

little grain-like substance attached to the lower end of its cavity. This substance, in its present condition, is the *ovule*, and later on becomes the *seed*.

You will notice that the carpel ends, at the top, in a little bent point, and that the convex edge is more or less rough and moist, so that in flowers whose anthers have burst open, a quantity of pollen will be found sticking there. This rough upper part of the carpel is called the *stigma*. Fig. 11 shows a stigma greatly magnified. In many plants the



Fig. 11.

stigma is raised on a stalk above the ovary. Such a stalk is called a *style*. In the Buttercup the style is so short as to be almost suppressed. When the style is entirely absent, the stigma is said to be sessile. The hollow part of the carpel is the *ovary*.

In our plant the pistil is not connected in any way with the calyx, and is consequently said to be *free* or *superior*, and, as the carpels are not united together, the pistil is said to be *apocarpous*.



8. Remove now all the carpels, and there remains nothing but the swollen top of the peduncle. This swollen top is the *receptacle* of the flower. To it, in the case of the Buttercup, all four parts, calyx, corolla, stamens, and pistil, are attached. When a flower has all four of these parts it is said to be *complete*.

9. Let us now return to our statement that the structure of stamens and pistils is only a modification of leaf-structure generally. The stamen

Fig. 11.—Stigma of Buttercup with adhering pollen-grains; highly magnified.

Fig. 12.—Diagram to show leaf-structure of a stamen.