

immediately after the completion of the change. He also kept several specimens and saw them moult, assuming a form that was a little larger but similar in all respects, except that the appendages of the pleon were now present as small buds. Some of these were kept until they changed into a form strongly resembling a *Sergestes*.

At this stage it appears that the observations of Willemoes Suhm are more distinctly in the true line of development.

"In August 1875, about 300 miles south of the Sandwich Islands, a young Crustacean was captured which was believed to be a stage in the history of *Leucifer*, and which Dr. Suhm named the *Amphion*-stage. It measured as follows:—

" Length, total,	2.67 mm.
" of rostrum,	0.24 "
" shield without rostrum,	0.63 "
" both together,	0.87 "
" pleon,	1.3 "
" telson,	0.5 "
" ophthalmopod,	0.31 "
Diameter of carapace,	0.66 "

"On the second maxilla I could not find a palpus in three specimens that I examined."

The carapace has undergone a considerable change of form. The rostrum is long and prominent, but the teeth on the posterior margin of the carapace both at the angles and median line have disappeared. But on the anterior margin of the carapace each angle external to the ophthalmopoda is projected into a prominent tooth directed forwards, whence the lateral margins are curved downwards and outwards, and then gradually upwards and backwards to the postero-median dorsal surface of the pereion.

In this stage the development corresponds with that known as the *Acanthosoma*-stage of *Sergestes*, and corresponds with *Sceletina* of Dana. It differs, however, in having the ophthalmopoda long, and, according to Suhm's measurement, one half the length of the carapace, not including the rostrum. The ocellus is still visible as a spot of pigment in the centre of the cerebral ganglia.

The first pair of antennæ consists of four joints sparsely fringed with hairs; the first joint is long, slender, and cylindrical, excepting for a small process on the outer side near the base, the seat of the future acoustic organ; the second joint is less than half the length of the first and slightly less in diameter; the third is about the same length and thickness as the second; and the fourth joint consists of a small papilliform segment, which is the rudiment of the future flagellum.



FIG. 57.—Mandible, from a drawing by v. Willemoes Suhm.

The second pair of antennæ is biramose, the inner being the primary branch of the future organ, which at present scarcely reaches beyond the extremity of the rostrum, and the outer branch is the scaphocerite in an undeveloped condition.