July 25, 1933. H. E. HICKS 1,919,944

STAPLE SETTING MACHINE

Filed Nov. 19, 1931 3 Sheets-Sheet 1

Fig. 1.

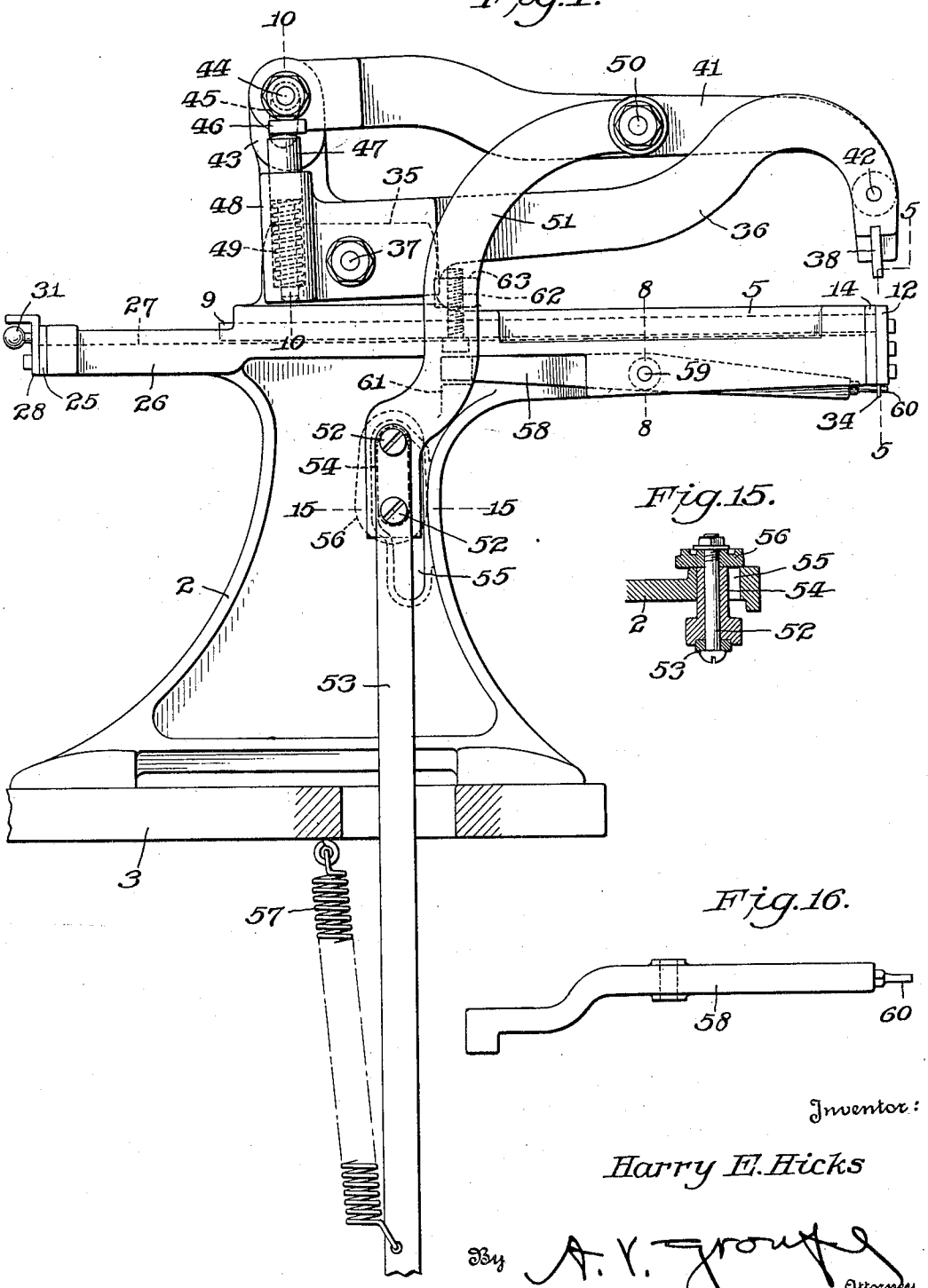


Fig. 15.

