Family PALMYRIDÆ.

Palmyra, Savigny.

Palmyra aurifera, Savigny? (Pl. IX. figs. 1, 2; Pl. VIA. figs. 8, 9).

Dredged at Station 233A (near Kobé, Japan), May 19, 1875; lat. 34° 38′ N., long. 135° 1′ E.; depth, 50 fathoms; surface temperature, 62° 6; sand.

The single specimen is about 12 mm. in length and 4 mm. in breadth, and the body is slightly tapered at each end. The feet amount to thirty-three pairs.

The head is small, and covered by the anterior dorsal spines as well as the first pair of scales, so that its structure is only observed on raising the latter. The eyes are two, large and black, situated on a peduncle on each side, after the manner of *Lætmonice*. The median tentacle is absent, but in the bottle a slender process with a bulbous tip, to which is attached a short distal piece like those of the cirri, occurs, and is probably the organ in question. From the front of the head spring two long palpi, which taper to a tolerably fine point. Their surface is covered from base to tip with numerous long acicular papillæ.

The dorsal surface of the body is slightly convex at the sides, depressed in the middle, and furnished with the golden spines. The ventral is flattened and papillose, the smooth regions of the ventral longitudinal muscles contrasting with the segmented centre and sides.

The first foot is directed forward, and bears the usual tentacular cirri, the dorsal being the longer. This organ (to take the latter for an example) springs from a large basal segment as a somewhat slender process, which gradually dilates, and narrows again so as to assume a fusiform appearance. Finally it is continued as an elongated, slender, distal region, of a somewhat clavate form, the terminal part having the cuticle so thin as to appear (especially by transmitted light) differentiated from the rest. Such an appearance, however, is deceptive, since the organ is continuous from the tip of the basal region to the distal extremity. The dilated fusiform portion has a few short clavate papillæ, some of which are slightly bifid. The commencement of the slender distal region beyond is marked by a few wrinkles. The globular papillæ of the first foot are mounted on long pedicles, and the bristles are for the most part smooth.

The dorsal division of the fully developed foot carries the remarkable spinose bristles with the conspicuous golden lustre. In front they are shorter and broader, and, indeed, they gradually lengthen towards the posterior extremity. Each of these bristles (Pl. VIA. fig. 8) consists of a more slender basal region or shaft, mostly hidden in the dorsum, and a prominently serrated and larger distal division. The latter is clearly homologous with the shorter (distal) serrated region in Claparède's *Pontogenia*, and, moreover, corresponds to the spinose part in the dorsal bristles in the Polynoidæ, though