H. L. E. KRUEGER.

UPHOLSTERY MACHINE.

APPLICATION FILED SEPT. 29, 1908.

1,004,037. **Patented Sept. 26, 1911.**

Fig. 1.

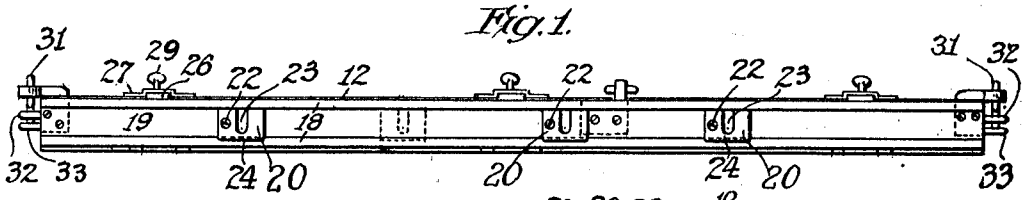


Fig. 2.

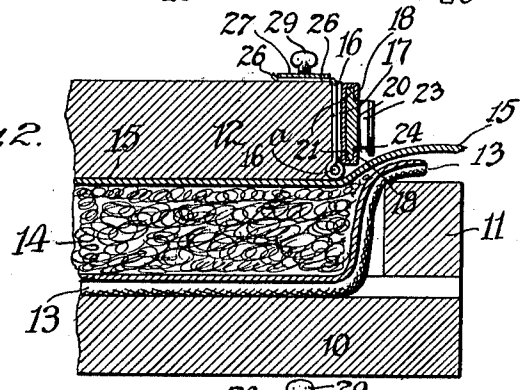


Fig. 3.

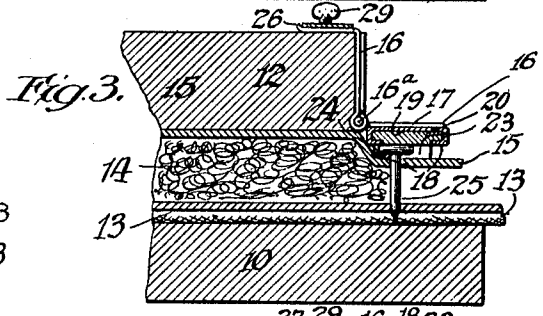


Fig. 6.

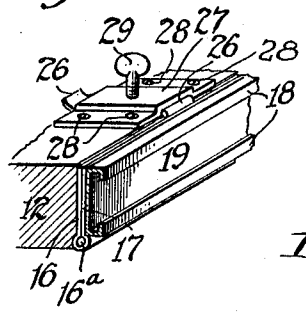


Fig. 4.

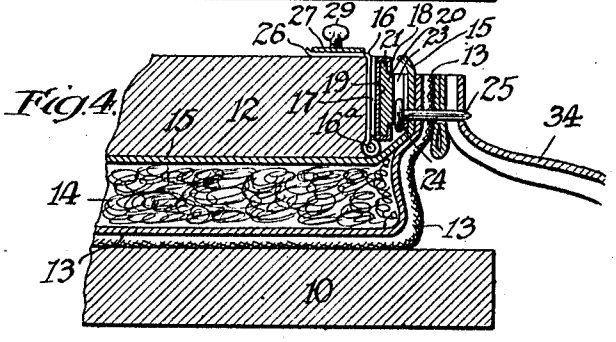
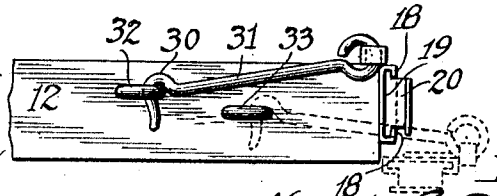


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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UPHOLSTERY-MACHINE.

1,004,037. Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed September 29, 1908. Serial No. 455,309.

To all whom it may concern:

Be it known that I, HENRY L. E. KRUEGER, 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 Upholstery-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to novel improvements in upholstery machines and the invention consists in the combinations and arrangements of parts hereinafter particularly described and then pointed out in the appended claims.

The primary object of my invention is to provide a novel holder for fasteners used to secure the backing and covering of pads or other upholstered articles together at their edges, and in the accompanying sheet of drawing in which I have illustrated an embodiment of my invention, like reference numerals designate similar parts in the several figures, of which:—

Figure 1 is a side view in elevation of a follow-board equipped with my invention; Fig. 2 is a cross-sectional view of a mold containing the backing, covering and filling of a pad in the course of construction, and showing the follow-board in position ready to receive pressure; Fig. 3 is a similar view to Fig. 2 after pressure has been applied, with the edge-rail of the mold removed and the wing of the fastener-holder dropped to horizontal position showing the backing impaled on the fastener; Fig. 4 is a similar view to Fig. 3 showing the wing of the fastener-holder returned to normal position and with the backing, covering and flaps or fringe impaled on the fastener; Fig. 5 is a detail end view of the follow-board; and Fig. 6 is a detail perspective view showing one way of removably attaching the fastener-holder to the follow-board.

