

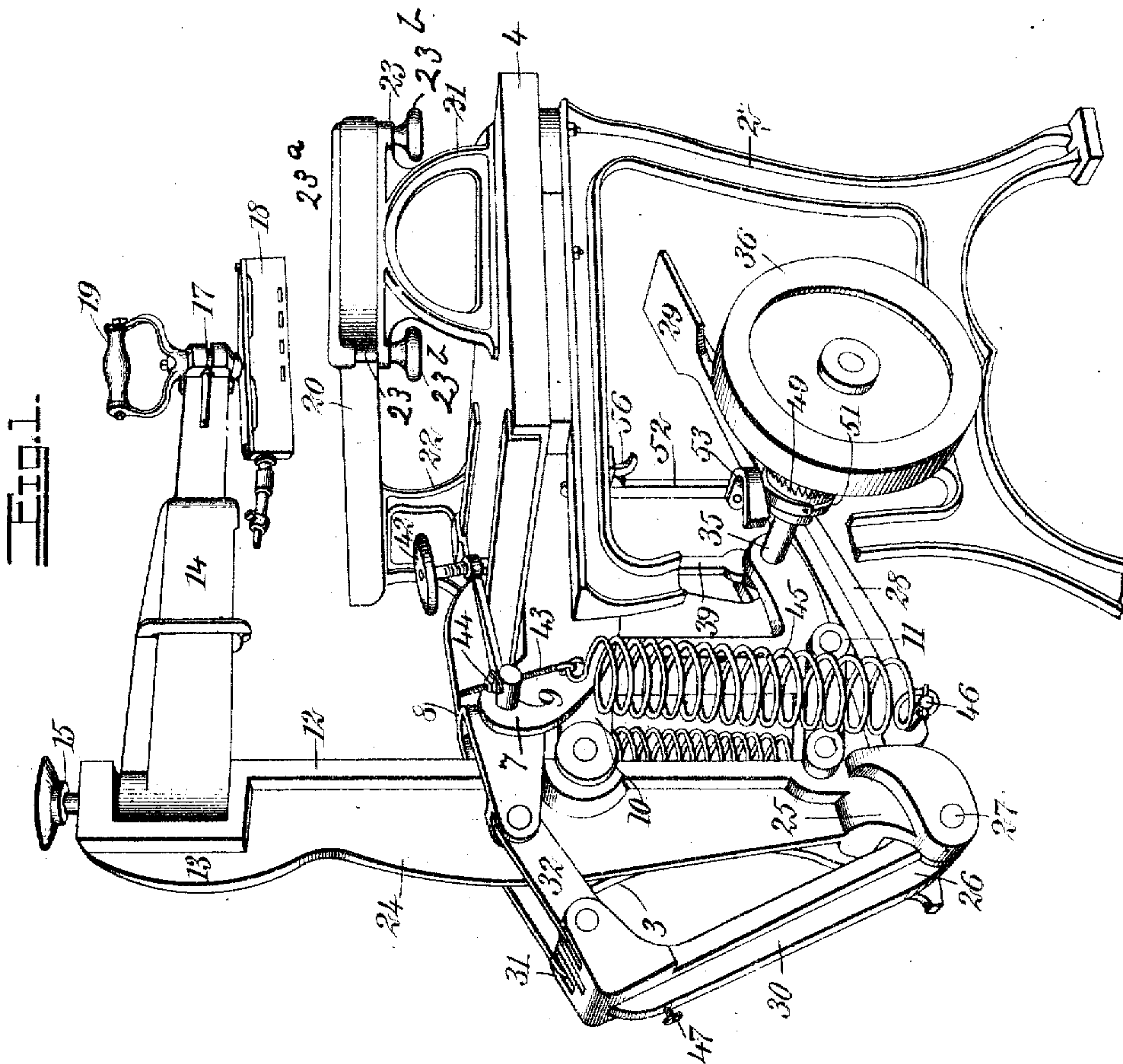
No. 831,892.

PATENTED SEPT. 25, 1906.

