

No. 717,103.

Patented Dec. 30, 1902.

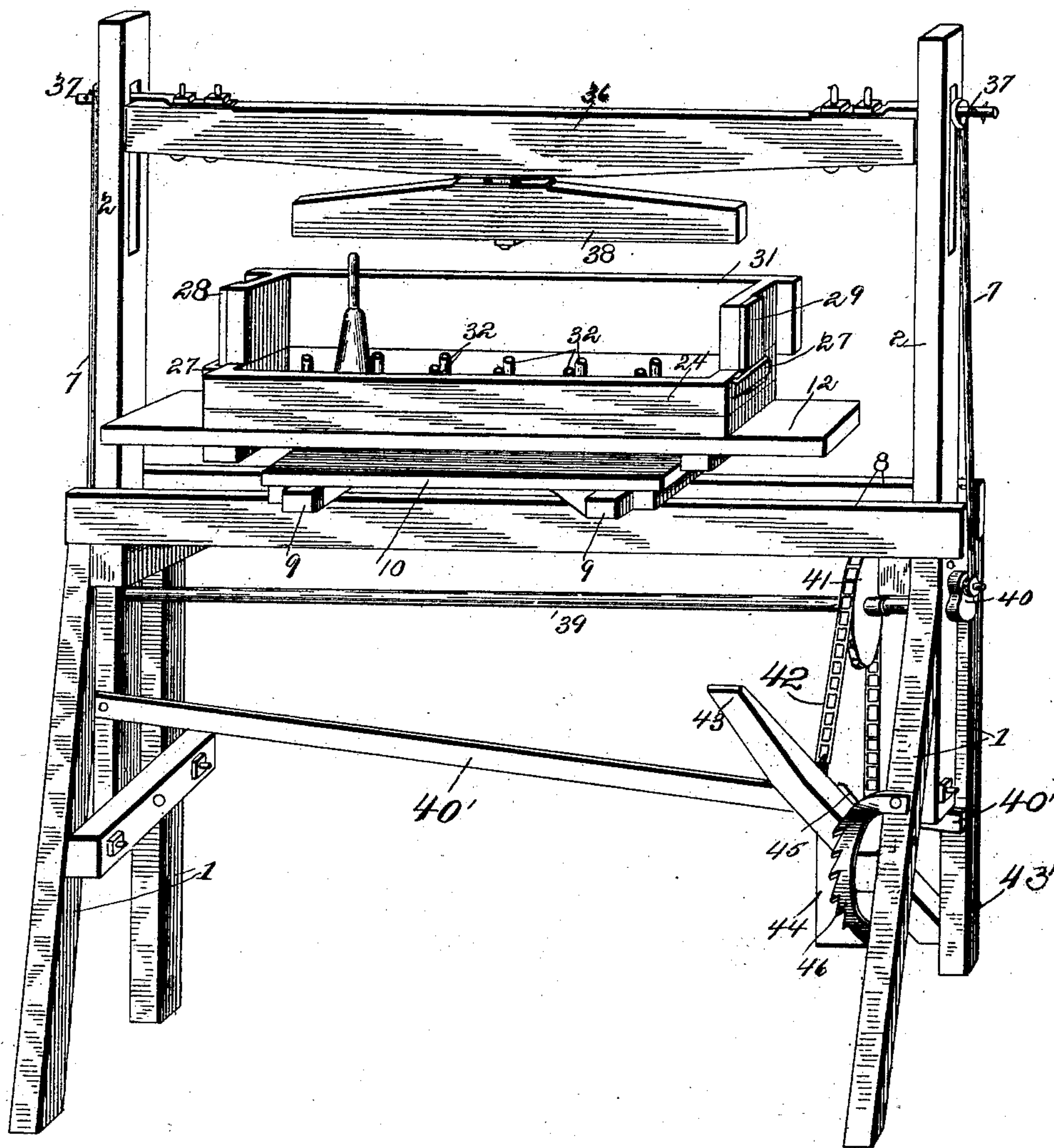
J. C. LINDER.  
CUSHION MACHINE.

(Application filed Nov. 20, 1900.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.



Witnesses  
E. A. Ryan.  
H. E. Chandler

Inventor  
J. C. Linder.  
By *[Signature]*  
Attorneys

No. 717,103.

