

July 21 1925.

1,546,860

A. NEUBERT

PROTECTIVE COVERING FOR TIMBERS OR PILES

Filed Jan. 8, 1923

Fig. 1.

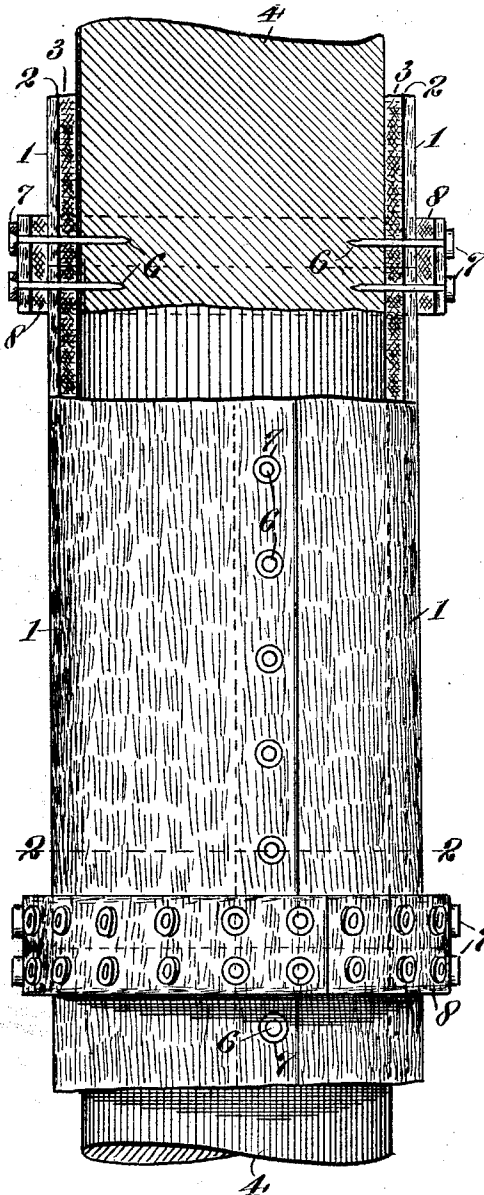


Fig. 2.

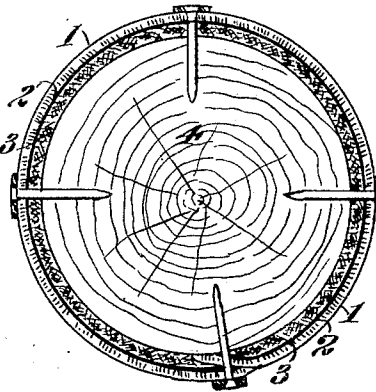


Fig. 3.

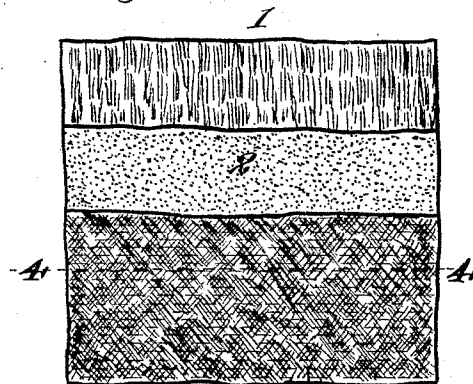
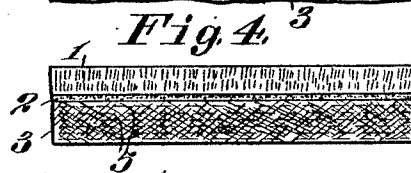


Fig. 4.



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UNITED STATES PATENT OFFICE

ALOIS NEUBERT, OF OAKLAND, CALIFORNIA.

PROTECTIVE COVERING FOR TIMBERS OR PILES.

Application filed January 8, 1923. Serial No. 611,532.

To all whom it may concern:

Be it known that I, ALOIS NEUBERT, a citizen of Czechoslovakia, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Protective Coverings for Timbers or Piles, of which the following is a specification.

The hereinafter described invention relates to an improved covering for protecting piles or building timbers so as to render the same impervious to the attacks of teredos or marine borers and equally so to protect the same from natural decay; and the same comprises, generally, a built up flexible structure, prepared and formed in such a manner as to present united sheets or layers adapted to encompass the exposed wooden surface to be protected against the actions of teredos or marine insects, the same consisting of a suitable flexible backing having cemented to one face thereof a layer of porous and absorbent material adapted to be filled to saturation with a suitable fluid capable of destroying or resisting the action of the marine insects, said solution preferably comprising creosote.

Where the covering is utilized to protect piles from decay and the action of marine insects, it is only required or necessary to cover or enclose such portions of the structure as are exposed to the action of the water above the mud line and below the highest point at which the water is brought into contact with the wooden structure, the said covering being applied to that portion or surface of the pile which is stripped of its bark.

