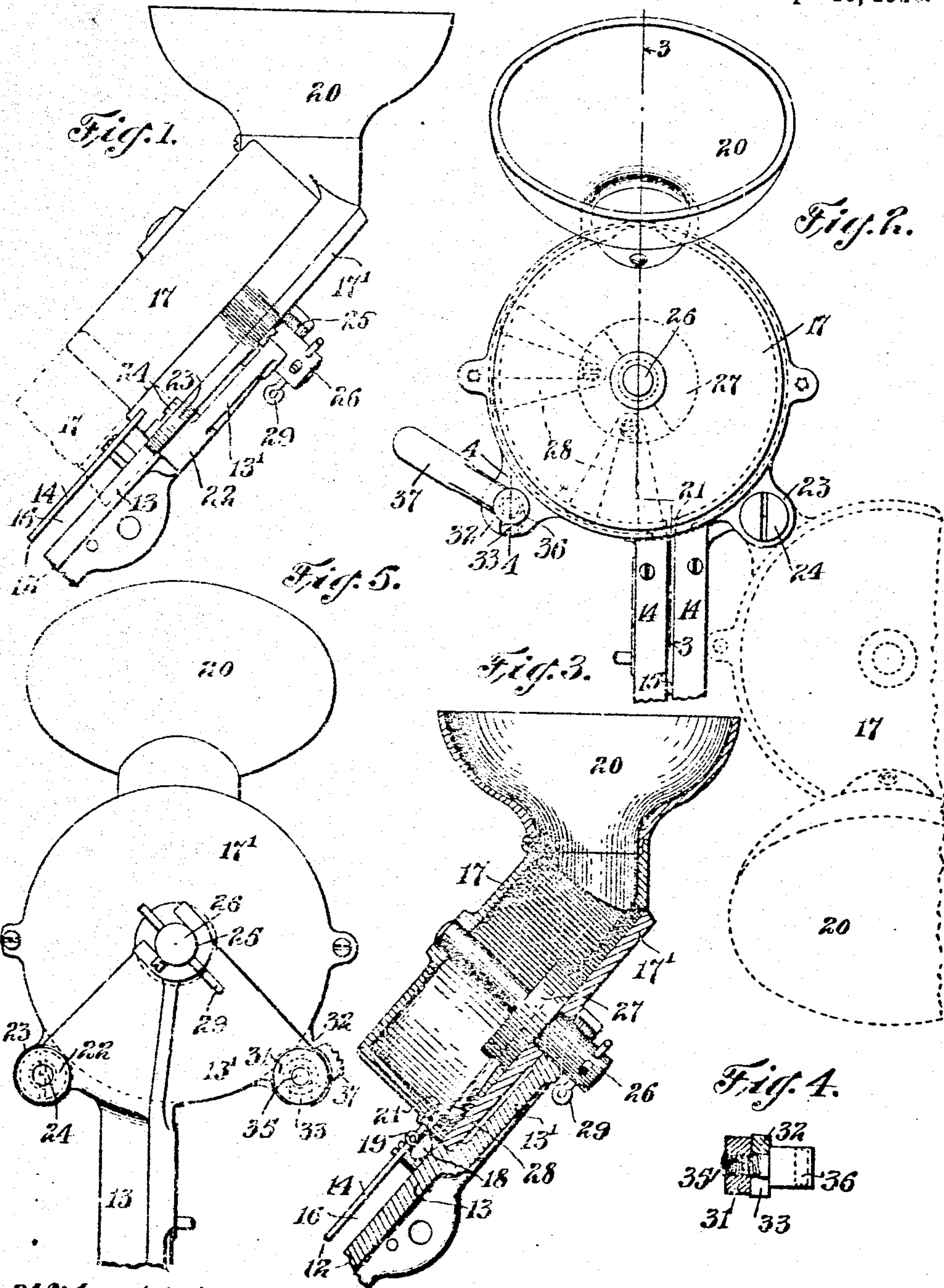


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RESERVOIR FOR BUTTON SEWING MACHINES, &c.  
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# UNITED STATES PATENT OFFICE.

JOHN PERLEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE REECE BUTTON-HOLE MACHINE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

RESERVOIR FOR BUTTON-SEWING MACHINES, &c.

955,195.

Specification of Letters Patent.

Patented Apr. 19, 1910.

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*To all whom it may concern:*

Be it known that I, JOHN PERLEY, a citizen of the United States, and resident of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Reservoirs for Button-Sewing Machines, &c., of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to a machine for applying articles such as shank-eyed shoe buttons to parts of boots and shoes or other articles, a machine to which my invention is applicable being provided with an inclined chute adapted to guide shoe buttons or other like devices to the point where they are to be applied and with a reservoir communicating with the upper end of the chute and adapted to deliver the fastening devices one at a time to the chute so that the fastening devices pass in a row to the point of application.

