

pear-shaped things, a centimetre long, with a single osculum at the top, and the whisp like a small brush. At this stage the *Palythoa* is usually absent, but when the body of the sponge has attained 15 mm. or so in length very generally a little pink tubercle may be detected at the point of junction between the sponge body and the coil, the germ of the first polyp.

*Hyalonema lusitanicum*, BARBOZA DU BOCAGE, the species met with in the British seas and along the coast of western Europe, appears to be local, but very abundant at the stations where it occurs. I am still in doubt whether we are to regard it as identical with the Japanese species, *H. sieboldi*, GRAY.

During Mr. Gwyn Jeffreys' cruise in 1870, two specimens of a wonderful sponge belonging also to the Hexactinellidæ were dredged in 374 fathoms in rocky ground off Cape St. Vincent. The larger of these forms a complete vase of a very elegant form, nearly ninety centimetres in diameter at the top and about sixty in height (Fig. 67). The sponge came up folded together, and had much the appearance of a piece of coarse, greyish-coloured blanket. Its minute structure is, however, very beautiful. It consists, like *Holtenia*, of two netted layers, an outer and an inner, formed by the symmetrical interlacing of the four cross branches of five-rayed spicules; and, as in *Holtenia* and *Rossella*, the sarcode is full of extremely minute five and six-rayed spicules, which, however, have a thoroughly distinct character of their own, with here and there a very beautiful rosette-like spicule, another singular modification of