

(No Model.)

J. C. STEVENS.
BUTTON MACHINE.

No. 365,550.

Patented June 28, 1887.

Fig. 1

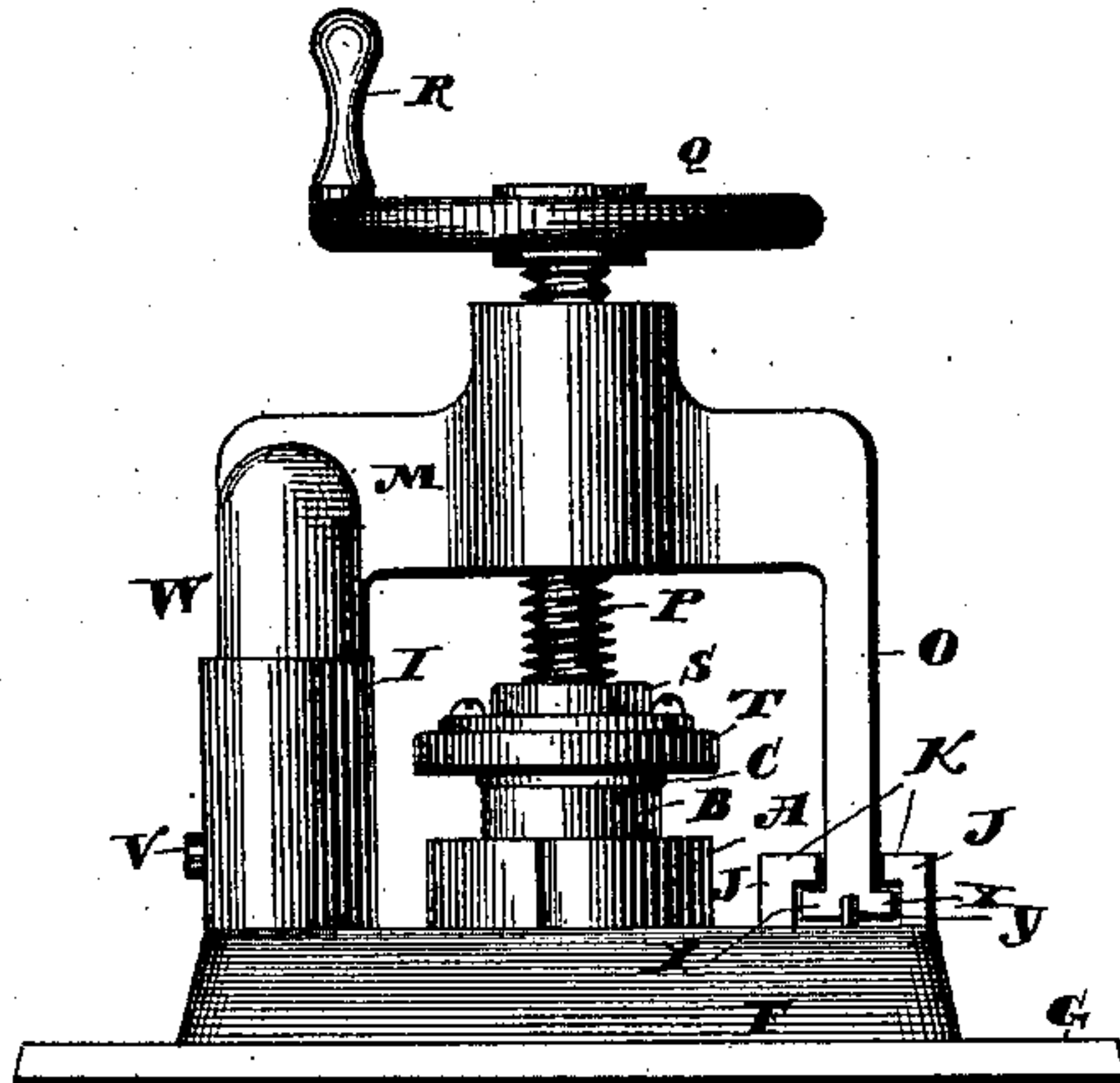


Fig. 2