The invention is intended mainly for button sewing machines of the type shown in Letters Patent of the United States, No. 690,978, granted to the New Button Sewing Machine Company, on the 14th day of January, 1902. Machines of this character are adapted to supply to the chute, buttons of different sizes, styles, and colors. It is necessary when a change is made in the buttons supplied, to remove from the reservoir the buttons remaining therein of the kind previously used and substitute therefor another kind. Heretofore, the button reservoir has been rigidly attached to the chute so that the operation of removing from the reservoir an accumulation of buttons the use of which is to be discontinued, requires a considerable amount of time, the buttons usually having to be removed through the hopper by which they are supplied to the reservoir. In some cases the reservoir has been provided with an outlet independent of the chute through which the buttons may be removed. This construction, however, requires the provision of means for closing the outlet and renders the construction of the reservoir unduly complicated.

My invention has for its object to enable a mass of buttons in a button reservoir to be quickly and conveniently discharged through the supplying hopper of the reser-

voir, thus rendering a separate discharge outlet and means for closing the same unnecessary and reducing to the minimum the time required for emptying the reservoir.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a side elevation of a portion of a button chute and a button reservoir connected therewith in accordance with my invention. Fig. 2 represents a front elevation of the parts shown in Fig. 1. Fig. 3 represents a section on line 3—3 of Fig. 2. Fig. 4 represents a section on line 4—4 of Fig. 2. Fig. 5 represents a rear elevation of the parts shown in Fig. 2.

The same reference characters represent the same parts in all the figures.

In the drawings 12 represents the button chute of a button sewing machine of the character set forth in the above-mentioned patent, the chute including an inclined body portion 13 and parallel guide pieces 14, 14', which are attached to the body portion 13 and are separated from each other by a narrow slot 15 adapted to receive and guide the shanks of the buttons, and from the body portion 13 by a space 16 adapted to receive the heads of the buttons, the construction being such that the button heads are adapted to slide freely down the inclined surface of the body portion 13 while their shank eyes project outwardly between the guides 14 and move downwardly in the slot 15. The upper end of the body portion 13 is offset at 13'.

17 represents a button reservoir the bottom 17' of which is seated on a part of the offset portion 13' and is adapted to turn thereon as hereinafter explained, the upper side of the bottom 17' being flush with the upper side of the body portion 13 of the chute, so that the head 18 of a shoe button may slide from the bottom of the reservoir to the space 16 as indicated in Fig. 3, the shank eye 19 of the button projecting outwardly through the slot 15.

The button reservoir is provided with an inlet 20 which is always open and it is preferably formed as a hopper adapted to receive a charge of buttons and conduct the same into the reservoir. In the side of the



reservoir opposite the inlet 20 is a button outlet 21 which coincides with the button guides of the chute and is formed and arranged to deliver buttons one at a time to the chute when the reservoir is in the position shown by full lines in the drawings. The body portion 13 of the chute is provided with an ear 22 projecting laterally from one edge of the chute. The reservoir bottom is provided with an ear 23 which is pivotally connected by a stud 24 with the ear 22 the arrangement being such that the reservoir is adapted to swing on the stud or pivot from the full line to the dotted line position shown in Fig. 2.

When the reservoir is in the full line position its inlet 20 is at the highest portion of the reservoir, and the outlet 21 at the lowest portion, so that the reservoir is operative to deliver buttons to the chute. When the reservoir is in the dotted line position the inlet 20 is at the lowest portion of the reservoir, and as such inlet 20 is always open, no matter what the position of the reservoir may be, all the buttons in the reservoir are automatically discharged therefrom through the inlet 20 when the reservoir is turned to the dotted line position, the reservoir being thus quickly emptied.

The reservoir and chute are provided with complementary stop members which locate and normally maintain the reservoir in its operative position when it is moved from the dotted line position to the full line position.

One of the said stop members is the wall of a recess 25 formed in the offset portion 13' of the chute, the other member being a stud 26 projecting from the center of the bottom of the button reservoir and adapted to enter the recess 25, the arrangement being such that when the stud 26 bears on the inner portion of the recess 25, the reservoir is in its operative position with its outlet 21 coinciding with the button chute.

The stop member 26, is preferably a part of the mechanism usually employed in button reservoirs for agitating the buttons and causing their passage through the outlet, the member 26 being extended as a stud through the button reservoir, and provided with a hub 27 which is provided with tufts of bristles 28 arranged to sweep over the lower portion of the bottom of the button reservoir, the usual or any suitable means being provided for oscillating the stud and the bristles carried thereby. The stud oscillating means may include an arm 29 affixed to the projecting portion of the stud, said arm being oscillated in any suitable way by mechanism provided for that purpose.

