

to the Echinoidea and partly to the Asterozoa, cannot by any means be applied to the homologous parts in the Crinoid," *i.e.*, to the basal plates. Lovén,¹ however, objects to the extension of the latter name to the so called genitals of Urchins and Starfishes, because the position of their apical plates, "while basal in the Crinoidea, is culminating in the Echinoidea and the Asterozoa, and consequently any appellation involving the notion of a basal position must be avoided."² There is undoubtedly some force in this objection; and I have long been endeavouring to find some general expression that would conveniently describe the interradial plates in the apical system of all Echinoderms. Not having succeeded in this quest, I have been obliged to fall back upon the word "basals." The interradial position of these plates in the calyx of a Crinoid, as defined by Müller,³ is now universally recognised, and the use of the word is not likely therefore to lead to any confusion respecting the position of the plates with regard to the general symmetry of the Echinoderm type; while it has the further advantage of avoiding the multiplication of "terms already too numerous." As Lovén objects to the use of "basals" for the reasons given above, he seeks to avoid the introduction of new names by reviving the old term "costals" of Miller. To this there could be no possible objection were it only employed in the sense in which it was generally used by Miller, but this is unfortunately not the case. In seven out of the nine genera which were described by Miller as having costal plates, this term was used for the radial plates of the calyx; while it was only in describing some species (not all) of *Cyathocrinus* that he employed the term costals, for the interradial plates of the calyx or basals, and in the case of *Marsupites* he gave this name to the under-basals. Lovén admits this inconsistency,⁴ but adds that "it has always been considered allowable to suggest the use in a strict sense of a term elsewhere vaguely applied." This is of course quite true, but the term should surely be limited to that sense in which it was most generally used by its author. This is not the case, however, with Lovén's revival of the term "costals," for he employs it to designate the basal plates which were only called costals by Miller in four out of the many species described by him; while he applied this name to the radials in all the other cases in which he used it at all, except in that of *Marsupites*. I cannot help feeling, therefore, that this revival of a name which has been disused for half a century is somewhat inexpedient, and is likely to lead to a confusion between the radial and interradial plates of the apical system which it is very desirable to avoid. Every one knows that the interradial abactinal plates of an Urchin or Starfish are not situated at the base of its body as they are in a Crinoid; and this reservation being made I do not see that there can be any objection to calling them basal plates. This would avoid all possibility of any confusion with respect to their position as regards the general symmetry of the

¹ On *Pourtalesia*, *loc. cit.*, p. 63.

² It may be noted with respect to this point that when Lovén inverts an Urchin for a better comparison of its calyx with that of a Crinoid, his "costal" plates (the genitals) really do become "basal" in position (see p. 414).

³ *Bau des Pentacrinus*, *loc. cit.*, p. 25.

⁴ On *Pourtalesia*, *loc. cit.*, pp. 63, 64.