

in the larger ones the mandible is acute, sword-shaped, pointing directly upwards; in the smaller, rounded. Oœcium globose, very prominent, finely punctured all over, and sometimes, having at the lower part, in front, a rounded papillary eminence, supporting a minute avicularium. Dorsal wall entire. Zoœcia about 0''·02 wide. Orifice 0''·01 wide.

*Habitat*.—Off Bahia, 10 to 20 fathoms. Station 122, lat. 9° 5' S., long. 34° 50' W., 32 to 400 fathoms, red mud.

It is of a deep bright brown colour. The description is taken from specimens that have been boiled in caustic soda. In the natural state the surface is covered with a uniform chitinous epitheca, to which the colour is mainly due, and which conceals the sculpture of the surface. It occurs in the collection only in broken fragments which show no sign of its having been attached to anything. The posterior surface is smooth and divided into convex, oblong, imperforate spaces, corresponding to the outlines of the zoœcia.

In some respects closely resembling *Escharella lamellosa*, Smitt; the differences between that arctic form and the present are amply sufficient to distinguish them. Amongst these may be noted (1) that in *Escharella lamellosa* the wall of the zoœcium is entire and imperforate except a row of elongated punctures round the border, whilst in *Mucronella castanea* the surface is closely punctate all over; (2) in *Escharella lamellosa* there are normally 3 to 5 oral spines above, and the surface of the oœcium is smooth, and presents three round pores in front, and usually an ovate stigma on each side below, whilst in *Mucronella castanea* the surface of the oœcium is very finely and beautifully punctate all over, and is furnished with a small circular papilliform avicularium on each side below.

What the general habit of the zoarium may be cannot be determined from the fragmentary specimens in the collection.

(8) *Mucronella magnifica*, n. sp. (Pl. XVIII. fig. 3).

*Character*.—Zoarium expanded, suberect. Zoœcia subovate, or rhomboidal, or irregularly hexagonal behind; convex in front and behind; covered with a very thin dark brown epitheca. Anterior wall very thick, closely punctate; posterior thin, transversely wrinkled with from 1 to 4 or more rounded perforations, from which, in the upper part, radical tubes issue; four lateral interzoœcial plates. Orifice orbicular with a broad central mucro on the lower border and two lateral acute points (not internal denticles); four articulated marginal spines above. A conical, rostral projection in front, immediately below the orifice, supporting on one side of its summit an avicularium, with a broad duck-bill shaped mandible. On one or both sides of the orifice but not close to it is a large avicularium, with an elongated, duck-bill shaped mandible, pointing obliquely upwards. Oœcium large, lofty, and very prominent, the front prolonged downwards