

No. 620,550.

Patented Feb. 28, 1899.

I. A. NASH.  
BUTTON SETTING MACHINE.

(Application filed Feb. 23, 1897.)

(No Model.)

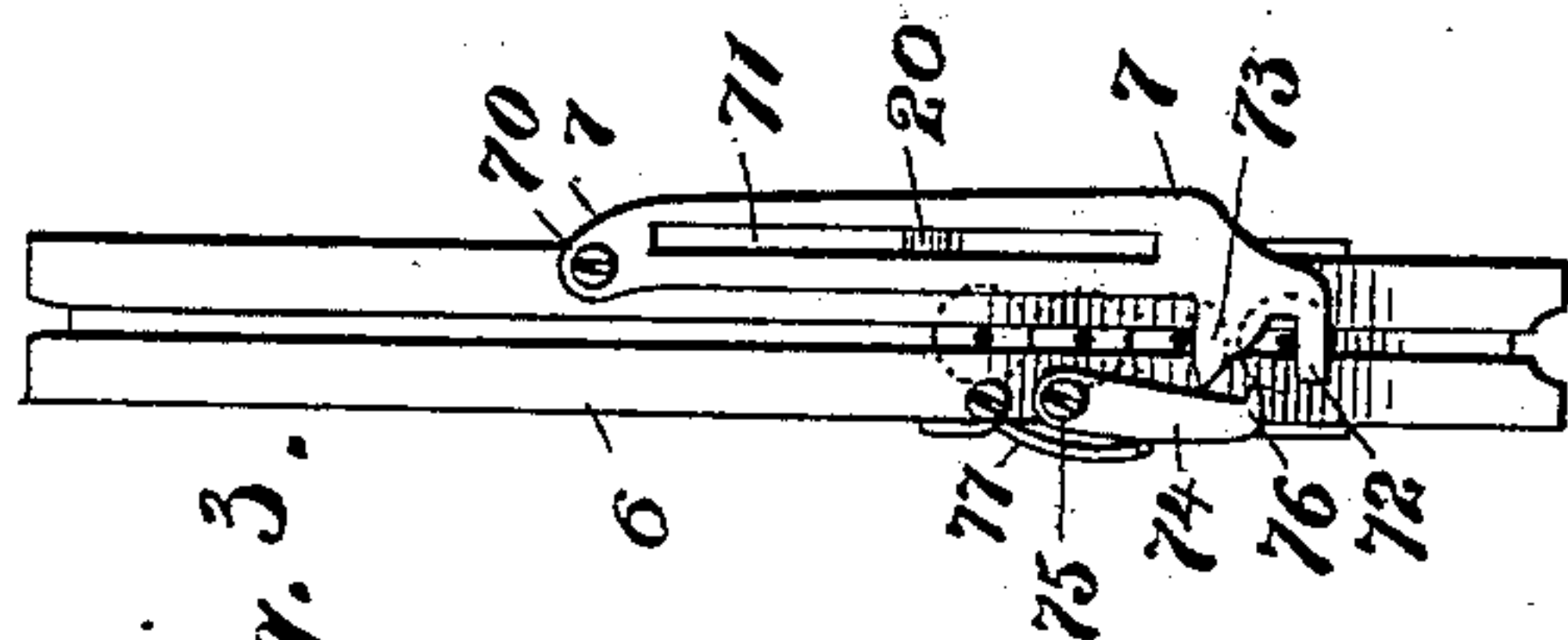


Fig. 3.

