

ing in decaying organic matter such as old leaves, straw or rotting stable refuse. This fruit body consists of a fleshy cap or pileus two or three inches in diameter supported on a stalk or stipe which comes up out of the ground. This stalk is three or four inches long and one-half inch thick and quite solid. On the under side of the cap are the gills or lamellae. These are thin plates standing on edge and radiating out from the stalk like the spokes of a wheel. In a young fruit, called a button, these gills are protected by a curtain or veil which stretches from the stalk to the edge of the cap. As the cap expands the veil is torn apart, a little of it remaining as a ragged fringe on the edge of the cap but most of it remaining as a ring or annulus on the stalk.

In some of the wild mushrooms the stalk may be absent, the cap being attached by one side to logs or stumps on which the fungus is growing. In a few forms, especially in some poisonous plants, there is at the base of the stalk a large, shaggy or scaly bulb or a distinct cup called the poison cup or volva.



Fig. 1. Common or Cultivated Mushroom. Edible. Natural Size (Original).

How MUSHROOMS GROW.

Mushrooms are flowerless plants without leaf green (chlorophyll). Since they have no flowers they have no seed, but reproduce by means of minute bodies called spores, which are formed on the gills. As they have no leaf green (chlorophyll) they cannot make their own food as the green plants do, so they depend upon the food made by other plants or upon animals. Some get their food from living plants and animals; they are robbers (parasites). Others live on the dead decaying remains of other plants or animals, and are scavengers (saprophytes).

When the "mushroom" or fruit body is ripe the spores are shed and are blown away by the wind. If the spores settle in a favorable place, warm, moist and with food present, they sprout or germinate. Finally they form many fine white or colored threads which spread all through the material which can furnish food. These fine threads are the spawn or mycelium. As the spawn grows it gives off substances called enzymes, which digest the wood, old leaves, straw or manure in which the fungus is growing. As the material is digested it is absorbed by the spawn and used as food. The substance upon which the fungus is feeding gradually breaks down, that is it decays and disappears.

The spawn may grow a long time before it fruits. Even in the cultivated mushroom, when conditions for growth are made as favorable as possible, it is