In the normal Spatangoids the odd interambulacrum on the actinal surface consists generally of three large plates, which occupy the whole space between the actinostome and the edge of the ambitus. In the Pourtalesiæ and the allied genera, *Spatagocystis*, *Echinocrepis*, *Cystechinus*, and *Urechinus*, this odd interambulacrum is made up of a large number of small plates, none of them having the preponderance in size so marked in the majority of recent Spatangoids and forming the well-marked actinal plastron of such genera as *Schizaster*, *Maretia*, *Metalia*, *Hemiaster*, &c. It is in genera like *Palæotropus* and *Genicopatagus* that the actinal plastron has a somewhat greater prominence till it becomes in such types as *Homolampas*, *Paleopneustes*, and *Argopatagus* nearly as prominent as in the Spatangoids proper mentioned above. This character of the absence of a true actinal plastron is characteristic of the Petalostichan genera which retain Clypeastroid[1] or Echinolampan features, and we find it, consequently, wanting in such families as the Cassidulidæ and Dysasteridæ, while in the Ananchytidæ the actinal plastron is a prominent structural feature of the family which gradually becomes more marked in the other families of Spatangoids.

The genus *Spatagocystis* forms the passage between such genera as *Holaster*, *Cardiaster*, *Ananchytes*, *Infulaster*, and *Pourtalesia*. From above it has somewhat the general outline of the pointed form of *Pourtalesia laguncula*, while the test has the general appearance of *Cardiaster* and *Ananchytes* combined with the sunken actinostome of *Pourtalesia* and the presence of a small anal snout, with the slightly sunken anterior ambulacral region of *Infulaster;* while *Echinocrepis* forms the passage from the Pourtalesiæ to such Ananchytid forms as *Cystechinus* and *Urechinus* so far as the structure of the anal system is concerned. The test of *Spatagocystis* has neither the angular outline of *Echinocrepis* nor the bottle form of *Pourtalesia*, but has the swollen rounded contour of Spatangoids like *Micraster* and *Holaster*.

The anal snout formed in *Spatagocystis* resembles more the beak in prolongation of the subanal plastron of some of the Spatangoid genera, such as *Echinocardium* and the like. With the overhanging abactinal hood and the small beak of *Spatagocystis* we readily trace the passage to such an anal extremity as that of *Urechinus* and *Echinocrepis*, in which the actinal slope forms a more or less bevelled surface with rounded angles to the actinal and abactinal surfaces, on which is situated the more or less sunken anal system. The prominence of the anal snout plays an important part in deflecting the odd interambulacrum from its course, or in stopping it even altogether from reaching the actinal surface or disconnecting it from the actinal plastron.

In the group of Spatangoids to which we now come, the genera *Argopatagus*, *Homolampas*, *Genicopatagus*, *Linopneustes*, and *Paleopneustes*, while having for a part of the

[1] The Clypeastroid affinities of the Pourtalesiæ consist in the simple actinostome and in the structure of some of the pedicellariæ which are like those of the Clypeastroids and Echinolampadæ.