

(Pl. 17, fig. 1; Pl. 19, fig. 14, 15, 16, 16a, 17, 17a, 17b; Pl. 20, fig. 3, 13, 13a, 14, 14a, 15, 16, 17; Pl. 21, fig. 10, 11, 12, 13, 13a, 17, 18, 18a, 18b, 18c, 19, 33, 33a; Pl. 22, fig. 1, 1a, 1b, 2, 3, 3a, 4, 4a, 8, 8a; Pl. 23, fig. 4, 4a, 5, 6, 7, 8, 9, 10, 11) represent the condition of the young Turtles during a period extending over nearly three months and a half after they were hatched. The organs of but one species (*Chelydra serpentina*) are represented here.

The cavity of the intestine (Pl. 17, fig. 1) is totally shut off from the yolk sac, but the wall of the former is not detached from it. There are two distinct muscular coats (Pl. 21, fig. 11, *d*, 18, *c*, *d*, 19, *c*, *d*) in the intestine, the fibres of which run transverse to each other. The cells of the muscular layer (Pl. 21, fig. 11, *d*) of the oesophagus are excessively long, and tapering at each end (fig. 13, 13a). The epithelial layer of this part of the intestine is more compact (Pl. 21, fig. 11, *a*, *b*). At the base of the tongue there are no vibratile cilia, (Pl. 21, fig. 10,) but the cells resemble those at the posterior end of the intestine (Pl. 21, fig. 18, 18a, 18b, 19). The glands of the stomach are considerably elongated and convoluted, (Pl. 21, fig. 17,) and the wall (*c*, *d*) of each is very thick, being composed of three or four layers of cells, continuous with the epithelial layer (*a*) of the surface of the stomach. The epithelial layer of the long intestine (Pl. 21, fig. 18, 18a, 18b, 18c) and of the rectum (Pl. 21, fig. 19) is now composed of five or six layers of superposed cells. The cartilaginous rings (Pl. 20, fig. 3, *b*) of the windpipe are much broader than the intervening fibrous tissue (*a*). The cartilage cells (Pl. 20, fig. 3, *b*) are widely separated from each other, just as in all permanently cartilaginous bodies. The epithelial cells (Pl. 20, fig. 13, 13a, 15) of the urinary bladder can hardly be distinguished from those of the long intestine and of the rectum. The muscular walls (Pl. 20, fig. 16) of the bladder are highly developed; the fibres are very distinct, and run in every possible direction. The cells of the smooth muscles of this organ vary in their proportions at different depths (fig. 14, 14a); those more interior being the longer ones. The contents of the bladder, seen by incident light, have a dead white color, by transmitted light a fuscous color; and consist principally of large, dead white flakes, (fig. 17,) composed of very minute granules, and a few bodies which appear to be epithelial cells, in various stages of decomposition.

The brain (Pl. 23, fig. 4, 4a, 5, 6, 7, 8, 9, 10) fills the cranial cavity as completely as in the adult. It is more elongated, and not so deep, as in the last stage (Pl. 23, fig. 3). The Schneiderian membrane (fig. 4, 11, and wood-cut 3, *b*, w-c.¹ 11, *a*) is more expanded vertically, and the olfactory nerve (fig. 4,

¹ In these references, "w-c." is the abbreviation for wood-cut.