

boiled. The homogeneous state of the contents of the Purkinjean vesicle usually appears about the time when the egg is one quarter of an inch, or a little less, in diameter (Pl. 9, fig. 7). The whole vesicle, as we have said above, is filled with homogeneous contents; but upon closer examination it may be perceived that the mass is composed of excessively minute particles, which the heat of boiling arranges in little clusters (Pl. 9, fig. 7b) that might easily be mistaken for a coarse granulation. This clustering is most evident at or near the centre of the field, where it seems to be denser and darker (Pl. 9, fig. 7a). For comparison with this, we will cite the figures of a larger egg, (Pl. 9, fig. 9,) more than two thirds grown, where the only difference from the last is, that the clusters of particles (fig. 9a, fig. 9c, *a*, *b*) are not so large, but more densely packed at the centre, and the Purkinjean vesicle is more deeply indented (fig. 9b). Another and little older phase (Pl. 9, fig. 10) offers a new feature in the contents of the Purkinjean vesicle; boiling has not had the effect to congregate into clusters the minute corpuscles which form these contents (Pl. 9, fig. 10c, *a*); and, excepting perhaps that the central darker and coarser granules (Pl. 9, fig. 10a, 10c, *b*) whose brilliant refraction renders them so conspicuous are brought more closely together than is natural, there is nothing left but the deep indentation of the vesicle (fig. 10b) to indicate that a contracting influence has been at work.

The next and last step in the life of the Purkinjean vesicle is an almost total vanishing of its clusters, (Pl. 9, fig. 11b, *a*), so conspicuous heretofore in the medium sized eggs when boiled; but, as these clusters grew more and more faint latterly, we are not taken by surprise at their nearly total extinction in the full-grown egg (Pl. 9, fig. 11). Still a few brilliant, darkly outlined granules, situated centrally, and not so coarse nor so numerous as in the last-mentioned vesicle, serve to cloud the contents which elsewhere are homogeneous. At this age, too, the wall (Pl. 9, fig. 11b) of the vesicle has become of sufficient thickness to allow a distinction between the outer and inner contour; but still we fear it is beyond the power of the pencil to give any idea of its delicacy. The extent of its indentation (Pl. 9, fig. 11a) gives an evidence of very strong contraction, by far more intense than has been known to happen in eggs of a smaller size. But what must be the infinitesimal minuteness of the particles composing the contents of this vesicle, when such powerful contraction only produces clusters of granules (fig. 11b, *a*) almost unrecognizable with a magnifying power of five hundred diameters!

The large size to which the Purkinjean vesicle has now attained renders its extraction an easy matter, when it has been hardened by boiling; and in this state it may readily be preserved in alcohol. Even the vesicle taken from an egg one fifth of an inch in diameter, after it has been boiled, may be put up in