

dismay that it would appear to intrude on the subject of the President's Address, and on hearing the address I found that the President actually discussed the fusion temperature of albite from one extreme, whereas I had hoped to coax a discussion on the other extreme. Thus, instead of being able to ask the opinion of the section, I was obliged with all emphasis to warn the section not to allow my paper to be an excuse for discussing the President's views, and so transgress the inviolable custom of the British Association, not to attack a chairman when he is not free to defend himself. My paper being sent in too late for me to supply an abstract, the Recorder of Section C most kindly wrote the excellent epitome you have published, and therein stereotyped an undoubted ambiguity which I subsequently corrected in reading. Of course, hornblende does not always contain water, as might be inferred from my manuscript; but certain varieties are said to do so. But in the event of the hornblende being rejected, the chlorite, epidote, zoisite, and the fluid inclusions in the albite, are sufficient to prove my point.

A. R. HUNT.

FOXWORTHY, MORETONHAMPSTEAD.

#### 'SONOROUS' SAND.

SIR,—In September last I paid a visit to Tenby, and while there made a point of seeing the notable junction between the Old Red and Carboniferous series of rocks. The section is met with a few miles to the west of Tenby, in a small bay called Skrinkle Haven. I was doubly repaid for the effort of getting to this not very accessible spot by seeing a most interesting geological section, and finding musical notes emitted from some of the sand traversed while examining the junction.

I had never met with the phenomenon before, and, being pre-occupied, at first attributed the sounds to a knocking together of articles on my person; but, giving my attention to it, found the sounds arose from my feet at each step, as my boots sank into the sand. The notes were clear and metallic, and were emitted only from the dry, loose sand above the range of the tide. I did not test its 'musical' property in any other way than walking in it, but found an increase in the sound on thrusting the heel deeper into the sand.

In *Nature*, vol. xxxix, there are references made to investigations and explanations in regard to these sounds. Dr. Julian and Professor Bolton attribute them to "a film of condensed air round each grain of sand, which acts as an elastic cushion, and enables the sand to vibrate when disturbed," while Mr. C. Carus Wilson considers the sound to be caused by friction, "the cumulative effect of numerous vibrating particles that becomes audible."

In accordance with Mr. Wilson's theory, the grains in the patch of sand which emitted the sounds "were rounded, polished, and free from fine fragments; they must have had sufficient amount of 'play' to enable them to slide one against the other; the grains were perfectly clean, and possessed a certain degree of uniformity, within a certain range of size" (vide *Nature*, vol. xlv, p. 322).

A number of places where such sand is met with is given by these writers and others, but as no mention, as far as I am aware, is made of Skrinkle Haven, I thought it might be of sufficient interest to justify this note.

HARFORD J. LOWE, F.G.S.

TORQUAY.

SOUTH AFRICAN PETROGRAPHY.

SIR.—In my paper on the above subject in the August number I should like to point out two errors. Fig. 4 represents the diorite described immediately above it, and not, as stated, the granite referred to on p. 364. The other error, for which I am myself responsible, is in a reference to the melilite-bearing rock of the Spiegel River in Cape Colony (p. 366). This was discovered by Messrs. Rogers & Schwarz, of the Cape Geological Commission, and described by them in the report of that body for 1898, p. 62. Professor Cohen's description referred to is of a Transvaal rock of a similar character, and I cannot now account for having confused it with the other. My delay in correcting this slip is due to absence up country, during which I received no papers. F. P. MENNELL.

RHODESIA MUSEUM, BULAWAYO, 1902.

THE CRUMLIN METEORITE.

SIR.—In your issue for November, p. 521, you remark in regard to the meteoric stone that fell at Crumlin on September 13th, that "no one [in Ireland] thought it worth while to investigate what appeared to be a hoax." May I state, as I have already done in the *Irish Times*, that the first newspaper notice of the event appeared in the *Northern Whig* for Sept. 17th, when I was crossing to Scotland. This contained so clear an account that I never suspected the fall to be other than genuine, and at once commenced negotiations on behalf of the Museum in Dublin. Mr. Walker, the owner of the stone, although at the time unwell, replied promptly; but I was by then travelling in Scotland, and his letter was forwarded to me to an incorrect address. Consequently, I received it only on October 29th, and had heard long before that the stone had been, very naturally, secured for the British Museum. GRENVILLE A. J. COLE.

DUBLIN, Nov. 3rd, 1902.

FOSSILS OF THE OXFORD IRON-SANDS.

SIR.—As the fresh-water fossils of the Oxford Iron-sands are now so difficult to obtain, it is worth noting that during a traverse of the Lower Cretaceous outcrop which I made in June last I chanced to find a place where these fossils can be obtained in abundance, though not from rock actually *in situ*. The locality is Combe Wood, about half a mile south of Wheatley Station and five miles E.S.E. of Oxford. A low stone wall on the western side of the high road which flanks this wood on the west is in places built of thin, flaggy iron-grit crowded with the casts of *Unio*, *Cyrena*, *Paludina*, etc. The stone for this old wall must have been obtained in the immediate vicinity, probably from a small pit now