Fig. 16.

Inventor:

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By A. Y. Grout

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STAPLE SETTING MACHINE

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Fig. 2.

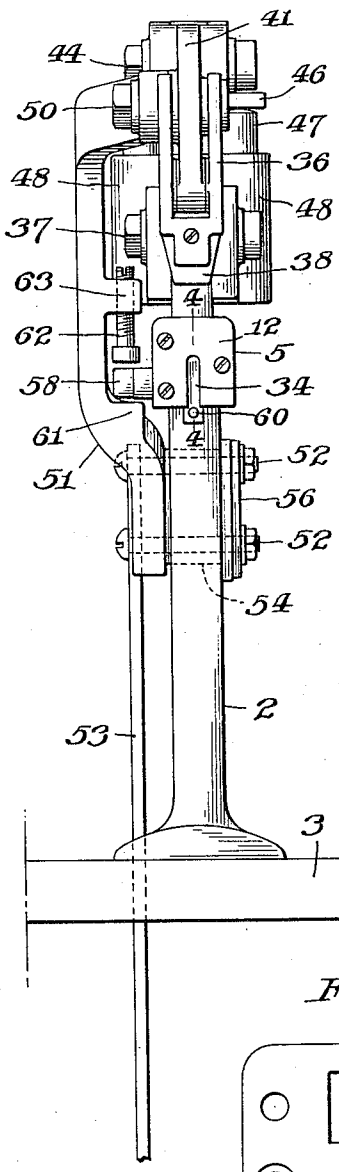


Fig. 4.

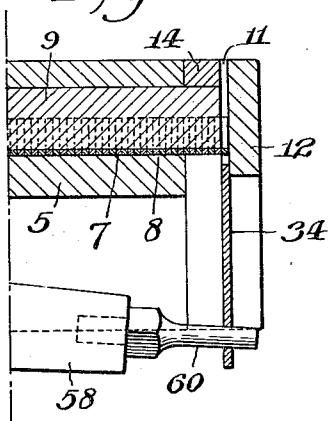


Fig. 8.

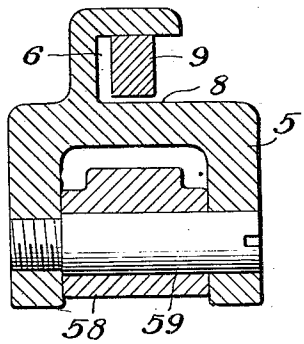
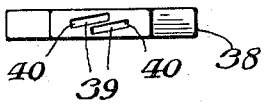
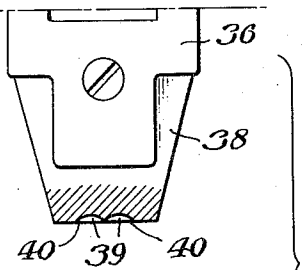


Fig. 5.

Fig. 6.





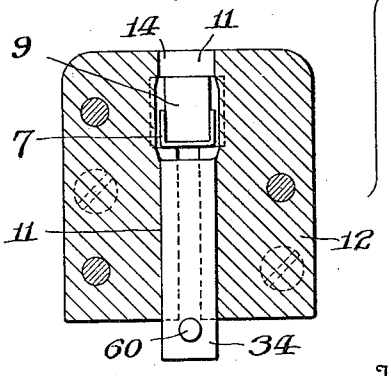
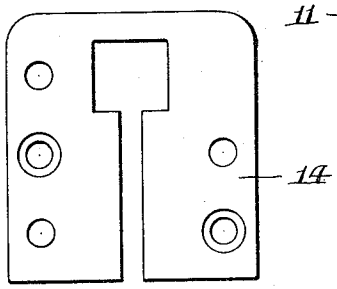


Fig. 7.



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STAPLE SETTING MACHINE

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Fig. 3.

