No. 777,019. PATENTED DEC. 6, 1904.

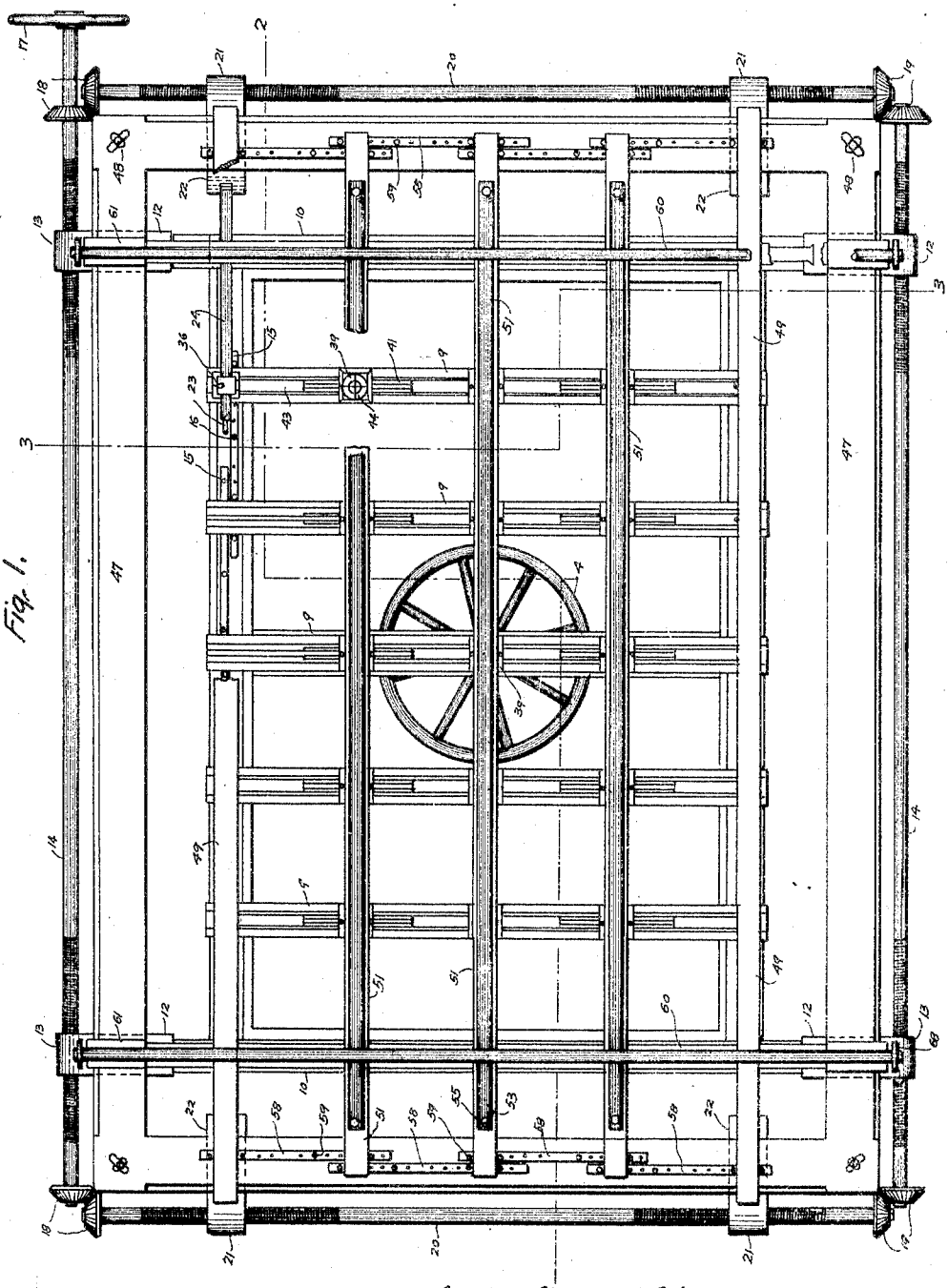
J. H. HAGEDORN.

UPHOLSTERING MACHINE.

APPLICATION FILED OCT. 12, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES:

Miles H. Seymour.

C. McElroy.

John Henry Hagedorn INVENTOR.

BY O. E. Foulds

ATTORNEY.

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NO MODEL. 3 SHEETS—SHEET 2.

