thin chitinous membrane, which appears to be perforated by a small horse-shoe fissure, somewhat out of the centre, and unevenly surrounded by a ring of thickened tissue, that is probably muscular and therefore contractile (see fig. 13, p. 104). The length of the metope is small, and the organs that cover the mouth are produced anteriorly, so as to reach beyond the anterior margin of the carapace.

The cheiloglossa or anterior lip is thick and fleshy; in the centre, anteriorly directed, is a thin, flexible, styliform process, while the mass of the structure fills up and lies compactly in the hollow between the mandibles. The metastoma or posterior lip is likewise a thick and fleshy mass, internally and centrally produced to a small vertical process; externally and posteriorly the mass overlies the posterior portion of the psalisiform blades of the mandibles, and extends laterally in a slender digital process on each side, and lies in close contact with the mandibles, just where the psalisiform blades are connected with the apophyses. The mandibles consist of a pair of interlocking, scissor-like, serrate blades, differing very little from those in *Willemœsia* and *Polycheles*, carrying a two-jointed synaphipod, thickly fringed with hairs, and moved by a long and pointed apophysis, of which the extremity articulates with an underfold of the anterior surface of the carapace.

The first pair of siagnopoda consists of a double-branched appendage, curved, rigid, and fringed with stiff hairs that become spiniform at the apex of the outer and larger branch; on the external surface, near the base, there exists a fasciculus of short, thickly ciliated, slender hairs, springing apparently from a common centre.

The second pair of siagnopoda resembles that of other species; it consists of two short and small branches on one base, which fold back against a large, flat, foliaceous plate, that is produced anteriorly further than the two previous rami, and posteriorly to an equal extent, and is fringed with cilia that radiate in an anterior direction.

The third pair of siagnopoda corresponds with that of *Polycheles*, as shown at p. 135, fig. 32. It consists of three thin foliaceous branches; the basal one is short, broad, concave, and truncated, and has the margin fringed with hairs; the middle branch is narrow, and coincides with the curve of the inner margin of the third branch, the corresponding sides being smooth and free from hair, while the outer edge is thickly fringed with short, fine hairs. This and the preceding branch turn outwards and fold back against the next or distal joint, which is much longer and broader than either of the others; it is hollow internally, folding like a leaf upon itself, and this convolution increases considerably towards the apex, where it causes a cup-like appearance; at the outer margin a small bat-shaped flap, thickly and evenly fringed with hairs, is articulated, and acts like a movable valve at the exit of the branchial chamber; from the root or base of the three joints arises a broad, thin, and long membranous plate, the homotype of the mastigobranchia attached to the several pairs of pereiopoda, the epignathite of Milne-Edwards.