

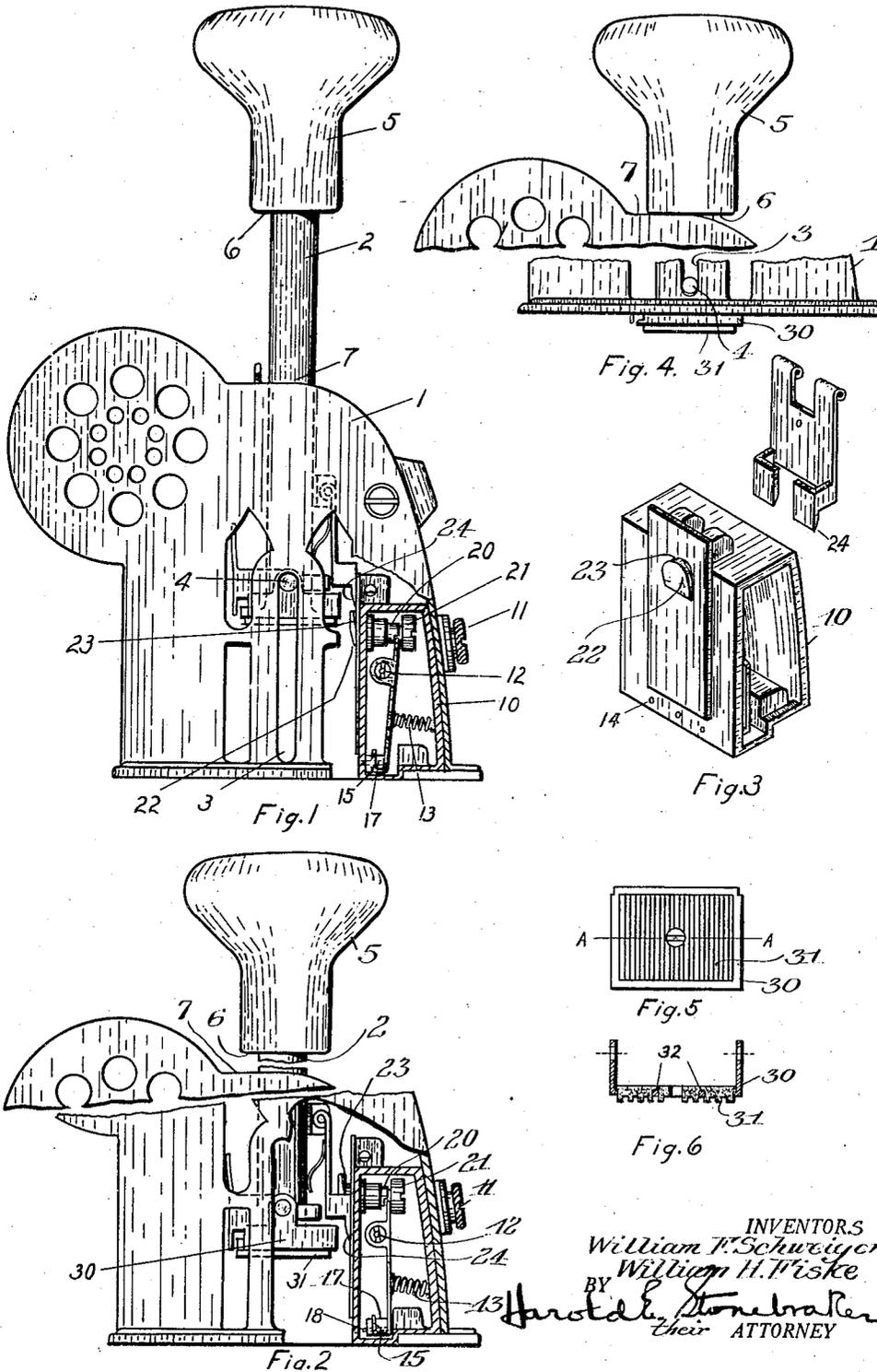
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STAMP AFFIXING MACHINE

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STAMP-AFFIXING MACHINE.

