

On the internal surface of the entire tubular skeleton there are longitudinal and radial plates alternating with grooves of equal breadth, while on the external surface the framework is flatly expanded. The loose parenchymalia are represented not only by very delicate uncinates and by numerous small rough oxyhexacts, but also by numerous oxyhexasters, with rather long strongly developed principal rays, each bearing two short moderately divergent terminals, besides simple medium-sized oxypentacts. The dermal skeleton contains scopulæ, with four approximately S-shaped rough prongs, which are at their extremities only slightly, or not at all swollen. The gastral skeleton contains numerous similar scopulæ, in which, however, the prongs are almost straight. There seem to be no pentacts in the gastral skeleton. Japan.

Species 2. *Hexactinella lata*, n. sp.

Ramified strong-walled tubes, in which the branches, more than a thumb's breadth in thickness, expand superiorly in funnel- or syringe-like fashion, and open by wide terminal apertures several centimetres in width. In the longitudinally disposed radial plates of the dictyonal framework, which alternate with grooves or canals of equal breadth, and are especially distinct on the external surface of the tubes, it may be seen that the dictyonal beams radiate from the inside and from below towards the exterior and superior surface. On the surface of the predominantly square-meshed framework there are minute tubercles, arranged for the most part in transverse rows. The loose parenchymal needles are represented by variously disposed weakly developed uncinates and numerous thin oxydiacts, also by small disco- or sphæro-hexacts, with cylindrical rays and terminal knobs, by oxyhexasters with long thin terminals, and, lastly, by sphæro-hexasters, with two to six simple straight or S-shaped terminals of medium length. In the moderately large dermal and gastral pentacts there is usually a more or less conspicuous rudiment of the sixth freely projecting radial ray. The dermal and gastral scopulæ have four knobbed, slightly divergent, rough prongs. Little Ki Island, 140 fathoms.

Species 3. *Hexactinella ventilabrum*, Carter.

A thick-walled cup, widely open above, and laterally somewhat compressed; borne by a broad firm base fixed to a solid substratum. The radial plates which extend between the predominantly longitudinal and oblique canals, traversing the wall often in curved courses, are more distinctly seen on the outer, than on the inner surface of the skeleton. The beams of the predominantly square-meshed framework are sparsely beset with minute irregularly distributed pointed tubercles. The loose parenchymalia are represented not only by a few uncinates with slightly developed barbs, but also by