

(No Model.)

H. GALLINOWSKY.

MEANS FOR PROTECTING PILES FROM AQUEOUS INSECTS.

No. 571,654.

Patented Nov. 17, 1896.

FIG. 1.

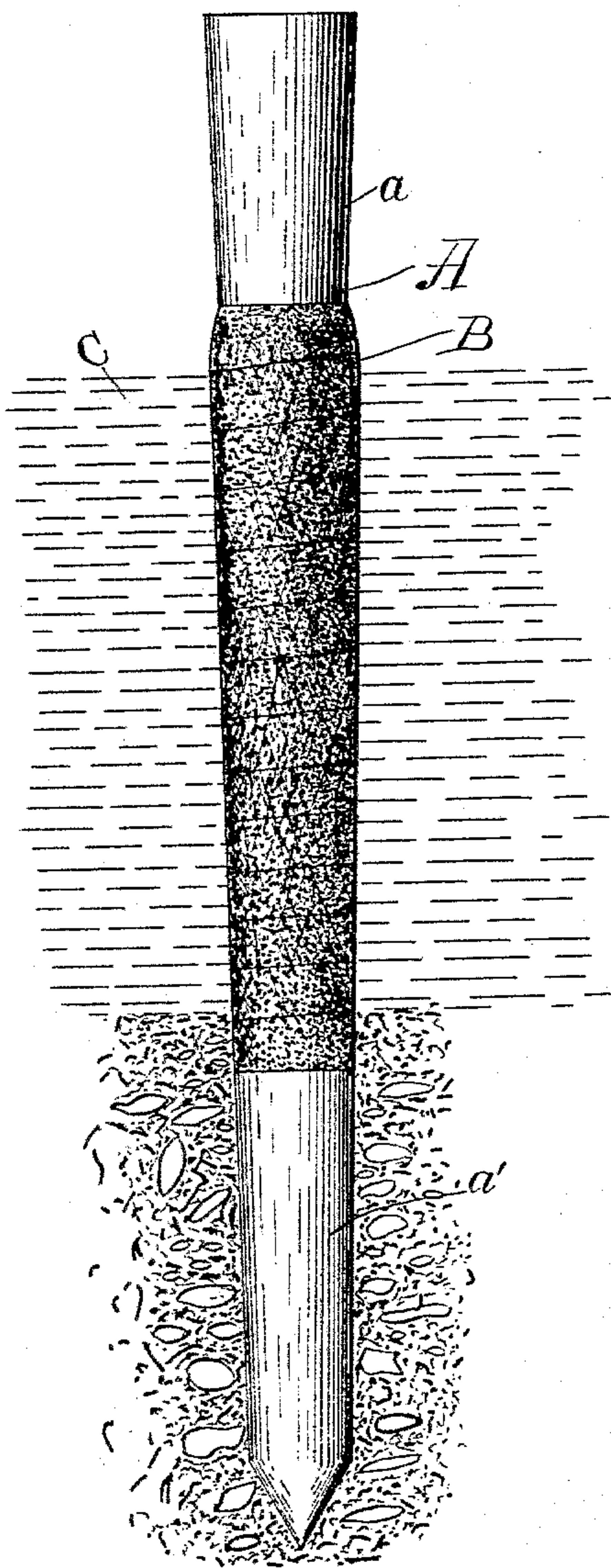
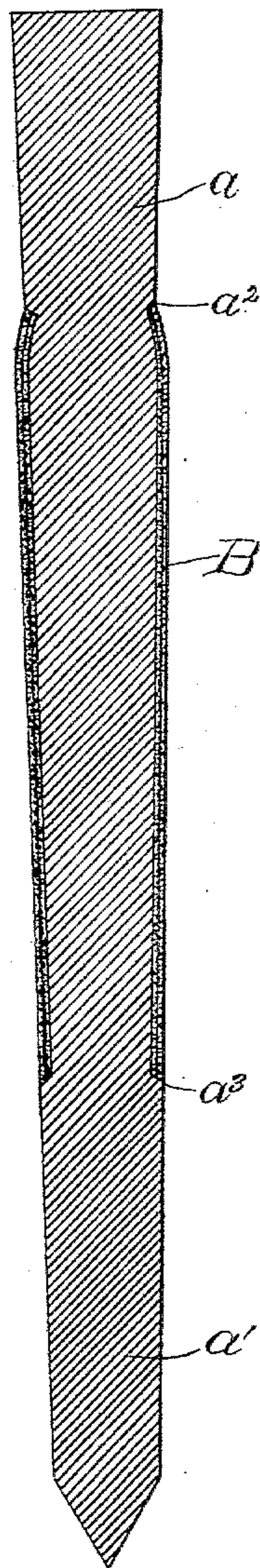


FIG. 2.



