and on this score need not make any further remarks; but we can very properly instance some particulars in regard to the effect of heat and acids. A full-grown ovarian egg, being thoroughly boiled to the centre by immersion in hot water for the space of three minutes, was opened, and portions of its contents from different depths put in the field of the microscope, when it instantly became evident, that, throughout the whole yolk, every cluster of crystalloid entoblasts had fused its individual components, each one to its neighbor, so that, in connection with the greater transparency that had followed this reaction, it was almost impossible to distinguish any thing but a faintly polygonal light yellow mass. Acetic acid at first swells the ectoblast till it bursts, then produces an effect similar to that of water upon the mesoblast, and finally destroys the same with the entoblasts, after having rendered the whole very transparent. Caustic potash swells the ectoblast enormously, and then dissolves its contents very rapidly. Pressure produces a curious appearance, which has been mistaken by some for a normal feature of the entoblasts, namely, parallel fissures intersected here and there by others obliquely transverse to them.[1]

SECTION IV.

THE PURKINJEAN VESICLE.

When treating of the egg as a whole, in its earlier stages, the primary phases of the Purkinjean vesicle[2] were included, as necessary to the understanding of the character of the egg, when viewed in the light of a cell; and now that we wish to make a separate, special study of the Purkinjean vesicle, besides referring to former pages,[3] a rapid recapitulation is by no means superfluous, in order that there may be continuity in the illustration of the subject. We have already spoken of the Purkinjean vesicle as being originally a minute concretion of solid matter against the wall of the primary egg cell, which has no definite size at the time; also of its having no part in originating the egg cell; of its great transparency; of the subsequent existence of a distinct wall around it, under a form sufficient to restrain its fluid contents from intermingling with the yolk; and

[1] See J. Müller, Ueber d. glatten Hai, q. a., p. 38, and Rathke Entw. d. Schildkröten, p. 5.

[2] It has already been stated above why we prefer to designate this part of the egg by the name of Purkinjean vesicle, rather than apply to it the more usual name of germinal or germinative vesicle. See Sect. 3, p. 463, note 1.

[3] Comp. Sect. 1, 456.