

No. 704,501.

Patented July 15, 1902.

P. BOLLER.

BUTTON HOLDER FOR UPHOLSTERING MACHINES.

(Application filed Oct. 29, 1901.)

(No Model.)

Fig. 1.

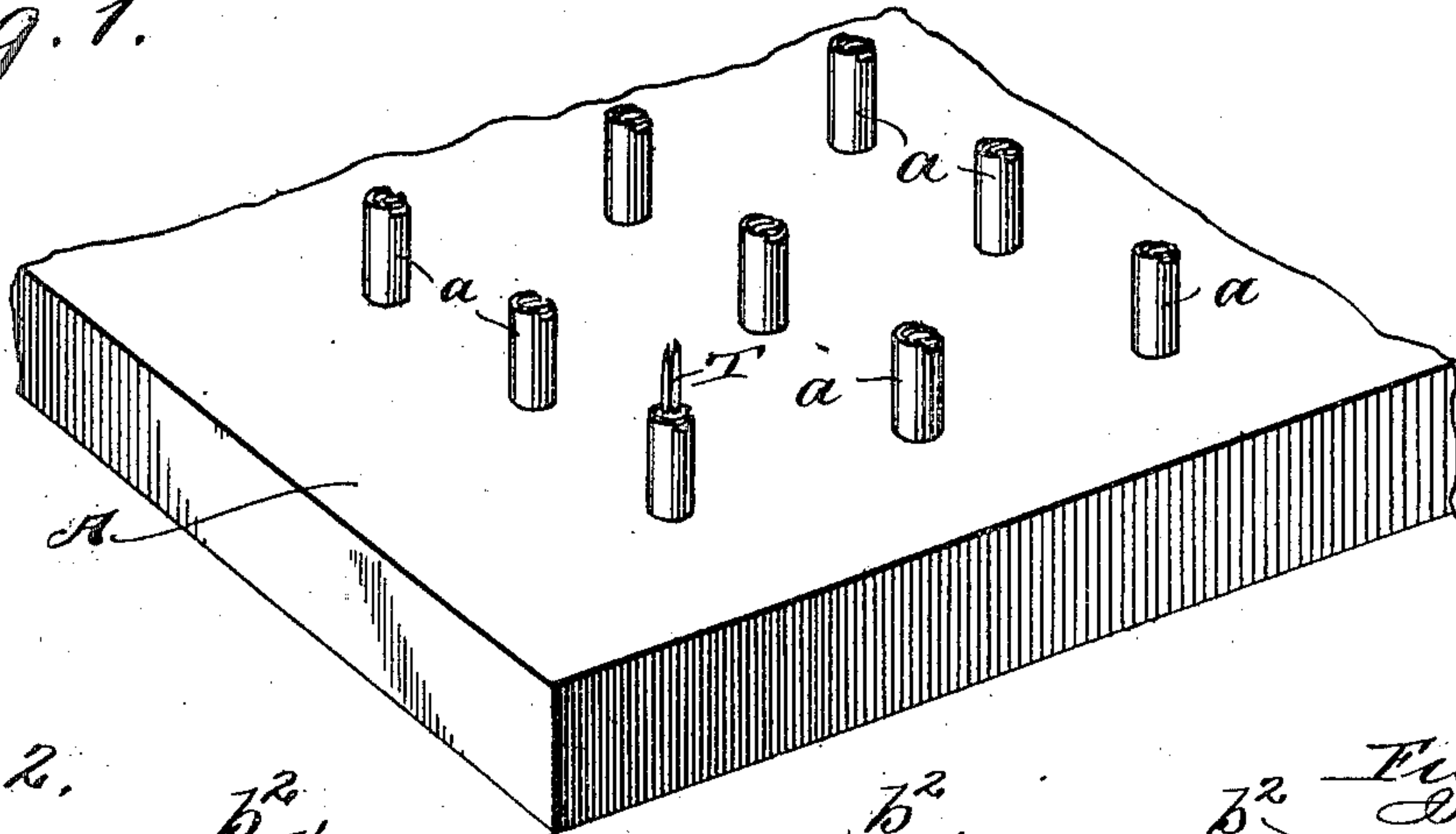


Fig. 2.

