Aug. 3, 1954 H. E. ESSMANN 2,685,381

MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

Filed Dec. 18, 1950 6 Sheets-Sheet 1

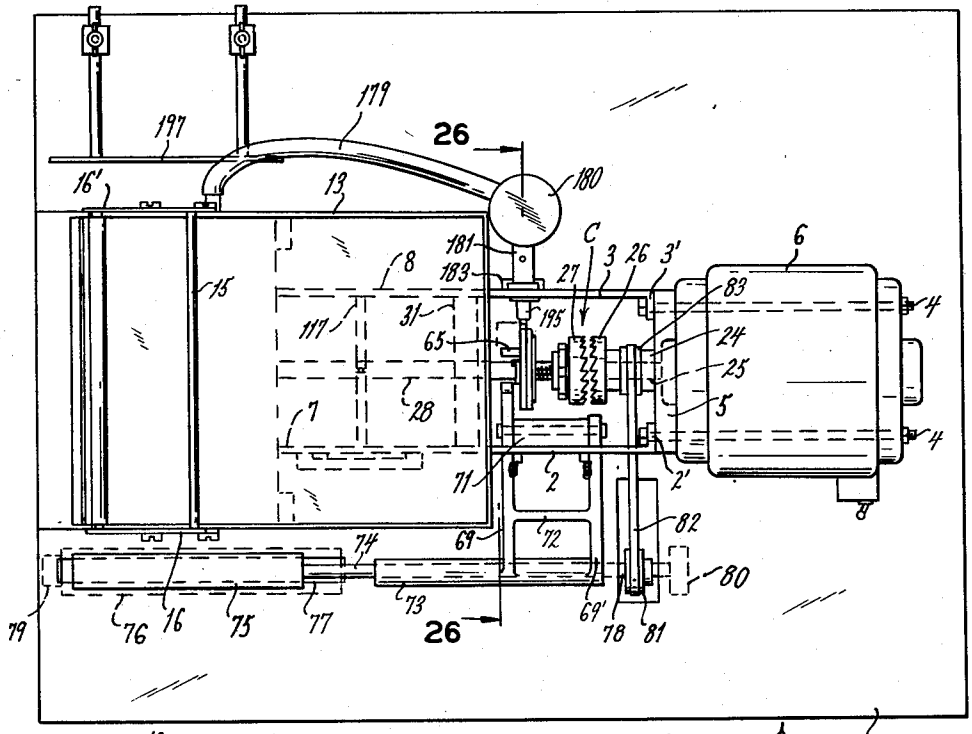


FIG. 1.

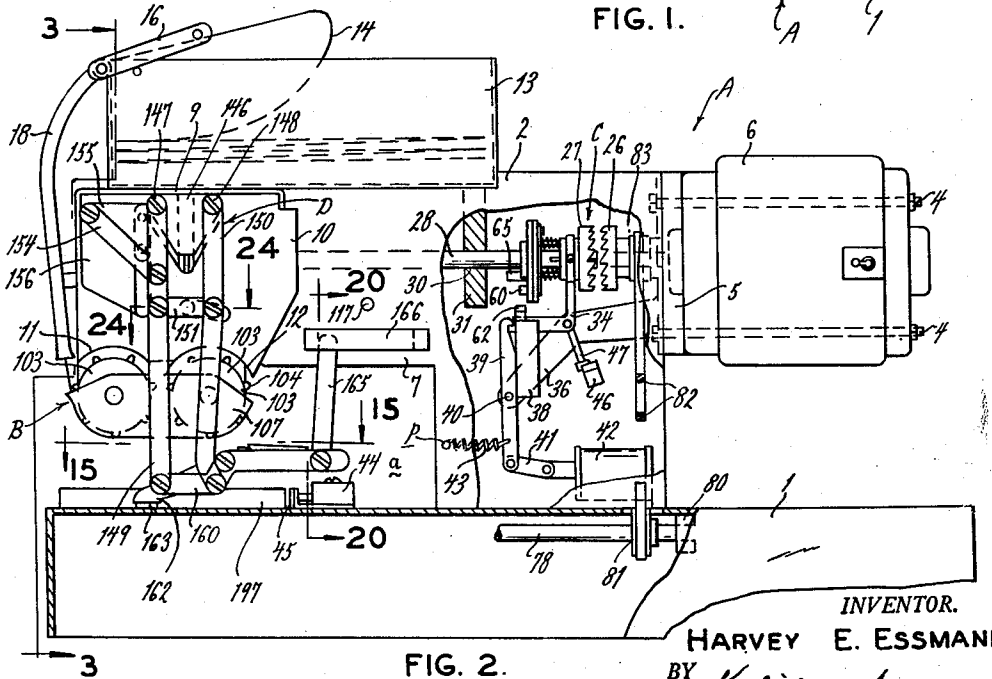


FIG. 2.

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MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

Filed Dec. 18, 1950 6 Sheets-Sheet 2

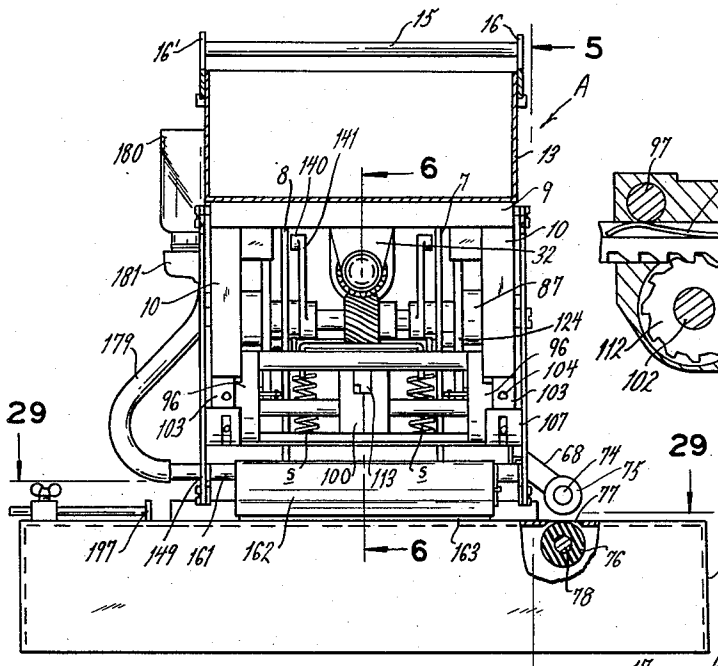


FIG. 3.

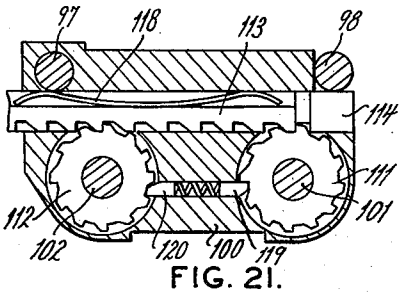


FIG. 21.

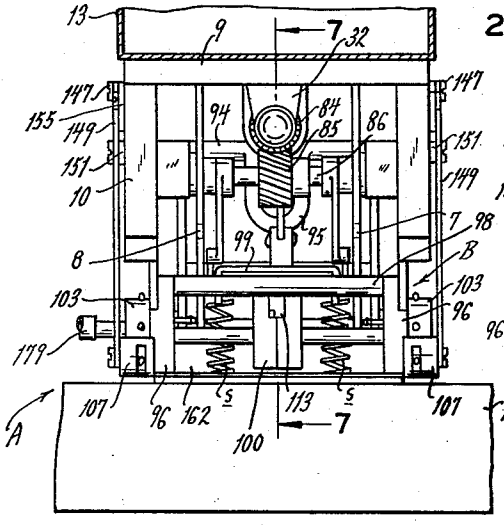


FIG. 4.

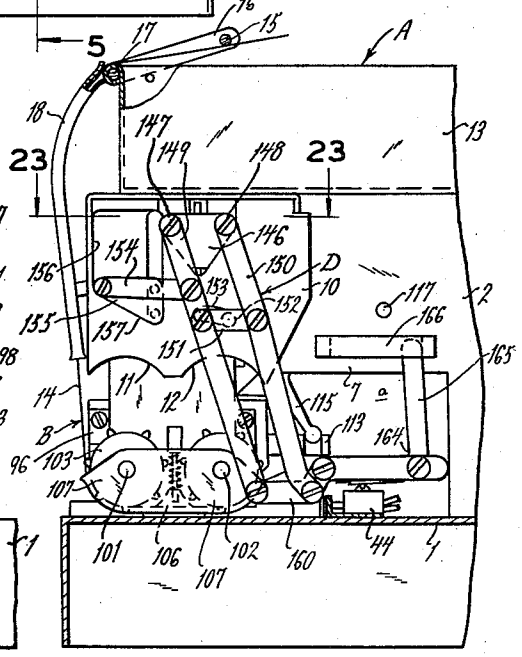


FIG. 5.

