

J. C. DAVIS.  
EXTENSION CAPS FOR PILES.

No. 171,102.

Patented Dec. 14, 1875.

FIG. 1.

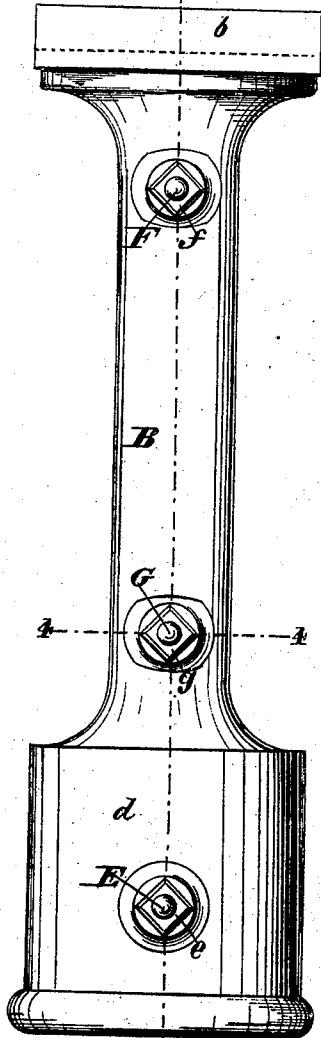


FIG. 2.

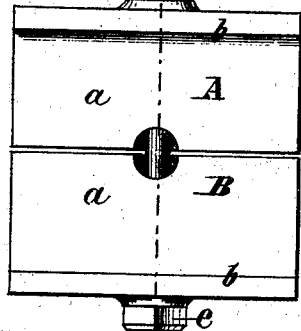


FIG. 3.

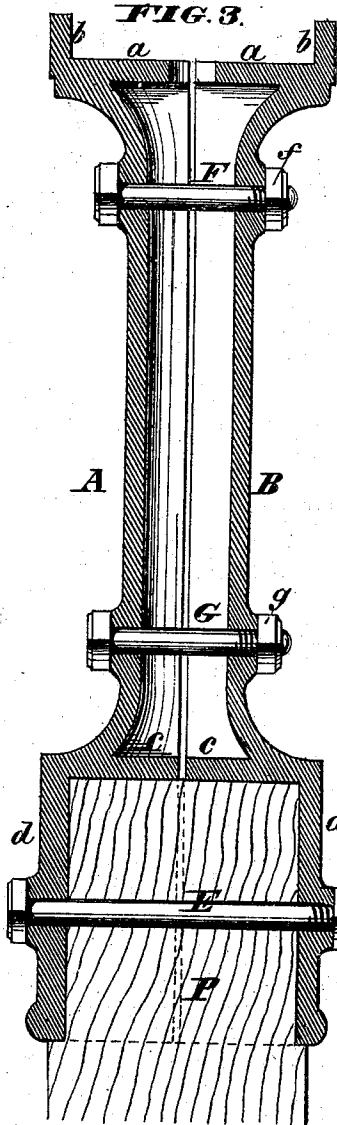


FIG. 5.

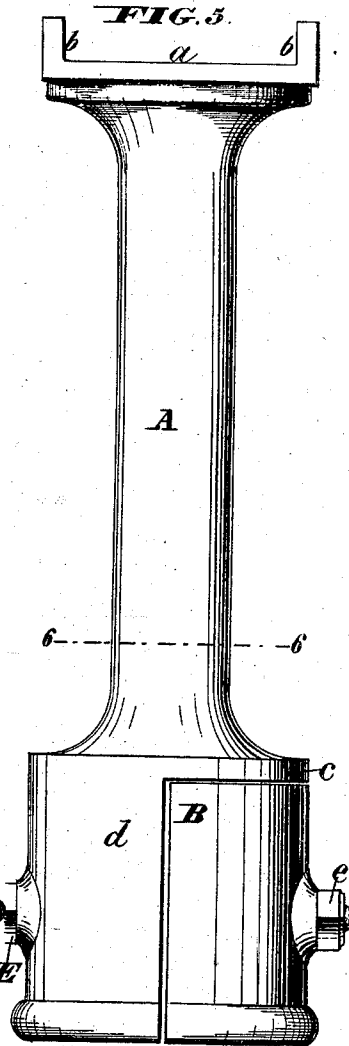


FIG. 6.