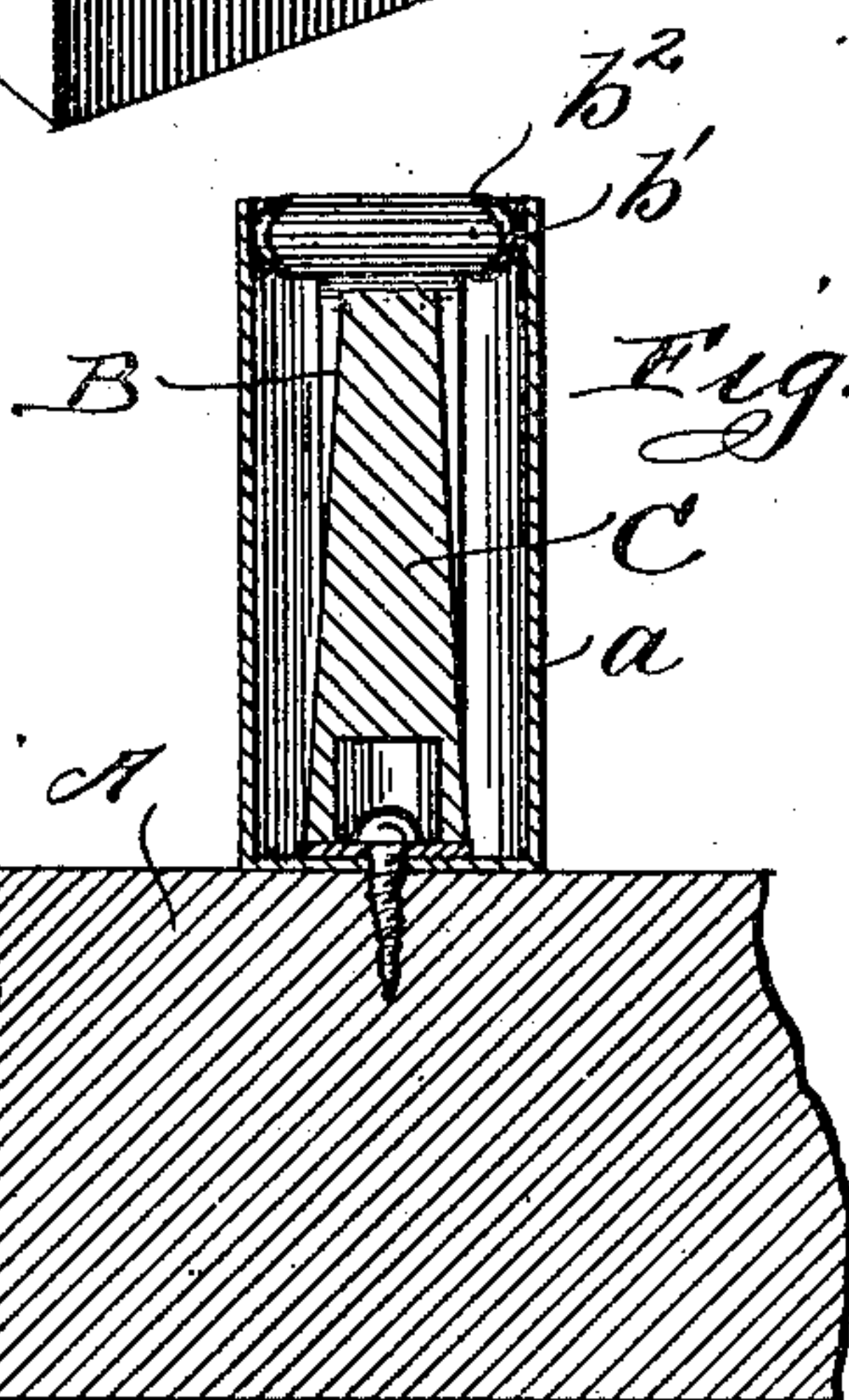
