said in regard to the superficial or outermost layer of mesoblasts, (fig. 8,) which have departed from their cumulated arrangement, and present a uniform stratum all over the surface of the embryonic disc and of the germinal layer.

Everywhere the mesoblasts are now spread uniformly, in unbroken continuity and in close contact, yet not pressing against each other so as to assume a polygonal form. Even at this late period, intimately identified as these bodies are with the embryo, their fissuration is in many instances not yet complete, (fig. 8,) judging from the inequality of their size, when compared with their uniformity in that respect at a later age (fig. 34, *a*). In fact it is evidently impossible to distinguish between the fissuration of these bodies as yolk cells, and the same operation when they have become the cells of which alone the embryo is composed, at the age to which we have just traced them; for, in the latter case, they have still the same more or less dark, oily outline, with some, here and there, containing one or two waxy bodies, (fig. 5a, 8,) entoblasts. By the time, however, that the primitive stripe (Pl. 11, fig. 3, *b*) has begun to form, this heterogeneous aspect has disappeared; and the mesoblasts, the primitive embryonic cells, —as we may now call them, in reference to their being the original constituents of the embryo,—are of a nearly uniform size (Pl. 9a, fig. 34, *a*) throughout the upper surface of the young animal, and the exterior of the germinal layer.

Here we have, at last, an indisputable series of facts, the succession of which is unbroken, showing the origin and nature of what constitutes the primitive cellular basis of the germ. These facts are enough to establish the identity of the segmented mesoblasts of yolk cells with those cells which are primarily arranged surface to surface to build up the embryo. There is now no room left for the supposition that the Purkinjean vesicle takes a part in the operation.[1] The idea is negatived without directly referring anew to the mode of development and the final disappearance of that vesicle, when it can be shown, as we have just done, that the embryonic disc is entirely composed of yolk-cell mesoblasts after their most minute self-division. Any further account that may be given of the ulterior changes of these cells belongs more properly to that section which treats of the structure of the tissues, the histology, of the various organs.

[1] We have already alluded to the exaggerated importance which has been ascribed to the germinative vesicle, and to the erroneous impression conveyed by its name (p. 481, note 2, and p. 463, note 1). After what has been shown in this section respecting the origin of the primitive embryonic cells, we may fairly add, that it is now proved that the Purkinjean vesicle takes no part in the formation of the embryo, beyond supplying the region in which it originates, as a distinct body, with a larger quantity of albumen than is found in other parts of the egg. The whole process thus appears like a succession of isolations and recombinations of the oleaginous and albuminous substance of which the yolk is composed, with a prevalence of the albumen at one pole of the egg, where the embryonic disc arises, and a more extensive accumulation of the oleaginous mass at the other pole, where the so-called vegetative systems of organs originate.