their flesh on, the cave could contain. And this and many other arguments have been used expressly by Dr. Buckland to prove the caves were inhabited by the fossil animals while they were living. Mr. Allen can never reconcile these facts with his bubble theory. As to caves having no mouths, it is certain they must have, or have had, if we find anything in their stomachs. It would be equally consistent to argue that the flies found in the crop of a swallow must have produced the stomach in which they were found as to argue that caverns could be filled by bones of beasts without any orifice for the beasts or the bones to get in by .- ED. GEOL.]

## The Portland Fissures.

Sir,-Though I should be sorry to do anything which would prolong the discussion on the Portland ossiferous fissures, I am induced to notice a statement, by Mr. Allen, in your July number, p. 253; namely, that a Plymouth correspondent informed him "that there was no aperture in the cavern" (discovered at Oreston in 1859), "and that some of the bones were embedded in 'compact rock.'"

In some sense each of these assertions is correct:-

1st. The cavern when discovered certainly had no aperture; it was easy however to discover where there had been one, The so-called cavern was more correctly a fissure, originally open at the top; but which, after the receipt of its varied contents, had been closed up with coarse breccia, consisting of large angular masses of limestone, which, from time to time, had fallen in from above and become cemented with carbonate of lime.

2ndly. Some of the bones were embedded in stalagmite, which might truly enough be termed "compact rock," but could not possibly be confounded with the true limestone. The quarrymen invariably gave it the distinct local designation of "callis."

It is undesirable further to occupy your space, and indeed, it is unnecessary to do so, as this subject has already been discussed in your Journal. See 'Geologist' for 1859, p. 439, etc.

I am, truly yours, W. PENGELLY.

Lamorna, Torquay, July 17th, 1863.

The Bone Spear-head from the Essex Coprolite Pits, figured in the 'Geologist' for 1861, page 558.

SIR,—As the remains of man or his works, in any geological formation, is one of the most interesting discoveries of the present age, no manufactured article of decidedly geological age, be it ever so rude, should be cast aside or consigned to the cabinet without there being first brought forward all the evidence possible as to its age and its origin.

Therefore when a specimen is procured, we should first show it to be one actually worked, and not formed by chance; secondly, prove from what stratigraphical formation it has been taken; and, thirdly, ascertain how

far back in the scale of geological time this formation dates.

The specimen which induces me to make the first inquiry is a bone spear-head, which, about five years ago, I procured from a heap of coprolites belonging to Messrs. Rhodes, Smith, and Co., manure manufacturers, of Selby, along with sharks' teeth, Fucus contrarius, oysters, and various pieces of bone, all of which seem to be of the same geological age. This