destroying fungi with which I intend to deal. The fruiting bodies of these fungi are familiar sights on dead and living trees, on railway ties, on the timber in mines, in houses, etc. I am sure every one of you will recollect having seen them actually growing. In either case, whether growing on dead or living wood, we find the wood cells filled with minute, fine threads which penetrate in all directions. The mycelial threads of the fungi concerned in these attacks secrete a ferment acting upon the contents of the living cell. In a short time the death of the cell results and ultimately of the tree. The mycelium may also be present in trees that have been cut down, or in logs, boards, etc., where it will continue to grow till the wood is wholly decayed, that is, when all substances are dissolved which the fungus uses for food. The decay is very rapid in the so-called sap wood of the tree, which contains considerable quantities of starches and oils, while it makes much slower progress in the heartwood. Not until the threads of the fungus grow out from the wood into the air will it be noticed that a tree is diseased. Up to that time there is no external evidence of disease. The threads which appear outside the bark of a trees give rise, in some cases, to a mere film, such as is shown growing on this specimen, or they may form complicated structures, usually called "toadstools," or those hard, brownish knobs called bracket fungus, a specimen of which I have shown growing on the birch. For a long time these objects were regarded as growing on the rotted wood, and it was not until recent times that we learned that the decay was due to them. From these remarks, you will understand that when you observe any "bracket" or other fungus growing out of the trunk of a tree, it is really badly decayed within. The structure of these fruiting bodies is very varied; my slides will show you the most common ones and also the damage due to them.

That you may understand how the disease of timber trees is spread, I beg your attention for a few moments to review the structure of some of these disease-causing organisms. The specimen on the birch which I have passed round shows on the lower surface a large number of small oval pores. Hence the scientific name of *Polyporus* is given to this particular fungus. When a section is made through this layer of pores one can observe, by the aid of a microscope, a number of very minute oval bodies which are the spores of this fungus. When these spores are liberated they may be carried to other trees, and if they find suitable conditions for their development, they will start the decay which makes progress internally. When it is later discovered that fruiting bodies of fungi appear on the stem or trunk, it is too late to save the tree. The spores prefer for their development a wound that may be