is not so well marked, the lateral fasciole on the contrary is better defined, and its connection with the so-called internal fasciole more distinct, thus giving rise to the simultaneous existence of an internal and a peripetalous fasciole.

With the above limitations the peripetalous fasciole appears in all recent Spatangoids to modify the structure of the apical portion of the lateral ambulacra. This, as has been shown, is only true to a limited extent of the genera allied to *Echinocardium*. In some species of *Schizaster* the petals lose much of the prominence they have in such species as *Schizaster canaliferus* and the like, while the occurrence of such a genus as *Aceste*, in which the lateral ambulacra are not affected by the crossing of the peripetalous fasciole, and in which the abactinal part of the lateral ambulacra retains simple pores, as in the Pourtalesiæ, goes far to show what the true nature of the internal fasciole really is.

In *Aërope* the peripetalous fasciole decends below the ambitus, and affects the structure of the apical part of the ambulacra. The ambulacral pores are all double, as is the odd ambulacrum of *Aceste*, but show no trace whatever of a petaloid structure; they retain their Holasteroid features, if we may so call the straight rows of double pores of the ambulacral zones of some Spatangoids.

The genus *Gualteria* of the Nummulite of France is the oldest of the fossil genera in which we find the peripetalous fasciole extending across the petals so as to become what has been called an internal fasciole. As in *Aceste* it does not affect sensibly the structure of the petals. This fasciole holds an intermediate position between the true peripetalous fasciole placed entirely outside the petals and a normal internal fasciole, plainly showing that it is impossible to draw the line between these two kinds of fascioles. In the Revision of the Echini (pl. xiv. figs. 9, 11, 12), I have figured a young Spatangoid referred with great doubt to *Agassizia*, in which this Gualterian feature of the internal peripetalous fasciole is very marked, and in which we have a lateral fasciole starting directly from an internal fasciole in an anterior interambulacral area just as it would start from a true peripetalous fasciole.

**Aërope rostrata* (Pls. XXXIII., XXXIII.[a] figs. 8–12; Pl. XXXIX. fig. 23; Pl. XLI. figs. 7, 8).

Aërope rostrata, Wy. Thomson, Proc. Roy. Soc., vol. xxv. p. 211; Voyage of the Challenger, Atlantic, vol. i. p. 381, fig. 99.

Of this species specimens of two very different sizes were collected (Pl. XXXIII. figs. 1–5 and 8–12); they differed considerably, in outline especially, when seen in profile, but I am not inclined to consider them as distinct species. The large specimen measuring 43 mm. in length was unfortunately so badly broken that it was impossible to examine its structural features without danger of completely destroying it in the preparation of either the actinal, anal, or apical system. I have, therefore, limited myself to the