

have been several parallel groups all evolving in the same direction but at different rates—a phenomenon which is now becoming familiar to those who trace the distribution of extinct animals through successive geological formations.

When the monograph had been completed, the exploring party of the American Museum of Natural History in Mongolia made the first great collection of remains of Titanotheres from Asia. Prof. Osborn has therefore added a very interesting appendix on this discovery. It appears that most of the genera found in Asia are identical with those already recognised in North America, but they are represented by species which are about twice as large as those already met with in America. There is also a new genus, *Embolotherium*, comprising some of the largest Titanotheres known, in which the two immense horns are fused into a battering-ram. This animal was one of the latest members of the race, existing at the end of Lower Oligocene time; and when it became extinct, its place was taken in the Gobi region by the gigantic *Baluchitherium*, which belonged to the rhinoceros group.

Prof. Osborn's stimulating monograph, indeed, leads us to hope that it is only the first of a series which the United States Geological Survey will publish, when other groups of American fossil vertebrates have been studied in equal detail from our present point of view.

A. S. W.

Domestic Science

- (1) *Everyday Domestic Science and Hygiene*. By I. C. Joslin and P. M. Taylor. Pp. viii + 532. (London: Macmillan and Co., Ltd., 1932.) 6s.; Part 1, 3s.; Part 2, 3s. 6d.
- (2) *Household Physics*. By Walter G. Whitman. (The Wiley Technical Series for Vocational and Industrial Schools.) Second edition, revised. Pp. vii + 502. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1932.) 16s. 6d. net.

(1) **T**HE first of these books has been written with the object of providing a scientific foundation for a school course in household science and human physiology up to the standard of the General Schools Examination. The general plan of the book is excellent. The elements of physics and chemistry are first dealt with, and the pupils' interest in the subject is well maintained both by the experimental work and by the numerous examples showing the application of the principles to domestic work. A knowledge of food values is essential for the proper planning of meals, and the

authors have shown their appreciation of this fact by their very thorough treatment of this section of the subject. The source, preparation, and methods of cooking of the chief substances used as foods are described and many experiments are given. A chapter on micro-organisms well emphasises the necessity for cleanliness in the preparation and storage of foods—a subject which in Great Britain has, up to the present time, received far too little attention. Human physiology, personal hygiene, and first-aid are treated so far as “they may be studied appropriately in a general science course for girls”.

The authors do not give any indication of either the number of periods a week or the number of years required to complete the course satisfactorily. An examination of the book would indicate that three periods a week, one devoted to practical work and two to class work, for three years, would enable the work to be done in such a way as to secure the maximum value in educational training and a good knowledge of the subject. The book is one of the best dealing with this subject that has appeared in recent years; the sequence of practical work and class work is excellent, and the most recent developments are included. Among such may be mentioned the ‘Regulo’ device for controlling the temperature of the modern gas oven, the principles underlying the working of the household refrigerator, and the importance of vitamins in foods.

(2) The second of these books aims at presenting physics adapted for girls both in general and in home economics courses. The method is almost entirely instructional as distinct from educational, and every device used in the home, from electric lamps to ‘talking picture’ projection, and from carpet sweepers to twelve-cylinder motor cars, that depends in any way upon physics, is fully described. Most of the subjects are treated in far too great detail; for example, it is not necessary, for an intelligent understanding of the working of electric home appliances, to have a knowledge of magnetic fields around a solenoid or of the principles underlying the use of ‘step-up’ transformers. It is difficult to justify the inclusion of descriptions of such instruments as compound microscopes in a household physics course. The illustrations are numerous and excellent, and the subject matter is dealt with in a very interesting way. The book is one that would appeal to all mechanically minded boys, and would be a welcome addition to any boys' school library.

It will be noticed that though both the books have about the same number and size of pages and are equally well produced, the price of the first is 6s. and of the second 16s. 6d.

J. H.-S.