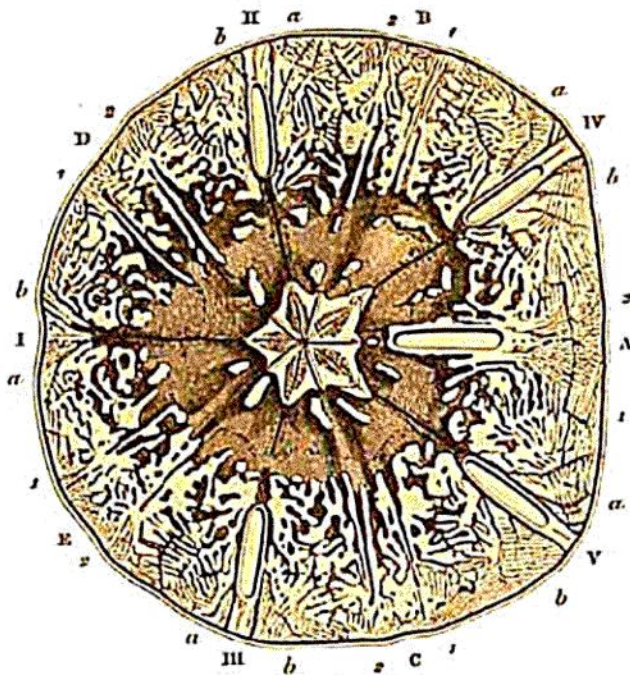


ence consisting in the greater complication of the ambulacral system of the *Encope*, and in the presence of five ambulacra, whereas *Aurelia* has only four. But when it is remembered how simple the ambulacra of *Synapta* are, and how great a diversity exists in the relative development of the ambulacral and interambulacral zones, throughout the type of the Radiates, such differences cannot be considered as impairing the homology of these parts.

A further comparison with *Melitta quinquefora*, *Fig. 6*, will only confirm these conclusions, and, I trust, also go far to show how little foundation there is for a

Fig. 6.



MELITTA QUINQUEFORA.

I, II, III, IV, V, ambulacral system. — A, B, C, D, E, interambulacral system. — *a*, *b* and 1, 2, the respective halves of these systems.

typical separation of the Coelenterata and Echinodermata. In this figure the ambulacral and interambulacral systems are seen from the inside of the lower floor of the spherosome, I, II, III, IV, and V representing the ambulacral system, and A, B, C, D, and E the interambulacral system of radiating tubes, and *a* and *b*, and 1 and 2, for their respective ambulacral and interambulacral zones, the branches by which they anastomose with one another. There is, in this genus, as well as in the genera *Dendroaster* and *Echinarachnius*, *Fig. 3*, an additional point of correspondence with *Aurelia*, not observed in *Encope*: in the interambulacral zones may be seen two simple tubes (1 and 2) bordering upon the wider pouches, facing A, B, C, D, and E, into which the sexual organs

extend. The innumerable lacunæ in the peripheric portion of the spherosome are only dilatations of the radiating tubes, and might at first sight appear to have little resemblance to the chymiferous tubes of the *Acalephs*; but if, instead of comparing the mode of ramification and the combinations of these lacunæ with the ramifications of the chymiferous system of *Aurelia*, we turn to *Polyclonia*, as represented Pl. XIII. *Fig. 2*, or to *Rhizostoma*, as represented by Milne-Edwards,¹ the resemblance is most striking, and I am satisfied that there is no exaggeration in the statement I made before, that Echinoderms are *Acalephs* with a somewhat more complicated organ-

¹ See *Recherches Anatomiques et Zoologiques faites pendant un Voyage sur les côtes de la Sicile*,

Part I. Pl. I., or Cuvier's *Règne animal*, illustrated edition, Zoophytes, Pl. 50.