

On the sides of the body irregular whitish patches are observed, one usually occurring on each side over the pectoral fin (Pl. LXIX. fig. 1, c). The two patches on the two sides are generally not exactly opposite but are of uniform shape and size—a circumstance which proves the inconstancy of their position.

b. Structure.

In transverse sections (Pl. LXIX. figs. 6, 7, 8) the patch appears as a tangentially extended whitish mass attached outside to the highly pigmented skin. Conical threads of pigment extend upwards from the pigmented base about halfway through the organs. The proximal portion consists of a series of parallel gland-tubes placed vertically to the surface, and between these blood-vessels extend upwards, the largest of which are followed for some distance by the pigment of the skin. In this manner the dark vertical threads are formed.

The gland-tubes are filled with the usual spherical gland-cells.

The distal portion of the organ consists, in the spirit specimens at my disposal, of coagulated slime (Pl. LXIX. fig. 8) in which I have not detected any nuclei.

c. Function.

The colour of this organ is very similar to that of those phosphorescent organs described above, as to the nature of which there cannot be any doubt, whilst its structure resembles that of some of them pretty closely. Their phosphorescent or non-phosphorescent character must, however, for the present remain undetermined.

8. Glandular organ on the lower jaw.

a. Distribution.

This organ, which is situated on the lower jaw, has been found in *Sternoptyx diaphana* and *Argyropelecus hemigymnus* (Pl. LXX. figs. 15, e, 16).

b. Structure.

This organ consists of two different parts, an upper and a lower, the latter being much the larger. Both are situated in the median line of the fish and are symmetrical. The upper one is divided by a cartilaginous crest into a right and a left half, the lower one is undivided (*Sternoptyx*). The upper anterior margin of both organs is continuous and semicircular, but the posterior margins in both have four lobes.

The organ rests on a light-reflecting spicule-layer and consists of long straight gland-