In the drawing the reference numerals 10 and 11 designate, respectively, the bottom and removable side-rail of the mold of an ordinary type of tufting-machine, and 12 a follow-board, it being understood that the mold is provided with suitable button-holders (not shown) which pass through openings (not shown) in the board in the normal operation of the machine.

In the construction of a pad, which forming no part of my present invention I will not describe in detail, after the covering 13 has been placed within the mold a sufficient quantity of filling material 14 is placed thereon and on top of this is placed the backing 15, and the follow-board is then placed within the mold and on top of the backing and pressure applied to the follow-board in any preferred manner. After the pad has been sufficiently compressed the cover and backing are connected together along their edges, and when the pad or cushion is provided with fringes or flaps the latter are also connected to its sides usually by the same fasteners that connect the edges of the cover and backing.

As heretofore constructed the sides of the follow-boards have been provided with fixed fastener-holders so arranged that the edges of the materials of the cover and backing had to be pulled and stretched up around the edges of the follower in order to be impaled upon the ends of the prongs of the buttons of the edge fasteners with the result that when the material slipped along the prongs into position nearer the heads of the buttons it slackened and so became distorted and wrinkled over the face of the cushion by reason of its fullness. By employing my invention this distortion of the material is obviated, as the prongs are inserted in the material while the latter is in normal and stretched position and when the prongs are turned up with the wing the material is stretched into its final position; and furthermore in the more specific application thereof the same fastener-holder may be used with a plurality of follow-boards having their openings arranged for different patterns of tufting.

In the present embodiment of my invention, and it is to be understood that it may be variously modified without departing from the scope thereof, the fastener-holder consists of a rectangular base 16 of approximately the same dimensions as and adapted to be secured to the sides of the follow-board, to which is hinged at one edge thereof as at 16^a a wing 17 the longitudinal edges 18 of which are inturned to provide a way 19 on which the seats 20 are adapted to be slid to position. Each seat 20, of which any desired number may be employed, is provided at its base with flanges 21, adapted to seat within the grooves formed by the inturned edges 18 of the wing, and is also pro-

vided with a set screw 22 which serves to bind the seats to the way 19 to maintain them in adjusted position. The seats are also provided with T-shaped slots 23 to receive the prongs 25 of the pins or fasteners 24, which may be of any preferred type. The other or upper edge of the base 16 is provided with suitable tongues 26, of which there may be any desired number and which are integral with the base, and which are adapted to enter suitable clamps 27 fastened to the follow-board by screws 28 and secured therein by set screws 29. By this construction it is obvious that the fastener-holder is readily attached to or detached from the follow-board and is adapted to be used with any follow-board.

To complete the operation, after pressure has been applied to the follow-board the end-rail is removed and fasteners placed in the seats 20 and the wing 17 lowered to horizontal position, as clearly shown in Fig. 3, by lifting the heads 30 of the latches 31 out of the eye-hooks 32 and inserting the same in the eye-hooks 33. It is to be understood that each end of the follow-board is provided with a latch 31 and eye-hooks 32 and 33 as shown in Fig. 5 and that the latches when engaging the eye-hooks 32 hold the wing in its normal or elevated position, and when engaging the eye-hooks 33 maintain the wing in its horizontal position, as shown in the dotted lines in Fig. 5 for a purpose to be made plain. The backing and covering are then impaled on the prongs 25 of the fasteners by inserting the points of the prongs in the holes previously made in the backing and covering, or by drawing the backing and covering over the points of the prongs when suitable holes have not been previously provided therefor, the heads 30 of the latches being in the eye-hooks 33 hold the wing 17 sufficiently rigid to allow this to be done. The wing 17 is then returned to its normal position as shown in Fig. 4 and secured by inserting the heads of the latches in the hooks 32, as previously stated, this action of the wings stretches the material and so holds it taut and smooth. The flap or fringe 34 with the welt 35 are then applied to the prongs which are clenched down, and the wing 17 is again lowered to horizontal position and the follow-board withdrawn to remove the heads of the fasteners from the seats.

In the types of fastener-holders heretofore in use the backing and covering are impaled on the fasteners by stretching the fabrics over the points of the prongs so that when the fabrics are brought against the heads of the fasteners it is apparent that by reason of the surplus length of the fabrics required to stretch them over the points, the edge of the pad formed thereby will not be sufficiently stuffed with filling to make it well rounded and firm. By my construction I am able to obviate this defect as it is obvious that by lowering the wing 17 to horizontal position the fabrics are impaled on the prongs at the proper points so that when the wing is returned to normal position there is no surplus length of the covering or backing but just enough to accommodate the amount of filling material provided to form the edge of the pad.

What I claim and desire to secure by United States Letters Patent is:—

1. In an upholstery machine, the combination with a mold and a follow-board, of a fastener-holder removably carried by the board and comprising a base, a wing hinged to the base, adjustable seats carried by the wing, and adjustable means to maintain the seats in adjusted position.

2. In an upholstery machine, the combination with a follow-board, of a removable fastener-holder comprising a body having tongues adapted to be secured to the follow-board by clamps carried thereby, a hinged wing providing a way adapted to carry adjustable seats having set screws to secure them to the way, and latches to hold the wing in elevated and lowered position.

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

HENRY L. E. KRUEGER.

Witnesses:
J. McROBERTS,
GEORGE R. HARBAUGH.