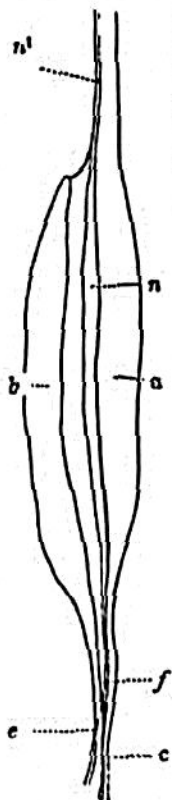


The heart (Pl. 18a, fig. 3, *h*) has a much greater transverse than longitudinal diameter, and nearly the same proportions as in the adult. The aorta (Pl. 18a, fig. 3, *h'*) is constricted longitudinally at its base into two channels, the right one of which corresponds to the pulmonary artery of the adult. (See also a little older phase, Pl. 24, fig. 10, *pa*, 10b, *pa*.) The blood corpuscles (Pl. 19, fig. 13, 13a, 13b, 13c) are now quite different from the very transparent globular corpuscles (Pl. 19, fig. 7, a-j) belonging to the younger phase, described p. 558-560, where they should have been alluded to. They are now fully as large as in the adult, but not so flat, nor have they any entoblast. They are remarkably plastic, (fig. 13, 13a, 13b,) but return to their original shape when relieved of pressure, or after stretching (fig. 13b) by being caught against some object passing on the microscope stand. In these respects they resemble very much the yolk cells of the ovarian egg. The bloodvessels in the neck (Pl. 18a, fig. 2) are very numerous, especially in the region of the medulla oblongata (fig. 2, *e'*). The omphalo-meseraic arteries (Pl. 17, fig. 7) are remarkably numerous where they run over the surface of the yolk, and have the same stiff appearance spoken of in a younger phase. The omphalo-meseraic veins (Pl. 17, fig. 3 and 7) run in a very irregular course, both horizontally and vertically. The limit of their field of development is a thick stratum of very loosely packed, large, clear, albuminous cells (Pl. 17, fig. 3, 3a).

Wood-cut 2.



At the neck of the vitelline sac the intestine still remains open (Pl. 17, fig. 2); but with a quite small aperture, which does not even equal its own diameter. The anus (Pl. 25, fig. 4, *m'*) is quite a long slit in the lower side of the cloaca. The anal pouches (Pl. 25, fig. 4, *g*, *g'*) are just large enough to be recognized as hollow bodies, opening one on each side of the intestine. The lungs (Pl. 24, fig. 5) are now divided into as many as nine compartments or bronchioles, with a branch of a bloodvessel running to each partition. The liver (Pl. 18a, fig. 3, *r*) is very much flattened, and spread very widely. At its anterior part there is a large hollow, into which the heart (*h*) fits. The Wolffian bodies (Pl. 18a, fig. 3, *q*; Pl. 25, fig. 4, wood-cut 2) are much broader at their middle region. The excretory duct is well marked, (Pl. 25, fig. 4, *c*, *c''*), from its beginning to its outlet (*c''*) in the cloaca (*l*). On the upper surface of each Wolffian body, next the median line of the body, another similar organ (Pl. 25, fig. 4, *b*) is developing, seemingly by a gradual metamorphosis of the former. That this latter organ is the kidney we are assured, by finding a great abundance of Malpighian bodies (Pl. 20, fig. 2) within its substance. The uriniferous tubes of the kidneys (Pl. 25, fig. 4, *b*) are larger and