J. B. REPLOGLE.  
GARMENT PRESSING MACHINE.

APPLICATION FILED NOV. 9, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

*L. A. Almquist.*  
*J. R. Duncan*

INVENTOR

*James B. Replogle*

BY

*Munn & Co.*

ATTORNEYS

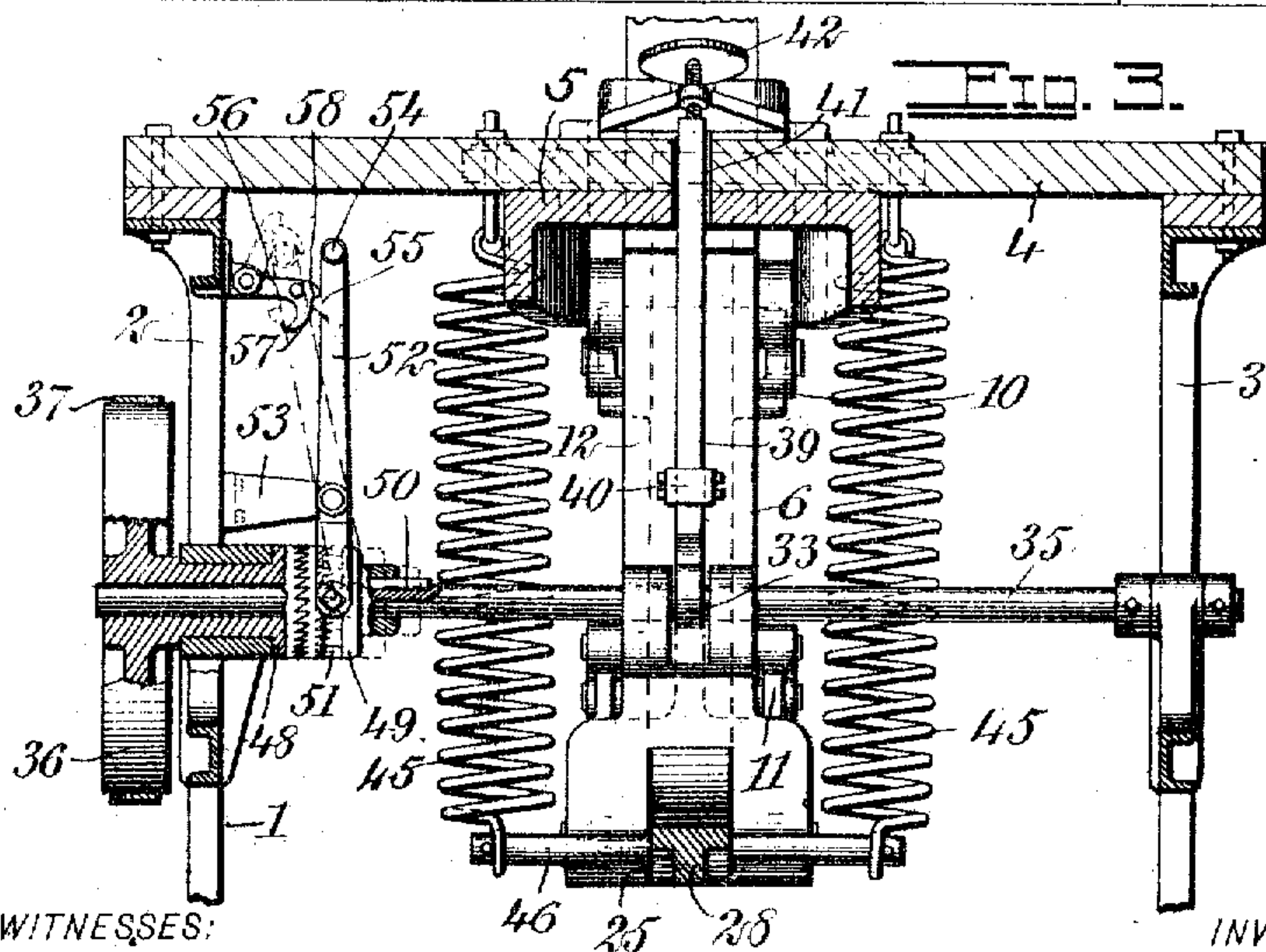
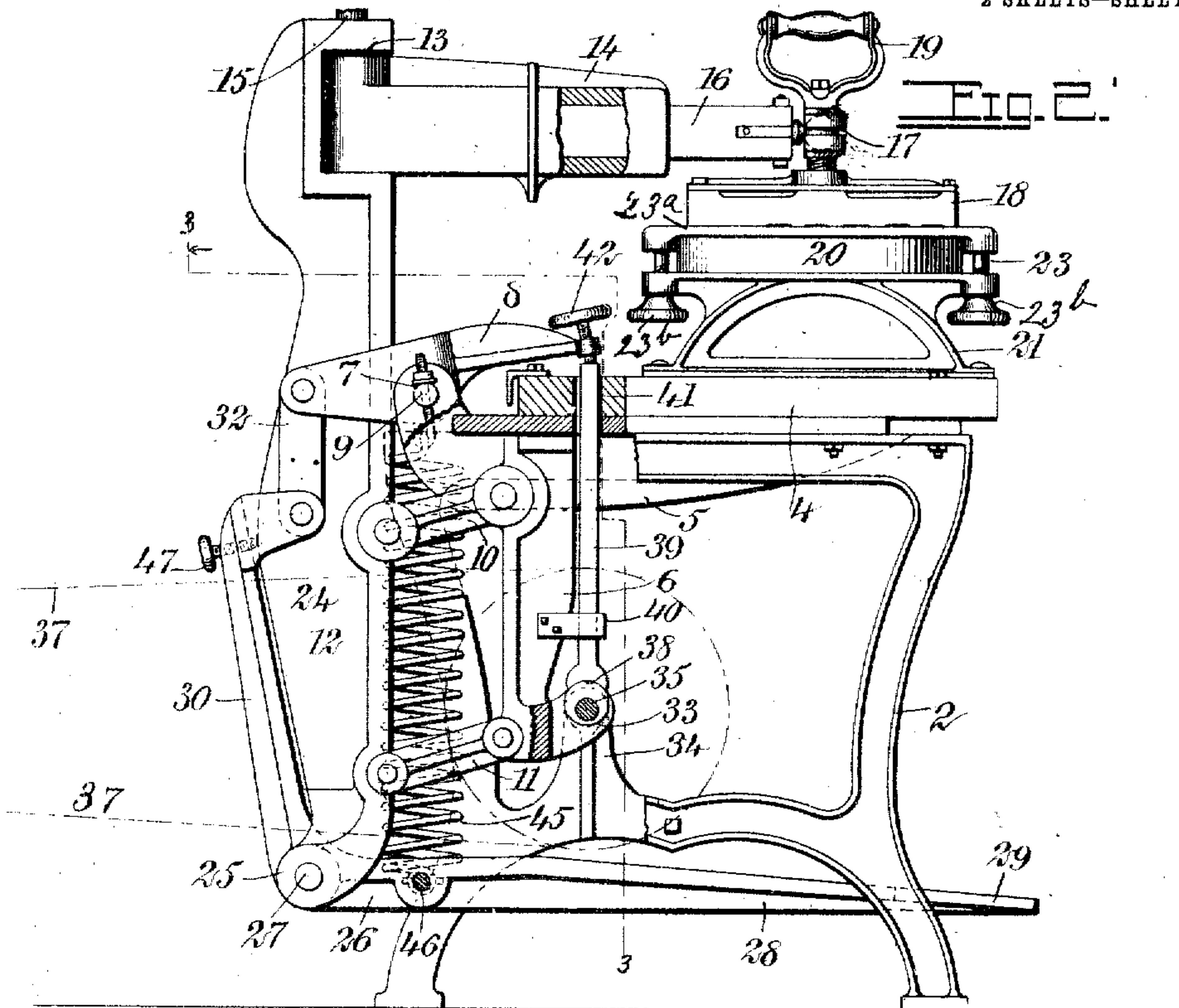
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2 SHEETS—SHEET 2.