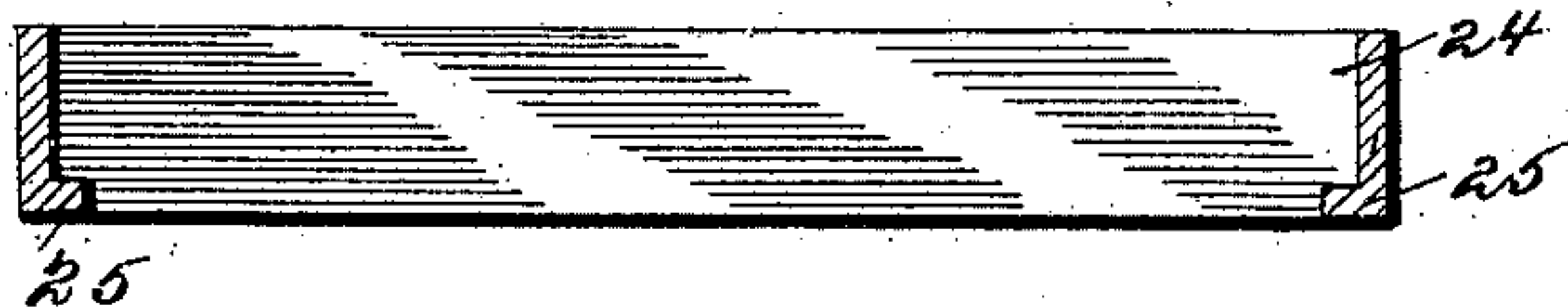
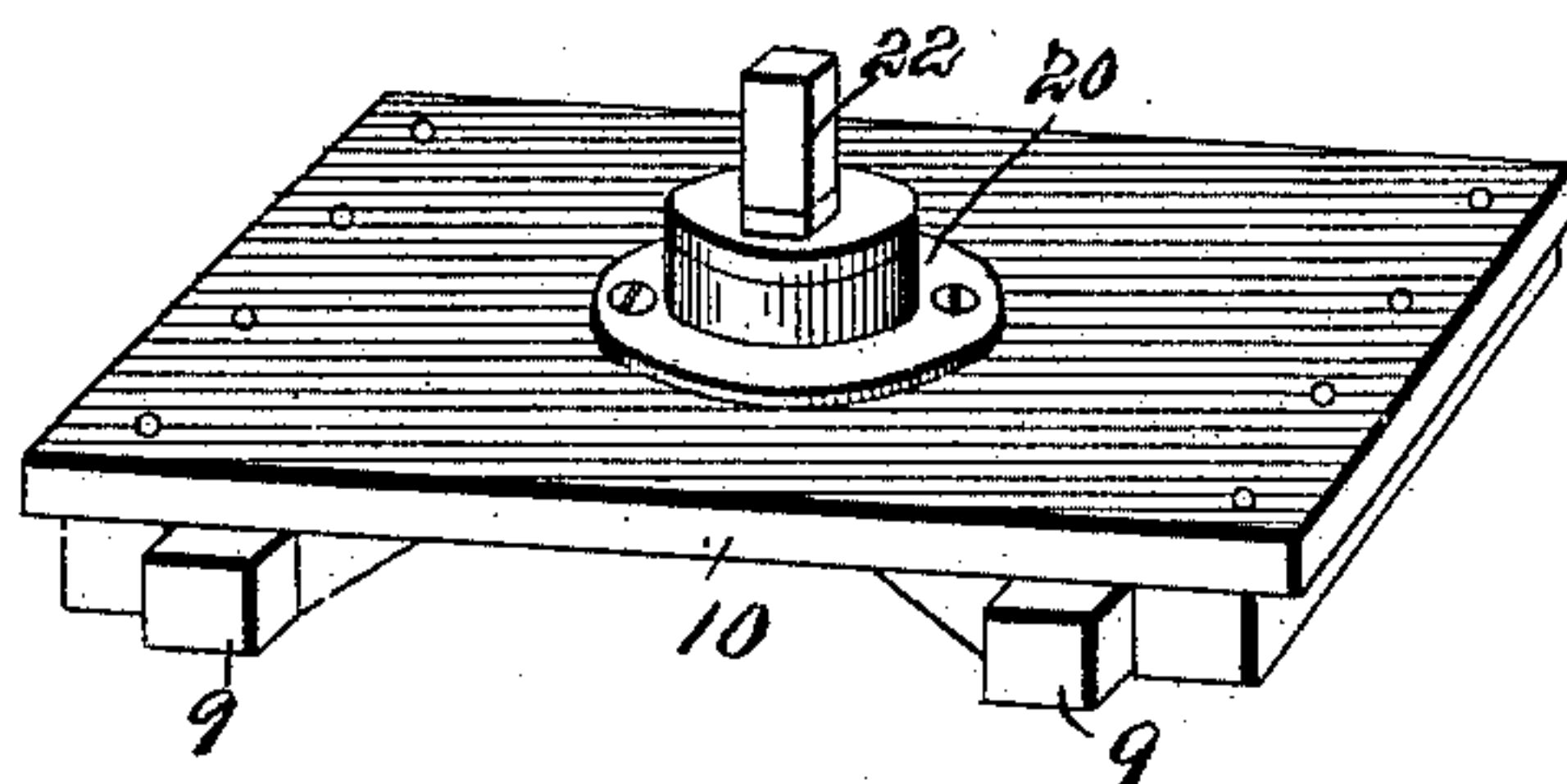
