the hyaline masses swell slightly, and the internal portions lose their homogeneity: multitudes of faint granular particles appear suddenly; they dance about their confined sphere in a zigzag quiver, and finally their delicate boundary wall, which by this time has become unequivocally demonstrated, bursts suddenly on one side, and extrudes at a single contractive effort nearly the whole horde of its vivacious motes, assuming itself by this loss a wrinkled, unsymmetrical, much diminished shape, but still holding a few oscillating corpuscles. It may yet, perhaps, be doubted that there is a cell wall, according to the usual acceptation, embracing these homogeneous globules of albumen; for the envelope just displayed soon falls and crumbles to atoms, identical apparently with those which not long before rushed from its embrace, whilst a genuine cell wall, so called, disintegrates only under the process of decay. This, however, is only a matter of degree after all: both fall to atoms; the former soon, by reason of its undeveloped nature; the latter holds out longer, because of the greater adherence of its component particles. Moreover, on account of its very slightly changed density and refraction, the former is not recognizable as a separate layer from the mass within; whilst the latter is differentiated by the great predominance of these two features, which are lacking in the young cell.

Here, then, we have essentially, nay, in every sense, a cell, a hollow layer of spherical surface, derived from the lateral adherence of the superficial particles of a homogeneous globule.[1] It is not a cell formation by the hollowing out of a solid substance, forming at first a very thick wall, which would stretch by the increase of the contents, as it gradually surrounds a larger space, till it thins out to the ordinary crassitude of such envelopes. Never, throughout the whole range of cell development in the egg, is there the merest hint at this mode of genesis. From the beginning to the end of the growth of the ectoblast it ever preserves the same thin stratum, apparently of a single layer of corpuscles, and moreover the same tenderness and the same refracting power. Nor can we compare this process to the received mode of cell origin, according to which a wall is condensed around and upon a "nucleus,"[2] for the mesoblast is often absent

[1] See p. 454, on the primary cell wall of the yolk.

[2] Since the word *nucleus* implies a body around which something condenses, and nothing of the kind takes place here, the name *mesoblast* is certainly a much preferable designation for that part of the cell which is commonly called nucleus. The new names proposed here for the parts of a cell have the further advantage, that they may be applied for the whole body which they are intended to designate, as well as for its envelope. An incipient ectoblast is a homogeneous mass, which afterwards has an envelope distinct from its contents, and so is the mesoblast; even the entoblasts may become vesicular and contain one or more entosthoblasts. It is therefore desirable that the nomenclature of the cell should be applicable to these different stages of its development, which the names of *cell*, *cell wall* or *cell contents*, *nucleus* and *nucleolus*, are not.