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Aug. 3, 1954 H. E. ESSMANN 2,685,381

MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

Filed Dec. 18, 1950 6 Sheets-Sheet 3

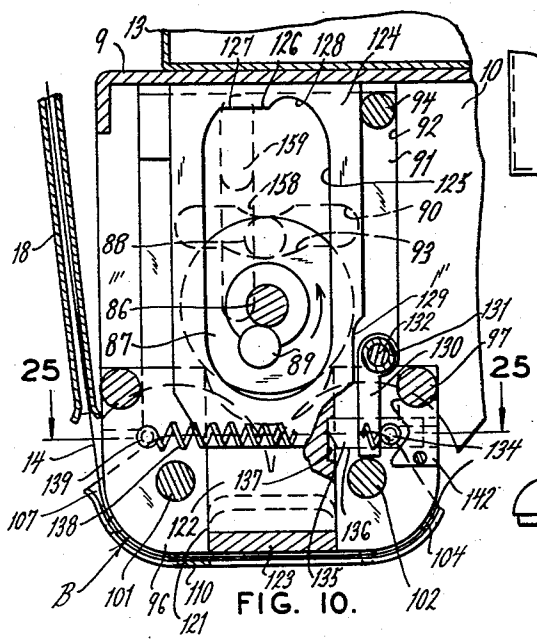


FIG. 10.

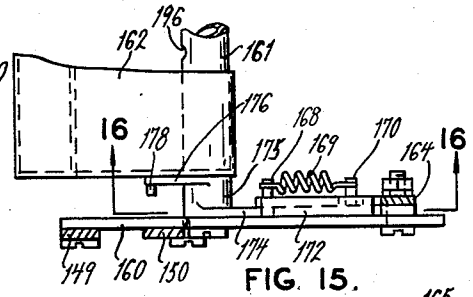


FIG. 15.

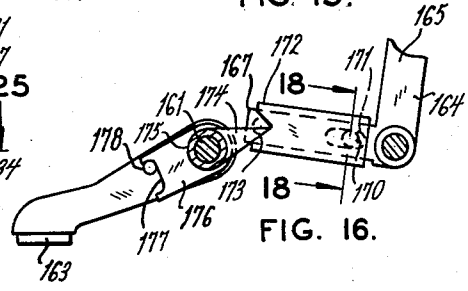


FIG. 16.

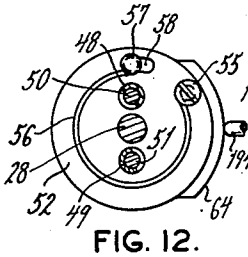


FIG. 12.

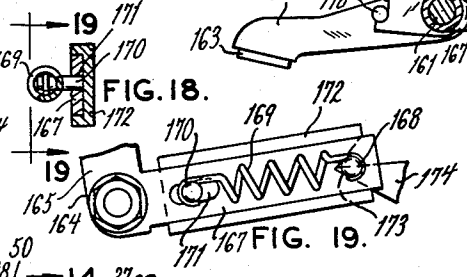


FIG. 19.

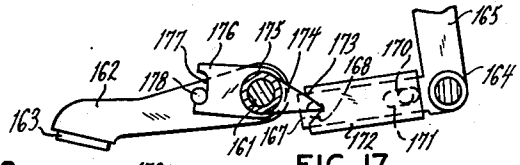


FIG. 17.

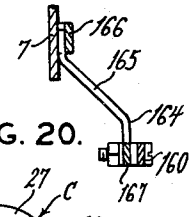


FIG. 20.

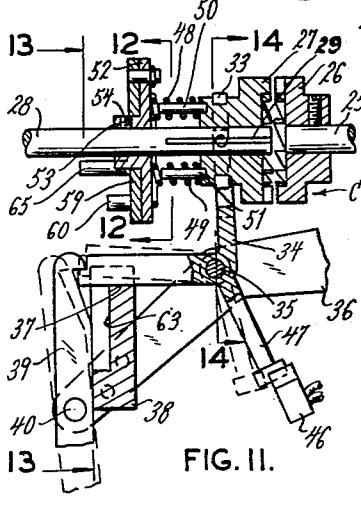


FIG. 11.

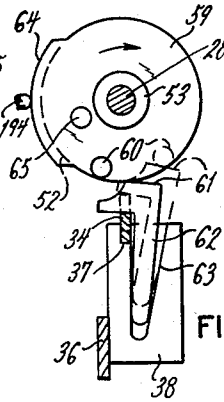


FIG. 13.

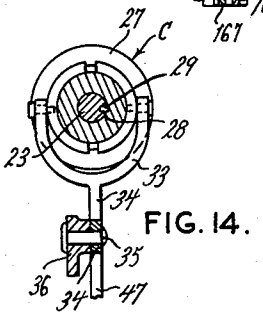


FIG. 14.

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MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

Filed Dec. 18, 1950 6 Sheets-Sheet 4

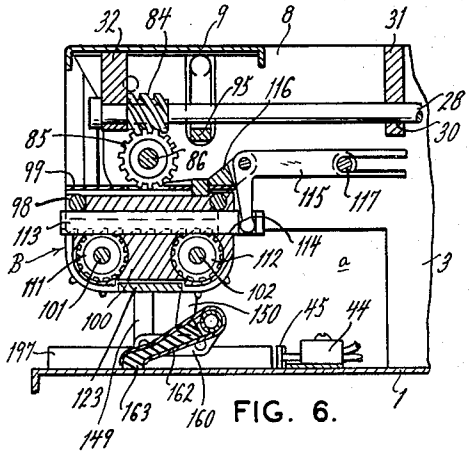


FIG. 6.

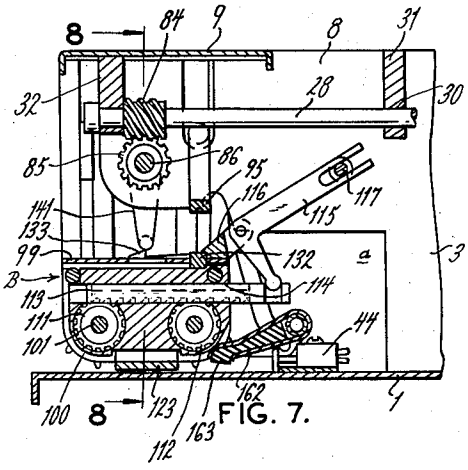


FIG. 7.

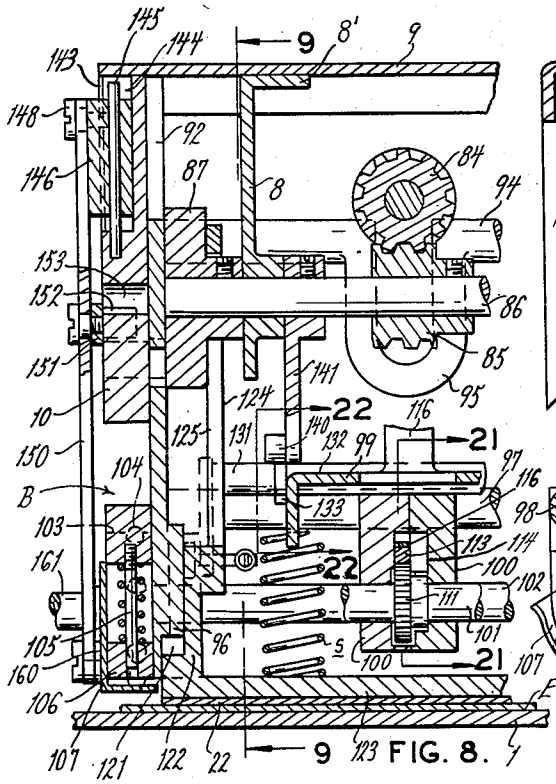


FIG. 8.

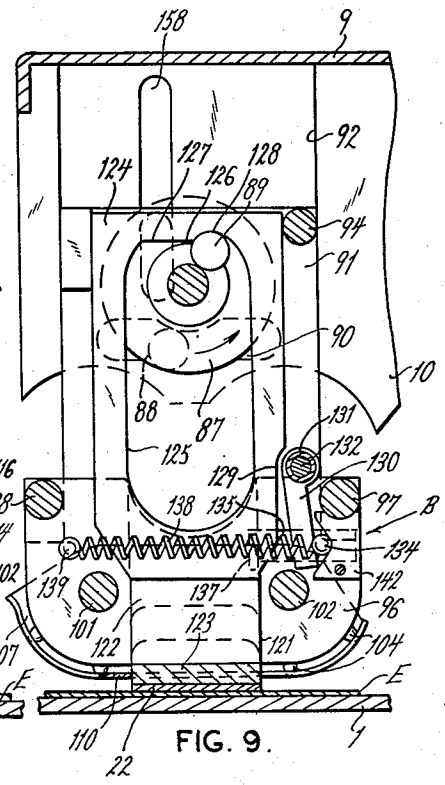


FIG. 9.

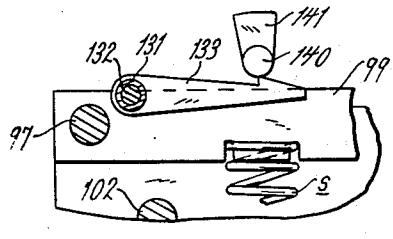


FIG. 22.

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MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

Filed Dec. 18, 1950 6 Sheets-Sheet 5

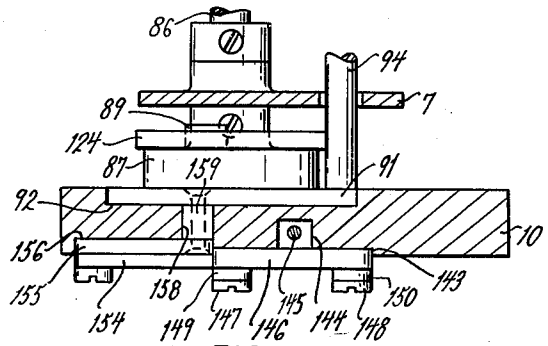


FIG. 23.

