(3) *The groups of lateral organs in Argyropelecus and Sternoptyx.*

These groups consist of from three to five organs, the sacs of which coalesce. Generally there are three (Pl. LXX. figs. 22, 23, 24). The constriction is circular and has a diameter of 0·1 mm., and the plane in which it lies is perpendicular to the axis. The axis is nearly parallel to the surface. The cup-shaped portions are rotation-paraboloids, and the line with which they terminate on the surface of the fish is a very elongate ellipse measuring 1·5 by 5 mm. This circumference touches the constriction, that is to say, only one side of the cup, namely the lower, is developed (Pl. LXX. fig. 23). The focal length of the paraboloid is 0·1 mm.

The sac-shaped portions of the organs coalesce to form an irregular flattened sac, with from three to five circular apertures on one side, the original strictures of the organs.

Seen from the surface this combined sac is in the triplex organ of *Sternoptyx* nearly semicircular (Pl. LXX. fig. 22). In sections its flattened shape becomes apparent (Pl. LXX. fig. 23). It measures 0·3 mm. in height and 1·2 mm. in length. The width of course depends on the number of cups attached to it. In the triplex organ it is about 1·2 mm., in the quinqueplex 2 mm. In the interior of it crests or ridges can be discerned which are the remnants of the partitions between the adjacent phosphorescent organs, the internal portions of which have coalesced.

(4) *The ventral rows of Argyropelecus and Sternoptyx.*

Wherever composite ocellar phosphorescent organs are observed, they invariably form, as stated above, two lateral lines or rows on each side of the body. The groups of triplex and quinqueplex organs of *Sternoptyx* and *Argyropelecus* mentioned above, belong to the upper of the two rows which is split up to form groups along the side of the fish.

The *lower* rows, however, remain unbroken and continuous. They approach each other very closely (Pl. LXX. fig. 17). The lower portions of the organs on both sides coalesce to form *one* large ventral canal lying in the median line of the body, from the lower side of which two rows of cups project (Pl. LXX. fig. 20). The optical axes of all the cups are parallel, and so the rays of light from all these cups are concentrated in one direction.

β *Histology.*

The histological structure of the different organs belonging to this group is pretty much the same, so that it can be dealt with in a summary manner.