so as to be completely hidden by the peduncle of the calyx. Originally this vesicle is a collection, in a globular form,— against the wall of the egg cell, (Pl. 8, fig. 1, *j*, *l*,) where it always remains,—of a less refractive, lighter, and more albuminous substance than the surrounding medium; yet, until the former has assumed a certain density, dissimilar from the latter, the refraction of the two is so nearly alike that we cannot perceive the difference, but soon there ensues a period when they are faintly distinguishable from each other, and at last every thing becomes clear and unmistakable. It is not, however, till a much later period that a well defined wall becomes apparent, even after the germinal dots, or, viewing the egg as a cell, the nucleoli of the egg cell, have developed themselves to a certain degree (Pl. 8, fig. 8a); yet we have strong presumptive evidence that a layer of more coherent substance is present at the surface, just as in the case of the yolk parent cells, and also in the case of the dots of the germinal vesicle belonging to a much larger egg, which will be described when speaking of the growth of this vesicle in detail. Again, when water is brought in contact with the vesicle, it swells slightly, and then bursts, just as if a membrane had suddenly given way; whereas, were the mass homogeneous throughout, it would fall to pieces gradually. If it is homogeneous from centre to superficies, why does it not spread and mix with the yolk, as happens after the sudden bursting consequent upon pressure? We can hardly want further evidence, except an actual view of the membrane, to feel satisfied that it is present, although in a less palpable form than it is usual to acknowledge as such.

So far we have followed the growth of the egg, as a whole, up to that point where it has gained all its characteristics, and thus disclosed the mode of its origin, and proved that, what was once a mere granule-like cell, is developed into that which is called an egg, and yet still remains a cell.[1] The further progress of the egg contents, namely, the yolk, the germinal vesicle, and its dots, is so complicated, that each part must be treated separately, in order to avoid confusion, and also to lay particular stress on every one, since the several components have a feature peculiar to each, and entirely different from any other.

[1] It is contended, by some investigators, that the egg cannot be looked upon in the light of a cell, because of its subsequent complication. True, it is not necessary to insist that it is identical, as a body, with the cells of animal tissues; it is nevertheless a cell, but a cell of peculiar derivation and destination, the simplicity of which, as well as its similarity to those among which it originates, is very early lost in the highly organized nature of its succeeding developments. Again, these authors, Thompson (loc. cit., p. 135) at least, advocate that the germinal vesicle being, as they erroneously hold, the primitive basis of the egg, is more probably the true egg cell, and the whole ovum a complex cell.