

No. 691,937.

Patented Jan. 28, 1902.

A. FRESCHL.
UPHOLSTERY APPARATUS.

(Application filed Nov. 9, 1899.)

(No Model.)

FIG. 1

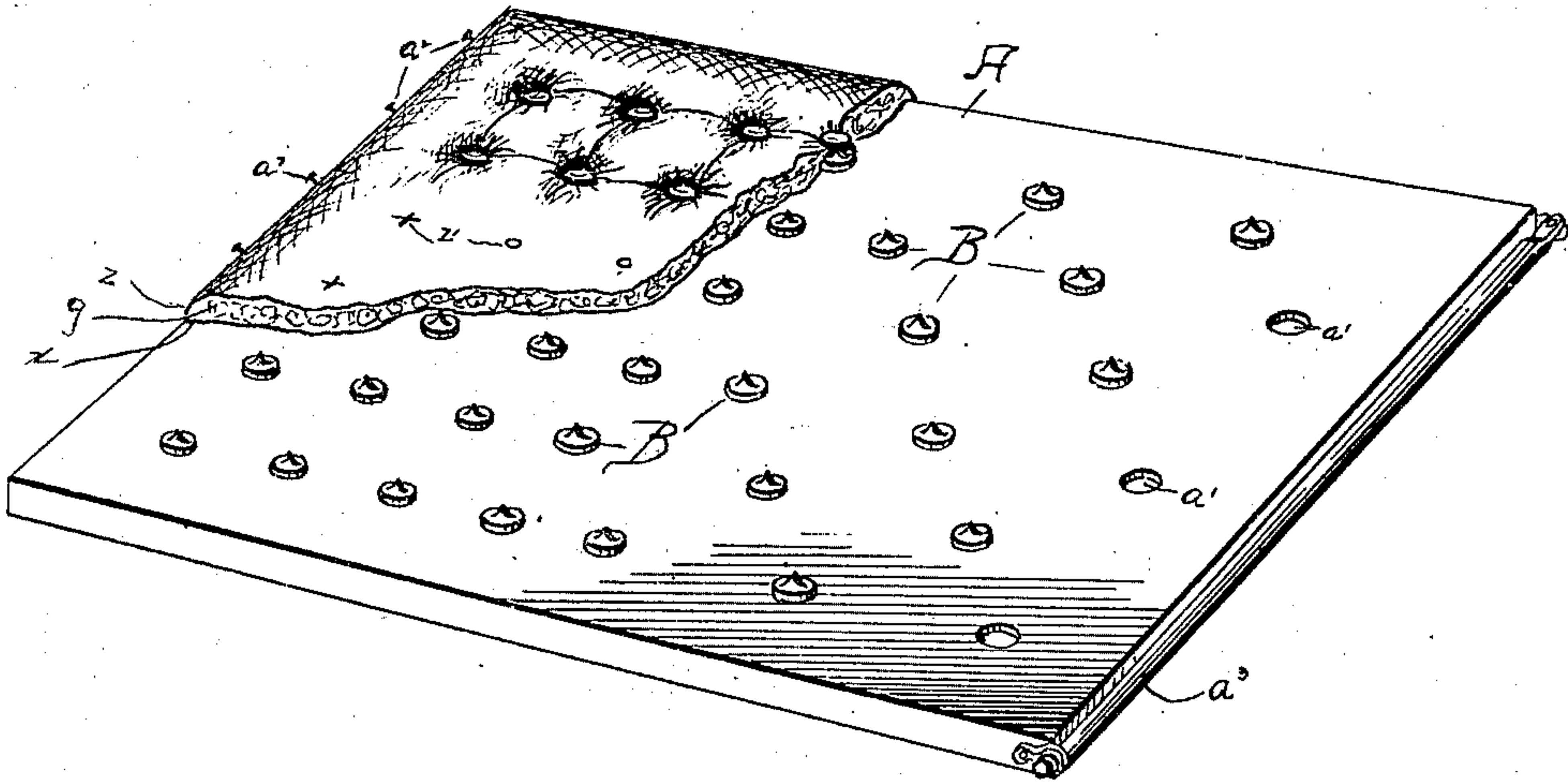


FIG. 2

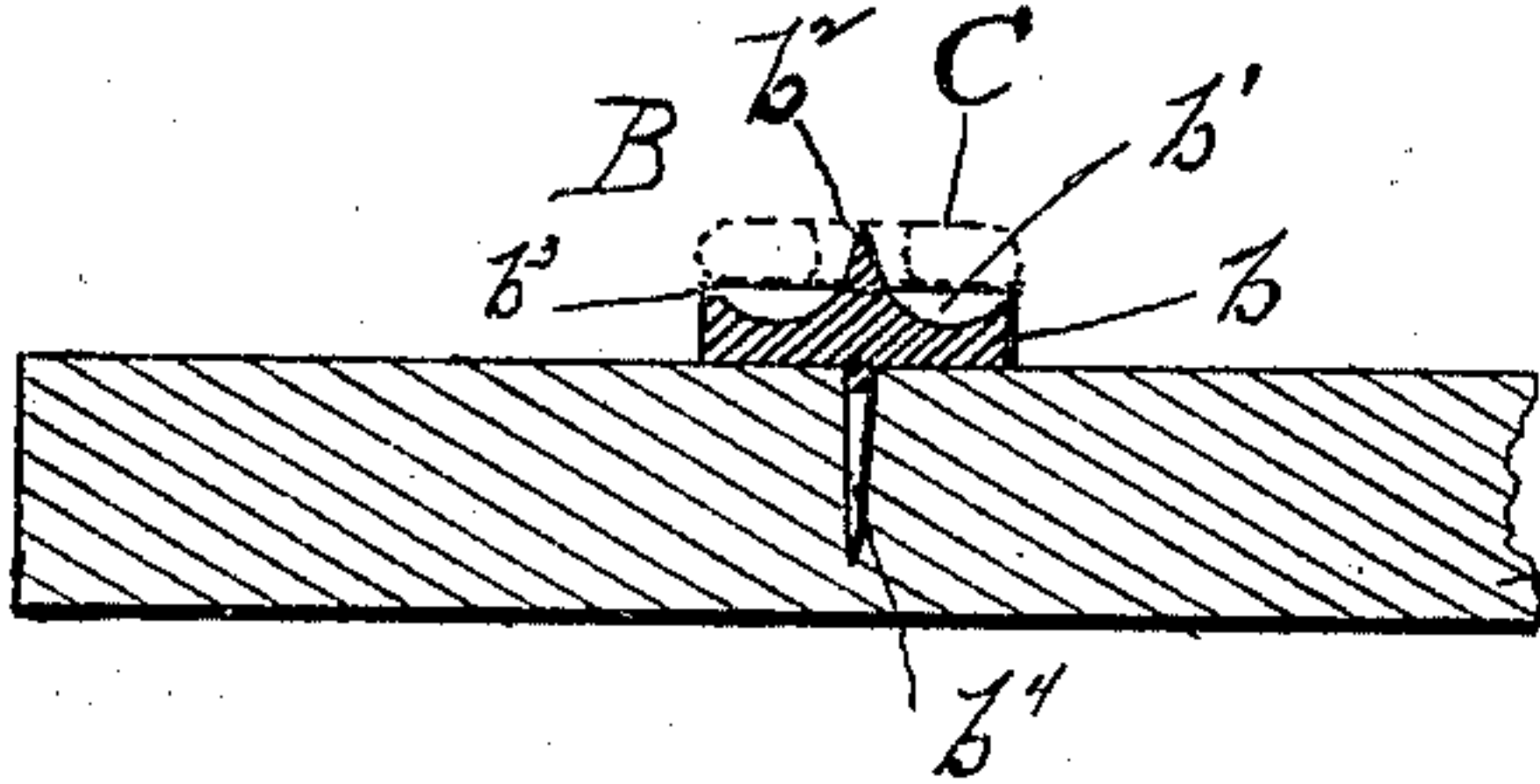


FIG. 5

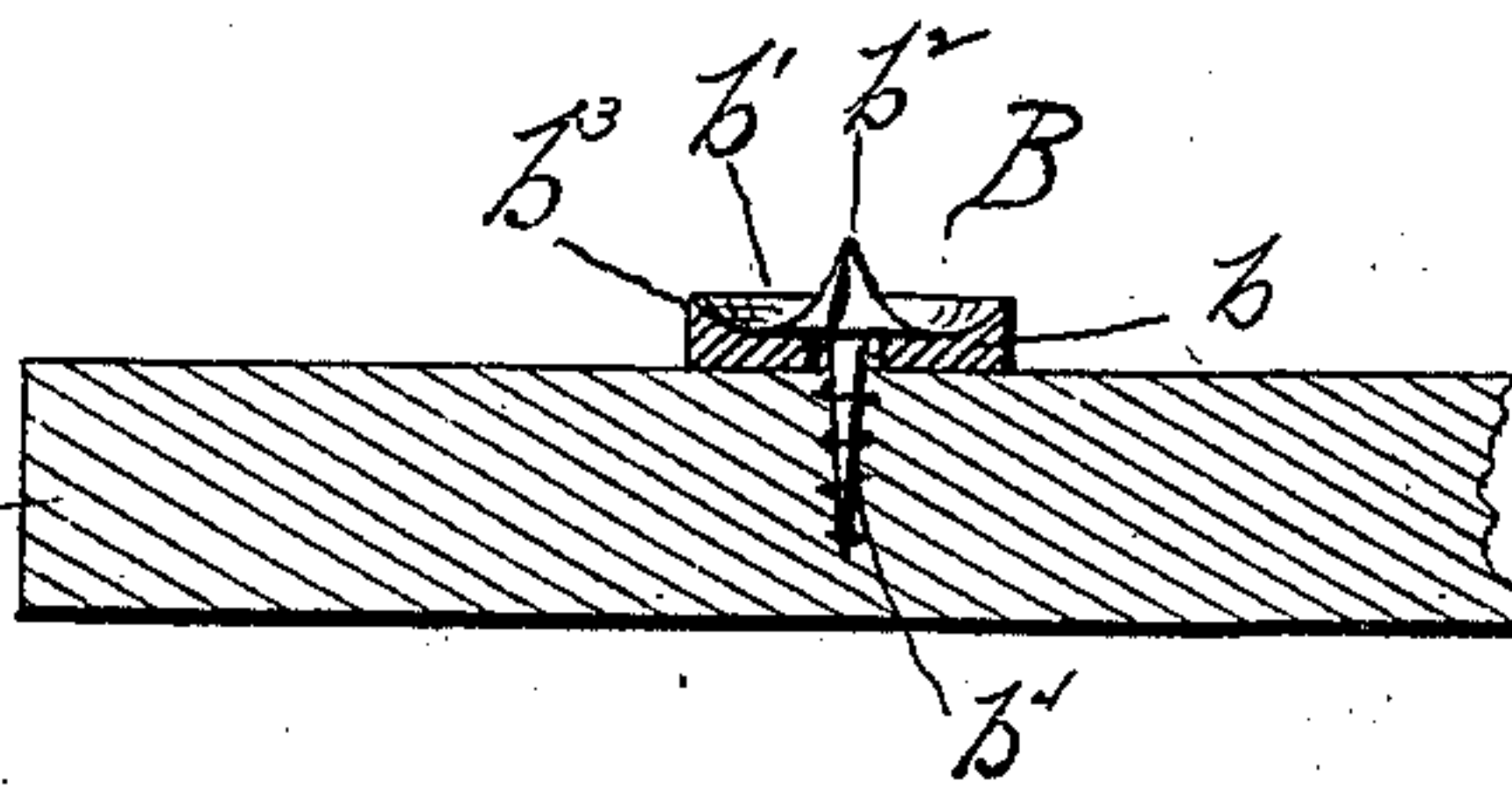


FIG. 3

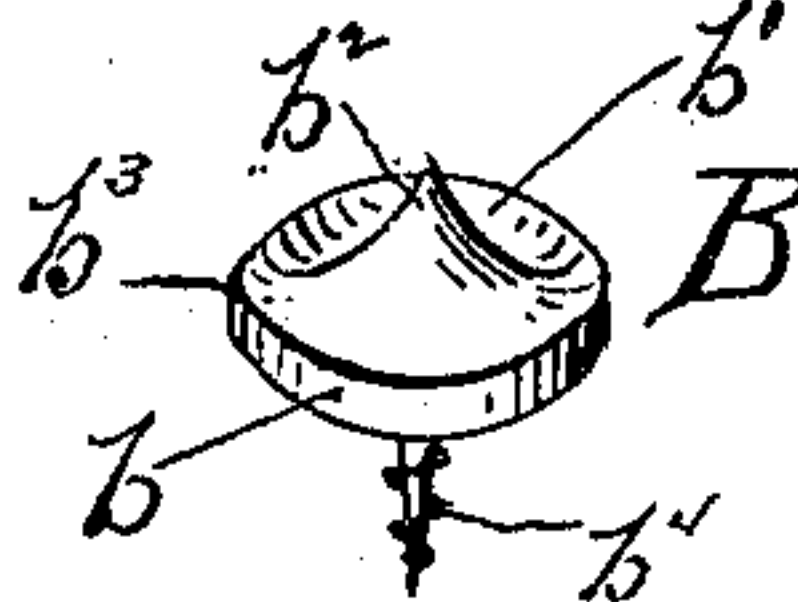
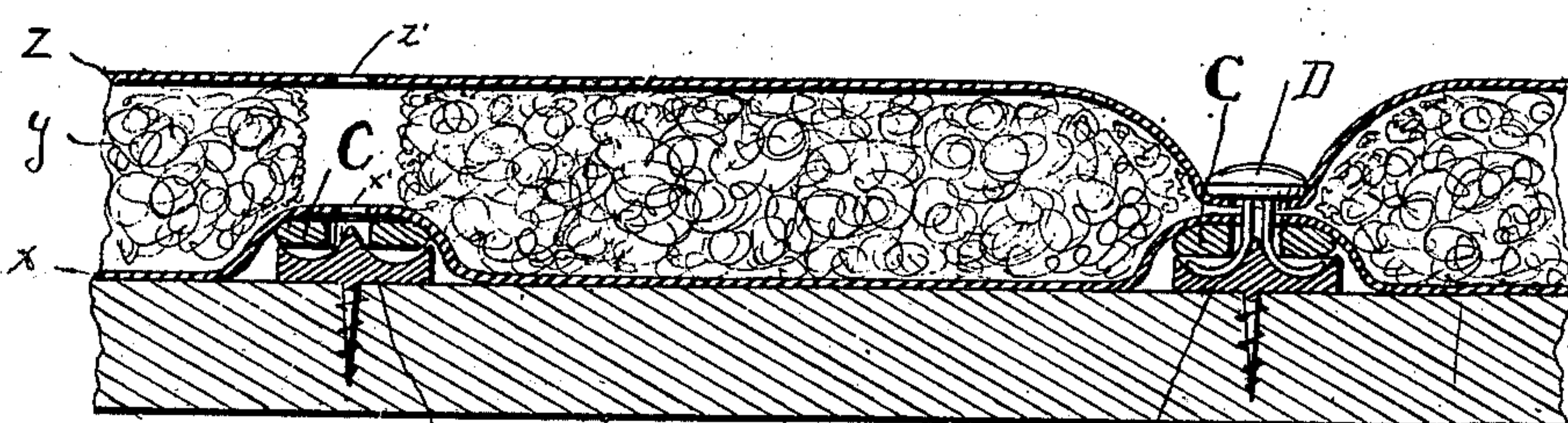


FIG. 4



Witnesses: B
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att'y.

UNITED STATES PATENT OFFICE.

ALFRED FRESCHL, OF CHICAGO, ILLINOIS.

UPHOLSTERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 691,937, dated January 28, 1902.

Application filed November 9, 1899. Serial No. 736,349. (No model.)

To all whom it may concern:

Be it known that I, ALFRED FRESCHL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Making Tufted Upholstery; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in devices for the production of tufted work in upholstery, and particularly to that class of devices designed for this work wherein the mold or former is provided with suitable anvils, which provide seats for the washers and act as means to clench the shanks of the tuft-buttons to secure the parts of the upholstery together.

The objects of my invention are to provide an improved mold or former of simple construction and arrangement of parts and to provide certain details of arrangement and construction whereby the cost of the apparatus used in the manufacture of such upholstered work is lessened and the apparatus itself greatly simplified.

I accomplish the objects of the invention in the manner illustrated in the accompanying drawings, wherein similar letters of reference indicate like parts throughout the several views.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of one form of base or mold over which the cushion or upholstered pad is molded or formed by hand. Fig. 2 is a sectional view, and Fig. 3 a perspective view, of an integral form of anvil. Fig. 4 is a sectional view of the board and the cushion in process of making thereon, showing at the left the arrangement of parts before the button is seated and at the right the parts when assembled. Fig. 5 is a sectional view of a two-part form of anvil.

