

*Thuiaria pectinata*, n. sp. (Pl. XXXIII. figs. 1, 1a).

*Trophosome*.—Stem unbranched, monosiphonic, set with equidistant, opposite pinnæ, pinnæ usually with a joint occurring at no definite distance from the base. Hydrothecæ borne both by stem and pinnæ, opposite on stem, subopposite on pinnæ, conical, deep, adnate to the hydrocaulus for their entire height, and thence prolonged for a short distance by a free, thin, membranous extension of their walls.

*Gonosome* not present.

*Locality*.—Simon's Bay, Cape of Good Hope.

*Thuiaria pectinata* is a very elegant little species, attaining a height of between two and three inches. It is of a rather rigid habit, and in its exactly opposite pinnæ it presents a feature which is as unusual as it is striking.

The pairs of pinnæ are situated at equal distances, being separated from one another by three pairs of opposite hydrothecæ.

The hydrothecæ proper are entirely adnate to the hydrocaulus, but their walls are continued for a short distance in the form of a free, very thin, membranous tube, which, however, is not always preserved in the specimen.

The hydrothecæ are exactly distichous, and follow one another at very short intervals.

*Thuiaria hyalina*, n. sp. (Pl. XXXIII. figs. 2, 2a).

*Trophosome*.—Stem fascicled, sending off pinnately disposed, alternate ramuli, whose perisarc is colourless and transparent. Hydrothecæ borne both by stem and pinnæ, cylindrical, slightly tumid below, adnate to the hydrocaulus for their entire height, and gently curving away from the axis; orifice with four indistinct cusps.

*Gonosome* not present.

*Locality*.—Station 126, south of Pernambuco; lat. 10° 46' S., long. 36° 2' W.; depth, 770 fathoms.

The specimen of *Thuiaria hyalina* contained in the collection is but fragmentary, and has a height of upwards of three inches. The stem is strongly fascicled below, but becomes monosiphonic towards its distal end. It carries along its length short, simple ramuli, with a regularly pinnate disposition.

The ramuli and the monosiphonic portions of the stem are perfectly transparent and colourless, and allow a good view to be obtained of their contents. These, in some parts of the specimen, have been well preserved, and afford evidence of the remarkable fact that in this species the hydranths are but imperfectly retractile. The greater part of the body