J. W. NEARY.

STAMP AFFIXING MACHINE.

APPLICATION FILED APR. 11, 1910.

1,065,831.

Patented June 24, 1913.

3 SHEETS—SHEET 1.

Fig. 10.

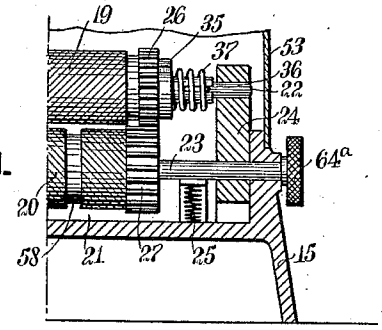
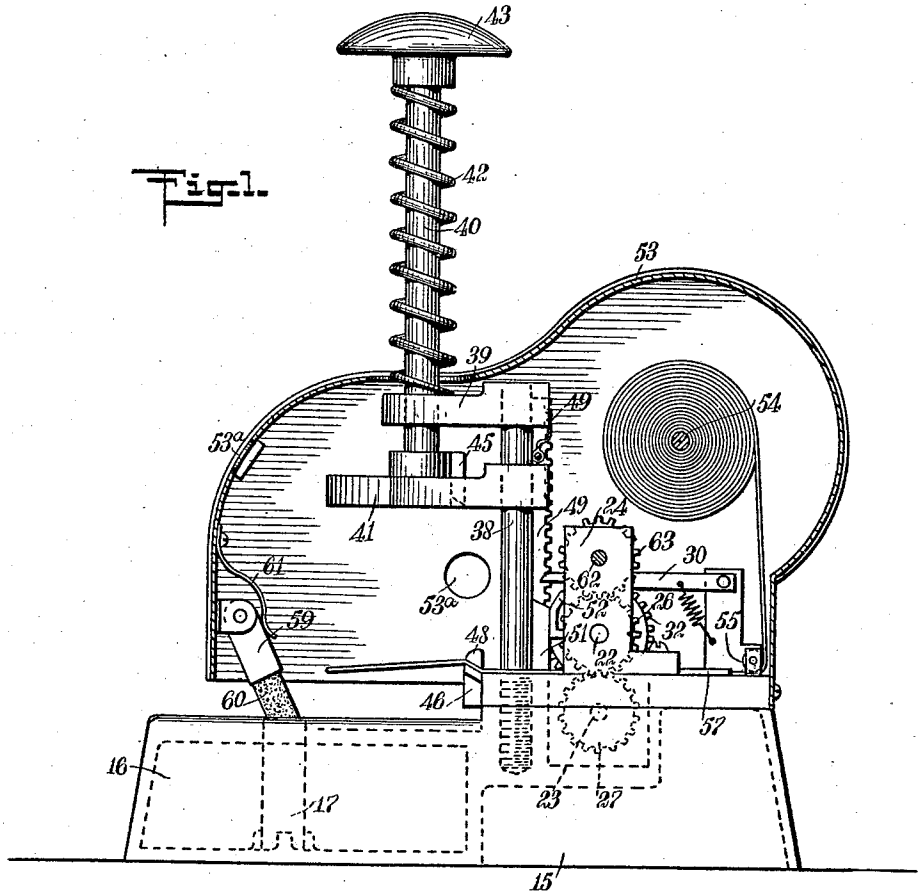


Fig. 1.



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Fig. 2.

