

(No Model.)

G. PHILLIPS.

PILE OR TIMBER.

No. 414,251.

Patented Nov. 5, 1889.

Fig. 1.

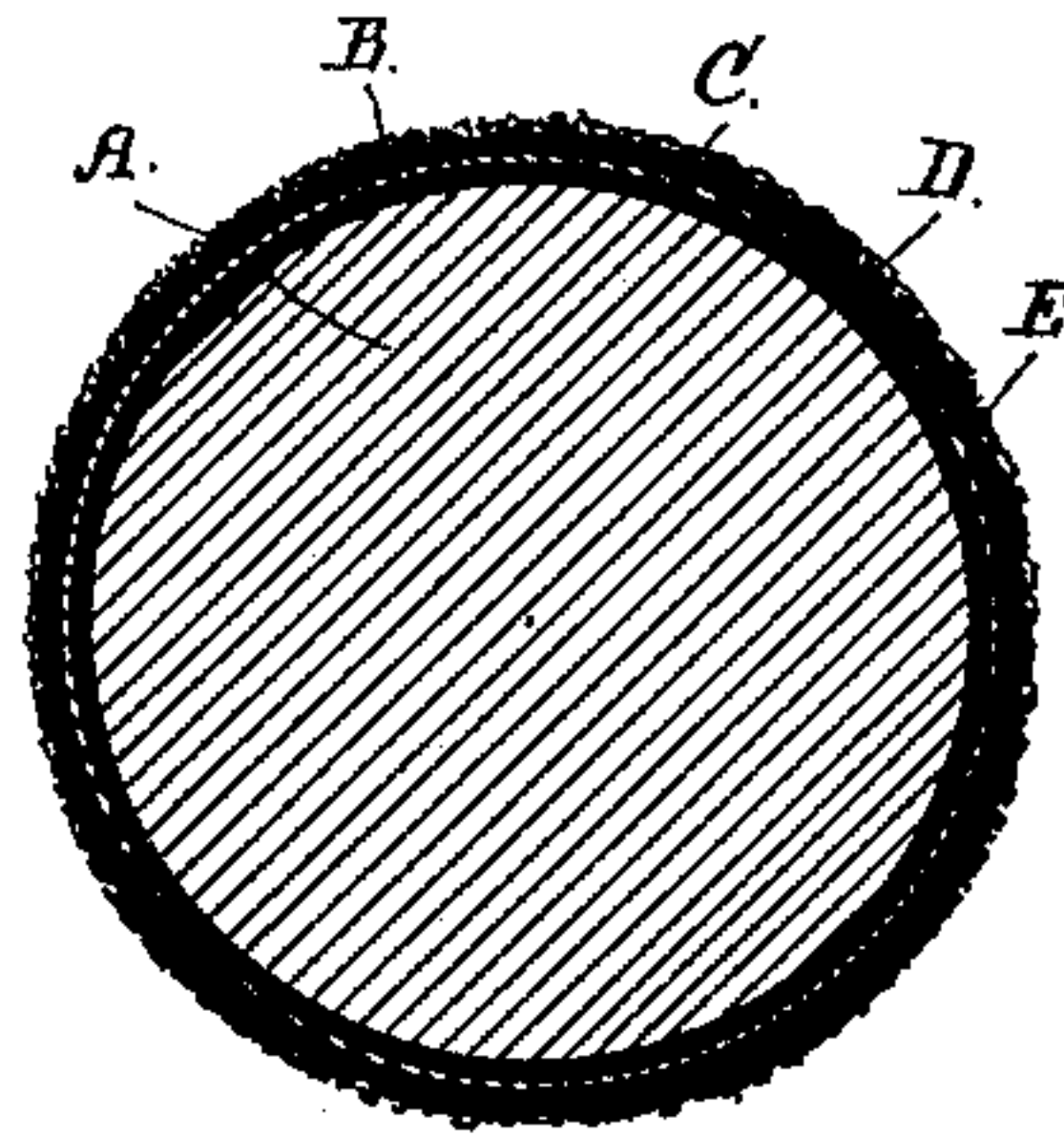
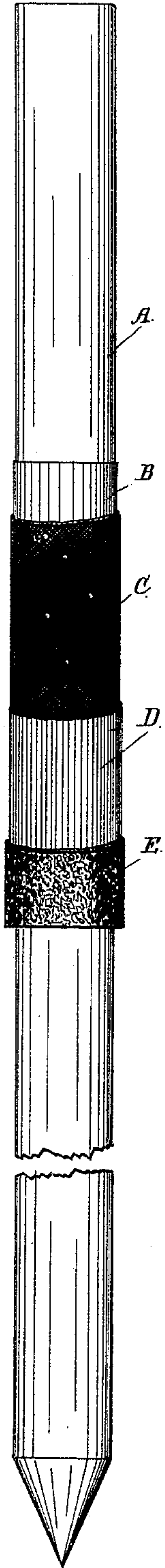


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE PHILLIPS, OF KEY WEST, FLORIDA.

