

The apparatus and methods used are described at some length. It is worthy of note that "with small exceptions there appeared to be a total absence of any regular mine-rescue organisation along the whole German front."

In the technical section of the book a large amount of information is given on such subjects as disposal of spoil, listening instruments, and the work of the mine schools. It also discusses the main principles which gradually became evident as underground warfare developed, the most important of which may be summed up in the statement that "the best form of defence is attack." By a strenuous application of this idea "the enemy was reduced underground by the autumn of 1917 to a state of absolute passivity on the entire front."

### Our Bookshelf.

*Encyclopædia of Veterinary Medicine, Surgery, and Obstetrics.* Edited by Prof. George H. Wooldridge. In 2 vols. Vol. 1: *Veterinary Medicine.* Pp. xiv + 546 + xxiii. Vol. 2: *Surgery and Obstetrics.* Pp. viii + 547 + 1106 + xxx. (London: H. Frowde and Hodder and Stoughton, 1923.) 2 vols., 6l. 6s. net.

To describe this work as an encyclopædia is a little misleading. It comprises two volumes, the first of which deals with veterinary medicine and the second with veterinary surgery and obstetrics, but they are distinguished from what are commonly called text-books on the same subjects only by the fact that a large number of authors have collaborated in their production. The preface expresses the hope that the work will be found useful to veterinary students, owners of animals, and members of the medical profession, as well as to the general veterinary practitioner; but it is obvious that the guiding consideration in the production of the work has, quite rightly, been the requirements of the practising veterinary surgeon.

No veterinary work on exactly the same plan has previously been published in Great Britain, but it may safely be said that as a practical and scientific treatise it is superior to any of the previous English text-books on the same subjects. In a work to which more than thirty authors have contributed, absolute uniformity in style and other qualities of the different sections is not to be expected, but for the most part the language is clear and concise, and the information is up-to-date. A notable defect, especially marked in the first volume, is that the amount of space devoted to different diseases appears to bear no close relationship to the importance of the subject. It seems impossible to imagine any good reason for allowing seventeen pages to horse-sickness, which is a purely African disease, and six pages to snake-bite, while tuberculosis is only allowed ten pages, and glanders, epizootic abortion, foot-and-mouth disease, and rabies together occupy only sixteen pages. The value of many of the articles is enhanced by good illustrations, and the publishers' share of the work has been well done.

*Archives de morphologie générale et expérimentale.* Fascicule 14 (*Morphologie expérimentale*): *Le Déterminisme et l'adaptation morphologiques en biologie animale.* Par Prof. R. Anthony. Première partie: *Déterminisme morphologique et morphogénie.* Pp. 374. (Paris: Gaston Doin, 1922.) 28 francs.

THIS work is an attempt to describe the form and structure of animals in so far as they can be shown to be determined by morphogenetic factors in the environment. The author begins with generalities about life, evolution, and variation, sketches the history from the earliest times of a rational explanation of morphology, upholds the Lamarckian doctrine with the usual inconclusive arguments, and incidentally places the Emperor Julian as a precursor of Lamarck. Thence he passes to the description of observations and experiments on the effect of external factors on structure, more especially in molluscs and vertebrates.

Although there appears to be little in this account which is actually new, yet Prof. Anthony has brought together a number of interesting facts showing how closely structure is correlated with function—how, for example, the shape and size of muscles and the relative lengths of muscle fibres and tendons are regulated according to the motions to be executed, also the shape and internal structure of bones. It follows that in many cases they can be altered experimentally.

These observations, however, seem to us to prove, not that the Lamarckian theory of evolution is correct, but that organisms are the products of the interaction of the physical basis of heredity with the environment in which they develop. This fundamental conception, long ago appreciated by the botanist with regard to plants, is still but imperfectly understood by the zoologist.

*Department of Scientific and Industrial Research. Memoirs of the Geological Survey. Summary of Progress of the Geological Survey of Great Britain and the Museum of Practical Geology for 1921, with Report of the Geological Survey Board and Report of the Director.* Pp. iv + 189. (Southampton: Ordnance Survey Office; London: E. Stanford, Ltd., 1922.) 5s. net.

FOR many years past, geologists who wish to keep pace with research in the stratigraphy or petrology of our islands have found that they must not overlook the annual volumes modestly entitled "Summary of Progress of the Geological Survey." The issue for 1921 contains a paper by E. E. L. Dixon on "The Retreat of the Lake District Ice-Cap," and the formation of fluctuating lakes held up by glacier-dams. The relations of kames and outwash-mounds of various kinds are considered, and the protruded products of sub-glacial melting, where clearly connected with a "feeding esker," are well styled "esker deltas." Foreign geologists may be puzzled at the frequent occurrence of the name of Lamplugh in a glacial paper as that of a village at the foot of Owsen Fell. On p. 129, Dr. R. Kidston provides a new example of how the determination of the species of Carboniferous plants enables the "practical man" to determine the horizons of his coal-seams. The lists of species from the beds now shown to be Westphalian in the Durham