Witnesses

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HUGO GALLINOWSKY, OF LONGBEACH, MISSISSIPPI.

MEANS FOR PROTECTING PILES FROM AQUEOUS INSECTS.

SPECIFICATION forming part of Letters Patent No. 571,654, dated November 17, 1896.

Application filed July 13, 1896. Serial No. 599,047. (No model.)

To all whom it may concern:

Be it known that I, HUGO GALLINOWSKY, a citizen of the United States, residing at Longbeach, in the county of Harrison and State of Mississippi, have invented certain new and useful Improvements in Means for Protecting Piles from Aqueous Insects; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in protected piles, and has for its object the preservation of all forms of wood which enter into the construction of partially or wholly submerged structures, as wharfs, bulkheads, bridge-piers, jetties, breakwaters, &c. In addition to preserving wooden structures from the deleterious action of sea-water and other forces the said invention is particularly adapted to the preservation of the said structures against destructive aqueous insects.

The said invention consists of the novel structure and composition hereinafter more fully described, and pointed out in the claims.

Reference is had to the accompanying drawings, in which—

Figure 1 represents my improved protected pile in side elevation, and Fig. 2 represents a central longitudinal sectional view of the same.

Similar letters refer to similar parts throughout both views.

A represents a pile with the head a and tapering toward the end a' . The pile is diminished in diameter between the shoulders a^2 and a^3 , upon which part a protecting substance B is wound flush with the surface of the pile. This protecting substance B consists of any suitable fibrous material, as jute or cotton fabric, treated and applied to the pile in the following manner: The fabric is first subjected to a bath of boracic acid, after which it is passed through a set of rollers or other pressure, which presses the greater portion of the acid out. (After having been pressed as above described the fabric is then subjected to a bath in a saturated solution of magnesium chlorid. Then the said fabric is put in a bath of hydrated magnesium oxid containing about five per cent. of sal-ammo-

niac and again pressed.) The pile being placed in a position to rotate, one end of the fabric so treated is attached to the pile, which is then made to revolve, causing the fabric to wind on said pile. Before the said fabric reaches the pile it is passed under sufficient pressure to squeeze out the required amount of liquid. This fabric is then wound on the pile as above described between the shoulders a^2 and a^3 until it becomes flush with the surface of the pile, when the winding may be discontinued. The fabric so treated and wound on the pile cements together and becomes extremely hard and tough. It will be seen that the pile is not protected throughout its entire length by this substance, it being found unnecessary to provide the cap a above the water and the end a' , which is buried in the earth, with such protection. This protection is carried sufficiently high on the pile to be above the high-water mark, as represented at C.

To more thoroughly protect the pile and especially the top a against decay and to give the protecting cover itself an everlasting quality the pile is given a bath in creosote or other wood-preserving oils. The pile is only dipped in the creosote far enough to cover the end a and protecting-cover B, though, if preferred, the whole pile may be subjected to the creosote-bath. The pile thus wrapped with the protecting substance B and treated with creosote is enabled thereby to withstand the most severe attacks from external agencies, and is particularly well protected against the attacks of that enemy known as the "teredo."

While I have shown a certain form of pile and described certain steps in the process of protecting the same, it is obvious that changes and modifications may be made without departing from the spirit of my invention.

Having fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A protective covering for piles and other timbers composed of fibrous material compounded with boracic acid, magnesium chlorid, hydrated magnesium oxid and sal-ammoniac, substantially as described.

2. A pile covered throughout a portion of its length with a substance consisting of

fibrous material, compounded with boracic acid, magnesium chlorid, hydrated magnesium oxid and sal-ammoniac, substantially as described.

5 3. A pile or other timber, covered throughout a portion of its length with a substance composed of fibrous material compounded with boracic acid, magnesium chlorid, hydrated magnesium oxid and sal-ammoniac,
10 and filled with creosote, substantially as described.

4. A pile covered throughout a portion of its length with a substance consisting of fibrous material compounded with boracic
15 acid, magnesium chlorid, hydrated magnesium oxid and sal-ammoniac; and diminished in cross-section where said covering is applied, and filled with creosote with said covering on, substantially as described.

5. In the protection of piles and other tim- 20
bers, the process which consists in subjecting fibrous material to a bath of boracic acid, then pressing a portion of said acid out, then subjecting said fibrous material to successive
25 baths of magnesium chlorid and hydrated magnesium oxid with sal-ammoniac, then pressing the said fibrous material so treated and wrapping the same on the timber to be protected, and then subjecting the timber
30 with covering on, to a bath of creosote, or other wood-preserving oil, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HUGO GALLINOWSKY.

Witnesses:

JOS. H. DE GRANGE,
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