

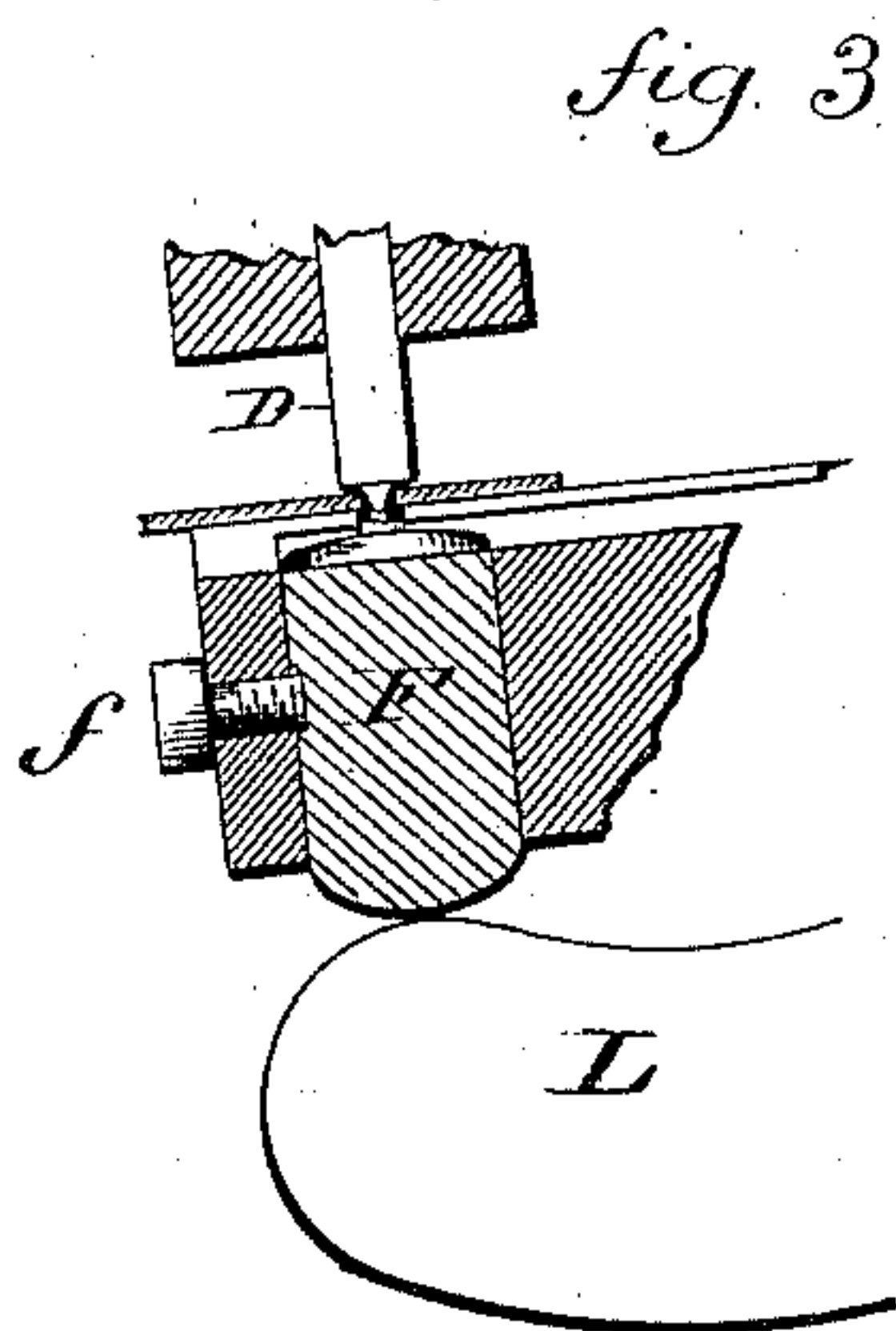
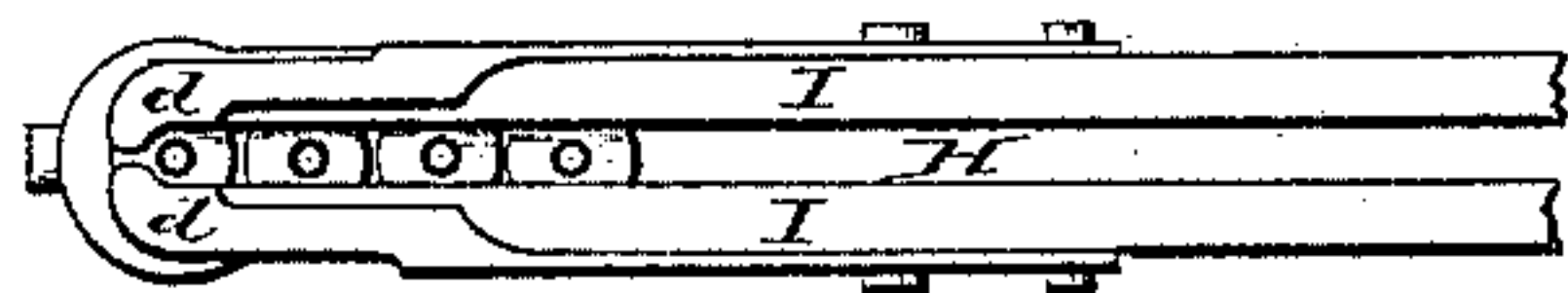
