

through a device called the reproducing head, which is sensitive to the changes in the magnetism in the tape. In the ideal case these correspond to the original alternations applied to the recording head. When a new record is wanted, it is necessary to remove the previous variations in the magnetism before recording. This is done by passing the tape through a 'wiping head' which strongly magnetizes the tape. The wiping, recording and reproducing heads used in the experiments described by the authors have different types of coils and pole-pieces, but are in other respects identical.

#### British Museum (Natural History): Recent Acquisitions

A COLLECTION of 2,300 otoliths or 'ear-bones' has been purchased for the Fish Section of the Zoological Department. These specimens represent 570 different species, and were collected by Mr. G. A. Frost over a period of thirty years. This is the largest and most important collection of otoliths in existence, and it is especially valuable because it formed the basis of a series of papers published by Mr. Frost between 1925 and 1930. The most important gift to the Department of Entomology is the collection of Lepidoptera formed by the late Mr. Edward Meyrick. The collection is estimated to contain more than 100,000 specimens. Among the more important accessions to the Department of Geology is a collection of bones from the Lower Miocene of Kenya, including remains of mastodons, antelopes, rhinoceroses and dinotheres, collected by Archdeacon W. E. Owen; also a very fine series of the remarkable creature *Palaeospondylus* from the Middle Old Red Sandstone of Achanarras, Caithness, collected and presented by Mr. C. Forster-Cooper, now the director of the museum.

PURCHASES in the Department of Mineralogy of the Museum include good crystals of cassiterite (tin-stone) from Bolivia and three remarkably fine nodules of Variscite from Fairfield, Utah. The nodules, two of which are about a foot across, have been cut through and polished to show the beautiful colour of the mineral, which is nearly related to turquoise. From the same source have been obtained five splendid crystals of wulfenite (lead molybdate) from Red Cloud mine, Yuma county, Arizona. In this connexion it is of interest that Mr. A. W. G. Kinsbury, of Chewton Mendip, has recently rediscovered the mineral wulfenite at Higher Pits, Priddy, in the Mendips, and has recently presented specimens to the Museum. Four meteorites new to the collections have been acquired. The Department of Botany has received 582 specimens of flowering plants collected by Dr. Hugh Scott and Mr. E. B. Britton on the recent expedition to south-west Arabia, a district little known botanically, but historically famous by the collections made in 1775 by Linnæus's student Forskal. Also a collection of 382 specimens collected in Greenland and Ellesmere Land has been presented by Mr. R. W. Feachem. The purchases include 2,000 paintings of fungi by the late Dr. Knauth which will be of very great value in making identifications.

#### Research at Millport

THE annual report of the Scottish Marine Biological Association for 1936-37 shows that much good work is in progress. A scheme has been prepared for extension of accommodation which it is hoped will soon be carried out. Among other things, the library space will be considerably enlarged. Work on the growth and food of the herring has been continued by Drs. Orr, Marshall and Nicholls, mainly on the young herring. In 1935 the life-history of the herring was followed from hatching in March to metamorphosis at the beginning of June. Since July 1936 catches have been made every fortnight up to the present time in the immediate neighbourhood of the laboratory. The largest numbers were caught at dusk. Work on algal ecology has been continued by Dr. D. C. Gibb, and on animal ecology by Mr. A. J. Haddow on the growth of *Sertularia*, and by Dr. E. E. Watkin on the Amphipod genus *Bathyporeia*. In view of the failure of the herring supplies during the winter, a number of fishermen have turned their attention to "clams" as *Pecten maximus* is called locally. Preliminary work on this mollusc indicates that at five years it measures 4 inches wide, growth being indicated by winter rings, and it takes four years to reach a marketable size. It therefore grows too slowly to maintain for long the call now being made on the reserves of the species. Interesting results from examining the stomach contents of shags and coromorants are shown. The shags visiting sandy areas feed on shrimps and polychaetes and on rocky shores eat prawns (*Leander*).

#### Vitamin B<sub>1</sub>

WE have received from Messrs. Merck and Co. an illustrated brochure of upwards of fifty pages entitled "The Story of Vitamin B<sub>1</sub>", which gives an up-to-date account of the chemistry, physiology and nutritional value of the vitamin. To each section is appended a useful bibliography, from which those interested can obtain more detailed information than it is possible to give in a summary review. The information supplied, nevertheless, covers the field remarkably well and brings together work which is scattered in numerous journals, so that the reader obtains a picture of our present knowledge of the vitamin in all its aspects and is readily able to see how far the work of different authors is in agreement or otherwise. After an account of the chemistry and synthesis of the vitamin, a useful section is devoted to the question of its standardization and the relationship of the different "biological units" to the international unit, information which is not readily available in summary form. Our knowledge of its physiology is then reviewed, and the following sections are devoted to its value in human and animal nutrition, the normal human requirements and the effects of a subnormal intake. The brochure is not intended for general distribution, but will be sent to investigators in the field of vitamin therapy, to medical specialists, food chemists, research workers in human and animal nutrition, colleges and universities, Government agricultural and experiment stations, and manufacturers of pharmaceutical and proprietary products.