The *Salenia tertiaria* of Tate[1] is carefully described by Duncan.[2] He mentions the numerous ambulacral tubercles in four vertical rows somewhat as in *Salenia hastigera*, and more especially the presence of but a single pair of pores to each tubercle as in the recent Salenidæ, while this is not the case in the older fossil Salenidæ; and it is somewhat remarkable to find this structural feature in the Tertiary species, for, from what we know of the mode of development of the ambulacral regions in other Echinids, the character just alluded to in the older Salenidæ is not an embryonic one, as the crowding of the poriferous zone is, as far as we know, now prominently developed only in the older stages of growth of the Desmosticha. The *Hemicidaris* character of the existence of a few large primary tubercles near the actinostome is quite striking in *Salenia varispina*, and much less so, though it exists, in *Salenia hastigera*.

Duncan has described in the Annals and Magazine, vol. xx. p. 70, the sphæridia of a species of *Salenia*, dredged by the Challenger, which he names *Salenia profundi;* and on the strength of the presence of sphæridia and their absence in the Cidaridæ, as well as the character of the buccal membrane, he retains the Salenidæ as an independent family, and as more closely allied to the Echinidæ proper than the Cidaridæ, with which I had associated them more closely than other authors had done. I, however, hardly think that the single additional structural point he mentions (the existence of sphæridia) is a sufficient ground for taking what I consider a retrograde step in our ideas of the affinities of the Salenidæ.

An unfortunate misprint occurs in my description (Revis. Echini) of *Salenia varispina*. While speaking of the imbricating buccal membrane, it reads "much as in *Echinocidaris;*" it should have been "as in *Trigonocidaris*." I may be allowed to state that I was fully aware that *Echinocidaris* is identical with *Arbacia*, as Dr Duncan states (see Ann. and Mag. Nat. Hist., 1877, vol. xx. p. 248), and also that the imbricated plates of *Salenia varispina* show on my figures (Revis. Echini, pl. iii.); and as I have shown, this is an important difference between *Salenia hastigera* and *Salenia varispina*.

As Duncan justly remarks with regard to the number of the primary tubercles, their number cannot be limited to ten as I had stated it in the Revision; but, on the other hand, his statement that the number of primary tubercles is indicated long before the test assumes its largest size, will have to be greatly modified judging from the young *Saleniæ* dredged by the "Blake." To this point, however, and to the relationship of *Salenia varispina* to *Peltastes* or *Hyposalenia*, I shall return in the final Report of the Blake Echinoidea, when giving an account of the changes undergone by *Salenia* during growth, which affects materially the position of the anal system. I should say, however, that the single specimen of *Salenia* on which my original description in the Revision was based appears to be somewhat anomalous in the size of the anal system, and its degree of encroachment on the genital plates. I do

[1] Tate, Quart. Jour. Geol. Soc. London, vol. xxxiii. p. 256, fig. 2, p. 257.
[2] Duncan, Ann. and Mag. 1878, vol. ii. p. 61.