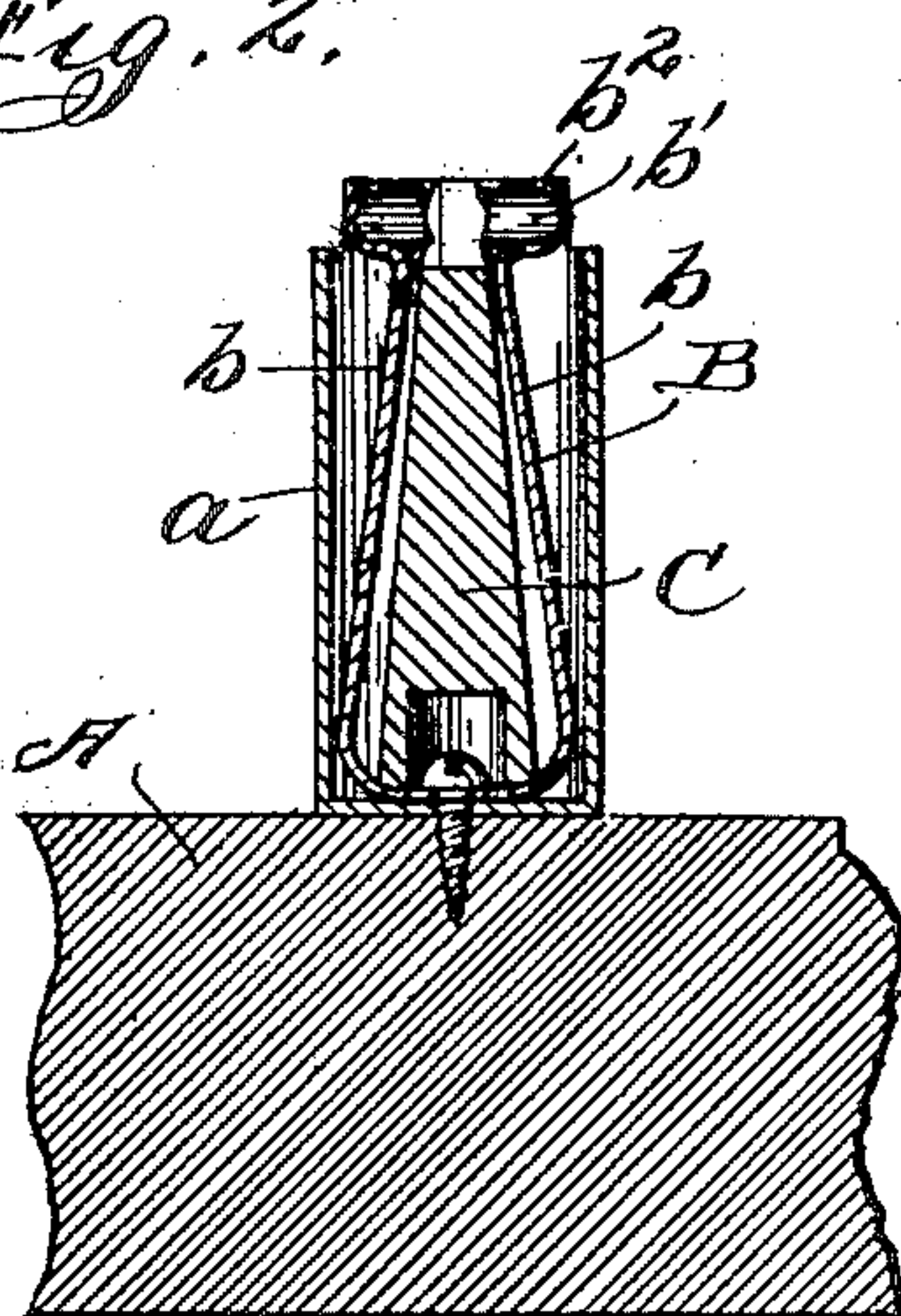


