definite starting-point, and can be examined and studied in detail without recourse to the microscope. It is pointed out that in the plan of construction of the higher plants the outstanding feature is the capacity for indefinite vegetative increase which may be termed "continued embryology."

The cellular construction of the plant and the various functions of the cell, cell-division, and protoplasmic continuity naturally follow, and then the tissues are dealt with in further detail. The sequence of events next leads to an account of leaf and root from the morphological point of view, followed by chapters on the relation of plants to water, and on nutrition, storage, and respiration. In the chapter on growth and movement due attention is paid to the statolith theory in connection with geotropism. Succeeding chapters deal fully with the mechanical construction of the plant body, modifications of form in the vegetative system, such as bulbs, tubers, climbing plants, etc., the irregular nutrition of parasitic, semi-parasitic, and carnivorous plants, and vegetative propagation, all of which aspects of plant life are fully discussed with a wealth of well-chosen examples.

The inflorescence and flower and the formation and development of the seed with all that is entailed occupy some eighty pages and bring this first division of the book to its logical conclusion. This portion is not a mere chronicle of well-known facts, but is illuminated by a consideration of flower colours, pollination, and the details of fertilisation, and closes with a description of the mode of dispersal of some of the better-known seeds and fruits.

The second part of the book is arranged in four divisions, dealing respectively with the Gymnosperms, Pteridophyta, Bryophyta, and Thallophyta, followed by two chapters, one on sex and heredity, the other on the alternation of generations and the land habit. These two essays very fittingly come at the end as a summary of the previous chapters dealing with the life-histories of the lower plants.

As in the earlier part of the book, these more specialised chapters on the ferns, mosses, fungi, and algæ are treated on broad lines, and there is no superfluity of detail to obscure the salient features.

The book concludes with two appendices, one on the types of floral construction in Angiosperms, the other on vegetable foodstuffs, both of which considerably enhance the value of the volume. In the former a few types of flower are described, and notes are added on the natural families to which the particular examples belong. The plants chosen are easily accessible and also represent characteristic features of families the products of which are of economic importance. Further, they are of interest in connection with the production and dispersal of seeds, floral biology, etc. The illustrations in this appendix have been drawn for the most part by Dr. J. M. Thompson, and are particularly clear and useful.

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The glossary-index, which completes the book, occupies thirty-two pages, and furnishes a further example of the thorough and careful manner in which Prof. Bower has carried out his object.

We have for so long been accustomed to rely on translations of German text-books for our elementary botanical students that it is very gratifying to find them superseded by so excellent and comprehensive a study of the living plant from one of the most eminent of our own professors and teachers.

A. W. H.

OUR BOOKSHELF.

Influenza: A Discussion opened by Sir Arthur Newsholme. Pp. 102. (London: Longmans, Green, and Co., n.d.) Price 3s. 6d. net.

THE discussion on influenza at the Royal Society of Medicine in November last summarises very completely our knowledge of this obscure epidemic disease. Sir Arthur Newsholme, in his opening remarks, expressed the opinion that influenza is a specific disease recognisable in severe outbreaks, and pointed out that, with the exception of plague and cholera, it has on occasion travelled farther and more rapidly over the world than any other recognised disease, and that it is one over which preventive medicine so far has secured little or no control.

Dr. Stevenson directed attention to certain features of the 1918 epidemic which differed from those of the past twenty-seven years, viz. (1) its intensity was greatly in excess of that of any of its predecessors, and (2) the sudden and startling change which occurred in 1918 in the age distribution of influenzal mortality. In all previous years the majority of deaths—generally about 70 per cent.—occurred at ages above forty-five. But in July, 1918, only about 30, and in October about 20, per cent. of the persons dying were more than forty-five years of age, and only 5.5 per cent. of the deaths of this outbreak were at ages above sixty-five, as against an average of 37 per cent. for the years 1890-1917.

Several speakers dealt with the aspects of the epidemic in the Navy and in the Army, and in France, America, and South Africa, which correspond closely with those observed among the civil population here.

With regard to the bacteriology of the disease, most of the observers noted the presence of the influenza bacillus, the pneumococcus and the streptococcus, but no very definite opinion is expressed as to the nature of the virus. Prophylactic vaccination receives scant notice, probably because the data were insufficient at the time of the meeting.

As regards treatment, Mr. E. B. Turner claimed that large doses of salicin constitute a specific, and certainly his experience, based on the observation of 2500 cases, suggests that this drug deserves an extended trial.

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