The nature of the invention and its application to a pile to be protected is illustrated in the accompanying sheet of drawings, wherein—

Figure 1 is a broken part sectional view of an ordinary wharf pile having applied thereto the improved protecting covering.

Figure 2 is a view in cross section of a section of piling illustrating an embodiment of my invention applied thereto, the same being substantially a section on line 2—2 of Fig. 1.

Figure 3 is a broken top plan view of a portion of the covering.

Figure 4 is a cross sectional view taken on the line 4—4, Fig. 3 of the drawings.

In the carrying out of my invention, there is provided a suitable flexible backing 1,

preferably formed of a heavy or thick sheet of flexible asbestos or composite paper. While preference is given to the utilization of tar paper owing to the flexibility thereof, it is apparent that any form of flexible material may be utilized as the backing for the covering, as for instance, a thin sheet of copper or other metal. To the inner face of the flexible backing is applied a suitable plastic adhesive and preferably a hot solution of petrolastic cement or other liquid is employed for this purpose, which is represented in the drawings by the numeral 2. To the coated inner face of the backing is applied a layer 3 of absorbent material, preference being given to the employment of felt for this purpose and which is united or held to the flexible backing by the petrolastic cement. There is thus formed a protecting covering composed of a plurality of layers or plys of material, viz: a flexible backing 1 and an absorbent inner liner 3, there being interposed between the inner face of the backing and the absorbent layer 3, a layer 2 of adhesive cement for uniting the felt or absorbent liner to the flexible backing. The inner absorbent liner or layer 3 is, when the covering is to be applied to the wooden pile 4 or to the timber to be protected, filled to the point of saturation with a marine insect resisting solution, preferably creosote, indicated in Fig. 3 of the drawings by the reference numeral 5. The covering is applied to the pile or timber 4 by being secured therearound until the meeting edges thereof overlap and then held in place by means of the headed nails 6 driven therethrough and into the timber 4, the nails being driven through a washer 7 formed of a metal strip or from the same material as the protecting covering and which serves to prevent water passing through the covering to the outer wall surface of the pile or timber 4. Adjacent its top and bottom portions, the covering is firmly compressed or held to the pile or timber 4 to make it water sealed at such points by means of the collars or bands 8, formed of the same built up material as the protecting covering itself, and which collars or bands are held in place by the headed nails 6, the bands or collars 8 in this instance serving the same purpose as the washers 7 previously referred to in connection with the nails driven to hold the vertical edges of the covering in position.

It will be understood that where the pro-

protecting covering is to be applied to driven piles or timbers, the surface thereof before applying the covering thereto, is cleaned of all marine growth and decayed or teredo 5 infected portion to give a clean surface for the application of the covering thereto, and while I have described and illustrated the simplest manner of applying the protecting covering to the pile, it is obvious that the 10 same may be secured thereto in any suitable manner desired.

Inasmuch as the covering comprises a built up sheet, the same may be manufactured at one point and supplied in the form of a roll 15 to a distant point for application to the pile or timber to be protected and while the absorbent liner of the covering may be saturated with creosote or other protecting solution prior to the shipment of the covering 20 to such distant point for application, it is apparent that the said solution may be applied for saturation of the absorbent liner at the distant point and just prior to the application of the covering to the pile or timber 25 to be protected.

By the use of the described invention the creosote with which the absorbent liner of the covering is saturated is brought into intimate contact with the surface of the timber or pile to be protected and to a certain 30 extent is absorbed thereby and fills the interstices of the wooden structure, while the backing of the covering being of material which is air, water, and acid proof and 35 covered on its inner face with a layer of saturated absorbent material united thereto

by an adhesive liquid chemical, the same resists penetration therethrough of marine insects; but in case the backing or outer layer of the covering should become broken, 40 punctured, or damaged, the creosote contained within the absorbent inner liner will check or resist the boring action of the marine insects to the surface of the pile or wooden structure and thereby prevent the 45 destruction thereof by the action of such insects.

The pressure applied in securing the meeting edges of the covering to the pile or wooden structure, and equally so, the pressure 50 brought to bear in applying the collars to the upper and lower end portions of the applied covering tends to squeeze or force the creosote out of the absorbent material to bring the same in direct contact with 55 the surface of the timber to be protected against action of the marine insects.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is: 60

An article of manufacture adapted for application to submerged driven timbers and piles, comprising a flexible composite sheet, and a chemically saturated sheet of absorbent material cemented to one side of 65 the composite flexible sheet, said saturated absorbent material being positioned adjacent to the surface of the timber or pile in the application of the article thereto.

In testimony whereof I have signed my name to this specification. 70

ALOIS NEUBERT.