is determined by the line γ, shows the same figure, but with this difference, that in this case hollow spaces appear in the supporting lamella, which either lie as triangular gaps at the bases of the ridges, or force themselves as fissures into the ridges themselves. These hollow spaces, found in transverse section, correspond to the pouch-shaped invaginations, which extend into the peripheral part of each radial swelling; here and there I found accumulations of cells in the spaces,—the remains of the epithelium lining them, which unfortunately was badly preserved. In fig. 1 we have a transverse section taken through the small folds at the beginning of the radial thickenings, along the line α. The figures 1–3 show an irregular arrangement of the muscles, as they are sometimes divided perpendicularly, sometimes obliquely, sometimes parallel to their direction. This irregularity may be explained partly by the tortuous course taken by the beginning of the radial swelling, partly by the fact that the muscular fibres, which originally extended horizontally, have been slightly diverted from their straight direction by the comb-like elevations of the supporting lamella.

The œsophagus was too much injured to allow of its constitution being determined by means of dissection. I was able, however, to examine pieces of it, recognisable by their brown-violet colour, in a series of sections, and to make out openings which lie under the oral margin and lead into the radial chambers. It seemed to me that there was an opening surrounded by a swollen margin between every two insertions of the septa (fig. 4). The openings are not all of the same size, as many of them can be recognised in a whole series of transverse sections as long fissures, whilst others are only visible in three to four moderately thin successive sections. They can hardly be considered artificial productions, in the first place, because the surfaces of the epithelium of the two sides pass evenly into one another at the margin of the opening, and secondly, on account of the comportment of the muscular system. The œsophagus of *Polyopis striata* has exceptionally ectodermal longitudinal muscular fibres, which are only apparent in thin transverse sections, as they are extremely fine. The muscular layer is thickly pleated at the rounded margins of the openings, so that it may here be regarded as a sphincter capable of closing the opening.

The septa correspond to the longitudinal ridges on the surface of the wall, and are therefore thirty-six in number; they lie at perfectly equal distances from one another, but are in pairs notwithstanding, as may be seen from the arrangement of the muscles. Among them there are two pairs of directive septa (fig. 8) which are separated from one another by eight pairs of ordinary septa. The latter vary very much in size, although I was not able to observe any arrangement in cycles of unequal value; I consider it most probable that we have here a tetramerous arrangement of the septa, but that a pair of septa too many has been formed in one interspace on either side. Downwards the septa reach nearly as far as the aboral opening; they are, however, of different sizes, so as to present the figure given in fig. 11, β.