

UNITED STATES PATENT OFFICE.

WILLIAM YOUNGBLOOD, OF JAMAICA, NEW YORK.

METHOD OF PRESERVING WOOD.

SPECIFICATION forming part of Letters Patent No. 398,366, dated February 19, 1889.

Application filed February 7, 1888. Serial No. 263,226. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM YOUNGBLOOD, of Jamaica, in the county of Queens and State of New York, have invented a certain new and useful Process of Treating Wood; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to wood preservation, and its objects are to provide a composition of matter for treating the wood to increase the durability of the same and render it impervious to atmosphere or moisture; and the invention will be clearly understood in the following description, and particularly pointed out in the appended claim.

Figure 1 represents a kiln; Fig. 2, a tank in which the wood may be boiled or saturated; and Fig. 3 represents a dry-house, all of which are or may be employed in carrying out my invention.

The drawings represent one apparatus in use for carrying the invention into effect, wherein A designates a kiln or dry-house in which the wood to be treated is dried. After the drying the wood is introduced into a tank, B, in which is the solution hereinafter specified for treating the wood. The tank should be so constructed that heat can be applied thereto to boil the solution. The wood is left in tank B until it is thoroughly saturated, if small, or, if large, until its outer portions are saturated for a depth of several inches. For instance, if the wood should be eight or twelve inches in cross-section, it will become saturated about one-half through in thirty minutes, which degree of saturation in practical use is found sufficient. The time taken to saturate the different kinds and sizes of wood is of course governed by the hardness and texture of such wood. After treatment in tank B the wood is taken to a second drying-house or kiln, C, when it is thoroughly dried by the application of heat, or it may be left there to dry spontaneously without the application of heat, but must be protected from the sun and weather.

The solution with which I propose to saturate the wood in the tank B is made in the following proportions: Saltpeter, fifteen pounds; water, fifty gallons, and red-sanders bark or its equivalent, ten pounds. The water is

first heated to boiling-point in said tank, and then the saltpeter is added and stirred until thoroughly dissolved. Then I add about ten pounds of red-sanders bark, and the mixture is then boiled for about thirty minutes, until thoroughly mixed, after which the wood is submitted to the bath and kept at a temperature of 212° Fahrenheit, until the desired degree of saturation is obtained.

When red-sanders, through scarcity or otherwise, cannot be obtained, I employ the ground bark of California redwood, in proportion of twenty pounds to fifty gallons of water, which accomplishes the same purposes.

The use of the saltpeter closes the pores of the wood and renders it partially impervious to the atmosphere or water. The red-sanders or California redwood bark is added to more effectually close the pores and to set and to hold the saltpeter in the same, and will greatly prolong the preservation of the wood. Red-sanders will also stain the wood a dark red, so that its use in the composition can be readily detected.

When treating wood that is to be exposed constantly to the action of water, after it has been subjected to the action of the above ingredients and dried, as described, I give it a bath of paraffine at boiling-heat for fifteen minutes or more, according to the size of the wood. Other apparatus may be employed for practically carrying out my improved process than that described herein, and therefore I do not confine myself to the employment of such apparatus.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The herein-described method of preserving wood, consisting of first saturating the dried wood with a solution of saltpeter and water, and red-sanders or California redwood bark, in about the proportions stated, and then drying the same, and, secondly, in subsequently saturating the wood in a bath of paraffine, all substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. YOUNGBLOOD.

Witnesses:

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