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To all whom it may concern:

Be it known that we, WILLIAM F. SCHWEIGER and WILLIAM H. FISKE, both citizens of the United States of America, and both residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Stamp-Affixing Machines, of which the following is a specification.

The invention relates to stamp affixing machines, of the general type comprising a portable container adapted to be superposed on an envelope and provided with stamp roll holding and feeding mechanism, devices for moistening an envelope, and a depressible plunger which serves to feed the stamp strip, operate the envelope moistening mechanism, sever the stamp from the strip, and affix it to the envelope.

One of the purposes of the invention is to afford a simple, efficient, and durable mechanism for discharging water onto the envelope, said parts being constructed in such a way as to insure discharging a uniform amount of water onto the envelope, regardless of wear on the controlling parts of the machine.

Another purpose of the improvement is to afford a positive and forceful action in discharging the water from its compartment, and in other ways to insure a proper and adequate supply of water to the envelope.

An additional object of the invention is to provide means for retaining a resilient or rubber pad on the bottom of the plunger so as to prevent its accidental removal or loosening.

Still a further purpose of the invention is to afford means for limiting the downward travel of the operating plunger without imposing any strain on or otherwise affecting the operating parts of the machine.

With these and other ends in view, the invention comprehends the structure that will appear clearly from the following description, when read in conjunction with the accompanying drawings, the novel features being pointed out in the claims following the description.

In the drawings:

Figure 1 is a side elevation of a machine equipped with a preferred embodiment of the invention, illustrating the parts in nor-

mal position, the water compartment being broken away to show the interior mechanism;

Figure 2 is a similar view with parts broken away, showing the operating plunger lowered to a position where the water ejecting device is retracted, in readiness to discharge water when released, upon further downward movement of the plunger;

Figure 3 is a perspective view illustrating the means on the plunger that cooperates with the actuator for the water ejecting device;

Figure 4 is a side elevation of the machine with parts broken away, illustrating the position of the operating plunger at the downward limit of its travel;

Figure 5 is a bottom plan view of the plunger, and

Figure 6 is a longitudinal vertical sectional view of the same.

Referring more particularly to the drawings, in which like reference numerals throughout the several views indicate the same parts, 1 designates the housing of the machine, while 2 is the operating plunger that controls the feeding and cutting of the stamp from the strip, as well known in this class of machine. The housing 1 is provided with guide slots 3 at the sides thereof, while 4 are guide pins carried by the plunger 2 and engaging said slots 3.

It is desirable to prevent the pins 4 from striking the bottoms of the slots 3 when the plunger is moved downwardly as far as it will go, and to accomplish this, we provide means carried by the plunger 2 and engaging the top of the housing 1, so as to prevent the plunger from moving downwardly far enough to permit the pins 4 to strike the bottoms of the slots 3. This is preferably accomplished by constructing and mounting the handle 5 on the plunger 2 so that its lower edge 6 engages the top of the housing 7 to limit the downward travel of the plunger before the pins 4 reach the bottoms of the slots 3. In the course of the downward movement of the plunger 2, mechanism operates to discharge water onto the envelope, and the parts having to do with the water containing and discharging mechanism will now be described.

10 designates the water compartment to

which water may be supplied when required, through a suitable opening that is normally closed by a threaded plug 11. Pivotal-ly mounted within the water compartment is a water ejecting device that swings about an axis 12 located at a point between its upper and lower portions. 13 designates a pair of springs located between the rear wall of the water compartment and the lower portion of the water ejecting device beneath its pivotal point, and acting to push said lower portion toward the water discharge openings 14 located near the bottom of the compartment. The springs 13 are located in such relation as to effect a direct action upon the water ejecting device toward the discharge openings, resulting in a positive and powerful operation in discharging the water by reason of maximum pressure acting directly toward the water discharge openings.