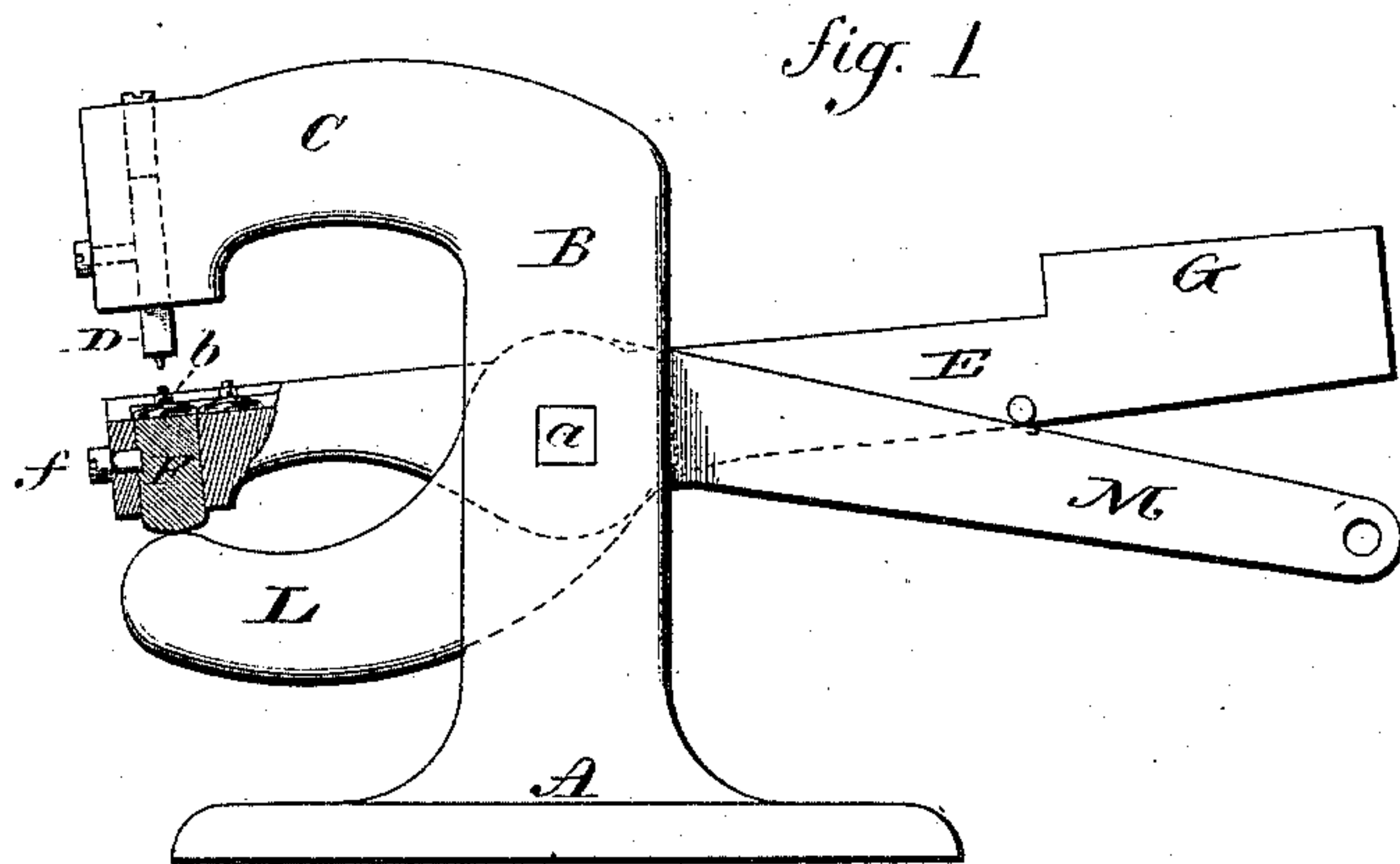
(No Model.)

