

nest of all known to us, being about one half as thick as that of its congener *Cinosternum*; and yet its shell is slightly thicker than that of *Chelydra*.

The annexed table will give a graphic view of the relative thickness of the shell and shell membrane of the different genera of Turtles. The line which runs between the columns, marked "shell" and "shell membrane," indicates the junction of the two. The length of the straight lines on the left shows the thickness of the shell membrane magnified to five hundred times its diameter; and the straight lines on the right, the thickness of shell under the same amplification.

GENERA AND SPECIES.	SHELL MEMBRANE.	SHELL.	SHELL STRUCTURE.
<i>Chelonioidea.</i>			
<i>Thalassochelys Capouana</i> _____	_____	_____	Nodular, nodules very friable.
<i>Trionychida.</i>			
<i>Platypeltis ferox</i> _____	_____	_____ . .	Continuous surface.
<i>Chelydroidea.</i>			
<i>Gypochelys Temminckii</i> _____	_____	_____	} Nodular surface, nodules hard and brittle.
<i>Chelydra serpentina</i> _____	_____	_____	
<i>Cinosternoida.</i>			
<i>Osothea odorata</i> _____	_____	_____	} Continuous surface.
<i>Cinosternum pennsylvanicum</i> _____	_____	_____	
<i>Emydoida.</i>			
<i>Graptemys geographica</i> _____	_____	_____	} Nodular surface, nodules hard and brittle.
<i>Ptychomys concinna</i> _____	_____	_____	
<i>Chrysemys picta</i> _____	_____	_____	
<i>Nanemys guttata</i> _____	_____	_____	
<i>Glyptemys insculpta</i> _____	_____	_____ ?	} Nodular, but smooth and hard.
<i>Emys Moleagris</i> _____	_____	_____	
<i>Cistudo virginea</i> _____	_____	_____	} Nodular surface, nodules hard and brittle.
<i>Testudinina.</i>			
<i>Xerobates carolinus</i> _____	_____	_____	Continuous surface.

The Shell. As we have already indicated the thickness of the egg shell, when speaking of that of the shell membrane, we will at once pass on to describe the mode of development and the structure of this, the most superficial of the different layers surrounding the egg.

By dissolving the carbonate of lime of the shell with nitric acid,² the basis of

¹ The eggs had not yet matured their shell.

² Nitric acid decomposes the carbonate of lime very rapidly till it becomes saturated, and, upon evap-

oration, deposits groups of crystals, (Pl. 18, fig. 11,) which exhibit the characteristic, long, tabular, rhomboidal forms of nitrate of lime (fig. 11a, 11b, a, b).