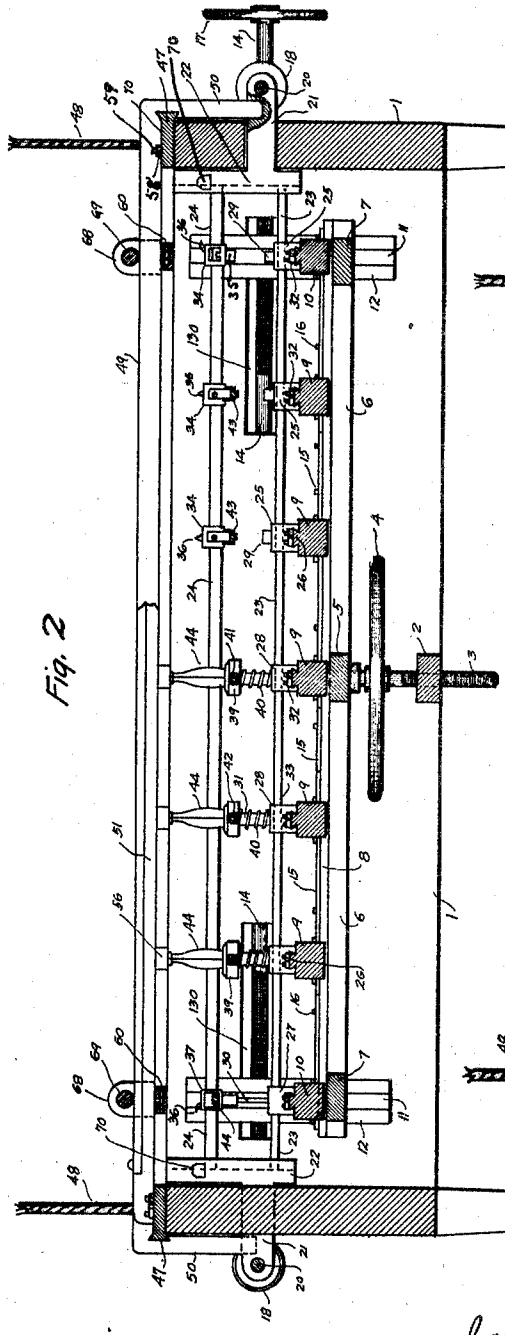


Fig. 2

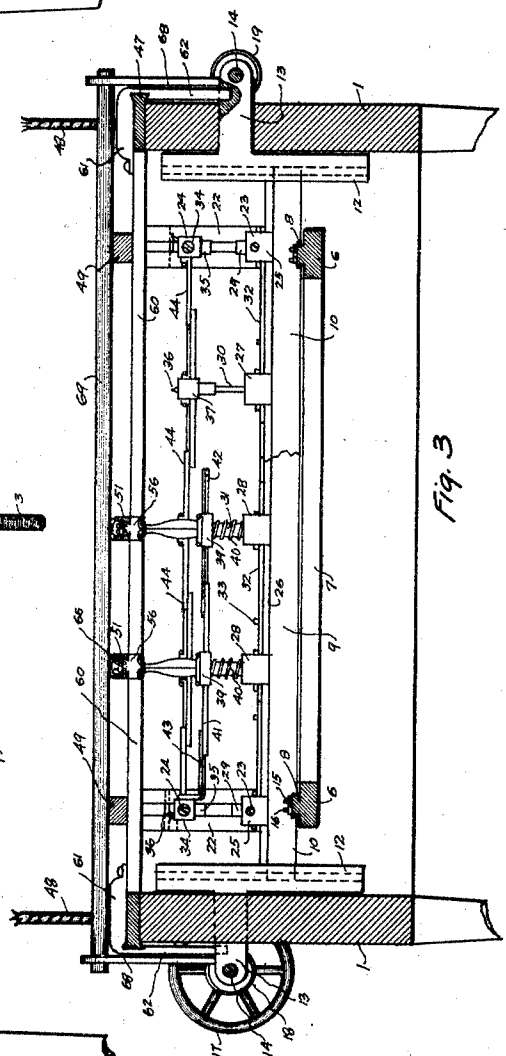


Fig. 3

WITNESSES:

Niles H. Seymour

C. McElroy.

John Henry Hagedorn, INVENTOR.

BY R. E. Foulke

ATTORNEY.

PHOTO-LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO., NEW YORK.

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UPHOLSTERING MACHINE.

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NO MODEL. 3 SHEETS—SHEET 3.