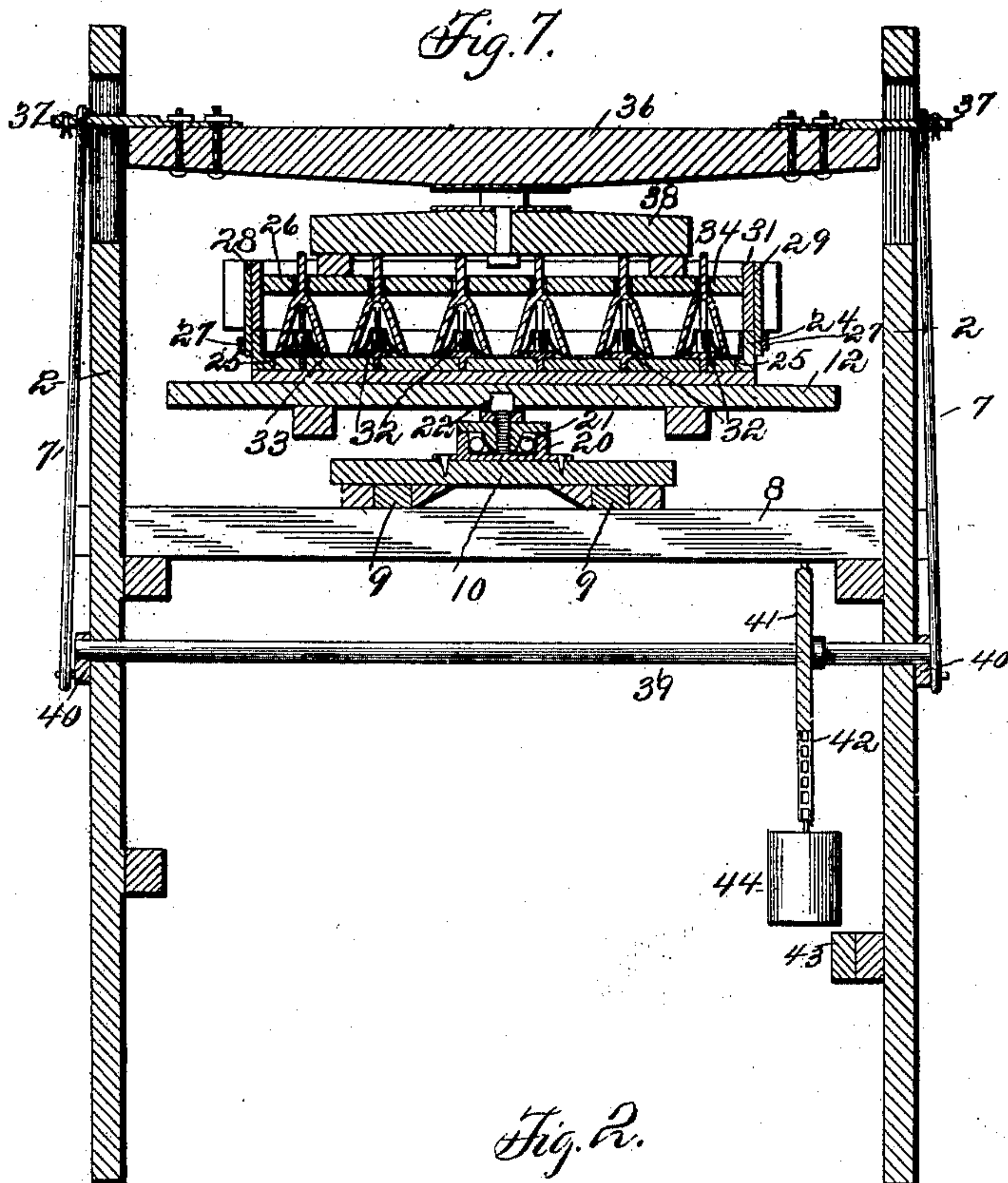
Patented Dec. 30, 1902.

