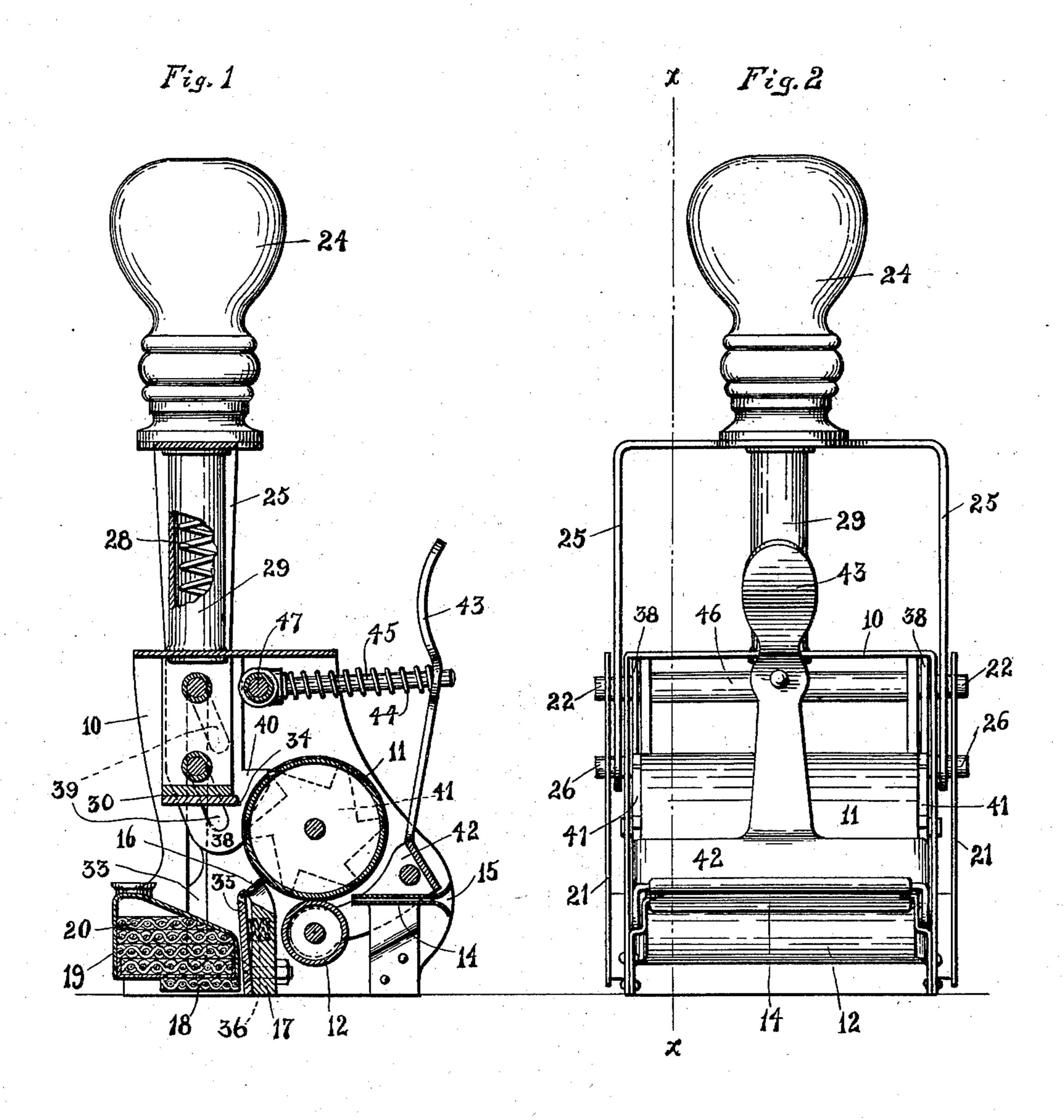
F. C. AREY.

LABEL OR STAMP AFFIXER.

