

**HOW PLANTS COME FROM SEEDS.**

BY ANNIE J. MACKINTOSH.

We are going to assist you in finding out yourselves some of the wonderful things connected with the life and growth of plants; and if you will try the simple experiment here mentioned, you will surely be interested, and, besides, will learn a great deal that you ought to know.

Let us begin at the beginning, then; and as most plants grow from seeds, we shall talk first about seeds.

We will suppose that you have collected a few seeds, such as may be easily obtained—peas, beans, grains of wheat, corn, &c. Of course you have a penknife in your pocket; and if, in addition to the knife, you can have a small magnifying glass, many of your lessons will be much more interesting.

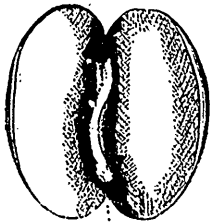


FIG. 1.—A SPLIT BEAN. seeds which naturally split in two are called two-lobed.

Take a grain of corn, and treat it in the same way. It does not split; if you want to part it, you must cut it. Seeds which do not split in two are called undivided; and you will find that all seeds belong to one or the other of these classes.

Now examine these from which you have removed the seed-coats, and you will find at the end of each a small worm-like object.

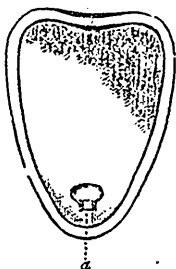


FIG. 2.—A SPLIT GRAIN OF CORN.

Take a bean first (Fig. 1) and with your knife remove the skin, which is called the seed-coat. You will find that the bean separates into halves as soon as the covering is removed.

Now each part is called a lobe, and seeds which naturally split in two are called two-lobed. (Fig. 1, a, and Fig. 2, a), which may easily be removed with the point of the knife. If you look carefully at the specimen removed from the bean, you will be able to see that it bears somewhat the appearance of a little plant. Such in truth it is—the germ, or baby plant. But put your

germs aside for a while, and let us look at the rest of the seed. You will find in the corn that it resembles dry flour or starch, while in the bean it looks more like a mixture of flour and water which has become dry. This is the food of the baby plant, and consists mostly of sugar and starch. Upon this the germ lives till old enough to obtain nourishment from the earth and air.

Perhaps you think it strange, if the plant and its food are both contained in the seed, that it is necessary to sow seeds in order to have them grow. But the plant cannot appropriate the food until it has been moistened. But if moisture can be obtained in any other way than from the ground, the seed will begin to grow just as if part in the earth; and you may prove this for yourselves.

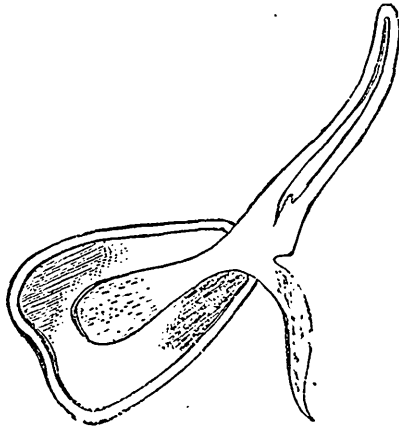


FIG. 3.—A GRAIN OF CORN BEGINNING TO GROW

Fill a tumbler with water, and cover the top with cotton-wool, on which you may place a few beans or some seed of the kind. Place the glass in the window, and in a few days you will find that your seeds have sprouted; and they will continue to grow until the nourishment is exhausted.

(To be Continued.)

**ENGLISH IVIES AND OLEANDERS**

should frequently have their leaves washed and no scale or mealy bug insect allowed to gather around the axil of the leaf, these plants generally rest during the winter and of course do not require much water.