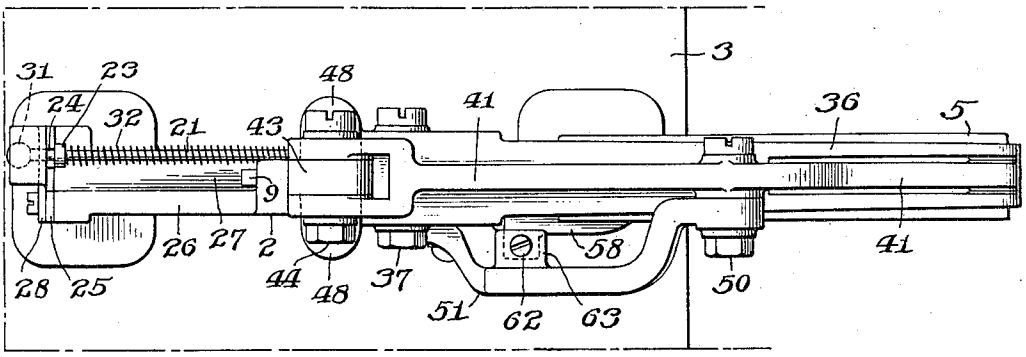


Fig. 10.

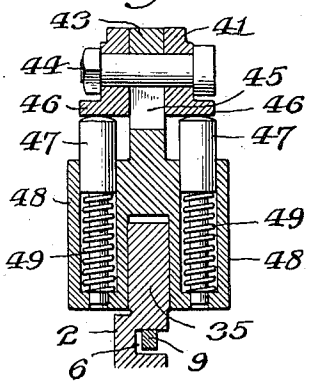


Fig. 9.

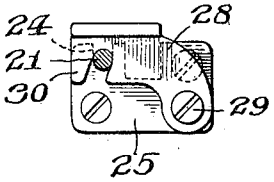


Fig. 11.

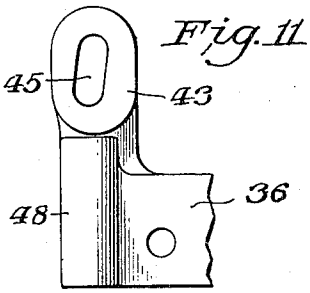


Fig. 14.

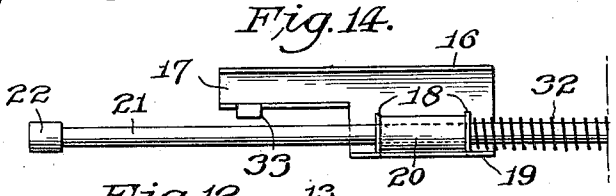


Fig. 13.

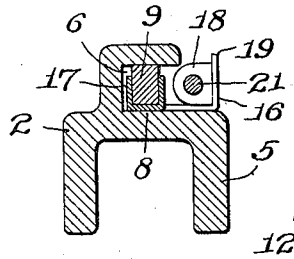
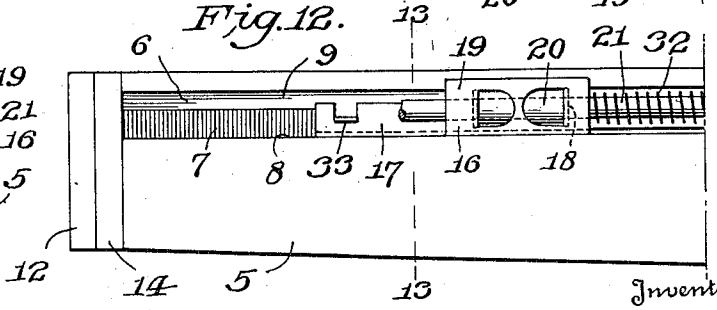


Fig. 12.



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Patented July 25, 1933 1,919,944

UNITED STATES PATENT OFFICE

HARRY E. HICKS, OF PALMYRA, NEW JERSEY, ASSIGNOR TO ACME STAPLE COMPANY, OF CAMDEN, NEW JERSEY, A CORPORATION OF NEW JERSEY

STAPLE SETTING MACHINE

Application filed November 19, 1931. Serial No. 576,074.

