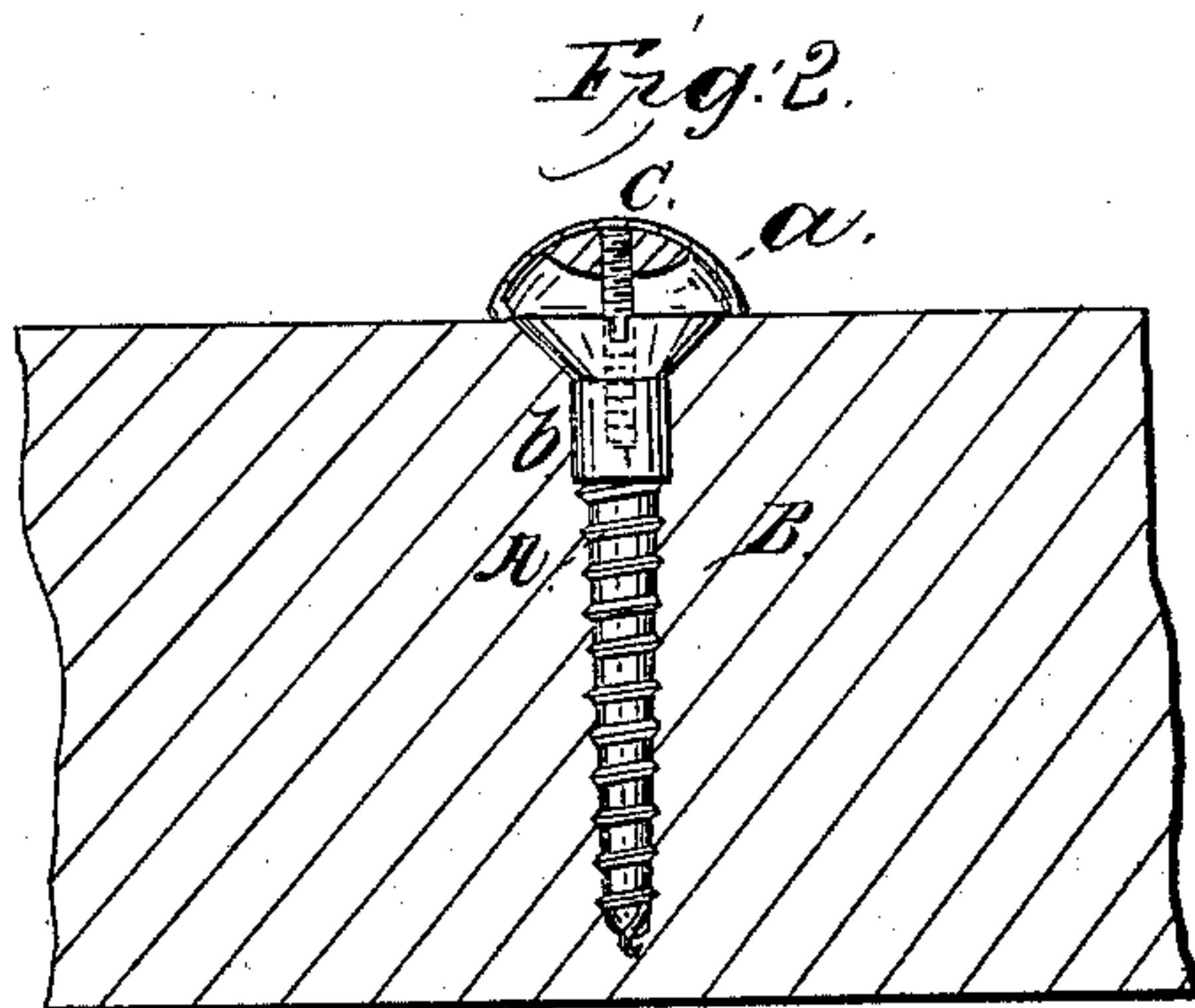