J. C. LINDER.  
CUSHION MACHINE.

(Application filed Nov. 20, 1000.)

(No Model.)

3 Sheets—Sheet 2.



Witnesses  
E. A. Ryan.  
H. E. Chavala

Inventor  
J. C. Linder.  
By *[Signature]*  
Attorney



No. 717,103.

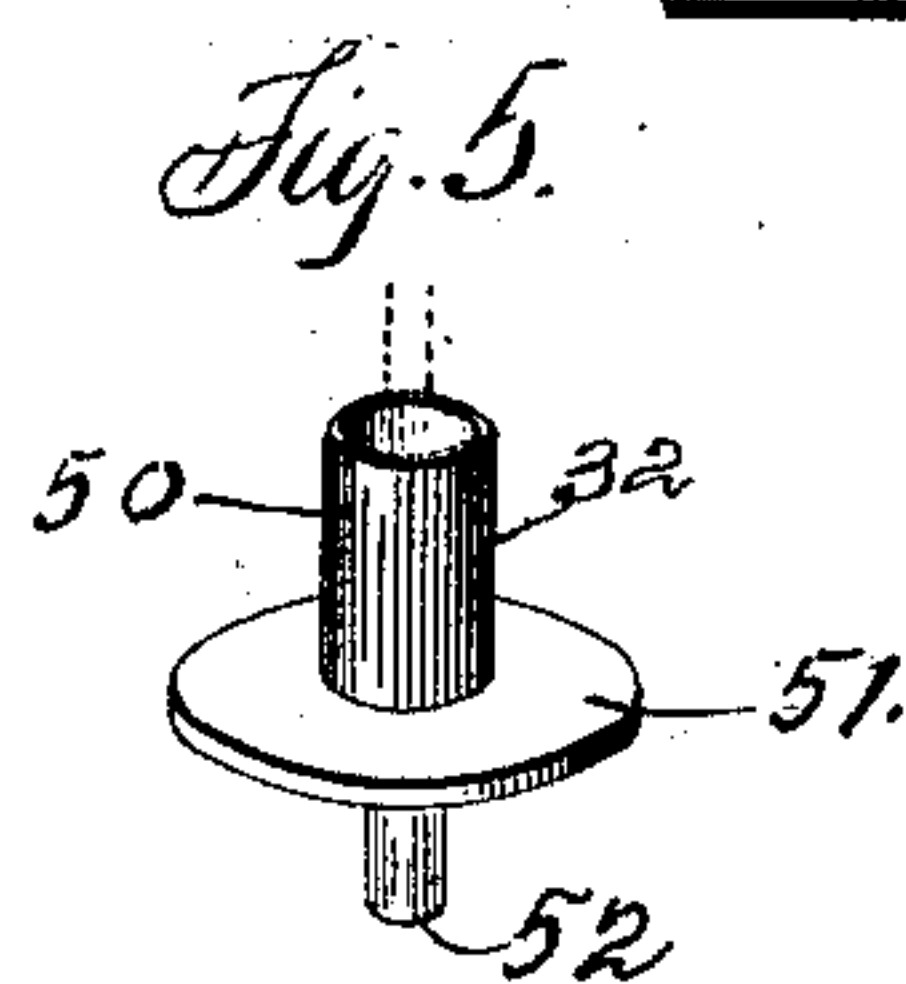
