

frequent occurrence are the medium-sized oxyhexasters with simple principal rays of medium length, and with two to four outward bent medium-sized terminals (Pl. LXXXI. fig. 5). The terminal rays are usually twice as long as the principals which bear them. In the second place and much more abundantly, sometimes indeed remarkably crowded, are small discohexasters, with four to six simple or S-shaped, short, terminally knobbed terminal rays on each of the simple medium-sized principals (Pl. LXXXI. fig. 4). The dermal and gastral pentacts are very like one another. Both the slightly incurved tangentials and the radial ray projecting into the parenchyma are somewhat rough, and end in club-shaped, rounded, or more rarely sharpened swellings (Pl. LXXXI. fig. 8). The sixth ray is absent. Its position is either wholly unoccupied, or is marked only by a gentle elevation. Besides the pentact hypodermalia, there are a great number of dermal scopulæ, usually pushed far forward, and are generally arranged in tufts on each pentact. The shaft is rough, swollen into a club-shape at the lower end, somewhat conically expanded above. It bears four rather markedly diverging terminal rays, frequently bent somewhat outwards. Each terminal forms a club-shaped, often almost spherical, and tolerably distinct terminal portion, which gives off laterally several transverse rows of barbs, while the somewhat flattened terminal surface appears to be smooth. The thin stalk of the terminal ray is beset with very minute pointed barbs, which are also directed backwards.

The gastral scopulæ, which occur much more sparsely, have in general the same structure. The terminal rays seem to be more slender, and their terminal knob is smaller than in the dermal scopulæ.

In the character of its soft body, *Periphragella elisæ* does not essentially differ from *Eurete*. In the subdermal trabecula, in some regions, groups of small cells occur, which I regard as immature sperm-balls.

Genus 3. *Lefroyella*, Wyville Thomson (Pl. LXXXII.).

Lefroyella decora, Wyville Thomson.

History.—In Wyville Thomson's preliminary account of a part of the voyage of the Challenger Expedition, entitled *The Atlantic*, 1877, p. 401, we read:—"On the following day we sounded in 2500 fathoms, and on the 29th in 1075 fathoms, in sight of the Bermudas, with a bottom of coral mud. The dredge was put over and veered to 1600 fathoms. It came up at noon with the pasty mortar-like lifeless contents which we find almost constantly on the slopes of coral reefs; the lime sediment was mixed with a large proportion of the shells of Pteropods and Heteropods. Two fine specimens of a Hexactinellid sponge were hanging to the tangles, both unfortunately dead and slightly water worn. The largest specimen, which seems to be nearly complete, is 170 mm. in height, and shaped somewhat like an old fashioned tall champagne glass. It rests on a very solid