APPLICATION FILED OUT. 6, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

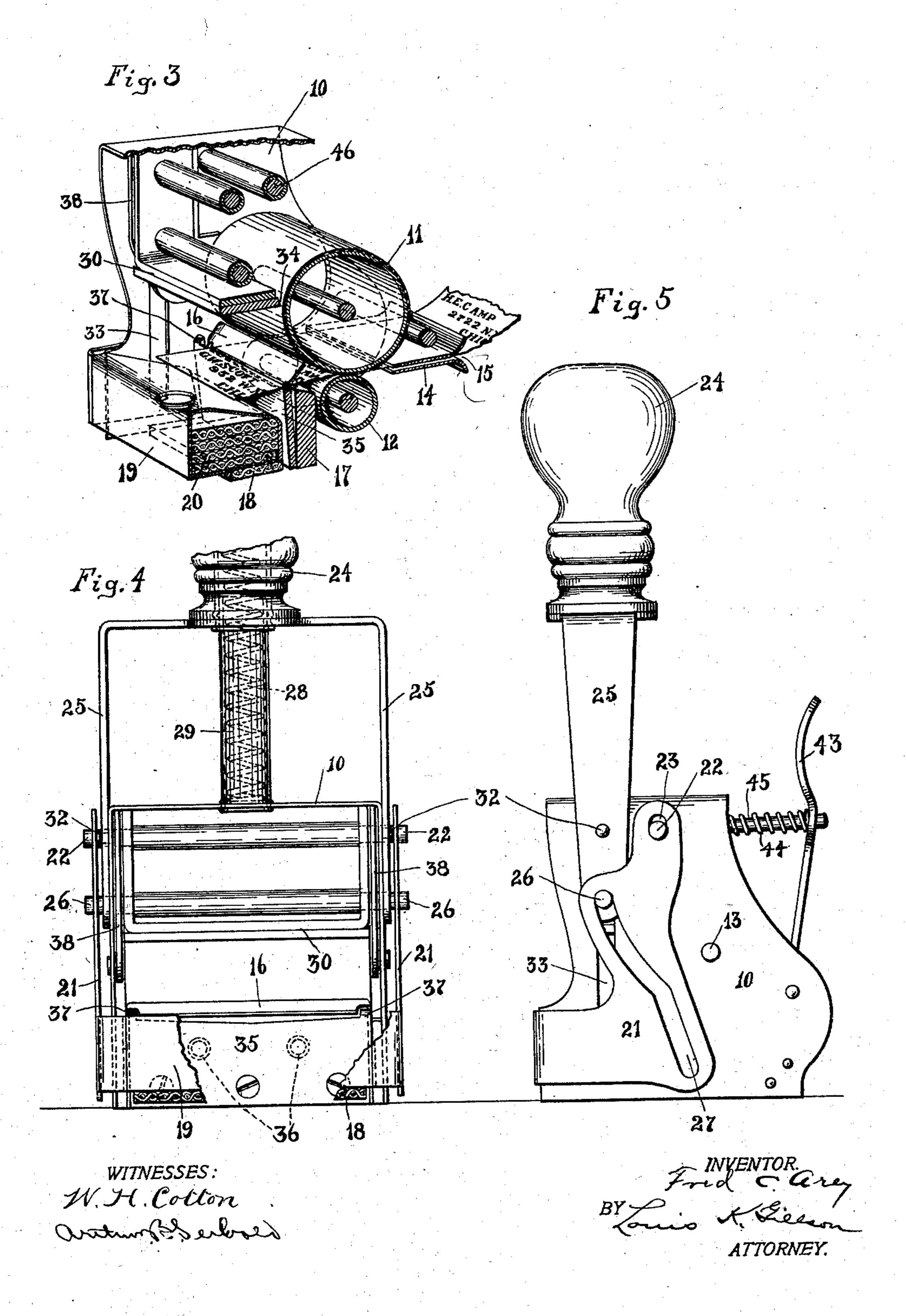


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NO MODEL.

2 SHEETS-SHEET 2.



United States Patent Office.

FRED C. AREY, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO J. EDMUND DONALDSON, OF CHICAGO, ILLINOIS.

LABEL OR STAMP AFFIXER.

