

Michigan Agricultural College

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Botany

Frank J. Stahl.

Class '89

Plate I White Ash.

Fig. I In the White Ash, cross section, are seen the thick and thin walled cells, thick walled cells are in the end of the years growth, thin walled in the beginning of the years growth.

Fig. II The ducts are surrounded by small cells, The walls of the ducts have openings through them

Fig. III The walls of the Medullary rays, look as if they were made up of square chunks which have openings looks as if they were divided into partitions.

Fig. IV One can see them diagonally between the walls, also large cells about twice the diameter of small ones, and they are sometimes scalloped where the medullary rays have pushed against them.

Fig. V In a macerated specimen, small holes are seen through the medullary rays lying in the same direction as the ray.

Plate II. White Pine.

Fig. I On some of the cells are seen bordered pits, these look like two soup-plates brought together and they look as if there was a hole through the bottom of them.

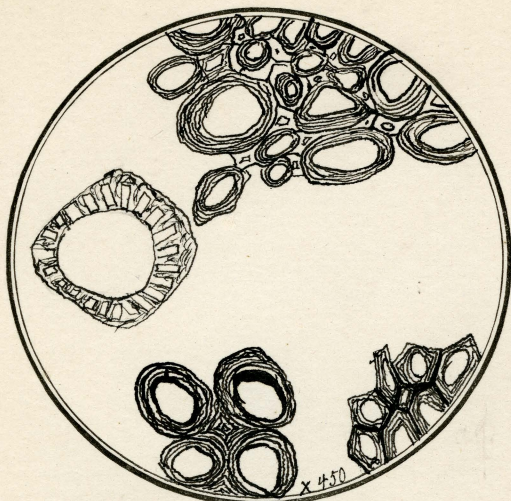


FIG. 1.

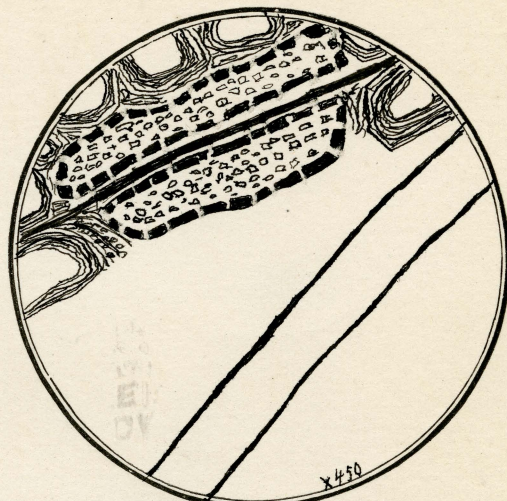


FIG. 2.

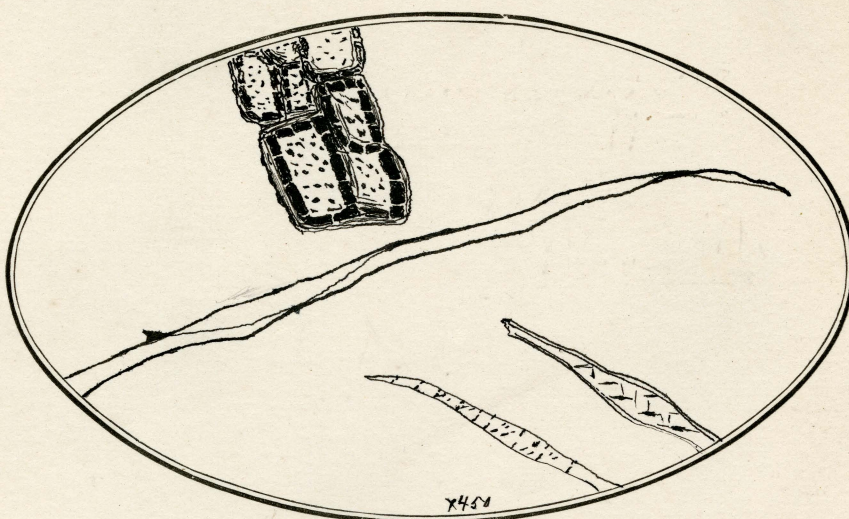


FIG. 3.

