(fig. 6), the cuticle becomes considerably thinner. Below the cuticle is a layer of polygonal epidermic cells from ·06–·01 mm. in breadth, and a muscular layer consisting of circular and longitudinal fibres. The circular fibres are extremely fine, and closely pressed together, whereas the longitudinal fibres are somewhat stronger, and separated by intervals. In specimens that have been but little squeezed, the integument is thrown into circular folds, sometimes interrupted by longitudinal folds, so that the surface is divided into ranks of large papillæ, which were especially well seen in a specimen (fig. 5) viewed with its dorsal side in profile, and in which the papillæ are of various sizes up to ·017 mm. in height. This system of folds is continued on to the parapodia, which are provided throughout their length from base to tip with circular concentric folds; the parapodia (fig. 2 *p.*) are not distinctly marked off from the body, and show no trace of any division into two portions, which is so typical of the Myzostomata; they arise from the extreme margin of the ventral side. The third pair are the most strongly developed, the first and the last are the most feeble. The first pair are obtusely conical in form, and about ·2 mm. long in the largest specimens; their breadth at the base is about ·28 mm. Corresponding to the insignificant size of the parapodia, the muscles and hook-apparatus (fig. 6) are but slightly developed; the latter consists of a long, thin (·25 mm. long ·006 mm. thick), straight hook (*u.*), with a short tip suddenly bent back, and of a slightly bowed, somewhat shorter but thicker supporting rod (*ma.*), which ends in a point, and shows no trace of any manubrial plate. The muscular apparatus is very simple; it consists of a fan-like series of fibres (*m.*), passing from the base of the parapodium and the integumental parts surrounding it to the base of the hook-apparatus, which they entirely envelope, serving no doubt as protractors. In no specimen, however, was the hook-apparatus stretched out, and indeed it was not generally even so prominent as in fig. 6, the extreme point alone being visible. Besides these protractor muscles are a series of radial fibres (m_2) passing to the end of the parapodium, and appearing to be joined partly to the supporting rod and partly to the integument at the end of the parapodium.

A third group of muscles passes from the end of the supporting bristle to the base of the hooks (m_1), and corresponds to the musculi conjunctores of the typical Myzostomata.[1] The most striking peculiarity in the condition of the parapodial muscles of *Stelechopus* is the absence of a musculus centralis,[2] which in *Myzostoma* is the most powerfully developed of all the muscles of the body, and combines with the musculi centrales of the other parapodia to form the central muscle-mass. There is nothing of the kind in *Stelechopus*, and the parapodial muscles are quite independent of each other. This arrangement is, without doubt, more primitive than the radial arrangement found in the typical Myzostomata, where the body is divided by radial septa into twelve sectors (ten for the parapodia, two for the pharynx and cloaca). Instead of this there are in

[1] Genus Myzostoma, pl. viii. fig. 1, *cb.* and *cl.*

[2] *Loc. cit.*, *mc.*