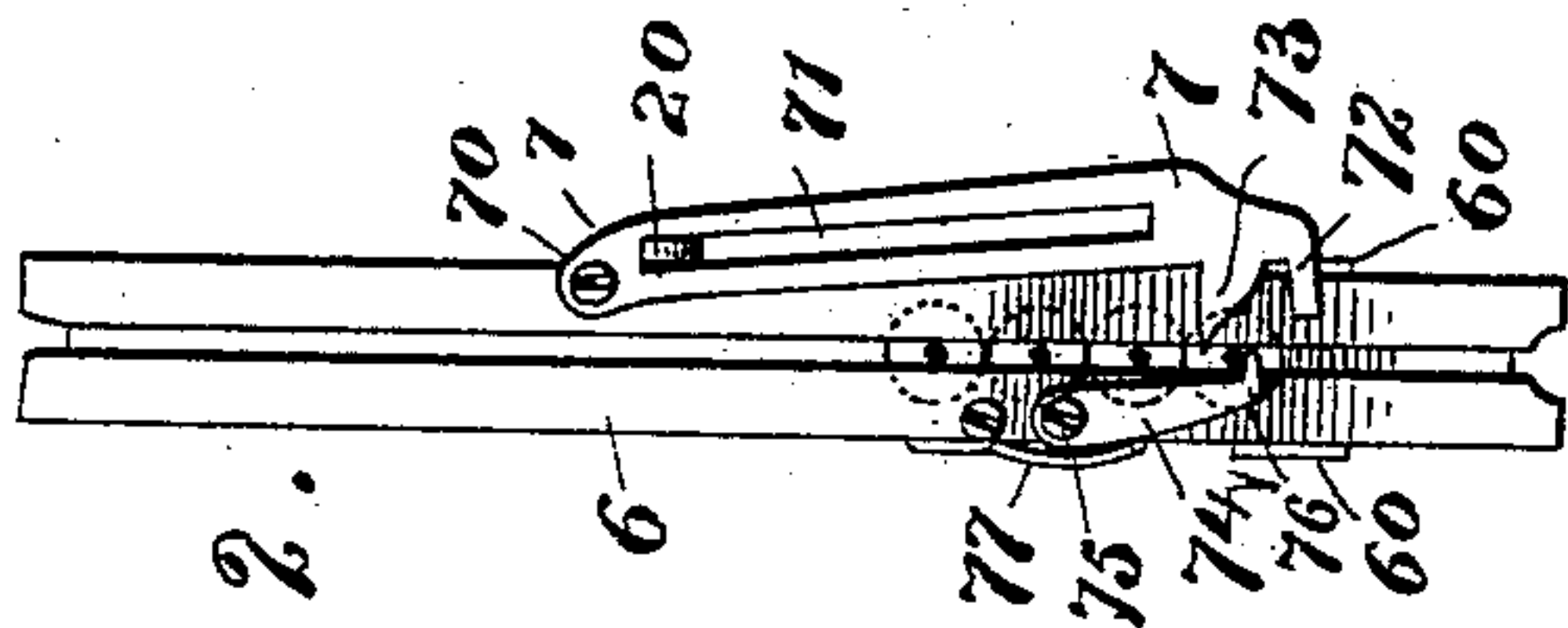


Fig. 2.

