

greatly prolonged proximal rays, and distal rays which raise the dermal membrane into pointed elevations, and bear on their extremities somewhat freely projecting floricoles.

Bundles of very fine raphide-like spicules, which lie close upon the outer ray of the hypodermalia, appear to me to occur here in greater abundance than in *Euplectella aspergillum*.

The gastralialia are slender pentacts with prolonged distal rays, while their atrophied sixth ray often appears as a rounded, more or less projecting tubercle.

The composition of the much arched sieve-plate does not differ essentially from that of *Euplectella aspergillum*. In the basal root-tuft I found anchor-like structures similar to those of the latter species.

Among the Japanese Hexactinellida of Dr. Döderlein there occurs—in addition to the specimen of *Euplectella oweni* upon which the foregoing description is founded—a completely macerated and much injured, though coherent tubular skeleton, which may also with probability be referred to *Euplectella oweni*. This forms a tube of 32 cm. in length, somewhat compressed on one side. At the (3 to 5 cm.) wide extremity, the spicules seem loose, but they are fused below into a firm lattice-work. Since not only the position and arrangement of the bands of fibres, but also the structure of all the larger and smaller spicules which I was able to isolate by tapping, fully agree with those of *Euplectella oweni*, I do not doubt that this specimen is simply a very large and old fragment of *Euplectella oweni*, in which the usually unfused spicules have at a later stage become soldered together.

6. *Euplectella crassistellata*, n. sp. (Pl. XIII. figs. 5–7).

In the middle of the Pacific (Station 274, lat. 7° 25' S., long. 152° 15' W., depth 2750 fathoms, bottom Radiolarian ooze) there were found some plate-like fragments from 4 to 6 cm. square, and about 1 mm. thick, along with a narrow tuft of siliceous spicules 6 cm. long, to which a small part of the plate-like mass was still firmly attached. Round or oval apertures from 1 to 1.5 mm. in diameter occur here and there on the plate.

I must regard these fragments as a new species of *Euplectella*, although many characters of this genus are not definitely indicated on account of the insufficient preservation of the fragments.

The principal spicules of the plate are represented by diacts which run out to a point at both ends, and are usually provided with a node-like thickening in the middle. These lie scattered without any recognisable regularity of arrangement, somewhat near the inner surface, and parallel to it.

Besides these and some long thin diact comitalia which are applied closely to the thick principalia, only a few extended spicules are to be found in the parenchyma. Rosettes, however, and a peculiar form of oxyhexaster occur in surprising abundance. These oxy-