WITNESSES:

*L. Almqvist*  
*J. R. [Signature]*

INVENTOR

*James B. Replogle*

BY

*[Signature]*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

JAMES BLAINE REPLOGLE, OF CHICAGO, ILLINOIS, ASSIGNOR TO  
JOSEPH SALTZMAN, OF CHICAGO, ILLINOIS.

## GARMENT-PRESSING MACHINE.

No. 831,892.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed November 9, 1905. Serial No. 286,562.

*To all whom it may concern:*

Be it known that I, JAMES BLAINE REPLOGLE, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Garment-Pressing Machine, of which the following is a full, clear, and exact description.

This invention relates to pressing-machines such as are used for pressing garments.

The object of the invention is to produce a machine of this class which will enable the material of a garment to be subjected to a pressure by a pressing-iron the position of which is readily controlled.

A further object is to construct a machine so as to enable power as well as manual force to be used in applying the pressure.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective of the machine, certain parts of the frame being broken away. Fig. 2 is substantially a side elevation of the machine, certain parts being broken away or shown in section; and Fig. 3 is a vertical cross-section taken on the line 3 3 of Fig. 2.

Referring more particularly to the parts, 1 represents the frame of the machine, which comprises a pair of oppositely-disposed standards or uprights 2 and 3. These standards support a table-board 4, which is disposed horizontally therebetween, as indicated most clearly in Fig. 3. On the under side of the table-board 4 there is attached a bracket 5, having a vertically-depending arm 6, as shown. Near the level of the table-board 4 the bracket 5 is provided with rearwardly-projecting ears 7, which project upwardly at the rear edge of the table, as shown in Fig. 2. Between these ears 7 a rocker 8 is mounted, the same being rigidly attached to a rock-shaft 9, which projects beyond the ears, as indicated most clearly in Fig. 1. At the rear side of the arm 6 links 10 and 11 are pivotally attached, as shown, and these links are disposed parallel and have

their outer extremities attached pivotally to an upright or post 12. This post 12 extends to a point well above the level of the table-board; at which point it is offset, so as to form a socket or head 13, wherein an arm 14 is pivotally mounted upon a vertical pin 15. This arm 14 is extensible. For this purpose I prefer to form the body of the arm hollow and of square section and mount slidably therein an extensible bar 16. At the extremity of this extensible bar a ball-and-socket connection 17 is made with the upper side of a pressing-iron 18, the same having a handle 19 disposed above the joint 17, which enables the position of the iron to be controlled by hand. On the upper side of the table-board a pressing-board 20 is mounted on suitable brackets 21 and 22. The pressing-board 20 is held in position by a cleat 23<sup>a</sup>, which passes across the upper side thereof and is provided with downwardly-projecting studs 23, which afford means for clamping the board to the bracket 21, the said studs having thumb-nuts 23<sup>b</sup> for this purpose, as shown.

The post 12 is preferably formed with a deep web 24, which extends longitudinally thereof, as shown in Fig. 2. At its lower extremity the post is offset outwardly to form a bifurcated head 25, in which a bell-crank lever 26 is pivotally mounted upon a suitable pin 27. This bell-crank lever 26 has a horizontal arm 28, which extends forwardly and has an expanded extremity forming a treadle 29. The bell-crank lever 26 has an upwardly-extending arm 30, which is formed at its upper extremity with four ears 31, arranged in pairs, disposed as shown. To these ears 31 links 32 are attached pivotally, the upper extremities of these links being pivotally attached to the rear extremity of the rocker 8 aforesaid. In this connection it should be stated that the rear extremity of this rocker is bifurcated, as shown in Fig. 1, the forks thereof lying on each side of the body of the post 12, as will be readily understood.

Near its lower extremity the arm 6 of the bracket 5, referred to above, is provided with a forwardly-projecting extension 33, and the extremity of this extension is in substantial alinement with upward extensions 34, which are formed in the lower portions of the frame members 2 and 3. In these extensions 33 and 34 a transverse horizontal shaft 35 is ro-



tatably mounted, the same being provided with a loose belt-pulley 36, adapting the machine to be driven by a belt. (Indicated in dotted lines at 37 in Fig. 2.)

5 The shaft 35 is provided at a suitable point with a rigid cam 38, and with this cam coöperates a cam-rod 39, which engages the face of the cam, as shown in Fig. 2. This rod 39 is disposed in a vertical position and guided  
10 longitudinally through a guide-bracket 40, which is attached to the forward edge of the arm 6, as shown. The upper extremity of the cam-rod 39 passes through an opening 41, which is formed through the table-board 4 and the bracket 5, as indicated. As shown  
15 in Fig. 2, the upper extremity of this cam-rod projects slightly above the upper level of the table-board and strikes an adjusting-screw 42, which is carried by the inner extremity of  
20 the rocker 8.

The projecting extremities of the rock-shaft 9 are provided with transverse openings which receive the threaded shanks of  
25 hooks 43, the same having adjusting-nuts 44 for purposes which will appear hereinafter. The lower extremities of these hooks 43 support springs 45, which are preferably of helical form, as shown, and extend substantially  
30 vertically downward. The arm 28 of the bell-crank lever 26 at a suitable point is provided with a transverse pin 46, having projecting extremities, and to these extremities the springs attach, as indicated in Fig. 3. Attention is called to the fact that the open-  
35 ings in the rock-shaft 9 which receive the hooks 43 are not vertical, but they incline forwardly below. This arrangement is adopted so as to enable the spring tension to maintain the tip of the adjusting-screw 42 nor-  
40 mally in contact with the cam-rod 39.