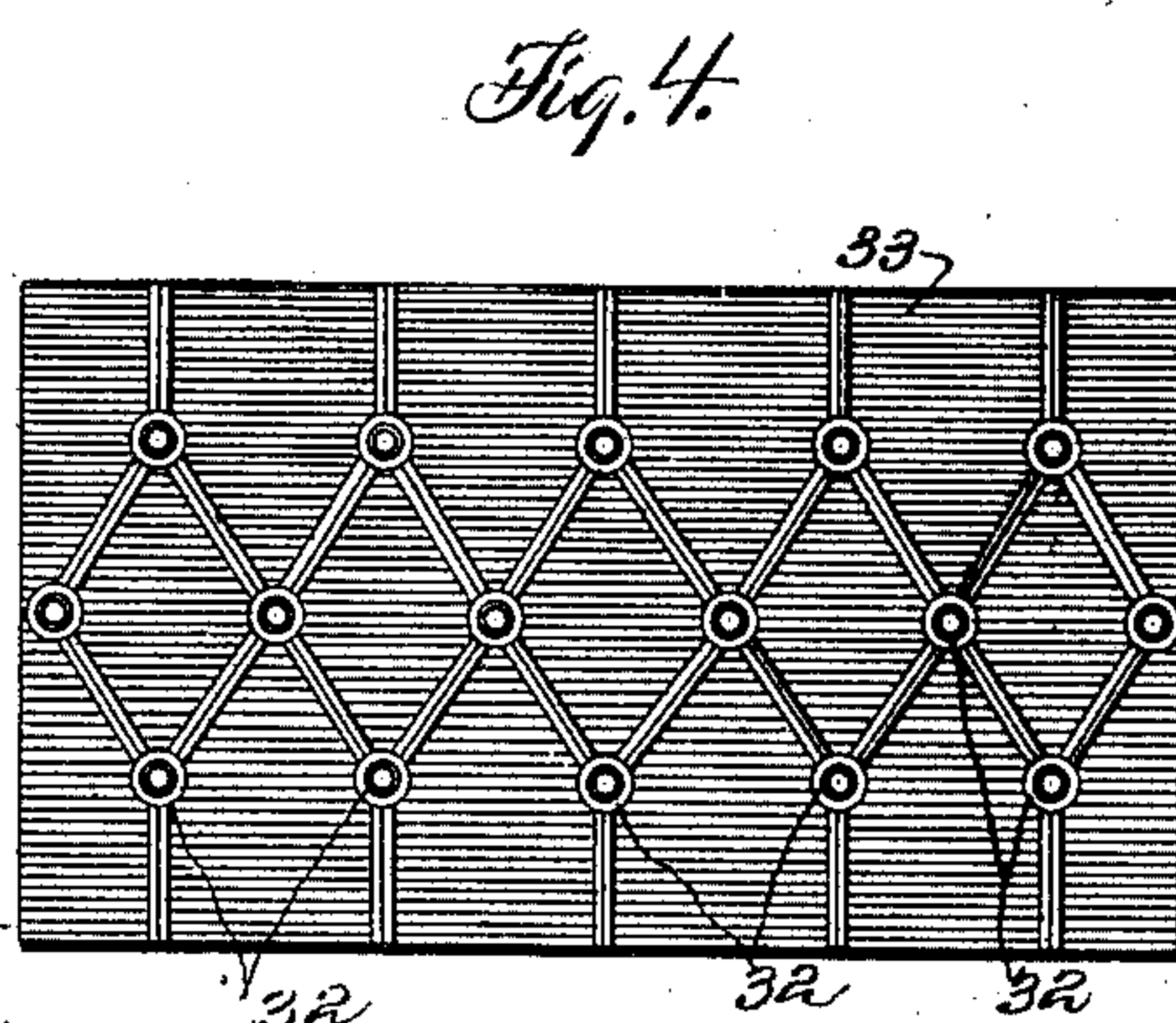
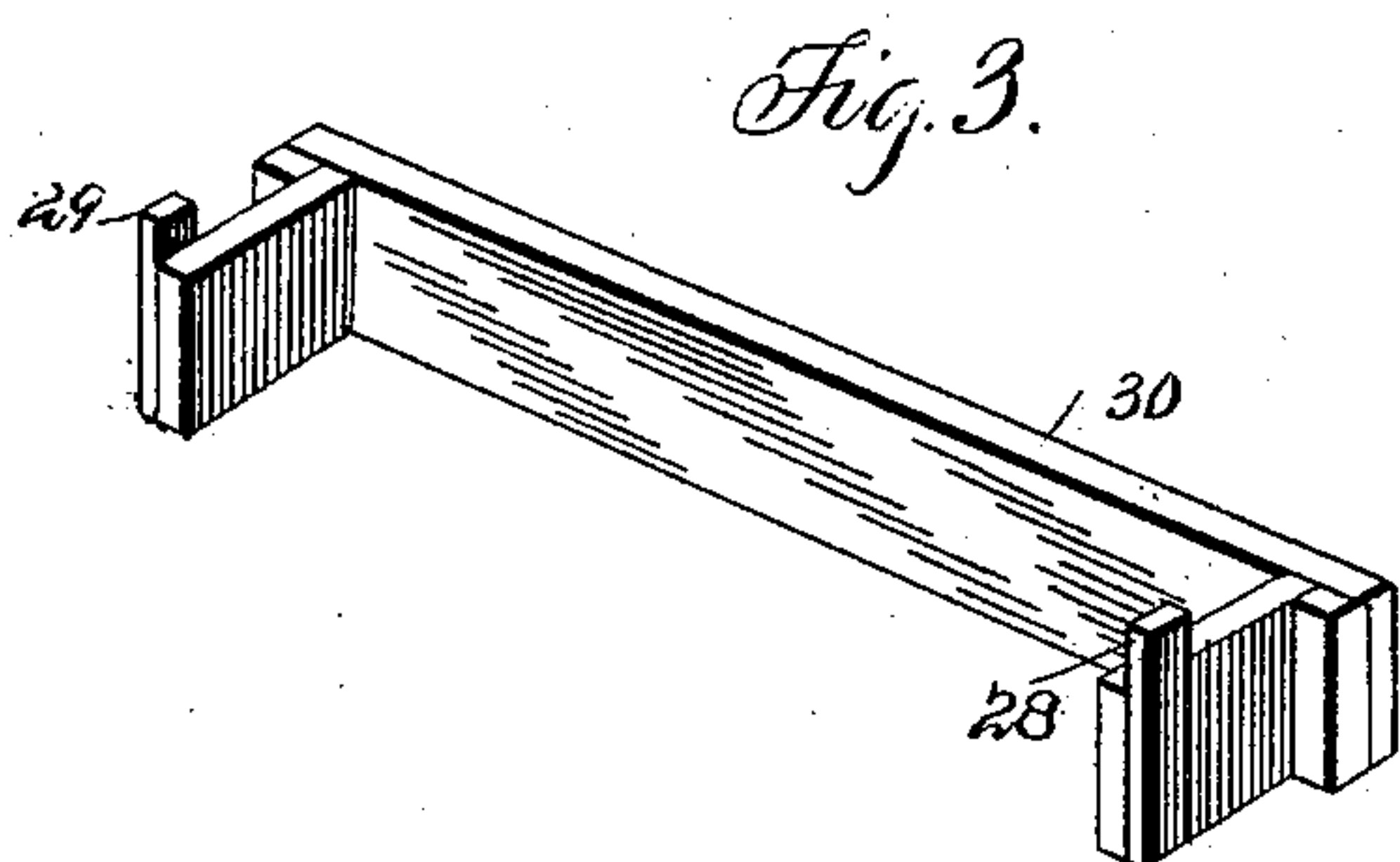
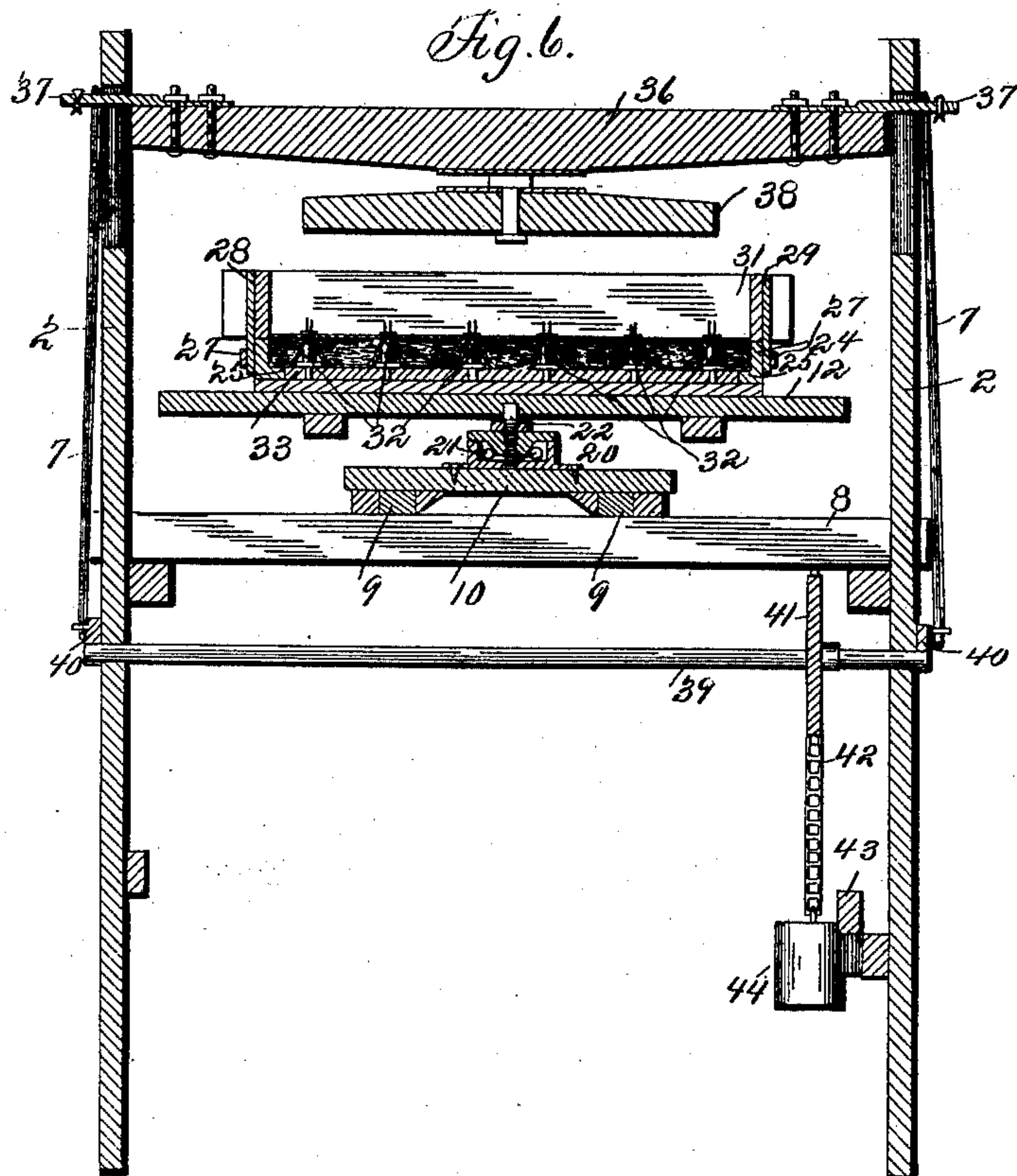
Patented Dec. 30, 1902.