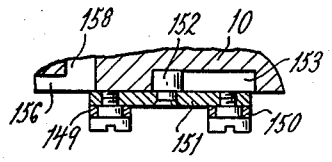


FIG. 24.

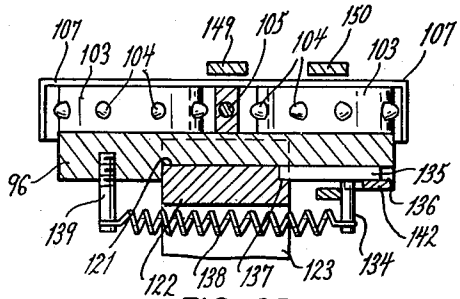


FIG. 25.

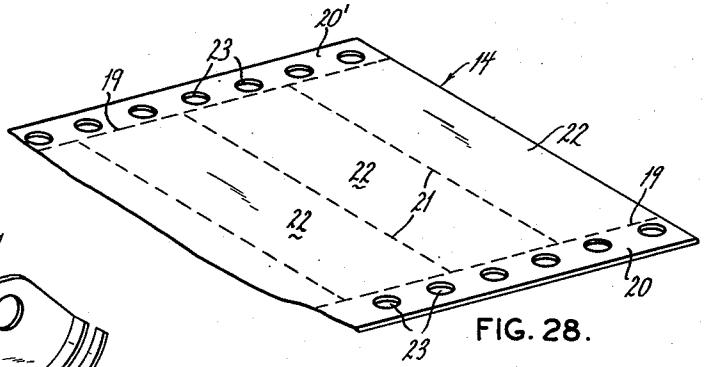


FIG. 28.

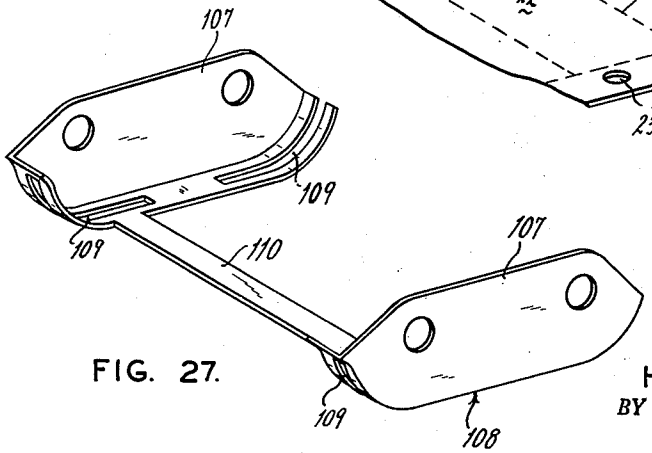


FIG. 27.

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MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

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FIG. 26.

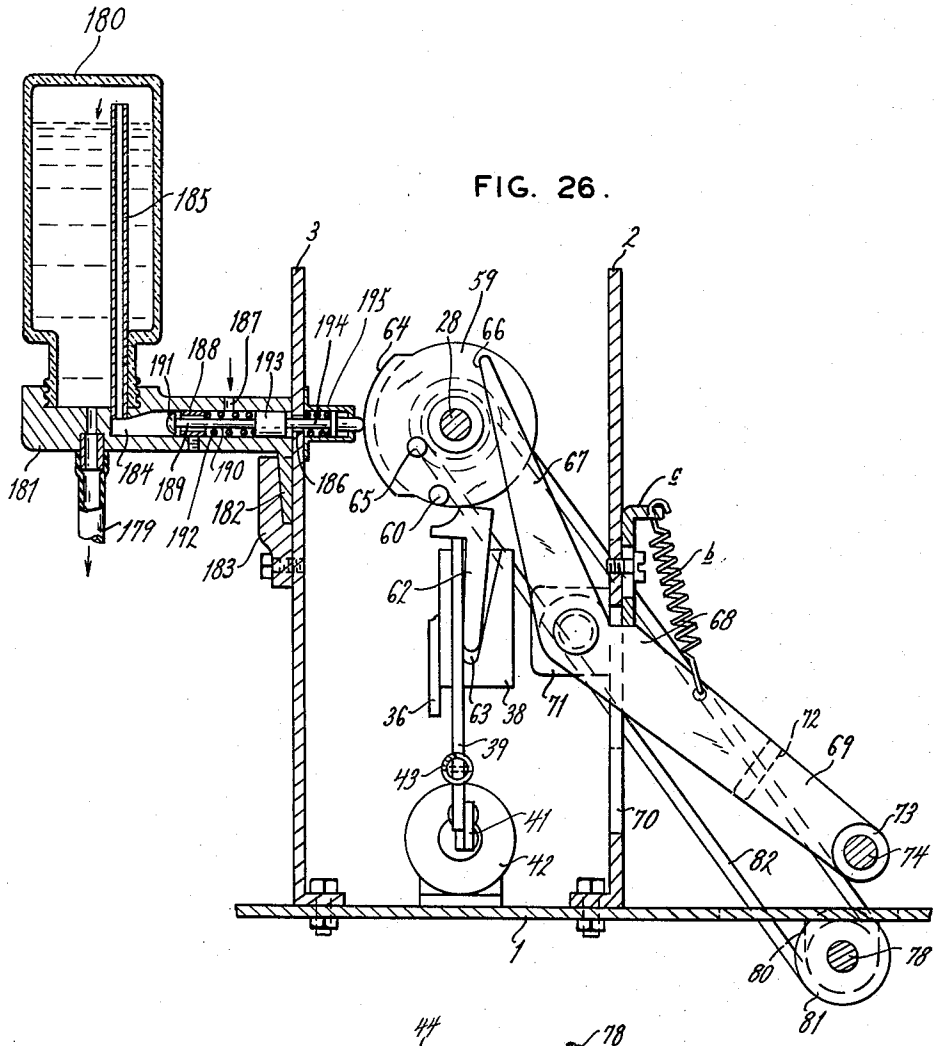
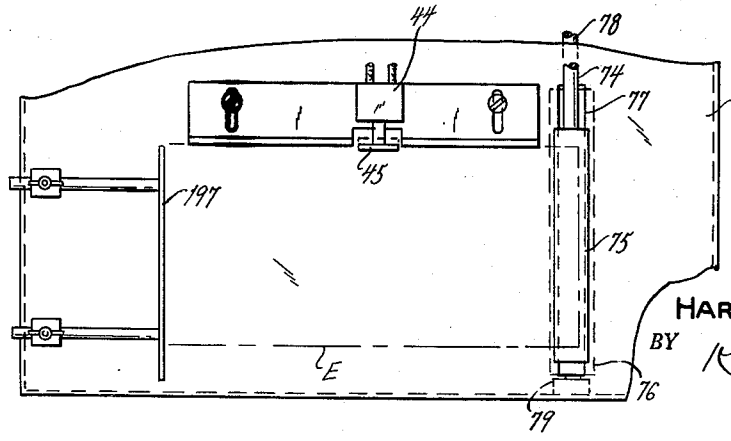


FIG. 29.



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Patented Aug. 3, 1954 2,685,381

UNITED STATES PATENT OFFICE

2,685,381

MACHINE FOR AFFIXING LABELS TO MAILING PIECES AND THE LIKE

Harvey E. Essmann, St. Louis, Mo.; Mary A. Essmann, administratrix of said Harvey E. Essmann, deceased

Application December 18, 1950, Serial No. 201,337

26 Claims. (Cl. 216—28)

1

This invention relates to certain new and useful improvements in machines for affixing labels to mailing pieces and the like.

It is the primary object of the present invention to provide a machine adapted for use with a continuous paper web adhesively coated on one surface and subdivided into a plurality of readily detachable sections in the form of addressing labels and the like, and embodying unique mechanical means for successively moistening the surface of a mailing piece, such as an envelope, postal card, advertisement, magazine, newspaper, and the like, inserted in the machine, feeding said web for presenting the sections for securement to the mailing piece, punching said sections from the web, providing pressure for obtaining adherence of the section to the mailing piece, and ejecting the mailing piece from the machine.

It is a further object of the present invention to provide a machine of the character stated incorporating a member adapted to moisten the surface of the mailing piece in timed precedence to the severance of the detachable section for activation of the adhesive on the under surface thereof, said member having associated therewith a source of liquid, flow from which is permitted at a predetermined point during each operation of the machine in order to maintain the member in a constantly dampened state.

It is an additional object of the present invention to provide a machine of the type stated having a unit cycle operation which is adapted to be started by the insertion of the mailing piece into the machine and to be stopped immediately subsequent to the ejection of the labeled mailing piece therefrom which ejection is accomplished by pressing rolls designed to grip the mailing piece in timed sequence to the affixation of the web section thereon.

