Experiment-6

GENERAL STUDY OF DIFFERENT STRUCTURES OF FUNGI

1. Rhizomorphs: (rhiza=root, morph=shape)

Thick strands of somatic hyphae in which the hyphae loose their individuality and form complex tissues that are resistant to adverse conditions and remain dormant until favourable conditions return. The structure of growing tip of rhizomorphs resemble that of a root tip, hence the name rhizomorph.
Eg. *Armillariella mellea*

2. Sclerotium: (skleron=hard) pl.sclerotia:

It is a hard, round (looks like mustard seed)/ cylindrical or elongated (Claviceps) dark coloured (black or brown)resting body formed due to aggregation of mycelium, the component hyphae loose their individuality , resistant to unfavourable conditions and remain dormant for a longer period of time and germinate on the return of favourable conditions.
Eg. *Sclerotium, Rhizoctonia*

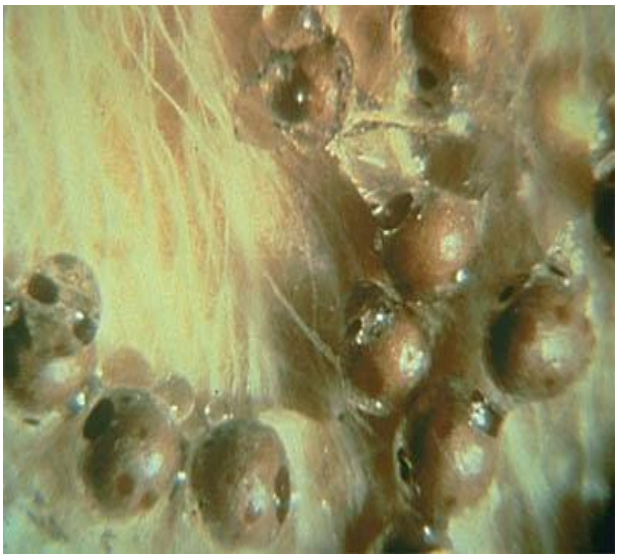

Fig. 6.1. *Sclerotium, Rhizoctonia*

3. Stroma: (stroma=mattress) pl.stromata.

A stroma is a compact, somatic structure or hyphal aggregation similar to a mattress or a cushion, on which or in which fructifications of fungi are usually formed. They may be of various shapes and sizes.

Hyphal masses like acervuli, sporodochia, pionnotes etc. are the fertile stromata, which bear sporophores producing spores.
Eg.*Claviceps, Cercospora*

4. **Haustorium: (hauster=drinker) pl.haustoria**. It is a outgrowth of somatic hyphae regarded as special absorbing organ produced on certain hyphae by parasitic fungi for obtaining nourishment. They may be knob like (Albugo), elongated (*Erysiphe, Uncinula*), finger like (*Peronospora*).

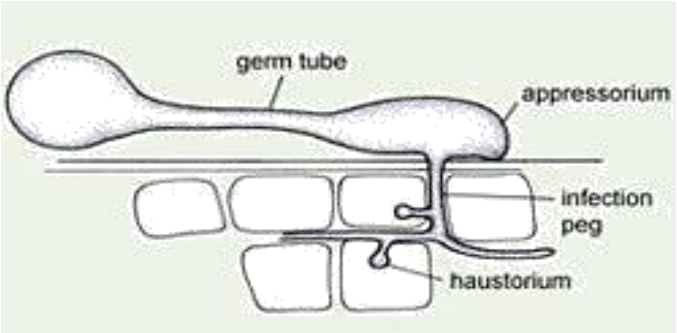

Fig. 6.1. Haustorium

5.Rhizoids: (rhiza=root, oeides=like)

These are slender root like branched structures found in the substratum produced by some fungi which are useful for anchoring the thallus to substratum and for obtaining nourishment from the substrate.

Eg. Rhizopus stolonifer.

6. Appresorium: (apprimere=to press against) pl.appressoria

A flattened tip of hyphae or germ tube acting as pressing organ by attaching to the host surface and gives rise to a minute infection peg which usually grows and penetrates the epidermal cells of the host.

Eg. Puccinia, Colletotrichum, Erysiphe.