(No Model.)

W. N. HORTON.

PILE FOR USE WITH PROTECTING AND PRESERVING MATERIAL.

No. 263,784. Patented Sept. 5, 1882.

Fig. 1.

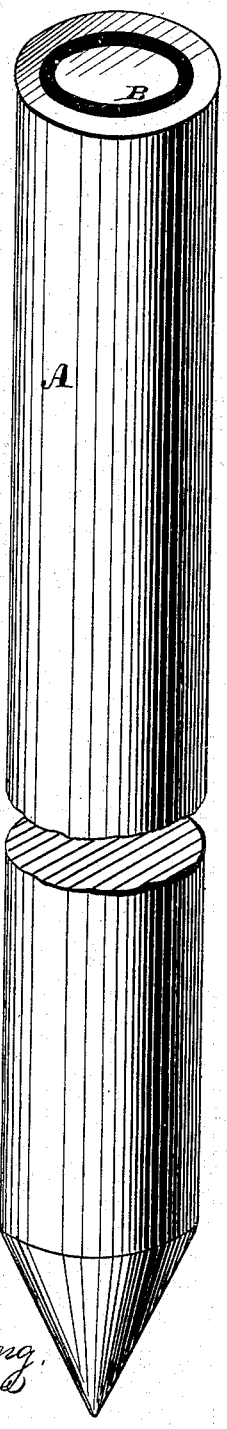
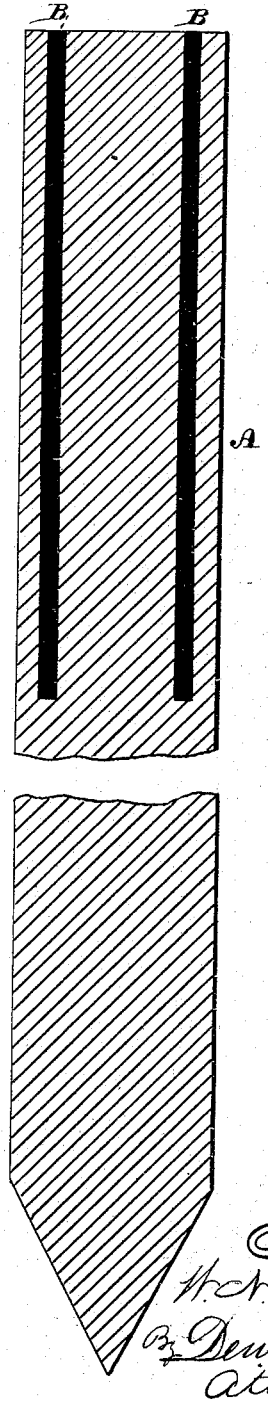


Fig. 2.



Witnesses,
Geo. H. Strong.
D. A. Simons

Inventor,
W. N. Horton
By Dewey & Co.
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM N. HORTON, OF SAN FRANCISCO, CALIFORNIA.

PILE FOR USE WITH PROTECTING AND PRESERVING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 263,784, dated September 5, 1882.

Application filed March 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. HORTON, of San Francisco, county of San Francisco, and State of California, have invented an Improved Pile for use with a Protecting or Preserving Material; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a method of protecting piles from the ravages of the teredo and other marine insects or worms; and it consists in boring a circular chamber near the outside, so as to leave a thin surrounding shell from the end of the pile to a depth sufficient to extend to the bottom or soil into which the pile is driven, and then filling this space or chamber with any suitable protecting or preserving substances which will prevent the entrance of the worm into the body of the pile.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is an exterior view of a pile showing my invention. Fig. 2 is a vertical section.

A is a pile suitable for driving in the usual manner. I prepare this pile by boring it with a hollow auger, so as to form a channel, B, extending to any desired depth—from one to forty feet or more. This channel is made as near the circumference of the pile as possible, so that there will be a narrow cylindrical channel surrounding the body of the pile and having a thin shell of wood and bark exterior to it. This channel is then filled with any preservative compound which may be found effective, or with any substance which will by its quality or consistence arrest the worms and prevent their farther passage into the wood.

I have thought it best to bore the channel to such a depth that when the pile is driven the channel will extend down to the mud-line, below which the teredo will not disturb the pile, and when filled it will present an impenetrable belt around it; but in some cases it will be found advisable to bore in a short distance and then force or allow the preservative to gradually find its way through the sap-cells downward, and, as these cells are in the nature of minute straight tubes, there will be a belt of wood saturated equal in size and shape to the channel. When this channel has been bored and filled as I have described, it will be surrounded by a thin shell of wood, which will thoroughly protect the interior coating or filling from abrasion.

When the teredo attacks a pile it is generally very small, and does not attain any great size until it has embedded itself in the wood for a long distance, the size of the hole increasing with its progress; but with my protecting-shell the progress of the worm is arrested at the outset, and further development is prevented.

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

A pile having a central solid core, a surrounding open channel to receive a preservative compound, and an exterior thin shell extending a portion of the length of the pile, while the remainder remains solid.

In witness whereof I have hereunto set my hand.

WILLIAM N. HORTON.

Witnesses:

S. H. NOURSE,

G. W. EMERSON.