

(No Model.)

J. CASS.

PRESERVING PILES.

No. 349,835.

Patented Sept. 28, 1886.

FIG. 1.

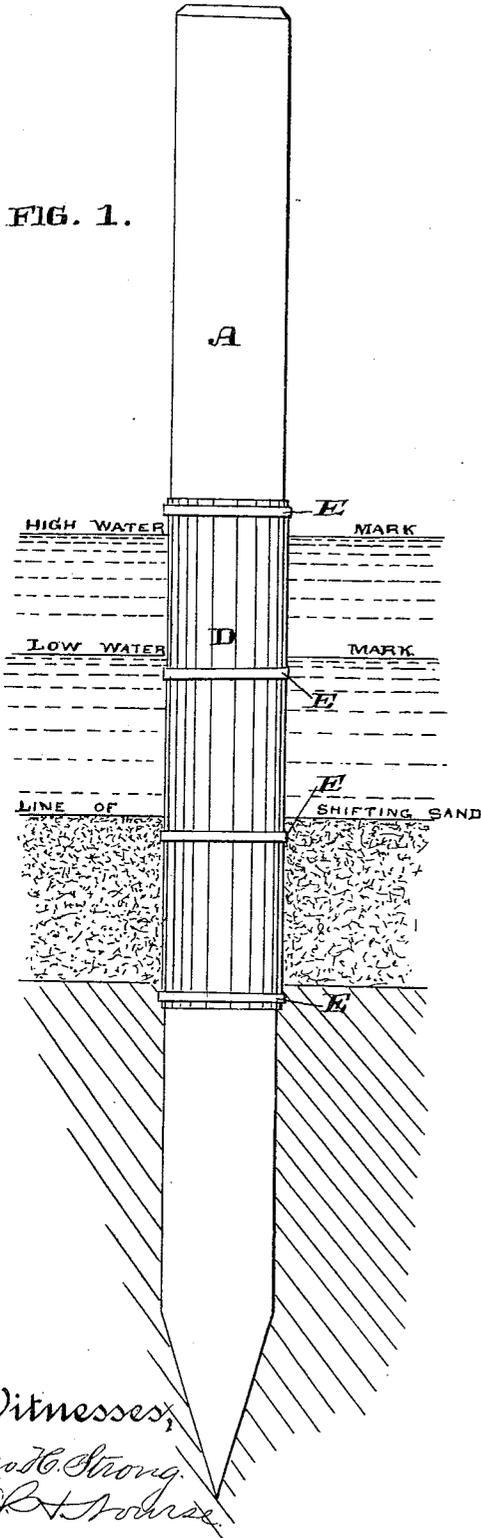
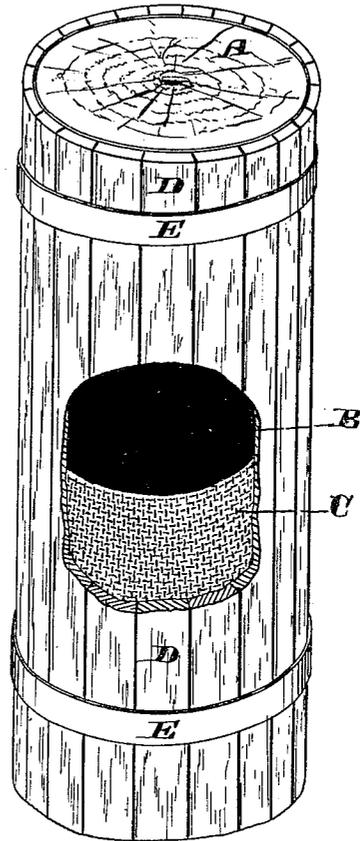


FIG. 2.



Witnesses,
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UNITED STATES PATENT OFFICE.

JAMES CASS, OF CAYUCOS LANDING, CALIFORNIA.

PRESERVING PILES.

SPECIFICATION forming part of Letters Patent No. 349,835, dated September 28, 1886.

Application filed April 15, 1886. Serial No. 199,022. (No model.)

To all whom it may concern:

Be it known that I, JAMES CASS, of Cayucos Landing, county of San Luis Obispo, State of California, have invented an Improvement in Preserving Piles and Submerged Wood; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a means for preserving piles and other submerged wooden structures from the ravages of marine worms and insects.

It consists in a preparation and coating for the exterior of the pile before the latter is driven, which will be more fully explained by reference to the accompanying diagram, in which—

Figure 1 is a view of a pile and its covering, and Fig. 2 represents a pile prepared by my process, with a part broken away, showing the interior coating.

In order to prepare the piles, the bark is first peeled away from a point which will be about four feet below what is known as the "shifting sand" or "bottom," into which the pile is to be driven, and at the upper end at a point above the high-water mark, this space being that in which the worms and insects commit their ravages, and this distance is determined by the locality in which the piles are to be driven and the depth of the water. I then mix equal parts of pitch with coal-tar, boiled together, with about a quarter of a pound of arsenic to the gallon of tar. This compound is applied as hot as the brush will bear to the portion to be treated until it is entirely coated. This portion of the pile is next covered over with common ship-felt, such as is used when coppering the bottoms of ships; and I then take battens about half an inch thick by three inches wide, nailing them on with galvanized nails, so as to surround the piles, the nails being driven about eight inches apart on each side of each batten. Around these battens are then placed bands of galvanized iron one and one-half inch wide by about one-sixteenth of an inch thick, forming hoops, which are placed about six feet apart and nailed down solid with twelve-penny boat-nails. The whole exterior is then given two coats of the prepara-

tion, hereinbefore described, of pitch and coal-tar, and the pile is driven carefully, so as not to start the battens.

I prefer to use thin battens, because if the coating becomes chafed from the outside the toredo or worm will enter the batten, but will not go through the inner coating of felt, and the interior will thus be perfectly preserved.

In the drawings, A is the body of the pile, having a coating of the material put upon it at B, and over this a layer of ship-felt, C, D are the battens, which are nailed on the outside, covering the whole, and E are the hoops which surround the pile, so as to hold the whole securely in place.

I am aware that piles have been treated with alternate layers of asphaltum and sand or earth, and that sheets of felt or iron have been nailed over said layers to prevent the material cracking and falling off during the process of driving the pile.

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

1. The process herein described of preserving piles or other wooden structures that are to be submerged, consisting, essentially, in brushing upon said wood from which the bark has been removed a water-proof poisonous compound, then applying a coating of ship-felt, and finally securing battens or strips upon the pile outside of the felt, substantially as herein described.

2. The improved process of preserving timber that is to be submerged, consisting, essentially, in coating said timber with a compound of pitch, tar, and arsenic, next surrounding said compound with a covering of ship-felt, then nailing thin longitudinal battens upon the timber outside of the felt, so as to inclose the whole, and finally securing the battens by hoops or holding-bands, substantially as herein described.

In witness whereof I have hereunto set my hand.

JAMES CASS.

Witnesses:
S. H. NOURSE,
H. C. LEE.