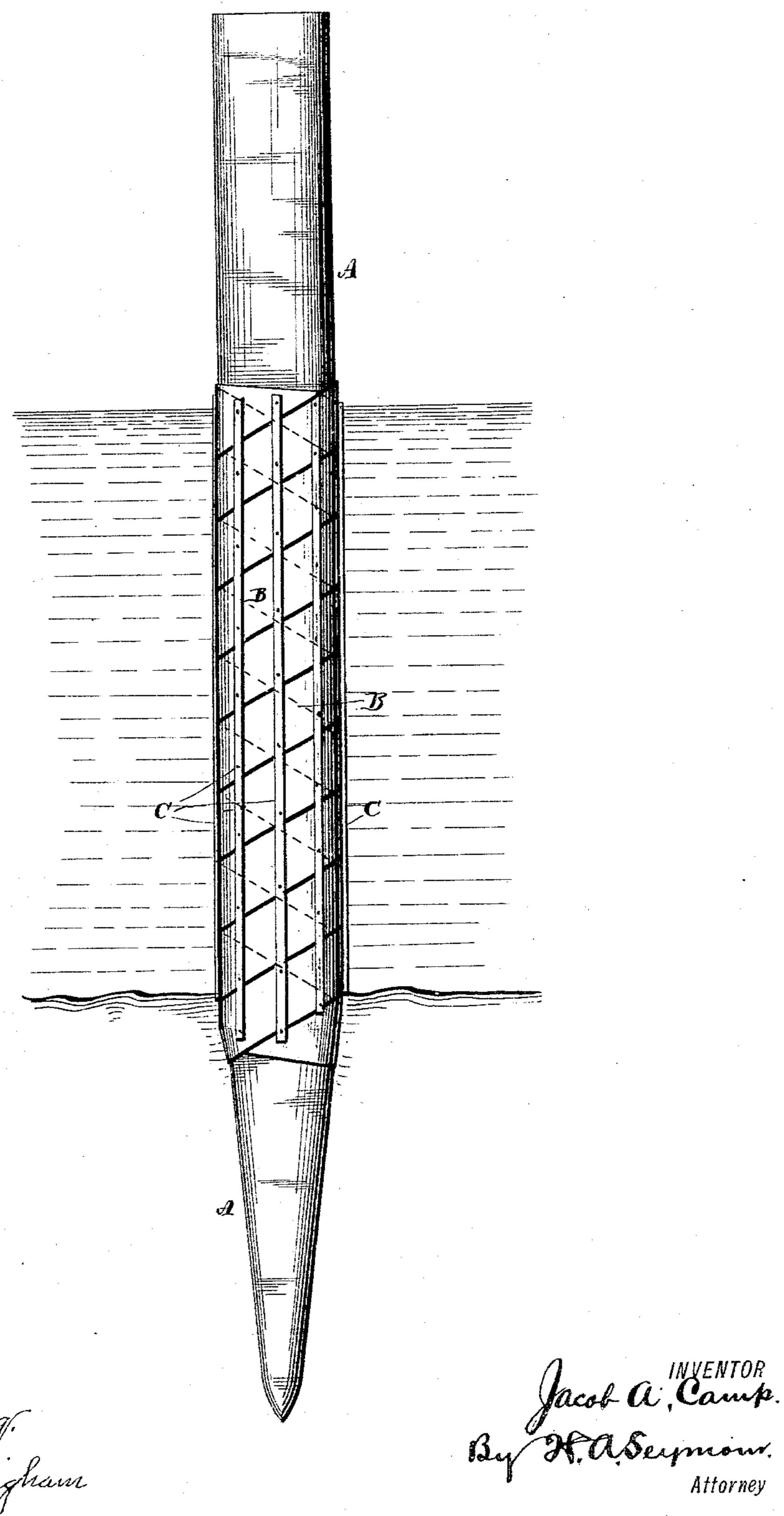
## J. A. CAMP.