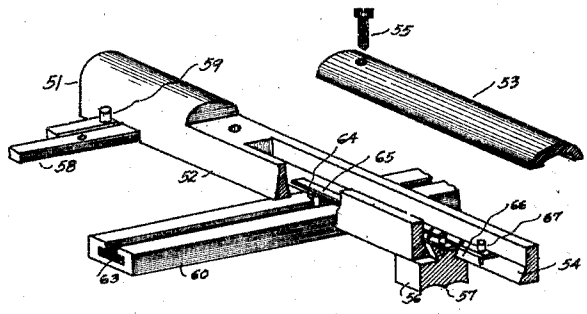


Fig. 4

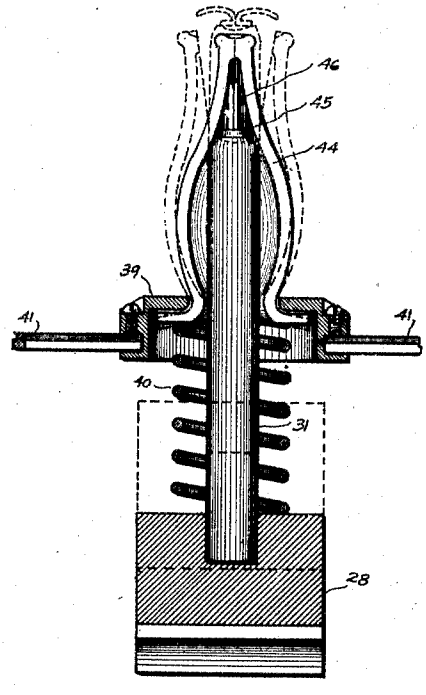


Fig. 6

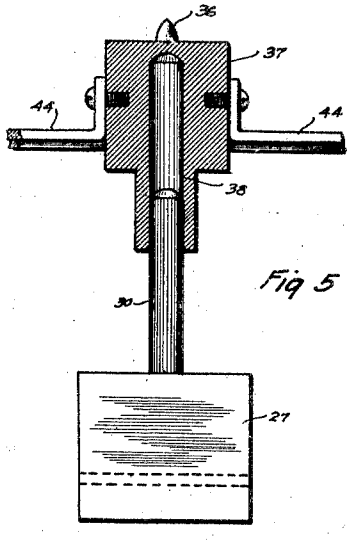


Fig 5

WITNESSES:

Niles H. Seymour.

E. McElroy.

John Henry Hagedorn INVENTOR.

BY J. E. Foulds

ATTORNEY.

PHOTO-LITHOGRAPHED AT SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 777,019. Patented December 6, 1904.

UNITED STATES PATENT OFFICE.

JOHN HENRY HAGEDORN, OF CLEVELAND, OHIO.

UPHOLSTERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 777,019, dated December 6, 1904.

Application filed October 12, 1903. Serial No. 176,649. (No model.)

To all whom it may concern:

Be it known that I, JOHN HENRY HAGEDORN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Upholstering-Machines, of which the following is a specification.

This invention relates to machines for upholstering mattresses, couches, and the like; and it has for its objects the production of a machine of this character that will automatically regulate the size of the tufts in both a longitudinal and transverse direction, which will at the same time automatically provide the proper fullness for the tufts, which will automatically force the buttons through the leather or other fabric employed, and which will also clench or otherwise upset the buttons on the rear side of the mattress or couch. These various objects I attain in the structure illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved upholstering-machine, some of the parts being broken away in order that other parts may more clearly appear. Fig. 2 is a longitudinal sectional view taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a transverse sectional view taken substantially on line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of a portion of the upper frame. Fig. 5 is a view, partly in section and partly in elevation, of one of the end base-blocks for holding the fabric and the means for moving said blocks; and Fig. 6 is a sectional view showing one of the button-holders and the plunger for thrusting the button through the fabric.

Similar reference characters designate corresponding parts throughout the several views of the drawings, in which—

1 represents the main frame of the machine, within which is supported the operating mechanism, the weight of the greater portion of the latter being sustained by a stationary cross-bar 2, as shown in Fig. 2. Passing through this cross-bar and threaded therein is a screw 3, which is provided with a hand-wheel 4, so that the screw may be turned. The upper end of this screw is seated in the central portion of a cross-bar 5 of a frame, the side pieces of which are shown at 6 and the end pieces at 7. By turning the hand-wheel 4 this frame may be raised or lowered, as desired.

As shown in Fig. 3, the side pieces of the frame are provided with dovetailed guides 8, upon which are mounted to slide a series of cross-bars 9 and 10, the bars 10 being at the ends of the machine, as shown in Fig. 2. The bars 10 project beyond the side pieces 6 and enter into grooves 11 in vertical guides or housings 12, that are mounted upon the frame 1 of the machine. These housings or guides are provided with and are supported by outwardly-extending lugs or arms 13, that project through slots 130 in the frame-pieces. The outer ends of these arms are formed into nuts, through which pass the screw-threaded shafts 14 14 on the sides of the machine. By turning the shafts 14 the housings and the end bars 10 may be moved back and forth as desired.

