It differs conspicuously from any of the previous forms in having branchiæ arranged in the form of a tuft on each side, on the ventral aspect. The segments are narrow, consisting of a smooth dorsal arch cut by two transverse furrows into three divisions. Just as the arch bends down laterally a prominent ridge (bearing hooks) occurs, and after an interval another elevated soft ridge lies above the branchiæ. At the summit (dorsal and very prominent) is an isolated papilla. A dense branchial tuft is situated at the lower border of the foregoing ridge in each segment. These are short, slightly branched processes, with much corrugated external walls, the transverse wrinkles being probably due to the contraction of the longitudinal muscular fibres, which are very distinct in many of the preparations. No evident blood-vessels are noticed, but most are filled with an opaque central mass composed of brownish globules and granules, probably blood. The perivisceral fluid contains larger corpuscles. The ventral arch is completed by a narrow ridge between the branchiæ of opposite sides, the hook-bearing portion being more prominent than the rest.

The dorsal and ventral hooks agree in structure (Pl. XXIVA. fig. 17), but both are so minute that their exact nature is not readily determined. The crown seems to have only one spine above the large fang. The form of the shoulder and shaft approaches that of a *Notomastus* from the coast of New York.

The greyish mud with which the intestine is filled presented sand-grains, Diatoms in great profusion, fragments of sponge-spicules, Radiolarians, and other structures.

The cuticle and hypoderm are somewhat thin in proportion to the size of the body, but the circular muscular coat is well marked. A considerable ventral longitudinal muscle occurs on each side, the thickest mass being situated close to the median fissure, at the wide inner part of which the nerve-cords lie. The dorsal longitudinal are thinner, and, like the ventral, are somewhat coarsely fasciculated.

The imperfect condition of the specimen does not permit a decisive opinion with regard to its relationship with other species. It appears to be closely related to the ordinary species, viz., *Dasybranchus caducus*, Grube, and also to the forms described by the same author from the Philippines.[1]

Family Maldanidæ.

The members of this family have occurred in the collections of most exploring expeditions, though seldom in great numbers, probably because they are not amongst those readily observed in the contents of a dredge. Compared with other expeditions, the representatives of the group in the Challenger are remarkable for their number, as well as the great depths to which not a few descend. Indeed some of the forms, such as *Nicomache benthaliana*, are amongst the dwellers in the great deeps, *e.g.*, 2300 fathoms,

[1] *Op. cit.*, p. 189, &c.