d) are perhaps as much ossified as those of the vertebral column. The bones of the toes come next in the series, the ossification here being principally along the cylinder. The other bones of the limbs are much less ossified. The ribs have already a broadly winged margin (Pl. 9e, fig. 12, *b*); there is only a thin layer of bony substance at the surface, near the base of attachment to the vertebræ; the rest of their length is densely fibrous, (Pl. 9e, fig. 12, *b* to *b*; Pl. 22, fig. 1, *b*, *c*, *d*, *e*, fig. 2, *c*, *d*, *e*, *f*,) with a cartilaginous interior (Pl. 9e, fig. 12, *a*, *a'*; Pl. 22, fig. 1 and 2, *a*, a^1, a^2, a^3). The skin, corium, (Pl. 9e, fig. 12, *c*, *c'*; Pl. 23, fig. 4, 6, 7, 8, 10; and w-c. 6, *r*, w-c. 7, *t*, w-c. 8, *q*, w-c. 10, *g*,) is a very dense layer of thickly matted, fine, white fibres (Pl. 22, fig. 1, *g*, *g'*, *h*, h^1); it is thickest between the ribs. Throughout its thickness there are scattered groups of pigment granules, and a short distance below the epidermis there is a dense, uniform layer of these pigment granules, (Pl. 9e, fig. 12, *h*,) which seems to be a dividing line between the corium (fig. 12, *g*) and the epidermis; but this is not so, for the epidermis (Pl. 20, fig. 18) is a very thin film, here (Pl. 9e, fig. 12) represented by a black line, between which and the pigment stratum there is a moderately thick layer of fibrous substance, (fig. 12, *i*,) which, to all appearances, is identical with, and merely a continuation of, the corium.

This is sufficient, in a general point of view, to characterize the young Turtles at the time of hatching; especially if, to avoid repetition, we refer to a previous section, (Part II., Chap. 1, Sect. 14, p. 290,) on the development of Turtles from a zoölogical point of view, and to another, (Part II., Chap. 3, Sect. 4, p. 386,) on the comparison of the growth of the Chelonii with that of the Amydæ, in which the young of several species, belonging to different families, are described at that age. In the next section, further details concerning the development of several organs will be given, and this, with the section on the Histology of the embryo, will complete the account of our observations respecting the origin and mode of growth of the Turtles. One single general remark, however, may with propriety find place here, before we proceed to these specialities.

The great wonder, in the development of all organized beings, consists in the differentiation of the substance in the different parts of the same body, while it remains under identical influences. This evidently takes place under the action of that principle, in virtue of which every animal is an individual of some special kind of animals, and not in consequence of any physical agency. The living egg makes its own different substances because it lives, and not in order that a new animal may grow up. This has an important bearing upon the general question of the nature and origin of matter. Without approaching this subject in detail, I would only express my belief, that matter does not exist as such, but is everywhere and always a specific thing, as are all finite beings.