It is a still further object of the present invention to provide a machine of the character stated which is designed for handling mail pieces in a high speed, efficient manner; which does not require the services of skilled operators; which is reliable and durable in operation; and which is highly economical in production.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings (six sheets),

Figure 1 is a top plan view of a label affixing machine constructed in accordance with and embodying the present invention;

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Figure 2 is a side elevational view;

Figure 3 is a transverse sectional view taken along line 3—3 of Figure 2 showing the carriage in elevated position;

Figure 4 is a transverse sectional view taken substantially along line 3—3 of Figure 2 illustrating the carriage in lowered position;

Figure 5 is a transverse sectional view taken along line 5—5 of Figure 3;

Figure 6 is a transverse sectional view taken along line 6—6 of Figure 3;

Figure 7 is a transverse sectional view taken along line 7—7 of Figure 4;

Figure 8 is a transverse sectional view taken along line 8—8 of Figure 7;

Figure 9 is a transverse sectional view taken along line 9—9 of Figure 8;

Figure 10 is a transverse sectional view taken substantially along line 9—9 of Figure 8 showing the carriage in elevated position;

Figure 11 is a fragmentary, enlarged, longitudinal, sectional view of the clutch mechanism;

Figures 12, 13, and 14 are transverse sectional views taken along lines 12—12, 13—13, and 14—14, respectively, of Figure 11;

Figure 15 is a transverse sectional view taken along line 15—15 of Figure 2;

Figure 16 is a transverse sectional view taken along line 16—16 of Figure 15;

Figure 17 is a transverse sectional view taken substantially along line 16—16 of Figure 15 illustrating the absorbent receptacle in raised position;

Figure 18 is a transverse sectional view taken along line 18—18 of Figure 16;

Figure 19 is a transverse sectional view taken along line 19—19 of Figure 18;

Figure 20 is a transverse sectional view taken along line 20—20 of Figure 2;

Figures 21 and 22 are transverse sectional views taken along lines 21—21 and 22—22, respectively, of Figure 8;

Figure 23 is a transverse sectional view taken along line 23—23 of Figure 5;

Figure 24 is a transverse sectional view taken along line 24—24 of Figure 2;

Figure 25 is a transverse sectional view taken along line 25—25 of Figure 10;

Figure 26 is a transverse sectional view taken along line 26—26 of Figure 1;

Figure 27 is a perspective view of the web guide member;

Figure 28 is a fragmentary perspective view of the paper web; and

Figure 29 is a transverse sectional view taken along line 29—29 of Figure 3.

Although the invention herein is equally adaptable for affixing labels, stamps, and the like to a limitless variety of mailing pieces, the description hereinbelow will, for purposes of illustration, be limited to the utilization of the machine for affixing labels to envelopes.

Referring now by reference characters to the accompanying drawings, which illustrate a preferred embodiment of the present invention, A generally designates a machine for affixing labels to envelopes and the like and comprises a preferably rectangular box-like base 1 upon which is centrally disposed a pair of upstanding parallel side wall members 2, 3, turned inwardly at their rearward ends to form flanges 2', 3', for securement thereon, by elongated bolts 4, of a motor mounting plate 5 and a conventional electric motor 6 connected to a source of electricity (not shown). The side walls 2, 3, are cut away forwardly in their lower portions, as at *a*, to form support arms 7, 8, respectively, which, adjacent their forward ends, have their upper margins turned downwardly to provide flanges 7', 8', respectively, for bolting thereto of a transversely extending top plate member 9, the ends of which terminate laterally beyond the support arms 7, 8. Rigidly secured to the top plate 9, as by bolts at each end thereof, is a depending side plate 10 which in conjunction with the top plate 9 constitutes the support frame for a carriage or head structure denoted B. Said side plates 10 are respectively disposed outwardly spaced from, and parallel to, the arms 7, 8, with their lower ends terminating in elevated relation to the base 1, having their lower faces provided with a pair of upwardly opening arcuate recesses 11, 12, in side-by-side relation for a purpose to be shown hereinafter.

Mounted on the upper surface of the top plate 9 is a tray 13 within which is stacked a continuous web of paper 14 folded in zig-zag fashion and having its free end led forwardly under a hold-down bar 15, said bar 15 being secured at its ends in brackets 16, 16', located at either side of the tray 13. The forward margin of the web 14 is then led under a guide bar 17 supported at the forward end of the said brackets 16, 16', disposed outwardly of and adjacent to the upper forward margin of the tray 13. From the guide bar 17 the web 14 is led through a downwardly opening guide chute 18 suitably secured to the forward faces of the side plates 10, for engagement on a feed mechanism, to be described hereinafter, associated with the carriage B. The lower end of the guide chute 18 terminates adjacent the lower margin of the plates 10 (see Figure 2). As may be seen in Figure 28, the web 14 is longitudinally perforated, as at 19, to form continuous margins 20, 20', and is provided with cross rows of perforations 21 for co-operation with the longitudinal perforations 19 in forming readily detachable sections or label portions 22. One face of the web 14 has applied thereto a suitable adhesive while the other face has appropriately imprinted on each label portion 22 the name and address of a particular addressee. At predetermined intervals along the continuous margins 20, 20', the web 14 is provided with apertures 23 for engagement with feed sprockets described below. It is apparent that if the web 14 was available in roll form it could be as easily mounted upon a cylinder disposed at the top of the machine A for downward feeding of the

web 14. The tray 13 and its associated structure is provided for accommodating the currently available form of the web 14.

Projecting forwardly from the motor 6 and through a bearing 24 in the mounting plate 5 is a drive shaft 25 having engaged upon its end the driving member 26 of a positive type clutch C for engagement with a driven member 27 disposed on an aligned main or driven shaft 28 for axial movement therealong, as by a keyway 29; said shaft 28 being supported in a bearing 30 provided in a partition member 31 extending between the side walls 2, 3, and a bearing 32 depending from the under face of the top plate 9. The forward end of said shaft 28 terminates slightly rearwardly of the plane of the forward face of the side plates 10. Engaged upon the clutch driven member 27 is the upper yoke portion 33 of a clutch-operating lever 34 fulcrumed, as at 35, on a forwardly extending, angulated bracket arm 36 having its rearward end secured to the motor mounting plate 5 and its forward end free. The lower portion of the clutch lever 34 is substantially normal to the yoke portion 33 thereof and extends forwardly for supported disposition when the clutch C is disengaged in a recess 37 provided in a guide block 38 rigidly fixed on the bracket arm 36, adjacent its free end, whereby the end of said clutch lever 34 will be presented for locking engagement with a latch arm 39 pivoted as at 40 to the end of the bracket arm 36 and being fixed at its lower end to an armature member 41 of a solenoid 42 mounted on the base plate 1. Adjacent its lower end the latch arm 39 is biased by a spring 43, into engaged relation with the clutch lever 34 for maintaining the clutch C in open position, said spring 43 being secured at its other end to a pin *p* extending between and secured at its ends in the side walls 2, 3.

Connected in circuit with the solenoid 42 by suitable leads is a normally open switch 44 mounted on the base 1 just rearwardly of the carriage B and having a sensitivity mounted tripping or switch operating member 45 adapted to be actuated by the pressure of an envelope E pushed thereagainst when placed on the base 1 beneath the carriage B for label-affixing operation (see Figure 29). Also in circuit with the solenoid 42 and the switch 44 is a second electric switch 46 having a throw or blade 47 secured to the clutch lever 34 and adapted to be in switch-closing position when said clutch C is out of engagement (see Figure 11). Upon closing of the switch 44 by pressure of the envelope E the circuit will be closed causing activation of the solenoid 42 which effects rearward axial movement of the armature 41 whereupon the latch arm 39 will be pivoted about the point 40 to disengage the clutch lever 34 which is thus released for rocking to effect shifting of the driven member 27 into engagement with the driving member 26 for transmitting rotation to the main shaft 28. The rocking action of the lever 34 will swing the throw or blade 47 to open the switch 46 and thereby open the circuit causing deenergization of the solenoid 42 with attendant return of the armature 41 to its forward position, to dispose the latch arm 39 for resumption of engagement with the lever 34.

The movement of the driven member 27 into clutch-closing position is assisted by the axial pressure of compression springs 48, 49, bearing thereagainst and encirclingly disposed about dia-

metrally aligned pins 50, 51, fixed at their forward ends in the driven member 27, with the opposite ends of the springs 48, 49, bearing against the rearward face of a flange member 52 having a collar 53 for mounting same as by a set screw 54 on the main shaft 28. Projecting from the rearward face, and adjacent the periphery, of the flange member 52 is a stud 55 about which is windingly secured one end of an open loop-forming spring 56 the opposite end of which is engaged about a similar stud 57 parallel to the stud 54 and projecting through an arcuate aperture 58 in the flange member 52; the forward end of said stud 57 being rigidly fixed in an annular disk 59 disposed on the collar 53 of the flange member 52 in substantial surface-wise abutment with the forward face of said flange member 52. Extending from a radially outward position on the disk 59 is a cam 60 disposed for engagement upon each rotation of the disk 59 with the upper cam-forming surface 61 of a generally L-shaped dog 62, the lower elongated leg of which is received for free sliding movement within a V-shaped recess 63 provided in the guide block 38 and progressing downwardly from the upper face thereof. The upper or transverse leg of the dog 62 is disposed for engagement on its under surface with the top margin of the clutch lever 34 adjacent its forward end to locate same for hooking thereof by the latch arm 39 for disengagement of the clutch C. Thus, upon release of the clutch lever 34 by the latch arm 39 after energization of the solenoid 42, as above described, the consequent pivotal movement of the clutch lever 34 will cause the dog 62 to be lifted upwardly and laterally out of the path of said lever 34 into its uppermost position, as shown in dotted lines in Figure 13, at which juncture the cam 60 will be to the left and out of engagement with the dog 62, as illustrated in said figure. As the main shaft 28 rotates through engagement of the clutch C in a direction indicated by an arrow in Figure 13, the cam 60 will be brought around into contact with the cam surface 61 of the dog 62 which, being blocked from downward movement by the lever 34 will prevent the continued rotation of the disk 59. However, since the flange member 52 is fixed to the main shaft 28, its rotation will not be stopped and hence it will then move relatively to the detained disk 59 against the force of the now loading spring 56 until the opposite end wall of the aperture 58 engages the stud 57 whereby the disk 59 will be forced to resume relation in agreement with the flange 52 with release of the spring 55. Thereupon, the cam 60 will forcibly depress the dog 62 to cause same, in turn, to drive downwardly the forward end of the clutch lever 34 thereby effecting rocking of said lever 34 about its fulcrum at 35 to shift the driven member 27 forwardly for throwing the clutch C out of engagement and thus causing positionment of the forward end of the lever 34 for locking engagement with the latch arm 39, which had been pivoted forwardly under urging of the spring 43 upon deenergization of the solenoid 42. It will, of course, be seen that the switch 46 will be closed upon disengagement of the clutch C whereby the clutch-operating system is ready for repeat performance upon insertion of the next envelope E in the machine A.

