dredged in lat. 59° 36′, long. 7° 20′ (Station 12), with a depth of 530 fathoms and a 'warm area' temperature of 6°·4 C. The dredging here was most interesting. The bottom was for the first time 'Atlantic ooze,' a fine bluish-grey tenacious calcareous mud, with some sand and a considerable admixture of *Globigerinæ*. Imbedded in this mud there came up an extraordinary number of silicious sponges of most remarkable and novel forms. Most of these belonged to an order which had been described by the writer a couple of years before as 'Porifera vitrea,' a tribe at that time but little known, but which have since become very familiar to us as denizens of the abyssal zone. Working from more extended data, Professor Oscar Schmidt afterwards defined the group more exactly as a family, under the name of *Hexactinellidæ*—the term which I shall here adopt.

The relations and peculiarities of this singular group will be fully discussed in a future chapter. The most characteristic forms which we met with on this occasion were the beautiful sea-nests of the Setubal shark-fishers, *Holtenia carpenteri*, Wy. T. (Fig. 6), and the even more strange *Hyalonema lusitanicum*, Barboza de Bocage, closely related to the glass-rope sponges of Japan which have so long perplexed naturalists to determine their position in the animal series, and their relation to their constant companion the parasitic *Palythoa*.

Holtenia carpenteri is an oval or sphere 90 to 100 mm. in height, with one large oscular opening at the top about 30 mm. in diameter, whence a simple cylindrical cavity cupped at the bottom passes down vertically into the substance of the sponge to the