

developed, and, starting from a transverse vessel (*e, e*) near the base of the third joint, go in pairs to each finger. In this phase the allantois has almost completely enveloped the yolk mass (Pl. 16, fig. 1).

In the next phase, (Pl. 15, fig. 1, 2, 3; Pl. 9a, fig. 30, 30a; Pl. 18, fig. 3; Pl. 19, fig. 9-12, 16b, 16c, 18, 18a, 19, 20, 21, 23, 24, 25, 26, 26a, 32; Pl. 20, fig. 1, 1a, 1b, 5, 6, 7, 8, 9, 9a, 10, 11; Pl. 21, fig. 1, 2, 3, 4, 5, 6, 7, 8, 9, 14, 14a, 14b, 14c, 14d, 14e, 14f, 14g, 15, 15a, 16, 16a, 16b, 20 to 20d, 29, 31, 32 to 32d, 34, 34a; Pl. 24, fig. 6; Pl. 25, fig. 1 to 1d, 5,) the whole contents of the egg are surrounded by the allantois, (Pl. 15, fig. 2,) and no part of the organization, except the blood, is in a loose, mobile state. Even the yolk forms a tenacious sheath about the bloodvessels, (this is figured for the next stage, Pl. 18, fig. 4, 4a,) which anastomose with each other throughout the whole yolk sac. The yolk sac is nearly as small as when the embryo is hatched. The proportions of the body are about the same as when the embryo is born; the head is quite pointed, and the neck proportionally shorter than heretofore. The folds of the skin are more marked and numerous. The lower jaw is pointed (Pl. 25, fig. 1a, *x*). In Chelydroidæ (Pl. 15, fig. 3) the shield is marked with a median and two lateral rows of large tubercles, and numerous smaller ones all over the surface, while among Emydoidæ the shield is minutely granulated. The head, neck, legs, and tail are covered with small and rather stiff scales. The thick, transparent layer covering the terminal joints of the toes in the last phase is here developed into horny sheaths, forming sharp claws (Pl. 21, fig. 20, *a*).

The brain is composed of large, globular, transparent cells, each containing a single mesoblast; and those of the hemispheres, (Pl. 19, fig. 16b, 16c, *a, b, b', c, c'*) of the olfactory lobes, (fig. 18, *a*), of the Schneiderian membrane, (fig. 19, *a, b*), of the medulla oblongata, (fig. 20, *a, b*), and of the spinal cord, (fig. 21,) have all one common physiognomy. Already there are a few slightly caudate cells, (fig. 18, *a*, fig. 19, *a*), and those of the Schneiderian membrane (fig. 19) are mutually pressed against each other. The eyes have fully developed eyelids (Pl. 15, fig. 3). The crystalline lens (Pl. 21, fig. 29) is covered in front by a large layer of polygonal cells, (*a*), the "membrana pupillaris," which is overlapped by the anterior edge of the membrana hyaloidea, the zonula Zinnii (*c*). The zonula Zinnii (*c*) has the longitudinal plications, the ciliary processes of the membrana hyaloidea, as fully developed perhaps as in the adult. At the anterior edge of the zonula, the pigment layer (*b*) is quite thick. The cells (Pl. 21, fig. 32a, *a, b, c, d*) of the fibres of the crystalline lens are so excessively transparent and closely adherent to each other, that it is difficult to recognize each separately; and, in fact, in some parts of the lens, their walls appear to be obliterated at the point of contact, so that they form a continuous ribbon (Pl. 21, fig. 32b).