Mouth apparently radial; disk naked.

Colour in spirit,—light brownish-white.

Disk 6·5 mm.; spread 8 cm.

Locality.—Samboangan; 10 fathoms.   Two specimens.

Other Localities.—Australia (Péron and Lesueur).

Remarks.—I believe these two specimens to be identical with the form to which Lamarck gave the name *Comatula rotalaria.*   According to Müller's diagnosis,[1] " Die Radien bestehen aus 2 durch Syzygie verbundenen Gliedern.   Auf diese folgen unmittelbar wieder Axillaria, die wieder mit Syzygie versehen sind.   Dann folgt nur noch selten weitere Verästelung, also 20 Arme die Grundzahl."

When I visited the Paris Museum in 1876 I found that it contained no specimen bearing Lamarck's name, but that a form which had been brought from Australia by Péron and Lesueur, and appeared to be the original type of Lamarck's species as redefined by Müller, was labelled *Comatula brevicirra,* Troschel.

The first radials are not very distinct, but they are undoubtedly present, and there is no syzygy either between the two outer radials, or between the two distichal joints, as described by Müller according to Troschel's diagnosis; while the two palmar series which are present each consist of three joints, the axillary with a syzygy.

The two individuals obtained by the Challenger at Samboangan present the same characters and also retain their cirri, which are lost in the Lamarckian type.   As is sometimes the case in *Actinometra pectinata,* there are five pairs which are placed interradially or nearly so (Pl. LIX. fig. 2), and have only ten or twelve joints.   Tri-distichate series occur abnormally in both examples, while there are sometimes only two palmars instead of three.

The only type which resembles *Actinometra rotalaria* in the characters of its arm-divisions is *Actinometra valida* (Pl. LIX. fig. 3), which is altogether a larger form with more arms and more cirri.   *Actinometra simplex* is also bidistichate but has no palmars, while the cirri are longer and more numerous (Pl. LIX. fig. 1).

4. *Actinometra valida,* n. sp. (Pl. LIX. fig. 3).

Specific formula—a.2.3.3.$\dfrac{b}{a}$.

Description of an Individual.—Centro-dorsal a thin circular disk, bearing about fifteen cirri, which have some fifteen tolerably uniform joints; the terminal ones laterally compressed with a faint dorsal spine.

First radials just visible; the second closely united laterally.   The rays are wide, and

[1] *Abhandl. d. k. Akad. d. Wiss. Berlin,* Jahrg. 1847 [1849], p. 256.