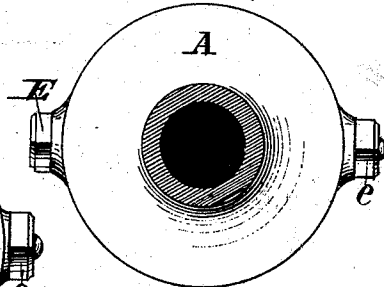
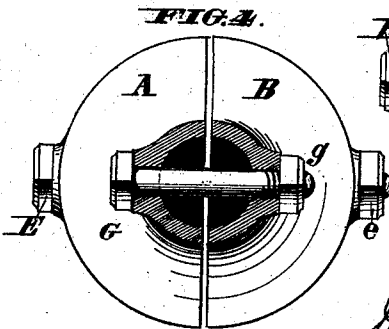


FIG. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN C. DAVIS, OF BALTIMORE, MD., ASSIGNOR OF ONE-HALF HIS RIGHT TO  
THOMAS J. HAYWARD AND EDWARD L. BARTLETT, OF SAME PLACE.

## IMPROVEMENT IN EXTENSION-CAPS FOR PILES.

Specification forming part of Letters Patent No. **171,102**, dated December 14, 1875; application filed  
November 6, 1875.

*To all whom it may concern:*

Be it known that I, JOHN C. DAVIS, of Baltimore, in the State of Maryland, have invented a new and Improved Extension-Cap for Piles, of which the following is a specification:

The object of my invention is to afford means for capping or renewing the tops of piles when they are decayed. To this end I provide a cap or extension, preferably made of cast-iron in two or more pieces, adapted to be clamped and firmly secured to the top of a pile, where the wood is sound, after the top has been sawed off below the point of principal decay, which generally takes place at medium tide.

In the accompanying drawings, Figure 1 is a front elevation of my improved pile cap or extension. Fig. 2 is a plan or top view of the same. Fig. 3 is a longitudinal section thereof on the line 3, Figs. 1 and 2, showing its application to a pile. Fig. 4 is a horizontal section on the line 4, Fig. 1. Fig. 5 is a side view, illustrating a modification. Fig. 6 is a horizontal section on the line 6, Fig. 5.

In Figs. 1 to 4, inclusive, A B represent similar castings, forming the two halves or parts of a pile cap or extension. P represents a portion of a pile which has been sawed off to receive said cap. The two parts of the cap are constructed at the top with horizontal flanges *a b*, adapted to receive and support sills or framing, or floor-timbers of any structure which is to be sustained by the piles. They are also constructed with horizontal flanges *c*, to rest on the top of the pile where the latter is sawed off, and with semi-cylindrical flanges *d* at their lower ends, which form together a socket to embrace the top of the pile P, as shown in Fig. 3. E represents a bolt passing through the socket-flange *d* and pile P, and receiving a nut, *e*, to bind the whole firmly together. F G are bolts connecting the upper and intermediate portions of the two parts of the extension-cap. *f g* are nuts on the bolts F G. The bolts may be one inch in diameter.

In the modification shown in Fig. 5 the hollow column A of the pile-extension is cast in one piece with one half, *d*, of the annular

socket-flange, the other part, B, constituting a semi-cylindrical plate, forming one-half of the socket, and firmly clamped to the top of the pile by a bolt, E, and nut *e*.

The structure may be made of either cast or wrought iron, and may be varied in shape and dimensions without departing from the essential principles of the invention. It may have any shape of cross-section preferred, and the parting to form the two parts of a clamp may extend to the entire length, or may terminate at any point below the top, if preferred.

The invention is designed for capping piles when they become useless from decay, which generally takes place at medium tide. The pile must be cut off where the wood is sound, and then trimmed to diameter of casting, which may be ten, twelve, or fourteen inches, according to dimensions of piles, as the casting is in two pieces, with three one-inch-diameter bolts to hold them firmly together when in place, one bolt passing through top of pile eight inches down from top.

When the pile is squared off the castings stand one-half an inch apart, so that when the bolts are put in they will draw the castings firmly to the wood, the remaining bolts to be placed at intermediate points between the bolt and under edge of flange that receives floor-timber. The floor of casting under edge of floor may have two one-inch-diameter bolts, for bolting timber down firmly to cast-iron cappings.

The castings must be painted with paint that will resist the action of water, or galvanized from two feet to three feet from bottom up before being used.

I have used the term "casting," as descriptive of a mode of applying my invention, which I deem economical and effective; but I do not desire to be understood as limiting my claim to the use of cast-iron.

It is manifest that wrought-iron or other metal or material may be used, if preferred, without departing from the essential features of my invention.

I am aware that hollow iron piles have been constructed in various modes, and that such

piles have, in some instances, been used in connection with lower sections of wood.

My invention differs from the above in its capacity for being applied to piles which are already in position, in the manner explained.

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

The divided or two-part extension-cap for piles, constructed and adapted for application in manner substantially as herein set forth.

JOHN C. DAVIS.

Witnesses:

EDWARD L. BARTLETT,  
AB. M. BRISCOE.