Fig. 4.

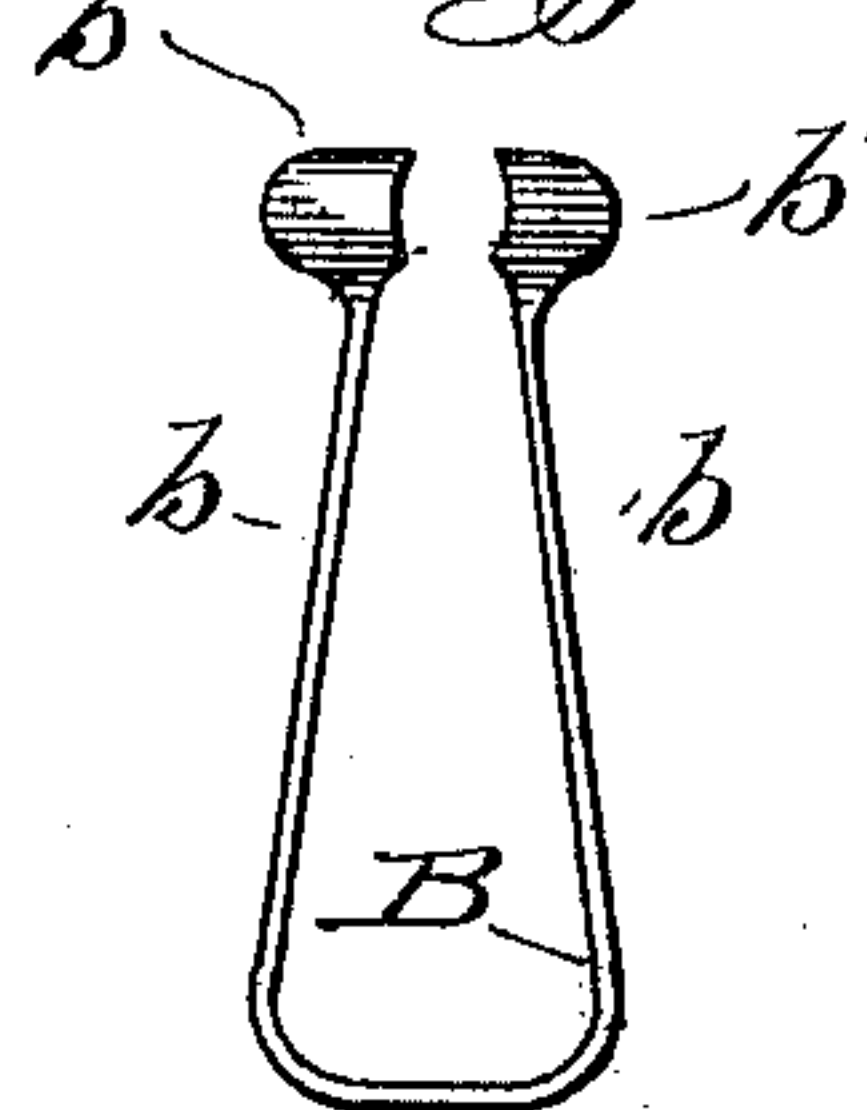


Fig. 5.