Means are provided for locking the reservoir to the chute when the reservoir is in its operative position, the means here shown including an ear 31 formed on the offset portion 13' and projecting from the edge of

the chute opposite to that from which the ear 22 projects, an ear 32 formed on the bottom of the reservoir and provided with a slot 33, and a clamping screw 35 engaged with a tapped orifice formed for its reception in the ear 31 and passing through the slot 33, the head 36 of the bolt being arranged to bear upon the ear 32 and clamp the latter against the ear 31. When the clamping screw is turned to separate its head from the ear 32, the latter is released so that the button reservoir may move to its discharging position. The clamping screw is provided with a suitable operating handle 37.

From the foregoing it will be seen that when it is desirable to quickly remove a charge of buttons from the reservoir, this operation may be effected by loosening the clamping screw and swinging the reservoir from the full line position to the dotted line position, thus causing all the buttons in the reservoir to be discharged by gravitation through the inlet 20. When the reservoir is returned to its operative position, it may be quickly secured by tightening the clamping screw 35.

I claim: --

1. In combination, an inclined guiding chute, a reservoir having an inlet which is always open, and an outlet, and means for supporting the reservoir in either of two positions relatively to the chute, one of said positions causing the outlet to coincide with the chute while the other position causes the open inlet to become an outlet for the contents of the reservoir and effect automatically the discharge of such contents.

2. In combination, an inclined guiding chute, a reservoir having an inlet and an outlet, means for supporting the reservoir in either of two positions relatively to the chute, one of said positions causing the outlet to coincide with the chute while the other position causes the inlet to become an automatic outlet, and means for locking the reservoir in the first mentioned position.

3. In combination, an inclined guiding chute, a reservoir having an inlet and an outlet, and a manually-controlled movable connection between the chute and reservoir, adapted to permit the reservoir to occupy two positions, one of which causes the outlet to coincide with the chute and places the inlet in receiving position, while movement of the reservoir to the other position causes the inlet to become an outlet for and discharge automatically the contents of the reservoir.

4. In combination, an inclined guiding chute, a reservoir having an inlet and an outlet, and a movable connection between the chute and reservoir, adapted to permit the reservoir to occupy two positions, one of which causes the outlet to coincide with the chute, while the other causes the inlet to



serve as an automatic outlet, and means for locking the reservoir in the first mentioned position.

5 5. In combination, an inclined guiding chute, a reservoir having an inlet and an outlet, and a pivotal connection between the reservoir and chute adapted to permit the reservoir to be swung laterally from a position in which its outlet coincides with the  
10 chute and the inlet is in receiving position, to a position in which the outlet is removed from such coincidence with the chute and the inlet is caused to become an outlet for and to effect automatically the discharge of  
15 the contents of the reservoir.

6. In combination, an inclined guiding chute, a reservoir having an inlet and an outlet, and a pivotal connection between the reservoir and chute adapted to permit the  
20 reservoir to swing from a position in which its outlet coincides with the chute, to a position in which the inlet becomes an outlet and discharges automatically the contents of the reservoir, the chute and reservoir having  
25 complemental stop members which locate and normally maintain the reservoir in the first mentioned position.

7. In combination, an inclined guiding chute having ears projecting laterally in opposite directions from its upper end portion,  
30 a reservoir having an inlet and an outlet, a pivotal connection between the reservoir and one of said ears, and a separable locking connection between the reservoir and the  
35 other ear.

8. In combination, an inclined guiding chute having ears projecting laterally in opposite directions from its upper end portion

and a recessed stop member, a reservoir having an inlet and an outlet, a pivotal connection between the reservoir and one of said  
40 ears, and a separable locking connection between the reservoir and the other ear, the reservoir being provided with a projecting stop member adapted to cooperate with said  
45 recessed stop member in locating the reservoir.

9. In combination, an inclined guiding chute, a reservoir having a bottom the upper surface of which is substantially flush with  
50 the bottom head supporting and guiding surface of the chute, said reservoir having also an inlet and an outlet above said bottom, and means for supporting the reservoir in either of two lateral positions relatively to the  
55 chute, the outlet in one position coinciding with the chute while in the other position said outlet is rendered inoperative and the inlet becomes an automatic outlet to discharge the contents of the reservoir.  
60

10. In combination, an inclined guiding chute having an offset portion at its upper end, a reservoir having a bottom seated on said offset portion, and an inlet and an outlet above said bottom, the upper surface of  
65 the bottom being substantially flush with the upper surface of the body portion of the chute, and a pivotal connection between the reservoir and the offset portion of the chute.

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

JOHN PERLEY.

Witnesses:

WM. J. McLAUGHLIN,  
THOMAS J. CARTY.