

(No Model.)

P. W. ATKIN.

PROTECTING WOODEN STRUCTURES FROM TEREDOS, &c.

No. 581,502.

Patented Apr. 27, 1897.

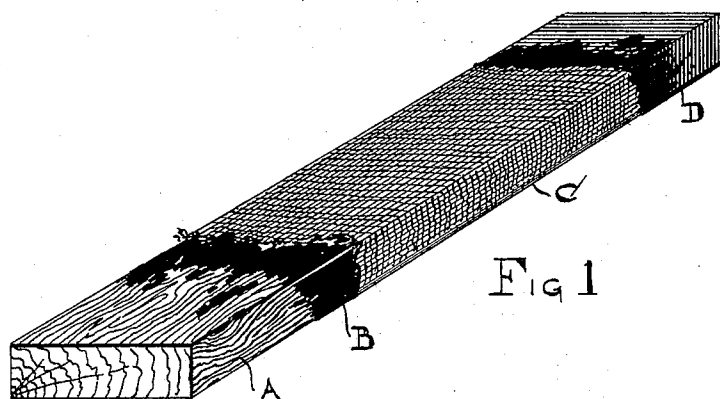


FIG 1

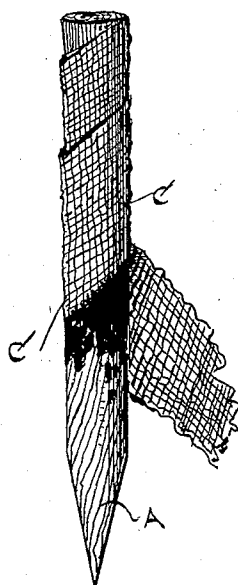
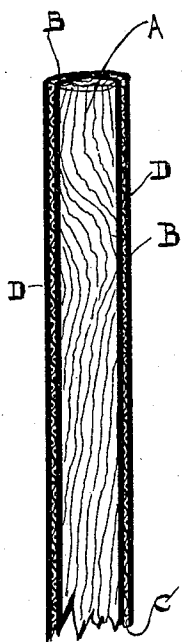


FIG 2

INVENTOR

Peter W. Atkins

By *F. Wright D. Os.*
Atty

WITNESSES

J. Green
W. H. Campbell

UNITED STATES PATENT OFFICE.

PETER W. ATKIN, OF BIRKENHEAD, ENGLAND.

PROTECTING WOODEN STRUCTURES FROM TEREDOS, &c.

SPECIFICATION forming part of Letters Patent No. 581,502, dated April 27, 1897.

Application filed August 24, 1896. Serial No. 603,705. (No model.)

To all whom it may concern:

Be it known that I, PETER W. ATKIN, a subject of the Queen of Great Britain, residing at Birkenhead, in the county of Chester, England, have invented certain new and useful Improvements in Protecting Wooden Structures from Teredos, Insects, or the Like, of which the following is a specification.

Between the tropics the teredos in the sea and the white ants on land are excessively destructive of timber, making timber piles and timber sleepers almost unavailable.

Now this invention is designed to protect these timbers from these destructive agencies. One material which these creatures do not attack is semiliquid pitch, for if the teredo by any chance bores through the pitch into the wood the pitch fills up the hole and suffocates it. A similar proceeding takes place with the white ants. Semiliquid pitch cannot, however, be used in the ordinary way owing to the difficulty in preventing the pitch from running off the piles or exuding from the sleepers.

Now my invention consists in treating the piles, sleepers, or the like with any desired preservative, such as creosote, then or even without using such preservative coating them with a layer of semiliquid pitch, such as pitch from which the anthracene has not been distilled, and then covering the pitch over tightly with a bandage well soaked in creosote-oil, so that the pitch can stick to it, and again coating the outside of the bandage with pitch. The bandage can be strong close-woven matting canvas or even some of the tough felts, in fact any fibrous matter sufficiently tough and elastic to withstand rough usage and sufficiently dense to prevent the semiliquid pitch from oozing through it. Coating the outside of the bandage with pitch poisoned, if desirable, with mercurial or other poison, is useful to keep moths, shell-fish, and insects from attacking the canvas and also for preserving the canvas from rotting. In the case of sleepers the bandage may consist of a long bag closely fitting the sleeper and sewed up at the end.

In thus describing my invention I am well aware that at the present time semiliquid

pitch has been used for protecting piling, an earthenware pipe being placed round the piling and semiliquid pitch run in, and this protection is very good so long as the earthenware pipe stands, but a very slight knock even of the shingle brought up by the waves against the pile will shatter the pipe, and then the semiliquid pitch drains off the pile and the pile is at the mercy of the teredo. The advantage of my bandage over the earthenware pipe, therefore, is, first, great lessening of first cost; secondly, the bandage can fit the inequalities of the pile and thus a uniform thickness of pitch can be laid over the pile before the bandage is applied, and the bandage fitted tight all round, whereas with the earthenware pipe the pipe has to be considerably larger in diameter than the pile and the annular space left run in with pitch, and it is very difficult to center the pile in a long tube, and consequently either parts of the pile are left bare of pitch or the pitch is required to be very thick; thirdly, no reasonable amount of battering, such as would smash an earthenware pipe to pieces, will injure the bandages.

In order to more clearly illustrate the invention, the accompanying drawings are annexed, in which—

Figure 1 shows a section of a sleeper; and Fig. 2, an elevation of piles, one of them coated in accordance with my invention.

In the drawings, A is the timber structure; B, the coating of semiliquid pitch; C, the fibrous bandage, preferably impregnated with creosote, and D a thin coating over the same of a preferably poisonous pitch.

I claim as my invention—

1. The process of protecting wooden structures from teredos, insects or the like, which consists in coating at the ordinary temperature of the air the structure with a pitch which is semiliquid at said temperature, then wrapping or applying over said coating, a fibrous bandage of sufficiently-close texture to hold the pitch in place, and coating said fabric with waterproofing composition, substantially as herein explained.

2. In combination with a wooden structure, a protecting-covering consisting of a pitch

which is semiliquid at the ordinary temperature of the air, and a surrounding water-proofed wrapping or bandage of close texture holding the pitch in place and preventing
5 flowing of the same except to close punctures or openings which may be made through the pitch; as explained.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

P. W. ATKIN.

Witnesses:

WM. P. THOMPSON,
H. P. SHOOBRIDGE.