

de la ressemblance absolue de ces dix plaques alternes avec celles qui forment le périprocte des Oursins et que Lovén a rapprochées, à leur tour, de celles qui constituent le calice des Crinoïdes, opinion que nous aurons prochainement occasion de discuter. L'identité de disposition des plaques dorsales des *Caulaster* avec celles du calice de Crinoïdes est évidente."

It would appear, however, from the foregoing description that Perrier's comparison of the plates round the dorsal appendage of *Caulaster* with those forming the periproct of an Urchin cannot be followed out in detail. The first row of plates in *Caulaster*, if *radially* situated as Perrier states, cannot correspond to the first or inner row of the apical system of an Urchin; for these last are the genitals, and are situated *interradially*. Their homologues are the plates in the second row of *Caulaster*, which alternate with those of the first; while the second ring of plates in the Urchins, the oculars or true radials, appear not to be represented in *Caulaster*. If Perrier's description of the positions of the plates in this type be correct, its apical system consists, not of genitals and oculars (basals and radials) as in an Urchin, but of under-basals and basals; and the true radials must be so small as to have escaped his notice.

NOTE B.

(Page 36.)

ON THE BASALS OF FOSSIL COMATULÆ.

In certain fossil Comatulæ the ends of the basals are visible on the exterior of the calyx between the radials and the centro-dorsal. They are sometimes quite small, as in some forms of *Pentacrinus decorus* (Pl. XXXIV. fig. 1; Pl. XXXV. figs. 1, 2; Pl. XXXVI. fig. 3); while in other species, such as *Solanocrinus scrobiculatus*, Münster, they may reach a considerable size. As long as basals were supposed to be absent in the calyx of the recent Comatulæ, their presence in fossil forms appeared to be a character of generic value. But after the discovery by Dr. Carpenter and Sir Wyville Thomson that the Pentacrinoid larva has true basal plates which eventually become metamorphosed into the concealed rosette, this distinction between the recent and fossil Comatulæ no longer holds good. Schlüter¹ recognised this fact in 1878, and pointed out that *Solanocrinus* was merely a synonym of de Freminville's name *Antedon*. He referred to this genus both *Solanocrinus costatus*, Goldfuss, and *Solanocrinus scrobiculatus*, Münster, together with two other fossil species, in both of which the basals appear on the exterior of the calyx. Zittel,² however, regarded *Solanocrinus* as a subgenus of *Antedon*, distinguished from it by the presence of external basals.

In the following year³ the examination of a considerable number of fossil Comatulæ

¹ *Zeitschr. d. deutsch. geol. Gesellsch.*, Jahrg. 1878, pp. 36, 40.

² *Palæontologie*, vol. i. p. 396.

³ On some undescribed Comatulæ from the British Secondary Rocks, *Quart. Journ. Geol. Soc.*, vol. xxxvi. pp. 36-46, 1880.