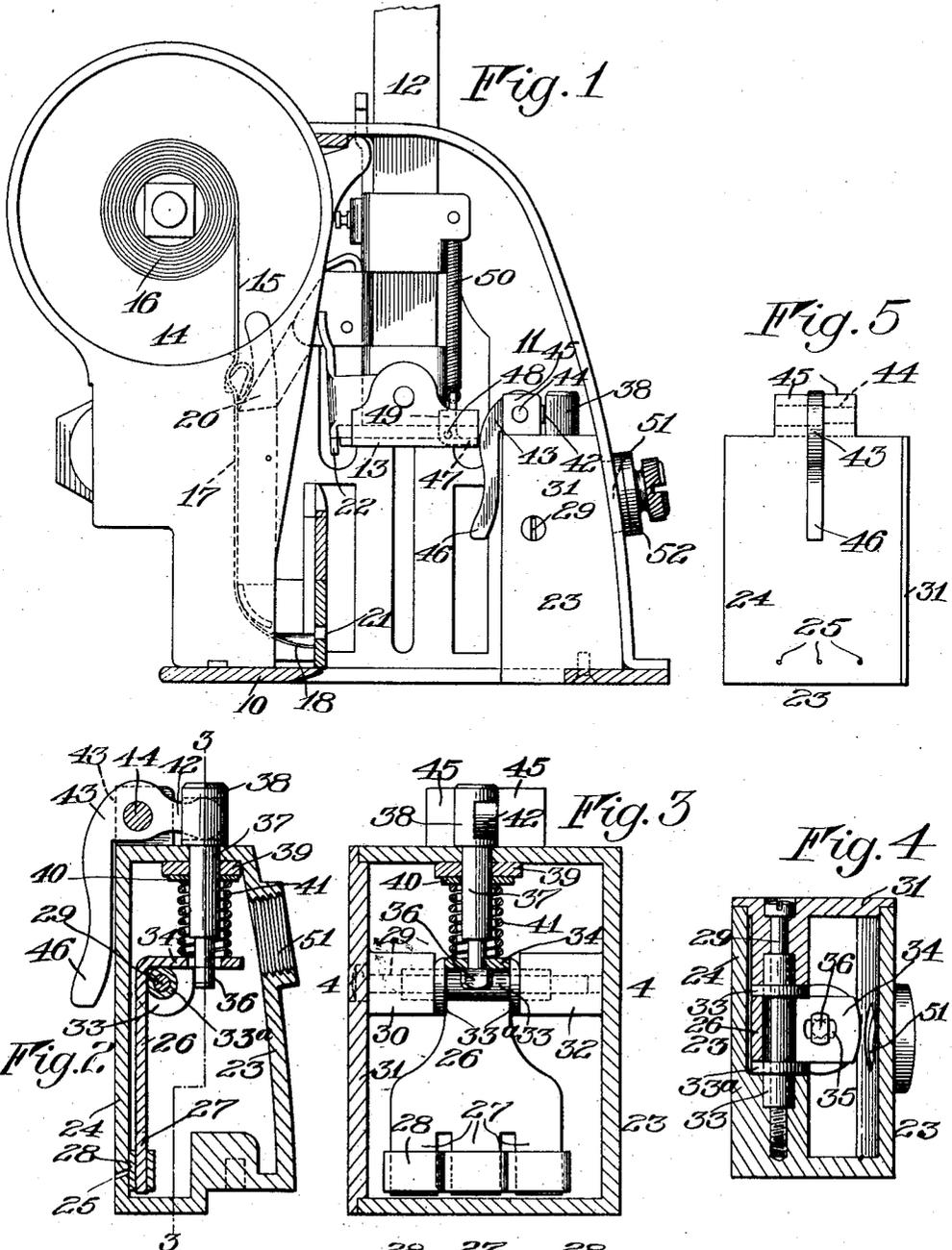


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 LIQUID DISPENSING APPARATUS FOR STAMP AFFIXERS.
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UNITED STATES PATENT OFFICE.

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LIQUID-DISPENSING APPARATUS FOR STAMP-AFFIXERS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WESLEY J. BALKWILL, of Rochester, in the county of Monroe, and State of New York, have invented certain new and useful Improvements in Liquid-Dispensing Apparatus for Stamp-Affixers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My invention relates to a liquid dispensing apparatus for stamp affixers, and has for its object to provide means for advancing a stamp strip arranged to operate a liquid dispenser for depositing liquid upon the article to which the stamp is to be affixed. A further object of the invention is to provide a liquid dispensing apparatus for stamp affixers and the like from which liquid may be discharged by an ejector arranged to be operated by a movable portion of the machine. To these and other ends the invention consists in certain improvements and combination of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is a sectional elevation through a machine embodying the invention;

Fig. 2 is a detail sectional elevation through the liquid carrying receptacle illustrating the mechanism for discharging liquid therefrom;

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 2;

Fig. 4 is a horizontal sectional view taken on line 4—4 of Fig. 3;

Fig. 5 is a front elevational view of the tank or receptacle shown in Fig. 1, and

Fig. 6 is a bottom plan view of the ejector for discharging liquid from the tank.

