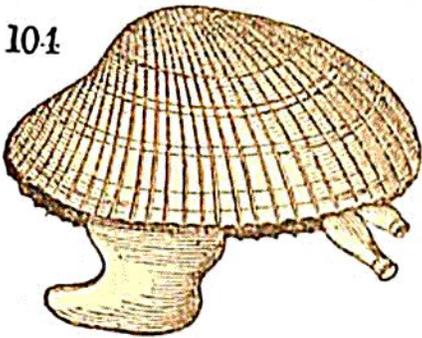


He notices the singular fact that oysters, which are attached to rocks occasionally left dry by the retreat of the tide, always retain within their shells a quantity of water sufficient for respiration, and that they keep the valves closed till the return of the tide: whereas those oysters which are taken from greater depths, where the water never leaves them, and are afterwards removed to situations where they are exposed to these vicissitudes, of which they have had no previous experience, improvidently open their shells after the sea has left them, and by allowing the water to escape, soon perish.\*

Many bivalve mollusca are provided with an instrument shaped like a leg and foot, which they employ extensively for progressive motion. Its form in the *Cardium*, or cockle, is seen in Fig. 104. This organ is composed of a mass of muscular fibres, interwoven together in a very complex manner, and which may be compared to the muscular structure



of the human tongue: the effect in both is the same, namely, the conferring a power of motion in all possible ways; thus it may be readily protruded, retracted, or inflected at every point. The *Solen*, or razor-shell fish, has a foot of a cylindrical shape, tapering at the end, and much more resembling in its form a tongue than a foot. In some bivalves the dilatation of the foot is effected by a curious hydraulic mechanism: the interior of the organ is formed of a spongy texture, capable of receiving a considerable quantity of water, which the animal has the power of injecting into it, and of thus increasing its dimensions.

The foot of the *Mytilus edulis*, or common muscle, can be advanced to the distance of two inches from the shell, and applied to any fixed body within that range. By at-

▲, ▲, which retain the valves in contact independently of the ligaments. For a full description of this apparatus, I must refer to a paper by Mr. Osler, on burrowing and boring marine animals, contained in the *Phil. Trans.* for 1826, p. 342, from which the above figure has been taken.

\* *Journal de Physique*, xxviii. 244.