of the allantois, in the interior of the body, has swollen, and forms a broad, pearshaped sac, (Pl. 25, fig. 1,  $n^6$ , fig. 1a,  $n^6$ ) the urinary bladder. The tissue of the exterior portion of the allantois is composed of very large and thick-walled but transparent cells, (Pl. 9a, fig. 30, 30a; Pl. 18, fig. 3,) with multitudes of faint granules for contents (Pl. 9a, fig. 30). The muscles in various parts of the body are in different degrees of development; those of the foreleg are highly, but not fully, developed, and show a very distinct fibrillous structure (Pl. 19, fig. 25, a, b); those of the dorsal arch (Pl. 19, fig. 23) are as yet composed of more or less elongated cells, (a, b) each of which contains a single large granulated mesoblast; these cells resemble very much the cartilage cells (c) of the dorsal arch. The tendons in the legs have a marked fibrous structure (Pl. 19, fig. 26, 26a).

The cells of the terminal bone (Pl. 21, fig. 21) of the toes are quite large and sharply polygonal, and each contains a large mesoblast and several entoblasts (fig. 21a). The cells of the horny sheath (fig. 20, a) of the claw are very large, irregularly polygonal, and transparent, and contain a single small mesoblast (fig. 20a, 20b, 20c). The cells of the skin at the base of the claws, (fig. 20, b',) and those (b) which continue under it, are quite large, polygonal, and each contains a single mesoblast and entoblast, besides a few scattered granules (fig. 20d).

The next phase (Pl. 18, fig. 2, 4, 4a, 10, 10a, 10b, 10c, 10d, 10e, 10f; Pl. 25, fig. 3, 3a, 7, 7a, 9; Pl. 19, fig. 27, 27a, 29, 29a, 30, 31, 33, 34, 35, 35a; Pl. 20, fig. 18; Pl. 22, fig. 5, 6, 6a, 6b) is the last before the embryo is hatched. A few external features, peculiar to certain families, and not noticed in the last phase, require now to be noticed; otherwise there is not any appreciable difference in the external appearance of the embryo. By this time the shield of many of the Emydoidæ is covered by a beautiful granular embossment (Pl. 18, fig. 10d, 10e, 10f). The embryo, at the same time, is perfectly straight, in all oval eggs, (Pl. 18, fig. 10, 10a, 10b, 10c,) and not bent upon itself, as happens in round eggs (Pl. 15, fig. 1, 2). In the latter case, at least among Chelydroidæ, the embryo has not the power to retract its head or feet, except for a short distance; whereas in Enydoidae only two thirds of the head projects beyond the shield, and the feet are hidden under the latter, and the edge of the shield is very much bent downwards when the embryo is ready to hatch. The beak, (Pl. 25, fig. 9, 0k,) in all Turtles, is very prominent and sharp. The eyes may be closed as readily as in the adult. The cells of the epidermis (Pl. 20, fig. 18, right half) are large, sharply polygonal, and have thick walls. Underneath the epidermis is a layer of very large, thin walled, excessively hyaline, polygonal cells, each containing a large patch of pigment of a more or less deep black color (fig. 18, left half). The heart, (Pl. 25, fig. 3, h,) the liver, (fig. 3, r, r, fig. 3a, r, r,) the intestine, (fig. 3,  $n^2$ , 3a,  $n^2$ ,) and the lungs, (fig. 3a, t',) are in nearly the same condition as in the last phase.