

The oral space (*m.*) is a narrow slit from side to side, the fore-brain being bent very near to the mandibular fold (*mn.*), which is twice as large as the others, and lies almost horizontally. In front of this, in the sub-orbital region, a very slight rudiment of the maxillo-palatine fold (*mx.p.*) is seen, but the naso-frontal fold is not yet formed.

*Second Stage. Embryo, 6 lines ( $\frac{1}{2}$  inch) long.*—In this stage (Pl. I. fig. 2) the embryo has added a large number of somatomes, there being almost twice as many as in the last stage.

The heart has now its three compartments tolerably distinct. The cephalic flexure is the same as in the last stage, as is also the outer form of the head with its cerebral enlargements.

The rudiments of the nose, eyes, and ears (*ol., e., au.*) are more definite, and the openings of the latter are still quite evident. The pituitary involution is beginning, and the oral space (*m.*) is wider; the four long arcuate clefts (*cl.* 1-4) are narrow, but clearly open slits, with a definite margin, and are enclosed by five visceral folds, the mandibular (*mn.*), the hyoid (*hy.*), and three corresponding to branchial folds.

The maxillo-palatine fold (*mx.p.*) is now in the form of an oval leaf, broad against the mandible, and with a sharp point towards the nose; between its anterior margin and the eyeball (*e.*) there is a very definite hollow space, the lachrymal cleft (*l.cl.*), which, like the continuous oral clefts, appears to be homologous with those behind the mouth. The naso-frontal folds are still not apparent.

*Third Stage. Embryo of Green Turtle, length along the axis  $6\frac{1}{2}$  lines.*—In this stage the embryo is fairly formed, for there are rudiments of all the principal organs.

The somatomes were apparently all marked out, for I could count fifty-two at least behind the head (Pl. I. fig. 3); the segments of that part are more obscurely indicated, but by counting the "clefts"—four post-oral, two pre-oral, and one oral—it is evident that there are, at least, seven.

Hence we may conclude that the primitive form of this type was composed of not less than sixty segments, or about half as many as are seen in the lesser and shorter kinds of serpents, and considerably less (about 5-6ths) than are present in the embryo of a swan.<sup>1</sup>

Three folds had separated the embryo from the yolk—the head-fold, the tail-fold, and the side or body-fold. The two former had made the embryo lie free at its extremities, and altogether the three parts of the general enfolding had given to it a great distinctness from the nourishing mass below.

The head, as well as the tail, is seen to have curled itself round towards the supporting and sustaining yolk, hence the *mesocephalic flexure*, which results in most important modifications in the organs and parts of the cephalic region.

<sup>1</sup> In working out this type I shall proceed on the supposition that the head is a segmented region as well as the body, and make it part of my business to show and interpret the signs of the archaic segments.