

The vena terminalis, as has already been shown, develops first in its peripheric portions, and finally joins the vena afferens, which at the time is a transverse and very short vessel (see Pl. 12, fig. 7, *i*). The vena terminalis gradually embraces a larger area, up to a certain extent, (Pl. 13, fig. 2, fig. 12,) and then begins to sink below the surface of the yolk, (Pl. 14, fig. 2, 2a, *r*<sup>1</sup>, *r*<sup>1</sup>;) following the vena afferens, until, finally, it is lost in the maze of anastomosing vessels which empty into the vena afferens (Pl. 9c, fig. 3). At the same time, however, the vascular area continues to expand superficially, until, at last, it embraces the whole yolk mass. At first, the vena afferens apparently lies within the body of the embryo (Pl. 12, fig. 7, *i*); but it is really as much without as within, being at the bend (corresponding to the point *a*<sup>0</sup> in fig. 1, Pl. 9d) where the vascular area joins the body. This transverse vessel (Pl. 12, fig. 7, *i*; *i*) corresponds to the fork of the vein, there being as yet no intermediate portion between it and the heart (*h*). Soon, however, it assumes a furcate shape, (Pl. 12, fig. 10, *i*;) and a little later it retreats from the heart, becoming still more decidedly forked, (Pl. 18a, fig. 13, *i*, *i*;) and empties into a short but distinctly developed single vein, the vena afferens (fig. 13, *i'*).<sup>1</sup> The vena afferens elongates rapidly, and its fork retreats still further, till it comes in a line with the vena terminalis (Pl. 18, fig. 7). After a short time it begins to sink into the yolk, (Pl. 14, fig. 2, 2a, *r*;) and then branches very extensively, until in time it passes directly (Pl. 16, fig. 2a, *r'*, fig. 2b, *r'*) through the vitelline mass, and the latter becomes filled by anastomosing vessels, (Pl. 9c, fig. 3; Pl. 17, fig. 3, fig. 7,) constituting, not as before, a superficial vascular area, but a globose, vascular plexus, an extension of the vascular area, throughout the whole breadth and depth of the yolk.<sup>2</sup>

*The Abdominal Vein.* (See p. 552, and Pl. 18, fig. 7, etc.)

*The Allantoidian Artery.* (See p. 553, Pl. 13, fig. 2, and w-c. 1, *n*<sup>0</sup>, etc.)

*The Allantoidian Vein.* (See p. 554, Pl. 13, fig. 2, and w-c. 1, *i*<sup>2</sup>, etc.)

*The Branchial Fissures.* (See p. 548, and Pl. 12, fig. 8, *m*, 9, *m*, etc.)

*The Intestine.* The digestive system begins rather late to develop, but its foundation is laid by the subsidiary layer (Pl. 9d, fig. 1, *n*) quite early, in the form of two blind sacs, one just behind the heart, (*h*;) and the other, at the opposite end of the body, immediately inclosed by the incurved tail. As the abdominal aperture grows narrower, these sacs consequently increase in length, without undergoing any other change for some time. Of the two, the posterior one first loses its simplicity by the development of a hernia, the allantois, (Pl. 13, fig.

<sup>1</sup> The letter *i*, nearest to the letter *h*<sup>2</sup> in fig. 13, Pl. 18a, should be *i'*.

<sup>2</sup> For further details upon this point, see p. 527, 528, and 529.