

cavity into which the branchial fissures open; its right and left sides are so folded inwardly and longitudinally as to shape the whole into a double channel, one of which (*I', I''*) lies next to the back, and the other, which is much narrower, (*I'''*), next to the ventral side of the body. These channels communicate with each other by means of a small aperture, (*5*), which is situated near the posterior end of the longitudinal fold. From the posterior end of the lower channel, (*I'''*), two short blind sacs, (*1, 1*), one on each side, protrude horizontally and in a backward direction, pressing against that portion of the subsidiary layer (*I'*) which remains a single tube.

The larger of these channels occupies by far the greater part of the cavity in front of the heart; but, behind this organ, it grows narrow, giving place to a larger, globular, dark body, (Pl. 24, fig. 9, *r*, 9a, *r*;) which occupies nearly the whole breadth of the body next to its ventral side, and close behind the heart; and finally, at the abdominal opening, it flares broadly open, but not so widely as in the last phase, forming a direct communication with the yolk mass below. This is the beginning of the intestinal canal, the broadest part of which corresponds to the oesophagus, and the part that follows behind, to the stomach; the long, thin intestine of the adult being at this age a broad, open layer, excepting at the extreme posterior end, where the allantois springs from it.

The smaller of these channels commences in front, close to the angle where the head is bent upon the neck, (Pl. 14, fig. 5,) and extends backwards as far as the heart, and there, as we have already mentioned, divides into two blind sacs. Every relation which this channel bears to the oesophagus points out its identity with the respiratory system, and therefore the single part of the channel must be the windpipe, and the two blind sacs, the lungs. We have not traced the origin of the large, dark body (Pl. 24, fig. 9, *r*, 9a, *r*) behind the heart; but from its size, position, relation, and dark color, it must be the liver. It will be noticed that the subsidiary layer, which composes these two channels, is separated into two strata. The interior of these strata, both in the intestine (Pl. 24, fig. 1, *2', 2''*) and in the lungs and windpipe, (*2, 2'''*), is no doubt the epithelial layer. The allantois (Pl. 14, fig. 5) is not larger than in the last-mentioned phase, but it shows traces of bloodvessels. The Wolffian bodies, blending closely with the venæ abdominalis, (Pl. 24, fig. 9a, *r*;) render the latter apparently larger than they really are. The abdominal opening is now contracted to a much diminished space, lying between the liver (Pl. 24, fig. 9a, *r*) in front, and the allantois behind, and narrowed to half the width of the body. The feet (Pl. 24, fig. 9a, *w*) are not further developed than before. The caudal portion of the body, the tail, (Pl. 14, fig. 5,) beyond the allantois, is much longer and more slender than in the last stage; and at its base, close behind the allantois,