This invention relates to improvements in staple setting machines particularly, though not exclusively, adapted for use in setting staples in the walls of hollow articles, such as shoes, where it is desirable to have the staple prongs penetrate the articles from the interiors to the exteriors thereof and to clinch the staple prongs on the exteriors of the articles.

An object of the invention is to simplify and cheapen the construction of machines heretofore used for this purpose and to this end the invention provides for the use of guiding and feeding mechanism in combination with staple driving and clinching mechanism wherein a row of staples may be fed in a direct line to the staple driver and into the hollow work, when hollow work is being acted upon, and wherein the staples may be successively driven from said row by the staple driver during staple setting operations.

Another object of the invention is to provide novel, simple and efficient mechanism for driving and clinching the staples.

The invention resides in the elements and the combinations of them hereinafter described and claimed.

In the accompanying drawings illustrating the invention.

Figure 1 is a side view of a staple setting machine showing one form of embodiment of the invention.

Figure 2 is a front view thereof.

Figure 3 is a top view thereof.

Figure 4 is a section, enlarged, through the staple driver and adjuncts, on line 4—4 of Fig. 2.

Figure 5 is a section through the staple clinching anvil and the guiding plate for the staple driver and staples, on line 5—5 of Fig. 1.

Figure 6 is a bottom view of the anvil.

Figure 7 is a front view of the inner frame plate for guiding the staple driver.

Figure 8 is a sectional detail on line 8—8 of Fig. 1, showing the staple guiding bar and the pivot for the lever for operating the staple driver.

Figure 9 is a view showing the rod of the staple follower in section and the parts which hold the rear end thereof in place as seen from the back of the machine.

Figure 10 is a section, on line 10—10 of Fig. 1, showing the yieldable, slidable connection between the anvil carrying member and its operating arm and a part of the frame of the machine.

Figure 11 is a side view of the rearward end portion of the anvil carrying member.

Figure 12 is a side view of the forward end portion of the work receiving arm and parts carried thereby as seen from the side of the machine opposite to that shown in Fig. 1, a part of the follower rod broken away.

Figure 13 is a transverse section through the parts shown in Fig. 12, on line 13—13 of Fig. 12.

Figure 14 is a top view of the staple follower and its rod and spring.

Figure 15 is a sectional detail, on line 15—15 of Fig. 1, showing the guiding means for the operating member.

Figure 16 is a top view of the lever for operating the staple driver.

Referring to the drawings, 2 designates the supporting frame of the machine which is suitably secured upon a table or support 3.

The frame 2 is provided with a forwardly extending arm 5 adapted to receive and support the work to be stapled.

One side of the upper portion of the frame 2 and its arm 5 have a channel formed therein which constitutes a magazine 6 for a row of staples 7. The staples 7 rest upon and are supported by the bottom wall 8 of the channel or magazine 6 with the staple prongs directed upwardly and embracing a bar 9 which extends longitudinally through the channel 6 and is secured at its top to the top wall of the channel. This bar 9 serves to maintain the staples 7 in the magazine and to guide them in a straight line as they are advanced toward the front of the arm 5.

The forward end of the horizontally-extending channel or magazine 6 opens into a vertically-extending channel or guide 11 formed by and between two plates 12 and 14, which are secured to the forward end of the arm 5 and form, in effect, a part of the arm or machine frame. The forward end of the bar 9 is flush with the forward surface of the inner plate 14 parts of which form the rearward wall of the channel or guide 11. The side walls of the channel 11 are formed by the sides of a groove cut in the front plate 12.

