

parietal spherules, and reaching to the origin of the tentacles, extends therefore over a airy wide belt. Correspondingly to this broad extension, it is nowhere strongly developed, and falls under the category of "diffuse" endodermal muscle, the lamella being most markedly pleated in the centre. Its arrangement is very characteristic, as a transverse section presents the appearance of numerous closely-packed acinose glands, excavated in the mesogloea. In the more central parts—to continue the comparison—the gland-like crypts are longer and more closely packed than in the upper and lower parts (Pl. II. fig. 1).

The strongest development of muscles occurs on the ectodermal side of the disc, where the supporting lamina rises into high plates, covered by strong fibrils and richly arborescent. Here and there I have also noticed the plates fusing together, with a resultant mesodermal inclusion of the muscle fibrils (Pl. II. fig. 3). Towards the tentacles the muscles become weaker.

The tentacles are of a medium length, broad at the base, and drawn out to a fine point, which is probably not provided with an opening at the tip. The siphonoglyphes are hardly marked on the stomatodæum. To the latter, besides the mesenteries of the first cycle, those of the second and third cycles at least are attached. Their musculature is in no region strongly developed; in the specimen investigated nearly ripe testicular follicles occurred on them.

Family 4, BUNODIDÆ.

Genus *Aulactinia*, Verrill.

Aulactinia, sp. (?) *

Habitat.—Simon's Bay, Cape of Good Hope, December 1873; 10–20 fathoms. One specimen.

Dimensions.—Height in a strongly contracted condition, 2 cm.; breadth of pedal disc, 3 cm.

In this place I will devote only a few words to a Bunodidan, of which I reserve a detailed description till I shall have reviewed a rich supply of species of this family which has been forwarded to me. The body-wall of the sole specimen lying before me is thickly beset with thin-walled vesicular outgrowths, which are about 1 mm. in size, show a tendency towards arrangement into transverse and longitudinal rows, and are so thickly set that the intermediate stouter parts of the body-wall have a reticulate appearance. The three upper rows of these vesicles (about seventy in number) are closely packed with nematocysts, and so take on the character of marginal spherules; they may be distinguished into a stalk, and a branching head like a cauliflower. They recall somewhat those external appendages of species of *Oulactis*, which