It is to be noted that the clutch C is of the single cycle type whereby after each rotation it will be automatically disengaged, thereby assuring economical operation of the machine A for accomplishing its designed purpose and preventing undue wearing of the parts.

Referring to Figures 12 and 13, the disk 59 is integrally provided on its periphery with a cam surface or swell 64 for purposes appearing more fully hereinafter. Projecting forwardly from the disk 59 near the center thereof is a relatively enlarged cam pin 65 for engagement with a cam portion 66 formed on the end of an arm 67 projecting upwardly from, and integrally formed with, a frame 68 having spaced side supports 69, 69', which protrude through spaced apertures 70, in the side wall 2 for pivotal attachment to a bearing bracket 71 mounted on the inner face of the wall 2. Adjacent their outer ends, the side supports 69, 69', are connected by a brace bar 72 and integral with their lower ends is a longitudinally extending tubular bearing 73 for supporting a rod 74, the forward end of which terminates just rearwardly of the forward margin of the base 1 in upwardly spaced relation thereto. Suitably mounted on the rod 74 on its forward end portion, for free rotation thereon is a roller 75. The frame 68 is biased by a spring *b* so that the roller 75 will be in a normally raised position, as may be seen in Figure 26, said spring *b* being secured to the side support 69 and a bracket *c* mounted on the wall 2. Upon engagement of the cam pin 65, with the cam portion 66 on the arm 67, the frame 68 will be rocked for lowering the roller 75 into co-operative relation with a driving roller 76, parallel thereto and mounted beneath the base 1 for protrusion of its upper portion through a rectangular aperture 77 in the base 1, for gripping therebetween of envelopes E on the completion of the label-affixing operation to eject the labeled envelopes E from the machine A, as well as to provide pressure for assuring positive adherence of the labels 22 applied to the envelope E. Said driving roller 76 is fixed on a shaft 78 supported at its ends in bearings 79, 80, depending from the under face of the base 1 and having secured thereon a pulley 81 about which is trained a drive belt 82 the upper end of which is engaged about a pulley 83 mounted on the motor drive shaft 25 so that the shaft 78 with the roller 76 thereon will be constantly rotated during running of the motor 6. It is thus noted that the cam 65 is so positioned on the disk 59 as to effect proper co-action of the envelope-ejecting rollers 75, 76, in timed sequence to the other steps performed by the machine A to be described below, or otherwise just prior to disengagement of the clutch C in the manner above set forth.

Disposed on the main shaft 28 just rearwardly of the bearing 32 is a helical gear 84 for meshing engagement with a pinion 85 fixed centrally on a cross shaft 86 subjacent and axially normal to the main shaft 28; said cross shaft 86 being supported in and projecting through suitable bearings provided in the forward ends of the support arms 7, 8. On each of the projecting ends of the cross shaft 86 which terminate inwardly of the side plates 10 is a cylindrical crank 87 each of which are provided with cam rollers 88, 89, extending from their outwardly and inwardly presented faces, respectively, and which are approximately 25° removed from diametral alignment. Each of the outer cam rollers 88 are engaged in cam grooves 90 formed in plate-like slide members or followers 91 forming the side portions of the carriage B and disposed for vertical reciprocal sliding movement within guideways 92 formed on the inner faces of the side plates 10 (see Figure 7). The cam grooves 90 are axially normal to the

direction of movement of the slides 91 and centrally curved to form a shallow dip as at 93, which has the same radius as the path of the cams 88, for serving to arrest the motion of the slides 91 momentarily for purposes to be shown.

In suitable apertures in their upward rearward portions, the slides 91 fixedly receive the ends of a brace rod 94 extending transversely therebetween and being downwardly arcuated intermediate its length, as at 95, to clear the main shaft 23 (see Figure 8). At their lower ends each of the slides 91 is firmly secured to a base member 96 which are interconnected in their upper portions adjacent either end, by cross rods 97, 98, for maintaining the slides 91 in proper spaced relation, as well as providing stability for the carriage B. Mounted on the rods 97, 98, for extension therebetween is a centrally located, laterally flanged web-forming member 99, apertured for clearance of the pinion 84, beneath which is disposed a two-part housing 100 supported on the rod 97 and having its forward end terminate at the rod 98 with its rearward face flush with the adjacent end margin of the web-forming member 99. Projecting through the housing in appropriate bearings provided in the side walls thereof is a pair of spaced, parallel, transversely directed shafts 101, 102, the ends of which protrude through bearings formed in the base members 96 and having mounted on their extremities wheels 103 with sprockets 104 disposed spacedly about the periphery thereof for engagement with the apertures 23 in the paper web 14 for feeding same rearwardly beneath the carriage B (see Figure 10). As may be seen in Figure 8, there is mounted on each base member 96 intermediate its associate pair of sprocket wheels 103 a spring-biased vertically presented pin 105, the lower end of which has a filler block 106 disposed thereon for preventing inadvertent passage of the web 14 into the space between the wheels 103. Said wheels 103 are designed to be partially received within the recesses 11, 12, of the side plates 10 when the carriage B is in elevated position as shown in Figure 2. Provided for removable slip fitting upon the hubs of the wheels 103 are the side portions 107 of a web guide member 108, each of said side portions 107 having elongated apertures 109 on their bottom faces for unimpeded extension therethrough of the sprockets 104 and are connected by a transverse bar 110 disposed beneath the carriage B.

Fixed on each shaft 101, 102, within the housing 100 is a ratchet wheel 111, 112, respectively, for meshing engagement with a longitudinally projecting ratchet bar 113 disposed for reciprocal sliding movement within a slide-way 114 provided in the housing 100 and opening at its ends to the end faces thereof. The rearward end of the ratchet bar 113 projects beyond the housing 100 for connection with a bell crank 115 pivotally mounted on a pair of spaced lugs 116 secured to the web-forming member 99. The upper leg of the bell crank 115 is slotted at its rearward end to permit radial movement about a fixed rod 117 extending transversely between, and secured at its ends, in the support arm portions 7, 8, see Figures 6 and 7. The ratchet bar 113 is urged into engagement with the ratchet wheels 111, 112, by a curved leaf spring 118 bearing against its upper surface (see Figure 21) to effect rotation of said wheels 111, 112, on forward travel of said ratchet bar 113. To prevent counter-rotation of the ratchet wheels 111, 112, on rearward sliding of the ratchet bar 113, are spring mounted pawls 119, 120, respectively. Thus, when the carriage B is in lowered position, as shown in Figure 7, the ratchet bar 113 will be fully rearwardly in potential position for effecting rotation of the shafts 101, 102, on forward travel which will be accomplished as the carriage B is elevated since the bell crank 115 will pivot upwardly (see Figure 6). Hence, it is to be seen that the web-feeding operation is effected concurrently with the upward travel of the carriage B. On the return movement or descent of the carriage B, said bar 113 will merely slide over the ratchet wheels 111, 112, which are held by the pawls 119, 120. It should be pointed out that the ratchet bar 113 and the ratchet wheels 111, 112, are designed so that during ascent of the carriage B they will cause the sprocket wheels 103 to rotate a requisite amount for positioning a label 22 in the web 14 for ready detachment by means to be discussed hereinafter.

