

United States Patent Office.

CHARLES MASSEY CRESSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO AMERICAN WOOD PROTECTION COMPANY.

Letters Patent No. 109,873, dated December 6, 1870.

IMPROVEMENT IN SEASONING AND PRESERVING WOOD.

The Schedule referred to in these Letters Patent and making part of the same.

I, CHARLES MASSEY CRESSON, M. D. of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improvement in Seasoning Timber and Protecting it from Decay, of which the following is a specification.

Nature and Object of the Invention.

My invention consists of a process (too fully described hereafter to need preliminary explanation,) of seasoning wood, and preventing it from decay, by the use of a combined shower of liquid and current of warm air.

General Description.

When heat is applied to unseasoned wood, the surface moisture is converted into vapor, a portion of which escapes into the surrounding atmosphere, while the remainder passes into the mass of the wood and is condensed, finally reaching the central portions, if the heat be continued long enough.

In this manner, the pores in the surface of the wood are deprived of their liquid contents and shrink, while those in the center are engorged with additional moisture and swell, so that the timber becomes cracked in the outer portions.

In order, however, to effect a perfect seasoning of the wood, it is necessary to expel all the free water from the same by the application of heat; and to enable the wood to be thus heated, without cracking it at the surface, I conceived the idea of showering a preservative liquid or liquids upon the wood during

the heating of the latter, for which mode of treatment, a patent was allowed to me on the twelfth day of November, A. D. 1870.

My present invention consists in the use of such a shower of liquid, in combination with a current of warm air, a chamber through which the air can be forced, or through which it can freely pass, being used for the reception of the wood, in place of the closed chamber described, in connection with the showering process.

I have found, by repeated experiment, that where it is not of moment to economize, or recover the oils or other liquids used in the treatment of the wood, the desiccation of the latter can be accomplished much more rapidly and with less injury to the fiber, by the use, in combination with the shower of liquid of a current of warm air, in a comparatively open chamber, than by any other means.

Claim.

The treatment of wood, substantially as described, by a combined shower of liquid and current of warm air.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES M. CRESSON, M. D.

Witnesses:

WM. A. STEEL,

JNO. B. HARDING.