SPECIFICATION forming part of Letters Patent No. 749,891, dated January 19, 1904.

Application filed October 6, 1902. Serial No. 126,082. (No model.)

To all whom it may concern:

Be it known that I, Fred C. Arey, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Label or Stamp Affixers, of which the following is a specification and which are illustrated in the accompanying drawings, forming a part thereof.

This invention has reference to a device for affixing gummed address strips, stamps, labels, and the like on envelops, packages, &c., and has for its object to provide an article of this character which shall be simple in construction

15 and rapid and effective in operation.

It further contemplates the provision of a mechanism for feeding the address-labels or stamps to an affixing-plunger and also a cutter operating between the feed mechanism and the plunger for severing the individual labels or stamps.

The invention consists of the combination and arrangement of parts hereinafter fully described, particularly designated in the claims, and illustrated in the accompanying drawings,

in which—

Figure 1 is a vertical transverse section of the device, taken on the line x x of Fig. 2. Fig. 2 is a rear elevation of the same. Fig. 3° 3 is a sectional view in perspective illustrating the passage of the address-label or stamp strip through the affixer. Fig. 4 is a front elevation, a portion of the tank containing the moistening-pad and fluid being broken away; and Fig. 5 is a side elevation, showing one of the pair of levers carrying the moistening-pad and the means for operating the same.

U-shaped frame 10, the bottom of the legs thereof being straight in order to keep the face of the moistening-pad and the plunger or platen, hereinafter described, parallel with the surface of the envelop or package to which the address-label or strip is to be affixed.

The labels or stamps, previously gummed and made in the form of strips, are fed to the affixing mechanism by means of a pair of rolls 11 and 12, located one above the other and the upper of which is journaled, as at 13, in

the sides of the frame 10. The strip of labels 50 may be led to the rolls by a guide 14, attached to the sides of the frame 10 and having a flaring mouth 15 at the front thereof, and a second guide 16 may be located at the opposite side of the feed-rolls from the guide 14 and situsted at the upper end of a bar or strip 17 for conducting the address-labels to the cutting blades or knives. The latter guide is also provided with a flaring mouth toward the feed-rolls for facilitating the introduction of 60

a new strip, Figs. 1 and 3.

Located when in its normal position or in a state of rest in advance of the feed-rolls 11 and 12 is the moistening-pad. This pad may be of any suitable absorbent material and sup- 65 plied with fluid to keep the same damp in any preferred manner. In the construction illustrated the pad 18, of felt or like material, is fastened to the bottom of a tank 19, designed to contain water, which passes to the pad 18 7° through perforations in the bottom thereof. In order to prevent a too-rapid flow of water to the pad 18, the tank may be filled or partially filled with an absorbent material, as 20. The pad or, as shown, the tank 19 is carried 75 by a frame comprising a pair of levers 21, attached to the opposite ends of the tank and pivoted at their upper ends on pivot-pins 22, projecting from the sides of the frame 10, near the top thereof.

To permit of affixing the stamp on the surface moistened, it is of course necessary to move the pad therefrom and out of the path of the affixing-plunger. In the construction illustrated this is accomplished by providing 85 the pusher or reciprocating handle 24, mounted to slide vertically on the frame 10, with a pair of arms 25, which extend at opposite sides of the frame 10 and have fixed thereto studs 26, which play in cam-slots 27 in the le- 90 vers 21. These cam-slots 27, one in each lever, curve downwardly and rearwardly, or toward the feed-rolls 11 and 12, about half their length and then extend in a straight line inclining in and continuing the general direction 95 of the curved portion, as shown in Fig. 5.

Instead of having the pad in such position as to normally rest upon the surface to be

moistened it preferably occupies a position slightly elevated therefrom, and its initial movement is in a downward direction. To provide for such movement, which will be about 5 the same or slightly greater than the distance from the face of the pad 18 and the surface to be moistened, the pivot-openings 23 are slightly elongated vertically, as seen in Fig. 5.

