

UNITED STATES PATENT OFFICE.

GEORGE PHILLIPS, OF KEY WEST, FLORIDA.

COATING FOR WOODEN STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 414,247, dated November 5, 1889.

Application filed November 24, 1888. Serial No. 291,819. (No specimens.)

To all whom it may concern:

Be it known that I, GEORGE PHILLIPS, a citizen of the United States, residing at Key West, in the county of Monroe and State of Florida, have made a new and useful invention—to wit, a Coating for Piles and other Timbers; and I do hereby declare that the following is a specification thereof.

My invention relates to the covering for wooden structures, and is designed to preserve such structures when exposed to water from decay and the attacks of marine insects, such as the *Teredo navalis*. It is designed, principally, for application to piles and the bottoms of water-craft, or may be used for other structures and in other situations.

The invention consists of a coating composed of an inner layer of asphaltic material applied directly to the wood, a second layer of fabric, and a third layer of asphaltic material, with an outside coating of pulverized calcareous material or unslaked lime. The preferred variety of asphalt is that of the Val de Travers in Switzerland, and the nearer the asphalt approaches that standard the better it is adapted for my invention.

In forming the coating the asphalt is reduced to a consistency of thick paint, which may be done by heating, great care being taken not to scorch or overheat it, and while asphalt is an essential ingredient some mineral tar may be used during the reduction to assist in thinning. In the reduced condition it is applied directly to the wooden surface with a brush or by emersion with one or more coatings, as the required thickness may demand. On the surface so coated I take some suitable fabric—such as canvas—with the edges of the strip overlapping, and fasten them by headed nails of copper or galvanized iron. Any kind of fabric may be used, even wire cloth or gauze. Over this fabric I apply a second layer of asphalt, and on this, while it is in a soft condition, I sift pulverized calcareous material as much as the asphaltic material will absorb. I have used for this purpose, in calcined condition, a kind of sand found in Florida, consisting of decomposed shells and coral; but instead of this I have used unslaked lime. Some such calcareous material is essential to my invention, but a

proportion of silicious sand may be mixed with it to save cost. The sand mixes to some extent with the soft asphaltum on the surface thereof, and for accomplishing these results I have heated the sand or lime, which unites with the asphalt and hardens, forming a jacket impervious to the action of the elements and the attacks of insects.

The asphalt adheres strongly to the wood and forms a firm protecting-coat, while the calcareous powder applied to the asphalt surface, as described, renders the surface hard and insect-proof.

I do not claim, broadly, asphaltum in any composition for the purpose above explained, as the use of it has been suggested in connection with sand or earth; nor do I claim the use of calcareous material as an element of the covering for exposed wood, as pulverized shells have been heretofore described for this purpose in connection with pitch and tar. I am aware, also, that asphalt and lime have been known heretofore as ingredients with other substances in pavements.

I do not herein claim the above-described process, that being the subject of another application filed in the United States Patent Office, Serial No. 219,821, of even date herewith.

I claim as my invention—

1. A coating for piles and wooden structures, consisting of an inner layer of asphaltum applied directly to the wood, a second layer of fabric fastened thereto, a third layer of asphaltum applied to the outside of the fabric, and an exterior layer of calcareous material, substantially as described.

2. A coating for piles and wooden structures, consisting of an inner layer of asphaltum applied directly to the wood, a second layer of fabric fastened thereto, a third layer of asphaltum applied to the outside of the fabric, and an exterior layer of lime, substantially as described.

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

GEO. PHILLIPS. [L. S.]

Witnesses:

W. C. MALONEY,
RAMON ALVAREZ.