UNITED STATES PATENT OFFICE.

FRIEDRICH WILHELM JULIUS FRANZ SCHMIDT, OF BERGEDORF, GERMANY.

METHOD OF PREPARING WOOD FOR DRY DISTILLATION.

SPECIFICATION forming part of Letters Patent No. 622,194, dated March 28, 1899.

Application filed December 6, 1897. Serial No. 660,987. (No specimens.)

To all whom it may concern:

Be it known that I, FRIEDRICH WILHELM JULIUS FRANZ SCHMIDT, doctor of philosophy, a citizen of the free city of Hamburg, residing at Bergedorf, near Hamburg, German Empire, have invented a new and useful Method of Preparing Wood for Dry Distillation, (for which I have obtained Letters Patent in Germany, No. 93,113, dated October 23, 1896; in Austria, No. 484, dated February 14, 1897, and in Hungary, No. 7,690, dated November 7, 1896;) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to the treatment of wood by dry distillation for the purpose of producing acetic acid and methylic alcohol; and it has for its object to enable the evolving vapors to readily pass off from the retort or other distilling apparatus, thus withdrawing the same from the decomposing action of the high temperature.

According to the present invention a ready escape of the vapors is provided for by treating the wood in the state of such subdivision that the pieces resulting from such subdivision will when piled up allow numerous and comparatively large passages to exist between them. The shape of pieces employed is the same which is given to the wood of quebracho for the purpose of utilizing the same as a tanning material by means of special machines cutting said wood across the grain, so as to produce what is called "cross-cuts," by which I mean "shavings," such as would be obtained by planing a stick of timber crosswise of the grain. The said cross-cuts, as also the machines for producing them, being well known, it is not necessary to describe and illustrate the same. When the retort is filled with such cross-cuts, it is traversed in all directions by numerous comparatively large passages communicating with each other, so that the vapors evolving from the cross-cuts under the action of the heat applied are allowed to readily pass away toward the exit-orifice of the retort.

Having fully described my invention, what I desire to claim and secure by Letters Patent of the United States is—

The process of obtaining pyroligneous acid, and the like, which consists in severing wood crosswise of the grain, into thin laminæ, and distilling the same, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRIEDRICH WILHELM JULIUS FRANZ SCHMIDT.

Witnesses:

AUG. HAMACHER,

HERM. REISS.