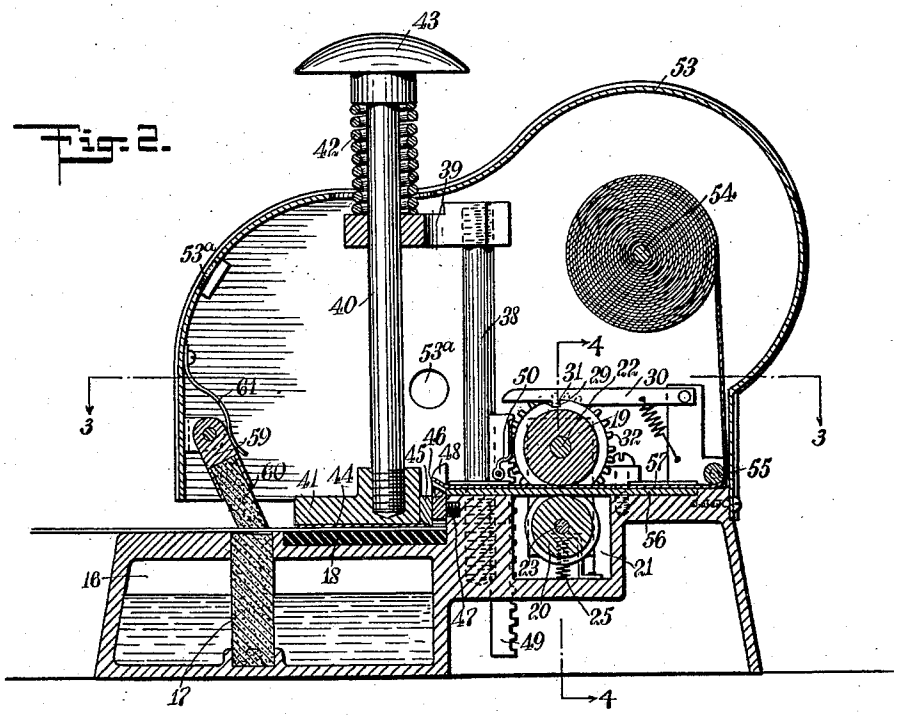
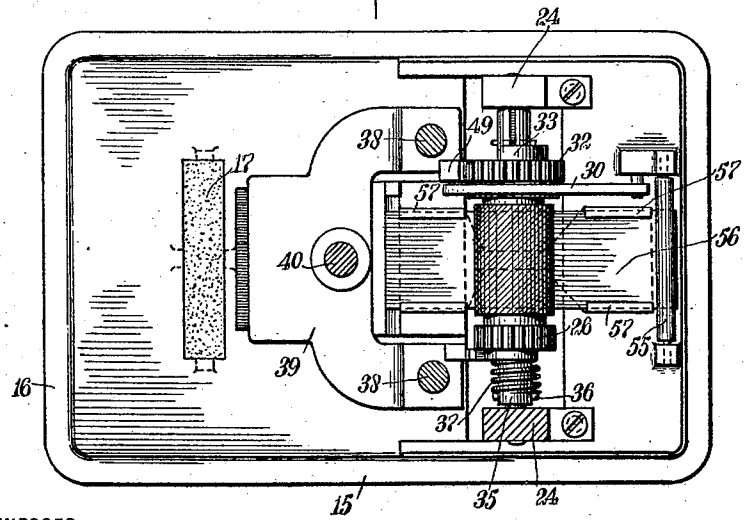


Fig. 3.



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3 SHEETS—SHEET 3.

Fig. 4.

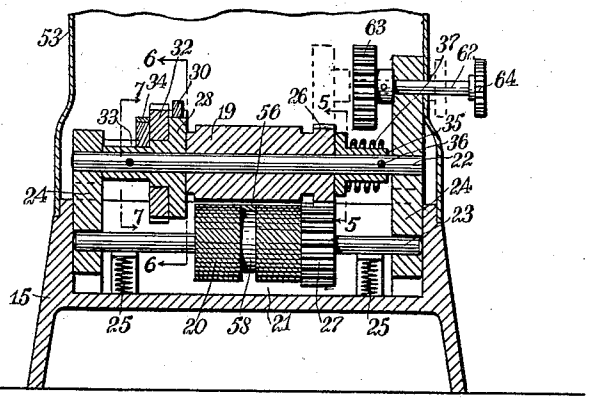


Fig. 5.

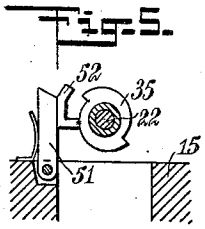


Fig. 6.

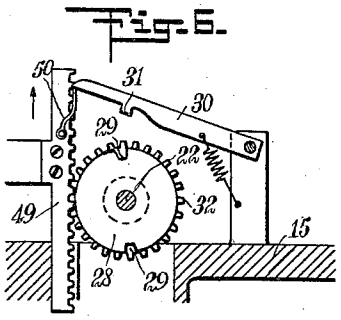


Fig. 7.

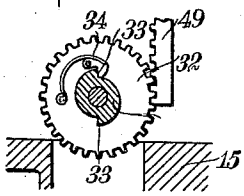


Fig. 8.

