

object for which it was established—the study of the natural history and antiquities of the neighbourhood. The volume before us contains a selection of some of the principal papers read at the Club meetings during these ten years, and, as a whole, they reflect credit on the diligence, intelligence, and knowledge of the authors. Both the papers on general and those on local subjects contain much valuable material, quite deserving of publication, and the latter especially will be useful to those who want information on the natural history and antiquities of Staffordshire. One of the most interesting general papers is by Dr. J. Barnard Davis, "On the Interments of Primitive Man," which is illustrated by some beautifully executed woodcuts. Of the papers on local subjects, we may mention "Notes on the Fossil Trees in a Marl Pit at Hanley," by John Ward, F.G.S.; "The Geology of Mow Cop, Congleton Edge, and the surrounding district," by J. D. Sainter, F.G.S.; "On the absence of Waterfalls in the Scenery of North Staffordshire," by J. E. Davis; and "On the Organic Remains of the Coal Measures of North Staffordshire," by John Ward, F.G.S. Appended is a considerable list of Macro-Lepidoptera taken and observed in North Staffordshire by members of the Club, by T. W. Daltry, F.L.S. The illustrated paper on Croxden Abbey is a valuable one of its kind.

### LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

#### The India Museum

IN your notice of the various transfers of the India Museum (vol. xii. p. 192), you do not allude to the somewhat important fact that from 1869 up to the recent opening of the new museum the whole of the Natural History Collections have been kept in closed boxes in the cellars of the India Office.\* This has been a grievous wrong to working naturalists, who have constantly required access to typical specimens to solve various points of inquiry.

Again and again the attention of the authorities of the India Office was called to this state of affairs without effect, and naturalists cannot give too much credit to Lord Salisbury and the present Administration for putting an end to the scandal that existed so long.

Unfortunately, however, as I prophesied, it has been found on opening the boxes that some of them have been attacked by moth, and that valuable specimens have perished.

July 9

P. L. SCLATER

#### Irish Cave Exploration

DURING the last few weeks Dr. Leith Adams, F.R.S., and myself have been exploring an ossiferous cave at Shandon, near here, under a grant from the Royal Irish Academy. Bones of mammoth, reindeer, bear, wolf, horse, and hare, were found in the *débris* of a quarry here in 1859, and are now in the Royal Museum, Dublin. We have worked through a considerable quantity of limestone breccia and stalagmite, in which and in a thin underlying deposit of cave-earth we have found numerous bones of the above-mentioned animals, indicating at least two individuals of mammoth, eighteen of reindeer, and five of horse, for which latter this is as yet the sole recorded locality in Ireland. The bones of bear show extreme age and signs of disease, and we have found the cast antler of a reindeer. Some of the bones have been gnawed, probably by wolves, and many have been broken by the falling-in of the roof of the cave. Though we have broken into a large chamber, we are as yet unable to form a clear conception of the original form of the cavern. A full account of the cave previous to the present exploration was given by Prof. Harkness in the *Geological Magazine* for June, 1870.

G. S. BOULGER

Dungarvan, Co. Waterford, July 11

\* See NATURE, vol. vii. p. 437.

#### Sea-power

WILL you allow me to ask your readers one or two questions upon a subject which may ultimately belong rather to an engineering than to a purely scientific journal, but which at present has not, I believe, passed into the hands of practical men? I wish to know:

1. Where—if anywhere—use is made of the movements of the sea as motive powers?

2. Where I can find the latest and fullest information upon this subject?

I have an impression that a paper on the subject appeared in one of the volumes of NATURE, but I cannot find it. The latest paper on which I can now put my hand is M. Cazin's lecture on "Les Forces Motrices," in the *Revue des Cours Scientifiques* of Feb. 19, 1870. The lecturer mentions the failure of the *moulins de marée*, and gives a description, with diagram, of M. Tommasi's proposed *flux moteur*.

It has long appeared to me that the immense importance of the question as to the possibility of utilising sea-power has not been sufficiently recognised. The practical solution of this question would not only give to England an inexhaustible motive power, but would also, to a considerable extent, solve at once such problems as are connected with the rapid consumption of our coal, the pollution of our rivers in manufacturing districts, the unhealthy and immoral massing of our working classes in dirty and smoky towns and cities, &c. Moreover, the space covered by the sea-side factories would in many instances be merely the almost waste border-land between sea and field.

Giessen, June 30

A. R.

#### Sea-Lions

IT will be no doubt interesting to your readers to learn that a pair of Sea-Lions have just been added to the collection of animals in the Jardin d'Acclimatation, Paris. They are said to have been brought from the North Pacific, and are marked *Otaria stelleri*, but I think from their small size and long narrow heads that the species is more probably *Otaria ursina*, the Northern Sea Bear, whose principal habitat is the Pribylov group. They are quite young, and the female is larger than the male.

The administrative committee of the Garden has caused a large tank to be built for their reception similar to that in our Zoological Gardens, only rather larger. They seem in excellent health, and it will be interesting to see whether they breed in captivity.

They have no special attendant, so far as I could see, as the Sea-Lions at our Gardens have, and are therefore only fed at stated times. On the day of my visit the keeper was late, and the female became hungry. She gave vent to her feelings by a curious cry, a prolonged "Ah—a—a—ah," repeated at short intervals—something like the bleating of an angry sheep.

It is to be regretted that these animals were not secured for our Gardens, where the best method of managing them is so thoroughly understood, and where consequently the experiment of breeding might have been tried with a better chance of success than elsewhere.

J. W. CLARK

Museum of Zoology and Comparative  
Anatomy, Cambridge, July 11

#### Hereditary Affection of a Cat for a Dog

I HAVE reared a fine mastiff. He is now three-and-a-half years old. When quite a puppy he and a kitten evinced a strong liking for each other. The kitten, when able to leave her mother, fixed her residence in the dog's kennel, and never seemed happy when away from her large friend. She ate her breakfast out of the dog's bowl, and slept in his kennel with his paws around her. She used to catch mice and young rats, and carry them to him, and seemed quite pleased when he accepted friendship's offering. One morning I observed the cat preparing a bed with straw in the corner of the kennel—an ordinary wooden one, 4 feet by 2½ feet. As she was going to have kittens, I thought she intended making the kennel her nursery, and "Cato" (the dog) her head nurse. Such proved to be the case. She brought forth five kittens, and there they lay for some time. The mother frequently went away for hours, leaving the dog to look after her family. I many times stooped down to examine them, and "Cato" stood by my side quite proud of his charge. The poor