manner, and so on—or to anastomose with other neighbouring branches. The meshes of the reticulated tissue are subquadrangular."

"Spicules of three kinds, namely, skeleton, subskeleton and flesh spicules. Skeleton spicules *sexradiate* arms spined throughout, pointed in the smallest, inflated at the extremities in the largest specimens. Subskeleton spicules of two forms:—(1) *acerate*, straight, *fusiform*, attenuately pointed, spined throughout, spines all inclined one way, and more or less closely applied to the shaft; (2) *scopuline spicule*, consisting of a shaft and head; shaft cylindrical, abruptly pointed at the free end, quadrangularly inflated at the other, micorspined throughout, most evidently towards the free end; head consisting of four arms, respectively supported by the four angular projections at the end of the shaft, at first remaining parallel or slightly curved towards each other and then expanded; arm much thinner than the shaft, inflated globularly at the extremity, microspined throughout, especially towards the inflation, where the spines are long and inclined backwards, leaving the convexity of the inflation smooth or bald. Flesh spicule a Hexactinellid rosette, each arm bearing four capitate rays, expanded *en fleur-de-lis*, or without extended arms, the latter being reduced to a central point, from which the rays radiate in all directions so as to present a globular form."

"Vitreous fibre smooth between the knots, which are globular and spino-tuberculated all over, except where interupted by their union with the fibre, or by the projection of one or more arms of the sexradiate spicule in the form of large spines, thickened or elongated, pointed or inflated at the extremity and spinulated throughout."

According to Carter the following are the peculiarities of *Eurete farreopsis*:—"The *globular tuberculated knots* of vitreous fibre, which, with the centrally developed spine, looks like a bossed omphalic shield, and the *globular inflations* respectively at the ends of the scopuline arms very much like a 'bald head.'"

Character of the Genus.—A system of multifarious dichotomously branched and richly anastomosing tubes of approximately equal diameter, fixed to its substratum by means of several solid or hollow supports which are inferiorly expanded in a plate-like manner. The margin of these oscular openings is not attenuated as in *Farrea*. The dictyonal framework of beams forming the skeleton consists in all parts of the sponge—even in the latest formed margins of the oscular openings—of several layers, and surrounds more or less regularly formed, in many cases almost square, in others irregularly quadrangular or triangular, meshes with simple or knot-like thickened intersections. On the dermal and ventral surfaces of the framework of beams conical pegs of various length arise from the intersections, and are directed at right angles to the bounding surface.

The dermal and gastral skeletons consist of pentact hypodermalia and hypogastralia respectively, and of numerous scopulæ provided with knobbed or pointed teeth.