(No Model.)

J. W. CRARY.

INCASED PILE.

No. 352,045. Patented Nov. 2, 1886.

Fig. 2

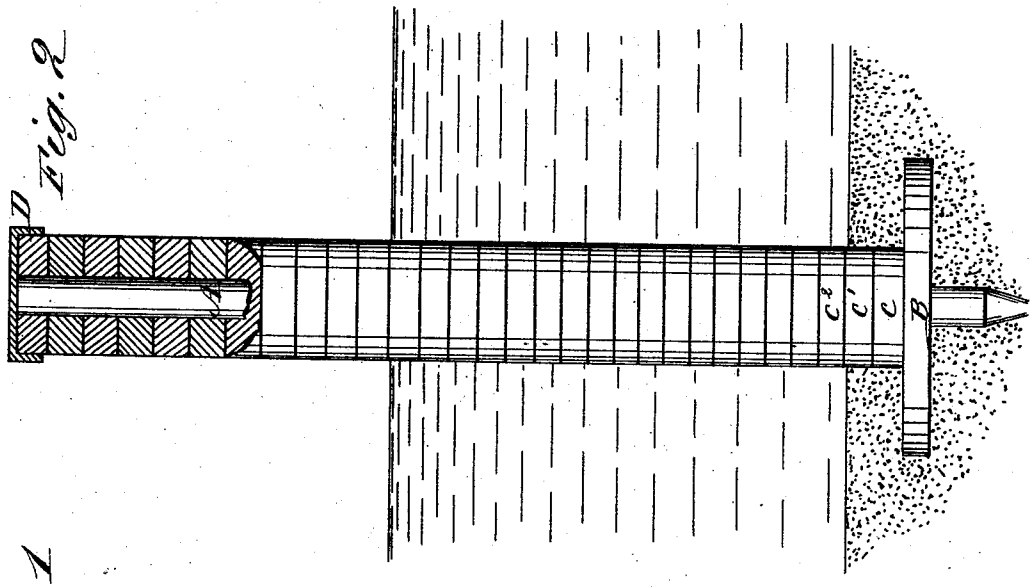


Fig. 1

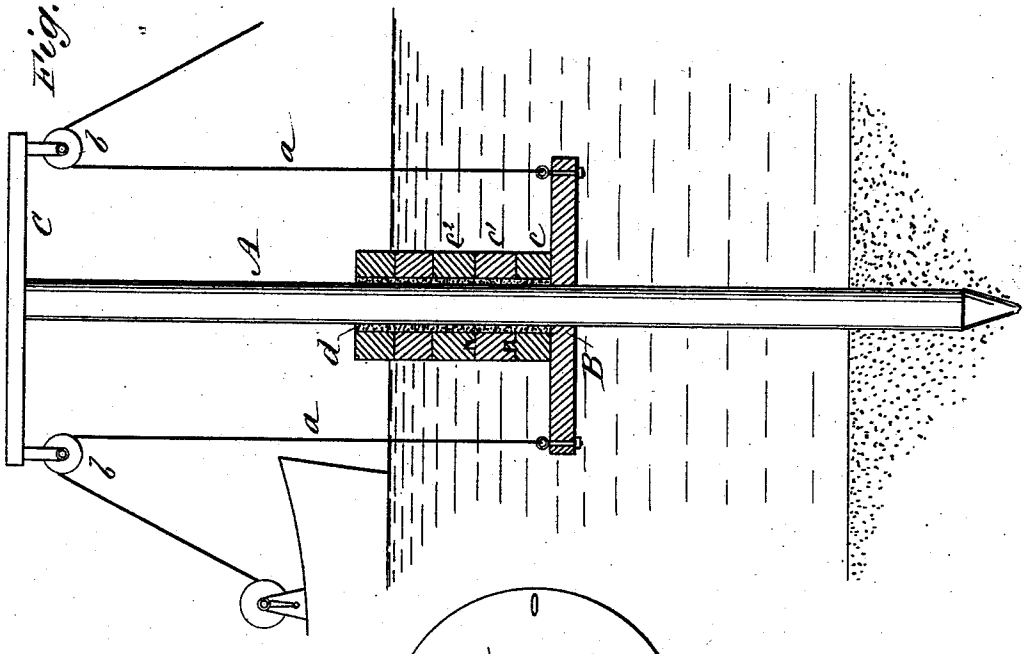
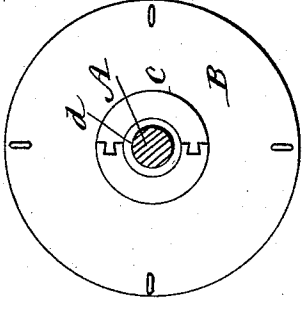


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN W. CRARY, OF BLUFF SPRINGS, FLORIDA.