On the central portions of their inner faces, the base members 96 are recessed to provide slideways 121 to receive for vertical sliding movement therein the upstanding, inset flanges 122 of a rectangular shaped punch plate 123 extending transversely between the base members 96 in substantially planar alignment with their under faces. The leading or forward edge of the punch plate 123 is disposed immediately adjacent the rearward margin of the bar 110 of the guide member 108 for shearing-wise co-operation therewith. Said punch plate 123 is similar in dimension to the labels or detachable sections 22 of the paper web 14 for accurate severance thereof from the web 14 when presented beneath the punch plate 123 by the feeding means above described. At their upper ends the lateral flanges 122 of the punch plate 123 are secured, as by screws, on their inner faces to the lower ends of a vertically presented plate 124 (see Figure 8). Interiorly the plates 124 are substantially cut away to provide enlarged apertures 125 to allow free movement therein of the cam roller 89 on the inner face of the crank 87 during rotation thereof. The upper wall or face of the enlarged aperture 125 is contoured to provide a cam surface 126 for engagement with the cam roller 89 and consists of a transverse portion 127 and an arcuate, upwardly extending section 128 rearwardly thereof (see Figure 10). Said plates 124 are of greater width than the flanges 122 of the punch plate 123 and are chamfered on their lower lateral margins for detent engagement with the base members 96 to limit the downwardly sliding movement of the flanges 122 through the slide-way 121 for lowering the punch plate 123 to sever the labels 22 from the web 14. On its rearward vertical or lateral margin adjacent its lower end, each of said plates 124 are recessed as at 129 for clearing a dog 130 depending from the outer end of a hub or collar member 131 loosely disposed on the ends of a transverse rod 132 fixedly secured intermediate its length on the web-forming member 99 and extending thereacross, as may best be seen in Figure 8. Integrally formed on the inner end of each hub or collar member 131 is a latch arm 133 at substantially 90° to its associated dog 130. Said dogs 130 are presented for abutment with a transversely disposed stud 134 fixed at one end in a detent bar 135 freely set within a channel 136 formed in the inner face of each base member 96. Said channels 136 communicate forwardly with a recess 137 in the adjacent margin of the flange portions 122 of the punch plate 123 for extension therein of the detent bar 135 for pre-

venting untimely downward movement of the punch 123 with relation to the carriage B, as will be shown. Affixed to the stud 134 is one end of a forwardly extending compression spring 138 secured at its forward end to a stud 139 mounted on each base member 96 in slightly upward and forward relation to the cross shaft 86 (see Figure 10), whereby said spring 138 urges the detent bar 135 into punch-locking position and causing the studs 134 to maintain pressure against the dogs 130 whereby the latch arms 133 will be canted upwardly each for engagement on their forward free ends with a cam 140 on the lower ends of cranks 141 secured on the cross shaft 86 on opposed sides of the pinion 85. Thus, the cams 140 will effect depression of the latch arms 133 and thereby cause the dogs 130 to be rocked drivingly against the studs 134 to effect rearward sliding of the detent bars 135 within the channels 136 to permit downward travel of the punch plate 123. The descent of the punch plate 123 is assisted by the downward urging of a pair of spaced springs *s* which bear at their lower ends against the upper surface of the plate 123 and having their upper ends engaged within suitable recesses in the flanges of the web-forming member 99 (see Figure 8). The rearward movement of the detent bars 136 is limited by the abutment of the studs 134 against stop blocks 142 secured to each of the base members 96 (see Figure 9). The engagement between the cams 140 and the latch arms 133 will be broken as the cranks 141 are swung upwardly on continued rotation of the cross shaft 85 whereupon under release of tension on the compression springs 138, the detent bar 135 will be returned to locking engagement with the flanges 122 and simultaneously the latch arms 133 will be restored to upwardly canted position. As will be more fully described, the punch plate 123 will have descended upon disengagement of the detent bar 135 and will have been returned upwardly in time for locking thereby as the detent bar 135 is freed for forward travel on disengagement of the latch arm 133 by the cam 140. Thus, the latch arms 133 and the cams 140 are so designed as to assure that the period of contact therebetween on each rotation of the shaft 85 is ample for permitting the reciprocal movement of the punch plate 123.

The operation of the carriage B and the punch plate 123 carried thereby with its associated structure is as follows: with the clutch C disengaged, the carriage B will be in uppermost, elevated position, as shown in Figure 10, with the cam rollers 88 of the crank 87 disposed in the dip portions 93 of the related cam grooves 90. Upon engagement of the clutch C, rotation will be transmitted to the cross shaft 85 and the crank 87 will be rotated in the direction shown by an arrow in Figure 10, whereupon the cam rollers 88 will move relatively forwardly in the cam groove 90 and thereby cause downward sliding of the carriage B. When said carriage B has reached its lowermost position, as shown in Figure 9, the cam rollers 88 will have returned to a point just forwardly of the dip 93 in the cam grooves 90 so that with the movement of the cam rollers 88 therein the vertical movement of the carriage B will be momentarily arrested at which juncture the cams 140 will depress the latch arms 133 to permit the descent of the punch plate 123 as shown above. The downward drop of the punch plate 123 is limited by engagement of the arcuate cam section 128 of the cam surface 126 against the inner cam 88. Then immediately, in point of time, subsequent rotation of the crank 87 will cause the cam 88 to move along the rearward portion of the dip 93 and thus continue the dwelling action so that the carriage B is still maintained in lower position. However, simultaneously the cam 89 will have effected a lifting of the punch plate 123 by movement from the arcuate cam surface 128 into engagement along the transverse cam surface section 127. Thus, the depth of the arcuate cam surface 126 corresponds directly to the amount of descent and ascent of the punch plate 123. As stated above, the reciprocal movement of the punch plate 123 is thus completely effected while the carriage B is idle at its lower position. The descent of the punch 123 effects severance of the label 22 from the web 14 with the parting action being materially assisted by the shearing between the punch plate 123 and the bar 110. The punch 123 thus severs and carries the label 22 downwardly onto the envelope E for affixation thereto.

In timed relation to the restoration of the punch plate 123, the cam roller 88 will move onto the rearward section of the groove 90 and by driving contact against the upper wall thereof causes the carriage B to slide upwardly to its elevated position, in preparation for the next operation.

Formed in the exterior face of the side plates 10 in the upper central portion thereof is a relatively shallow triangular shaped recess 143 opening into a rectangular axially aligned recess 144 within which is fixed a vertical slide pin 145 for free sliding thereon of a restraining block 146 the outer portion of which is adapted for movement in the triangular recess 143. Mounted on the outer face of the restraining block 146 are spaced pins 147, 148, to which are secured for oscillation thereabout the upper ends of parallel links 149, 150, respectively, of a straight line motion linkage designated D; the lower ends of said links 149, 150, terminating in closed spaced relation to the base 1. Said links 149, 150, are connected by a cross link 151 having projecting from its inner surface a cam follower 152 for travel in an arcuate cam groove 153 milled or otherwise formed in each side plate 10. Pivotally secured to the link 149 upwardly of the point of attachment of the cross link 151 is the rearward end of a directing link 154 the forward end of which is secured for swingability to a triangular operating block 155, disposed for vertical sliding movement in a relatively deep, elongated recess 156 provided in each side plate 10 forwardly of the recess 143, having a downwardly and rearwardly inclined bottom wall 157 and which communicates with a narrow vertically presented aperture 158 in the side plates 10 which extends from top to bottom of the recess 156 for loose extension therethrough of a small connecting block 159 secured to the slides 91 of the carriage B and the operating block 155 whereby said blocks 155 will move within their recesses 156 responsively to the slides 91. Thus, on downward movement of the slides 91 the directing links 154 will cause the parallel links 149, 150, to be swung rearwardly while the restraining block 146 will control the vertical component of the movement of the linkage D for compensatingly maintaining the lower ends of the links 149, 150, in constant relation to the base 1.

At their lower ends each pair of links 149, 150, are secured to the forward and lower leg of

stepped, longitudinally extending links 160 which are centrally mounted on a transverse tubular rod 161 on which is fixed, as by brazing, a forwardly and downwardly inclined receptacle 162 open along its lower forward margin for projection therethrough of an absorbent member 163, such as sponge rubber, snugly held within the receptacle 162. Said receptacle 162 has a width substantially equivalent to the distance between the inner faces of the sprocket wheels 103 and, hence, is inwardly spaced from the links 160. At its rearward end, each link 160 is engaged to an L-shaped lever 164 whose upper leg 165 is bent inwardly for disposition of its end in a bracket 166 mounted on the outer face of the support arm 7 (see Figures 5 and 20); the lower leg 167 of the lever 164 is relatively short and extends forwardly in substantially parallel relation to the links 160, and have projecting inwardly from their inner faces, adjacent their free end, a pin 168 about which is secured one end of a spring 169, the opposite or rearward end of which is wound about a similar pin 170 projecting through a slot 171 in the leg 167 and engaged fixedly in a slide member 172 mounted on the leg 167 (see Figures 17 and 19). At its forward end the slide member 172 is provided with a V-shaped recess or cam surface 173 for camming engagement with a pointed dog 174 integrally formed on the outer end of a hub or collar 175 loosely disposed on the tubular rod 161 intermediate the receptacle 162 and the links 160 (see Figure 15). Formed on the opposite end of the hub or collar 175 is a lever 176 in axial alignment with the dog 174, and having its forward end recessed in general yoke formation, as at 177, for engagement with a teat member 178 extending from the lateral walls of the receptacle 162.

Referring now to Figure 2, it will be seen that when the carriage B is in elevated position, the links 149, 159, will be vertically disposed with the upper leg 165 of the lever 164 brought into abutment against the forward end of the bracket 166 which engagement will effect an upward rocking tendency of the lower leg 167 resisted by the engagement of the slide member 172 and the dog 174. However, an over center action of the spring 169 will overcome the said resistance and permit the carrying through of the rocking of the lever 164 whereby the dog 174 will be pushed upwardly causing the lever 176 to swing downwardly for rocking the receptacle 162 into lowered position for presenting the absorbent member 163 for wetting contact with an envelope E placed on the base 1.