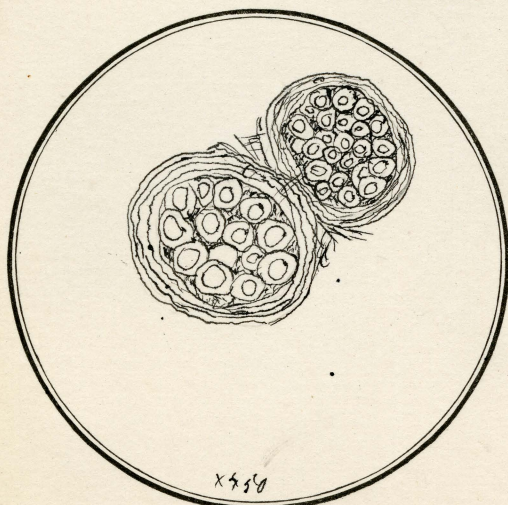


FIG. 4.

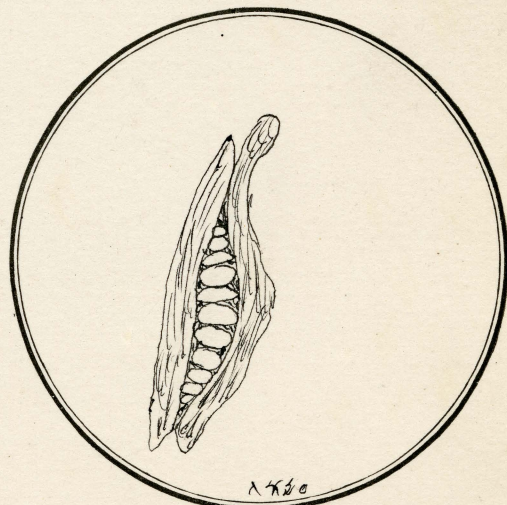


FIG. 5.

PLATE I

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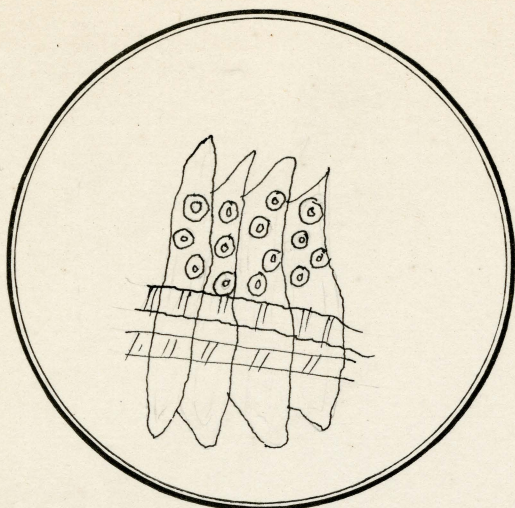


FIG. 1.

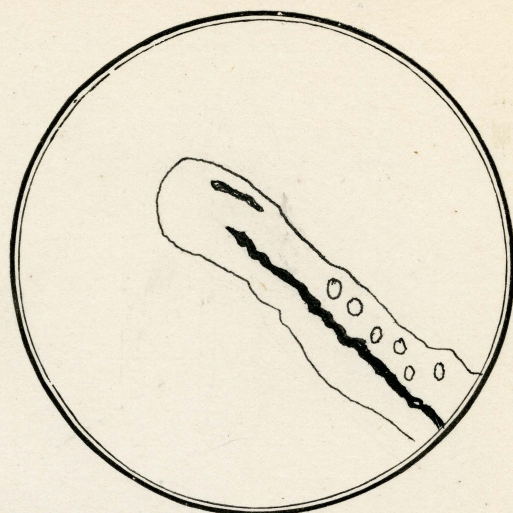


FIG. 2.

