

of formation by layers (a layer of albumen surrounding a globule of fat), are as different from those produced through the vital agency as a corpse is from a living body. This difference is strikingly observed in cases in which such a mode of cell-formation as the former occurs in the living body. In the tubuli urineferi, for instance, precipitates are sometimes produced consisting of fat globules surrounded by albumen. These artificial cells are non-nucleated, and undergo no kind of transformation.

A not uninteresting modification of the fact, discovered by Ascherson, I have observed when nitric acid is added to bile containing albumen. A precipitate of resinous molecules takes place, around which a layer of albumen is deposited. This phenomenon I have noticed most satisfactorily in the albuminous bile of cholera cases.

5. *Parallelism existing between the Physiological and Pathological development of cells by the second mode.*

Inflammation-corpuscles belong to the second mode of cell-development; and, however frequently they are asserted to result from the transformation of cells, the contents of which at first were not granular, are to be viewed as the remains of cells,* no unbiased observer will deny they find their analogy in the originally noncellular development of the cleaving globules of the fecundated ovum, or even in the development of the egg itself, which is at first observed in the ovary of the bird as a mulberry-formed agglomeration of globules, in which, only at a later period, a central spot and hollow nucleus, or the future germinal vesicle, becomes visible. Even in the fully developed germinal vesicle, as in that of the frog, masses of globules, resembling inflammation-corpuscles are observed, which, only at a later moment become enveloped by a cell-membrane (compare the observations of Nageli, Kolliker, and Vogt, and those in opposition by Reichert).

6. *Development of Fibres.*

In the enumeration of the tissue elements, the different forms of fibres which occur in morbid tissues have already been mentioned. Nuclear fibres originate by the elongation of nuclei at one or both ends, and the deposit of layers upon these, so that the nucleus is the central point around which, to the greatest extent in the direction of the long axis, a new layer, the fibre, is deposited. Cell fibres, in the same

* How can such structures be regarded as the disintegrating remains of cells when it is observed they appear in the most healthful animals within the veins of the lungs in the course of twenty-four hours, when quicksilver is injected.