

Fig. 10. From the right side; fig. 10a, from above; fig. 10b, from below; fig. 10c, from the left side, the allantois partly opened; fig. 10d, the same, the allantois being cut away; fig. 10e, the same, from behind; fig. 10f, the same as 10d, 10e, from above. *Cistudo virginea*, nat. size. Just ready to hatch. Period of laying unknown; fig. 10, 10b, 10c, opened Aug. 31, 1855; fig. 10a, 10d, 10e, 10f, opened Sept. 5, 1855.

Fig. 11, 11a, 11b, a, b. Crystals of nitrate of lime. See p. 508, on the structure of the egg-shell.

PLATE XVIII.

[Fig. 1, 2, 3, from nature, by A. Sorel, the others by H. J. Clark.]

Fig. 11, 12, 13, 14. *Nanemys guttata*, the others, *Chelydra serpentina*. Throughout the Plate the letter *a* designates the amnios; *a'*, the cephalic hood; *a''*, the caudal hood; *e'*, the medulla oblongata; *e''*, the corpora quadrigemina; *e'''*, the choroid plexus; *f*, the vertebrae; *h*, the heart; *h'*, the aorta, or aortic bulb; *h''*, the branchial aorta; *h'''*, the auricle; *h''''*, the ventricle; *i*, the vena afferens; *i'*, the allantoic vein; *i''*, the abdominal vein; *i'''*, the junction of the allantoic and abdominal vein; *i''''*, the cephalic vein; *j*, the cephalic artery; *j'*, the dorsal artery; *j''*, the allantoic artery; *j'''*, the omphalo-mesenteric artery; *j''''*, the junction of the abdominal or dorsal artery and the omphalo-mesenteric artery; *j'''''*, the junction of the abdominal and allantoic arteries; *k*, the eyes; *l*, the ears; *m*, the branchial fissures; *n'*, *n''*, the intestine; *n'''*, the stomach; *n''''*, the junction of the allantois and intestine, except in fig. 5, where it refers to the oesophagus; *n'''''*, the oesophagus; *n''''''*, the anus; *q*, the Wolffian bodies; *r*, the liver; *t*, the windpipe; *t'*, the lungs; *u*, the gall cyst; *v*, the nostrils.

Fig. 1. Head of Pl. 15, fig. 7, 4 diam.; *j'*, cephalic arteries.

Fig. 2. Young turtle from above, 2½ diam. Taken from the oviduct, July 20, opened Sept. 19, 1855.

Fig. 3. From below, 2 diam. Laid open to expose the organs; the same as fig. 2.

Fig. 4. Wolffian body, intestine, liver, and bloodvessel dissected out; the anterior end is on the right; about 5 diam. Laid June 12, opened July 29, 1855.

Fig. 5. Heart, vessels, liver, intestine, dissected out; the anterior end is to the left; the same as fig. 4.

Fig. 6. Heart and branchial aortae, about 10 diam. Laid June 18, opened July 25, 1855.

Fig. 7. Anterior end of fig. 8, from above; fig. 7a, posterior end of fig. 8, and 9, from below, laid open. Where the

allantoic arteries (*j''*) join the abdominal artery, (*j'*) the intestine (*n'*) is cut away.

Fig. 8. This figure, the largest of the Plate, is erroneously marked 2 in most copies. The same as fig. 6, 7, 7a, 9, from the right side. The Wolffian body (*q*) is drawn down a little, to expose the dorsal artery (*j'*); about 10 diam.

Fig. 9. The same as fig. 8, from below, about 5 diam. Laid open before and behind, and the allantois, the amnios, and the yolk sac turned aside.

Fig. 10. Heart, and adjoining vessels, dissected out; 10 diam. Laid June 13, opened July 17, 1855.

Fig. 11. Heart, and branchial arteries from the right side; 25 diam. Laid July 14, opened Aug. 2, 1852.

Fig. 12. Heart, from the left side; the same as fig. 11.

Fig. 13. Anterior part of the body from the right side, 12 diam. Laid July 15, opened July 26, 1852. The dotted lines which should connect the letters *h'* and *h''* are unfortunately omitted; *h'* should go to the dark hole in the heart, which is nearest to the letter, and *h''* to that part of the aorta which is just below the longest branchial fissure, (*m*) that runs from the ear (*b*) downwards. The *i* nearest to the letter *h'* should be *i'*.

Fig. 14. From the left side. The amnios, (*a*) behind the head, laid open; 12 diam. Laid July 10, opened July 20, 1852. The first letter to the left of *k* should be *e'* instead of *e''*.

PLATE XIX.

[Drawn from nature, by H. J. Clark.]

Fig. 1, 2, 3, 4, 5 to 5d, 6, 7, 8, 22 are from *Nanemys guttata*, the others from *Chelydra serpentina*.

Fig. 1. Cells on the surface of the head near the eye, 300 diam. Laid July 18, opened July 28, 1852.

Fig. 2. Surface cells of the tail, 500 diam.; *c*, profile; *a*, a cell; *b*, its mesoblast. Laid July 11, opened July 22, 1852.

Fig. 3. A vertebra, 500 diam. Laid July 18, opened July 27, 1852.

Fig. 4. Transverse section across the middle region of the body, and between the vertebrae, 40 diam.; (*a*, cells from the dermal layer, (*f*) 500 diam.); *a'*, spinal tube; *b*, chorda dorsalis; *c*, dorsal artery; *d*, Wolffian bodies; *e*, duct of *d*; *f*, musculo-cutaneous layer; *g*, mesenterium of the intestine. About 18 days old.

Fig. 5. Surface view of the anterior end of the chorda dorsalis; *a*, cell in profile; fig. 5a, surface view near the posterior end; *a*, cell in profile; fig. 5b, middle region; *a*, view of the surface; *b*, of the interior; 500 diam.; fig.