The plunger is held normally in its elevated 10 position by an expansion-spring 28, seated in a guide-tube 29, mounted on the frame 10 and extending into the lower open end of the han-

dle 24, which is hollow.

Mounted to slide vertically between the sides 15 of the frame 10 is a plunger or platen 30, having pins 32 projecting from the sides thereof and which, with the studs 26, attached to the plunger 30, are fixed to the arms 25, the sides of the frame 10 being provided with vertical 20 guide-slots 33, enabling the plunger to move vertically when the handle or pusher 24 is reciprocated. The inner edge of the plunger or platen, or that adjacent the feed-rolls 11 and 12, is brought to an edge or provided with a 25 cutting-blade 34, which coacts with a vertical stationary knife or blade 35, located between the guide 16 and the moistening-pad and loosely bolted at its lower edge to the guideplate 17. Springs 36, interposed between the 3° guide-plate 17 and the knife or blade 35, press the lower blade outwardly toward the path of the blade 34, and the upper opposite ends of the said blade are provided with rounded extensions 37, which are engaged by the ends of 35 the plunger 30, forcing the knife inwardly, thereby insuring a sharp clean cut.

At the completion of each operation of the plunger and the moistening-pad a new addresslabel or stamp must have been moved into po-4° sition. To this end means are provided coacting with a movable part of the mechanism heretofore described, by which this is done, and this action takes place on the recession or return movement of the plunger. Such means 45 may consist of a pair of loose pawl-plates 38, one of which is located between each end of the sliding plunger 30 and the frame 10 and provided with a pair of slots 39, (see Fig. 1,)

located one above the other and inclined rear-5° wardly from the upper ends thereof and through which pass the pins 32 and studs 26, by which the plunger 30 is secured to the arms 25, and also with a pawl 40, projecting rearwardly and adapted to engage a ratchet-wheel

55 41, fixed to the end of one, as 11, of the feedrolls. As the plunger descends the pawlplates 38, through the medium of the slots 39 and the pins 32 and studs 26, are moved forward and also downward, the length of the

60 slots being less than the range of movement of the plunger, so that the pawls 40 are carried away from and below the ratchets. As the action is reversed and the plunger rises the pawl-plates are first moved inward and the 65 pawls engaged with the teeth of the ratchets,

and the pins 32 then reaching the upper ends of the slots 39 the plates are lifted, and consequently turn the feed-roll, the parts being so proportioned that such movement will be just sufficient to advance one address-label or 70

stamp.

In operation when the handle is pushed downward the pivot-pins 26 first engage the curved portion of the cam-slots 27 and move the lever-frame 21 and the moistening-pad 75 downward until the latter comes in contact with the surface to be moistened, this vertical movement being permitted by reason of the elongated pivot-openings 23. The movement of the plunger being continued, the move- 80 ment of the studs 26 in the curved portion of the slots 27 causes the levers 21 to turn on their pivots 22 and oscillate or throw the pad outwardly from the path of the plunger 30 and away from the surface just moistened, 85 and the limit of movement of the pad is reached when the studs reach the juncture of the curved and straight portions on the camslots 27. The plunger 30 also descends during the movement of the pad, the stude 26 90 following the slots 27, which are now parallel with the slots in the sides of the frame 10, and as it lowers the knife 34, coacting with the stationary knife, cuts off from the strip the label or stamp projecting beyond the same and 95 fed forward by the feed-rolls actuated by the pawls 40 during the previous recession or return of the plunger. This label or stamp after having been cut by the knives is carried gummed face downward by the plunger or 100 platen 30 and pressed thereby upon the surface previously moistened by the pad. When the plunger is released, the spring 28 returns the plunger, reversing the operation just described, elevating the platen and knife, actu- 105 ating the feed-rolls, and moving inward and then elevating the pad.

In order to facilitate the insertion of the end of a new strip between the feed-rolls, the lower one or 12 may be mounted in a yoke 110 42, pivoted to the sides of the frame 10 and provided with a finger or thumb lever 43, by which it is moved on its pivots. An expansion-spring 44, coiled about a rod 45, passed through the lever 43 and pivoted to a rod 47, 115 secured to the frame 10 and reacting between the said rod 47 and the lever, serves to hold the roll 12 pressed firmly against the upper

roll. A double ratchet mechanism is shown in 120 the drawings for operating the feed-rolls; but it will be obvious that small and light addressstrip or stamp affixers may be made with only one such mechanism.

