

The Malabars, who were introduced into Mauritius as Coolies, would not sleep under tamarind trees, on account of their supposed noxious effects; but it is possible that superstition has something to do with their objection.

S. P. OLIVER

#### On the Origin of Certain Granitoid Rocks

DR. CALLAWAY'S interesting letter with the above heading in NATURE (vol. xx. p. 219) tempts me to send you the following paragraph from my paper in the *Quart. Journ. Geol. Soc.* for May, p. 286, in which the hällerfintas of the Arvonian there mentioned are first described:—

"The mode of behaviour of the quartz also here is particularly interesting and instructive in regard to the changes which many crystalline rocks have undergone, especially the gneisses. In some cases the quartz is seen in distinct fragments, but yet coalescing, as if attracted together by some natural affinity from the surrounding material. In the next place the grains are so compressed together (and yet distinctly fragmentary) that all other material is removed, and nests of pure quartz grains only are seen, having a very crystalline appearance. By this selective process also the darker material is brought together and made to fold round the nests, so that a banded or imperfect flow-structure is given to the rock. All this looks as if an incipient gneiss was being formed, the metamorphic action being incomplete, a kind of semi-metamorphism and softening having taken place sufficient only to allow the particles to arrange themselves according to their natural affinities."

It will be seen that the conclusions arrived at by Dr. Callaway in his recent examinations of similar rocks in Shropshire are almost identical with those previously formed by myself in Pembrokehire. The careful microscopical examination of rocks of an intermediate type like these hällerfintas appear to be, cannot fail, I think, to clear up some of the difficulties hitherto experienced in endeavouring to explain the origin of many of the crystalline rocks.

HENRY HICKS

Hendon, July 4

#### Distribution of the Black Rat (*Mus rattus*, Linn.) in Italy

It may interest the readers of NATURE to know that the black rat is very abundant and widely distributed in Italy and her islands. In the Central Collection of Italian Vertebrata which I have founded in the Florence Zoological Museum, I have a large series of specimens from no less than fifteen localities, viz., Domodossola, Casale, Florence, Radda, Arezzo, Castelfalfi, Lecce on the continent, Bastia (Corsica), Cagliari (Sardinia), Castelbuono Madonie (Sicily), and from the islands of Elba, Pianosa, Montecristo, Giglio, and Lipari. On the smaller islands the larger *M. decumanus* does not exist at all, but elsewhere the two species live side by side. In the Florence Museum we have *M. decumanus* in the cellars, and *M. rattus* upstairs. This proves that the black rat is very far indeed from extinction with us; I should say that it is generally more abundant in Italy than its larger congener, at least such is my experience.

I may add that we have two, if not three, very distinct varieties of *M. rattus*, viz., the typical black *M. rattus*, the grey and white *M. tectorum*, Savi, and the brown hirsute *M. alexandrinus*. The two former are positively one species, and I have them from the same litter; the latter is, I believe, generally admitted to be specifically identical with *M. rattus*.

HENRY H. GIGLIOLI

Royal Zoological Museum, Florence, July 4

#### Barbed Hooklets on Spines of a Brachiopod

MR. THOMAS DAVIDSON, F.R.S., describes, on p. 275, and figures, in pl. xxxiv. of the Supplement to his "Carboniferous Brachiopoda," now on the eve of publication, some important points in the structure of *Spirifera lineata*, Martin, which specimens in my collection have revealed. In this species the shell structure is minutely punctate, and the flattened spines, which are usually broken off short, contain in their interior a double canal, that terminates upon the outer surface of the shell in a series of double pores. I have recently been fortunate enough to find a specimen from the High Blantyre limestone shales having the spines in place. It appears that these spines are provided with numerous marginal opposite hooklets usually pointing

towards the free end of the spine. So far as I am aware, this structure is unique amongst the brachiopods. Mr. Davidson has kindly undertaken to note this interesting fact in the explanation of the plates of his forthcoming monograph, the text having been printed off before this observation was made; but I should like to draw the attention of palæontologists to the point, as perhaps similar structures may be found in other brachiopods. The materials are in Mr. Davidson's hands for extended notice when his leisure allows him.

JOHN YOUNG

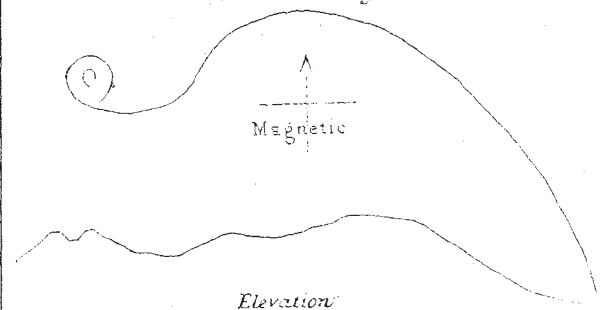
Hunterian Museum, Glasgow University, June

#### The Serpent Mound of Lochneil, near Oban

I WALKED over yesterday from here to examine this for myself. I started with some feelings of doubt as to whether it was not one of those fantastic shapes naturally assumed by igneous rocks, seen through the spectacles of an antiquarian enthusiast. I came away quite satisfied that it is an artificial shape, designedly given, and deliberately intended to represent a snake. It partly closes the entrance of a singular little rock amphitheatre with a waterfall at the head (the north end of it), the Loch being to the southward. There is a raised plateau to the northward of the serpent, nearly square. The ground is apparently a rubble of gravel, stones, and dirt, such as is found in moraines. The head of the snake had been opened, and showed a quantity of stones [with some indication of a square chamber in the middle.

I do not pretend to any antiquarian knowledge. The impression that it suggested to me, on the spot, was that a party had endeavoured to entrench itself, at the spot, but had been attacked before the entrenchment was complete on more than one face, and that the rampart was then converted into the snake form to commemorate either a successful assault, or the successful defence of an unfinished work.

Plan of ridge



I inclose you a sketch plan and elevation, of a very rough kind, which I made on the spot and have not retouched since, except by inking over my pencil marks.

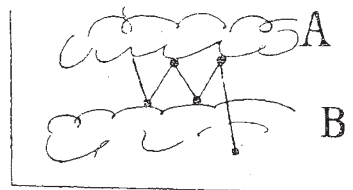
You have already (some years back), given a drawing and description of it. It should be stated that it is at the north-west corner of Lochneil, close alongside of the road from Oban to Callanach.

C. W. M.

Oban, June 19

#### The Origin of Hail

I SHOULD feel much obliged if any of your readers would kindly explain for me the following "explanation" of the origin of hail; which I have come across while reading for an examination:—



"Hail.—It consists of concentric layers of ice, and is caused by electricity. Imagine two clouds, A and B, charged with different fluids, and suppose that a drop of water falls from A. Its