The row of staples 7 is fed forwardly within the magazine 6, guided by the bar 9, toward and against the rearward surface of the plate 12 by a follower 16. This follower is formed of sheet metal and it rests upon the bottom wall 8 of the channel or magazine 6 and has a forwardly extending portion 17 which embraces the bar 9 and is adapted to engage the staples. The rearward portion of the follower extends outwardly from the channel 6 and has two spaced lugs 18 struck from a vertical flange 19 thereon. Slidable through these lugs 18 and through a sleeve 20 which extends between them is a long rod 21 which has a head 22 secured on its forward end and which has a collar 23 secured thereto near its rearward end. The forward end of the rod 21 is supported by the follower 16 and the rearward end portion of the rod 21, outwardly of the collar 23 rests within a socket or depression 24 formed in a plate 25 which is secured to the rearward end of an arm 26. This arm 26 is formed on and extends from the main body of the frame 2, and the arm 26 has a top surface 27, Fig. 3, which forms a continuation of the bottom wall 8 of the channel or magazine 6. The rod 21 is maintained within the socket 24 by a latch arm 28 which is pivoted to the plate 25, at 29, and which is provided with a notched portion 30 which embraces the upper portion of the rod 21 between the plate 25 and a head 31, Fig. 3, secured on the rearward end of the rod. A spring 32 encircles the rod 21 between one of the lugs 18 of the follower and collar 23 and urges the follower and staples toward the front plate 12. The follower 16 is provided with a laterally extending projection 33 which is adapted to engage the plate 14 and prevent the forward end of the follower from entering the vertical guiding channel 11.

When it is desired to supply the magazine 6 with a fresh row of staples, the latch arm 28 is raised from engagement with the rod 21, the rod 21 is raised from the depression 24 in the plate 25 and the follower 16 is removed rearwardly from the magazine 6. The fresh staples may now be placed upon the surface 27, Fig. 3, and slid into the magazine 6 in embracing relation to the bar 9; and, thereafter, the follower 16 may be likewise slid into the magazine 6, the rearward end portion of the rod 21 placed within the depression 24, and the latch arm 28 re-engaged with the rod 21 to hold it in place. When the rod and follower are being applied to the machine the rod slides through follower after the follower engages the row of staples, and while hand pressure against the rearward end of the rod compresses the spring 32 and until the collar 23, Fig. 3, is in a position to engage the inner surface of the plate 25 and enter the depression 24. After the rod 21 is placed within the depression 24, the spring 32, forcing the collar 23 against the plate 25 and the follower 16 against the row of staples 7, urges the staples forwardly. When the rod 21 and follower 16 are removed from the machine, the spring 32 holds one of the lugs 18 of the follower in contact with the head 22 on the forward end of the rod 21.

The space between the forward end of the staple guiding bar 9 and the forward wall of the vertically-extending channel or guide 11 is equal to or slightly in excess of the width of the wire forming the staples 7 so that the foremost staple of the row thereof occupies a position within the channel 11 free from the forward end of the bar 9 and directly above a plate-like staple driver 34 which is adapted to be reciprocated vertically within the channel or guide 11 and to act against the staples successively and drive them upwardly through the channel 11.

Each time the staple driver 34 is moved upwardly by mechanism hereinafter described, it drives the foremost staple upwardly through the guide 11, and each time the driver 34 is moved downwardly to the position shown in the drawings, after a staple driving operation, the spring 32 acts against the row of staples 7 to feed them forwardly and move the foremost staple of the row into the vertical guiding channel 11.

The frame 2 is provided with an upwardly extending lug 35 which is embraced by the rearward end portion of a member 36 which is pivoted thereto, at 37. This member 36 extends forwardly from its pivot and over the arm 5 and has a downwardly-directed staple clinching anvil 38 secured to its forward end portion. The forward portion of the member is of goose-neck shape to provide clearance space for work placed upon the arm 5.

The member 36 is movable on its pivot 37 to lower and raise the anvil 38, and when the anvil 38 is lowered into engagement with work placed upon the arm 5 the central portion of the anvil is directly above and in alinement with the vertical guiding channel 11 for the staples, or substantially so.

The bottom of the anvil 38 is provided with two laterally adjacent grooves 39 for receiving and clinching the prongs or legs of the staples as they are driven upwardly through the guiding channel 11. The grooves 39 have entrance openings 40 which are located directly over the prongs of the staple within the channel 11, and the grooves extend from their entrance openings 40, on the respective sides of a straight line connecting the openings in laterally adjacent positions, as shown in Fig. 6, so that when the staple prongs are forced into the grooves 39, the prongs will be forced into lapping lateral relation by the walls of the grooves.

