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II.

A Case of Egg Within Egg. F. H. Herrick.

A small egg of the fowl, measuring 21 by 17 mm., was taken from the yolk of an apparently otherwise normal egg. The included egg possesses a hard shell, shell membrane, albumen and yolk. Various kinds of inclusions belonging to this type have been recorded in the domestic fowl due to fusion of two egg-like bodies in the oviduct of the hen. Small eggs of this character are sometimes laid. They sometimes contain albumen and no yolk, and probably never have a blastoderm. The idea has already been expressed, and is apparently well founded, that the small egg represents the fragment of a normal egg which was ruptured and threw off a part of its substance at the time of leaving the ovary, such fragments being treated in the oviduct like full-sized ova.

Secondary Abdominal Pregnancy with Histolysis of the Fœtus. F. H. Herrick.

The case reported occurred in the cat, where rupture of the uterus, leading to intra abdominal birth, had resulted in the following conditions: (1) Abnormal development of peritoneal structures (thickenings, adhesions, fenestration of the membranes, and tag-like outgrowths over them); (2) fragmentation of the fœtus, and attachment of the parts to the omenta by overgrowth, the result of extensive proliferation in the constituent cells of these membranes; (3) the more or less complete replacement of the soft embryonic tissues by the proliferating cells.

On the Early Development of Cerebratulus. W. R. Coe.

The processes concerned in the maturation and fertilization of the ovum of *C. marginatus* agree closely with those which have been described by Kostanecki and Wierzejski for *Physa*, and by Child for *Arenicola*.

The centrosome arising from the spermatozoon divides early. The division of its aster is accompanied with the formation of a delicate central spindle. The sperm-asters eventually degenerate, although their rays often remain even after the cleavage-asters have appeared. Their centrosomes usually become lost to view. Occasionally, however, it can be demonstrated, with a good deal of certainty, that they do not actually end their existence, but retain their identity and become the centers of the cleavage asters.

The centrospheres of the cleavage asters increase enormously in size. They are not artifacts, for they may be seen in the living egg. The centrosomes are very minute. They divide early, and the asters of the second cleavage begin to form about them quite within the body of the centrosphere, as in the *Thalassema*.

The eggs of *Micrura cæca* and *Cerebratulus leidyi* furnish almost ideal examples of the regular spiral type of cleavage. The first two cleavages are almost exactly equal in size. In the third division the upper four cells are slightly *larger* than the lower four. A very regular blastula results. The marked backward inclination of the enteron is evident from the very beginning of gastrulation.

At the end of the first day the enteron becomes divided into two distinct regions. Pseudopod-like processes of cells grow out to separate the two cavities and almost completely. The posterior blind sack of columnar cells is not definitely cut off from communication with the exterior, however, and food may enter by a temporary opening between the cell-processes.

Large cells of the larval mesenchyme, which wandered into the segmentation cavity at the beginning of the gastrulation, multiply rapidly and arrange themselves in certain definite positions, as in *C. lacteus*. Most of them send out branching and