

which is soft-membraned and smooth walled, is pretty sharply defined from the bark-like section of the wall, and, like the oral disk, is inverted during contraction. Gosse formed the genus *Phellia* for these Actiniæ, which are easily recognised even by a superficial observer (Ann. and Mag. of Nat. Hist., ser. iii. vol. ii. p. 192); Verrill went a step further, and erected them into a special sub-family, though in so doing he attached undue value to the character.

Jourdan was the first to explain the essential nature of this formation by pointing out that the bark-like layer is merely a deposit on the ectodermal epithelium, and that the latter has undergone retrograde formation under this deposit so as to become an imperceptible layer (Annales des Sciences Nat. Zool., ser. vi. t. x. p. 98).

Verrill has made some statements about the internal structure of the *Phellia* (Transact. Connect. Acad., vol. i. p. 490), which refer to *Phellia panamensis*; the ovaries are irregularly distributed on the septa, are wanting on the smaller, and present only on the twelve largest. This so flatly contradicts all observations on the distribution of the reproductive elements in the Actiniæ, that Verrill must somehow have been mistaken. His observations are of no use for another reason, namely, that he says nothing about the relation of the septa to the œsophagus.

*Phellia pectinata*, n. sp. (Pl. I. fig. 7; Pl. VI. fig. 5; Pl. VIII. figs. 1, 2, and 10).

The bark-like part of the wall is covered with transverse and longitudinal furrows; terminating above in twelve knobs, which are prolonged on to the inverted soft-membraned section as twelve longitudinal combs; each comb ends in a very prominent, bifurcated, nose-like projection; tentacles small, pointed, arranged in four cycles.

*Habitat*.—Station 307. January 4, 1876. Lat. 49° 24' S., long. 74° 23' W. Depth, 147 fathoms. One specimen.

*Dimensions*.—Height of the wall (taken as far as the inverted soft-membraned part), 2 cm.; breadth, 1.5 cm.

This animal, which I have incorporated as a new species in the genus *Phellia*, would hardly be taken for an Actinia by any one who glanced at it in a contracted condition; its small body, about 2 cm. high and 1.5 cm. broad, rather resembles the body of a *Cynthia*, perhaps *Cynthia canopus*; it has the same rough, somewhat shaggy surface, the same leather-like consistency, the same oval form having an opening at the one end, whilst a second opening similar to the egestive opening is naturally wanting. This constitution of body is explained by the peculiar fashion in which the animal contracts itself; during this process not only the oral disk and corona of tentacles, but the upper part of the wall is so deeply invaginated that not the smallest part of the tentacles nor of the oral disk remains externally visible.

As in every *Phellia* we can distinguish two sections in the wall, a lower section which does not, and an upper part which does, become invaginated. The two