Arranged above the anvil-carrying member 36 is an arm 41 the forward end portion of which extends downwardly and into an opening in the forward end portion of the member 36 and is pivoted thereto, at 42. The rearward end portion of the arm 41 is bifurcated and it embraces a lug 43, which extends upwardly from the rearward end portion of the member 36. The bifurcated end of the arm 41 is fitted to move or slide vertically with relation to the lug 43 and it is provided with a bolt or pin 44 which extends between the furcations of the arm and through a slot 45 formed in lug 43. The upper end of the slot 45 serves as a stop to be engaged by the pin 44 to limit the upward movement of the rearward end of the arm 41 relatively to the member 36.

The furcations at the rearward end of the arm are provided with outwardly-extending projections 46 which are engaged by the upper ends of pins 47 which are fitted to slide up and down in protuberances 48 which extend outwardly from the respective sides of the rearward end portion of the member 36. The lower portions of the pins 47 are reduced in diameter and the reduced portions are encircled by helical springs 49 which are housed within the protuberances 48 and exert upward pressure against the pins 47 and arm 41, as clearly illustrated in Fig. 10. The pressure of the springs 49 hold the pin or bolt 44 normally at the upper end of the slot 45 and they serve as a yieldable means for supporting the rearward end of the arm 41 for a purpose hereinafter explained.

Pivoted, at 50, to the arm 41 is the forwardly-extending upper end portion of an operation part or member 51. The lower end portion of this member 51 is connected by two bolts 52 to the lapping upper end portion of a bar 53. This bar 53 may be connected to a suitable pedal for operating the machine by foot power or it may be moved downwardly by a suitable means to effect the operation of the machine.

The lower end portion of the operating member 51 is provided with an elongated bearing part 54 which extends laterally from the member 51 and through a slot 55 in the main body of the frame 2. The bearing part 54 has a plate 56 secured thereto by means of the bolts 52 which secure the operating member 51 and bar 53 together. This plate 56 is located on the side of the frame opposite to that occupied by the operating member 51, and the plate 56 is adapted to engage and slide against the adjacent side of the frame 2 and prevent the bar 53 from pulling the bearing part 54 from its correct position within the slots 55 when the bar is pulled downwardly for the operation of the machine.

The upper portion of the slot 55 is wider than the lower portion thereof and wider than the bearing part 54, as shown in Fig. 1, so that during the initial downward movement of the bar 53 it may pull the bearing part 54 forwardly and into contact with the forward wall of the slot 55, and that, during the continued downward movement of the bar 53, the bearing part 54 may slide downwardly in contact with and bearing against the straight, vertical forward wall of the slot 55. This construction enables me to connect the operating member 51 to the arm 41 a good distance forwardly of the pivot 37 of the anvil-carrying member 36 for the most advantageous leverage in operating the parts, and, at the same time, it enables me to control the movement of the operating member 51 and provide the desired clearance for work to be inserted between the arm 5 and member 36 well back into the machine.

The bar 53, member 51, arm 41 and member 36 are maintained normally elevated in the position illustrated in Fig. 1, with the top of the bearing part 54 engaging the top of the slot 55 and limiting the upward movement thereof, by a spring 57 one end of which is attached to the bar 53 and the other end of which is attached to the table or support 3. When the bar 53 is pulled downwardly for the operation of the machine, it operates against the pull of the spring 57, and, when the bar 53 is released, after the operation of the machine, the spring 57 raises the parts to the normal position.

The staple driver 34 is operated by a lever 58 which is fulcrumed in the arm 5, at 59, and which rests normally in the position shown in Fig. 1 by the weight of the forward portion thereof. The forward portion of the lever 58 is housed within the hollow lower portion of the arm 5 and its forward end is provided with a forwardly extending pin or projection 60 which extends through a hole or opening in the lower end portion of the staple driver 34, whereby the driver will be reciprocated by the lever 58 when it is rocked on its fulcrum. The rearward portion of the lever 58 extends outwardly from the arm 5 and its free end is located between a lug 61, projecting from the operating member 5 beneath said free end, and a screw 62 above said free end and screwed into and through a lug 63 projecting from the member 51.

