material retardation. The part of the shell also which is foremost in all the retrograde movements of the animal, in the act of ascending and descending, and also in swimming at the surface, is that which receives the least resistance from the fluid through which it moves, and at the same time presents the strongest part or back of the shell to any body against which it may strike, either when floating on the surface, or on arriving at the bottom of the sea.

P. 331. Mr. Owen observes, that the Hood, or flattened muscular disk of the Nautilus Pompilius, seems calculated to act as the chief locomotive organ in creeping at the bottom; and in the supine position of the animal, bears considerable analogy to the foot of a Gasteropod; in a state of rest and retraction it would serve, like an operculum, as a rigid defence at the outlet of the shell. (*See Owen on the Pearly Nautilus*, p. 12.) The animal may also assist its movements along, and adhesion to the bottom, by some of its numerous tentacula.

P. 332 †. In the case of animals possessing a siphuncle and chambered shell, but having no means to fill the siphuncle with pericardial fluid, the admission and abstraction of any other secreted fluid, or of water, to and from the siphuncle, would have a similar effect to that of the pericardial fluid of the Nautilus, in varying the specific gravity. It may perhaps be shewn hereafter, that in some of these genera an organization exists fitted to fill and empty the siphuncle by other agency than that of the Pericardium, and possibly with water admitted from the branchial cavity; but as we know that the Nautilus Pompilius possesses in its pericardial fluid and siphuncle a sufficient apparatus to effect this purpose, and thereby to cause the rising and sinking of this animal; and as we find in the Ammonites and many extinct families of fossil chambered shells, a siphuncle and air chambers, very similar to those of the Nautilus; we may infer from analogy, that mechanisms so similar, as to those parts which have escaped destruction, were connected with soft and perishable parts, corresponding with the pericardial apparatus in the living Nautilus.

It is of little importance, however, to the statical theory of