

(No Model.)

G. PHILLIPS.
PILE OR TIMBER.

No. 414,250.

Patented Nov. 5, 1889.

Fig. 1.

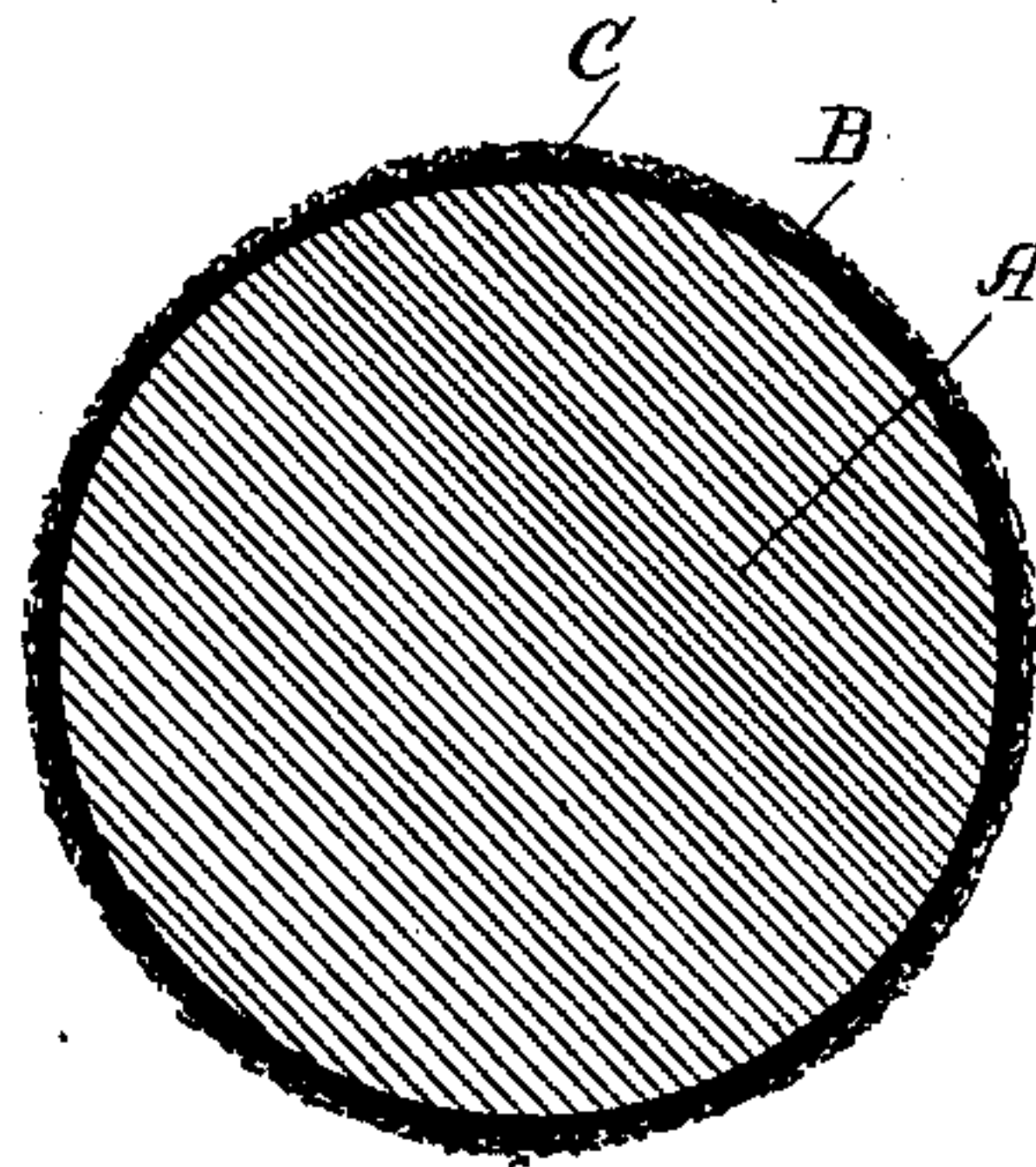
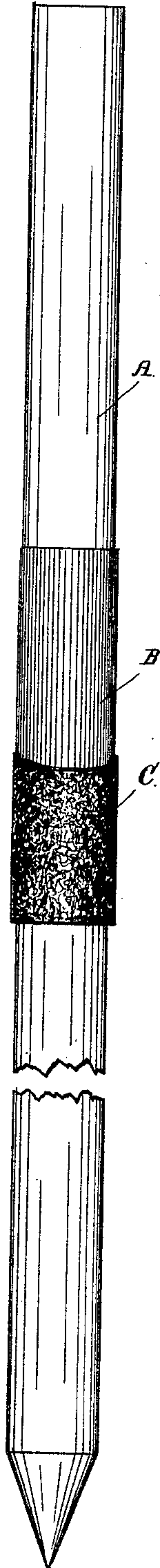


Fig. 2.

Witnesses:
M. Cornell.
L. Agee.

Inventor:
Geo. Phillips.
By Langhorne Miller
His atty.

UNITED STATES PATENT OFFICE.

GEORGE PHILLIPS, OF KEY WEST, FLORIDA.

PILE OR TIMBER.

SPECIFICATION forming part of Letters Patent No. 414,250, dated November 5, 1889.

Application filed November 24, 1888. Renewed September 17, 1889. Serial No. 324,178. (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, primarily, 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 formed by applying to the outer surface of a stick of timber a coating of boiling-hot asphalt, or a mixture of boiling-hot asphalt and mineral tar, and then applying to the asphaltic surface as much dry, hot, calcareous material as the asphaltic surface or coating will absorb, and allowing the mass to set and indurate, thus producing a pile or building-timber consisting of an interior body of wood and an outer coating or coatings of asphaltic and calcareous materials.

The nature of my invention is illustrated in 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 covering.

B represents a section of the pile after the asphaltic covering is applied, and C represents a section of the pile after the coating of calcareous material is applied to the 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 for 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. Over the asphaltic surface I then sift as much dry, hot, pulverized calcareous material as the asphaltic mixture will absorb, forming the outer calcareous coating C, which represents the external appearance of the completed pile. 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 much success, is a species of sand found in Florida, and consisting of decomposed shells and coral. Where this cannot be obtained dry, hot, unslaked lime, or any pure calcareous material may be used.

I wish it to be understood that I do not claim, broadly, the use of asphalt, either alone or in composition with other materials, as a coating of piles; nor do I claim, broadly, calcareous material for such purposes, as the use of pulverized shells has heretofore been known in connection with tar and pitch for coating piles, as in what is known as the "Dutch process." My invention is limited to the specific compound of asphaltum (pure or mixed) and a calcareous material, the new effect of which is due to the union of these elements. The result is more especially marked when the calcareous material is first heated, and thereby in whole or in part calcined, or when the unslaked lime is used.

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

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

1. A pile or piece of timber having an inclosing-jacket composed of asphalt, either pure or mixed, and calcareous material, substantially as described.

- 5 2. A pile or piece of timber having an inclosing-jacket composed of asphalt, either pure or mixed, and calcined calcareous material, substantially as described.

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

GEO. PHILLIPS. [L. s.]

Witnesses:

W. C. MALONEY,
RAMON ALVAREZ.