There are no direct connections between the shafts 14 and the inner bars 9; but the latter are moved upon the movement of said shafts by means of spacer-bars 15, that are mounted upon the side bars 6 of the vertically-movable frame, said spacer-bars passing through grooves cut in the bars 9 and 10. These spacer-bars are each provided with a series of perforations, into which are adapted to be inserted adjusting-pins 16, said pins having heads that project above the spacer-bars, so as to engage with the sides of the bars 9 and 10. The middle bar 9, which is directly over the screw 3, does not move laterally; but all of the other bars are so moved when the shafts 14 are turned. The screw-threads on the shafts 14 extend in opposite directions at the opposite ends thereof—that is to say, the screw-threads at the right-hand side of the machine may be right-handed threads, while those on the other end are left-handed threads, or vice versa—this structure moving the two bars 10 simultaneously, either toward or from the center bar 9. As the bars 10 move inwardly, the spacer-bars 15 engaging therewith will be moved, and when the buttons 16 thereon engage the outer bar 9 it will be moved with the bar 10, and the spacer-bar 15 con-

nected therewith will also be moved. When its button 16 engages with the next bar 9, that bar will also move forward toward the center. By properly arranging the pins 16 in the perforations of the spacer-bars 15 the bars 9 and 10 may be spaced apart any desired distance and with perfect regularity. It will of course be understood that when the buttons engage with the sides of the central bar 9 the shafts can no longer be turned and the bars all come to rest.

The shafts 14 are turned by means of a crank or hand-wheel 17, attached to the end of one of the same, the motion from that shaft being transmitted to the other through sets of beveled gears 18 and 19 and end shafts 20. These latter shafts are screw-threaded near their opposite ends, said screw-threads extending in opposite directions for the purpose hereinafter stated, and with these threads engage the threaded arms 21 of transversely-sliding housings or guides 22. Mounted within the slides or housings 22 are the ends of guide bars or rods 23 and 24, the rods 24 being directly above the rods 23. As will be understood from this description, when the shafts 20 are rotated the guides 22 will be moved, which will impart movement to the rods 23 and 24.

Mounted loosely on the rods 23 are a series of base-blocks 25, there being one of these blocks at each end of each of the cross-bars 9 and 10. These base-blocks are mounted to slide upon the said cross-bars when the rods 23 are moved as above described, the said bars being dovetailed on their upper surfaces, as shown at 26, upon which dovetailed portions the blocks are guided. Also mounted to slide upon said dovetailed portions of the cross-bars are other base-blocks 27 and 28, as is shown in Figs. 2 and 3. The base-blocks 25 are provided with short upwardly-extending projections 29, while the base-blocks 27 and 28 are each provided with upwardly-extending stem-pieces 30 and 31, respectively. These base-blocks, with their stems, are shown in enlarged detailed views in Figs. 5 and 6.

As will be understood, the base-blocks 25, 27, and 28 are carried inwardly from the ends of the machine by the cross-bars 9 and 10, which, as has been stated, are moved from the screws 14 through the medium of the guides or housings 12 and the slides 15. The blocks 25 are moved transversely of the machine by means of the rods 23, which are moved by means of the housings 22. The other guide-blocks 27 and 28 are moved from the blocks 25 by means of spacer-bars 32, that are mounted upon the dovetailed portions 26 of the cross-bars 9 and 10. These spacer-bars are also provided with buttons 33, which are inserted in perforations in these bars in the same manner as has been described for the bars 15. With this construction the inward movement of the rods 23 will successively pick up and move the blocks 27 and 28 inwardly. As this movement of the rods 23 is effected by the housings 22 and these housings move simultaneously with the housings 12, which control the movement of the cross-bars 9 and 10, it will be seen that the blocks 25, 27, and 28 are moved toward and from the central portion of the machine by a single operation of the hand-wheel 17.

Mounted to slide upon the rods 24 and to be moved therewith are upper guide-blocks 34, said blocks being provided with downwardly-extending projections 35, that correspond to the upwardly-extending projections 29 on the blocks 25 directly beneath the same. These upper guide-blocks are also provided with short spurs 36, that are adapted to penetrate the fabric used in the upholstering and to hold the same at its outer edges. The upper blocks 37, that are located at the ends of the machine between the rods 24, are also provided with spurs 36, similar to those on the guide-blocks 34, these spurs holding the fabric at its ends.

