

The yolk is surrounded by a very thin skin, the *vitelline membrane*, (Fig. 98, *v*.) In some insects, when the albumen is wanting, this membrane, surrounded by a layer of peculiar cells, forms the exterior covering of the egg, which, in such cases, is generally of a firm consistence, and sometimes even horny.

288. The *germinative vesicle* (Fig. 98, *g*) is a cell of extreme delicacy, situated, in the young egg, near the middle of the yolk, and easily recognized by the greater transparency of its contents when the yolk is in some degree opaque, as in the hen's egg, or by its outline, when the yolk itself is transparent, as in eggs of fishes and mollusks. It contains one or more little spots, somewhat opaque, appearing as small dots, the *germinal dots*, (*d*.) On closer examination, these dots are themselves found to contain smaller nucleoli.

289. The *albumen*, or white of the egg, (Fig. 101, *a*.) is a viscous substance, generally colorless, but becoming opaque white on coagulation. Voluminous as it is in birds' eggs, it nevertheless plays but a secondary part in the history of their development. It is not formed in the ovary, like the yolk, but is secreted by the oviduct, and deposited around the yolk, during the passage of the egg through that canal. On this account, the eggs of those animals in which the oviduct is wanting, are generally without the albumen. In birds, the albumen consists of several layers, one of which, the *chalazæ*, (*c*.) is twisted. Like the yolk, the albumen is surrounded by a membrane, the *shell membrane*, (*m*.) which is either single or double, and in birds, as also in some reptiles and mollusks, is again protected by a calcareous covering, forming a true shell, (*s*.) In most cases, however, this envelop continues membranous, particularly in the eggs of the mollusks, most crustaceans and fishes, salamanders, frogs, &c. Sometimes it is horny, as in the sharks and skates.