In order to strengthen and impart greater 125 rigidity to the device, rods or ties 46 may extend across and be fixed to the plunger 30 and the ends of the same utilized as the pins or studs 32 and 26 and the ends of the rod 47 made to serve as the pivots 22.

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I claim as my invention—

1. In a label-affixer, in combination, a reciprocating plunger, a vertically and laterally movable moistening-pad normally in the path 5 of the plunger, an oblique cam-face on the frame of the pad, and studs carried by the plunger and engaging the cam-face.

2. In a label-affixer, in combination, a frame, a downwardly and laterally movable moisten-10 ing-pad pivotally connected to the frame, a spring-retracted plunger, and sliding connec-

tion between the pad and plunger.

3. In a label-affixer, in combination, a moistening - pad, a vertically - movable frame at-15 tached to the pad and pivotally connected to the supporting-frame and provided with an oblique cam-face, and a reciprocating handle mounted on the frame and carrying a studen-

gaging the cam-face.

20 4. In a label-affixer, in combination, a supporting-frame, a reciprocating plunger provided with severing means, a roll for feeding a label to the plunger, a ratchet-wheel attached to the roll, and a pawl actuated by the 25 plunger, coacting with the ratchet and normally holding the latter against movement in either direction.

5. In a label-affixer, in combination, a reciprocating plunger, a vertically and laterally 30 movable moistening-pad normally in the path of the plunger, an oblique cam-face on the frame of the pad, a stud carried by the plunger and engaging the cam-face, means for returning the plunger and the moistener to their 35 original positions, and means for feeding a label to the plunger during such return movement.

6. In a label-affixer, in combination, a frame, a downwardly and laterally movable moistening-pad pivotally connected to the frame, a reciprocating plunger, sliding connection between the pad and plunger, a feed-roll, and pawl-and-ratchet mechanism for turning the feed-roll and actuated by the plunger during

45 the retraction of the latter.

7. In a label-affixer, in combination, a supporting-frame, a vertically-movable moistening-pad, levers attached to the pad and pivoted to the frame, a reciprocating handle, 50 sliding connection between the handle and the levers for moving the pad downwardly and then turning the levers on their pivots to elevate the pad, and a label-affixing plunger connected to the handle.

8. In a label-affixer, in combination, a supporting-frame, a moistening-pad, levers attached to the pad and having elongated pivotapertures and curved slots, pivots fixed to the frame and passing through the apertures, a 60 reciprocating handle mounted on the frame and having arms provided with studs projecting into the lever-slots, and a label-affixing plunger carried by the arms.

9. In a label-affixer, in combination, a sup-65 porting-frame, a moistening-pad, levers at-

tached to the pad and having elongated pivotapertures and curved slots, pivots fixed to the frame and passing through the apertures, a reciprocating handle mounted on the frame and having arms provided with studs project- 70 ing into the lever-slots, a label-affixing plunger carried by the arms, and means for feed-

ing a label to the plunger.

10. In a label-affixer, in combination, a supporting-frame, a moistening-pad, levers at- 75 tached to the pad and each of which has a vertical elongated pivot-aperture at the upper end and a downwardly and rearwardly curved slot, pivots fixed to the frame and passing through the pivot-apertures, a reciprocating 80 handle mounted on the frame, arms attached to the handle and extending downwardly at the sides of the frame and provided with studs projecting into the lever-slots, and a label-affixing plunger carried by the arms of the 85 handle.

11. In a label-affixer, in combination, an affixing-plunger, a pawl having a downwardly and rearwardly inclined slot, a pin projecting from the plunger and into the slot, a feed-roll, 90 and a ratchet-wheel fixed to the roll and with

which the ratchet coacts.

