

strongly developed, smooth oxydiacts, with slight curvature or twisting, and on these numerous oxyhexacts, of variable but not very considerable dimensions. In the latter the four tangential rays are tangentially disposed in the gastral membrane, while the internal, usually longer radial projects freely into the gastral cavity, and the external radial into the subgastral trabecular space. All the rays of the smaller gastral oxyhexacts run out gradually to a point, and are of approximately equal length, while in the larger gastral oxyhexacts the internal free ray is decidedly longer than the others, so that a dagger-form results. All the efferent canals are clothed internally with small delicate oxyhexacts, in which the inner radial ray projects to a greater or less distance into the canalicular space (Pl. LIV. fig. 2).

The long radially projecting spicules, which arise in a tuft from the terminal pole of each of the numerous lateral and basal papillæ, are smooth oxypentacts. Their interior end runs gradually to a point, while the outer terminates in a four-toothed anchor, in which the four cruciately disposed, strongly developed teeth do indeed at first arise at right angles to the shaft, but become more or less markedly curved inwards (Pl. LIV. fig. 9).

The basalia forming the root-tuft only differ from these lateral radially projecting pleuralia in their greater strength and length, and also in the fact that many of them, which have arisen from the curvature of the lower pleuralia, extend no longer quite radially, but are more or less markedly curved downwards (Pl. LIV. fig. 1).

A good general survey of the structure of this species can be obtained by making sections of the small, pear-shaped buds. A combined diagram representing this is given in Pl. LIII. fig. 2. It will be seen that the sack-shaped chambers, taken as a whole, make up a much folded layer, which forms the boundary between the water-passages leading from the external skin and those leading into the common gastral cavity. The circular oscular aperture of the gastral cavity appears at a later stage at the broad distal pole of the pear-shaped bud. The bud at the same time pushes itself outwards on the bundle of pleuralia belonging to the papilla. It forms for itself papillæ with pleural and basal tufts of spicules. Finally it becomes detached and rooted in the mud.

As in the above-described genus, *Lanuginella*, the basalia (and pleuralia also) are nothing but long drawn-out and protruded spicules of the hypodermal pentact series. This may be presumed by comparing the young basalia or pleuralia with the adjacent hypodermalia, but the fact is distinctly demonstrated by studying sections of young, spherical or oval specimens, 2 to 5 mm. in diameter (Pl. LIII. figs. 1a, b) (probably developed from ova), which were found in the same glasses as the Hexactinellids from Station 192, Little Ki Island. At the lower, often somewhat truncate pole, opposite the oscular aperture, between the ordinary hypodermal pentacts, other forms occur in which the four tangential rays do indeed lie in the dermal membrane, but are bent more markedly inwards than the others, and are beginning to resemble the anchor-teeth of the