The pleopoda are biramose, attached to a short peduncle; the outer and larger branch springs from the side of the peduncle, the other from the apex. The outer branch is crescent-shaped, and almost encloses the inner. It is fringed on the outer or convex margin with numerous long hairs of a peculiar structure. Every hair articulates at the



F10. 3.—Arthrobranchia of Scallasis amboina.

base by a movable joint, and beyond a short distance from its base becomes multiarticulate (*i.e.*, is broken up into numerous small sections or joints), and is fringed along the margin with short fine cilia. The inner margin of the outer plate is concave, and fringed with a few equidistant stiff straight hairs. The inner branch is fringed on each side with long pointed hairs, above which, on the side approximating the outer plate, is a row of equidistant straight stiff hairs; on the inner side is a short stylamblys, without hairs or cilia, but furnished near the apex with two rows of small blunt hooks, to which Sars has given the name of cincinnuli.

The posterior pair of pleopoda, with the telson, unite to form the rhipidura or caudal fan. It consists of an extremely short base, and two broad foliaceous plates, of which the outer is larger than the inner, and both are terminally fringed with hairs.

Observations.—The jointed character of the hairs that spring from the margins of the pleopoda, as well as in *Cheramus*, are different from those in *Callianassa* both in position and structure. In *Callianassa* the outer margin is reflected on itself so as to show a smooth surface outwardly, as shown in Milne-Edwards's figure, and the hairs are all turned back and pressed against the posterior margin, and are all minutely multiarticulate. In *Cheramus* and *Scallasis* the margin is not reversed, and the hairs are broken into small joints that are suggestive of the differentiation of character, as shown in the homologous structure of *Callianidea*.

## DIVISION B.

This division contains only the genus Callianidea, of which no species was taken by the Expedition.

## DIVISION C.

This division contains the genus Gebia, of which no species was taken during the Voyage of the Challenger.

## Family AXIIDÆ.

Dorsal surface of the carapace anteriorly produced to a horizontally flattened point or rostrum. First pair of pereiopoda large, chelate, subsymmetrical, subequal. Second