on the supplies of food casually brought within their reach by the waves and currents of the ocean. This permanent attachment to the solid body on which they fix their abode, does not, however, take place till they have arrived at a certain period of their growth: for at the commencement of their separate existence, that is, immediately after they are hatched, they are free to move in the water, and to roam in search of a habitation. In this respect, therefore, they preserve an analogy with the gemmules of sponges, and of polypi, which exercise locomotive powers only in the early stages of their development.*

The organization of the Mollusca being unfitted for the construction of an internal skeleton, Nature has ordained that the purposes of mechanical support and protection shall be answered by the formation of hard calcareous coverings, or *shells*, the result of a peculiar process of animal production. These shells are formed either of one piece, or of several;

* This analogy is strengthened by the circumstance that the movements of many of these animals, in the first periods of their existence, are effected by the same mechanism of vibratory cilia which we found to be instrumental in the progression of the infusory animalcules, and of the young of polypi. On observing the first evolution of the ova of the *Buccinum undatum*, Dr. Grant found them to consist of groups of spherical gelatinous bodies, which soon become covered on one side with a transparent envelope, the rudiment of the future shell; while, on the other side, the gelatinous matter is extended outwards, so as to form the margin of an internal cavity, of which the entrance is surrounded with vibratory cilia, and in the interior of which a revolution of particles is seen, indicating a constant current of fluid. The vibrations of these cilia are perceived long before the pulsations of the heart, and even before any appearance of that organ is visible; they are, indeed, the first indications of life in the embryo. The cilia are in activity even before the animal is hatched; for while confined within the egg, it is seen almost continually revolving around its centre: a motion which appears destined to bring a constant supply and renewal of sea water into the interior of the organization, in order to perfect the formation of the shell before the animal is, as it were, launched into the ocean. Possibly, also, the continued friction of the cilia against the interior of the egg may tend to abrade it, and open a passage for the young animal. No sooner has the animal effected its escape, than it darts rapidly forwards by the motion of its cilia. The same appearances have also been observed by Dr. Grant in the young of different Mollusca, such as the *Doris*, *Eolis*, &c., which have no shell.—Edin. Journal of Science, Vol. vii.