

variety of *Deltocyathus agassizi* cannot be upheld. *Sabinotrochus* differs in its general texture, and in the thickness of its septa, in its fine wavy costæ, and in the margin of its calicle being indented, also in the complete absence of pali, which are certainly not broken away. In all my specimens of *Deltocyathus italicus* there are pali, or remnants of them. *Sabinotrochus* seems rather nearly allied to *Stephanotrochus*. After decalcification of specimens of this species hardened in absolute alcohol, an external film of soft tissue separates from the outer surface of the wall, but only from that region of it near the mouth of the calicle; all the region near the tip of the cone is devoid entirely of living tissue.

One specimen of a coral, which is in a semifossilised condition, embedded partially in a hard black clay, and much decomposed, appears referable to *Deltocyathus agassizi*. If so, it is of remarkably large size, measuring 18 mm. in diameter.

Station 78, off the Azores. 1000 fathoms. Fifty specimens.

Station 56, off Bermuda. 1075 fathoms. Several specimens.

Station 120, off Pernambuco, Brazil. 675 fathoms.

Station 24, off Culebra Island, Danish West Indies. 390 fathoms.

Station 285. Attached variety. One specimen. South Pacific Ocean. Lat. 32° 36' S., long. 137° 43' W. 2375 fathoms.

Off Bermuda. 200 fathoms. Var. *calcar*. One specimen only brought up in a sounding machine.

Station 191, between the Aru and Ki Islands. 800 fathoms. Very large dead specimen of this species (?).

*Deltocyathus magnificus*, Moseley (Pl. IV. fig. 10, Pl. XIII. figs. 1, 2).

*Deltocyathus magnificus*, Moseley, Proc. Roy. Soc., 1876, p. 662.

In this gigantic species of the genus the corallum is quite flattened and discoid. The inferior surface is slightly concave, the margin of the calicle being somewhat tumid owing to the prominence of the costæ. The tissue composing the corallum is dense, and of a slight reddish-yellow not white as in *Deltocyathus agassizi*. On the under surface the wall is smooth, but shows a few concentric rings of growth and a slight conical elevation in the centre which points to the coral having been cup-shaped in the very young condition. The costæ are all nearly equally developed; they commence in succession in the centre of the inferior surface or near to it as fine lines composed of very minute granules, and begin to rise from the surface as fine projecting laminæ only towards the outer half of the surface; towards the margin they are very prominent with rounded ridges, and being all of equal prominence give the margin a tumid appearance. On close inspection the primary and secondary costal laminæ can be seen to be slightly thicker than the tertiary quaternary and quinary which are closely alike. There are six systems and five complete