

positions of resin-passages. Radial sections show occasional resin-passages containing numerous round masses of resin, occasional badly disorganized bordered pits and numerous rather high medullary rays with resinous matter, and rather straight, thick-walled cells.

The tangential sections show numerous rather high, uni-seriate rays with thick-walled cells. Masses of resin are common.

These two specimens clearly represent the same kind of wood, and it is at once obvious, from the details given, that there are very few and unsatisfactory details upon which to base a differentiation. Nevertheless, the character of the rays at once points to the fact that the wood is either *Larix* or *Picea*, an indication greatly strengthened by the occurrence of resin-passages, from which the presence of fusiform rays may be inferred, although these structures are not obvious, owing to the effects of decay and compression. Nothing beyond this can be determined conclusively, but on geographical grounds we would be led to the inference that this species must be either *L. americana* or *P. nigra*. From this point of view, then, the somewhat highly resinous ray-cells would lead to the conclusion that the wood must be that of *Larix americana*, since in *Picea nigra* the rays are but slightly resinous, and the walls of the cells are much thinner.

Our present knowledge of the Pleistocene flora shows that this species was a somewhat prominent element, and had a wide distribution during that period, since it has also been found at Fort Madison, Iowa, and in New Brunswick. The distribution thus indicated conforms to the geographical range as we know it in existing representatives of this species.

PICEA NIGRA.

The specimen designated 44a evidently represented a small branch which had become much flattened under pressure, in consequence of which the structure, as displayed in transverse section, was much distorted. Decay had also operated largely, so that only here and there was the structure found to be sufficiently preserved to permit of a recognition of details. From these it was possible to determine the following:

Transverse. Summer wood obscure. Spring tracheids large, thin-walled, squarish, but chiefly much distorted. Resin-passages rather abundant and sometimes perfectly preserved, without thyloses, but with thick-walled epithelium-cells, usually much distorted. Rays somewhat resinous.

Radial. Rays straight, thin-walled.

Tangential. Ordinary rays with thick-walled, oval or oblong cells. Fusiform rays with large resin-passages without thyloses, but with thick-walled epithelium.