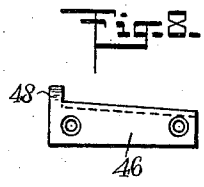
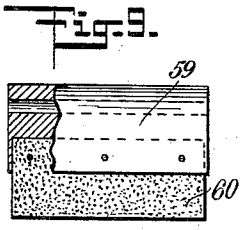


Fig. 9.



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JOHN WILLIAM NEARY, OF SARATOGA SPRINGS, NEW YORK.

STAMP-AFFIXING MACHINE.

1,065,831. Specification of Letters Patent. Patented June 24, 1913.

Application filed April 11, 1910. Serial No. 554,629.

To all whom it may concern:

Be it known that I, JOHN W. NEARY, a citizen of the United States, and a resident of Saratoga Springs, in the county of Saratoga and State of New York, have invented a new and Improved Stamp-Affixing Machine, of which the following is a full, clear, and exact description.

The invention is an improvement in machines for affixing stamps, labels, etc., and has in view a machine of this character wherein it is not possible to accidentally sever a stamp or label but at the proper point, or to remove the stamps from the machine without authority, except to affix them to the mail matter; to furnish sufficient moisture to cause the stamp to be firmly affixed without wetting the surface receiving the stamp to excess; to provide for the adjustment of the feed rollers so that the cutting will take place at the required point; to provide a suitable stop for the envelop or other matter receiving the stamp, whereby the stamp is applied at a uniform distance from the top, and to construct the machine on a low base so as to enable the operator to work it on any height desk, the base resting so low on the desk as to be almost a part of the same and enabling the operator to feed the letters without apparent effort.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a stamp-affixing machine constructed in accordance with my invention and showing the casing in vertical section; Fig. 2 is a central vertical longitudinal section of the machine; Fig. 3 is a horizontal section substantially on the line 3—3 of Fig. 2; Fig. 4 is a central section through the feeding rollers on the line 4—4 of Fig. 2; Fig. 5 is a detail sectional view on the line 5—5 of Fig. 4, showing the stop for preventing the cutting of the stamps before the latter have been fully fed forward; Fig. 6 is a similar view on the line 6—6 of Fig. 4, showing the trip for releasing the feed mechanism; Fig. 7 is a like view on the line 7—7 of Fig. 4, showing a part of the feed mechanism; Fig. 8 is an outer face view of the lower shear blade; Fig. 9 is a detail view of the moistener, showing the same partly in section; and Fig. 10 is a vertical fragmentary sectional view, showing a modification of the construction.

The machine is provided with a base 15 of relatively low construction, particularly at the front, where it is provided with a water tank or receptacle 16, the top of which forms a supporting table for the mail or other matter to which the stamps or labels are to be affixed. A wick 17 extends from the lower portion of the water tank, where it is suitably anchored through the top thereof, and terminates slightly below the surface of the table, whereby as the matter is slid in on the table its under surface will not be moistened. Inwardly of the wick 17, the table is provided with a groove or depression, in which is located a cushion 18, of rubber or equivalent material, the cushion extending to the rear raised portion of the base, which portion of the machine carries coacting stamp feed rollers 19 and 20, the rollers being arranged one above the other, with the upper roller 19, located above the plane of the rear raised portion of the table, and the lower roller located below this plane and contained in a recess 21 of the base, as best shown in Figs. 2 and 4. The rollers 19 and 20 are respectively carried on axles or spindles 22 and 23, which are journaled in suitable bearing supports 24, 24, arranged at the opposite sides of the recess 21, the bearing openings receiving the lower axle 23 being slightly elongated vertically so as to give the lower roller a limited movement to and from the upper roller, the lower roller being pressed firmly to the upper roller by springs 25, arranged at each side. The roller 19 is journaled on its axle or spindle 22 and the roller 20 keyed or otherwise positively secured to its axle 23, the roller 19 having a pinion 26 rigid therewith and meshing with a pinion 27 rigid with the roller 20, positively gearing the two rollers together.