From the construction described it will now be understood that if the treadle 29 is depressed the post 12 will be depressed, carrying with it the arm 14 and the pressing-iron 18.  
45 When the treadle is in its elevated position, as indicated in Fig. 1, it will be seen that the arm 30 is depressed to an inclined position and lies remotely removed from the web 24 of the post. When the treadle is depressed, the  
50 post assumes substantially the relation shown in Fig. 2. In this arrangement the arm 30 approaches the post 12 and lies near the rear edge of the web 24 thereof, bringing the pivot-point of the links 32 substantially in  
55 alinement with the pin 27. I provide means for preventing the lower ends of the links from passing beyond this line referred to. For this purpose I provide an adjusting-screw 47, which is mounted in the upper ex-  
60 tremity of the arm 30, passing through the same, so that its tip may engage with the edge of the web 24, as indicated in Fig. 2. Evidently from this arrangement the movement of the arm 30 may be limited more or

less, as desired, so as to bring about the re- 65 sult stated.

Referring especially to Fig. 3, I provide a clutch member 48, which is rigid with the belt-pulley 36. This clutch member coöperates with a second clutch member 49, which  
70 has a collar slidably mounted on the shaft 35 and attached thereto by means of a feather or spline 50. This collar 49 is provided with a circumferential groove 51, which facilitates the engagement of a shifting-lever 52 for  
75 throwing the clutch in or out, said lever being mounted on a suitable bracket 53, attached to the frame member 2, as shown. The upper extremity of this lever 52 is provided with a transversely-disposed handle  
80 54, near which there is formed a nib 55. Pivotaly attached to the portion of the frame member 2 I provide a keeper 56, which is formed with a hook 57, adapted to engage the handle 54 to maintain the clutch in an  
85 open position, as indicated by the dotted lines in Fig. 3. This keeper is formed on its outer side with a recess or notch 58, which is adapted to receive the nib 55, as indicated in full  
90 lines, so as to maintain the clutch in a closed position.

The mode of operation of the machine will now be described. In this connection it should be understood that the springs 45 nor-  
95 mally operate to maintain the post 12 in an elevated position, such as that indicated in Fig. 1. When the treadle 29 is pressed, however, the post 12 will be depressed in a vertical plane, being guided in its movement by the links 10 and 11. In this way the arm 14,  
100 carrying the iron 18, is made to approach the pressing-board. As it approaches the pressing-board by means of the handle 19 the iron will be brought directly over the point to be pressed. In doing so the operator may swing  
105 the arm as a whole about the pivot-pin 15, and he may extend the arm by pulling it out, as explained above. This arrangement enables every point of the pressing-board to be reached by the iron. As the downward  
110 movement of the post 12 continues a rotation of the bell-crank lever 26 takes place and the arm 30 thereof approaches the post, as will be readily understood. Now assuming that the clutch is open, so that the shaft 35 is not  
115 rotating, as the arm 30 completes its movement the pivot-point of the links 32 will come nearly in alinement with the pin 27 of the bell-crank lever. In this way a toggle connection is produced between the rear ex-  
120 tremity of the rocker 8 and the post 12. This results in producing a great pressing force at the iron as it comes to rest on the pressing-board. This toggle effect is of course produced because the cam-rod 39 op-  
125 erates as a fixed support for the inner extremity of the rocker. In this connection attention is called especially to the adjusting-