J. C. LINDER.  
CUSHION MACHINE.

(Application filed Nov. 20, 1900.)

(No Model.)

3 Sheets—Sheet 3.



Witnesses  
E. A. Ryan.  
H. E. Chandler.

Inventor  
J. C. Linder.  
By  
[Signature]  
Attorney



# UNITED STATES PATENT OFFICE.

JOHN CASPAR LINDER, OF CRITTENDEN, KENTUCKY.

## CUSHION-MACHINE.

SPECIFICATION forming part of Letters Patent No. 717,103, dated December 30, 1902.

Application filed November 20, 1900. Serial No. 37,185. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CASPAR LINDER, a citizen of the United States, residing at Crittenden, in the county of Grant, State of Kentucky, have invented certain new and useful Improvements in Cushion-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to tufting-machines in general, and more particularly to that class used in the manufacture of cushions for vehicles, although it will be understood that the principles involved may be used in a tufting-machine for any other specific purpose.

The object of the invention is to provide a machine in which the upholstering of the cushion may be first tufted with the filling therebetween, the upper and lower layers of the fabric being held in proper positions temporarily, and in which the frame of the completed cushion may be put in place, the structure of the machine permitting movement of the cushion during the operation to facilitate the manufacture of the cushion.

Further objects and advantages of the invention will be evident from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the complete machine. Fig. 2 is a detail perspective view showing the platform and bearing upon which the table rotates. Fig. 3 is a perspective view of one member of the upper section of the press-box. Fig. 4 is a plan view of a bottom form with the tips in place. Fig. 5 is a perspective view of one of the tips. Fig. 6 is a longitudinal section through the press-box with the parts in position just after the washers have been put in place. Fig. 7 is a longitudinal section through the machine. Fig. 8 is a section through the base of the press-box.

Referring now to the drawings, the present machine comprises bed-plates 8, having supporting-legs 1, and at the ends of the bed-plate are upwardly-extending plates or uprights 2, which are slotted vertically for a purpose to be presently explained.

Upon the bed-plates 8 are secured parallel

and transverse tracks 9, and upon these tracks is slidably disposed a platform 10, which is grooved in its under face to receive the rails 9 and prevent lateral displacement of the platform.

In the upper face of the platform 10 is formed an annular race 20, having bearing-balls 21 disposed therein, and upon these balls is disposed a rotatable table 12, having a pivot 22 disposed concentric with the race, whereby the table may be rotated or oscillated with a minimum of friction. The table 12 receives the press-box, which comprises a lower rectangular section 24, at the lower end of which is an inwardly-directed flange 25, adapted to receive any one of a number of forms, of which one is shown at 26, this box-section 24 having cleats 27 secured upon the outer faces of its ends to receive between the cleats and the ends the pins 28 and 29 at the ends of the two members 30 and 31 of the upper section of the press-box. This upper section of the press-box is adapted to coincide with the lower section, and the members 30 and 31 thereof are formed by dividing the upper section longitudinally and in a vertical plane. These members when in position increase the height of the press-box and may be easily and quickly applied and removed. The form which is disposed in the bottom of the lower section of the press-box and against the flange 25 may be marked into any pattern, and at the points corresponding to where the tufting-buttons are to be placed on the finished cushion there are secured the tips 32. Each of the tips consists of a tubular upper portion 50, at the lower edge of which is the radiating annular flange 51, below which is a reduced stem 52. In practice the stem is engaged with a perforation in the form, and the several tips may be engaged with different perforations to give different patterns, the flange resting upon the form.