Similar reference numerals in the several figures indicate the same parts.

In the provision of liquid dispensers for stamp or label affixers considerable trouble has been experienced in providing a tank or liquid carrying receptacle that can be depended upon to prevent the escape of the liquid through the discharging ports or orifices of the tank when the machine is not in use. One of the objects of the present invention is to overcome this objection, and

at the same time provide a more simple and satisfactory ejecting mechanism for discharging liquid from the tank when it is desired to apply it to the objects upon which stamps or other gummed strips are to be affixed.

In illustrating my present invention I have shown it applied to a machine comprising a base 10 upon which is mounted a frame or housing 11 carrying a reciprocating plunger 12 provided with a stamp affixing head 13. At one side of the machine the frame 11 is open, and removably fitted in said opening is a stamp or label container 14 provided with a roll of stamps or labels 15 wound upon a spool 16, the end of the strip passing downwardly through a guideway at 17, which terminates in the laterally curved portion 18 over which the free end of the stamp or label strip is fed by the fingers 20 carried by the plunger 12. The free end of the strip is fed through the opening 21 above the base 10, which is adapted to be placed upon the article to which the stamps are intended to be affixed. A cutter 22 upon the plunger is provided for severing the stamp from the strip when the same has been advanced the proper distance to position the stamp immediately beneath the head 13. The liquid dispensing apparatus is designed to be operated for applying liquid to the article to be stamped previous to the severance of the stamp by the cutter in a manner which will presently be explained.

The liquid holding tank or receptacle 23 is preferably mounted upon the base 10 within the walls of the frame 11 at a point directly opposite that at which the stamp is fed and severed by the cutter 22. The receptacle is adapted to contain liquid, such as water, for use in moistening the gum or other adhesive material applied to the stamps or labels, although if desired liquid adhesive material may be carried in the tank and discharged therefrom for affixing purposes. Through the inner wall 24 of the tank is provided an orifice or plurality of orifices 25 which are inclined downwardly and outwardly to direct the liquid discharged from the tank across the path of the affixing head 13 at a point beneath that at which the stamp emerges from the guideway so that a spray will be deposited upon the article to which the stamp is to be affixed

previous to the severance of the strip. The means for forcing liquid through the orifice 25 comprises a swinging or pivoted ejector 26, the lower or free end of which consists of a plurality of spaced fingers 27, each of which is provided with any suitable yieldable material, such as the rubber bands indicated at 28, which are adapted to normally close the orifices or ports 25. However, the orifices are preferably made of such small diameter as to prevent the escape of liquid therethrough when said orifices are uncovered, it being understood that a slight vacuum will be produced in the tank after a limited amount of the liquid is forced out and that at such time the atmospheric pressure upon the outside of the tank will be sufficient to prevent the escape of the liquid except when the same is acted upon by the ejector.

The ejector is pivotally mounted upon a pin 29 extending through the enlargement 30 on the removable side 31 of the tank and into threaded engagement with the enlargement 32 at the opposite side of the tank. A sleeve 33 is mounted upon the pin 29 and extends through the ears 33^a of the ejector and into said enlarged portions 30 and 32. The ejector is provided with an angled portion or arm 34 having an elongated aperture 35 adapted to receive the T-head 36 of the ejector actuating bolt 37 which extends through the upper wall of the tank and terminates in the enlarged head 38. A gasket 39 is mounted upon the bolt 37 against the inner face of the upper wall of the tank to prevent the escape of liquid at this point as well as to prevent air entering the tank around said bolt. The gasket is supported by a washer 40 against which one end of a coil spring 41 is adapted to bear, the opposite end of which is seated upon the angled portion 34 of the ejector to normally hold the same in the position shown in Fig. 2. One side of the head 38 is slotted to receive the end 42 of the horizontal arm of a lever 43 pivoted upon the pin 44, the opposite ends of which are seated in the upstanding lugs 45 carried by the top wall of the tank. The lever is provided with a vertically positioned arm, the lower end of which has a cam or inclined surface 46 projecting into the path of an arm 47 of a pawl, pivotally mounted upon a dowel 48 carried by the affixing head 13. The end 49 of the pawl by engaging a wall of the affixing head prevents the operation of the arm 47 in an upward direction, but said arm is free to move in a downward direction against the action of the spring 50 to which the pawl is connected. The T-head 36 of the bolt 37 is adapted to be inserted through the aperture 35 before the lever 43 is connected with the head 38 of the bolt. After the T-head has been inserted through