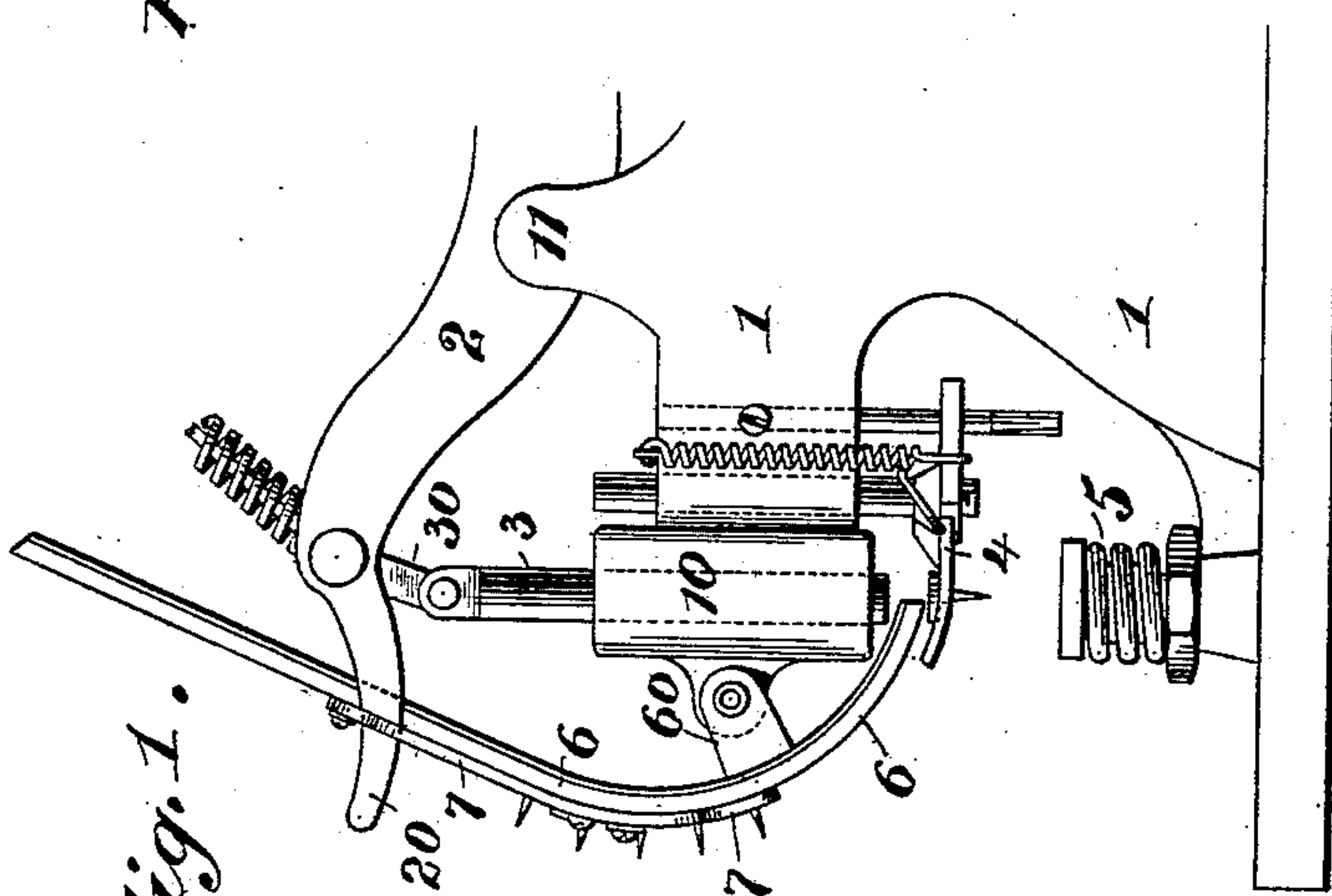


Fig. 1.

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# UNITED STATES PATENT OFFICE.

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## BUTTON-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 620,550, dated February 28, 1899.

Application filed February 23, 1897. Serial No. 624,586. (No model.)

*To all whom it may concern:*

Be it known that I, IRA A. NASH, of Kansas City, in the county of Jackson and State of Missouri, have invented a certain new and useful Improvement in Button-Setting Machines, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, forming part of this specification.

10 This invention relates to improvements in machines by means of which buttons are attached to garments by metallic fasteners, and which comprise a chute whereby the buttons or fasteners are conveyed from a hopper to  
15 a holder and a cut-off which is adapted to allow but one button or fastener at a time to enter the holder; and the invention consists of a machine provided with a chute and with a cut-off constructed substantially as herein  
20 described and claimed.

On the accompanying sheet of drawings, Figure 1 is a side view of a portion of a machine including the invention; Fig. 2, a front view of the chute and cut-off; and Fig. 3, a  
25 front view of the chute and cut-off, illustrating the action of the cut-off.

Similar reference-numerals designate like parts in the different views.

30 The main object of this invention is to render the action of the cut-off positive at all times and not liable to force upward and crowd together the fasteners or buttons in the upper part of the chute.

35 The invention is represented in the drawings in connection with a chute which contains single-pronged fasteners; but it will be obvious that the invention may be used in feeding buttons as well as fasteners or fasteners differing in form from those shown.

