

*Tylopathes? dubia*, n. sp. (Pl. XI. fig. 15).

The corallum consists of a loose fan-like network of branchlets and pinnules, forming a reticulum of the same type as that in *Tylopathes flabellum* (Pallas), but much more irregular. There is very little difference in thickness between the branchlets and pinnules; the latter are longer, stronger, and less numerous than in *Tylopathes flabellum* (Pallas). The branchlets are slender, have an irregular course, and bear arched pinnules subalternately. The pinnules are lateral or antero-lateral in position, and are more or less arched inwards; they vary from 4 to 8 mm. in length, and there are seven or eight to a centimetre, most of which form a wide angle with the branchlet from which they spring. In many cases a pinnule becomes much elongated (1.5 to 2.5 cm.), often without appreciably increasing in thickness, and becomes bent upwards, so as to fuse with a number of the pinnules above it. Three such elongated pinnules may occur in one centimetre and have a similar course; all bear secondary pinnules, some free, others fused with adjoining pinnules. On this account the subdivisions of a branchlet frequently extend for a distance of 1.5 cm. or more on one side of it or on both. The branchlets are thus not so near together nor so regularly vertical in their course as in *Tylopathes flabellum* (Pallas), and the resulting reticulum is not so distinctly pinnate. The spines are conical, with a rather broad base and sharp apex. They are arranged in regular dextrorse spirals, similar to those of *Tylopathes flabellum*, but the members of a spiral are fully one length apart (Pl. XI. fig. 15). Six longitudinal rows may be counted from one aspect of a pinnule, the members of a row being about two lengths apart. The type specimen consists of only a portion of a colony, and is 10 cm. high and 8 cm. across the broadest part. It undoubtedly comes near to Pallas' species, but the mode of branching, coupled with the thicker pinnules and smaller number of spines, appear to afford sufficiently distinctive characters.

*Habitat.*—Off Inosima Island, Japan (Burge), Brit. Mus.

*Tylopathes? hypnoides*, n. sp. (Pl. XII. fig. 4).

Corallum fan-like, 23 cm. high and 28 cm. broad; branches irregular and spreading, with frequent fusions. Branchlets usually 2.5 to 5 cm. long, bipinnate, both series of pinnules arising at a point in front of the exact lateral margin. The primary pinnules are arranged subalternately, but vary in length. Many are relatively short (6 mm.) and simple, but between every two or three of these, larger ones arise (1.3 to 2 cm.) which are pinnate, whilst in some cases certain of the secondary pinnules bear one or two short tertiary pinnules on their outer margins. The effect of this arrangement gives each