

This was the first example of an upper jaw with teeth of a fossil mammal obtained from any secondary rock, and only five* such jaws were procured by Mr. Beckles when the entire number found by him had amounted (March 20th) to twenty-eight. The other seven specimens found at Purbeck by Mr. Brodie, consisted in like manner of lower jaws; and the same may be said of the ten specimens (belonging to four species) of oolitic mammalia hitherto discovered at Stonesfield.

That between forty and fifty pieces or sides of lower jaws with teeth should have been found in oolitic strata, and with them only five upper maxillaries, together with one portion of a separate cranium, will naturally excite surprise.† There are no examples of an entire skeleton, nor of any considerable number of bones in juxtaposition. In several portions of the Purbeck matrix there are detached bones, often much decomposed, and fragments of others apparently mammalian; but, if all of them were restored, they would scarcely suffice to complete the five skeletons to which the five upper maxillaries above alluded to belonged. As the average number of pieces in each mammalian skeleton is about 250, there must be many thousands of missing bones; and when we endeavor to account for their absence, we are almost tempted to indulge in speculations like those once suggested to me by Dr. Buckland, when he tried to solve the enigma in reference to Stonesfield:—"The corpses," he said, "of drowned animals, when they float in a river, distended by gases during putrefaction, have often their lower jaw hanging loose, and sometimes it has dropped off. The rest of the body may then be drifted elsewhere, and sometimes may be swallowed entire by a predaceous reptile or fish, such as an ichthyosaur or a shark."

We may also suppose that when fish or other aquatic animals attack a decaying carcass, whether it be floating or has sunk to the bottom, they will first devour those parts which are covered with flesh. A lower jaw, consisting of little else than bones and teeth, will be neglected, and becoming detached, may be drifted away by a current of moderate velocity, and buried apart from the other bones in sand or mud.

Among the latest discoveries of Mr. Beckles (March 19th), is the lower jaw of a small, adult, predaceous quadruped, with a robust canine and only six molars, differing in this respect as well as in its other characters, so far as the evidence at present extends, from the marsupial type.

The small average size of the species as yet made out is worthy of notice, the two largest of them not exceeding by more than a third the

◦ The second of these is a fragment of the facial part of the cranium of *Triconodon*, received from Mr. Beckles, February 18th. It consists of the right maxillary bone, containing some of the molar teeth, together with a considerable portion of the palate uncrushed.

† As specimens of mammalia are arriving weekly from Mr. Beckles, we may expect a great addition to the number of individuals, as well as an increase in the number of species, before his labors terminate. To gain access to these treasures, he has already at his own cost removed nearly 3000 tons' weight of stone overlying the bed No. 93.