PARASITIC FUNGI.

By Adolph Lehmann, B. S. A.

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One of the many branches of science which is almost exclusively dependent on the microscope for its development, is Mycology or the study of that group of minute plants known as fungi.

This group is an exceedingly large one and, as might be expected, some of its members vary considerably in size and appearance; even more so than some of our forest trees differ from the herbaceous plants growing underneath them. A few like the mushrooms and toadstools are comparatively large; but the number of these compared with those invisible to the naked eye is so small that if the average size of the fungi could be ascertained this would not be materially increased by the former. Therefore, speaking of the group, we call it one of microscopic plants; or plants of which even the outline cannot be seen without a microscope.

In addition to great differences in size, very varied forms of structure and reproduction are found in this group; but one of the characteristics the fungi have in common is that they do not possess the peculiar green colouring matter, called chlorophyll, by which other plants are enabled to transform water and the carbonic acid of the atmosphere into starch or some closely allied compounds. Not being able to do this they must absorb them from other plants or animals or some of their products. They are, therefore either parasitic or saprophytic; the former if they draw their nutriment from living tissues, the latter if from their remains.

Nearly all the fungi have numerous slender filaments ramifying through the material on which they live. Generally this is the only portion of the plant existing in its early stage. It grows very rapidly and constitutes what is known as *mycelium*. From it, branches are sent out which, either directly or indirectly, produce minute reproductive cells called *spores*. Like the seeds of the higher plants, these serve the double purpose of multiplying and perpetuating the species. Many fungi produce two kinds of spores the one for quickly spreading its growth, the other, a resting spore, able to withstand extremes of climate, for tiding over periods unfavourable to the growth of the parent. Most