

UNITED STATES PATENT OFFICE.

PAUL TOLMER, OF PARIS, FRANCE.

PROCESS FOR PRESERVING WOODS.

No Drawing.

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To all whom it may concern:

Be it known that I, PAUL TOLMER, engineer, citizen of the French Republic, residing at Paris, Department of the Seine, in France, have invented certain new and useful Improvements in a Process for Preserving Woods, of which the following is a specification.

This invention has for its object to provide an improved process for the preserving of wood; said process including two treatments, one thermic and the other chemical, which could be applied either simultaneously or separately, but both of them being in all cases absolutely necessary.

This process offers many practical advantages for the preserving of any kind of woods, but more particularly for those in which some parts of their internal texture are not accessible to an antiseptic agent. It is plain that if such parts were not protected by other means, the impregnation alone by an antiseptic agent could not destroy said infected parts and that sooner or later they would contaminate the whole.

When the two treatments, the combination of which is the main feature of the process, are carried out one after the other, the thermic one must be first. In this case the bulk of the wood to be treated is heated to a temperature of 80° to 120° C. without going above this last limit. The choice, as to temperature, as well as the duration of the operation is chiefly determined by the thickness of the woods, their anatomic and histologic natures. In the limits of temperature indicated above, the bulk of the wood is made completely aseptic.

The impregnation is carried out in making use of an antiseptic liquid to which is added a certain percentage of an alkaline carbonate, to this being added preferably a liquor, the effect of which is to fix, for a long time, the liquid in the fibers of the wood, preventing said antiseptic substance to be eliminated on account of climatic variations. As example of a mixture suitable for the treatment we may give the one cited in the American Patent No. 1,016,111, dated January 30, of 1912. The substance is made up of pine tar to which is added an alkaline carbonate, the liquid acting as agent of impregnation and of fixing being a solution of alkaline carbonate to which is added some saw

dust, said solution being decanted after maceration and boiling, adding finally a little sodium silicate and nitric acid.

The above liquor, in making use of the process, must be added to the antiseptic agent in the proportion of about 2%.

Pine tar could be replaced, if so desired, by equivalent products such as carburet hydrogen, phenolic compounds and cresols.

For the impregnation of the wood and to insure its penetration, the usual known methods can be applied, that is by immersion during a sufficient time, or by injection under pressure and heat.

As it has been said at the beginning the two treatments; by heat, and impregnation by the antiseptic liquid can be carried out either simultaneously or separately; what has been said above relates to the case where the treatments are separated. When they are used simultaneously, the antiseptic bath must be heated to a temperature from 80° to 120° centigrade, this in order that said temperatures may exist even in such parts that the liquid could not penetrate.

From the above it is easy to understand that the bulk of the wood, treated according to the invention, is cleared out of any infectious germs; and that besides, the external parts being thoroughly impregnated by an antiseptic fixed agent reinfection is practically impossible.

Claims—

1. The hereindescribed process of preserving wood consisting in applying heat thereto to destroy the whole of the infectious germs, and impregnating the wood with an antiseptic agent to which is added a percentage of alkaline carbonate, to said carbonate a fixing agent being also added which prevents for a long time a new infection of the wood; the temperature to which the wood is subjected varying from 80° to 120° C.

2. The herein described method of preserving wood consisting in applying heat thereto at a temperature adequate to insure the destruction of infectious germs and render the same completely aseptic, and impregnating the wood with antiseptic agent capable of resisting the attacks of deteriorating agents.

In testimony whereof I affix my signature.

PAUL TOLMER,