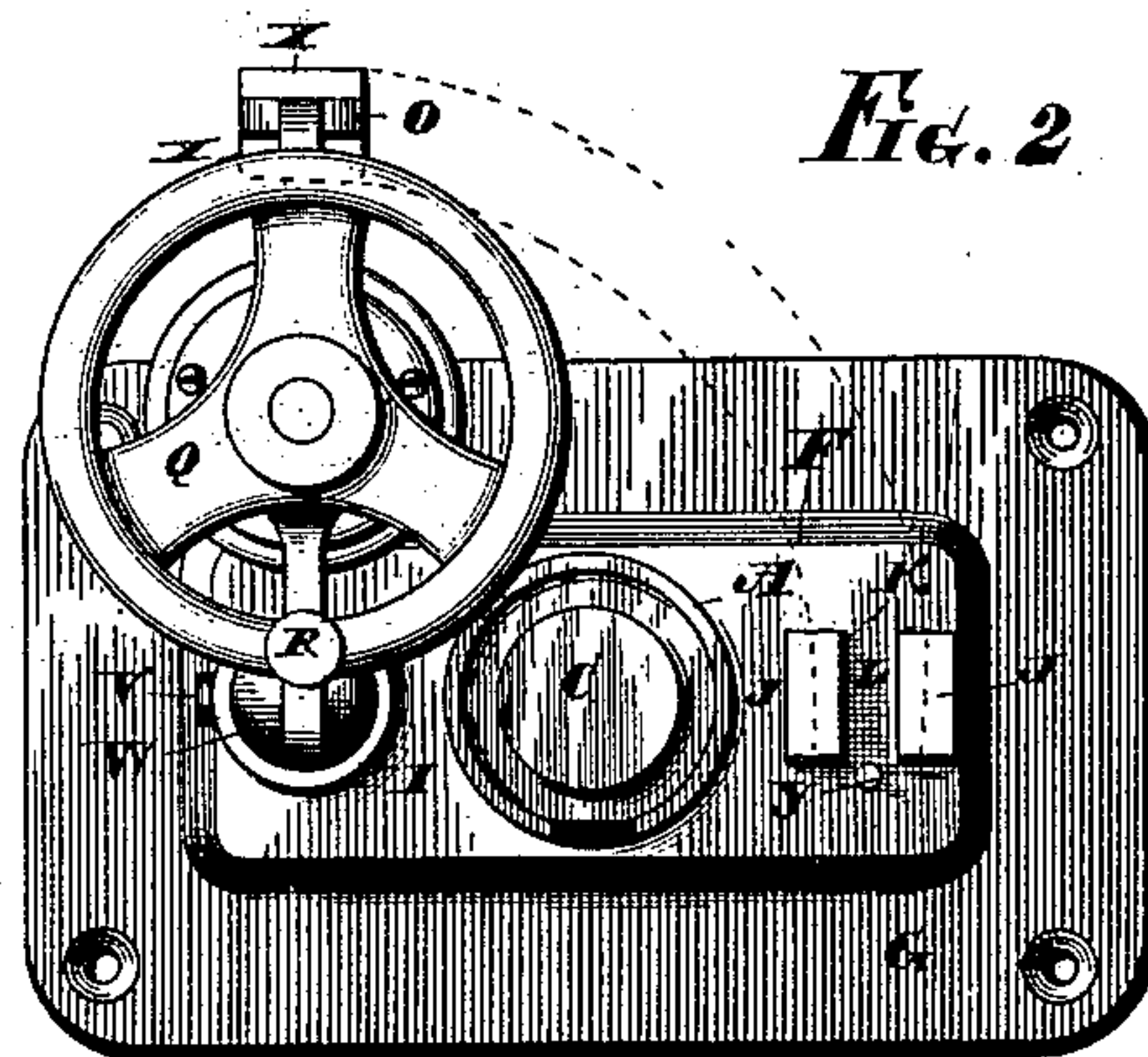
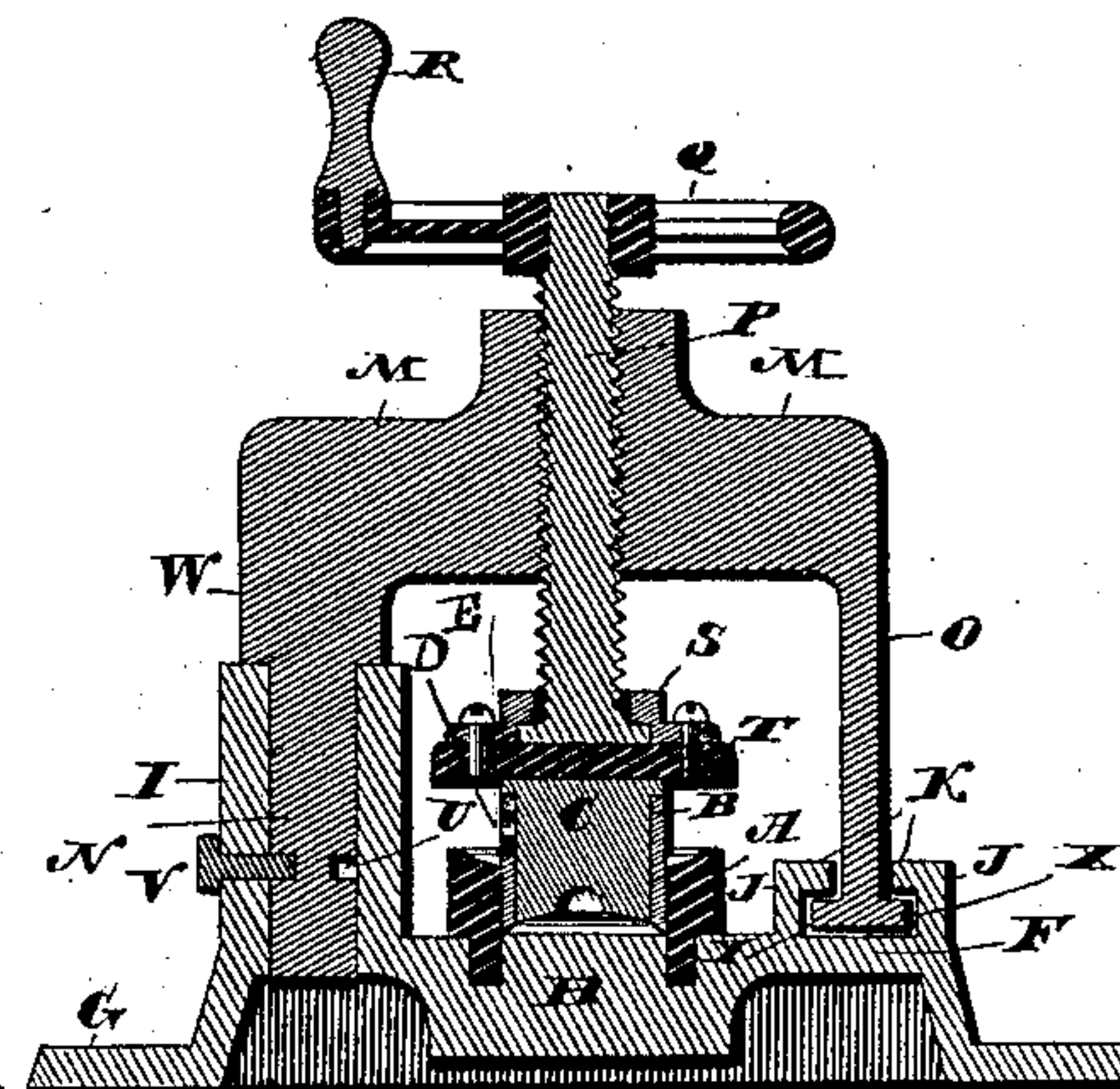


