Aglaophenia calamus, n. sp. (Pl. XII. figs. 5–8).

Trophosome.—Colony attaining a height of about five inches; stem monosiphonic, simple, or with a few branches springing from its anterior aspect; hydrocladia rather close, about two-tenths of an inch in length. Hydrothecæ with the margin deeply serrated; intrathecal ridge short, near the floor of the hydrotheca; mesial nematophore adnate to the walls of the hydrotheca for about half their height, and then continued as a short spur-like process, which does not reach the level of the hydrotheca margin; lateral nematophores somewhat flask-shaped, slightly overtopping the margin.

Gonosome.—Corbula rather long, cylindrical, with about seven pairs of adnate costæ, each costa carrying four or five tubular denticles, and with a spur-like denticle at its base.

Aglaophenia calamus shows no divergence from the typical *Aglaopheniæ*. It is a species with rather close-set hydrocladia, and with a tendency to send off short branches from the anterior side of the plume.

Dredged off Bahia, from a depth of 10 to 20 fathoms.

Aglaophenia coarctata, n. sp. (Pl. XIX. figs. 7–9).

Trophosome.—Hydrophyton attaining a height of upwards of six inches; stem fascicled, sending off alternate rather distant branches, along which the hydrocladia are disposed in alternate pinnæ, which scarcely attain a length of two-tenths of an inch. Hydrothecæ closely approximated, deep, with the margin crenate, and with a prominent tooth in front; mesial nematophore strong, adnate to the hydrotheca walls for about two-thirds of the height of the walls, and thence continued as a short free process, which does not reach the level of the hydrotheca margin, and with a wide emarginate orifice; lateral nematophores thick, tubular, not overtopping the hydrotheca.

Gonosome not known.

The hydrothecæ of the present species are so closely approximated that the lower end of each is included in the orifice of that which lies at its proximal end. They are unusually deep, and the margin, instead of presenting the ordinary dentate condition, is merely crenate, with an anterior mesial point in the form of a sharp tooth. The branches which support the hydrocladia are divided by oblique joints into a series of wedge-shaped internodes, each internode sending off a single hydrocladium. The main stem is strongly fascicled, and the nature of the communication between its component tubes may be easily seen. These communicate with one another by very short lateral offsets, each tube emitting numerous such offsets, whose ends meet those of corresponding offsets from the neighbouring tubes (fig. 1, p. 5).

No part of the gonosome was present in the specimen, and there is perhaps no better reason for assigning it to *Aglaophenia* than to other genera of Statoplean *Plumularidæ*.