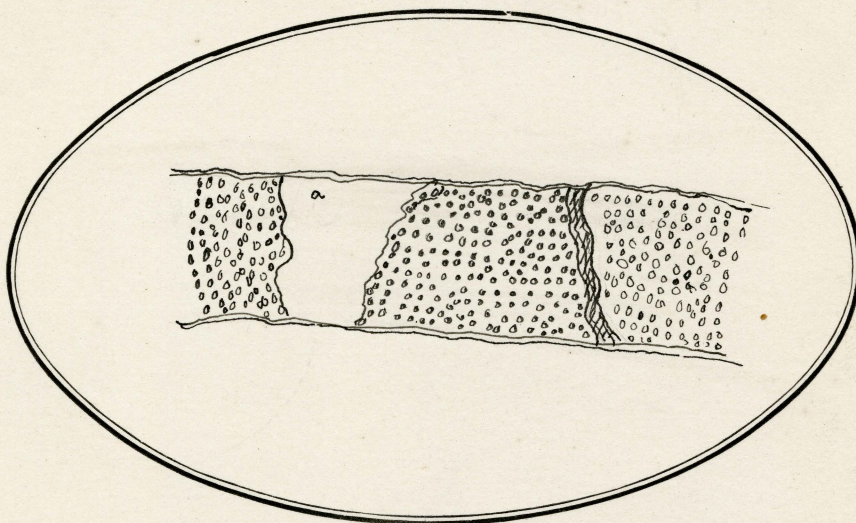


FIG. 3.

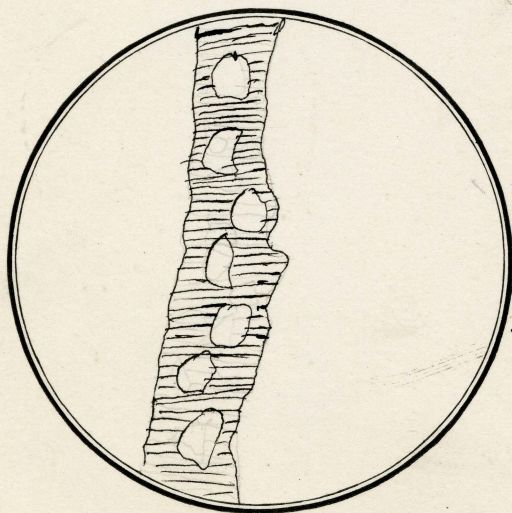


FIG. 4.

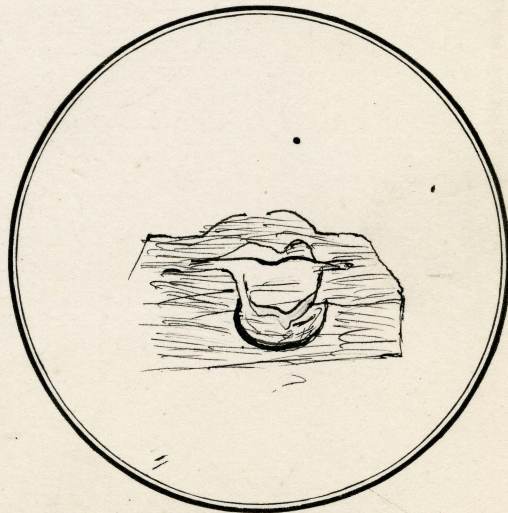


FIG. 5.

PLATE II

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FIG. 1.

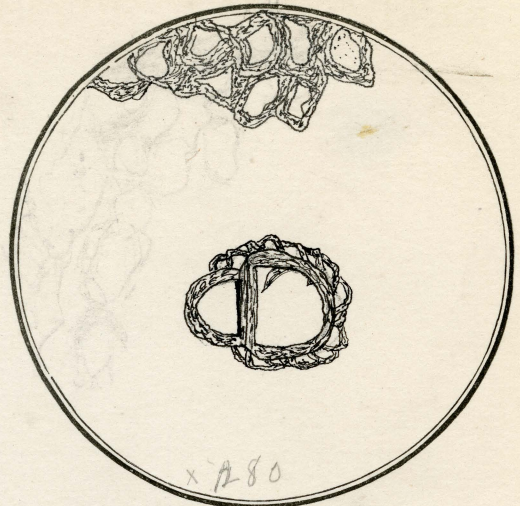


FIG. 2.