The water ejecting device comprises an integral metallic plate provided with an upturned portion 15 at its lower end in spaced relation to the body portion of the plate. The upturned portion 15 is cut away at 16 to receive the cork member 17 which is retained in said cut-away portion against the body portion of the water ejecting device and acts to close the discharge openings and prevent passage of water therethrough when the parts are in normal position, as shown in Figure 1. It is desirable to prevent the openings 14 from becoming clogged and to prevent insertion of a sharp point into said openings from the exterior, and this is attained by the provision of a series of pins 18 carried by the water ejecting device and occupying a position within said openings 14 when the parts are in normal position.

The water ejecting device is retracted against the action of the springs 13 by the downward travel of the plunger 2 through a slidable actuator 20 which is movable horizontally at the top of the water compartment 10 and engages the upper portion of the water ejecting device so as to swing the same on its pivotal axis 12. 21 is a member having threaded adjustment on the actuator 20 and affording an adjustable shoulder which engages and moves the upper portion of the water ejecting device, the adjustment of the member 21 making it possible to vary the movement of the water ejecting device to effect just the proper water discharge.

The actuator 20 carries an operating portion or plate 22 located outside the compartment 10 and beveled on its inner surface at opposite portions, as designated at 23. The plate 22 is preferably constructed of Monel metal, or other similar alloy which will withstand wear and has no tendency to rust or corrode if permitted to stand idle after becoming wet, thus overcoming an objection in prior machines due to the sticking of parts made of brass, copper, or other metals.

The plunger is provided with means which cooperates with said operating portion 22 on its under side to withdraw the same, together with the actuator, outwardly with reference to the water compartment for retracting the water ejecting device.

Said means on the plunger preferably comprises a shoe with opposite bifurcated tapered portions 24 which enter between the beveled surfaces 23 and the adjacent side wall of the water compartment as the plunger travels downwardly, and thereby pulls the actuator outwardly with reference to the water compartment. When the shoe on the plunger moves downwardly sufficiently far to permit the bifurcated portions 24 to clear the operating plate 22, the latter is released and the springs 13 throw the water ejecting device back to normal position, at the same time discharging the proper quantity of water through the openings 14 onto the envelope in preparation for the stamp which is severed and pressed onto the envelope by the further downward travel of the operating plunger. As the stamp feeding and cutting means forms no part of this invention, it is unnecessary to show or describe these parts in detail.

On the return or upward travel of the plunger, the tapered portions 24 of the shoe pass on the outer side of the plate 22, so that if the latter has any tendency to stick, the shoe forces it positively to its normal or innermost position, ready for another operation when the plunger moves downwardly. Thus the actuator is positively operated by the plunger in both directions, through a pulling action on plate 22 for operating the water ejecting device, and a pushing operation on said plate, to return said parts to normal position.

The bottom of the plunger 2 is usually provided with a pad of resilient material, such as rubber, and in order to retain such pad in place, and prevent its accidental loosening or displacement, we employ a metal frame 30, attached to the plunger in any convenient way, and including a flange surrounding the edge of the resilient pad 31, which is preferably cut away at its edges to receive said frame. In order to retain the body of the resilient pad in place, the frame is provided with one or more transverse portions 32, which occupy grooves in the rubber pad and hold the central or body portion of the pad in place, as well as its edges.

While the invention has been set forth with reference to certain detailed arrangements, it is not restricted to the particular mechanism disclosed, and this application is intended to cover any modifications or departures coming within the intent of the improvements as set forth in the preceding description, or the scope of the following claims.

We claim:

