as those of barndoor fowls to ourselves. I have stayed at a farm at Cape Point, where a pair of the birds were nesting within fifty yards of the house, in a small paddock, and have seen the hen on the nest.

An interesting subject of inquiry, however, seems to me to be still open in the matter. It is, How far do the habits of nidification of the ostrich vary in the different climates through which it ranges? The nest of the ostrich is commonly described as a heap of sand, and so no doubt it is in warm desert regions; but the nest which I saw at the Cape was carefully built of grass and other warm materials, so as to aid in retaining heat. The birds kept the nest almost constantly covered between them.

In warmer regions, however, the hen appears often to leave the nest in the daytime, and it is just possible that where the temperature is very high the hen may not incubate at all, and the cock alone may do so at night. I merely wish to point out that it should not be assumed that the habits of the ostrich as to incubation are necessarily the same in the various climates of Africa with those to be observed in the Cape region.

I have noticed that at the Zoological Gardens the ostriches at the breeding season are supplied every year with a cartload of silver sand as the traditional nest. It would not be amiss to try them with some more substantial materials as an experiment, and prove whether in our climate they would not build a warm nest as at the Cape.

That birds' eggs can be hatched like those of turtles in mere sand is undoubtedly a fact. The Megapodius inhabiting Cape York, Australia, makes, as is well known, a huge mound of vegetable matter, which by decomposition supplies the necessary warmth to hatch the eggs; but at the Philippine Islands another Megapodius buries its eggs in the perfectly clean calcareous sand near the seashore.

The habits of the emu in nesting have been carefully watched at Blenheim. The head keeper told me not long ago that the cock alone incubates. The hens lay their eggs anywhere about in the grass, the cock builds a nest, and rolls the eggs to it, the hen sometimes endeavouring to prevent him and to break them. I believe an account of observations on the habits of the emu at Blenheim were published by Mr. Frank Buckland.

H. N. MOSELEY

Bonchurch Hotel, Isle of Wight, March 26

Holothurians

MY experience of about three months in Bermuda and Jamaica fully bears out Mr. Guppy and Mr. Kent's view that the Holothurians do not feed on living coral. They were moderately common in both localities close to the shore, where corals are comparatively scarce, and are mainly of the massive kinds, such as the Astræas, against which the tentacles of a Holothurian would be useless. There were a few branching Oculinas here and there, but not enough to support the Holothurians. But further, some of the latter bury their bodies in the mud or sand, leaving only the tentacles exposed; and I have watched these thrusting their tentacles into their stomachs right up to the base in the comical way described by Mr. Kent. It is quite clear that these were not feeding on living coral. I did not, however, see them actually taking up sand and shell and thrusting it down, as Mr. Kent did; in fact I was puzzled as to what they were feeding on. From the way the tentacles were set, standing nearly erect, I fancied they were catching swimming creatures, as other tentacled animals do. This idea is supported, though not proved, by a fine specimen from the Zoological Station at Naples, which has a half-swallowed fish protruding from its mouth. The specimen is in the Bristol Museum. It proves at all events that they do not reject this kind of food. Possibly in default of it they may fall back upon sand and shell, and the minute organisms contained in these. Some of my experiences with these creatures were interesting. At Bermuda two large kinds used to lie quite exposed in shallow water. I might have guessed from this that they would probably be protected in some way. I used to wade along shore carrying a fishing-basket and a landing-net, and one day, as my basket was full, I put a couple into the landing-net to carry home. As their skins were quite hard, I thought they would travel well so. After handling them, I found my hands smarted a little, and the irritation lasted till bedtime. I found that little bits of their skin had got under mine, and this caused the irritation. As I was going home, I found my Holothurians were literally melting away; long streamers of a colourless gelatinous substance were hanging down between the meshes. Of course I threw the nasty things away, and had a dreadful job to get the net clean. I attributed my misfortune to the sun, so another day I packed a couple up comfortably at the bottom of my basket, which is very closely made. After an hour or two I was horrified to find long streamers hanging down from the basket of the same horrible substance. They had literally gone to pieces again, and spoilt everything in the basket. Shortly after, I left for Jamaica, and there I took out a wide-mouthed bottle and brought one home in triumph. Being engaged that evening, I left the Holothurian in the bottle all night. Next morning the creature was all there, but he had cleared out the whole of his inside; his intestinal canal and the beautiful tree-like organ were perfect. The latter was still alive and was waving about in the water in the prettiest way, and looking remarkably like branchiæ. Some accessory organs along the intestinal canal were exhibiting rhythmical pulsations. Altogether it was a most interesting sight. But my poor Holothurian was only a tube. I did not know at the time that he could grow a complete new inside.

Clifton College J. G. GRENFELL

The British Circumpolar Expedition

SUPPLEMENTARY to the very interesting notice in NATURE (p. 484) of the above expedition, permit me to give a brief extract from a letter recently received from Capt. Dawson, as follows:—"I have heard of a large cavern about a day from this (Fort Rae), which I shall try and explore. There are some eyeless fish that live there, that I hope may turn out to be a new species." I do trust Capt. Dawson may be able to carry out his intention, but he must be heavily weighted with work, in which he appears to take a deep interest. I had long ago been told of this cave and its fish, but had no time to visit it, never having been within one or two hundred miles of the place.

March 24 J. RAE

Meteor

MR. MASHEDER'S account in your last number of NATURE (p. 483) of the meteor seen by him at Ashby-de-la-Zouch on March 17, corresponds in some particulars with the inclosed note of one seen by myself on the same evening at Malvern. I am therefore inclined to send it you.

The discrepancies are in the time, which Mr. Masheder states to have been 7.5, while here the meteor passed at 6.56 p.m.; also in his description of "pieces dropping," I noticed no such appearance, but simply the not unusual one of rapidly recurring scintillations in the train.

Great Malvern, March 17, 6.56 p.m.

This evening a bright flame-coloured meteor with a short scintillating train, nucleus the brightness of Jupiter, passed rapidly across the sky. When first seen it was beneath the moon, then shining brightly, and was apparently about the altitude of Betelgeux, at that time nearly 10° past the meridian. It disappeared behind the hills almost due west, but so quickly that it was difficult to determine its course with any exactitude.

Lambert House, Great Malvern, March 25 E. BROWN

Mimicry

SUCH remarkable instances of mimicry as that described by the Duke of Argyll in NATURE, vol. xxvii. p. 125, as occurring in a moth, make heavy demands upon the faith of the non-scientific reasoner, since it seems to him impossible that organic Nature in her "blind groping in the dark" could, under any imaginable combination of circumstances, have succeeded in taking the successive steps requisite to bring her to such a state of perfect adaptation to condition. But the proverbially keen sight of birds, *as at present organised*, is apt to lead to erroneous inferences with regard to the evolution of protective mimicry in their insect prey, seeing that the high development of this faculty now attained by them renders nugatory any disguise that is not almost perfect. The theory of natural selection, however, requires the gradual perfecting of this, no less than of other structural and physiological acquirements; and there is no reason for supposing that the Ornithoscelidan ancestors of the feathered tribes possessed exceptional visual powers, but rather that the reverse was the case; so that it may be concluded that improvement in vision and in rapidity of flight proceeded *pari passu*. This being granted, the initiatory steps of mimicry in