PROTECTING PILES.

No. 300,343.

Patented June 17, 1884.



N. PETERS. Photo-Lithographer, Washington, D. C.

## UNITED STATES PATENT OFFICE.

JACOB A. CAMP, OF SANDUSKY, OHIO.

## PROTECTING PILES.

CPECIFICATION forming part of Letters Patent No. 300,343, dated June 17, 1884.

Application filed February 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB A.. CAMP, of Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful 5 Improvements in Method of Protecting Piles from Marine Insects; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains 10 to make and use the same.

My invention relates to an improvement in protecting piles from marine insects; and it consists in the peculiar manner of covering the whole or a portion of the pile, as will be 15 hereinafter more fully described, and pointed

out in the claims.

The accompanying drawings show one meth-

od of securing my improved covering to a pile. Heretofore many different methods have 20 been resorted to to prevent the destruction of piles by marine insects, and the experiments usually consisted in coating the piles with some adhesive substance supposed to be of a nature difficult for the insects to penetrate. 25 Some of these devices have succeeded in keeping the insects from the piles, but, owing to their brittleness or frangibility, are easily scaled off by boats or floating ice coming in contact therewith, and hence they soon become 30 useless; and the main object of this invention is to provide a covering for piles that will not only resist the invasion of the insects, but that will also remain intact and not liable to be scaled or broken by the rubbing of boats or 35 floating ice thereagainst. These insects require, for the destructive employment of their peculiar boring apparatus, a firm compact substance on which to attach themselves, and without such a surface is presented they can-40 not penetrate the wood. In view of this fact I have devised a manner of protecting the piles or other timbers, A, which consists, essentially, in first coating the whole or a portion of the pile with a preparation of asphalt or 45 other material, then winding a strip of canvas or other cloth spirally around the portion coated with the asphalt, and securing the spi-

ral strip to the pile. This covering is then

coated with a similar or any other prepara-

50 tion, and is covered by another strip wound

pile. The method, however, of protecting the pile can be varied, as desired. The fibrous covering of the piles is protected from abrasion while being secured in position and while 55 in the water by nailing over the same strips of boards C, either prepared to resist marine insects or not so prepared, or using for the same purpose strips of metal wound spirally around the pile when covered. The covering 65 need only be applied to that portion of the pile or timber submerged in the water; but it is better to have the cover extend down a slight distance into the mud.

Instead of first coating the pile with the 65 asphalt, the first layer of the covering can be lined or coated or otherwise impregnated with the asphalt or preparation thereof to cause it to adhere to the pile; or the fibrous covering can be coated either before or after it is 70 applied to the pile with asphalt or any other material that will render the covering more

durable.

I would have it understood that I do not confine myself to any particular manner of se-75 curing the covering to the pile or other timber, but consider myself at liberty to secure the covering in any manner, and to make such other changes as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Let-

ters Patent, is—

1. As a protection for piles against marine insects, a covering of cloth or other fibrous 85 material secured around a pile, and wooden or other strips secured to the outer face of the flexible covering for the purpose of protecting the latter against abrasion.

2. As a protection for piles against marine 90 insects, a covering of cloth impregnated with asphalt or other similar material, and secured around the pile, and wooden or other strips secured to the covering for the purpose of protecting the latter against abrasion.

3. The combination, with a pile wholly or partly coated with asphalt or other similar material, of a flexible covering secured around the pile and impregnated with asphalt or other similar material, and wooden or other strips 100 secured against the outer face of the flexible covering, substantially as set forth. spirally in the opposite direction around the

4. The combination of a pile wholly or partly covered with asphalt or other suitable material, a strip of canvas wound spirally around the pile and coated or impregnated with asphalt, and a second strip of fibrous material wound spirally in the opposite direction around the first strip, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib- 10 ing witnesses.

JACOB A. CAMP.

Witnesses:

GEO. F. DOWNING, S. G. NOTTINGHAM.