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XX. *On the Nursing Pouch or Chamber of the Chama concamerata of Gmelin.* By JOHN EDW. GRAY, Esq. F.G.S. &c.*

WALCH in the 12th volume of the *Naturforscher Journal*, of Berlin, described and figured (t. 1. f. 7.) a very curious shell, which Chemnitz has since named *Chama concamerata*. It has been considered as very rare; but having lately been brought to this country in considerable abundance, — through the kindness of Mr. Pratt, of Bath, I have been enabled to examine several specimens which had the dried animal in them: and as the formation of the cavity, which is itself an anomalous structure in Mollusca, and the use to which it appears to be applied by the animal, has not hitherto been described, I shall proceed briefly to describe them.

The cavity is formed by a folding-in of the middle of each of the valves; and this folding-in does not appear to take place till the shell has arrived at the middle period of its growth. It is marked externally by a groove formed by the coming together of the sides of the fold; the parietes of the cavity are thin, and marked with the same lines of growth as the valves themselves; the cavities or folds of both the valves are exactly opposite, and when the valves are closed, they meet so as to form a nearly closed chamber, which, although in the internal cavity of the shell, is completely external to the animal; and the contents of the cavity, like when the head is in a double night-cap, are on the outside of the shell. Indeed, the manner in which the cavity is formed may be easily understood by folding a piece of paper to the shape.

The chamber appears to be used by the animal as a *nursing pouch* to contain its eggs; for in all the specimens which I have seen, the cavity of each of the valves contained a group of oval, crumpled, pellucid bodies, adhering together, which, when they were soaked in water under the glass of a microscope, dilated, became semi-transparent, regularly oval, and had all the appearance of the eggs of bivalve Mollusca; but they are rather large for the size of the shell.

This is indeed a remarkable anomaly; for most *Conchiferæ*, as was described by Lister, aerate their eggs in their gills, and then emit them into the water to the protection of Nature. Some freshwater species, as the *Cyclades*, indeed, appear to keep them in the concave part of their shell, so as to be viviparous. I do not know of any instance but the above, where a pouch appears to have been formed for their protection; and what is more remarkable, the other species of the genus *Cardita*, to which Lamarck has referred this shell, are undoubtedly destitute of any thing of the kind.

* Communicated by the Author.

XXI. *On*