

terminal branchlet the appearance of a frond of *Hypnum*. The subdivisions of the terminal branchlets are usually all free. The branchlets are relatively thick, and taper quickly towards the apex. They have a deep glossy brown or black colour. The pinnules are slender, and have a greenish yellow tint, becoming pale yellow near the apex of the secondary pinnules.

The spines are relatively distant, and arranged in very steep, regular, dextrorse or sinistrorse, spirals; the spiral appears to follow almost equally well either way. The spines are moderately long, about three-quarters the diameter of a pinnule, and are subconical and compressed, with the apex often slightly bent upwards. Five longitudinal rows may be counted from one aspect of a pinnule; the members of a row are about two lengths apart.

*Habitat.*—Mauritius (Brit. Mus.).

*Tylopathes? elegans*, n. sp. (Pl. XI. fig. 16).

Corallum delicate and web-like, not in one plane, forming a reticulum similar to that of *Tylopathes hypnoides* but much more delicate. The branchlets are very slender and scarcely tapering, and are only slightly thicker than the pinnules. They vary from 3 to 5 cm. in length, and are of similar diameter to the older portions of the axis from which they arise. They bear a number of subalternate pinnules of variable length, about thirteen to a centimetre. These are rarely lateral in position, and vary from 0.3 to 2 cm. in length. Those over 0.5 cm. long generally bear one or more secondary pinnules; the longest ones bear a dozen or more subalternately, the longest of which may be 0.5 cm. in length. The arrangement is similar to that in *Tylopathes hypnoides*, but the terminal fronds are much broader on account of the greater length of certain primary pinnules. There is also no marked difference between the thickness of the branches and branchlets, the whole specimen being unusually delicate. The branchlets are rarely straight, and sometimes adjoining ones are curved in opposite directions so as to cross one another almost at right angles. The terminal fronds have a somewhat lax hypnoid growth, but the pinnules become fused with those from neighbouring branchlets quite close to the apex of the corallum. The sclerenchyma has a light reddish brown colour in all parts. The type specimen is 12 cm. high and 12 cm. across the broadest part; the base is not preserved. The spines are similar in shape to those of *Tylopathes hypnoides*, but are arranged in closer spirals from left to right. They are also arranged in longitudinal rows, six of which may be counted from one aspect of a pinnule. The members of a row are two lengths or more apart, and the spines in some rows are rather longer than those in others.

*Habitat.*—Kurrachee (Murray), Brit. Mus.