

to be products of the ectoderm (Annal. des Scienc. Nat., ser. vi. t. x. p. 78, 1879-80). According to Jourdan, the papillæ which he terms "verrues glandulaires" have arisen from the epithelium pushing its way like glands into the supporting substance, and becoming wholly or nearly detached into epithelial islands. The author gives these epithelial cords as the first stage of development in longitudinal section, the detached epithelial islands in transverse section. I have obtained figures exactly similiar to those given by Jourdan, and am justified in the view that the constitution of the wall agrees in both species of *Bunodes*, but am also justified in maintaining that Jourdan's view is erroneous. These epithelial growths are linings of the depressions and furrows running on the surface, of the wall; they become deeply pleated during contraction, and may look like detached epithelial islands in transverse section, whilst in longitudinal section they may be taken for mere epithelial folds. In order to be quite certain, I made sections parallel to the surface and also examined single papillæ in transverse section; in the former we have invariably islands of connective tissue, the transverse sections of the papillæ, surrounded by an epithelial net-work but without glandular ducts; in the latter the papillæ proved to be solid growths of the connective substance. From these observations I have already, in the introduction, declared myself to be against the acceptation of the term "verrues glandulaires."

The circular muscle is entirely enclosed in the mesoderm, which, however, is only slightly thickened by it; the bulk of it extends longitudinally, is almost equal in breadth the whole way along, and is separated from the endoderm by a narrow layer of connective substance, from the ectoderm by a somewhat broader layer. The roundish bundles of fibrillæ, which merely consist of a few strong muscular fibrillæ, are divided by processes of connective substance into larger and smaller groups; this is beautifully seen in the upper part of the muscle, whilst there is a preponderance of small, irregularly distributed bundles in the lower part.

The muscles of the oral disk are divided into radial bands corresponding to the septa; they lie as a thickly folded layer in the ectoderm, like the longitudinal muscles of the tentacles. Seventy relatively long, filamentous tentacles lie on the margin of the oral disk; they run out into a fine point, and project above the surface even in the contracted animal. The outer tentacles are decidedly smaller than the inner.

In order to observe the septa properly I cut out a quadrant of the body which I made into transverse sections. From these it was plain that the directive septa running towards the œsophageal grooves alone were perfect, and did not bear reproductive organs, whilst all the other septa, not even excepting the principal septa, remain imperfect, and are amply furnished with reproductive organs (testes). The differentiation of the septa into muscular septa and reproductive septa, which is present in all Sagartidæ, extends in *Bunodes minuta* to the more limited circle of the principal septa.

If I may draw a conclusion from a small part of a single specimen, the formation of the