

United States Patent Office.

ALEXANDER J. SHELDON, OF BUFFALO, NEW YORK.

Letters Patent No. 106,625, dated August 23, 1870; antedated August 12, 1870.

IMPROVEMENT IN PRESERVING WOOD.

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

I, ALEXANDER J. SHELDON, of the city of Buffalo, county of Erie and State of New York, have invented a certain Process for "Preserving Wood," of which the following is a specification.

I first subject the wood to a drying process, to remove the sap, using high steam, or any other of the means commonly employed for this purpose. The wood is then placed in a tank or vessel containing caustic lye, which is caused to boil by heat applied in any convenient and well-known manner. This boiling process should be continued until the wood is thoroughly permeated by the lye. The time required will, therefore, depend upon the size and nature of the timber operated upon, boards one inch thick requiring about one hour.

The action of the caustic lye will dissolve and remove the albumen and hygroscopic matters from the wood, and render it in a proper condition to receive the preservative compounds, which will take the place previously filled by such matters in the pores of the wood.

Any of the well-known preservative compounds may be used, and applied by injection, under pressure, or in any other well-known manner.

One of the modes which I adopt is to boil the wood,

after the caustic-lye treatment above described, in milk of lime, until the lye becomes disseminated through the wood. The action of the air upon it will gradually turn it into a carbonate of lime, thereby rendering it insoluble, and, in fact, fossilizing the wood. Or the wood may be immersed in a hot solution of sugar of lead until it is impregnated therewith, when, sulphuric acid being added, an insoluble sulphate of lead will remain in the wood.

The caustic lye may be made from soda, as it is the cheapest. Its gravity is immaterial, except as to expense. I have used it as weak as 3° and as high as 30°.

After the lye becomes charged with woody matters, it can be reclaimed or used as a manure.

I claim as my invention—

The process of boiling wood in caustic lye to remove its albumen and hygroscopic matter, and prepare it for the reception of preservative compounds, substantially as hereinbefore set forth.

ALEXANDER J. SHELDON.

Witnesses:

ISAAC A. VERPLANCK,
GEORGE C. WEBSTER.