

that of the formation of any other organic product with which we are acquainted. Instead of growing from a base, like hairs, and other productions of the integuments, by successive depositions of layers, the materials which are to compose the laminæ are cast in moulds, where they harden and acquire the exact shape of the recipient cavities. The next object of our curiosity, then, is to learn the way in which these moulds are constructed; and on careful examination they appear to be formed by two striated membranes, the exterior one (ε) enveloping the other (ι) or interior membrane. These membranes are separated by a series of partitions, which commence at the edges of the longitudinal white band, seen in Fig. 229, and wind obliquely upwards till they reach the opposite longitudinal band already described, where they join a longitudinal partition which occupies a line answering to that posterior band. Thus they leave between them narrow spaces, which constitute so many compartments for the deposition, as in a mould, of the material of each lamina. The course of these channels, and their junction at the back of the matrix is seen at s, Fig. 230. It is exceedingly probable, though from the minuteness of the parts it is scarcely possible to obtain ocular demonstration of the fact, that the fibrils of the laminæ are constructed in a similar manner, by being moulded in still more minute compartments, formed by transverse membranous partitions.

The proper office of the bulb, after it has supplied the materials for the formation of the laminæ, is to construct the stem of the feather, and unite the laminæ to its sides. For this purpose the anterior portion of the bulb deposits on its surface a plate of horny substance, while another plate is formed by the posterior part in the interior of the bulb. Thus the bulb becomes divided into two portions, one anterior and the other posterior. The former of these, after having finished the external plate, proceeds to form the spongy substance, which is to connect the two plates, and the posterior portion of the bulb embraces the inner plate,