When the bar 53 and operating member 51 are pulled downwardly to operate the machine, the screw 62 engages the rearward end of the lever 58 and moves it downwardly, thereby moving its forward end and therewith the staple driver 34 upwardly to drive or set a staple; and, when the member 51, is raised, as the parts are returned to normal position, after a staple-setting operation, the lug 61 on the member 51 acts, if

need be, to return the lever 58 and therewith the staple driver 34 to normal position.

The clearance space between the lever 58 and screw 62 permits the operating member 51 to move the anvil-carrying member 36 downwardly until the work to be stapled is clamped between the anvil 38 and the arm 5 before the continued downward movement of the member 51 operates the lever 58 to raise the staple driver 34 to drive and clinch a staple.

By adjusting the screw 62 to vary the space between it and the lever 58, the timing of the operation of the staple driver with relation to the downward movement of the anvil 38 may be nicely regulated.

The operation of the machine, briefly described, is as follows:

The work is placed upon the arm 5 with the parts thereof to be stapled in position under the anvil 38 and over the vertical guiding channel 11, and with the arm 5 extending into the hollow work when the work is hollow and it is desired to staple the same from the interior to the exterior thereof.

After the work has been placed in position, the bar 53 and operating member 51 are pulled downwardly by foot, hand or other power against the action of the spring 57. During the initial downward movement of the operating member 51 it moves the anvil-carrying member 36 and arm 41 downwardly as a unit and until the anvil 38 engages the work upon the arm 5 and clamps the work between the arm and the anvil and stops the further downward movement of the member 36. After the work has been clamped between the arm 5 and the anvil 38 and the downward movement of the anvil stopped thereby, the continued downward movement of the operating member moves the arm 41 against the action of the spring 49 and causes the screw 62 carried by the member 51 to operate the lever 58 to move the staple driver 34 upwardly and thereby drive the foremost staple 7 of the row thereof upwardly through the vertical guiding channel 11 and through the work upon the arm 5 and into the clinching grooves 39 of the anvil 38 which clinches the staple prongs upon the work and completes the setting of the staple. During the setting of the staple, the crown thereof, engaging the bottom of the work upon the arm 5, limits the downward movement of the bar 53 and operating member 51.

After the staple has been set, the bar 53 is released and the spring 57 returns the parts to the normal position shown in the drawings, and the follower 16 advances the row of staples in the magazine 6 to move the next succeeding staple into the vertical guiding channel 11 for a succeeding staple setting operation.

I claim as my invention:

1. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and movably mounted on the frame to move the anvil toward and from said guiding means, an arm carried by and having one end portion thereof operatively connected to said member, yieldable means supporting the other end portion of the arm, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, a staple driver, and means operated by said part for moving the staple drived toward the anvil.

2. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and movably mounted on the frame to move the anvil toward and from said guiding means, an arm carried by and having one end portion thereof operatively connected to said member, yieldable means supporting the other end portion of the arm, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, a lever fulcrumed on the frame and operated by said part, and a staple driver operatively connected to the lever and adapted to be moved thereby toward and from the anvil.

3. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and pivoted to the frame to move the anvil toward and from said guiding means, an arm having one end portion thereof pivoted to said member and the other end portion thereof yieldably supported by said member, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, a staple driver, and means operated by said part for moving the staple driver toward the anvil.

4. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and pivoted to the frame to move the anvil toward and from said guiding means, an arm having one end portion thereof pivoted to said member and the other end portion thereof yieldably supported by said member, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, a lever fulcrumed on the frame and operated by said part, and a staple driver operatively connected to the lever and adapted to be moved thereby toward and from the anvil.

5. In a staple setting machine, the com-

bination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and movably mounted on the frame to move the anvil toward and from said guiding means, an arm carried by and having one end portion thereof operatively connected to said member, yieldable means supporting the other end portion of the arm, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, yieldable means acting upon said part and said member to hold said anvil normally in a position spaced from said guiding means, a staple driver, and means operated by said part for moving the staple driver toward the anvil.

6. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and movably mounted on the frame to move the anvil toward and from said guiding means, an arm carried by and having one end portion thereof operatively connected to said member, yieldable means supporting the other end portion of the arm, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, yieldable means acting upon said part and said member to hold said anvil normally in a position spaced from said guiding means, a lever fulcrumed on the frame and operated by said part, and a staple driver operatively connected to the lever and adapted to be moved thereby toward and from the anvil.

7. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and pivoted to the frame to move the anvil toward and from said guiding means, an arm having one end portion thereof pivoted to said member and the other end portion thereof yieldably supported by said member, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, yieldable means acting upon said part and said member to hold said anvil normally in a position spaced from said guiding means, a staple driver, and means operated by said part for moving the staple driver toward the anvil.

8. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and pivoted to the frame to move the anvil toward and from said guiding means, an arm having one end portion thereof pivoted to said member and the other end portion thereof yieldably supported by said member, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, yieldable means acting upon said part and said member to hold said anvil normally in a position spaced from said guiding means, a lever fulcrumed on the frame and operated by said part, and a staple driver operatively connected to the lever and adapted to be moved thereby toward and from the anvil.

9. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil, a member carrying said anvil and pivoted to the frame to move the anvil toward and from said guiding means, an arm having one end portion thereof pivoted to said member and the other end portion thereof slidably connected to said member and yieldably supported thereby, a movable operating part pivoted to said arm for operating it and said member to move the anvil toward said guiding means, a staple driver, and means operated by said part for moving the staple driver toward the anvil.

10. In a staple setting machine, the combination of a supporting frame, staple guiding means on the frame, a staple clinching anvil movable toward and from the guiding means, a movable operating part, means operated by said part for moving the anvil toward the guiding means, a lever fulcrumed on the frame, and a staple driver operatively connected to one end portion of the lever, said part having means adapted to engage and move the other end portion of said lever when said part is moved in one direction and said part having adjustable means adapted to engage and move the last named end portion of said lever when said part is moved in a reverse direction.

11. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly, a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part operatively connected to said member to move said anvil toward said guiding means during the initial downward movement of said part, and means operated by said part during the final downward movement thereof to move the staple driver toward the anvil.

12. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly,

a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part operatively connected to said member to move said anvil toward said guiding means during the initial downward movement of said part, a lever fulcrumed on the frame and operatively connected to the staple driver, and means operated by said part during the final downward movement thereof to operate said lever to move the staple driver toward the anvil.

13. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly, a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part, yielding means connecting said member and said part to move said anvil toward said guiding means during the initial downward movement of said part, and means operated by said part during the final downward movement thereof to move the staple driver toward the anvil.

14. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly, a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part, yielding means connecting said member and said part to move said anvil toward said guiding means during the initial downward movement of said part, a lever fulcrumed on the frame and operatively connected to the staple driver, and means operated by said part during the final downward movement thereof to operate said lever to move the staple driver toward the anvil.

15. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly, a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part operatively connected to said member to move said anvil toward said guiding means during the initial downward movement of said part, means operated by said part during the final downward movement thereof to move the staple driver toward the anvil, and yieldable means acting upon said part to automatically elevate the same after the depression and release thereof.

16. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly, a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part operatively connected to said member to move said anvil toward said guiding means during the initial downward movement of said part, a lever fulcrumed on the frame and operatively connected to the staple driver, means operated by said part during the final downward movement thereof to operate said lever to move the staple driver toward the anvil, and yieldable means acting upon said part to automatically elevate the same after the depression and release thereof.

17. In a staple setting machine, the combination of a supporting frame having a forwardly-extending work-receiving arm having upwardly-directed staple guiding means at its forward end portion, means for feeding staples to said guiding means with the prongs of the staples directed upwardly, a member movably mounted on the frame above said arm and carrying a staple clinching anvil above said guiding means, a staple driver movable in said guiding means toward and from the anvil, a depressible operating part, yielding means connecting said member and said part to move said anvil toward said guiding means during the initial downward movement of said part, means operated by said part during the final downward movement thereof to move the staple driver toward the anvil, and yieldable means acting upon said part to automatically elevate the same after the depression and release thereof.

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