in which he shows that the animal is provided with a rudimentary fin on each side of the terminal gland, which had been rubbed off or otherwise destroyed, so that their base appears to form part of the gland itself in Mr. Cuming's specimen.

The paper above referred to, being published in a work chiefly devoted to anatomy and medicine, had escaped my knowledge.

I will shortly send you a copy of the figures, with some other particulars, for the purpose of completing the history of this interesting genus. Believe me, my dear Sir, yours very truly,

15th May, 1845. J. E. Gray.

[The observations of M. de Blainville were noticed by Mr. Owen in one of his Hunterian Lectures, published in 1843, of which the following is an extract :—

" The genus in which the shell most nearly resembles that of the tetrabranchiate Cephalopods, belongs to the *Spirula*. A few mutilated specimens which had reached this country during this present century had demonstrated it to be an internal shell, and the more perfect specimen dissected by M. de Blainville in 1839, proved it to have the characteristic organization of the Dibranchiate order, and to possess, as Péron had indicated, the eight short arms and the two long tentacula of the Decapodous tribe."—Ed.]

ON THE DEVELOPMENT OF DORIS. BY C. W. PEACH*.

[With a Plate.]

Goran Haven, Cornwall, April 1845.

Having in the early part of 1844 noticed white-spotted jelly-like films suspended from the rocks in the cove near my residence, my curiosity was excited to know what they were. On the 18th of January of that year, I observed that they were more plentiful than I ever before saw them, and on rocks *considerably nearer high water mark*. I also found a great number of a small kind of *Doris* on the same rock ; not having seen them there before, I began to suspect that in all probability they had something to do with the above-mentioned films. I took several of them and placed them in a vessel containing sea-water ; the next morning I found that a pair of them had fixed their ova to the side of the dish, *in every respect agreeing with those found on the rock*, thus confirming my suspicions. They shed their ova in pairs. I took also with the animal several pieces of their ova from the rock and kept them in a glass of sea-water, and on the 5th of February found that the young had come forth in thousands. I just mention, that no mistake might be made, that I always filtered the water I supplied the ova with through three or four folds of linen ; and moreover, I saw the young moving about in the ova long before they came out, and also observed others there some time after their elder brethren had left. These young are contained in a Nautilus-like shell so small (indeed a mere speck), as not to be made out as such by the unassisted eye. The animal is furnished with two arms of a

* Read at the last Annual Meeting of the Royal Institution of Cornwall.

wheel-like shape, from which rise in a radiate form delicate cilia; these cilia move rapidly, and with them, after raising the shell on its edge, the animal runs round, and at times darts across with surprising swiftness; occasionally they lie on their side and then spin round on the shell with the mouth going backwards, occasioned by the position and rapid movements of the cilia. They frequently rest, and withdraw altogether into the shell. The adult animal is tubercled, about $1\frac{3}{8}$ths of an inch long, covered with dark brown and red blotches intermingled with spots of white; it is furnished with two horns, one on each side of the head; these are leaf-like on the hinder part. The branchiæ are placed in a semicircular manner near the tail, the two ends being turned in so as almost to touch the outside, the open part being towards the tail; on the outer part of the semicircle are eighteen feather-like branchiæ, with three on each of the parts which turn in. They left the rocks in February, and I have not *seen one since*; thus showing them to be inhabitants of deep water, and that they only came in shore for the purpose of shedding their ova. I succeeded in hatching the young from two different sets of ova several days between.

Up to March of the present year 1845, I have not seen a single animal of the above *Doris*, or any of the ova: this is probably owing to the severity of the weather. The first part of 1844 was much more genial, and thus tempted the *Doris* in-shore. I merely throw this out as a hint well worthy of notice.

EXPLANATION OF PLATE XIV.

Fig. 1. The embryo with its wheel-like arms displayed when raised on its edge.

Fig. 2. Ditto on its side.

Fig. 3. Empty shell:—all highly magnified..

ON THE NIDI OF BUCCINUM RETICULATUM. BY C. W. PEACH*.

In your valuable publication for March 1844, p. 203, you inserted an opinion of mine, that the nidus there described belonged to the *Buccinum reticulatum*; I have since continued to notice them, and all my observations completely confirm what I then stated. I succeeded in the spring, and again in August 1844, by keeping the nidi in sea-water in my house, in hatching the young; thus showing that, like the *Purpura lapillus*, they deposit their nidi all the year round. These young so much resemble those of the *Doris*, both in shell and animal, that the former description will do for this. It is a singular circumstance, that an animal which is naked at maturity should require a shelly covering when young, as well as one which always possesses a shell in all its stages of growth. It is one of those interesting circumstances which meet the naturalist at every step he takes; to me it proves design in providing a covering to shelter it when in a weak and helpless state. Both these young shells have myriads of enemies in the small infusoria, which may be noticed with a powerful microscope hovering round them, and ready

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