screw 42, which enables the position of the rocker to be accurately adjusted to the special requirements. When the arm 30 has completed its movement, the tip of the adjusting-screw 47 will engage the web 24 of the post 12. In this way the links 32 are prevented from passing beyond an aligned position with the pin 27. With this arrangement the machine becomes self-releasing, and as soon as the treadle 29 is allowed to rise the iron 18 will be withdrawn from the work and the parts will return to the relation shown in Fig. 1. If it is desired to use power in connection with the pressing operation, the clutch composed of the members 48 and 49 will be closed, so that the shaft 35 will be continuously rotated. With this arrangement when the treadle 29 is depressed the iron 18 will have a reciprocating movement, approaching and receding from the pressing-board. When the machine is operating in this manner, I prefer to regulate the adjusting-screw 47 so as to bring the links 32 in longitudinal alinement with the pin 27. With the post arranged in this way evidently when the cam 38 produces an outward thrust of the cam-rod 39 the rocker 8 will move so as to depress the link 32 longitudinally. Through its connection with the post 12—that is, through the arm 30—the depressing of the link 32 operates to depress the post 12. At the same time it does not affect the angular position of the treadle 29. The treadle simply descends with the post. When the iron is brought against the board by the rotation and depression of the treadle, the treadle comes into a substantially horizontal position, as shown in Fig. 2. Evidently with this arrangement the position of the treadle positively controls the position of the arm 14. At the same time the rotation of the shaft 35 gives the post and arm of the iron 18 a reciprocating movement.

The iron 18 is heated in any suitable manner—as, for instance, by fuel which is allowed to be consumed within its interior.

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

1. In a machine of the class described, in combination, a frame, a pressing-board supported thereby, an iron, a post supporting said iron, links attached to said frame and supporting said post, a bell-crank lever pivoted in said post, a link having one extremity pivoted to a fixed support and having its opposite extremity attached to said bell-crank lever.

2. In a machine of the class described, in combination, a frame, a pressing-board supported thereon, a post, an iron supported by said post, links pivotally attaching said post to said frame, a bell-crank lever pivotally attached to said post, a spring normally supporting said post in an elevated position, and

a link having one extremity pivotally attached to a fixed support and having its opposite extremity attached to said bell-crank lever.

3. In a machine of the class described, in combination, a frame, a pressing-board supported on said frame, a post, an iron carried thereby, means for guiding said post in a substantially vertical plane, a rocker on said frame, a connection between said rocker and said post for depressing the same, and a cam-shaft adapted to actuate said rocker.

4. In a machine of the class described, in combination, a frame, a pressing-board carried thereby, a depressible post, an iron supported by said post, links connecting said post with said frame, a bell-crank lever pivotally attached to said post, having a depressible treadle-arm and an upwardly-disposed toggle-arm, a rocker pivoted on said frame, a link connecting said rocker with said toggle-arm, means for normally supporting the said post in an elevated position, a cam-shaft, and a cam-rod cooperating with said cam-shaft and adapted to engage said rocker.

5. In a machine of the class described, in combination, a frame, a pressing-board mounted thereon, a depressible post, an arm carried thereby, an iron carried by said arm, links connecting said post with said frame, a bell-crank lever pivotally attached to said post and having a treadle-arm disposed substantially horizontally, springs attached to said treadle-arm, and connecting with said frame, a rocker, a link connecting said rocker with said bell-crank lever, a shaft, a cam on said shaft, a cam-rod engaging said cam and means for guiding said cam-rod to move longitudinally to engage said rocker.

6. In a machine of the class described, in combination, a frame, a pressing-board carried thereby, a depressible post, an iron supported by said post, links pivotally attached to said post and to said frame, a bell-crank lever pivoted to said post and having a treadle-arm and a toggle-arm, a link attached to said toggle-arm and having one extremity thereof supported on said frame and means for normally supporting said post in an elevated position.

7. In a machine of the class described, in combination, a frame, a pressing-board supported on said frame, a depressible post having an arm, an iron carried by said arm, a rocker supported on said frame, a cam-shaft affording means for actuating said rocker, a lever pivotally attached to said post and affording means for depressing the same, a link connecting said rocker with said lever and means for normally holding said rocker in an extreme position.

8. In a machine of the class described, in combination, a frame, a pressing-board carried thereby, a depressible post having an arm, an iron carried by said arm, links,ivot-

ally attached to said post and pivotally at-  
tached to said frame, a cam-shaft, a cam-rod  
actuated thereby, a rocker pivoted on said  
frame and engaging said cam-rod, a bell-  
5 crank lever pivoted to said post and having a  
treadle-arm and a toggle-arm, a link connect-  
ing said toggle-arm with said rocker, a spring  
connecting said bell-crank lever with said  
rocker, affording means for maintaining said

rocker in an extreme position and supporting 10  
said post.

In testimony whereof I have signed my  
name to this specification in the presence of  
two subscribing witnesses.

JAMES BLAINE REPLOGLE.

Witnesses:

JNO. J. KRAUSE,

JOHN A. KRAUSE.