At one end of the roller 19, best shown in Figs. 4 and 6 to be at the right-hand side of the machine in the form of the invention illustrated, is pinned or otherwise secured

to the spindle 22, a locking collar or disk 28, the collar, as best shown in Fig. 6, having recesses or notches 29, diametrically arranged and adapted to be engaged by a spring-pressed locking member 30, this member, as best shown in Fig. 6, being in the nature of a spring-pressed lever arranged over the collar and having a projection 31 at its under edge adapted to successively pass into the notches 29. The hub collar 28 has an outwardly-extended hub portion on which is journaled a pinion 32, adjacent to the collar, and is provided with teeth or shoulders 33, positioned outwardly from the pinion and, like the notches 29, arranged at diametrically opposite points. These teeth or shoulders 33, as shown in Fig. 7, are adapted to be successively engaged by a spring-pressed pawl 34 carried by the pinion 32. The arrangement of the teeth or shoulders 33 is such that the pinion will idly turn on the hub of the collar 28 when moved in a direction backward to the feeding movement of the stamp-feeding rollers, and one or the other will be engaged by the pawl 34 when the pinion is revolved in the opposite direction, and will cause the revolution of the collar 28 and spindle 22 to which the collar is attached. At the opposite end of the upper feed roller 19 is a cam member 35, slidably splined by a pin 36 to the spindle 22, and forcibly pressed against this end of the feed roller 19 by a spring 37, causing this feed roller to be frictionally bound between the cam member and the locking collar 28. The cam member, as shown in Fig. 5, is much of the same shape as the ratchet portion of the hub of the locking collar shown in Fig. 7, the two cams which comprise it terminating at the diametrically opposite shoulders.

Adjacent to the front of the rear raised portion of the base and arranged at opposite sides of the machine are standards 38 having a forwardly-projecting guide 39 at the top, through which is slidable the stem 40 of the stamp-affixing plunger, the stem having a presser head 41 secured at its lower end coöperative with the cushion 18, and is normally forced to its upper retracted position by a spring 42 arranged between the guide 39 and a presser knob 43 attached to the upper end of the stem. The presser head 41 is covered at the under side with a facing 44 of rubber or other like material, and at its inner side has an attached shear blade 45, the shear blade 45 coacting with a similar shear blade 46 supported on a shoulder at the front of the rear raised portion of the base. This stationary shear blade 46 has a limited lateral movement to and from the shear blade 45, to which it is closely pressed when the blades are brought together, by springs 47, thus compensating for wear on the blades and insuring a clean cut of the stamps or labels at all times. A cam 48 at the upper corner of the blade 46 is arranged to cause the latter to be pressed inwardly as the movable shear blade descends, so that the cutting edges of the blades will not strike and the blades as a consequence be dulled.

Attached to one side of the presser head 41 and in mesh with the pinion 32 is a rack-bar 49, the rack-bar, as best shown in Fig. 6, having a lifting spring or trip 50 attached at its inner side and arranged to engage under the extended or outer portion of the locking lever or member 30 when the plunger is depressed and lift the projection 31 of this lever from engagement with the collar 28 when the plunger is returned by the spring 42.

A stop 51 is pivotally supported at its lower end on the base of the machine and is spring-pressed to the cam member 35, the upper portion of the stop being preferably constructed as illustrated in Fig. 5, and arranged to swing under the presser head and prevent the latter from descending with the attached shear blade and severing the stamps or labels, until the same have been fully fed forward; thus, as the plunger starts on its upward stroke, one of the cams of the cam member 35 presents the top of the stop under the presser head, in which position it stands until the plunger completes its upward stroke, at which time the engaging portion of the stop 51 passes over the shoulder of the cam and clears the path of the plunger for the affixing of the next stamp. The forcible bearing of the presser head on the top of the stop 51, tending to throw the stop farther inwardly against the tension of its spring, is prevented by the flange or projection 52, arranged to engage at the inner side of the presser head. When the downward movement of the presser head is arrested by the stop 51, the shearing edges of the blades stand apart.

A casing or hood 53 is arranged over the base of the machine and covers the working parts except the operating knob or member 43, which is arranged at the outside of the casing in an accessible position; and the casing is provided with windows 53[a], respectively located at the front and sides, through which the working of the machine may be observed. The lower edge of the casing is arranged a substantial distance above the table for receiving the matter to which the stamps or labels are affixed, and is suitably locked or otherwise removably fastened at the rear portion of the base, the rear portion of the casing over the feed rolls being expanded to receive a spool or spindle 54, on which the tape of stamps or labels is wound, the ends of the spindle being suitably journaled in the side walls of the casing. At the rear of the base, close to the

upper face thereof, is idly mounted a guide roller 55, from which extends to the stationary shear blade 46, a guide plate 56, the guide plate having inwardly-turned guides 57 at each side, both at the rear and in front of the feed rollers, that portion of the guide plate passing between the feed rollers being of reduced width and extending through a circumferential groove 58, formed in the center of the bottom feed roller 20. On the inner front portion of the casing is pivotally supported to swing forwardly and rearwardly a moistener 59, the same having a socket receiving pad 60, which is normally forced outwardly in firm contact with the wick, by a spring 61.

