

of honey, visit blossom after blossom, and, bringing their hairy limbs and bodies into contact with the open cells of the anthers, detach and carry away quantities of pollen, some of which is sure to be rubbed off upon the stigmas of other flowers of the same kind, subsequently visited.

16. The essential part of the stamen is the anther, and the purpose of this organ is to produce the pollen, which, as you have already learned, consists of minute *grains*, having a definite structure. These little grains are usually alike in plants of the same kind. They are furnished with two coats, the inner one extremely thin, and the outer one much thicker by comparison. The interior of the pollen-grain is filled with liquid matter. When a pollen-grain falls upon the moist stigma it *begins to grow* in a curious manner (Fig. 17). The inner coat



pushes its way through the outer one, at some weak point in the latter, thus forming the beginning of a slender tube. This slowly penetrates the stigma, and then extends itself downwards through the style, until it comes to the cavity of the ovary. The liquid contents of the pollen-grain are carried down through this tube, which remains closed at its lower end, and the body of the grain on the stigma withers away.

The ovary contains an ovule, which is attached by one end to the wall of the ovary. The ovule consists of a kernel, called the *nucleus*, which is usually surrounded by two coats, through both of which there is a minute opening to the nucleus. This opening is called the *micropyle*, and is



Fig 18.

Fig. 17.—Pollen-grain developing a tube.

Fig. 18.—Section of an ovule, showing central nucleus coats, and micropyle