The upper blocks 37 at the ends of the machine are moved with the lower guide-blocks 27 by means of the stems 30, heretofore described, which stems extend into sockets 38 in said upper blocks, as is shown in Fig. 5. From the foregoing description it will be understood that along each side and end of the machine there are the blocks 34 and 37, each being provided with the spurs 36 for engaging the edges of the fabric. Within this rectangle of side and end blocks and over each of the lower base-blocks 28 there are arranged a series of frame-plates 39, (see Fig. 6,) said frame-plates being moved with the lower base-blocks 28 by means of the stems or plungers 31, heretofore described. The frame-plates 39 are held the proper distance from the base-blocks 28 by means of the coiled springs 40, which surround the plungers 31 and engage with the base-blocks. In order that the frame-plates may be held more rigidly, I prefer to connect the same with one another, through the medium of dovetailed slides 41 and 42, said slides permitting the frame-plates to move toward and from one another and yet holding the same firmly in their proper positions. The frame-plates 39 along the sides are also connected with the upper guide-blocks 34 by means of a similar dovetailed slide 43, which is shown in Fig. 3. The end upper guide-blocks 37 are likewise connected together by means of dovetailed guide-pieces 44, (shown in Fig. 5,) said guide-pieces being similar to the guide-pieces 41 and 42, heretofore described.

As will be seen by reference to Fig. 6, the plungers 31 extend upwardly through the frame-plates 39 into the concavity that is formed by the gripper-jaws 45, which jaws are yieldingly mounted at their lower ends in their frame-plates 39. While these jaws may

be securely pivoted in the frame-plates, I prefer to simply bend their lower ends outwardly beneath the frame-plates, where they are held in position by the springs 40, which bear against their lower sides and press them against the frame-plates. As shown in the plan view in Fig. 1, there are four of these gripper-jaws for each frame-plate, and when they are closed together, as shown in this view, they form a hollow shell, which engages the upper ends of the plunger 31. When these plungers are raised vertically, as will be hereinafter described, they force open the gripper-jaws 44 into the positions shown in dotted lines in Fig. 6. Before these plungers are raised there is a space left above their upper ends, which ends are blunt, as shown, and resting upon the upper ends within this space are buttons 45, having the fastening-prongs 46, which prongs project upwardly. When the plungers are lifted, these buttons are forced out of the gripper-jaws, their prongs penetrating the fabric used in upholstering, and they are then turned over or clenched, as indicated in dotted lines in Fig. 6. This clenching is effected by means which I shall now describe.

Loosely resting upon the upper surface of the main frame 1 is an open rectangular plate 47. This plate, with the mechanism it carries, is adapted to be lifted bodily from the machine by means of ropes 48, which are attached at its opposite corners, as shown in Fig. 1. Extending laterally across the machine near each of its sides and mounted to slide upon the frame-plate 47 are bars 49, said bars being formed with downturned ends 50, which enter into sockets in the arms 21 of the housings or guides 22. When these housings are moved by means of the transverse shafts 20, the bars 49 will be likewise moved. Also extending longitudinally of the machine between the bars 49 are guide-bars 51, said bars being shown most clearly in Fig. 4 of the drawings. As shown therein, these bars are made into parts 52 and 53, said part 52 being slotted and being provided on its interior with dovetailed slides 54 for the purpose hereinafter stated. The other piece of the bar is in the form of a concave cover-plate, which is secured to the part 52 by means of a screw 55 or by other suitable means, the construction being such that when the parts are assembled the slot in the bar 51 will be completely hidden from view. Mounted to slide within the ways 54 in the bars are clenching blocks or anvils 56, the lower surfaces of which are formed with a central cone-shaped projection 57, from which the said surfaces gradually curve away, as shown in Fig. 4. In the operation of the machine these projections 57 are always maintained directly above the meeting-point of the gripper-jaws 44, heretofore described, so that when the buttons 45 are lifted the fastening-prongs 46 will be spread apart and clenched against the back of the fabric, as indicated in Fig. 6.

The bars 51 are moved transversely of the machine with the anvils 56 by means of sliding spacer-bars 58 at each end of the machine, said spacer-bars being provided with movable buttons 59, that are adapted to be inserted into any one of a series of perforations in said spacer-bars. From this description it will be understood that as the side bars 49 are moved positively with the housings 22 the intermediate bars 51 will be successively picked up by the buttons 59 and moved toward the center of the machine. While the machine illustrated in the drawings shows but three of these intermediate bars, it will be understood that the capacity of the machine is practically unlimited and that a very great number of these bars may be employed. The central bar 51, which passes over the lifting-screw 3 (shown in Fig. 1) is stationary, and the buttons 59 on the spacer-bars 58 are shown as engaging with the opposite sides of this central bar, so that these spacing-bars cannot move. The buttons toward the opposite ends of these spacer-bars, however, are set inwardly to the third perforation, so that the adjacent bars 51 may move inwardly to that distance. Likewise the outer spacer-bars 58 are moved positively with the outside bars 49, and the buttons toward their inner ends are spaced outwardly three perforations, so that the outer bars 49 can move the distance of three perforations before the bars 51 adjacent thereto will be picked up and moved. From this description it will be understood that while the outer bars 49 will move immediately upon the rotation of screws 20 the inner bars will be picked up and moved successively after their adjacent bars have moved the distance of three perforations, so that when all the bars come to rest they will be spaced equidistantly.

