

As appendix to the Euretidae I must here mention two small sponges, which in form and structure undoubtedly belong to this family, though they neither agree with any of the species described above, nor yet were sufficiently differentiated to admit of adequate and distinct specific diagnosis.

They form two small thin-walled funnels, 1 and $1\frac{1}{2}$ cm. in height, fixed on a small basal plate, with a terminal aperture above, 5 to 7 mm. in width, and with several short, tubular, stump-like lateral openings. They thus appear to be young individuals from which a *Eurete* or *Periphragella* or even *Lefroyella* might quite well develop. They agree with one another so thoroughly, both in macroscopic and microscopic characters, that they unquestionably belong to the same species. They were both trawled off Little Ki Island, at Station 192, from a depth of 140 fathoms and a blue mud ground. The dictyonal framework generally resembles that of species *Eurete*. The beams are thickly beset with coarse and fine tubercles in irregular disposition, and exhibiting a distinct thickening of the nodes of intersection, and also short freely projecting conuli (Pl. LXXII. fig. 4). The parenchymalia are of variable size, and lie at right angles to the two bounding surfaces. They are represented by uncinates, and by oxyhexasters with short principal rays, and rarely with two longer slightly curved terminals on each principal (Pl. LXXII. fig. 7), and also by discohexasters in which the short principals bear a number of long slightly curved terminals with marginally toothed terminal discs (Pl. LXXII. fig. 8).

The dermal skeleton consists of hypodermal pentacts, in which the four tangentials and also the radial proximal ray are at their ends somewhat roughened and slightly pointed or rounded at the tips. Beside the radial ray of these hypodermalia there lie radially directed scopulæ, in which the shaft is pointed at the inner end, while the outer exhibits a thickening with four or five slightly curved or even geniculate, thin, smooth, terminal rays, in which the club-shaped terminal knobs are equipped with barbs (Pl. LXXII. figs. 5, 6).

On the gastral surface I could only recognise pentact hypogastralia, which resemble the hypodermalia (Pl. LXXII. fig. 4).

Family II. MELITIONIDÆ, Zittel (Pls. LXXXIII.–LXXXVI.).

Scopularia which have the form of a ramified tube or of a cup with lateral blind diverticula. The dictyonal framework forms somewhat regularly hexagonal open radial spaces. In each of these a funnel-shaped, outstretched continuation of the reticular membrane of the ciliated chambers extends across the lumen. This is covered further along the external surface by the dermal membrane and on the internal surface by the gastral, stretching flatly over the various apertures. The gastral skeleton includes no scopulæ.