

rate of accumulation of oceanic deposits. In deposits in more or less close proximity to continents and islands, they become covered over and imbedded in the detritus brought down from the land, and hence the chance of taking them in the dredge is small. The same is the case in the regions occupied by Pteropod and Globigerina oozes, where they become covered over and masked by the shells of pelagic Molluscs and Foraminifera. But in those red clay regions far removed from land, where the depth is too great for the calcareous surface shells to reach the bottom, they are not at all, or but slightly, covered up by, or mixed up with, other matters, and hence the dredge takes them in great numbers.

Some of the bones were in a much better state of preservation than others; in some the coating of manganese was very thin, and the Haversian canals and lacunæ were but little impregnated by that substance, so that a fractured surface was greyish white; in others, not only were the bones thickly encrusted, but the canals and lacunæ were nearly all infiltrated with the manganese, so that the fractured surface was brown or black, and the bones very brittle. The great majority of the large cancellated bones of the Whales appeared to have been removed from the deposits through the chemical action of the sea water. The chemical composition of those which remained was entirely altered, and this was more especially the case with the fragments of flat bones and others of a more porous texture (see Appendix V.).

The preservation of the earbones and of the fragments of the beaks of Ziphioid Whales is accounted for by the great density of these portions of the skeleton, and the consequent small amount of surface presented to the action of the sea water when compared with the cancellated bones. Professor Turner points out that he could not identify any of the bones as belonging to the Great Sperm Whale (*Physeter macrocephalus*), although the track of the Challenger, where such hauls of Cetacean bones were made, was through the part of the Pacific frequented by that huge Cetacean.



FIG. 294.—*Oxyrhina* (*Oxyrhina trigonodon*, Agass.) tooth. 16th September 1875; 2350 fathoms.

The Sharks' teeth, several hundreds of which, as stated above, were taken in a single dredging, have a distribution in the deposits similar to that of the bones of Cetaceans, although they were dredged more frequently. They are most abundant in the red clay areas far removed from land, and especially in those of the Central South Pacific; they were less frequently taken in the organic oozes of the deep sea, and only in one or two instances in the blue muds, green muds, and volcanic muds surrounding continental land or

oceanic islands. As in the case of the bones of Cetaceans, the occurrence of these teeth in greatest abundance in the red clay areas of the abyssal regions, and their rarity in