Fig. 3



WITNESSES:

Chas B. Shumway

Edward H. Rogers

INVENTOR

John C. Stevens,
By Geo. D. Seymour,
Atty.

UNITED STATES PATENT OFFICE.

JOHN C. STEVENS, OF PORT CHESTER, NEW YORK, ASSIGNOR TO NATHAN C. POND, MARSHALL O. WEST, AND ERNEST SIMONS, ALL OF SAME PLACE.

BUTTON-MACHINE.

SPECIFICATION forming part of Letters Patent No. 365,550, dated June 28, 1887.

Application filed March 15, 1887. Serial No. 230,940. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. STEVENS, residing at Port Chester, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Hand-Machines for Making Covered Buttons; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in portable hand-machines for making covered buttons, the object being to produce a device which shall be at once compact, convenient, durable, and efficient.

With these ends in view my invention consists in the combination, with a frame having a stationary bed for the formers, of a head pivoted to swing in a plane parallel with such bed, carrying a screw for operating the formers, and provided with a brace adapted to be engaged with a stationary part of the machine for bracing the head against the screw when the same is operating the formers.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation of a machine embodying my invention, with its swinging head in operative position and the stationary formers in place upon the bed. Fig. 2 is a plan view of the machine with the head swung aside and the formers removed, and Fig. 3 is a sectional view of the machine as shown in Fig. 1.

The button-formers, consisting of the rings A and B and the punch C, the ring B and the punch being movably coupled together through pin D and slot E, are of known construction. They are interchangeably used with other similar formers of different size, and, except in combination, constitute no part of this invention. A circular knife for cutting the covers is also employed with the machine, but not shown herein.

The frame F may be of any suitable construction. It is provided with a stationary bed, G, having an annular recess, H, to receive the ring A, into which the ring B and the punch C are set, as shown. The said frame is also provided with an upright sleeve, I, made integral with it, and hence stationary, and extending upward from one end of the bed G. The frame is further provided with two lugs, J J, also made integral with it, located at the opposite end of the bed from the sleeve, and having inwardly-projecting extensions K K, with a space, L, between them.

A swinging head, made in one piece and mounted to swivel upon the frame in a plane parallel with the bed thereof, consists of a yoke, M, an upright post, N, at one end of such yoke, and a parallel brace, O, at the other end thereof. The said yoke carries a vertical operating-screw, P, which is located midway between its ends. This screw is provided at its upper end with an operating-wheel, Q, having a handle, R, and at its lower end with a loose head or platen composed of two disks, S and T, secured firmly together. The upright post N is encircled at its lower end by a groove, U, and fits into the sleeve I, in which it is locked against endwise movement by a screw, V, mounted therein and entering the said slot encircling it. A shoulder, W, formed between the said cross bar and the post, bears upon the upper edge of the sleeve and carries the weight of the head. The brace is provided at its lower end with horizontal projections X from its opposite sides, and forming a foot or shoe adapted to run under the overhanging extensions K K of the lugs J J, whereby the head is braced against the screw when the same is operating the formers, the brace being free for lateral movement in the plane in which the head swings. A pin, Y, located in the frame against the space L, between the lugs J J, forms a stop and limits the swinging movement of the head, which it arrests when the loose head or platen is in line over the bed. Under my construction the head, being eccentrically swiveled to the frame, leaves, when swung aside, the bed of the same exposed, and hence conveniently accessible from above for all necessary manipulations, while the brace, by securing the free or outer end of the head to the frame when it

ceive the ring A, into which the ring B and the punch C are set, as shown. The said frame is also provided with an upright sleeve, I, made integral with it, and hence stationary, and extending upward from one end of the bed G. The frame is further provided with two lugs, J J, also made integral with it, located at the opposite end of the bed from the sleeve, and having inwardly-projecting extensions K K, with a space, L, between them.

