THE OVUM.

form its sheath, the terminal portion of the filament only projecting beyond the sheath to form the end-piece, and the cytoplasm surrounding the nucleus becomes reduced to an exceedingly delicate layer, so that the head of the spermatozoön (h) consists almost entirely of nuclear substance if the head-cap be left out of consideration.

The homologies of the parts of the spermatozoön with those of the spermatid may be presented in tabular form thus:

Spermatozo5n.
Head.
Head-cap.
Neck of middle-piece.
(Axial filament.
Sheath of middle-piece
(Sheath of tail.

The spermatozoön is, then, one of four equivalent cells, produced by two successive divisions of a primary spermatocyte and containing one half the number of chromosomes characteristic for the species.

The Ovum.—The human ovum is a spherical cell measuring about 0.2 mm. in diameter and is contained within a cavity situated near or at the surface of the ovary and termed a *Graafian follicle*. This follicle is surrounded by a capsule composed of two layers, an outer one, the *theca externa*, consisting of fibrous tissue resembling that found in the ovarian stroma, and an inner one, the *theca interna*, composed of numerous spherical and fusiform cells. Both the thecæ are richly supplied with blood-vessels, the theca interna especially being the seat of a very rich capillary network. Internal to the theca interna there is a transparent, thin, and structureless *hyaline membrane*, within which is the follicle proper, whose wall is formed by a layer of cells termed the *stratum granulosum* (Fig. 9, *mg*) and inclosing a cavity filled with an albuminous fluid, the

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