

With a magnifying power of two hundred diameters we have seen simple globular bodies (Pl. X^a. *Figs.* 16 and 17) scattered among the cells of the ovary, but did not ascertain whether they were the discharged mesoblasts of the neighboring tissue, or started from much smaller bodies than were then seen. That these are eggs is proved by easy and direct observation; for, starting here, we may trace a gradated series of similar bodies, of intermediate sizes (*Figs.* 16, 17, 18, 19, and 20), between the smallest and those which have all the characteristics of a genuine egg (*Fig.* 21). The smallest of these little globular bodies (*Figs.* 16, 17, and 18) resemble spheres of jelly, perfectly homogeneous throughout. When, under the same magnifying power, the egg appears to the eye to be about one eighth of an inch in diameter (*Fig.* 19), its contents consist of comparatively large globules, five of which would occupy the whole diameter of the egg. These globules are perfectly clear and homogeneous, and very remarkable, from the fact that so few yolk granules should fill a whole egg. They do not seem to be permanent, for in another egg (*Fig.* 20), not much larger than this, the globules are considerably smaller and much more numerous. The intermediate state between these two eggs we have not seen; but there can hardly be any doubt that there is a total breaking up of the globules of the first egg, and then a new development, in order to produce the smaller globules of the second. It can hardly be supposed that these extensive changes could go on in such a body without being limited by a definite envelope having sufficient consistency to resist the breaking out of the unstable contents; yet such would seem to be the fact at first sight. But when we examine more closely we find, that although it is difficult to detect any definite boundary short of the superficies of the egg, yet it is palpably evident that the globular contents of the first egg (*Fig.* 19) are restrained within an area which has its limits at a very marked distance within the periphery. Here it would seem, then, that the vitelline sac has the same degree of refraction as the fluid portion of the yolk, but possesses a greater degree of consistency, and perhaps a different density. This fact should be borne in mind by those who advocate the formation of the Purkinjean vesicle as a primary step in the development of the egg, and the subsequent deposit of yolk around this vesicle as a nucleus, previous to the development of the yolk-sac.

By the time the egg has grown to be one third greater in diameter (*Fig.* 21) than the last one (*Fig.* 20) mentioned, the Purkinjean vesicle (*Fig.* 21 *p*) has appeared, and developed to a considerable size, in fact fills one half of the diameter of the egg, and the Wagnerian vesicle (*w*) already occupies one fourth of the diameter of the Purkinjean vesicle. Both these vesicles are perfectly clear and homogeneous. The yolk-cells are no larger than in the last phase, but more densely packed; so that their cellular nature is not so easily recognized, and therefore they appear more like a mass of granules, as represented in the figure. If the egg were magnified