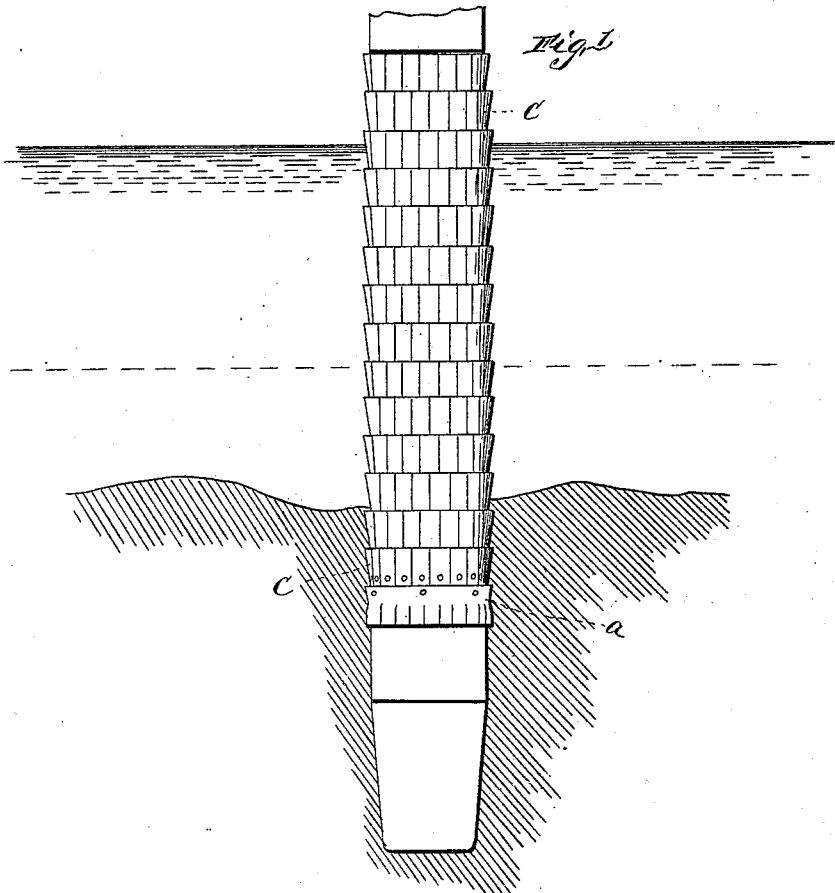


(No Model.)

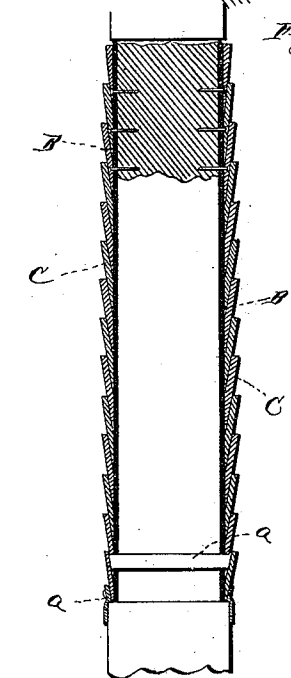
F. RIVES.  
PROTECTING AND PRESERVING PILES.

No. 441,584.

Patented Nov. 25, 1890.



*Fig. 1*



*Fig. 2*

WITNESSES  
*Chas. L. Taylor*  
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INVENTOR  
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# UNITED STATES PATENT OFFICE.

FRANKLIN RIVES, OF SEATTLE, WASHINGTON.

## PROTECTING AND PRESERVING PILES.

SPECIFICATION forming part of Letters Patent No. 441,584, dated November 25, 1890.

Application filed July 19, 1890. Serial No. 359,298. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN RIVES, a citizen of the United States, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Means for Protecting and Preserving Piles; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation of the invention, and Fig. 2 is a vertical central section of same.

This invention relates to an improved method of treating piles, timbers, fence-posts, and telegraph and other poles for their preservation and protection against the ravages of the "teredo;" and it consists in the novel process of carrying out said method, as hereinafter disclosed.

In putting into practice my invention I remove the bark from the pile where it is to be treated and coat the same thereat with a preservative compound B, which usually consists of tar, sawdust, and charcoal, applied hot and in a semi-fluid state, the sawdust relieving it of its brittleness to prevent the jarring of the compound off the pile as the latter is driven into place. This portion of the surface of the pile is lathed, stripped, or incased with shingles C, applied thereto so as to stand a little above the surface of the water and to extend downward about two feet into the earth or mud below the water, said shingles breaking joints with regularity upon a solid wood surface and having their butt-ends presented upward and lapping their downwardly-presented tapering or thin edges or ends. The shingles are fastened in place, preferably, by wire and copper nails, the bottom two layers of shingles having secured around them a band *a*, preferably of galvanized iron, adapted to be buried in the soil or mud under water. The shingles are previously coated with a protective compound consisting of charcoal, (powdered,) sawdust, (fine,) carbonate or sulphate of copper, (powdered,) crude petroleum, and gas or other tar,

all properly proportioned and compounded and boiled, the shingles being put into the boiling mixture and, after thorough saturation, removed and permitted to dry for application, as aforesaid. It will, therefore, be seen that not only does this arrangement obstruct or prevent the entrance or passage of the teredo, by reason of the breaks or joints between the shingles, as is well known, but that the insect is further hindered from effecting an entrance by the character and the numerous thicknesses produced by the combination of the shingles and the two compounds or coatings, it also being understood that the joints between the shingles are filled in with the compound, thus forming a continuous protecting surface. These shingles are preferably of fir, cedar, or other soft wood to enable them to more readily and thoroughly absorb and retain the protective and preservative composition, and are adapted by their arrangement—*i. e.*, having their butt-ends presented upward—to prevent the oozing or running away of said composition, a broad surface or ledge at sundry intervals throughout the protected surface being thus provided to catch and retain the composition, thereby overcoming a difficulty which would otherwise likely occur, especially in hot climates, when the parts in question become exposed by the falling or recession of the tide or water.

It is readily seen that this invention is equally applicable to timbers and fence-posts and to telegraph and other poles, and that various modifications of the shingles may be employed.

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

The protected pile having applied thereto a casing or jacket formed of shingles with their butt-ends presented upward, said pile and shingles being coated with a protective substance, substantially as set forth.

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

FRANKLIN RIVES.

Witnesses:

J. E. LILLY,  
F. E. WARE.