

UNITED STATES PATENT OFFICE.

WARREN IDDINGS, OF WARREN, OHIO.

PRESERVING AND HARDENING WOOD.

SPECIFICATION forming part of Letters Patent No. 398,619, dated February 26, 1889.

Application filed December 20, 1888. Serial No. 294,211. (No specimens.)

To all whom it may concern:

Be it known that I, WARREN IDDINGS, a citizen of the United States of America, residing at Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in a Process of Treating Wood, of which the following is a full, clear, and exact description.

The invention relates to certain new and useful improvements in a process of treating wood, by which the same is preserved and thoroughly hardened and rendered weather-proof, &c., and prevented from decay, all as will be hereinafter fully described, and specifically set forth in the claim.

In carrying out my invention I first use a composition of about the following proportions: concentrated lye or potash, two pounds; burnt lime, one pound; pulverized iron ore, two ounces; alum and salt (saturated solution) and water, two gallons. The above-described parts I mix with water and place, together with the wood, into a suitable iron vessel or tank and boil the solution a suitable length of time until the wood is well saturated with the solution. The result of this treatment is that all of the sap that may be in the wood is taken out and the pores of the wood filled with the mixture, (such material as will not decay.) Otherwise, if there should remain any sap in the wood and the wood be exposed to the weather it would readily decay. After subjecting the wood to the above-described process I then remove the wood therefrom and put it into another vessel or tank suitable for the purpose containing the following ingredients, viz: flaxseed-oil, one pint; petroleum-oil, one gallon; rosin, one

pound, and red lead, four pounds, or any other suitable coloring-matter which is adapted to give the proper stain to the wood. When the paint is applied boiling hot, it becomes indelibly "fixed," for the reason that by this process of preserving or hardening of the wood the sap or watery parts are eliminated and the preserving material or mixture takes its place, thus insuring the preservation of the wood.

By the foregoing treatment or process to which the wood is subjected it will be readily seen that wood so treated or embalmed will be durable, hard, and exempt from decay, does not shrink or swell, as other wood does, and is capable of a much finer finish.

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

The process or treatment of wood, as herein described, by which it is preserved, rendered hard and weather-proof, &c., consisting in subjecting it to a bath in a boiling solution composed of concentrated lye or potash, burnt lime, alum and salt, and pulverized iron ore mixed with water, and then subsequently immersing it with a hot solution composed of flaxseed-oil, petroleum-oil, rosin, red lead, or any suitable coloring-matter whereby the tint is given the wood, substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand in the presence of two attesting witnesses.

WARREN IDDINGS.

Witnesses:

JOHN J. SULLIVAN,
CHAS. C. BUBB.