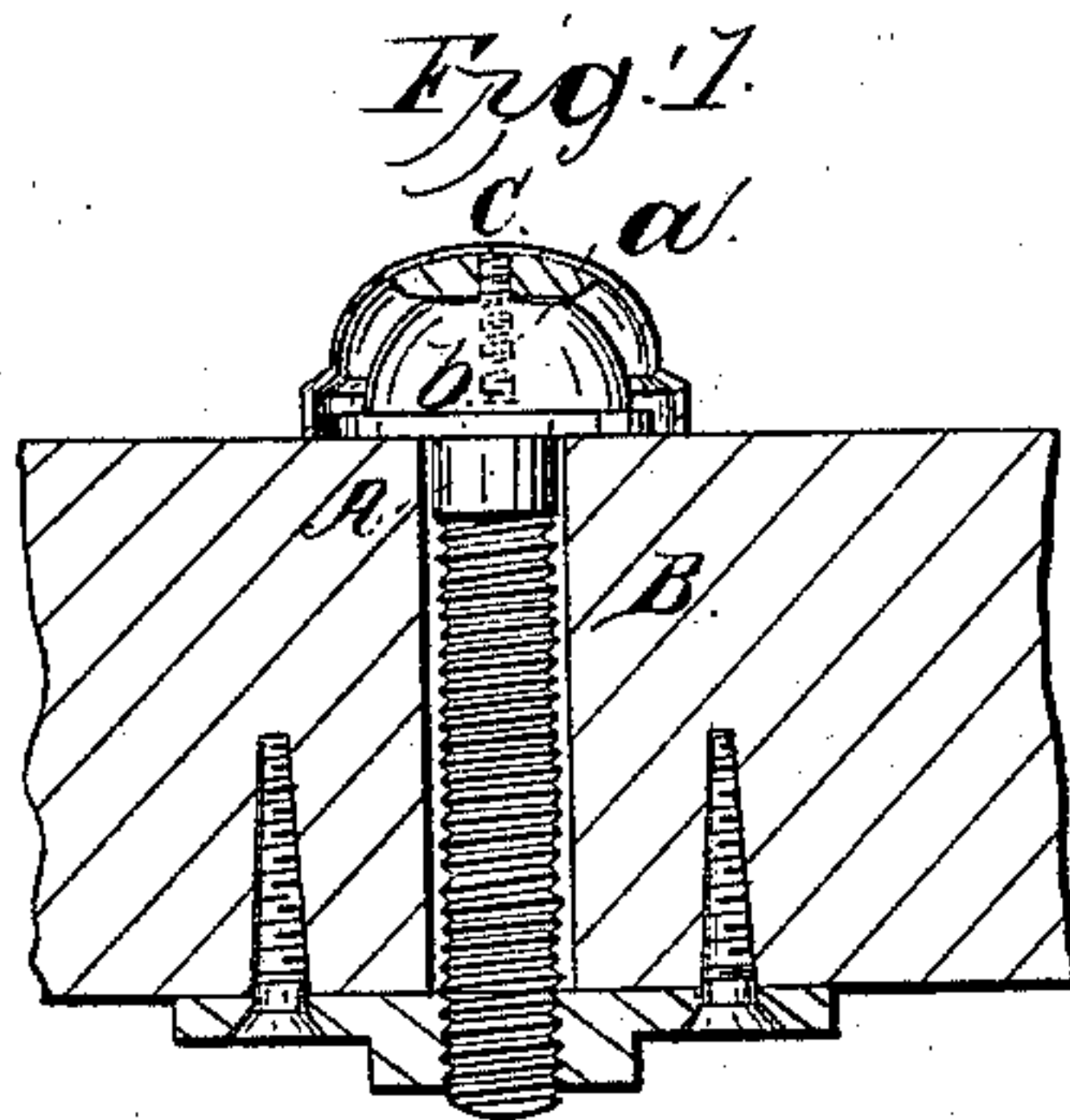


