

a locality halfway between Kerguelen Island and the Cape of Good Hope—the one (Pl. XVI. fig. 9) (Station 146, lat. $46^{\circ} 46' S.$, long. $45^{\circ} 31' E.$) from a depth of 1375 fathoms and a bottom of Globigerina ooze; the other (Pl. XVI. fig. 1) (Station 147, lat. $46^{\circ} 16' S.$, long. $48^{\circ} 27' E.$) from a depth of 1600 fathoms, and a bottom of Diatom ooze. Although none of these specimens is wholly uninjured, the combination of all the three affords a clear conception of the form and structure of the species. The form can be most clearly recognised from what is really the most macerated specimen, but which is preserved in its entire length (Pl. XVI. fig. 9). This consists of a conical tube, narrowed downwards and running out inferiorly into a basal tuft; while the upper transversely truncated extremity is bounded by a narrow marginal ridge and closed by a sieve-plate which extends within the latter, and is arched slightly outwards in its central portion. The specimen obtained at Station 160 (Pl. XV. fig. 1) represents only the much injured lower end with the basal tuft, while of the decidedly larger specimen from Station 147 (Pl. XVI. fig. 1) only the upper portion with the sieve-plate and the relatively well-preserved soft parts persist.

The whole outer surface of the sponge exhibits the fine small points which occurred on *Holascus stellatus*. Here also on the inner side of the tube there extends a system of intersecting longitudinal and transverse ledges which form quadrate meshes with central pits (Pl. XVI. fig. 1). The framework of the terminal sieve-plate, though not quite regularly constructed, exhibits approximately radial and circular strands of beams, from the intersections and nodes of which small prickles project outwards (Pl. XVI. figs. 9, 10).

The principal framework of the wall of the tube lies towards the inner surface, and consists of strong smooth tetracts. The somewhat long longitudinal rays cross the shorter transversals externally. Numerous comitalia with a variable number of long narrow rays are attached both to the longitudinal and transverse rays of the principalia (Pl. XV. fig. 2; Pl. XVI. fig. 2).

On a transverse section of the somewhat thick wall of the tube (of the fragments figured in Pl. XVI. fig. 1) a system of rough hexacts is observed, with rays disposed in radial, longitudinal, and transverse directions, and apposed to one another to form a framework of beams enclosing cubical meshes (Pl. XVI. fig. 2). The outermost and innermost of these hexacts correspond in position and direction with the hexact hypodermalia and pentact hypogastralia, to the long parenchymal ray of which they are symmetrically joined. The other irregularly scattered parenchymalia consist of isolated graphiohexasters with bundles of long, very delicate, parallel terminal rays, and of those characteristic fibulæ, which I am inclined to derive from greatly reduced oxyhexasters with bent terminal rays. One can frequently observe at some distance from the central nodes and upon each of the two rays a boundary line, at which the straight central, thicker segment passes into the thinner terminal portion (Pl. XV. fig. 3c, d). I regard this straight, inner, thicker portion as corresponding to the principal ray, the bent outer