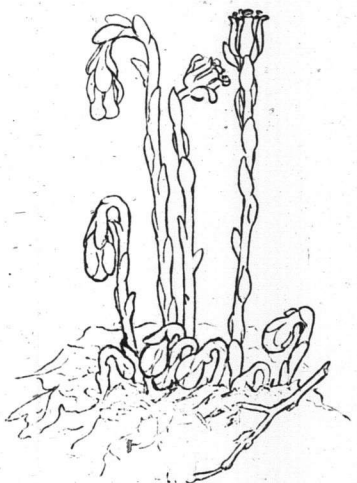


and to produce flowers and seeds from which the race may be continued.

What other parasitic plants have you seen? Are all climbers? Look for those under beech trees and notice what they are attached to. Notice the sharp suckers of the dodder, and notice, also, when you find it in the fields that the lower part of its stem is free from the ground.

The second plant pictured is the indian-pipe. It is familiar to all,—growing in the shade of deep woods. The whole plant is waxy white, becoming



INDIAN PIPE (*Monotropa uniflora*).

reddish in autumn, and turns black in drying. It commonly grows in clusters, well shown in the illustration, where a number of young plants are springing from a mass of decayed leaves and other vegetable matter. Of the three upright plants, the one on the left has the solitary nodding flower turned close to the stem, from which the plant derives its scientific name *monotropa* (Greek *monos*, single and *trope* a turning), because the top of the stem is turned to one side; the one at the middle is at right angles to the stem, and that on the right shows the whole plant upright, when the seeds are ripe. It is a flowering plant, and belongs to the heath family, because its flowers resemble in structure those of the mayflower, blueberry and other members of that family.

But what a striking contrast this ghost-flower, as it is sometimes called, presents to the other members of the same family, or to other flowering plants! And its habits of life are strikingly different. Instead of preparing its own food in green leaves in the sunshine, it hides away in dark woods, and its immaculate white dress is woven, by a curious chemistry, from leaves which other plants have cast off and which have been rotting on the ground for years.

It would be a curious story if we could know how this plant has adapted itself to conditions so totally different from most other flowering plants. It is saprophytic in habit, that is, it lives on decayed vegetable matter. In this respect it is like the mushrooms, toadstools and other fungi, multitudes of which are to be seen growing in the woods and fields in autumn—of many varieties in form, and of

every shade and tint of color, except green; some of them wholesome; others poisonous, and on that account all are to be avoided until they are better known.

The mushroom or toadstool belongs to a class of plants very different from the dodder or indian-pipe, although as we have seen it resembles them, especially the latter, in its habit of living. It has no flowers and is produced from spores, while the dodder and indian-pipe bear flowers which produce seeds from which new plants grow.

The spores of a mushroom are so very small that they cannot be seen with the naked eye; but if the cap of a mushroom be cut off close to the stem and laid upon white paper under a glass the spores will be deposited in mass, and are of different colors. The "spore-prints" made in this way are, many of them, very beautiful and interesting objects.



A MUSHROOM OR TOADSTOOL.

From the spore of a mushroom is produced, if the conditions of growth are favorable, a mass of threads, forming a mat like a thickened cobweb. This is the vegetative part, and is not usually seen, as it is on the surface, or just beneath the surface of the ground. From this grows a little knob or button, which develops into a stem and cap, as shown in the illustration, the purpose of which is to produce and scatter the spores, just as the flower in the flowering plants is for the purpose of producing seeds.

The teacher is sometimes caught by the sharp boy of the class. The master was asking questions—masters are apt to ask questions, and they sometimes receive curious answers. The question was as follows: "Now, boys, how many months have twenty-eight days?" "All of them, sir," replied a boy in the front.

The oldest sovereign in Europe is the King of Denmark, who is 86. Next comes the King of Sweden, 75, followed by the Emperor of Austria, 73; the King of the Belgians, 69; the King of Roumania, 65; King Edward, 62; the Sultan of Turkey, 61; the King of Greece, 58; the German Emperor, 45; the King of Portugal, 40; the Czar, 36; the King of Italy, 35; Queen of the Netherlands, 23, and the King of Spain, 18.