Extending transversely across the machine at its ends are bars 60, said bars being attached at their ends to angular pieces 61, which slide upon the open rectangular plate 47 and which has a depending arm 62, that extends into sockets formed in the arms 13 of the housings 12. It will thus be seen that when these housings are moved by means of screws 14 the transverse bars 60 will be positively moved accordingly. As shown more particularly in Fig. 4 of the drawings, the bars 60 are formed with T-shaped slots 63 in their upper surfaces. Within these slots project stems 64 on the end of the spacer-bars 65, said spacer-bars lying within the slots in the part 52 of the longitudinal bars 51. These spacer-bars 65 and also the intermediate bars 66 are provided with a series of perforations, as shown, into which are adapted to be inserted pins or buttons 67, which are adapted to engage with and properly space the clenching blocks or anvils 56. It will be under-

stood, therefore, that when the slotted bars 60 are moved as before described the spacer-bars 65 and 66 will be moved and will successively pick up and carry along the anvils 56. As the pins or buttons 67 are spaced in precisely the same manner as are the pins or buttons that control the gripper-jaws 44, it will be evident that the anvils will always be maintained in the proper position to properly coöperate with said jaws to clench the fastening-prongs on the buttons.

In order to hold the frame-plate 47 and the parts supported thereon securely in position, I extend arms or eyepieces 68 upwardly from the arms 13 on the housings 12, and through these eyepieces I insert rods 69, which rest across the longitudinal bars 49 and 51 and hold the frame down.

70 represents stops which are placed in the housings 22, against which the bars 24 abut, said stops preventing the bars from rising above the position shown in Fig. 2. These stops are preferably removable out of the main frame, so that the interior mechanism of the machine can be entirely lifted.

The operation of the machine is as follows: Having determined upon the proper distance between the buttons in the upholstering, or, in other words, upon the size to make the tufts, the upper frame 47 is lifted by means of the ropes 48 and the operator spaces the various pins and buttons in the different spacer-bars. He then places the buttons 45 within the gripper-jaws, after which he spreads the cloth, leather, or other material that is to form the front covering for the upholstering over the machine and attaches its edges to the spurs 36. He then lowers the upper frame 47 into position, with the arms 50 and 62 entering the sockets in the housings 22 and 12, respectively, which brings the anvils 56 down into contact with the said covering material over the ends of the gripper-jaws. He then turns the hand-wheel 17 to revolve the various screw-shafts, which operation moves inwardly all of the various parts heretofore described, so as to properly space the gripper-jaws. Inasmuch as the covering material will be held from slipping over the ends of the gripper-jaws, the inward movement of said jaws and the spurs 36 will provide the proper fullness for the tufts of the upholstering, the said material looping down between said jaws, forming open pockets therebetween. The upholsterer then takes the hair, moss, or other material and fills these pockets to the required extent. The upper frame is then lifted and the material for the back covering of the couch or mattress is then put in place, after which the upper frame 47 is again lowered and is secured in position by means of the rods 69. The hand-wheel 4 beneath the machine is then rotated, which lifts the frame-pieces 5, 6, and 7, with the cross-bars 9 and 10 and the lower guide-blocks, with the result that the plungers 31 are forced upwardly through the gripper-jaws 44 and the fastening-prongs 46 of the buttons 45 penetrate the fabric of the upholstering and are clenched against the anvils 56. In order to prevent an excess of movement of these plungers, the projections 29 and 35 on the upper and lower guide-blocks are provided, which projections engage one another and stop the movement of the lower frame-pieces. After the buttons are securely clenched in the manner thus described the hand-wheel 4 is rotated reversely and the various parts lowered to their normal positions, after which the upper frame is again removed and the work taken from the machine.

As will be understood, when all the pins in the various spacer-blocks are inverted in corresponding perforations therein the tufts will be square in shape. If those that control the transverse movement of the gripper-jaws are spaced differently from those that control the longitudinal movement of the same, the tufts will be elongated. If the buttons are irregularly spaced, the tufts will be of corresponding outline, the shape depending upon the arrangement of the buttons. It will thus be seen that the sizes and shapes or outside dimensions of the tufts are governed by the arrangement of the buttons in the various spacing-bars. From this description it will be understood that the precise direction of movement of the gripper-jaws is dependent upon the arrangement of the buttons in the spacer-bars. The general direction of movement, however, is toward a common point at the center of the machine, and I have therefore used the expression "toward a common point" in the claims.