Slidably and revolubly mounted in a suitable support, shown to be one of the bearing supports 24, is a short spindle or shaft 62, having a pinion 63 fixed to its inner end and adapted to be passed into mesh with the pinion 26 of the upper feed roller, and a thumb-wheel 64 fixed to its outer end, by which the pinion 63 is revolved; thus, when the pinion 63 is engaged with the pinion on the feed roller, the feed rollers can be revolved to adjust the tape of stamps or labels so that they will be severed at the proper point, the revolution of the upper feed roller taking place relatively to the spindle on which it is journaled.

In Fig. 10 I have shown a modification of the invention, in which the thumb-wheel 64^a, corresponding to the thumb-wheel 64, is secured to one end of the spindle 23 of the lower feed roller, this spindle being extended to the outside of the base for this purpose.

In the operation of the machine, the spool or spindle 54 is supplied with a tape of the stamps or labels which are to be affixed, the tape being carried around the guide roller 55 and over the feed plate between the rollers to the shearing blades, the tape being engaged at the edges by the guides 57 of the guide plate. The passage of the tape between the rolls is accomplished by the operation of the rolls through the movement of the thumb-wheel 64 or 64^a. When the tape has been adjusted to be severed at the required point, the plunger is depressed, shearing off the ragged edge, and as the plunger ascends, the locking member or lever 30 is disengaged from the locking collar and the rollers moved to feed the length of one stamp or label by the engagement of the pawl 34, as hereinbefore referred to. The envelop or other matter to receive the label or stamp is then slid in from the front of the machine on the supporting table underneath the moistener 60, which wets the surface sufficiently for the firm application of the stamp without making the said surface too wet, this being brought about by reason of the pad absorbing its water from the wick 17. On depressing the plunger, the stamp or label is first severed and firmly pressed to the moistened surface of the envelop, the stamp or label being evenly pressed by reason of the elastic pad 18 and facing 44. Each time the envelop or other matter is inserted to receive the stamp or label, the matter is pressed against the shoulder presented at the front of the elevated rear portion of the base which serves as a stop and insures the application of the stamps at a uniform distance from the top or edge.

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

1. In a stamp affixing machine, a reciprocating stamp presser head, a fixed shearing blade, a shearing blade carried by the presser head, stamp feeding means to successively feed the stamps between the shearing blades, actuated on the upward stroke of the presser head, and a stop movable under the presser head to arrest the descent thereof before the shearing blades come together, until the stamp has been fed fully forward, coöperatively actuated by the feeding means.

2. In a stamp affixing machine, stamp feeding rollers, a stamp-applying plunger, stamp shearing blades, one of which is carried by the plunger, means to actuate the stamp-feeding rollers from the plunger, a cam driven from said means, and a stop pivotally supported to swing under the plunger under the influence of the cam and arrest the downward movement of the plunger preparatory to the cutting action of the blades, before the full feeding movement of the rollers.

3. In a stamp affixing machine, a stamp-applying plunger, shear blades, one of which is carried by the plunger, stamp feed rollers, means to actuate the rollers from the plunger to successively feed the stamps between the blades, and a stop actuated from the plunger and projected thereunder during and until the full feeding movement of the rollers takes place.

4. In a stamp affixing machine, a stamp-applying plunger, shear blades, one of which is carried by the plunger, stamp-feeding rollers, means to actuate the rollers from the plunger on the return movement thereof to project the stamps successively between the blades, a stop pivotally supported to swing under the plunger and prevent the shear blades from coming together until the feeding movement of the rollers is completed, and a device for actuating the stop, operated by the roller feeding means.

5. In a stamp affixing machine, a stamp presser head, shearing members for severing the stamps, one of which is carried by the presser head, feeding rollers, means to actuate the rollers by the movement of the presser head, a stop to arrest the movement

of the presser head before the shear blades come together, and a member frictionally connecting one of the feed rollers to the feeding means and actuating the stop.

