

confirm this opinion. The species which he observed was the rugose saxicave.* This animal fixes itself by a byssus from the foot, and therefore cannot perform a rotatory motion, and it appears to have no mechanical means of excavating its crypt—it can act solely upon the calcareous part of the rocks it perforates—for these and other reasons, Mr. Osler is of the same opinion with M. de Bellevue.

Poli has described a strong-boring bivalve, belonging to the *mussel* genus, which perforates marble, each inhabiting a separate crypt, generally as large as the shell, and which he thinks they enlarge by friction and rotatory motion. The pillars of the temple of Serapis at Puteoli were perforated by these animals at the height of forty-six feet above the sea, whence it is probable they were so perforated before they were carried there.†

When we compare the proceedings of these four kinds of boring or burrowing Molluscans, above described, with their forms, we shall find in them a particular adaptation of means to an end. In the ship-worm, whose province is to penetrate into submerged timber, and there to take its abode, we find the anterior part of the body armed with two shelly valves, moved by strong muscles, which cut and rasp the substance upon which they act, so that it probably begins its labour as soon as it is born, introducing its narrow body, defended at the other extremity also by shell, into the timber softened by the water, and slowly increasing its crypt as its dimensions increase—in this case the most powerful action seems to be at the anterior end, though assisted, it may be, by some motion at the posterior. This kind of action appears best suited to its slender body.

Let us next examine the pholads; all the genuine ones are rough like a rasp, strengthened near the base with accessory valves and a thick interior margin, indicating that

* *Saxicava rugosa*.

† Poli, ii. 215.