

is reduced to a rudimentary condition, or is visible only in the brephalos stage, except in those forms, such as the terrestrial Isopoda, where the entire organ is deteriorated in character. The first joint of the peduncle is the most important of the three, since it contains the acoustic organ, and is also modified in different genera to support and protect the eye.

In *Penæus* this organ is more perfect in its several parts than in any other genus of the family group, where the tendency is generally to diminish the value of its parts. In its more perfect condition it is about one-third as broad as it is long, the form being something like a flattened cylinder; this shape is caused chiefly by the depression for the lodgment of the ophthalmopod, and the surface is thinned out accordingly; in some genera, as *Aristeus*, and some species of *Gennadas*, the depression is great; in others, as in *Sergestes* and its allies, it is almost wanting. In these genera the first joint is short, and the second and third are proportionately increased in length. In *Penæus* this joint is stout at the base where it has a free articulation with the metope; the thickness is continued on the inner side to the extremity, and the margin is straight and lies in contact with that of its fellow. Near the base of the joint on the same side, within the margin, there arises an appendage that is first laterally, and at its distal extremity vertically, compressed; it has the margins, especially towards the distal extremity, copiously fringed with hairs. In some genera this appendage, which for distinction I call the prosartema, varies in length and form, and sometimes is rudimentary or absent. In *Sicyonia* it is short, rigid, and sharply pointed. In *Aristeus* it is represented by a small tubercle supporting a tuft of hairs; while it is absent in *Benthescymus*, *Gennadas*, and *Sergestes*.

The upper surface of the same joint, as it exists in *Penæus*, is of extreme tenuity, but the inner and outer margins are strengthened by a longitudinal rib that reaches to the distal extremity, where on the outer side it terminates in a sharp tooth or stylocerite of more or less importance, and is frequently fringed on the upper and lower sides with long hairs. This styliform tooth varies in form and length in different species and genera, being sometimes short and thick, as in *Benthescymus*, but always terminating in a sharp point, even in *Sergestes*, where it is the least developed. In others it extends beyond the distal extremity of the joint, and frequently lies so closely in contact with the margin as at first sight to appear to be in connection with it. Between the two margins is a depression into which the ophthalmopod falls when at rest, a prosartema on the inner side overlying and protecting it, and a copious fringe of hairs surrounding it on all sides, their direction being always towards the eye. The hairs, which at the base are very numerous and closely packed, form a thick mat, protecting both that portion of the eye and also a small orifice that opens into the chamber containing the auditory apparatus, which is enclosed within a calcified fold of the external tissue. The second and third joints are generally cylindrical in form, but in *Penæus* they are rounded on