

mode of operation as a pipe, admitting or rejecting a fluid, seems to have been the same as that we have already considered in the case of Nautili.*

The universal prevalence of such delicate hydraulic contrivances in the Siphuncle, and of such undeviating and systematic union of buoyancy and strength in the air-chambers, throughout the entire family of Ammonites and Nautili, are among the most prominent instances of order and method, that pervade these remains

* In the family of Ammonites, the place of the Siphuncle is always upon the exterior, or *dorsal margin* of the transverse plates. (See Pl. 36. d. e. f. g. h. i., and Pl. 42, Fig. 3. a, b.) It is conducted through them by a ring, or collar, projecting *outwards*; this collar is seen, well preserved, at the margin of all the transverse plates in Pl. 36. In Nautili, the collar projects uniformly *inwards*, and its place is either at the *centre*, or near the *inner margin* of the transverse plates. (See Pl. 31, Fig. 1. y. and Pl. 42. 1.)

The Siphuncle represented at Pl. 36, is preserved in a black carbonaceous state, and passes from the bottom of the external chamber (d.) to the inner extremity of the shell. At e. f. g. h. its interior is exposed by section, and appears filled, like the adjacent air-chambers, with a cast of pure calcareous spar. At Pl. 42. Fig. 3. b. a similar cast fills the tube of the Siphuncle, and also the air-chambers. Here again, as in Pl. 36, its diameter is contracted at its passage through the collar of each transverse plate, with the same mechanical advantages as in the Nautilus.

The shell engraved at Pl. 42. Fig. 4. from a specimen found by the Marquis of Northampton in the Green sand of Earl Stoke, near Devizes, and of which Figs. 5. 6. are fragments, is remarkable for the preservation of its Siphuncle, distended and empty, and still fixed in its place along the interior of the dorsal margin of the shell. This Siphuncle, and also the shell and transverse