the aperture the bolt is then turned through an angle of ninety degrees and held in this position by the end 42 of the lever 43. The tank is provided with a threaded opening 51 through which it is filled, the opening being closed by a screw cap 52, as shown in Fig. 1. Operation of the plunger 12 in a downward direction will cause the arm 47 of the pawl to engage the inclined surface 46 of the lever 43, thereby elevating the bolt 37 and arm 34 of the ejector against the action of the spring 41, the purpose being to move the ejector upon its pivot so that the bottom thereof will be spaced from the orifices 25 previous to the completion of the stroke of the plunger. As the pawl passes the lower end of the vertical lever arm the latter will be released and the compression of the coil spring 41 will be sufficient to return the ejector with considerable force to the normal position shown in Fig. 2. The sudden return of the ejector under the action of the spring 41 forces liquid to be discharged through the orifices downwardly upon the article to be stamped, which is placed beneath the affixer by the operator. By this arrangement, positive means is provided for forcing a spray of liquid through the orifices and upon the article to which the stamps are to be affixed previous to the completion of the downward stroke of the affixing head. The return of the plunger to normal position is permitted by reason of the fact that the pawl is free to move downwardly when engaged by the end of the vertical lever arm during the upward movement of the plunger.

I claim as my invention:

1. In a liquid dispensing apparatus for stamp affixers, the combination of a frame, a stamp affixing member movable thereon into and out of stamp affixing position, a liquid receptacle having an orifice leading therefrom, an ejector pivoted in the receptacle, a pivoted member operatively connected with said ejector, and means movably mounted on said stamp affixing member for actuating said pivoted member.

2. In a liquid dispensing apparatus for stamp affixers, the combination of a frame, a stamp affixing member movable thereon into and out of stamp affixing position, a liquid receptacle having an orifice leading therefrom, an ejector pivoted in the receptacle for discharging liquid through said orifice, a lever operatively connected with the ejector, and a device pivoted to said stamp affixing member adapted to engage the lever and retract the ejector when moved in one direction, and a spring adapted to automatically return the ejector when the lever is released.

3. In a liquid dispensing apparatus for stamp affixers, the combination with a reciprocatory plunger and means for positioning

a stamp in front of the plunger, of a liquid carrying receptacle having a plurality of discharge ports leading therefrom, a swinging ejector provided with independent means adapted to normally cover each of said ports, a movable member operatively connected with the ejector and arranged to be actuated by movement of the plunger in one direction, whereby the ejector is moved to uncover the ports, and a spring arranged to be tensioned by movement of the ejector away from the ports, said spring serving to return the ejector to normal position after operation of said movable member.

4. In a liquid dispensing apparatus for stamp affixers, the combination with a frame and an affixing member movable thereon into and out of affixing position, of a liquid carrying receptacle having a plurality of discharge ports leading therefrom, a pivotally mounted ejector normally closing said ports, an angled portion carried by the ejector, a movable member extending through a wall of the receptacle into engagement with said angled portion, a spring adapted to normally hold the ejector in closed relation with said ports, and a lever pivoted intermediate its ends upon the receptacle, having one end operatively connected with said movable member and the other arranged to be actuated by the operation of said affixing member.

5. In a liquid dispensing apparatus for stamp affixers, the combination of a movable plunger, a liquid receptacle having discharge ports leading therefrom, an ejector mounted in the receptacle to swing therein, a spring normally maintaining the ejector in position to close the discharge ports, a member slidably mounted in said receptacle adapted to actuate said ejector, and means controlled by said plunger for actuating said sliding member.

6. In a liquid dispensing apparatus for stamp affixers, the combination of a movable plunger, a liquid receptacle having discharge ports leading therefrom, an ejection

tor mounted in the receptacle to swing therein, a spring normally maintaining the ejector in position to close the discharge ports, a member slidably mounted in said receptacle adapted to actuate said ejector, and a lever operatively connected to said sliding member and adapted to be actuated by the plunger.

7. In a liquid dispensing apparatus for stamp affixers, the combination of a movable plunger, a liquid receptacle having discharge ports leading therefrom, an ejector pivoted in said receptacle and normally closing said ports, a bolt slidably mounted in the receptacle and operatively connected with said ejector, a lever projecting in the path of said plunger and adapted to operate said bolt to retract the ejector, and a spring for returning the ejector to normal position.

8. A liquid dispensing apparatus comprising a liquid carrying receptacle having a plurality of discharge ports leading therefrom and having one of its sides removably fitted thereon, a bolt having one of its ends carried by the removable side and its other end by the side of the receptacle opposite the removable side, an ejector pivotally mounted upon the bolt between said sides, and means for moving the ejector upon the bolt to cause the discharge of liquid through said ports.

9. A liquid dispensing apparatus comprising a liquid carrying receptacle having a discharge port leading therefrom, an ejector pivotally mounted within the receptacle having an elongated opening formed therein, a T-head bolt arranged to be inserted through a wall of the receptacle and through said opening and turned so that the head will be brought into engagement with the ejector and means movably mounted the receptacle for actuating the bolt to operate the ejector, said means serving to prevent the turning of the bolt upon the ejector.

WESLEY J. BALKWILL.