

antennal somite. The third joint articulates with the second, at points situated at the internal and external angles, and externally is produced into a thin scale of large size, reaching as far as the lateral angle of the carapace; the anterior and posterior margins are parallel, and the external lateral angles are anteriorly produced to a sharp point, and the posterior rounded off. The fourth joint articulates with the third at points near the middle of the margin of the dorsal and ventral surfaces; it is produced to a tolerably sharp angle or tooth on the inner surface, but none upon the outer. The fifth or distal joint articulates with the fourth by points situated at the inner inferior angle and the upper exterior angle; the joint is flattened and distended to a thin plate or scale that corresponds with the extent of the squamous portion of the third joint; its anterior margin is thickly fringed with hairs, and on the upper surface, near the base, just beyond the articulation with the previous joint, is a slight elevation studded with numerous small imperforate depressions which correspond with prominent points on the inside, that have slightly bulbous and roughened extremities, apparently adapted for the purpose of muscular attachment. On the external surface, in a corresponding position beneath, is a circular depression, the surface of which is covered with thick, short fur, consisting of hairs thickly fringed with long delicate cilia.

The epistoma is reduced to a minimum. The cheiloglossa which articulates with it, is calcareous anteriorly, and dips beneath the mandibles, which meet each other over it.

The mandibles (Pl. VII. fig. 2, *d*) are strongly denticulate at the incisive margin, and carry a rather long, slightly curved uniaarticulate synaphipod; the apophysis is long and rather slender, and continues beyond the articulation at the extremity into a strong calcareous process at an obtuse angle, that supplies the place of the usual muscular attachment, near the molar tubercle, and enables the mandibles to open and close.

The metastoma is a single, thick-lobed mass, that closes over and behind the mandibles and first pair of siagnopoda.

The first pair of siagnopoda (Pl. VII. fig. 2, *e*) consists of two thin curved branches, having the extremity rounded and fringed with strong spines that pass into hairs at the upper margin of the outer and the lower margin of the inner. The two branches are sub-equal, and the margins are parallel; at the base of the outer is a small fasciculus of ciliated hairs.

The second pair of siagnopoda (*f*) consists of a single truncated branch, stunted in form, and excavated at the extremity, supported by a large, somewhat fan-shaped mastigobranchial plate; the narrow portion is directed anteriorly, the whole forming an efficient operculum against the exit of the water, which it has the power to confine within the branchial chamber.

The third pair of siagnopoda (*g*) consists of two branches and a mastigobranchial plate. The outer branch is double and longitudinally angular, truncated at the apex, and is connected with the mastigobranchia, being articulated with it; the inner branch