his assistants, Dr. Broili, with Mr. Charles H. Sternberg, the well-known collector, into the Permian of Texas. The Natural History Museums of London have conducted explorations both in Egypt and in Greece. In the latter country Dr. A. Smith Woodward has been working in the Lower Pliocene of Pikermi, and has secured 47 boxes of valuable fossils, including horses, rhinoceroses and, of still greater rarity, another specimen of the hyracoid, *Pliohyrax*.

Mr. Charles W. Andrews, of the British Museum of Natural History, went on several expeditions into the Nile desert, accompanying the geological survey of Egypt. A year previous he had reported the existence of fossil mammals of undoubted Oligocene age; during the present expedition he made the most important discovery of early and generalized Proboscidea, especially of a small mastodon-like animal, with both premolar and molar teeth in place. Older beds were found to contain a primitive *Dinotherium*. Since the oldest *Dinotherium* and *Mastodon* of Europe are of Miocene age, this discovery not only carries the proboscidean phylum further back, but is strongly in favor of the theory of the African origin of this order. Africa has long been the dark continent of paleontology, and one of the results of English occupation will undoubtedly be a succession of paleontological discoveries of the greatest interest.

The special explorations for fossil horses by the American Museum have been completely successful. The Texas expedition in July secured eight skulls of *Protohippus* with portions of the skeletons associated. They are all in a hard matrix and somewhat crushed. The Colorado expedition has secured a complete skeleton, in a perfect state of preservation, of the large Upper Miocene or Loup Fork horse. This *Anchitherium* is the first complete skeleton of a horse of this period which has been found in this country. The explorations in the same region seem to demonstrate that there were four distinct types of horses, almost contemporaneous. It has been reported also that the Carnegie Museum secured some very complete horse skeletons, but these prove to belong to *Merycochoerus*, an oreodont.

Another discovery of importance, by the Texas party of the American Museum, is the nearly complete shell of the armored edentate *Glyptodon*, four feet in length, together with two feet of the armored tail and parts of the skeleton within the shell. Hitherto *Glyptodon* has only been known from teeth, recorded by Cope from southern Texas, in 1888, and by Leidy from Florida in 1889. The present specimen is almost identical in its elaborate shell-pattern with the Pampean glyptodons.

The explorations for Dinosaurs in the Jurassic have also been very successful. Several discoveries have been reported by the Field Columbian Museum party in western Colorado. A Carnegie Museum party has been working in the sandstone of Marsh's old quarry near Cañon City, and has secured parts of the skeleton of *Morosaurus*, and a skull of *Stegosaurus*. The American Museum has continued its exploration of the Bone Cabin Quarry, in central Wyoming, resulting in the discovery of the skull of one of the large Sauropoda, also the skull of a large carnivorous Dinosaur, and parts of the skulls of two other Dinosaurs, besides a quantity of skeletal material.

The Triassic is still the least known period. Reports from Professor Lester F. Ward of the existence of vertebrate fossils in Arizona led to a party being sent out by the National Museum under the leadership of Professor Ward, assisted by Mr. Brown, of the American Museum, resulting in the discovery of remains both of Dinosaurs and of the primitive crocodile-like Belodons. The Dinosaurs appear to be related to the Stegosaurian division, according to the preliminary examination made by Mr. F. A. Lucas, and there is also a new genus of Belodon in the collection.

H. F. O.

September 9, 1901.

REPORTS OF FOREIGN MUSEUMS.

THE report of the Australian Museum, Sydney, N. S. Wales, for 1899, shows that institution to be doing good work, although hampered by the smallness of its appropriation. Owing to what the curator terms a 'miserable appropriation' for the purchase of specimens, the growth of the collections has been principally

through donations from individuals, 317 donors having presented some 6,000 specimens. This and the attendance speak well for the popularity of the Museum. The government did, however, provide $67,500 for an addition to the Museum building which was already a much finer structure than the National Museum of the United States. The most important accessions were an oar-fish, *Regalecus gesne*, the third of the species known, and an oil-fish, or 'palu,' *Ruvettus pretiosus;* the remainder of the important additions were ethnological. In the exhibition series special attention seems to be given to groups of birds, and fifteen new 'nest groups' were added, besides an additional example of the interesting nest of the bower bird, *Chlamydodera maculata;* this was elaborately decorated at both ends with bones of mammals and birds, shells, pebbles, bits of glass and other objects. It is announced that the manuscript and illustrations for the 'Catalog of the Nests and Eggs of Birds found breeding in Australia' is well advanced. The work will comprise some three hundred pages of text, about one hundred text figures, thirty plates of eggs and forty of nests, and its publication will extend over a period of three years.

The Manchester Museum, Owens College, in its Reports for the year 1900–1901 also makes a good showing for a small expenditure. The principal increase in the collections has been in lepidoptera, plants and mollusks, among the last being an example of the very rare *Pleurotomaria adansoniana*. A specialty of this Museum appears to be the preparation of exhibits of an educational value, and among them is a series of moths selected to represent the families given in the Cambridge Natural History, dissections of Mollusca to illustrate the system of classification based on the gills, and a series of skulls to illustrate dental anatomy and arranged and labeled for the advantage of students.

A series of excellent lectures, addresses and demonstrations was, as usual, given during the year by members of the Museum staff and, as in the past, one is a little surprised at the small attendance on some of these in a city of half a million inhabitants. For example, an address by Boyd Dawkins on 'Our Neolithic Ancestors' drew an audience of only ninety-five. The Sunday lectures, however, were better attended, the most popular being 'The Arrival of Man.' An attractive series is announced for the coming fall and winter.

F. A. L.

SCIENTIFIC NOTES AND NEWS.

THE fourth Glasgow meeting of the British Association opened its sessions on September 11. The address of the president, Professor A. W. Rücker, printed in the last issue of SCIENCE from a copy sent in advance of its delivery, was given at the inaugural meeting in the evening. Professor Rücker was introduced by the retiring president, Sir William Turner, and the usual vote of thanks was proposed by the Lord Provost of Glasgow and seconded by Lord Kelvin. The general committee held its first meeting on the 11th, when on the proposal of Sir Michael Foster, a cablegram with expressions of sympathy was sent to President McKinley. At the second meeting of the general committee Professor James Dewar was elected president for next year's meeting at Belfast, and the date of the opening of the meeting was set for Wednesday, September 10. It was decided to hold the meeting of 1903 in Southport, where the Association met twenty years previously. Sir W. Roberts-Austen and Dr. D. H. Scott were reappointed as general secretaries, Mr. G. Griffith as assistant general secretary and Professor Carey Foster as general treasurer. The following were appointed vice-presidents for the Belfast meeting: The Marquis of Dufferin, the Marquis of Londonderry, the Earl of Shaftesbury, Sir F. Macnaghten, and the Earl of Rosse, Lord Mayor of Belfast, the president of Queen's College and Professor Ray Lankester.

THE University of Adelaide, Australia, will be represented at the Yale bi-centennial by Dr. Edward C. Stirling, professor of surgery.

MR. F. J. V. SKIFF, director of the Field Columbian Museum, has been appointed director of exhibits for the St. Louis Exposition. Mr. Skiff was deputy director-general of the Columbian Exposition, and was director in chief of the United States Commission to the Paris Exposition.