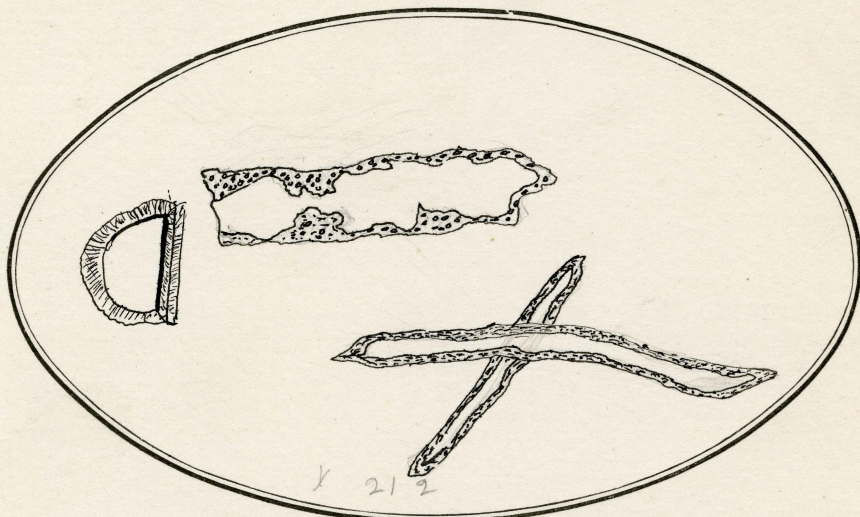


FIG. 3.

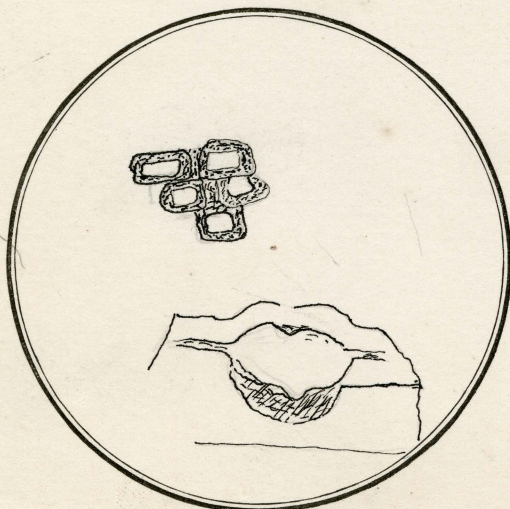


FIG. 4.

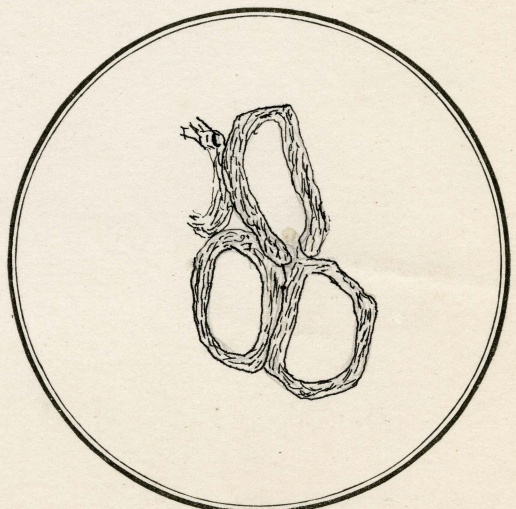


FIG. 5.

PLATE

*1/2 magnifies 180 times
2 1/2 "*

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Fig II. Is a radial section of the White Pine, In which the holes spoke of in Fig. I. can be distinctly seen.

Fig III In the tangential section of the cells can be seen lines or marks which show the decay of fungi on the cells.

Fig. IV. Cells look like the woody fibre in ash, The opening in the small cells near the bark are at right angles with those in the large cells.

Fig. V The Mid. rays have holes in their walls
White Oak

Plate III

In the pith young growth of white Oak, starch Granules are seen, some of the cells are full of it, and others have copper colored holes through them, The pith is somewhat star shaped, which causes the ^{rays} ~~table~~ to curve out toward the bark.

Fig I. In macerated specimen, mid. rays at right $\angle$, some nearly spherical, and some have holes through them.

Fig. II Cells of Medullary rays are larger than those of ash, the cell walls between ducts are some-times broken.