While I have illustrated and described my machine as using buttons for fastening the front and rear covers of the upholstering together, I desire it to be understood that other means for securing these parts may be employed and that my claims are not to be construed as limited to buttons unless such securing means are specifically included therein. As far as I am aware I am the first person to ever provide means for automatically spacing the distance between the buttons on the devices upholstered and the first to ever provide means for automatically and simultaneously attaching the front and back covering of the upholstering together between the tufts. I am therefore claiming the invention as broadly as thus indicated.

It will be noted that throughout the claims I have employed the term "couch." This term is used in the claims in a generic sense, as it is intended thereby to include mattresses, chairs, cushions, and all forms of upholstered work.

The term "rear covering" as used in the claims is intended to mean the burlap or canvas immediately covering the hair or moss

and against which the prongs of the buttons are clenched.

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

1. In an upholstering-machine for couches and the like, the combination of a frame whereon upholstering material is supported, means for supporting such material at a plurality of points corresponding to the corners of the pockets, and power-actuated mechanism for adjusting the supporting means toward and from a common point whereby both lateral dimensions of the pockets may be adjusted at each operation of such mechanism.

2. In an upholstering-machine for couches and the like, the combination of means for supporting the edges of the front and back coverings, mechanism for securing said coverings together between the tufts of the couch, and power-actuated mechanism for regulating by a single operation both the size and the fullness of the tufts.

3. In an upholstering-machine for couches and the like, means for supporting the front and back coverings for the couch, means by which the said coverings may be secured together at a plurality of points at one and the same operation, and power-actuated mechanism for regulating at will the distance between the said points.

4. In an upholstering-machine for couches and the like, a main frame, power-actuated mechanism supported by said frame for regulating the size of the tufts on the couch, and power-actuated mechanism for securing together the coverings of the couch between the tufts at a plurality of points by a single and the same operation.

5. In an upholstering-machine for couches and the like, independently-movable means to which the edges of the front covering of the couch may be secured, and power-actuated mechanism for moving said securing means toward and from a common point.

6. In an upholstering-machine for couches and the like, the combination of means for supporting the front covering for said couch at its edges, a plurality of supports for said covering within the edges thereof, and power-actuated mechanism for moving both of said supporting means relatively to one another and toward and from a common point, whereby said covering is looped into pockets.

7. In an upholstering-machine for couches and the like, a plurality of supports for the front covering of said couch, mechanism for moving such supports toward a common point whereby said covering is looped into pockets, and devices for checking the movement of such supports at such places as will cause them to be spaced as desired.

8. In an upholstering-machine for couches and the like, a plurality of supports for the front covering of said couch, power-actuated mechanism for moving such supports toward and from a common point whereby said front covering is looped into pockets, and devices for securing together the front and back coverings at points adjacent to the supports.

9. In an upholstering-machine for couches and the like, a plurality of supports for the front covering of the couch, mechanism for moving said supports toward a common point, devices for checking the movement of said means at such places as will leave them spaced as desired, and means for securing together the front and back coverings of the couch at points adjacent to said supports.

10. In an upholstering-machine for couches and the like, a main frame, a series of button-holders supported by said frame, means for applying the buttons to the couch so as to cause them to hold the front and rear coverings together, and power-actuated mechanism for regulating by a single operation the distance between the button-holders.

11. In an upholstering-machine for couches and the like, means for supporting the front and back coverings for the couch, means for simultaneously securing said coverings together at a plurality of points, and power-actuated mechanism for regulating by a single operation the distance between such securing means.

12. In an upholstering-machine for couches and the like, a main frame, means supported by said frame for holding the front and back coverings for the couch, a series of button-holders also supported by the said frame, means for applying the buttons to the couch so as to cause them to hold the front and rear coverings together, and power-actuated mechanism for regulating by a single operation the distance between the button-holders.

13. In an upholstering-machine for couches and the like, a main frame, a series of devices supported by said frame for holding buttons, said buttons being provided with fastening-prongs, means for causing said prongs to penetrate the coverings of the couch, means for clenching said prongs to hold the coverings together, and power-actuated mechanism for regulating by a single operation the distance between the button-holders.

14. In an upholstering-machine for couches and the like, a main frame, means supported by said frame to which the edges of the front and rear coverings of the couch may be secured, a series of devices also supported by said frame for holding buttons, said buttons being provided with fastening-prongs, means for causing said prongs to penetrate the coverings of the couch, means for clenching said prongs to hold the coverings together, and power-actuated mechanism for regulating by a single operation the distance between the button-holders.

