Museum. The specimen has since been sent to London for examination, and casts were made for the British Museum and for Jermyn Street, as it was felt that the specimen might become of importance in future discussion. Bennett was positive in his assertion that the material on the stone heap came from Ladock Quarry, but Mr. J. O. Clemmow, of Ladock, who has been at some trouble in the matter, writes me as follows, under date 30th May, 1908 :—"As a large quantity of stone from the South Coast, near the Helford River, has been brought into the immediate neighbourhood and broken for the roads, I should say *that considerable doubt exists as to where the stone which produced* this fossil was quarried."

The fossil seems to me to be the internal cast of a species of *Spirifer* of Taunusian age, and its appearance is suggestive of some southern locality, possibly the Looe area, and certainly not such as one would expect from the Ladock stone. A sharp look-out is now being kept for any trace of life from the Ladock Quarry, but the men working it have never seen a single shell. Nor has any sign of life ever been seen by either Mr. Upfield Green or myself in numerous visits, except some black flat grass-like markings, which Mr. Newell Arber would not venture even to call 'plant-remains.'

As the occurrence of this fossil has been so definitely given in print, it seemed worth while to investigate the story while those concerned in the statement were accessible, as endless trouble is occasioned by these records in after years when it is impossible either to prove or disprove them. C. Davies Sherborn.

A NOTE ON GRANITE AND A NOTE ON RIPPLEMARK.

Sir,—Since the appearance of my letter on granite in the March number of the Magazine, I have submitted to a physicist the drawings of inclusions in two Dartmoor rocks, which appeared in my paper in the Magazine in March, 1904. (Copies enclosed.) I sought to ascertain the significance of their disproportionate contents of chlorides and of water. This is the reply :—

"At the temperature when the water, with salt, etc., is above its critical point, the salt and water vapour would form a homogeneous mixture, and enclosures of this homogeneous mixture should show on cooling the same proportions of dissolved salt, crystallized salt, and liquid water."

The inference is that the enclosures referred to caught up their contents when the temperature was under the critical point of the salt and water, whatever that may exactly be. It would be higher, I am told, than that of plain water.

From the above it would appear that the chlorides of the western granites are as good records of the temperature of crystallisation as the carbonic acid inclusions of some other rocks.

To turn to a totally different subject, I should like to point out that in the paper by the late Dr. Sorby, just published in the Q.J.G.S., an incidental remark will clear up nearly sixty years of uncertainty. Dr. Sorby mentions that the depth of water in which he observed the

ripplemarks discussed in his classic paper, published in 1859 in the *Geologist*, was from one to eight inches. Hitherto Dr. Sorby's views could not be reconciled with the results obtained by other workers at much greater depths. We now know that there is no need to attempt to do so, and that Dr. Sorby's observations were accurate for the special case studied. He tells us that before he recorded his conclusions he had made 20,000 observations! The pity is that the results were compressed into ten pages of print.

A. R. Hunt.

THE KRAAI RIVER VERTEBRA REFERRED TO *EUSKELESAURUS*.

Sir,—Dr. A. Smith Woodward (Geol. Mag., June, 1908, p. 251) reprinted a paper on *Scaphonyx Fischeri*, which in 1907 was said to be a short-necked Dinosaur allied to *Euskelesaurus*. In a postscript (p. 255) it is remarked—"From new specimens submitted to me by Dr. I. C. White, I am now of opinion that *Scaphonyx* is an Anomodont." The publication of this evidence will be interesting, for the figured Brazilian bones, although very imperfect, make approximations to Saurischians, and show little in common with known Anomodonts.

Dr. A. Smith Woodward figured a cervical vertebra (Fig. 1, l.c., p. 252), and it is on this evidence that *Scaphonyx* was affiliated to *Euskelesaurus*, and compared with the cervical vertebra collected by myself and presented to the Natural History Museum. I do not see any close affinity between them. I was not quite certain of my own determination, and (Ann. Mag. Nat. Hist., Nov. 1894, p. 340) remarked upon the vertebra as "indicating, *if correctly referred*, that *Euskelesaurus* was a short-necked type." The determination therefore was questioned by myself when it was first made. This appears to have been overlooked, for Dr. A. S. Woodward says in his postscript—"The preceding paper was written in 1904, when Professor Seeley's determination of the cervical vertebra of *Euskelesaurus* had not been questioned." The paragraph continues—"Since that time Baron F. von Huene . . 1906 . . has expressed the opinion that the vertebra in question does not belong to a Dinosaur, but to an Anomodont." I am under the impression that I had mentioned verbally to v. Huene that I had ceased to refer the vertebra to *Euskelesaurus*, but the reference of it to an Anomodont is entirely his own. The interest of the quotation from the postscript is in Dr. A. Smith Woodward's conclusion that *Scaphonyx* is an Anomodont; for it would appear that he adopts v. Huene's conclusion concerning the Kraai River vertebra, from which I dissent.

In 1905 I deposited in the Natural History Museum for development, with a view to eventual presentation after description, a skeleton which I had known for ten years to be referable to the animal type from the Kraai River, which had been doubtfully referred to *Euskelesaurus*. In 1907 these bones were exhibited by me at a conversazione of the Royal Society under Dr. Broom's name, *Erythrosuchus Africanus*. The animal is not an Anomodont. In superintending the removal of the matrix, I took occasion to draw Dr. Smith Woodward's