

curved on itself than in the earlier stage, and the fronto-nasal process (*n.f.p.*) almost reaches the pericardium.

The whole embryo is now clearly divisible into four regions, viz., the head, the neck, the trunk, and the tail; this last is of nearly equal length to the others, but they are also almost equal to each other in bulk.

The proximate part of each limb lies adherent to the infero-lateral region of the body, in a manner very similar to what is seen in the Osseous Fishes, where the moieties of the shoulder- and hip-girdles are permanently arrested; moreover, the latter are small, and lie low down at the ventral edge of the body-wall in those types.

The shoulder-plate adheres like a Limpet to the side of the bulbous *chest*, and it is in reality the outer layer of the imperfect *somatopleure*, growing down over that huge diverticulum of the *splanchnopleure* — the pericardium — which encloses the heart.

The hind *flipper* is still a mere discoid expansion of the growing limb; the fore flipper is growing into angles, the hinder of which will soon become the elongated part of the *manus*: it lies outside the lower edge of the incipient carapace.

The supero-lateral segments are still more sharply divided into the crowded series of the neck, and the widening series of the trunk; below the latter a very definite marking off of the lower edge has taken place; these smaller areas will contain the intercalary dermal plates. The deep sulcus between the marginal row of cutaneous folds and the ingrowing abdominal part of the body-wall is ultimately bevelled down, but it shows well that the plastron is not formed in a structure which was flat originally, but trough-shaped.

Of course, in a body so built in as that of the Tortoise, the "muscle-plates" of the dorsal region are to a large extent aborted; and the mass of the mesoblast has to be converted into the connective tissues into which the costal ectostoses run.

One pair of muscle-plates, at any rate, behind the ear, will belong to the occipital arch, as they are largely inserted into it; this gives us the hinder cranial limit. It is seen behind the lageniform ear-sac (*au.*); this lies directly over the fourth post-oral cleft, now rapidly closing up.

The intervening folds are being packed close together, and are at present narrow arched bands of tissue; only the first and second of these will enclose a permanent cavity, which, however, will be completely sealed up externally.

Much of the metamorphosis taking place within these parts is now visible externally, the outward form is being remoulded most effectually by the inward growth-processes.

The elevations now seen on each side of the hind-brain are as follows:—(a) The auditory sac (*au.*) as an obliquely-placed pouch, with its neck (primary involution) looking upwards and forwards.

(b) Four elevations below this, namely, in front, the crescentic upper region of the