

are only sparsely present, somewhat slender in form, and thickly beset with long, closely appressed, narrow barbs.

Besides these, I find in the parenchyma, between the strands of the dictyonal framework, isolated minute discohexasters with six divergent, comparatively straight, terminal rays of equal length, on each of the six short, slender principals, which exhibit small knob-like terminal plates (Pl. LXXVII. fig. 9).

The dermal skeleton exhibits medium-sized pentacts with much thickened rough and rounded ends on the four gently incurved tangentials, a somewhat longer proximal ray also with a rough rounded off end, and lastly, a simple inconspicuous distal tubercle in place of the atrophied sixth ray. Besides these hypodermalia which are united by their tangential rays into a quadratic network, there are abundant, very characteristic—indeed specifically distinctive—dermal scopulæ in which the smooth stalk with a rough gradually pointed proximal end is expanded distally in a conical fashion, and bears four, or rarely five or six, cruciately disposed prongs. The thin stalks of these slightly divergent prongs are usually slightly bent (Pl. LXXVII. fig. 5), and less frequently straight. They are continued outwards into a smooth, spindle-shaped, thickened end, which occasionally exhibits a somewhat sharply defined point and an internal sharp edge.

The pentacts of the gastral skeleton resemble those of the dermal, but the scopulæ which occur beside them differ in some essential points from those in the dermal region. The four to six thin prong-stalks, which are curved gently outwards, bear club- or pear-shaped terminal thickenings which are thickly beset round about with short obliquely disposed barbs. Only the outermost pole of the terminal prong-swelling remains free from these minute teeth (Pl. LXXVII. figs. 6, 10).

The soft tissue exhibits here, as in all species of *Eurete*, a continuous dermal and gastral membrane with pores of very varied width, and a delicate subdermal and subgastral trabecular framework, in which the usually simple and straight afferent and efferent passages are seen as roundish canalicular spaces. The system of chambers forms a deeply, but somewhat simply folded layer of small chambers of the ordinary type, and somewhat sharply separated laterally from one another (Pl. LXXVII. fig. 2).

2. *Eurete schmidtii*, n. sp. (Pl. LXXVIII. figs. 1-6).

Among the numerous specimens of *Eurete* now at my command, there are three which agree both in their microscopic appearance, and in the minute structure of the skeletal parts. These belong to a new species which I have named *Eurete schmidtii*, in honour of the illustrious spongiologist, Professor Oscar Schmidt of Strassburg. Two of these are preserved in alcohol, and were brought home by the Challenger Expedition, having been trawled in the neighbourhood of the Philippines at Station 201,