40 The machine illustrated in Fig. 1 comprises the frame 1, having the head 10, the lever 2, pivoted to the frame at 11, the plunger 3, connected by a pivoted link 30 with the lever 2, the holder 4, and the anvil 5. The  
45 chute 6 is attached to the head of the frame by a bracket 60 and is fastened at its upper end to the base or support of a hopper, which is not shown. On the lever 2 is a finger 20, which projects forward therefrom on one side  
50 of the chute, as appears by Fig. 1. A bar 7

is pivoted on the face of the chute by a screw or rivet 70, which bar contains a slot 71, through which the finger 20 extends. At the lower end of this bar is a projection 72, and above this is another wedge-shaped projection 73. The bar 7 conforms to the face of  
55 the chute and is adapted to move on its pivot 70 from either of the positions in which it is shown in Figs. 2 and 3 to the other under the action upon it of the finger 20 in the slot  
60 71. Also on the face of the chute, but on the opposite side of the channel from that on which the bar 7 is located, is a stop 74, which is attached to the chute by a pivot 75, and which has at its lower end a small projection  
65 76. A spring 77, which is attached to the chute, tends to keep this stop in the position in which it is shown in Fig. 2. The projection 76 then crosses the channel of the chute and prevents any of the fasteners from passing  
70 below the cut-off. When the plunger of the machine returns to its highest position at the end of each operation, a fastener is released by the cut-off, as will presently be more fully explained, and the parts of the  
75 cut-off assume the positions in which they are shown in Fig. 2, the released fastener passing down into the holder 4, in which it rests, as shown in Fig. 1. With the descent of the  
80 plunger at the next operation the lower end of the bar 7 is forced inward by the finger 20, and the projection 73, passing between the stem of the lowest fastener and that of the fastener next above it, meets the stop 74 and forces  
85 that stop backward to the position in which it is shown in Fig. 3, and the lowest fastener being then no longer held by the stop is drawn down by gravity to the projection 72 of the bar 7 unless it is held back by dirt in the  
90 chute or by the fastener above, perhaps, if the heads of the fasteners overlap each other; but if the fastener does not fall at once to the projection 72 it is forced down by the wedge-shaped projection 73 acting against  
95 the upper side of the stem of the fastener. The column of fasteners in the chute is then supported by the projection 73, as appears by Fig. 3. The lowest fastener is held up by the projection 72 during the operation of applying the button to the garment. When the  
100



front end of the lever 2 rises after the operation, the lower end of the bar 7 is moved outward, and the stop 74 is simultaneously moved forward by the spring 77. The lowest fastener is then released from the projection 72, whereupon it descends into the holder. The column of fasteners continues to be supported by the projection 73 until the projection 76 of the stop 74 is in the position indicated in Fig. 2, and as soon as the projection 73 passes from under the stem of the lowest fastener the column descends until the lowest fastener is in contact with the projection 76 of the stop, and the column is thus supported until the stop is again actuated by the bar 7, as above explained.

If it is desired to get all of the fasteners out of the chute simultaneously, the lower end of the stop 74 is forced backward by hand, whereupon all of the rivets pass rapidly downward in close order and thus issue from the chute.

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

1. In a button-setting or similar machine comprising a chute, a cut-off on the chute, composed of: a movable member having projections 72 and 73 lying normally on one side of the channel of the chute; and a stop and spring, the stop normally projecting across the channel from the other side between the projections 72 and 73, and being subject to operative contact with one of these projec-

tions, and the spring tending to hold the stop in its normal position; in combination with means for imparting a positive reciprocating motion to the projections 72 and 73; substantially as described.

2. In a button-setting or similar machine comprising a chute, a cut-off on the chute, composed of: a pivoted bar containing a slot, and having projections 72 and 73 lying normally on one side of the channel of the chute; and a stop normally projecting across the channel from the other side between the projections 72 and 73; in combination with means for imparting a reciprocating motion to the projections and stop, the means comprising a finger extending through the slot in the bar and connected with a part of the machine having a positive movement; substantially as described.

3. In a button-setting or similar machine comprising a chute, a cut-off composed of the bar 7 pivoted to the chute on one side of the channel and having the slot 71 and projections 72 and 73, the stop 74 pivoted to the chute on the other side of the channel, and a spring 77 acting on the stop 74, in combination with a finger 20 extending through the slot 71 and connected with a part of the machine having a positive movement, substantially as described.

IRA A. NASH.

In presence of—

WILLIAM F. DAVIS,  
RICHARD M. SEIBEL.