INCASED PILE.

SPECIFICATION forming part of Letters Patent No. 352,045, dated November 2, 1886.

Application filed February 17, 1886. Serial No. 192,219. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CRARY, of Bluff Springs, in the county of Escambia and State of Florida, have invented a new and useful Improvement in Incased Piles, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation, partly in section, of a pile, showing the method of applying the casing to the pile. Fig. 2 is a side elevation of a finished incased pile. Fig. 3 is a plan view partly in section.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

The object of my invention is to provide an improved casing for driven piles, to prevent them from becoming worm-eaten, and to reenforce and strengthen them.

My invention is especially adapted to piles for piers, docks, bridges, and similar structures.

My invention consists of the construction and arrangement of parts, as will be hereinter described, and specifically pointed out in the claims.

In carrying out my invention, I drive the pile A in the usual way, and build around it a platform, B, which I suspend from one or more cross-bars, C, supported by the top of the pile, by means of ropes *a*, connected with the platform and extending over sheaves *b*, supported by the cross bar or bars to suitable mechanism for sustaining, raising, or lowering the platform B.

The operation of incasing the pile with brick or cement begins when the platform B is at the surface of the water in which the pile is driven. The first tier, *c*, of the casing is built directly upon the platform and around the pile, leaving a space, *d*, between the casing and the pile for cement. The second tier, *c'*, is laid upon the first tier, *c*, the third tier, *c''*, is laid upon the second tier, and as the different tiers of the casing are added in succession the platform B is lowered until it finally rests on the bottom; or it may be sunk below the general level of the bottom, as shown in Fig. 2, by any of the well-known means. When the casing is complete, the space *d* between the casing and the pile is filled with a suitable cement.

Instead of employing a single casing, as shown in Fig. 1, I may place outside of the tiers, *c' c''*, &c., other tiers of circular bricks, thus increasing the diameter of the casing, and correspondingly increasing its strength.

The bricks may be laid in close contact with the pile, as shown in Fig. 2, without employing cement between them and the pile, and instead of employing bricks to inclose the pile I may use tile pipes of clay or of cement of sufficient size to inclose the pile and receive between it and the pile sufficient cement to form a pier of the required diameter. After the last tier of brick or other material of which the casing is formed has been laid, the top of the pile is squared, and a metallic cap, D, is placed over the top for receiving the superstructure. If desired, the casing surrounding the pile may be conical or pyramidal. Where the bottom is soft, these forms would offer a large bearing-surface, and prevent the sinking of the casing below the bottom.

If desired, the platform B may consist of several rings or circles diminishing in diameter, which, when put together, would form a stepped cone or vase, upon the steps of which the different courses of brick may rest.

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

1. The combination, with the pile A, of the platform B, a casing of brick or analogous material resting on the platform, and means for supporting, raising, and lowering the platform, substantially as herein shown and described.

2. The combination, with the pile A, of the platform B, having a central aperture through which the pile passes, means for raising and lowering the platform on the pile, and the two-part circular section forming the casing resting on the platform and surrounding the pile, substantially as set forth.

3. The combination, with a pile, A, to be incased, of the platform B, having a central aperture through which the pile passes, a cross-piece, C, on the pile, pulleys *b*, and ropes *a*, secured to the platform and passed up over the pulleys, substantially as set forth.

4. The combination, with the pile A, of the platform B, a casing of brick or analogous material, and a metallic cap, D, resting on the top of the pile and casing, substantially as herein shown and described.

Witnesses: J. W. CRARY.

A. E. DE LA RHEA,

M. PALMÉS.