In carrying out my invention I employ a suitably-supported mold or former A, of suitable shape and size to produce a tufted pad of the desired dimensions and which conven-

iently may consist of an open-topped box or of merely a plain-surfaced base. Upon the base of the mold is mounted any desirable number and relative arrangement of anvils B, preferably of metal. As indicated in the drawings, the anvils are each formed with, in this instance, a circular base b and with a curved or concave upper face b' , the latter being produced by a central projection or boss b^2 , preferably conical in form, and a marginal projection or rim b^3 , the rim and boss rising, preferably, approximately to about the same height, whereby each anvil in vertical cross-section upon any central line is substantially of the configuration shown in Figs. 2 and 5, and the concavity in its face is substantially in the form of a circle surrounding the boss. The anvils are preferably detachably and adjustably secured upon the base of the mold and in such relative arrangement or pattern as may be desired by any suitable fastening means—as, for example, by the pins or screws b^4 in the base thereof, which engage the base of the mold to hold the anvils removably in position. The rims b^3 of the anvils afford seats for the washers C, employed in the operation of securing the outer and inner covering or fabrics of the upholstered pads together, the washers resting on the seats in such positions and relations that the cones pass into the eyes of the washers to center them in proper position to receive the shank of the clench-buttons D, and the rims support the body of the washer in position and maintain their proper horizontal alinement.

While, as stated, the washer C may rest upon the rim of the anvil, and thus the rim merely serve the purpose of supporting the washer horizontally, yet the preferable construction is that the rim and the washer be of such relative diameters that said rim is not only capable of supporting the washer horizontally, but also of encompassing the same, whereby the eye of the washer is supported with its edge equidistant from the cone b^2 of the anvil. This relative positioning of the edge of the eye of the washer with the cone is highly desirable, in that the prongs of the tufting-button will always pass through the eye, which might not be the case if the washer was simply supported by the rim and a certain portion of the edge of the eye was

in contact while the other portions were out of contact with said cone.

In utilizing my invention for producing tufted upholstery the anvils B are first disposed upon the face of the base of the mold in any desirable pattern or arrangement, their detachable fastening adapting them to be arranged so as to produce different patterns of tufts. The washers C are then severally placed in position upon their anvils, the bosses or projections of the latter centering them with relation to the anvils. A strip of burlap or other suitable backing material x is then laid over the face of the mold, resting upon the washers and anvils. The filling material y is then introduced into the mold, it being understood that this material may be employed either in a loose condition, as hair, excelsior, or other similar material, or in a finished condition, such as prepared tufts or biscuits, each corresponding in size and shape to the shape and size of the tufts to be reproduced in the finished article and to the arrangement and pattern of the anvils. After the filling material has been properly disposed over the backing within the mold the cover material z is then placed in position preferably over the entire surface of the mold, with its finished face outward. The operator then proceeds to fasten or secure the outer and inner coverings together, preferably by suitable clench-nails or tuft-buttons D, beginning at any suitable point—as, for example, the outside row of disks at one end or side of the mold. These tuft-buttons may be of any suitable form comprising a head d and a shank d' , susceptible of being bent to clench against the outer faces of the washers. The operator readily finds the location of the washers on the disks or seats and passes the pointed end or prong of a button through the material comprising the cushion at each appropriate point opposite one of the disks or seats, pressing it down until its end passes within the eye of the washer and rests upon the conical projection b^2 of its appropriate seat or disk. A sharp blow, as with a hammer or mallet, then forces the button home to its place, its head coming approximately against the cloth of the cover within the tuft-pit formed by the surrounding tufts and its pliant or flexible shank being bent to position by the anvil, so that it secures the washer C in place. The concave portions of the anvils force the end or ends of the shanks of the buttons against the outer faces of the washers, thereby binding the latter firmly against the rear face of the backing and securing the outer and inner coverings of the upholstered pad together.

