

The ophthalmopoda are short, reaching but little beyond the frontal margin of the carapace, and are deeply situated in an almost circular orbit and protected by a deep fringe of hairs that spring from the lower margin of the rostrum, and from the distal outer and inner margins of the first joint of the first pair of antennæ.

The first pair of antennæ is situated beneath the rostrum and ophthalmopoda. The first joint of the peduncle is triangulate. The upper surface is flattened and formed into a hollow by the inner margin being raised into a perpendicular ridge for half its length, which represents the prosartema that forms such a peculiar structure in *Penæus*. The inner side is flat and corresponds with that of the opposite antenna, and is furnished with a small tooth on the lower margin. The under side is oblique, passing from the lower margin of the inner side to that of the outer margin of the upper. The first joint is longer than the ophthalmopoda, and longer than the two succeeding joints, which altogether do not reach to the extremity of the rostrum. The second and third joints project a little on the inner distal margin to a small cusp that is tipped with hairs. The flagella are subequally stout and about three times the length of the peduncle. In the centre of the upper surface of the first joint, where the ophthalmopod lies when at rest, is a small orifice, fringed with short hairs, leading to the internal auditory apparatus.

The second pair of antennæ occupies a large portion of the metope, or facial wall. The first joint is articulated, with a very slight power of movement, with the metope, and supports a prominent phymacerite that is strongly calcified, with the exception of a small membranous orifice; immediately above the phymacerite, standing on the margin, is a sharp and slender tooth, and the rudiment of another on the outer side. The second joint possessing only a slight lateral movement, articulates with the first by rotating on the small external tooth, and extends inwards as far as the inner or longer tooth; it is armed on the outer distal angle by a stout and powerful, obliquely directed, conical tooth, on the inner side of which stands a short and sharp-pointed scaphocerite, which is broad at the base and articulates by a process with its upper and lower margins. The outer margin projects at the base and is continued to the apex as a strong, rigid, and sharp tooth; it possesses only a lateral movement and that of little extent; the projection at the base on the outer side falls against the large tooth projecting from the outer distal angle of the second joint, and there rests and receives support that makes the tooth at the distal extremity of the scaphocerite an important and powerful weapon of offence: the third joint corresponds with the inner side of the second, and articulates with it in a longitudinal direction, the distal extremity, projecting anteriorly, articulates with the fourth joint obliquely on the outer side, thus giving it an upward, downward and slightly rotatory movement; the fifth joint articulates with the preceding at the distal extremity and has only a lateral movement, and therefore has its points of articulation on the upper and lower margins; the distal extremity supports a flagellum