

- Fig. 2. Malpighian body from the kidney, 500 diam.; *a*, wall of uriniferous tube; *a'*, its cavity; *a''*, glomerule; *b*, blood-vessel, artery? Laid June 12, opened Aug. 13, 1855.
- Fig. 3. Windpipe, 500 diam.; *a*, fibrous connective tissue; *b*, *c*, ring of cartilage; *b*, central cells; *c*, cells at the edge. Period of laying unknown. Hatched in Oct.
- Fig. 4. Portion of the lung, 250 diam.; *a*, outer wall; *a'*, *a'*, partitions; *b*, *b*, bloodvessels; *c'*, interior wall of the partitions; *c''*, incipient partition in profile; *e*, mucous membrane; *e'*, *e'*, mucous membrane of an incipient partition; *f*, lateral and downward projection of the larger partitions; fig. 4a, *a*, surface of the lung; *b*, bloodvessel; *d*, incomplete large partition; 250 diam. Laid June 18, opened Sept. 3, 1855.
- Fig. 5. End of the lung, showing the pigment cells following the courses of the bloodvessels, 25 diam. Period of laying unknown, opened Sept. 2, 1852.
- Fig. 6. Cartilage cells from the windpipe of fig. 5; 500 diam.
- Fig. 7. A bronchiole of the lung surrounded by bloodvessels, 500 diam. Period of laying unknown, opened Aug. 28, 1852.
- Fig. 8. Pigment cells from the surface of the lung, 500 diam.; the same as fig. 7.
- Fig. 9. A bronchiole of fig. 5; *a*, cells of the mucous membrane; fig. 9a, the same, seen through the round cells on the surface of the lung; 500 diam.
- Fig. 10. Portion of fig. 5; *a*, bronchioles; *b*, musculo-fibrous partitions; *c*, bloodvessels; 300 diam.
- Fig. 11. Portion of fig. 5 still more magnified, 500 diam.; *a*, cells of the mucous membrane; *b*, a partition nearest to the surface of the lung; *b'*, a partition lying deeper.
- Fig. 12. End of the lung when very young, 250 diam.; *a*, outer wall; *b*, mucous membrane. Laid June 21, opened July 31, 1855.
- Fig. 13, and 13a. Cells of the mucous membrane of the urinary bladder, 500 diam.
- Fig. 14. Cells of the interior muscular layers of the urinary bladder (fig. 13 and 13a); fig. 14a, outermost cells of the muscular layers, 800 diam.
- Fig. 15. Inner ends of the cells (fig. 13, 13a) of the mucous membrane, 500 diam.
- Fig. 16. Mesh of muscular fibres of the urinary bladder, 40 diam.
- Fig. 17. Contents of the bladder, 500 diam.
- Fig. 13 to 17 are drawn from the same specimen, just hatched, the period of laying of which was unknown.
- Fig. 18. Cells of the epidermis on the right, and the pigment layer on the left; from beneath, 500 diam. Laid June 21, opened Oct. 17, 1855.

PLATE XXI.

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

- Fig. 22, 23, 24, 25, 26, 30, from *Chrysemys picta*; fig. 27, and 28, from *Nanemys guttata*; the others from *Chelydra serpentina*.
- Fig. 1. Profile of the inner cells of the mucous membrane of the œsophagus, 500 diam.
- Fig. 2. Columnar cells of the mucous membrane of the œsophagus, 500 diam.
- Fig. 3. Surface of the cells of the mucous membrane of the stomach, 800 diam.
- Fig. 4. Single cells of fig. 3, 800 diam.; fig. 1 to 4, from the same animal; age not ascertained.
- Fig. 5. Section of the mucous membrane of the œsophagus, 500 diam.; *a*, inner cells; *b*, columnar cells. Period of laying unknown, opened Aug. 30, 1852.
- Fig. 6. Inner surface of the œsophagus, 500 diam.; the same as fig. 5.
- Fig. 7. Single cells of fig. 5, *a*, 500 diam.
- Fig. 8. Group of cells from fig. 6, in water, 500 diam.
- Fig. 9. Profile outline of fig. 8, to show the relations of the two strata of cells, 500 diam.
- Fig. 10. Epithelial cells at the base of the tongue, 500 diam. Period of laying unknown. Just hatched.
- Fig. 11. Transverse section of a fold of the œsophagus, 500 diam.; *a*, inner cells; *b*, columnar cells; *c*, round cells; *d*, inner muscular coat; the same as fig. 10.
- Fig. 12. Surface cells of œsophagus, with vibratile cilia, 800 diam.; the same as fig. 10.
- Fig. 13. Very elongated cells from the muscular coat of the œsophagus, 800 diam.; fig. 13a, a single cell of fig. 13, 1100 diam.; the same as fig. 10.
- Fig. 14. Inner surface of the stomach, 300 diam.; *a*, entrance to the glands; *b*, outlines of the glands; fig. 14a, open aperture of one of the glands, 500 diam.; fig. 14b, the same shut, 500 diam. Period of laying unknown, opened Sept. 9, 1852.
- Fig. 14c. Profile of the epithelial cells of the stomach, 500 diam.; fig. 14d, and 14e, surface view of fig. 14c, 500 diam.; fig. 14f, and 14g, the same as fig. 14d, altered by water; 14g, *a*, a single cell with its lateral mesoblast, 500 diam. Period of laying unknown, opened Aug. 30, 1852.
- Fig. 15. Surface of the stomach, looking into the glands, 300 diam.; fig. 15a, mouth of a gland, 500 diam.; *a*, epithelial cells of the stomach; *b*, mouth; fig. 16, lower half of a gland, outside view; fig. 16a, transverse section of fig. 16; fig. 16b, longitudinal section of fig. 16; 500 diam.; the same as fig. 1 to 5.