At first the furrow (Fig. 106, *b*) is very shallow, and a lit-

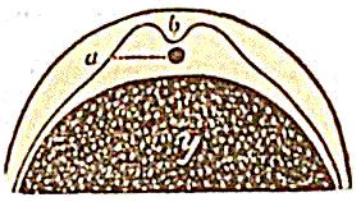

Fig. 106.

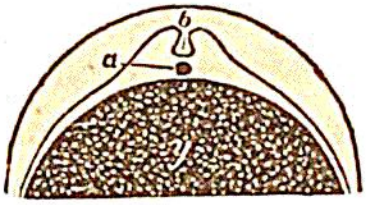

Fig. 107.

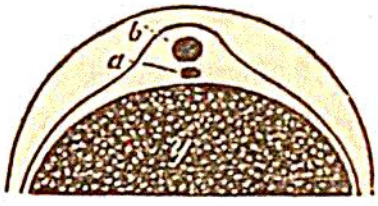

Fig. 108.

tle transparent, narrow band appears under it, called the *primitive stripe*, (*a*.) The walls of the furrow consist of two raised edges formed by a swelling of the germ along both sides of the primitive stripe. Gradually, these walls grow higher, and we perceive that their summits have a tendency to approach each other, as seen in Fig. 107; at last they meet and unite completely, so that the furrow is now changed into a closed canal, (Fig. 108, *b*.) This canal is soon filled with a peculiar liquid, from which the spinal marrow and brain are formed at a later period.

302. The primitive stripe is gradually obliterated by a peculiar organ of a cartilaginous nature, the *dorsal cord*, formed in the lower wall of the dorsal canal. This is found in the embryos of all vertebrates, and is the representative of the back-bone. In the mean time, the margin of the germ gradually extends farther and farther over the yolk, so as finally to enclose it entirely, and form another cavity in which the organs of vegetative life are to be developed. Thus the embryo of vertebrates has two cavities, namely, the upper one, which is very small, containing the nervous system, and the lower, which is much larger, for the intestines, (161.)

303. In all classes of the Animal Kingdom, the embryo proper rests upon the yolk, and covers it like a cap. But the direction by which its edges approach each other, and

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from above, it would extend over the yolk in every direction, and the furrow at *b*, of Fig. 106, would appear as in Fig. 105.