6. In a stamp affixing machine, a stamp-applying plunger, stamp-feeding rollers arranged to succesively feed the stamps under the plunger, a pinion revolubly mounted concentrically to one of the rollers, a locking collar, a pawl and ratchet mechanism actuated by the pinion and arranged to admit the free revolution of the pinion in one direction and to turn the feed rollers with the pinion when the latter is revolved in the opposite direction, a spring-pressed locking lever arranged to engage the locking collar after each feeding movement of the feed rollers, a rack-bar movable with the plunger and in mesh with the pinion, and a trip arranged to throw out the locking lever on the upward movement of the plunger.

7. In a stamp affixing machine, a reciprocating stamp-applying plunger, feed rollers, a collar secured to the axis of one of the rollers and having an extended hub provided with shoulders, a pinion journaled on the extended hub of the collar, a pawl carried by the pinion and arranged to engage the said shoulders and turn the rollers in a direction to feed the stamps under the plunger, a rack-bar movable with the plunger and in mesh with the pinion, a stop pivoted to swing under the plunger and arrest the downward movement thereof until the stamp is fully fed forward, and a spring-pressed cam frictionally binding one of the rollers to the collar and arranged to actuate the stop.

8. In a stamp affixing machine, a stamp-applying plunger, shear members, one of which is fixed to the plunger, feed rollers, means to intermittently actuate the feed rollers from the plunger to project the stamps successively between the shear blades, and a guide plate extending to each side of the rollers and having guides arranged to engage the opposite edges of the stamps, with the intermediate portion of the plate of reduced width and passing through a circumferential groove of one of the rollers.

9. In a stamp affixing machine, a stamp-affixing plunger, cutting members, means to feed the stamps successively between the said members, operated by the plunger, and a stop to prevent the cutting members from coming together until the stamp is fully fed forward by the said means, movable under and offering an obstacle to the full descent of the plunger.

10. In a stamp affixing machine, a stamp-affixing plunger, stamp feed rollers, a shaft on which one of said rollers is journaled, a pinion revolubly supported on the shaft, means frictionally connecting the journaled roller to the shaft, means to lock the shaft against rotation, a ratchet mechanism driven by the pinion to cause the shaft to revolve when the pinion is driven in one direction only, a rack carried by the stamp-affixing plunger in mesh with the pinion and arranged to drive the latter in the said direction when the plunger is retracted, and means to release the locking means preparatory to the movement of the said shaft by the ratchet mechanism.

11. In a stamp affixing machine, a stamp affixing plunger, cutter members, means to feed the stamps successively between said members, operated when the plunger is moved, and means to prevent the cutter members from coming together until the stamp is fully fed forward by the said feeding means, said means being movable under and offering an obstacle to the full descent of the plunger.

12. In a stamp affixing machine, a stamp-affixing plunger, cutter members, means for feeding the stamps successively between said members operated in unison with said plunger, and means to prevent the cutter members from coming together to sever a stamp until the operation of the feeding means is finished, said means for preventing the full movement of the cutter members being movable into the path of one of said cutter members so as to oppose the same.

13. In a stamp affixing machine, the combination of a pair of cutter members for severing the stamps, stamp affixing means for moving said members, a stop for one of said members, means operated in unison with the relative movement of said members to move said stop into the path of one of said members and subsequently release said stop, and means for moving said stop out of the path of said member when released.

14. In a stamp affixing machine, the combination of a pair of cutter members, means including a stamp-affixing device for imparting relative motion to said members to cause the same to approach each other, a stop, a cam for moving said stop into the path of one of said members and subsequently releasing said stop, and means for moving said stop out of the path of said member when so released.

15. In a stamp affixing machine, a base provided with a transverse shoulder, a cushion in front of said shoulder and having its top surface flush with the top of the base in front of the shoulder, stamp-feeding, cutting and affixing means mounted upon said base adjacent the shoulder, said base inclosing a moistening receptacle in front of said shoulder and having an opening in advance of the cushion through which a wick is passed into the water receptacle, a casing secured to the base to cover the

same and having its lower edge spaced from the base over the portion thereof in front of the shoulder, and a moistener secured to the casing in position to rest upon the wick, and mounted so as to be movable inward when the edge of an envelop to be stamped is slipped past the moistener.

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

JOHN WILLIAM NEARY.

Witnesses:

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CHARLES P. LIKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."