

ring, and broadening over the back, so far on each side (a^3) as nearly to reach the borders of the now elongately oval area pellucida (c),—while at the other end (Pl. 12, fig. 1a, a^2) it forms a similar covering, (Pl. 9e, fig. 4, a^2), with a similar appearance in profile, and extending up along the back with a much broader expanse (Pl. 12, fig. 1, a^2) than at the anterior end (a^1). At this time the dorsal vertebræ have become conspicuous to the number of three or four, (Pl. 12, fig. 1, f , and 1a, f), and the spinal tube (fig. 1a, $c-c'$) is closed over for more than half the length of the body. A longitudinal section (Pl. 9d, fig. 1) of the embryo at about this age may assist greatly to explain the manner of folding of the amnios; and here it will be seen that the cephalic portion of this layer does not bend suddenly upon the head and then upwards and backwards, but, after leaving the head, still keeps on for a short distance (Pl. 9d, fig. 1, a'') toward the posterior end of the body, then duplicating, passes forward and upward along the back to the edge of the upper fold, (Pl. 9d, fig. 1, a^1 ; Pl. 12, fig. 1, a^1), where it turns at a sharp angle upon itself and runs forward, sinking considerably as it traverses the area pellucida, (Pl. 9d, fig. 1, c ; Pl. 12, fig. 1a, c), but rising again passes over the whole surface of the yolk. The caudal hood, however, (Pl. 9d, fig. 1, a^2-a^2 ; Pl. 12, fig. 1a, a^2) turns abruptly upon the tail, and then, following its curvature backwards, upwards, and for a short distance forwards, bends upon itself just as sharply (Pl. 9d, fig. 1, a^2 above, and Pl. 12, fig. 1, a^2) as the cephalic part, following now backwards its own previous advancing curvature, and, forming a considerable depression (Pl. 9d, fig. 1, c) as in front, finally continues (a) over the peripheric portions of the yolk mass. The lateral portions of the amniotic zone have not yet altogether risen above the lower edge of the body.

In a subsequent and little older phase, (Pl. 12, fig. 2,) it is visible that the anterior or cephalic fold (a^1) incloses the body more rapidly than the caudal one, (a^2) so as to extend backwards beyond the half a dozen dorsal vertebræ which have now become apparent. The shape of the space that still remains open in the amniotic fold above is variable, inasmuch as it is circular here; whereas in a little older condition (Pl. 12, fig. 3b, a^1 , a^2) it is elongately oval; and then again, in a still older instance, it is circular (Pl. 12, fig. 4, a^1). By this time the lateral folds have risen to a level with the surface of the back, (Pl. 12, fig. 3b, a^1 , a^2) and the lower bend of the cephalic hood (Pl. 12, fig. 3, a'' , 3a, a'') has considerably extended backwards, so as to reach nearly to the middle third of the body. The breadth of this fold, reaching as it does far on each side of the body, indicates that the lateral abdominal edges of the body have not yet folded inwards. What appears to be an anterior fold of the cephalic hood belongs to another layer, namely, the subsidiary layer, which, as we have said before, closely lines the lower side of the