G. O. SCHNELLER.

BUTTON PRESS.

No. 286,079.

Patented Oct. 2, 1883.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE O. SCHNELLER, OF ANSONIA, CONNECTICUT.

BUTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 286,079, dated October 2, 1883.

Application filed May 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE O. SCHNELLER, of Ansonia, in the county of New Haven and State of Connecticut, have invented a new Improvement in Presses for Attaching Buttons; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional side view; Fig. 2, a top view of the chute-lever; Fig. 3, a vertical section through the die and punch, showing the parts in the position of upsetting the shank of the button.

This invention relates to an improvement in machines for securing that class of buttons which are constructed or provided with a tubular shank which is passed through the article to which they are to be attached, and then the end of the tubular shank spread and turned over and down upon the opposite side, the object of the invention being, principally, to construct the machine so that the buttons will be automatically presented into the proper position for securing, and without the intervention of cut-offs and other devices between the chute and the die usually employed in such feeding apparatus; and the invention consists in the construction as hereinafter described, and more particularly recited in the claims.

A represents the base of the press, upon which is an upright, B, carrying a horizontal arm, C, in which is fixed the punch D.

E is a lever hung upon a fulcrum, *a*, and carrying at its forward end a die, F. The upper surface of this die corresponds substantially to the face of the button to be attached. At the other end of this lever E is the hopper G, and on the upper side of the lever a chute, H, is formed, corresponding in width to the diameter of the buttons to be attached, and which opens from the hopper, so that the buttons placed in the hopper face downward will pass into the chute on the top of the lever, and thence, as the lever is inclined toward the forward end, will pass down through the chute until the first button *b* will be presented upon the die F beneath the punch D.

On the upper side of the lever the chute is

preferably covered by a plate, I, on each side, extending over the chute, but so as to leave a space in the center, through which the shank of the button will pass. This insures the buttons standing edge to edge, and prevents one riding up upon the other, so as to block the channel. At the lower or forward end is a pair of spring-fingers, *d d*, which form stops for the button when it arrives at its position over the die, and as seen in Fig. 2, but so as to yield to permit the button being drawn out after it shall have been attached to the garment.

L is a hammer hung upon the same pivot, *a*, and extending backward in shape of an arm, M, to which foot-power may be applied to pull that arm forward, and correspondingly throw up the forward or hammer end, L. The nose of this hammer stands beneath the die F, so that as the hammer is forced upward the die itself and the lever in which it is arranged will rise with it toward the punch D. The die is secured in its place by a set-screw, *f*, or otherwise.

Buttons are placed in the hopper and follow each other down the chute until the first, *b*, stands over the die F. That part of the garment, or to whatever the button is to be attached, is placed on the point of the punch. Then the hammer is forced upward, and the material is forced on over the shank of the button; then this shank is opened and closed down upon the opposite side, as seen in Fig. 3; then the hammer is dropped, and the lever E, turned correspondingly, raises the hopper G. The attached button is removed, when another button presents itself, and is attached in like manner, and so continuing, a new button being successively presented as the previous one is removed.

The chute leading directly from the hopper and terminating at the precise point where the button is to be attached avoids the intervention of cut-offs and other devices for properly presenting the buttons, and thus greatly simplifies the machine over previous constructions of this class of apparatus.

The hammer-lever may be omitted and power applied to the chute-lever; but I prefer to employ the hammer.

For buttons having different sizes or shapes of face it will be understood that the die F is

to be changed for dies corresponding to the shape of the button to be attached, and also the punch D.

5 The vibration of the lever E, which carries the chute, gives to the buttons in the chute sufficient jar to cause them to descend, so that the first button is sure to be presented in proper position.

10 It will be understood that the order of arrangement of the parts may be reversed—that is to say, the die may be above and the punch below; or the die may be stationary and the punch movable.

I claim—

15 1. In a button-press, the combination of the stationary punch D, and the lever E, carrying the die F at one end and a suitable hopper at the other end, and provided with the chute H on said lever, leading from the hopper to said
20 die, and so as to present a button upon said die beneath the stationary punch.

2. In a button-press, the combination of the stationary punch D, the lever E, carrying the die F at one end and a suitable hopper at the other end, and provided with the chute H on said lever, leading from the hopper to said die, and so as to present the button upon said die beneath the stationary punch, and the hammer-lever L M, substantially as described. 25

3. In a button-press, the combination of the stationary punch D, the lever E, carrying the die F at one end and a suitable hopper at the other end, and provided with the chute H on said lever, leading from the hopper to said die, and so as to present the button upon said die beneath the stationary punch, and springs
35 *d d* at the mouth of said channel, substantially as described.

GEO. O. SCHNELLER.

Witnesses:

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