

with a parabolic anterior profile ; mandible tapering in front and not longer than the upper jaw.

The dentition in the upper as well as in the lower jaws consists of a single series of rather small teeth, not very closely set, fixed, not depressible, subequal in size, only two pairs in front of the lower jaw being somewhat larger and strongly curved. Only the intermaxillary is toothed. The teeth on the palate are reduced to a short series of five small closely set teeth, which are depressed inwards and backwards.

The gill-cover is so narrow as to leave a considerable portion of the gills uncovered. The gill-laminæ are developed, except on the hinder part of the horizontal branch of the outer branchial arch, where they are remarkably short ; gill-rakers absent.

A narrow bridge of skin behind the symphysis stretches from one mandible to the other. Barbel small, tapering, about one-third of the length of the head, suspended from the hyoid.

The vent is placed very far backwards, its distance from the root of the caudal being a little less than the length of the head. The anal fin extends nearly to the caudal, a little further backwards than the dorsal, the origin of which is opposite to that of the anal. Behind these fins the tail is suddenly narrowed and terminates in a small bilobed caudal fin. Pectoral fin rudimentary, its short rays being free at the tip. Ventrals twice as distant from the eye as from the vent ; they are well developed, have a moderately broad base, and are half as long as the head.

The skin is rather tough, scaleless, but rhombic lines are visible, especially on the side of the back, indicating the first commencement of the development of scales. The luminous organs¹ are arranged thus :—

a. A series of three or four minute eye-like spots on each side of the isthmus. After a short interruption this series is continued along the abdomen by three similar organs in front of the pectoral, by sixteen between the pectoral and ventral, and by fourteen or sixteen between the ventral and anal.

b. The lateral ventral series consists of similar organs, but still more minute in size, and more or less disappearing at the level of the anal fin.

c. A vertical series of three much larger eye-like organs on the gill-cover ; they do not possess the white centre of those described hitherto, but appear through a rather opaque round cornea-like membrane.

d. The large subocular organ which consists of two portions, one being elongate, as long as the eye and lying close to the intermaxillary ; the other much shorter, between the anterior end of the former and the front margin of the eye. Each of these organs is of a pure white colour, has free margins all round, and lies in a hollow of the skin of corresponding shape.

Colour uniform deep black.

¹ The histology of these organs is described in Appendix B.