A swinging head, made in one piece and mounted to swivel upon the frame in a plane parallel with the bed thereof, consists of a yoke, M, an upright post, N, at one end of such yoke, and a parallel brace, O, at the other end thereof. The said yoke carries a vertical operating-screw, P, which is located midway between its ends. This screw is provided at its upper end with an operating-wheel, Q, having a handle, R, and at its lower end with a loose head or platen composed of two disks, S and T, secured firmly together. The upright post N is encircled at its lower end by a groove, U, and fits into the sleeve I, in which it is locked against endwise movement by a screw, V, mounted therein and entering the said slot encircling it. A shoulder, W, formed between the said cross bar and the post, bears upon the upper edge of the sleeve and carries the weight of the head. The brace is provided at its lower end with horizontal projections X from its opposite sides, and forming a foot or shoe adapted to run under the overhanging extensions K K of the lugs J J, whereby the head is braced against the screw when the same is operating the formers, the brace being free for lateral movement in the plane in which the head swings. A pin, Y, located in the frame against the space L, between the lugs J J, forms a stop and limits the swinging movement of the head, which it arrests when the loose head or platen is in line over the bed. Under my construction the head, being eccentrically swiveled to the frame, leaves, when swung aside, the bed of the same exposed, and hence conveniently accessible from above for all necessary manipulations, while the brace, by securing the free or outer end of the head to the frame when it

is under the heavy outward pressure exerted by the screw, relieves the swivel of undue strain, which it divides with the same.

In using my improved machine it is secured
 5 to or simply rested upon a table, bench, or lap-board. The fabric with which the buttons are to be covered is then placed upon a suitable flat surface, such as a thin board. The knife is then placed upon the cloth, and both
 10 are exposed to pressure under the screw for cutting out the covers. For this operation the head may or may not be swung aside, to arrange the cloth and knife, as found most convenient. After the covers have been cut
 15 the ring A is mounted in the bed. A cover is then centered in the ring, after which a shell is centered in the cover. Both cover and shell are then forced into the ring with the fingers, the head being at this time swung
 20 aside for convenience of access to the ring. A button-back already made is then put into the ring. Then the ring B and the punch C are put into it. The swinging head is then swung around to center the screw over the punch,
 25 the shoe of the brace being at the same time slipped under the locking-lugs of the frame. The wheel is then operated to turn the screw down upon the punch, which, with the ring B, is forced into the ring A under heavy pressure, whereby the cover, shell, and button-
 30 back are assembled into a perfect button. After the button has been made, the wheel is reversed and the screw turned back to free the punch and no more, for then the head is
 35 swung aside, leaving the formers exposed for their removal for taking out the button.

It is obvious that the frame and swinging head herein shown and described are not limited in use to the application set forth, and
 40 that their construction may be varied within limits. I would, therefore, have it understood that I do not limit myself to the exact construction and arrangement of parts herein shown and described, but hold myself at liberty
 45 to make such changes and alterations as fairly fall within the spirit and scope of my invention. Thus, if desired, the screw may be forced down upon the formers by a lever applied after the screw has been turned down
 50 to contact with the punch.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a machine for covering buttons, the combination, with a frame having a stationary
 55 bed for the formers and a stationary sleeve, of a head swinging in a plane parallel with such bed and provided with a post turning in such sleeve and locked against endwise movement therein, with a screw for operating the form-
 60 ers, and with a brace having at one end a foot or shoe and lugs located upon a stationary part of the machine and receiving under them the said foot or shoe of the brace, whereby
 65 the same braces the head against the screw when the same is operating the formers, substantially as set forth.

2. In a machine for covering buttons, the combination of a frame having a recessed
 70 bed, removable formers fitting into such recess, an upright located at one side of the recess, a head having a yoke and a brace depending from the same, and a screw for operating the formers mounted in the yoke, the
 75 said head being pivoted to the upright to swing horizontally, but locked, by means substantially as described, against vertical movement, and the lower end of the brace being
 80 provided with extensions for engagement with a stationary part of the machine, substantially as set forth.

3. In a machine for covering buttons, the combination of a frame having a bed for the
 85 formers, a stationary upright sleeve located at one side of such bed, a head having a yoke, a post and a brace, and a screw mounted in the yoke for operating the formers, the said post and brace depending from the opposite
 90 ends of the yoke and the former turning in the upright sleeve, but locked, by means substantially as described, against vertical movement therein, and the latter being provided at its
 95 lower end with extensions for engagement with a stationary part of the machine, substantially as set forth.

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

JOHN C. STEVENS.

Witnesses:

JOHN E. MARSHALL,
 C. H. PALMER.