

dantly beneath those parts only, which without them, would have been weak.

We find an infinity of variations in the form and sculpture of the external shell, and a not less beautiful variety in the methods of internal fortification, all adapted, with architectural advantage, to produce a combination of Ornament with Utility. The ribs also are variously multiplied, as the increasing space demands increased support; and are variously adorned and armed with domes and bosses, wherever there is need of more than ordinary strength.

Transverse Plates, and Air Chambers.

The uses of the internal air chambers will best be understood by reference to our figures. Pl. 36 represents a longitudinal section of an Ammonite bisecting the transverse plates in the central line where their curvature is most simple. On each side of this line, the curvature of these plates become more complicated, until, at their termination in the external shell, they assume a beautifully sinuous, or foliated arrangement, resembling the edges of a parsley leaf, (Pl. 38), the uses of which, in resisting pressure, I shall further illustrate by the aid of graphic representations.

At Pl. 35, from d. to e. we see the edges of the same transverse plates which, in Pl. 36,