

(No Model.)

R. B. MARKLE.

PILE.

No. 395,448.

Patented Jan. 1, 1889.

Fig. 1.

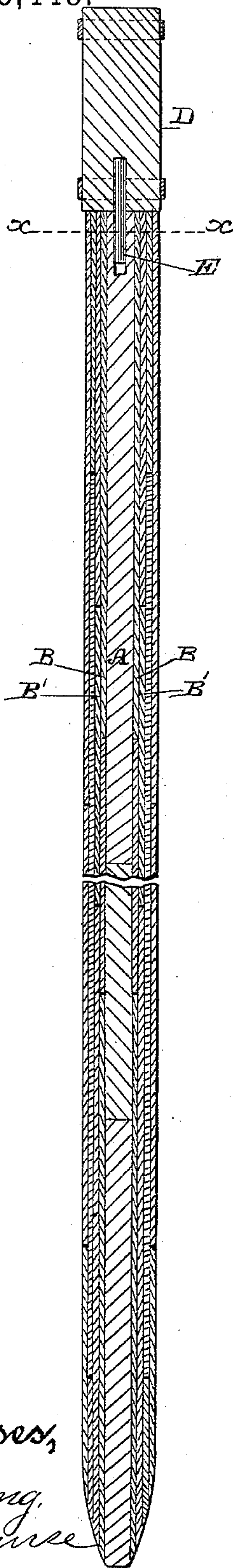
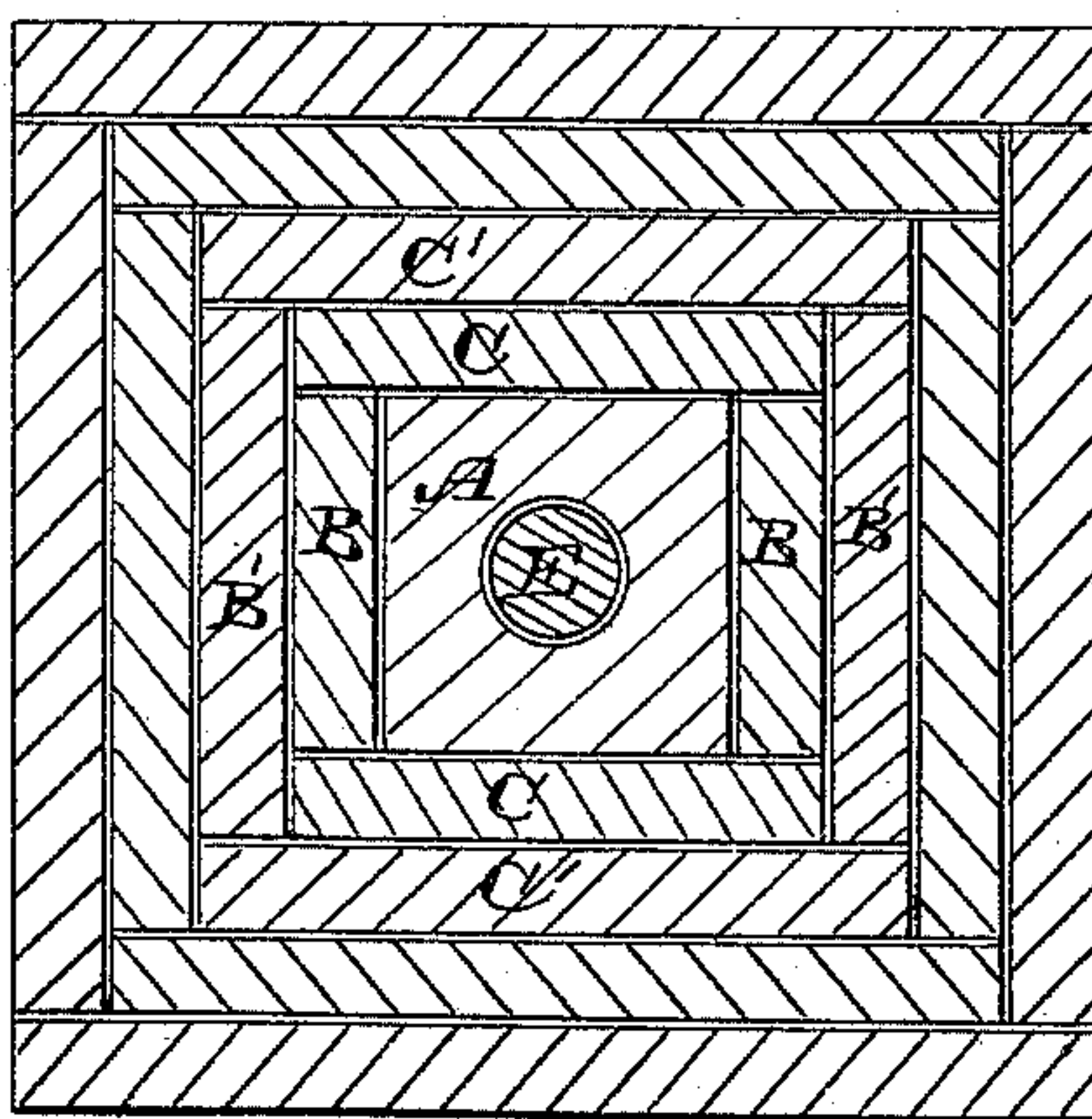


Fig. 2.