PILE OR TIMBER.

SPECIFICATION forming part of Letters Patent No. 414,251, dated November 5, 1889.

Application filed November 24, 1888. Renewed September 17, 1889. Serial No. 324,179. (No model.)

To all whom it may concern:

Be it known that I, GEORGE PHILLIPS, of Key West, in the county of Monroe and State of Florida, have invented and discovered a new article of manufacture—to wit, a new and Improved Pile or Building-Timber; and I do hereby declare the following to be a specification thereof.

The object of my invention is to provide a new and improved pile or building-timber which will be impervious to the attacks of marine insects and natural decay; and it consists, generally, in a pile or building-timber prepared and formed by applying a coating or coatings to a stick of timber, as hereinafter described.

The nature of my invention is illustrated by the annexed drawings, in which—

Figure 1 is an elevation, and Fig. 2 a cross-section, of the pile.

The portion of the pile designated by A represents a section of the pile before any covering is applied, being properly barked and ready for the first covering.

B represents a section of the pile after the first asphaltic coating is applied.

C represents a section of the pile after the covering of woven fabric, hereinafter mentioned, is applied, and the small dots represent the heads of nails used to fasten the woven fabric to the pile.

D represents a section of the pile after the second asphaltic coating is applied over the woven-fabric surface.

E represents a section of the pile after the coating of calcareous material is applied to the second asphaltic coating—that is to say, a section of the completed pile—all as hereinafter described. The lower end of the pile, Fig. 1, is pointed ready for driving.

The base of the compound used for the coating is asphalt. There are many varieties of this material, and I do not confine myself to any particular variety. I prefer to use that of the Val de Travers in Switzerland, which is almost pure carbonate of lime and bitumen. The nearer the asphalt approaches to that standard the better it is suited to my invention. The asphalt is melted by heat in any suitable manner, care being taken not to scorch, burn, or overheat it, until it acquires the consistency of thick paint.

Instead of the pure asphalt, a mixture of asphalt and mineral tar may be used. The timber, having been previously barked, as shown by A, Fig. 1, is coated with the asphaltic mixture boiling hot, either by a swab, mop, or brush, or by immersion. More than one coating may be applied, if desired, to secure the requisite thickness. This forms the first asphaltic coating B. Around the pile so coated I wind spirally a strip of stout woven fabric with edges overlapping, so as to cover the surface, and then fasten it to the pile by flat-headed nails made of copper or galvanized iron, thus forming the woven-fabric covering represented by C in the drawings. The woven fabric best suited for this purpose is canvas or sail-cloth; but any woven fabric may be used, even wire cloth or gauze. Another coating of the asphaltic mixture is then applied as before, this time to the outer surface of the woven fabric, forming the second asphaltic coating D. More than one such coating may be applied, if desired, to secure the requisite thickness. Over the last asphaltic surface I then sift as much dry hot pulverized calcareous material as the asphaltic mixture will absorb, forming the outer calcareous coating E. The mass is then allowed to set and indurate, and thereby a tight-fitting jacket is formed around the timber of a firm stone-like hardness impervious to the attacks of marine insects and natural decay.

The calcareous material best suited to my purpose and heretofore used by me with great success is a species of sand found in Florida, and consisting of decomposed shells and corals. Where this cannot be obtained, dry hot unslaked lime or any pure calcareous material may be used.

I have described the invention as applied to piles; but it may be applied to other timbers and wooden structures as well.

I am aware that the use of asphaltum in other compositions and that pulverized shells in other compositions for piles have been heretofore known, and I do not broadly claim these elements in any composition for coating piles, but base my claim on the special composition of the asphaltum and calcareous material or unslaked lime and in the special results of these two elements in connection with the fabric, as explained.

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

1. A pile or timber having a covering of
5 asphalt, (pure or mixed,) a fabric, and calca-
reous material, substantially as described.
2. A pile or timber having a covering of
asphalt, (pure or mixed,) a fabric, and un-
slaked lime, substantially as described.
- 10 3. A pile or timber having a covering of

asphalt (pure or mixed) applied directly to the wood, a fabric applied thereon, a second asphaltic layer on the fabric, and an outside calcareous layer, substantially as described.

In witness whereof I have hereunto set my 15
hand and seal.

GEORGE PHILLIPS. [L. S.]

Witnesses:

W. C. MALONEY,
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