

curve, into a variety of attenuated ramifications and undulating sutures. (See Pl. 38. and Pl. 37, Figs. 6, 8). Nothing can be more beautiful than the sinuous windings of these sutures in many species, at their union with the exterior shell; adorning it with a succession of most graceful forms, resembling festoons of foliage, and elegant embroidery. When these thin septa are converted into iron pyrites, their edges appear like golden filigrane work, meandering amid the pellucid spar, that fills the chambers of the shell.*

* The *A. Heterophyllus*, (Pl. 38), is so called from the apparent occurrence of two different forms of foliage; its laws of dentation are the same as in other Ammonites, but the ascending secondary saddles (Pl. 38. S. S.) which, in all Ammonites are round, are in this species longer than ordinary, and catch attention more than the descending points of the lobes, (Pl. 38. d. 1.)

The figures of the edge of one transverse plate are repeated in each successive plate. The animal, as it enlarged its shell, thus leaving behind it a new chamber, more capacious than the last, so that the edges of the plates never interfere or become entangled.

Although the pattern on the surface of this Ammonite is apparently so complicated, the number of transverse plates is but sixteen in one revolution of the shell; in this, as in almost all other cases, the extreme beauty and elegance of the foliations result from the repetition, at regular intervals, of one symmetrical system of forms, viz. those presented by the external margin of a single transverse plate. No trace of these foliations is seen on the outer surface of the external shell. (See Pl. 38, c.)

The figures of *A. obtusus*, (Pl. 35 and Pl. 36), shew the relations between the external shell and the internal transverse par-