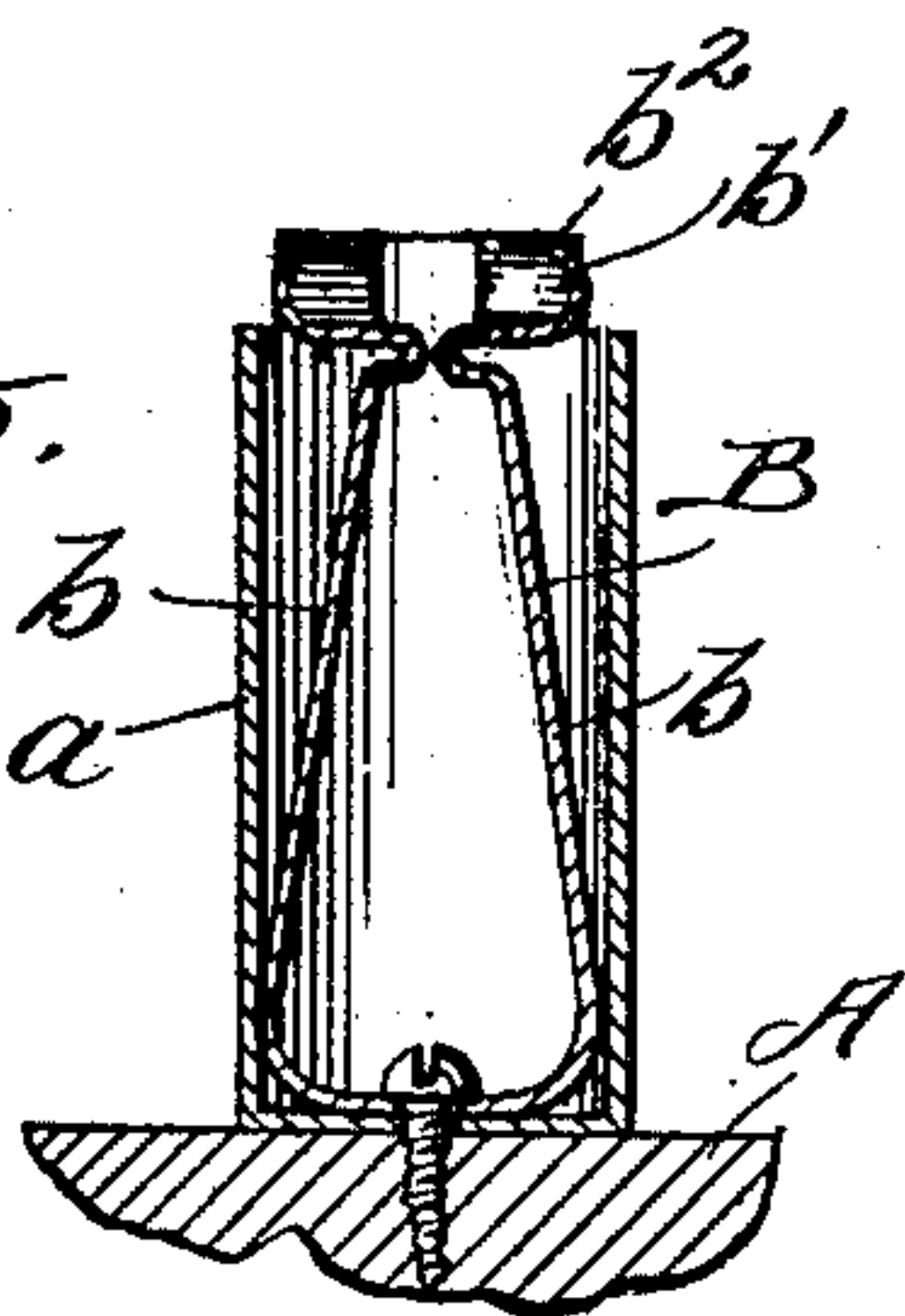
