other but from the edge of the test by the imbricating plates which cover the whole of its actinal membrane. In this species the imbricating plates are more prominent in the space between the teeth and the ambulacral plates (Pl. VI.ª fig. 8). The characteristic reticulation and pits of this genus are coarser both in the ambulacral and interambulacral spaces; the spines were mostly broken, but to judge from the secondary ones they must have been proportionally longer and stouter than in the Florida species. The shape of the anal system is not elongate in the direction of the axis of the large anal plate but at right angles to it, and the second and third anal plates are comparatively larger than in *Trigonocidaris albida* with two very minute plates intercalated over the anal opening between them and the small fourth anal plate (Pl. VI.ª fig. 9). The abactinal system is ornamented by a prominent ridge, extending round the edge of the ocular plates and across the adjoining genital plates, forming a pentagon with rounded angles round the anal system (Pl. VI.ª fig. 9).

Adjoining the anal system in the middle of the genital plates are placed two or three prominent secondary tubercles. This highly-ornamented apical system is in striking contrast to the smooth bare abactinal system of *Trigonocidaris albida*. The pedicellariæ resemble those of *Trigonocidaris albida*, but the head is somewhat blunter; in the single specimen collected they were most numerous close to the ambitus on the abactinal surface. In alcohol the colour of the test and spines of this specimen was silvery white with yellowish suckers on the abactinal side. The actinal side of the test was of a light dirty yellow.

Station 170. July 14, 1874. Lat. 29° 55′ S., long. 178° 14′ W.; 520 fathoms; bottom temperature, 6·0° C.; rocks.

Cottaldia, Des.

Cottaldia, Des., 1855, Syn. Éch. foss.

**Cottaldia forbesiana* (Pl. VI.ª figs. 15–17).

Cottaldia forbesiana, Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 203.

Only a single specimen of this interesting species was obtained from Station 173. It is allied to the Tertiary *Psammechinus monilis*. The pores are, however, arranged in simple vertical rows much as in *Temnechinus* (Pl. VI.ª fig. 15); the spines of this species (Pl. VI.ª fig. 17) closely resemble those of some species of *Salmacis* and of *Temnechinus*. It has, like *Temnopleurus* and the allied genera, a large abactinal system, but we find no trace of the indentations, grooves or pits of the above-mentioned genera. The general facies of the test when denuded resembles that of the species often united by Echinologists as *Psammechinus* [*Echinus*, pars]. The actinostome is sunken as in *Temnopleurus* and *Salmacis*, a character in which it differs from *Cottaldia*; it may be best, however, to place it in that genus for the present until we have more material to ascertain its