spores are very small and are easily carried by the wind, as they float in large numbers in the air. Owing to this, the diseases caused by fungi spread very easily.

One of the simplest fungi is the Yeast plant (*Saccharomyces*). It possesses no mycelium, consisting simply of a single, oval cell. Spores are seldom, if, ever, formed. It reproduces itself by budding, *i. e.* by bulging out at some point till the protuberance resembles the parent cell and is separated from it by a wall. To study its growth a microscope magnifying 400 to 600 diameters and an artificially heated slide are necessary. It lives on materials containing grape sugar and has the power of splitting the latter into carbonic acid and alcohol. The manufacturer of beer is largely dependent on this lower form of life, for it transforms the sugar produced from the starch by the sprouting or malting of barley into the alcohol found in beer. But it does not assist man only in the manufacture of beer, wine, cider and other alcoholic beverages or the products, like vinegar, derived from the same; but performs an almost equally important role in the production of "the staff of life." The yeast growing in the dough gives rise to successive little bubbles of carbonic acid gas which retained by the latter till baked causes the rising of the dough and the production of a light and more easily digested bread.

A more typical fungus, the various stages of which are shown in some of the microscopes before you, is the one producing the disease known as "Rust" on the various grains and grasses. This disease, most prevalent in wet seasons on heavily manured soils, is generally first noticed by the appearance of reddish-brown spots on the leaves and stems of cereals, which rapidly multiply till the grain ripens. These spots consist of loosly attached, unicellular, oval, somewhat spiny, reddish-brown spores, which carried by the wind, birds or insects to other places, quickly germinate, producing a mass of mycelium and in turn another crop of similar spores. These successive crops of *uredo spores*, as they are called, continue to be produced till the nutriment in the straw lessened by the ripening of the grain and the growth of the fungus is not sufficient to support a vigorous growth of the latter. The parasite then terminates its growth for the season by the production of a somewhat larger, dark brown, two-celled resting spore seen on the