While the anvils are shown as separately secured upon the base, it is of course understood that they may be produced in rows having suitable connection or in any other desired arrangement and construction. Any arrangement to produce the results herein attained is manifestly within the scope of my

invention, though I prefer to secure the anvils separately and detachably upon the base, as most conveniently providing for the production of upholstery of various patterns on the same base. It is also apparent that the construction of the anvils themselves may be greatly varied within the scope of this invention. As shown in Figs. 2 and 3, the various component parts of the anvils may be formed together into an integral construction, they being preferably in a single piece. As shown in Fig. 5, a separable organization may be employed, in which the base b is a dish-shaped body having a rim b^3 and provided with a central perforation to receive the shank b^4 , which in this form is preferably integral with the projecting portion b^2 , thereby producing a two-part form of anvil. In this construction the parts may be of any desired material and their shapes may be varied to produce the results desired. In either form the central projection may be in the form of a cone or a pyramid, the only essential characteristic being that it shall taper to provide for guiding or clenching the shanks of the button, and it may be sharp or flat at its top; also, the base of the anvil may be circular or otherwise shaped, as desired; also, while the special forms of anvil disclose effective and simple means to provide a seat for the washer and a means to clench the shanks of the tuft-buttons to insure the attachment of the various parts I do not wish to be understood as limiting myself to this special form, as obviously my invention includes any equivalent form that accomplishes these results.

In practice the base A may be marked in any suitable manner to indicate the locations of the anvils to produce upholstery having different styles or patterns of tufting. As shown in Fig. 1, the markings may indicate the arrangement of the anvils for square or biscuit tufting, as shown in the four left-hand rows of that figure, or for diamond tufting, as shown in the four right-hand rows, or for both. The pattern which it is desired to reproduce may be represented by lines or points or other indicating means delineated upon the face of the board or by small perforations, as at a' in Fig. 1, to receive the shanks of the disks, these perforations being here shown somewhat enlarged.

Instead of attaching the anvils upon the face of the board, so that they project above the same, it is apparent that the board may be provided with recesses adapted to the size of the base of the anvil, which in this construction will lie within the recesses, being held therein by friction, and their rims being preferably flush with the top of the board.

It is apparent that in any of the forms described the anvils provide, in effect, seats for the washers and clenching means for the tuft-buttons. It is understood, of course, that the edges of the base may be provided with the disks in order to provide for finishing the end rows of tufts or the edges of the pad or cush-

ion, the edge rows of disks being disposed in conformity with the pattern adopted to be reproduced.

In practice I prefer to provide some suitable means for holding the covering or coverings in place upon the base or board during the operation of upholstering. For this purpose any desirable means may be adopted, as bails, as at a^3 , at the right of Fig. 1, or as the pins a^2 , at the left of Fig. 1. When bails are used, they preferably are pivoted to the rear of the ends of the board and are snugly locked against the ends or edges of the board by any suitable catch or latch. It will be found convenient in some instances to previously provide the coverings with a plurality of apertures x' and z' , through which the shanks of the buttons are adapted to pass, or to provide them with other suitable marks to indicate where the shanks shall pierce, these indicating means being arranged to allow for the desired fullness of material in the cover.

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

1. As an article of manufacture, an upholsterer's anvil, comprising a circular base, and rim, the latter being adapted to support a washer, and a central upwardly-disposed conical projection, the said base between the rim and projection being concaved.

2. As an article of manufacture, an upholsterer's anvil, the same comprising a circular base, a surrounding rim adapted to receive, support and embrace a washer at a point

above the base, and a central upwardly-disposed conical projection.

3. As an article of manufacture, an upholsterer's anvil, the same comprising a circular base, a surrounding rim adapted to receive, embrace and support a washer at a point above the base, a conical head rising from the center of the base, and the latter being concaved between said head and rim.

4. As an article of manufacture, an upholsterer's anvil, the same comprising a circular base provided with a central perforation and with a surrounding upwardly-disposed rim, and a screw depending through the perforation and at its upper end above the base provided with a conical head.

5. As an article of manufacture, an upholsterer's anvil, the same comprising a circular base, a surrounding rim, and an annular concaved intermediate portion, said base being provided with a central perforation, a screw depending through said perforation and a deflecting head at the upper end of said screw.

6. As an article of manufacture, an upholsterer's anvil, the same comprising a circular base, a surrounding rim, an intermediate annular concaved portion, and a central deflecting head.

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

ALFRED FRESCHL.

Witnesses:

ROBERT J. CATCHFOLL,
J. McROBERTS.