12. In a label-affixer, in combination, a supporting-frame, a moistening-pad, levers attached to the pad and having elongated pivot- 95 apertures and curved slots, pivots fixed to the frame and passing through the apertures, a reciprocating handle mounted on the frame and having arms provided with studs projecting into the lever-slots, a label-affixing plun- 100 ger carried by the arms, means for feeding a label to the plunger, and a spring for returning the parts to their original positions, and means for feeding a label to the plunger during such return movement.

13. In a label-affixer, in combination, a reciprocating plunger, a moistener oscillating into and out of the path of the plunger, feedrolls, a knife carried by the plunger, and a spring-pressed knife coacting with the plun- 110 ger-knife and provided with a cam-face with

which the plunger engages.

14. In a label-affixer, in combination, a supporting-frame, a moistening-pad, levers attached to the pad and each of which has a 115 vertical elongated pivot-aperture at the upper end, and a slot the upper end of which curves downwardly and rearwardly, the lower end being straight and also inclined rearwardly, pivots fixed to the frame and passing 120 through the pivot-apertures of the levers, a reciprocating handle mounted on the frame. arms attached to the handle and extending downwardly at the sides of the frame and provided with studs projecting into the lever- 125 slots, a plunger carried by the arms of the handle, a knife carried by the plunger, a spring for returning the handle to its elevated position, a stationary knife coacting with the knife of the plunger when the latter is moved 130

downward, feed - rolls, a ratchet - wheel attached to one of the feed-rolls, and a pawl carried by one of the handle-arms for actuat-

ing the ratchet-wheel.

15. In a label-affixer, in combination, a supporting-frame, a moistening-pad pivoted thereto, a reciprocating handle, connection between the handle and the pad for moving the pad against and then away from the sur-10 face to be moistened, a plunger attached to the handle and movable thereby downward against the moistened surface, a plate having parallel slots located one above the other and inclined downwardly and rearwardly, pins 15 projecting from the plunger and through the

said slots, a pawl carried by the plate, and feed-rolls one of which has fixed to it a ratchet-

wheel with which the pawl coacts.

16. In a label-affixer, in combination, a sup-20 porting - frame, a moistening - pad pivoted thereto, a reciprocating handle, connection between the handle and the pad for moving the pad against and then away from the surface to be moistened, a plunger attached to the 25 handle and movable thereby downward against the moistened surface, a knife carried by the plunger, a second knife attached to the frame and with which the knife of the plunger coacts and provided with cam-faces engaged by 30 the plunger on the downward movement of

the latter, a spring for pressing the second knife outwardly, and feed-rolls adjacent the

spring-pressed knife.

17. In a label-affixer, in combination, a 35 frame having pivot-studs, a moistener-pad frame having vertically-elongated apertures engaging such studs and having downwardly and backwardly inclined ways, a spring-

retracted vertically - reciprocating plungerframe having studs running in the ways and 40 engaging the upper ends thereof before the plunger-frame reaches the limit of its upward movement.

18. In combination with a label-affixer, a supporting-frame, a pair of feed-rolls, one of 45 which is journaled in the frame, ratchet mechanism for driving said latter roll, a yoke pivoted to the frame and in which the other of said rolls is journaled, a lever extending from the yoke, and a spring for holding the lever 50 normally outward and the roll carried thereby in contact with the first-mentioned roll.

19. In combination with a label-affixer, a supporting-frame, a pair of feed-rolls, one of which is journaled in the frame, means for 55 driving the latter roll, a yoke pivoted to the frame and in which the other of said rolls is journaled, a lever extending from the yoke, a rod fixed to the frame, a stem pivoted to the rod and passing through the lever, and a spring 60 coiled about the stem and reacting against the

rod and the lever.

20. In a label-affixer, in combination, a supporting - frame, a reciprocating plunger, a moistening-pad normally in the path of the 65 plunger, a pivoted frame carrying the pad and having elongated pivot-openings, fixed pivots on the frame entering such openings, and operative connection between the pad and plunger for moving the pad-frame down- 70 wardly and laterally.

FRED C. AREY.

Witnesses:

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