

more convoluted than those of the Wolffian bodies (*a*). Already there are numerous pigment cells upon the surface of the Wolffian bodies (Pl. 18a, fig. 3, *g*). A white and narrow band, of dense substance, tapering at each end, (wood-cut 2, *n*,) runs along the under-side of the Wolffian body, (wood-cut 2, *a*,) and presses closely against its surface. All the relations which this body bears to the surrounding organs mark it as the genital organ, whether of a male or female is not yet determinable, but probably that figured here is a male, if the long, slender, backward prolongation (wood-cut 2, *f*) may be considered a vas deferens. The mouth of the embryo is open as far back as the base of the jaws. The upper jaw, in Chelydroidæ at least, is pointed (Pl. 18a, fig. 3) and slightly hooked. The feet have well marked and movable toes.

In the next phase (Pl. 13, fig. 1; Pl. 15, fig. 4, 5, 5a, 6; Pl. 16, fig. 2, 2a, 2b; Pl. 18, fig. 9, 9a; Pl. 25, fig. 2, 6, 6a, 6b, 8) the proportions of the body are about the same as in the last. The shield is more projecting at its edges, and the large dermal scales are quite conspicuous (Pl. 25, fig. 8). The ventral side of the body shows a new feature: the sternum or breastbone (Pl. 16, fig. 2b; Pl. 25, fig. 8) has made its appearance, and extends longitudinally from the anterior edge of the fore legs to the anus, and laterally, between the anterior and posterior pairs of legs, almost to the edge of the shield. The head is more elongated, especially in front of the eyes, and the upper jaw and nasal region are less curved, being more on a line with that part which lies behind the eyes, so that, on the whole, the head very much resembles that of a bird.

The heart (Pl. 25, fig. 2, *h*) has increased to such a size, that, when filled with blood, it appears very dark and opaque. The vascular area (Pl. 13, fig. 1; Pl. 15, fig. 5; Pl. 16, fig. 2a, 2b) covers four fifths of the yolk mass. The dorsal artery (Pl. 25, fig. 6, *h*, fig. 6a, *h*, fig. 6b, *h*) gives off several vessels (fig. 6, *i*) to the kidneys, (*b*,) and the abdominal veins (fig. 6, and 6a, *d*, fig. 6b, *a'*) distribute numerous venous currents (fig. 2, *a*) to the under-side of the Wolffian bodies. The omphalo-meseric afferent vessel, (Pl. 16, fig. 2a, *r'*, fig. 2b, *r'*,) soon after it leaves the body, plunges in a direct line through the yolk mass, and joins the exterior boundaries of the vascular area on the lower side (fig. 2a). Even at this late age there is sometimes an exception to this, when the vena afferens (Pl. 13, fig. 1, *r'*) does not sink into the yolk mass till it has reached the periphery of the yolk mass. The allantoidian arteries and veins (Pl. 13, fig. 1, *o*; Pl. 16, fig. 2; Pl. 18, fig. 9) are very conspicuous; their main stems running parallel, side by side. The liver (Pl. 25, fig. 2, *r*) evinces a high degree of vascularity, very large vessels running from its under-side and branching upon its upper surface. The gall bladder (fig. 2, *u*) is larger and darker. The Wolffian bodies (Pl. 25, fig. 2, *a*, fig. 6, *a*, fig. 6a, *a*, fig. 6b, *a*) are considerably shortened and hol-