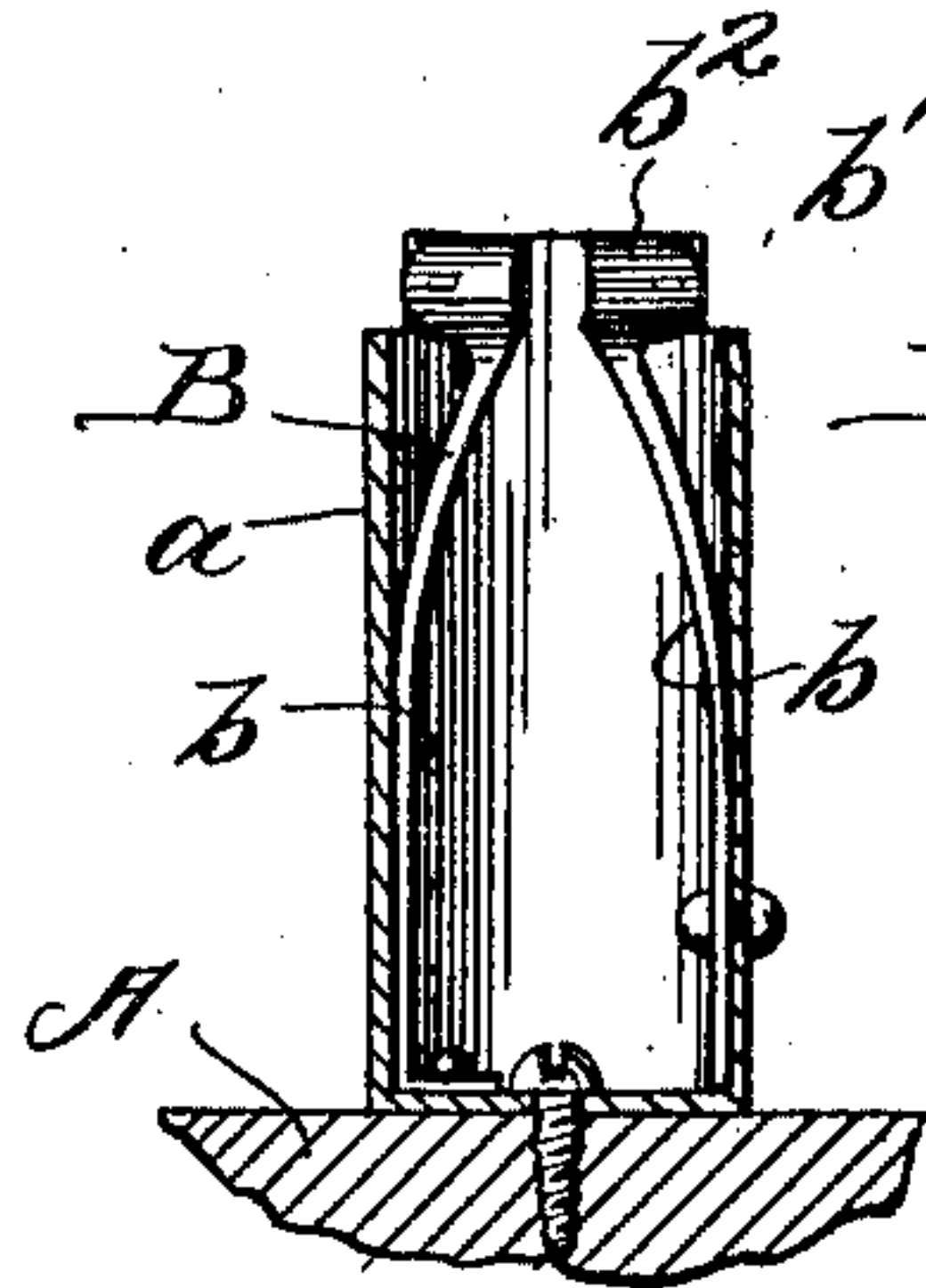