Coöperating with the lower form 33, above mentioned, there is used a corresponding upper form 34, having openings therein corresponding to the tips upon the lower form, and the cushion to be tufted is clamped between these forms, which act as the clamping-plates of the apparatus, the upper form being of a size to fit snugly within the press-box. To effect this clamping or press action, a cross-beam 36 has its ends provided with



rods 37, which are slidably engaged with the slots in the uprights 2, and pivoted to the under side of this beam and midway of its ends is a press-head 38 of such length as to move the upper form well down into the press-box when the cross-beam is operated. To draw the cross-beam downwardly, a shaft 39 is journaled in bearings in the frame of the machine, and at its ends, which project beyond the ends of the frame, are cranks 40, which are connected by means of connecting-rods 7 with the rods at the ends of the beam 36. To rotate the shaft 39 to operate the cranks to draw the cross-beam down, a sprocket-wheel 41 is fixed upon the shaft and engaged therewith is a chain 42, one end of which is attached to a foot-lever 43, fulcrumed upon the pin 43' engaged with a leg of the frame of the machine, while the opposite end of the chain has a weight 44 attached thereto, whereby when the foot-lever is depressed the sprocket will be rotated in one direction to draw the head of the press down, and when the lever is released the weight will cause the sprocket to move in an opposite direction and raise the press-head. A brace-bar 40' is connected with the ends of the frame below the bed-plate 8 to give rigidity to the structure.

In practice, the tufting-buttons are placed on the tips, heads down, and the material for the top of the cushion is placed in the lower section of the box and upon the shanks of the buttons, said shanks being then pushed through said material. A tufting-pin (shown in the drawings) is then pushed down over each button and the tip which supports it, holding the button and material in place, after which the edge of the material is temporarily tacked to the edge of the bottom section of the press-box, it being understood that during this operation the top section of the box is not in place. The upper section of the press-box is then put in place and the filling for the cushion is applied. The tufting-pins are then removed and a piece of sail-cloth or other heavy material is placed in the box over the filling, and the upper form is then disposed in the upper section of the press-box, and the table is then slid under the head of the press, after which the foot-lever of the machine is operated to actuate the head of the press and bring it in contact with the upper form, pressing it downwardly upon the sail-cloth until the stems of the tufting-buttons are forced through the sail-cloth and the openings in the upper form. Washers are then engaged with the stems of the buttons by riveting, after which the lever is released, the washers passing through the perforations in the upper form. The frames of the press-box are then removed, and the frame of the cushion is put in place, and the edges of the fabrics are tacked thereto, when the cushion is completed. With the pivotal arrangement of the table the cushion may be turned during the manufacture thereof or tufting, while the sliding arrangement of the supporting-plate

10 permits the press-box to be moved into and out of position beneath the press-head. The pivotal mounting of the table also facilitates the operations prior to the actuation of the presser-head. Furthermore, by pivoting the table and presser-head the table may be slid under the head in whatever position rotatably the table may be, the pivotal mounting of the table having thus a definite relation to the slidable mounting of the table in all positions of the table.

To hold the foot-lever in position to hold the press closed while the washers are being attached, said lever is provided with a knife-edge 45, disposed for engagement with a rack 46 upon the frame of the machine.

What is claimed is—

1. In a tufting-machine, the combination of a fixed bed-plate, a platform slidably mounted upon the plate for movement in a horizontal plane, a table rotatably mounted upon the platform for movement in a horizontal plane, said table being without projections on its upper face to permit of application of press-boxes of different sizes thereupon, a cross-beam slidably mounted above the table for movement in a vertical plane having means for reciprocating it toward and away from the table and a presser-head pivoted to the under side of the beam coaxially with the pivot of the table.

2. In a tufting-machine, the combination of a fixed bed-plate, a platform slidably mounted upon the plate for movement in a horizontal plane, a table rotatably mounted upon the platform for movement in a horizontal plane, said table being without projections on its upper face to permit of application of press-boxes of different sizes thereupon, uprights at the ends of the bed-plate having slotted upper ends, a cross-beam slidably mounted in the slots of the uprights for movement in a vertical plane toward and away from the table, a head pivoted to the under side of the cross-beam coaxially with the table, a crank-shaft mounted in the uprights below the bed-plate, pitmen connecting the cranks to the crank-shaft with the ends of the cross-beam, said crank-shaft having a sprocket-wheel mounted thereon, a foot-lever pivoted below the crank-shaft, a sprocket-chain engaged with the sprocket-wheel and attached at one end to the foot-lever, a weight at the opposite end of the chain, a notched segment adjacent to the lever and a knife-edge upon the lever for engagement with the segment whereby the head may be moved and held in clamping relation to the table while the latter is rotated.

In testimony whereof I hereunto set my hand, in the presence of two witnesses, on the 17th day of October, 1900.

JOHN CASPAR LINDER.

Witnesses:

C. M. SUMMERS,  
GEO. T. BYLAND.