

12. You are now to try and procure a Buttercup whose flowers, or some of them, have withered away, leaving only the head of carpels on the receptacle. The carpels will have swollen considerably, and will now show themselves much more distinctly than in the flower which we have been examining. This is owing



Fig. 14.



Fig. 15.

to the growth of the ovules, which have now become seeds. Remove one of the carpels, and carefully cut it through the middle lengthwise. You will find that the seed almost entirely fills the cavity. (Figs. 14 and 15.)

This seed consists mainly of a hard substance called *albumen*, enclosed in a thin covering. At the lower end of the albumen is situated a very small body, which is the *embryo*. It is this which develops into a new plant when the seed germinates.



Fig. 16.

13. We have seen, then, that our plant consists of several parts:

(1). **The Root.** This penetrates the soil, avoiding the light. It is nearly white, is made up of fibres, from which numbers of much finer fibres are given off, and is entirely destitute of buds and leaves.

(2). **The Stem.** This grows upward, is coloured, bears foliage-leaves at intervals, gives off branches from the axils of these, and bears flowers at its upper end.

(3). **The Leaves.** These are of two sorts: *Foliage-leaves* and *Flower-leaves*. The former are sub-divided

Fig. 14.—Ripe carpel of Buttercup.

Fig. 15.—Section of same.

Fig. 16.—Section of seed showing the small embryo. All much magnified.