1. In a stamp affixing machine, the combination with an operating plunger, of a water compartment, a water ejecting device, an actuator operatively connected to the water ejecting device, and means carried by the plunger and operating to withdraw the actuator from said compartment as the plunger travels downwardly, and to insure return of the actuator as the plunger travels upwardly.
2. In a stamp affixing machine, the combination with an operating plunger, of a water compartment, a water ejecting device, a reciprocating actuator for the water ejecting device, and means acting as the plunger travels downwardly to withdraw the actuator from the compartment in order to retract the water ejecting device ready for operation.
3. In a stamp affixing machine, the combination with an operating plunger, of a water compartment, a water ejecting device, an actuator operatively connected to said water ejecting device and having an operating portion located outside the compartment, and means carried by the plunger and engaging the inner face of said operating portion and acting to withdraw the actuator from the compartment to retract the water ejecting device ready for operation.
4. In a stamp affixing machine, the combination with an operating plunger, of a water compartment, a water ejecting device, an actuator operatively connected to said water ejecting device and having an operating portion located outside the compartment, and means carried by the plunger and including a bifurcated shoe engaging the inner face of said operating portion at opposite points and acting to withdraw the actuator from the compartment to retract the water ejecting device ready for operation.
5. In a stamp affixing machine, the combination with an operating plunger, of a water compartment having water discharge openings near the bottom, a water ejecting device having its lower portion arranged for cooperation with said openings, an actuator cooperating with the upper portion of the water ejecting device, the latter being pivotally mounted within said compartment between its upper and lower portions, means carried by said plunger for controlling the actuator, and a spring located between the rear wall of the water compartment and the water ejecting device beneath the pivotal point of the latter and acting to push the lower portion thereof toward the openings.
6. In a stamp affixing machine, the combination with an operating plunger, of a water compartment, a water ejecting device arranged in said compartment, an actuator for the water ejecting device, an adjustable shoulder on said actuator arranged to engage a portion of the water ejecting device, and means carried by the operating plunger for controlling said actuator.
7. In a stamp affixing machine, the combination with an operating plunger, of a water compartment having water discharge openings near the bottom, a water ejecting device having its lower portion cooperating with said openings, an actuator, an adjustable shoulder on the actuator cooperating with the upper portion of the water ejecting device, the latter being pivoted between its upper and lower portions, a spring located between the rear wall of said compartment and the water actuating device and acting to push its lower end toward the discharge openings, and means carried by the operating plunger and cooperating with said actuator to withdraw the latter from the compartment and thereby retract the water actuating device ready for operation.
8. In a stamp affixing machine, the combination with an operating plunger and water compartment, of a water ejecting device, means controlled by said plunger for operating the water ejecting device, the latter comprising a pivotally mounted integral plate having its lower edge bent upon itself forming an upturned portion that is cut away to provide an opening, and a cork member engaging said opening and seated against the body portion of the water ejecting device.
9. In a stamp affixing machine, the combination with an operating plunger and water compartment having a series of water discharge openings, of a water ejecting device, pins carried by the water ejecting device and engageable in said openings, and means carried by the plunger for operating the water ejecting device.
10. In a stamp affixing machine, the combination with a housing, of an operating plunger movable in the housing, the latter having vertical guiding slots, guide pins carried by the plunger and engaging said slots, and means carried by the plunger and cooperating with the housing toward the limit of the downward movement of the plunger to limit downward travel of the plunger just before the guide pins reach the bottoms of said slots.
11. In a stamp affixing machine, the combination with a housing that is slotted vertically at opposite sides, of an operating plunger having guide pins engaging said slots in the housing, and a handle for said plunger, the handle cooperating with the top of the housing to limit downward travel of the plunger before the guide pins reach the bottom of said slots.
12. In a stamp affixing machine, the combination with an operating plunger having resilient material covering its bottom, said resilient material being cut away at its edges

and grooved transversely, of a rectangular retaining frame cooperating with said cut-away edge portions and having integral transverse portions lying in said grooves and acting to hold the resilient material upon the plunger.

13. In a stamp affixing machine, the combination with an operating plunger having resilient material covering its bottom, said resilient material being cut away at its edges, of a retaining frame cooperating with said cut-away portions and holding the resilient material on the plunger, said frame having a transverse portion between its ends engaging the body of the resilient material.

14. In a stamp affixing machine, the combination with an operating plunger, of a water compartment, a water ejecting device, an actuator operatively connected to the water ejecting device, and means carried by the plunger and acting to move the actuator from normal position as the plunger travels downwardly, and to positively return the actuator to initial position as the plunger travels upwardly.

In witness whereof, we have hereunto signed our names.

WILLIAM F. SCHWEIGER.
WILLIAM H. FISKE.