Fig. 6.



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UNITED STATES PATENT OFFICE.

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BUTTON-HOLDER FOR UPHOLSTERING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 704,501, dated July 15, 1902.

Application filed October 29, 1901. Serial No. 80,404. (No model.)

To all whom it may concern:

Be it known that I, PETER BOLLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Button-Holders for Upholstering-Machines, of which the following is a specification.

Tufting-machines or apparatus for making tufted cushions for use in upholstering are provided with a plurality of upwardly-projecting tufters or tuft-forming devices which are spaced apart upon the upper surface of the mold or former to correspond with the number and location of the depressions or tuft-pits in the cushions or pad in which the outer and inner coverings are secured together. In the form of such machines now generally used these tufters are generally in the form of posts, which provide seats for headed clench-buttons or tufting-nails, preferably by some suitable means affording detachable connection, by which the buttons or nails are securely held with their points or shanks directed outwardly and in extension of said posts while the process of making the cushion is being carried out and from which the buttons are adapted to be detached to serve as the means of securing the inner and outer coverings of the cushion together. A cushion or pad which machines having my invention are adapted to produce consists of an upper or outer covering of cloth, leather, or the like, a lower covering or backing of burlap, cardboard, or other suitable material, and a filling of hair, moss, or like material, the filling being divided into a number of elevated, rounded, or diamond-shaped projections and the inner and outer coverings being secured together in the tuft-pits between said elevations by suitable tuft buttons or nails, whose shanks or prongs pass therethrough and through suitable apertured disks or washers, over which they are clenched. Heretofore the button-heads were frequently displaced from their seats on the tufting-posts or so moved in the same as to change the upright or axial position of their prongs by manipulation of the various materials in the several steps necessary to complete the cushion, thereby causing delay and damage in the work. The seats provided at the

heads or ends of the posts for the heads of the buttons were not of such construction and arrangement as to securely and rigidly maintain the prongs in their axial extension of the posts, such as the spring-jaws, either formed integrally with the posts or upon thin metallic collars secured to the upper ends thereof, and the clamping members or jaws coöperating with tubular supports in which the jaws rested by their own weight. In the former case the grasp of the jaws was not sufficient to insure the retention of the buttons in position, and in the latter case the jaws were often bodily displaced from their tubular seats by the strain of positioning or manipulating the material, thereby disarranging the buttons. In other forms of holders the cloth covers of the heads are injured when being inserted between or removed from the small spring-fingers with which they are provided. Also in machines of this character as heretofore constructed the button-holders were not adapted to retain buttons having heads of different sizes.

The objects of my invention are to overcome these defects and to provide a novel and improved form of holder for tuft-buttons for upholstering apparatus in which the buttons shall be firmly held in position with their prongs directed outwardly or in extension thereof and from which they may readily be detached to tuft the coverings together after the prongs have been bent; also, to provide button-holders of this class which will retain and accommodate tuft-buttons having heads of different sizes.

The various novel features of my invention will be hereinafter described, and clearly pointed out in the following claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of a part of a moldboard provided with one form or embodiment of my invention. Figs. 2 and 3 are sectional views on the lines 2 2 and 3 3, respectively, of Fig. 1. Fig. 4 is a side elevation of the clamping element or member in its preferred form of construction, and Figs. 5 and 6 are views of modifications hereinafter described.

In the drawings like letters of reference refer to similar or corresponding parts in the various views.

The reference-letter A represents a mold or former in the form of an open-topped box having side and end walls in the usual manner of this class of devices. The base-board of the mold is provided with a plurality of upwardly-projecting tufters, preferably in the form of tubes or hollow posts, which are arranged upon the upper surface thereof in any desired manner to produce any predetermined pattern or style of tufting in the finished cushion or pad, it being understood that "diamond," "biscuit," or other shaped projections or elevations may be made in the upper face of the cushion, the tufters being spaced and arranged to correspond with the number and locations of the depressions or tuft-pits in the cushion and arranged opposite the points in the cushion at which the outer and inner coverings are secured together by clenching or bending the prongs or shanks of the buttons. The clench-nails or tuft-buttons T are supported at the upper ends of these tufters *a*, and for the purpose of securely holding the buttons with the prongs in axial projection of the tufters during the various steps of forming the cushion the end of each tufter is provided with a seat, preferably constructed to form a clamp, which receives and rigidly holds the head of its associated button.