J. Gardner,
Capping Screws.

Nº 70,193.

Patented Oct. 29, 1867.



Witnesses:
W. B. Bury
Charles D. Page, Jr.

Inventor:
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by his attorney
A. Pollock

United States Patent Office.

JOHN GARDNER, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 70,193, dated October 29, 1867.

IMPROVEMENT IN CAPPING SCREWS.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, JOHN GARDNER, of New Haven, in the county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in Capped Screws, and in the method of capping the same; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

My invention relates to that class of screws known as capped screws, or screws in which the head is covered by a cap of metal or other suitable material, which serves at once as an ornament and a protection to the head.

The object I have in view is to so combine the cap with the screw that the cap shall be detached, and capable of being applied with facility to the screw, either before or after the insertion of the latter into the wood or other material with which it is used.

To this end my invention consists in the combination, with a screw of ordinary or suitable manufacture, of a cap, provided with a screw-stem located centrally upon the under side of said cap, and fitting in a socket formed for its reception in the head of the screw. When the screw has been inserted in the wood, the stem of the cap is inserted in the orifice formed in the head of the screw, and the cap is then screwed down tightly over the screw. By making the under surface of the cap concave, the edge of the cap is the only part which bears upon the wood or other material which surrounds the screw, and by this means the position of the cap may be more certainly assured than if the bearing-point were nearer the centre of the cap.

The advantages which result from my invention, as above stated, are as follows:

First. By capping the screw after insertion, the cap is not liable, as is the case where the ordinary capped screw is used, to be injured or defaced by the screw-driver or other instrument by which the screw is forced home, but it preserves its original appearance unimpaired. It can, therefore, be much more highly ornamented and made of more fragile material than the ordinary cap, without the danger of being broken or injured to which the latter would be subjected.

Second. As the cap is made without any nick or hole, it not only presents a more uniform and ornamental appearance than the ordinary slotted or perforated cap, but it also completely covers the screw-head and its nick, and prevents it from becoming rusted, and thereby unfitted for use.

Third. By making the cap detachable or removable, I am enabled to fit caps of any style or pattern on the same screw, and to change the pattern as often as desired, or renew the cap whenever it becomes worn or tarnished, without moving the screw or taking it from its seat.

To enable those skilled in the art to understand and use my invention, I will now proceed to describe the manner in which the same is or may be carried into effect by reference to the drawings, in which—

Figure 1 is a vertical central section of a cap-screw, and

Figure 2 a like section of an ordinary flat-headed screw, both of which are capped in accordance with my invention.

The cap C, which is applied to the head of the screw A, is made of metal or other suitable material. Its general form, as shown in the drawings, is concavo-convex, but it may, of course, have any other required form. From the under side of the cap extends a central stem, *a*, which is secured to the cap by solder or other means. This stem is intended to fit in an orifice or socket, *b*, of corresponding size, formed in the top and centre of the screw-head.

After the screw is inserted in the wood or other material B, where it is to be used, the stem *a* is inserted into the socket *b*, and the cap is pressed down upon the screw until its edges or its under side come in contact with the screw-head or surrounding wood. In order to facilitate the operation of adjusting the cap, the stem *a*, which is made of any suitable metal, is screw-threaded, and a like thread is cut in the socket *b*, so that by turning the cap in one direction or the other it can be either attached to or detached from the screw-head. It will be noticed that by giving a concave form to the under side of the cap C only the edge of the cap bears upon the screw or the material surrounding the screw. This is quite an essential feature of my invention, as the cap is in this manner more firmly and tightly held in position, and in all respects less liable to become injured or displaced than if its under surface were flat, so as to be brought in contact with the entire surface of the head of the screw, shown in fig. 2. I propose to make the cap C not only of metal, but of porcelain, glass, and any

other material which I may find to be adapted to my purposes. This material may be moulded or otherwise shaped in different patterns, and ornamented more or less, as desired.

It is apparent that the cap C can at any time be removed from the head of the screw, and another substituted for it. The absence of the nick or slot by which the ordinary capped screw is disfigured contributes to enhance the beauty as well as the superiority and utility of any cap constructed in accordance with my invention.

Having now described my invention, and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the cap and screw-stem fast to the cap, with the screw-head and socket or orifice formed therein for the reception of the said stem, under the arrangement and for operation as set forth.

2. In screws in which the cap and its central screw-stem are combined with the head of the screw, as described, I claim making the under surface of the said cap concave, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

JOHN GARDNER.

Witnesses:

H. T. BLAKE,

E. K. BLAKE.