Witnesses,  
Geo. H. Strong,  
J. H. House

Inventor,  
R. B. Markle,  
By Derrvy & Co.  
attys



# UNITED STATES PATENT OFFICE.

ROBERT B. MARKLE, OF WESTPORT, CALIFORNIA.

## PILE.

SPECIFICATION forming part of Letters Patent No. 395,448, dated January 1, 1889.

Application filed August 21, 1888. Serial No. 283,373. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT B. MARKLE, of Westport, Mendocino county, State of California, have invented an Improvement in Piles; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a novel construction for piles; and it consists in building up a pile of boards or strips with intermediate layers of a preservative compound, the strips being so placed with relation to each other that the edges and sides of all the strips, except the outer ones, are inclosed and protected by the preservative compound.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a longitudinal section of a pile. Fig. 2 is a horizontal or transverse section of the same, taken through  $x x$  of the Fig. 1.

In the present case I have shown the pile constructed with a central square timber, A, about which the inclosing-strips B and C are secured alternately at right angles with each other until the proper thickness of diameter for the pile has been reached; but it will be manifest that the pile could be built of the strips alone without any especial central piece. The central piece or strip, A, may be made in a single piece longitudinally, or it may be built up of sections, as shown in Fig. 1, and the exterior strips, B and C, are also made in short lengths, breaking joints in such a way that no two adjacent joints will be opposite each other.

In building the pile the central core, A, is first smeared or coated with the preservative compound, which may be formed of asphaltum and coal-tar or any similar or suitable substances, either with or without a covering of fibrous material. The strips B are then nailed or secured upon opposite sides of the core A, these strips being of a width equal to the diameter of the core, so that their edges will be flush with its exposed sides after they are secured to it, as shown in Fig. 2. The width of these strips B is just equal to the diameter of the core A, and they may be of any suitable thickness. In the present case I have shown them as being one inch thick by four inches wide, the core being four inches square.

After the strips B have been applied and secured to the core A the strips C are secured upon the other two sides of the core A, these strips being of a width sufficient to overlap the edges of the strips B, which in the present case would make them six inches wide. Another coating of the preservative compound is then applied to the structure thus increased in diameter, and sections B' are secured over the sections B in the same manner that the sections B were secured to the core. The sections B' will have a width sufficient to cover the edges of the sections C, which in the present case would make them six inches in width. These having been secured in place, other sections, C', are secured over the sections C, their width again being increased to eight inches, so as to cover the exposed edges of the sections B', and in this manner the pile is built up to any desired diameter, each additional series of strips being coated with the preservative compound, as at first described. In order to give this compound more body, it may be found desirable to saturate burlap, felt, or other fibrous material in the compound, and then fasten it first around the core A, then around the exterior of the first layer of strips B C, and so on between each series until the full size of the pile has been reached. The object of this construction is to divide the pile into thin sections, between each of which is a layer of the compound, which serves to protect the wood, and also serves the further purpose of preventing marine insects from burrowing into the wood and destroying it, as it is a well-known fact that these insects will not cross seams or channels in the wood, especially when these seams are filled with any such compound as has been described. By alternately overlapping the edges of each interior series with the next additional series no edge or side is left exposed for the penetration and working of the insects.

The outer surface of the completed pile may be protected by an exterior coating or layer of the perservative compound; or if left unprotected the insects can only burrow into the thickness of this exterior coating, not being able to penetrate the intermediate compound placed between this and the next interior layer of strips.

By breaking the joints as previously described any length of pile may be constructed out of comparatively short lengths.

A shoe may be applied to the lower end, if  
5 necessary, to prevent its being broken or splintered if it is driven into hard ground, and a cap or ring, D, may be applied to the upper end to receive the blows of the hammer in driving. When this cap is applied, the pin E  
10 may be fitted to extend from the upper end of the core A into the cap, for the purpose of strengthening the connection, if found desirable.

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

1. A pile composed of the alternately overlapping sections secured together at right angles with each other, substantially as and for  
20 the purpose herein described.

2. A pile composed of alternately overlapping sections secured together at right angles, in combination with an intermediate filling of a preservative compound between each series, substantially as herein described. 25

3. A pile composed of strips or sections and overlapping each other successively at right angles, said sections being made in lengths, having the adjacent abutting end joints at a distance from each other, substantially as  
30 herein described.

In witness whereof I have hereunto set my hand.

ROBERT B. MARKLE.

Witnesses:

S. H. NOURSE,

H. C. LEE.