15. In an upholstering-machine for couches and the like, separately-movable means to

which the edges of the front covering of the couch may be secured, a series of separately-movable devices for holding buttons, said buttons being provided with fastening-prongs, mechanism for moving the said securing means and the said button-holding devices toward a common point whereby the said covering is looped into pockets, means for causing the prongs on the buttons to penetrate the covering of the couch, and means for clenching the said prongs.

16. In an upholstering-machine for couches and the like, a series of separately-movable means to which the edges of the front covering of the couch may be secured, a series of separately-movable devices for holding buttons, said buttons being provided with fastening-prongs, mechanism for moving the said securing means and the said button-holding devices toward a common point whereby the said covering is looped into pockets, spacing appliances for checking the movement of the said means and devices so as to have them properly spaced, means for causing the prongs on the buttons to penetrate the coverings of the couch, and means for clenching the said prongs.

17. In an upholstering-machine for couches and the like, a series of separately-movable means to which the edges of the front covering of the couch may be secured, a series of separately-movable devices for holding buttons, said buttons being provided with fastening-prongs, mechanism for moving the said securing means and the said button-holding devices toward a common point whereby the said covering is looped into pockets, spacing appliances for checking the movement of the said means and devices so as to have them properly spaced, means for causing the prongs on the buttons to penetrate the coverings of the couch, anvils for clenching the said prongs, and spacing appliances for moving the said anvils with the button-holding devices.

18. In an upholstering-machine for couches and the like, a main frame, rods mounted on said frame at the sides and ends, said rods being geared to turn together and each being provided with right and left handed screw-threads, a series of devices to which the edges of the front covering of the couch may be secured, and means connecting said devices with the said rods so that as the latter are turned the devices will be moved toward a common point.

19. In an upholstering-machine for couches and the like, a main frame, rods mounted on said frame, at the sides and ends thereof; said rods being geared to turn together and each being provided with right and left handed screw-threads, a series of means to which the edges of the front covering of the couch may be secured, a series of devices for supporting the covering within its edges, and connections between said rods and said securing means and supporting devices for moving said means and devices toward a common point, whereby the said front covering is formed into pockets for the purpose specified.

20. In an upholstering-machine for couches and the like, a main frame, rods mounted on said frame at the sides and ends thereof, said rods being geared to turn together and each being provided with right and left handed screw-threads, a series of means to which the edges of the front covering of the couch may be secured, a series of devices for supporting the covering within its edges, means connecting the said rods with the said securing means whereby the latter may be moved toward the center of the machine, spacer-bars connecting the said securing means with the said supporting devices, and pins adjustably carried by said spacer-bars whereby the supporting devices are successively picked up and carried toward a common point when the said securing means are moved.

21. In an upholstering-machine for couches and the like, a main frame, a movable frame mounted within the said main frame, a series of button-holding devices supported by said movable frame, the buttons being provided with fastening-prongs, an upper frame carried by the main frame, a series of anvils mounted on said upper frame, and means for lifting the movable frame so as to cause the anvils to clench the prongs on the buttons.

22. In an upholstering-machine for couches and the like, a main frame, a movable frame supported by said main frame, a series of means to which the edges of the couch-covering may be secured, a series of button-holding devices supported by the movable frame, the buttons in said device being formed with fastening-prongs, an upper frame, a series of anvils carried by said upper frame over the said button-holding devices, and means for lifting the movable frame so as to force the buttons toward the anvils whereby their prongs are caused to penetrate the couch-covering and to be clenched against the said anvils.

23. In an upholstering-machine for couches and the like, a main frame, a movable frame supported therein, a series of means to which the edges of the front covering of the couch may be secured, a series of button-holding devices supported by the movable frame, said devices supporting the front covering within its edges and the buttons being provided with fastening-prongs, mechanism by which the said securing means and the said button-holders may be moved toward a common point, whereby the said front covering is looped into pockets, an upper frame, a series of anvils carried by said upper frame, means by which said anvils are moved in accordance with the movement of the button-carriers, and means for lifting the movable

frame, whereby the prongs on the buttons are caused to penetrate the coverings of the couch and to be clenched by the said anvils.

24. In an upholstering-machine for couches and the like, a main frame, a movable frame mounted therein, and a series of button-holders supported by said movable frame, said button-holders having a plurality of movable jaws, the said jaws being normally closed together so as to form a hollow shell, a series of plungers carried by the movable frame and normally projecting into the hollow of the shell formed by the jaws, the buttons having fastening-prongs and resting on top of said plungers within the said shell, means for lifting the movable frame whereby the plungers open said jaws and force the buttons therethrough, and means for engaging and clenching said prongs.

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

JOHN HENRY HAGEDORN.

Witnesses:
S. E. FOUTS,
C. N. FISCUS.