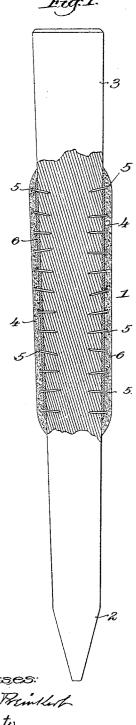
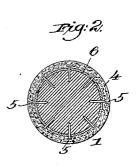
## G. D. COLEMAN.

PILE.

(Application filed Aug. 12, 1899.)

(No Model.)





Willnesses: Yolw F.C. Prinslesh QEH hyto. Slage D. Caleman, Sey his attorney, Phillips Huderson

## UNITED STATES PATENT OFFICE.

GEORGE D. COLEMAN, OF BOSTON, MASSACHUSETTS.

## PILE.

SPECIFICATION forming part of Letters Patent No. 645,941, dated March 27, 1900. Application filed August 12, 1899. Serial No. 727,010. (No model.)

To all whom it may concern:

Be it known that I, George D. Coleman, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Mas-5 sachusetts, have invented certain new and useful Improvements in Piles; 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 10 it appertains to make and use the same.

The present invention relates to wooden marine structures or parts of wooden structures portions of which are submerged in salt water, and more particularly to a wooden pile

15 provided with a protective covering.

The object of the present invention is to produce a pile or other portion of a wooden marine structure having that part which is submerged protected or covered in such man-20 ner as to prevent the teredo or other marine insect from destroying the same.

To the above end the present invention consists of the wooden structure provided with the protective covering, as will be here-

25 inafter described and claimed.

The present invention is illustrated in the

accompanying drawings, in which-

Figure 1 shows in side elevation and partial section a wooden pile provided with the 30 protective covering, and Fig. 2 shows a transverse section of the same through the protective covering.

Similar reference characters will be employed to designate corresponding parts 35 throughout the specification and drawings.

In the drawings, 1 represents my improved pile, having a sharpened end 2 and a head 3.

In the manufacture of my improved pile that portion which is subjected to the action 40 of the water, usually the central portion of the pile, as shown in the drawings, is preferably first freed from bark, and thus prepared to receive the protective covering. The protective covering is shown at 4, and con-45 sists of a comparatively-thick layer of refined asphalt, which is applied to the pile in any usual or convenient manner.

In order to secure and firmly anchor the

asphalt to the pile, I drive into the pile along that section which is to receive the protective covering a number of nails 5, leaving the heads of the nails projecting, as clearly illustrated in the drawings, and upon the projecting heads of the nails is laid the layer of asphalt 4, which is heated to a suitable de- 55 gree to facilitate its application to the pile, and it is applied so as to entirely cover and embrace the heads of the nails therein.

While the arrangement just described will answer in some cases, as in piles that have 60 been thoroughly seasoned and freed from sap, I prefer, in order to secure a close adhesion of the asphalt, to first apply to the pile a sheetmetal layer 6, which may be of wrought-iron or other suitable metal and which surrounds 65 the pile and is secured thereto by the nails By the application of the sheet-metal covering to the pile I secure a firm adhesion of the asphalt covering 4, which will adhere more firmly to metal than to wood.

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

of the United States--

1. A pile or other portion of a wooden marine structure provided with a plurality of 75 nails driven into the same with their heads projecting, and a protective covering of asphalt or other suitable plastic protective material, applied to the pile and anchored to the heads of the nails, substantially as described.

2. A pile or other portion of a wooden marine structure provided with a protective covering comprising a sheet-metal layer secured to the pile by nails, the heads of which project beyond the surface of the metal layers, 85 and a covering of asphalt or other suitable plastic protective material applied to the pile over the metallic layer and anchored to the heads of the nails, substantially as described.

In testimony whereof I affix my signature 90 in presence of two witnesses.

GEORGE D. COLEMAN.

Witnesses:

T. HART ANDERSON, A. E. WHYTE.