The reference-letter B represents a clamp which is composed of two spring-arms *b*, which in the preferred form of construction are united at their lower ends in integral formation and provided with holes or perforations in the cross-piece to receive attaching-screws, whereby they are secured in position upon the bottom of the mold. The clamps are preferably tapered from their lower ends toward the top, presenting exteriorly a slightly cone-shaped configuration. The upper ends of the arms or jaws are preferably flared outwardly and are extended slightly laterally. The ends are provided with semi-circular recesses *b'*, each having a curved and overhanging flange *b''*, so that an annular button-seat is provided in which the head of the tuft-button is held with its shanks extending upwardly, as shown in Fig. 1.

A supporting block or anvil C is preferably provided to cooperate with each holder and is arranged in an upright position within the body of the clamp. In the preferred form of the embodiment of my invention these anvils or plugs consist of tapered blocks whose cross-section below the top is somewhat larger than the opening between the bases of the recesses *b'*, whereby the blocks will not drop out when the mold is inverted. The upper ends of the anvils or blocks are flush with the seats formed by the recesses, whereby the heads of the buttons are given a firm backing during the various operations of forming the cushions, and also buttons whose heads are of relatively small size will be seated in proper position and will not pass down into the hold-

ers to inoperative position, as in the case where the ordinary hollow holders are employed.

It is obvious from Fig. 4 that in the ordinary operations of upholstering cushions, pads, &c., the holders need not be associated with tufting-tubes *a*, as they perform their functions equally well when the tufting-tubes are omitted; but in processes requiring the use of what are known in the art as "plaiting-tubes" or "plaiters" the outer jackets or tubes *a* are employed, as they form the supports therefor. It is also obvious that the blocks or anvils C may be omitted, and the seats formed by the recesses *b'* may be extended inwardly toward each other to replace the anvils by shaping the heads of the arms or jaws to come closer together at their centers, as in Fig. 5. It is also obvious that the spring arms or jaws *b* may be separate, as in Fig. 6, in which case they are supported, as by riveting, to the sides of the tubes or to the bottom of the mold.

The spring arms or jaws will yield sufficiently to allow the heads of the buttons to pass into the recesses *b'* and by their resiliency will hold the buttons in position while the various steps in the formation of the cushions are being carried out, and after the cushion has been completed the heads of the buttons may be easily withdrawn from their seats, when the cushion is lifted from the mold without injuring the covering of the button-heads. Button-holders constructed in accordance with this invention provide suitable supports whereupon the buttons may rest and are adapted to hold a variety of sizes of buttons by reason of the fact that the heads of smaller buttons will not pass down into the holders.

In the preferred embodiment of my invention the tufters *a* are employed, as they act as a jacket or guard to protect the interior parts composing the button-holder proper.

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

1. In a button-holder for upholstering-machines, a button-clamp having a seat in its outer end for button-heads, and composed of a pair of oppositely-disposed yielding jaws, means to fasten the clamp in place, and an anvil between the jaws.

2. In a button-holder for upholstering-machines, a clamping member having a seat in its outer end for button-heads, and comprising a pair of spring-jaws tapered upwardly, and a conical anvil between the jaws.

3. In a button-holder for upholstering-machines, a button-clamp having a seat in its outer end for button-heads, and composed of a pair of oppositely-disposed integral spring-arms, means to secure the clamp on the mold, and a conical anvil between the arms.

4. In an upholstering-machine, the combination with a mold having hollow tufters, of button-holders in the tufters, each holder com-

prising a pair of opposite spring-arms fastened to the mold at one end and having lateral movement at their free ends to detachably seat a clench-button.

- 5 5. In an upholstering-machine, the combination with a mold having tubular tufters, of button-holders located in the tufters comprising a clamping member composed of oppo-

site spring-arms providing a seat for button-heads, and a central plug or anvil.

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

PETER BOLLER.

Witnesses:

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