

sharp, (Pl. 9a, fig. 43a,) when seen from the same point of view; and in this case the outline of each nodule is serrated irregularly by the projecting ends of the crystals.

When a section is made through the thickness of a nodule, its centre, at the base, (Pl. 9a, fig. 43, b,) is seen to be the point from which all the radiating lines proceed to the surface, and the concentric lines, in the view from above, (fig. 43a,) both at this age and also in the young nodules, (Pl. 9a, fig. 44a,) appear arched, showing that the lime crystals are arranged as if around a sphere, the centre of which coincides with the starting point (Pl. 9a, fig. 43, b) of the radiating lines, and that these radiating lines (fig. 43, a, b, 43b) are the long sides of the prismatic calcareous crystals.

It will readily be seen, here, how air and moisture may gain access to the interior of the egg, when we consider that the nodules (Pl. 9a, fig. 42, 43, a, a') are not soldered to each other laterally. In the case of hard, brittle, and smooth shells, however, such as those of *Xerobates*, *Platypeltis*, *Cinosternum*, and *Ozotheca*, (in which the groups of crystals become interlocked with each other by the dovetailing of their ends at the basal and younger portions of the nodules, and the later developed and more exterior parts of these nodules so confuse the terminations of their adjoining crystals as to disguise their line of junction, and thus form a continuous stratum from one of the nodules to the other, like a universal bridge over the whole egg,) open spaces must be left in the lime deposit, in order that this may obtain, and we actually find it to be the case. In some species these spaces are quite numerous, as in *Ozotheca* (Pl. 9a, fig. 46); but in others they are more rare, for instance, in *Platypeltis* and *Xerobates*.

From the remarks annexed to the table which we have given, (p. 508,) it will be seen, that, within each family of Turtles, the peculiarities of the egg shell are the same throughout. Thus, in the *Chelonioidæ* it is nodular, and each nodule widely separate from its neighbors, and very ragged and friable; in *Trionychidæ* it has a continuous smooth surface bounding a uniform, dense, brittle stratum, which equals about one third the thickness of the nodules beneath; in *Chelydroidæ* it is nodular, (Pl. 9a, fig. 42, 43, 43a,) and each nodule is smooth, hard, and brittle, and separable from its neighbor, although at the time of their formation they may sometimes be in contact with each other; in *Cinosternoidæ* its continuous surface is wavy or pitted, terminating a uniform stratum, just like that of *Trionychidæ*, excepting that here it is about twice as thick, and fully two thirds the depth of the nodular part beneath; in *Emydoidæ* it is nodular, the nodules being similar in structure to those of the *Chelydroidæ*, but more closely united to each other, especially in *Emys Meleagris*, (which by the way belongs to a distinct sub-family of *Emydoidæ*,) where they are very closely set together, so that the shell is quite smooth