Thus, as the carriage B is moved downwardly as hereinabove described, the linkage D will effect a rectilinear movement causing the receptacle 162 to be carried rearwardly allowing the absorbent member 163 to moisten a defined area of the envelope E, with such movement being terminated when the lever 164 abuts against the rearward end of the bracket 166. Hence, at this juncture a similar toggle action will occur to cause the receptacle 162 to be swung upwardly out of engagement with the envelope E (see Figure 17). The particular timing of the action of the linkage D is to be especially observed in that dampening of the envelope E occurs as the carriage B is moved downwardly so that the surface of the envelope E is properly prepared immediately preceding the label-severing action of the punch 122 whereby the adhesive surface of the label 22 will be received on an appropriately moistened surface for activation thereof. The receptacle 162 is thus moved at such a rate as to avoid interference with the carriage B in its descent, and on the ascent or return of the carriage B, the receptacle 162 will be swung upwardly and carried forwardly by the linkage D in readiness for the next operation.

At one of its ends the tubular rod 161 extends beyond the plane of the side plates 10 and is connected to a flexible hose 179, the upper end of which is connected to a liquid reservoir 180 suitably mounted at the outer end of a support member 181 integrally provided with a tongue 182 on its inner end for removable engagement within a retaining bracket 183 secured to the outwardly presented face of the side wall 3 (see Figure 26). The reservoir support arm 181 is provided with an axial bore 184 which communicates at its outer end with an air-inlet pipe 185 extending upwardly into the reservoir 180 with its upper or outlet end above the level of the liquid therein. At its opposite or inner end the axial bore 184 is aligned with an aperture 186 provided in the side wall 3. Opening into the axial bore 184 for establishing communication between same and the atmosphere, is a radial bore 187 provided in the arm 181. Seated within the bore 184 outwardly of the radial bore 187 is a cylindrical constrictor member 188 having a central narrow bore aligned with the axial bore 184 for extension therethrough of the stem 189 of a valve member, generally denoted 190, having an enlarged plug 191 mounted on its forward end for normal abutment against the outer face of the member 188 for preventing passage of air from the atmosphere to the air-inlet pipe 185; said valve 190 being biased in closed position by a spring 192 which abuts at one end against the inner face of the member 188 and at its other end against an enlarged head 193 secured on the inner end of the stem 189. Adapted for actuating engagement of the valve 190 is a plunger 194 resiliently mounted in, and extending through, a bracket 195 secured to the inner face of the wall 3. The inner projecting end of the plunger 194 is disposed for axial movement responsive to engagement with the cam surface or swell 64 on the flange member 52, whereby the plunger 194 will be pushed outwardly against the valve 190 for opening the passage through the member 188 to allow air to enter the reservoir 180 to create a pressure on the liquid for inducing flow therefrom through the hose 179 and into the tubular rod 161 and from which the liquid flows through orifices 196 provided in the rod 161 within the receptacle 162. As the cam surface 64 is moved past the plunger 194 the valve 190 will be closed and liquid flow stopped. Thus, upon each cycle of the operation of the machine A the absorbent member 163 will be provided with liquid in order that it will be kept in a continuously saturated state for effective wetting of the envelope E.

In summarization of the operation of the machine A: an envelope E is placed by the operator on the base 1 immediately beneath the carriage B. It will be noted in this regard that the envelope-receiving portion of the base 1 may be defined on one side by a guide bar 197 adjustably mounted on the base 1, and on its rearward side by the switch 44, which, if desired, may be slidably mounted in order that various sizes of envelopes and the like may be easily accommodated. The envelope E is so disposed on the base 1 that it will overlap at its margin the driving roll 76 which, though rotating, will not affect the positionment of the envelope E since the companion

roller 75 is at that moment in raised position. The contact between the envelope E and the switch 44 closes the circuit through the solenoid 42 for actuating the clutch C whereupon the receptacle 162 will be moved rearwardly for effecting moistening of the envelope E and the carriage B will descend. Upon arrival at its lowermost position, the carriage B will idle with the punch plate 123 moving downwardly for severing the label 22 and driving it onto the moistened surface of the envelope E. Immediately consequent thereto the frame 66 will be rocked downwardly to bring the roller 75 into co-operative relation with the driving roller 76, for gripping the envelope E and moving it laterally outwardly for discharging same from the machine A. It will be seen that the rollers 75, 76, will provide a positive pressure on the envelope E for assuring proper adherence of the label 22 thereon. For a predetermined period prior to the envelope-ejecting action, the valve 190 will be opened to allow replenishment of the liquid within the receptacle 162. As shown above, the carriage B will move upwardly subsequent to the operation of the punch plate 123 causing the web 14 to be fed for positioning a label 22 adjacent the punch plate 123. On return of the carriage B to its uppermost position, the cycle will have been completed. Thereupon, the clutch C will be disengaged by the means fully described hereinabove and the machine A will then be ready for the insertion of the next envelope therein.

It is to be noted that the machine A by uniquely contrived and closely timed mechanisms performs in a minimum amount of time a series of steps for accomplishing with maximum speed the affixation of labels and the like to mailing pieces and hence serves a very marked, current need since the volume of mailing by commercial establishments, universities, various organizations, and the like has reached an unprecedented peak.

It should be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the machine for affixing labels to mailing pieces and the like may be made and substituted for those herein shown and described without departing from the nature and principle of the present invention.

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

1. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a container disposed on said frame for a continuous web having a plurality of label-forming detachable sections, said web being adhesively coated on one surface thereof, a head carried by said frame and adapted for reciprocal vertical movement toward and away from said envelope-receiving portion of the base, a punch carried by said head and adapted for movement with respect to said head, means mounted on said head for feeding said web to the head so that a label-forming section thereof will be disposed in alignment with said punch during upward movement of the head, means for operating said punch for severing and delivering a label-forming section to the surface of the envelope in timed relation to the termination of the downward travel of the head, and means for moistening a defined area of the envelope immediately precedent to the label-severing operation to actuate the adhesive on the label for positive adherence thereof to the envelope, said means comprising a container for a moistening agent and a linkage system carrying said container and connected to said head, said linkage system being adapted for imparting rectilinear movement to the container in one direction as the head travels upwardly for positioning same for potential moistening operation and for rectilinear movement in the opposite direction when the head travels downwardly for moistening the envelope.

2. A machine for affixing labels to envelopes and the like comprising a base, a frame mounted on said base, a prime mover, a drive shaft associated with said prime mover, a driven shaft, clutch means for coupling said drive and driven shafts for transmitting rotation to the latter, a switch operable by an envelope to be labeled inserted in the machine, means for moving said clutch means into engaged position upon actuation of the switch, a head carried by said frame and adapted for reciprocal vertical movement toward and away from the base upon coupling of said drive and driven shafts, means for delivering a label fed into said machine to the surface of the envelope in timed relation to the upward movement of the head, means for ejecting the labeled envelope from the machine, and means for disengaging said clutch means immediately subsequent to the ejecting action to stop the machine and simultaneously adapting said switch for actuation by the next envelope thereby providing that the machine will only be in operation when an envelope is disposed therein.

3. In a machine for affixing labels to envelopes and the like, drive means comprising a prime mover, a drive shaft associated with said prime mover for operation thereby, a driven shaft, a clutch comprising a driving member mounted on said drive shaft, and a driven member disposed on said driven shaft for coupling engagement therewith to effect transmittal of rotation to said driven shaft, a rock lever engaging said driven member for optionally moving same into clutch-engaging position, means for locking said lever to prevent engagement of the clutch, a switch disposed for closure on contact with an envelope inserted into the machine, means connecting said switch and said lever locking means whereby upon closure of the switch said locking means will release the lever for moving the driven member into clutch engagement, and means for effecting resumption of engagement between the lever and the locking means for disengaging the clutch in predetermined timed relation to the engagement thereof.

4. A machine for affixing labels to envelopes and the like comprising a base, a frame mounted on said base, a main shaft, means for rotating said main shaft, a cross shaft engageable with said main shaft and driven thereby, a head member slidably mounted on said frame, crank means mounted on said shaft for engagement with the head to effect reciprocal sliding movement thereof during a single rotation of said cross shaft, plate-like members slidable with relation to said head, a punch member interconnecting said plate-like members and normally disposed in planar alignment with the under portion of said head, latch means for normally maintaining said plate-like members in fixed relation to said head, and cam means for disengaging said latch means to permit vertical reciprocal movement of the plate-like members and the punch with relation to the head in timed sequence to the arrival of the head at one limit of its travel.

5. In a machine for affixing labels to envelopes and the like, drive means comprising a prime mover, a drive shaft associated with said prime mover for operation thereby, a driven shaft, a clutch comprising a driving member mounted on said drive shaft, and a driven member disposed on said driven shaft for coupling engagement to effect transmittal of rotation to said driven shaft, a rock lever engaging said driven member for optionally moving same into clutch-engaging position, a first switch having a contact blade secured to said rock lever for movement therewith, means for locking said lever to prevent engagement of the clutch in which position the first switch will be closed, a second switch normally open and disposed for closure on contact with an envelope inserted into the machine, a solenoid operatively engaged to the means for locking the rock lever, said first and second switches and solenoid being in circuit whereby upon such actuation of the second switch the solenoid will be energized to cause release of the rock lever for permitting clutch engagement with the first switch being opened upon movement of the lever for deenergizing the solenoid, and means for disengaging said clutch in timed relation to the engagement thereof to effect resumption of engagement between said locking means and said lever.

6. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a head carried on said frame and adapted for reciprocal movement toward and away from the envelope-receiving portion of the base, means for limiting the travel of the head toward the base so that such travel will terminate at a point spaced therefrom, a punch carried by said head for movement therewith and adapted for operative movement with respect thereto, latch means for normally holding said punch against movement independent of said head, means for tripping said latch in timed relation to the termination of the travel of said head toward said base thereby permitting operative movement of the punch, and timing means for effecting return movement of said punch into latched position prior to travel of the head away from said base.

7. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a shaft journaled in said frame, means for rotating said shaft, crank means mounted on said shaft for rotation therewith, a head engaged to said crank means for travel toward and away from said envelope-receiving portion of said base, a punch carried by said head and adapted for movement with respect thereto, means for locking said punch in inoperative position for movement with said head during its travel, and tripping means for freeing said punch for operation in timed relation to the termination of travel of said head toward said base.

8. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a shaft journaled in said frame, means for rotating said shaft, crank means mounted on said shaft for rotation therewith, a head engaged to said crank means for traveling toward and away from said envelope-receiving portion of said base upon a complete revolution of said shaft, a punch carried by said head and adapted for movement with respect thereto, latch means for locking said punch in inoperative position for movement with said head during its travel, tripping means for freeing said punch for operation in timed relation to the termination of travel of said head toward said base, and cam means operable by said shaft for returning said punch to locked position prior to travel of the head away from said base.

9. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a shaft journaled in said frame, means for rotating said shaft, crank means mounted on said shaft for rotation therewith, a head engaged to said crank means for travel toward and away from said envelope-receiving portion of the base, a punch carried by said head and adapted for movement with respect thereto, latch means for locking said punch in inoperative position for movement with said head during its travel, first cam means to cause said head to dwell at the termination of its travel toward said base, tripping means for freeing said punch for operation during the dwell of said head, and second cam means operable by said shaft to return said punch to locked position prior to the termination of said dwell of the head.

10. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a head carried on said frame and adapted for reciprocal movement toward and away from the envelope-receiving portion of the base, means for limiting the travel of the head toward the base so that such travel thereof will terminate at a point spaced therefrom, a label-severing punch slidably mounted in said head and carried thereby, latch means for normally holding said punch against sliding movement, means for tripping said latch in timed relation to the termination of the travel of said head toward the base to permit sliding movement of said punch for label severing action, and cam means for effecting return movement of said punch into latched position prior to travel of the head away from said base.

11. A machine for affixing labels supplied by, and detachable from, a continuous web to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a head carried on said frame and adapted for reciprocal movement toward and away from the envelope-receiving portion of the base, means for limiting the travel of the head toward the base so that such travel thereof will terminate at a point spaced therefrom, first cam means for causing said head to dwell for a predetermined period at the termination of its travel toward the base, a label-severing punch slidably mounted in said head for axially aligned movement with respect thereto, latch means for normally holding said punch against sliding movement, means for tripping said latch during the dwell of said head to free the punch for sliding movement toward the base to affect label-severing and delivering action, and second cam means for effecting return movement of said punch away from the base into latched position prior to termination of the dwell period of the head.

12. A machine for affixing labels to envelopes and the like comprising a base, a frame mounted on said base, a container disposed on said frame for a continuous web having a plurality of label-

forming detachable sections, a head carried by said frame adapted for reciprocal vertical movement toward and away from said base, a punch carried by said head and adapted for movement with respect thereto to sever labels from the web, and web feeding means for presenting a label-forming section for severance by said punch comprising shaft members journaled in said head, spaced web-engaging parts carried on said shafts for rotation therewith, said web-engaging parts being disposed outwardly of said punch on opposite sides thereof, a member mounted in said head for reciprocal rectilinear movement, a crank engaged to said member and adapted for rocking movement upon travel of the head for imparting movement to said member, and means provided on each shaft for simultaneously engaging said member during travel of said head away from said base to effect web feeding operation for positioning a label-forming section with respect to the punch for severance thereby.

13. A machine for affixing labels to envelopes and the like comprising a base, a frame mounted on said base, a container disposed on said frame for a continuous web having a plurality of label-forming detachable sections, a head carried by said frame adapted for reciprocal vertical movement toward and away from said base, a punch carried by said head and adapted for movement with respect thereto to sever labels from the web, and web feeding means comprising parallel shaft members journaled in said head, web-engaging parts carried on each shaft for rotation therewith, aligned ratchet wheels mounted on each shaft, a ratchet bar mounted in said head for reciprocal rectilinear movement and simultaneously engageable with said ratchet wheels during movement in one direction and a crank member mounted on said head and engaged to said ratchet bar, said crank member being adapted for rocking movement upon travel of said head for imparting movement to said ratchet bar to rotate the shafts for causing a label-forming section of the web to be positioned during travel of the head away from said base with respect to the punch for ultimate severance thereby.

14. In a machine for affixing labels to envelopes having a base provided with a portion for receiving an envelope for labeling and a main frame disposed on said base, the improvement comprising a driving roller mounted in said base and disposed adjacent the envelope-receiving portion thereof so that its upper peripheral surface will engage the enevolpe, means for rotating said driving roller, a support frame pivotally mounted on said main frame, a companion roller carried on said support frame and means for rocking said support frame in timed sequence to the label affixing operation to present said companion roller in co-operative relation with said driving roller for gripping the envelope therebetween and ejecting same from the machine.

15. A machine for affixing labels to envelopes and the like comprising a base, a frame mounted on said base, a container disposed on said frame for a continuous web having a plurality of label-forming detachable sections, a head carried on said frame, a punch carried by said head and adapted for vertical reciprocal movement with respect to said head, means for positioning a label section of said web beneath said punch for severance thereby on its downward movement comprising a pair of parallel shafts journaled in said head transversely thereto and being disposed upwardly, forwardly and rearwardly of said punch, web-engaging wheels mounted on the ends of said shafts for disposition laterally outward of said punch and in tandem relation forwardly and rearwardly of said punch for engaging said web in spaced portions to present a label for severance, a block member on each side of said head for disposition between the web-engaging wheels to prevent the web from travelling therebetween, a crank pivotally mounted on said head and adapted for rocking movement upon travel thereof, an elongated member mounted on said shafts and engaged to said crank for reciprocal rectilinear movement thereby, and driven members mounted on each shaft for simultaneously operatively engaging said member during travel of the head upwardly for developing rotative, web-feeding movement in said shafts.

16. A machine for affixing labels to envelopes and the like comprising a base, a frame mounted on said base, a container disposed on said frame for a continuous web having a plurality of label-forming detachable sections, said web having perforated longitudinal margins, a head carried on said frame, a punch carried by said head and adapted for vertical reciprocal movement with respect to said head, means for positioning a label section of said web beneath said punch for severance thereby on its downward movement comprising a pair of parallel shafts journaled in said head transversely thereto and being disposed upwardly, and forwardly and rearwardly, of said punch, a sprocket wheel mounted on the ends of each shaft for engagement with the perforated margins of said web, said wheels being laterally outward of said punch and in tandem relation for engaging spaced portions of said web to present a label intermediate said margins for severance by the punch, means for directing said web from the container to said sprocket wheels, a web guide member mounted on said wheels and having a transverse bar for shearing cooperation with said punch, motion transmitting means mounted on said head, and a driven member mounted on each shaft intermediate the web-engaging wheels for simultaneous cooperation with the said motion transmitting means.

17. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a source of adhesively coated labels for securement to an envelope, a head carried by said frame and adapted for reciprocal movement toward and away from the envelope-receiving portion of said base, means for presenting a label on an envelope in timed relation to the termination of travel of the head toward the base, and means for moistening the label-receiving area of an envelope immediately precedent to label presenting operation, said means comprising a container for a moistening agent and a linkage system carrying said container and connected to said head, said linkage system being adapted for imparting rectilinear movement to the container in one direction as the head travels upwardly for positioning same for potential moistening operation and for rectilinear movement in the opposite direction when the head travels downwardly for moistening the envelope.

18. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a head carried on said frame and adapted for reciprocal movement to-

ward and away from the envelope-receiving portion of the base, cam means for causing said head to dwell at the termination of its travel toward said base, a punch carried by said head for travel therewith and adapted for operative movement with respect thereto, a spring-biased latch member normally engaging said punch to prevent movement thereof independent of said head, means for tripping said latch in timed relation to the termination of the travel of said head toward said base and adapted to maintain said latch member in tripped position for a predetermined interval during dwell of said head, whereby said punch is freed for operative movement, and means for effecting return movement of said punch prior to close of said interval so that said punch may be restored into latched position prior to travel of the head away from said base.

19. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a shaft journaled in said frame, means for rotating said shaft, crank means mounted on said shaft for rotation therewith, a head engaged to said crank means for travel toward and away from said envelope-receiving portion of said base, cam means associated with said crank means to cause said head to dwell at the termination of its downward travel, a punch carried by said head and adapted for operative movement with respect thereto, means for locking said punch in inoperative position for movement with said head during its travel, and tripping means actuated by said shaft for freeing said punch for operation during the dwell of said head.

20. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a shaft journaled in said frame, means for rotating said shaft, a crank mounted on said shaft for rotation therewith, a first cam mounted on said crank, a head, cam-following means provided on said head for cooperation with said first cam whereby said head is moved toward and away from said envelope-receiving portion of the base upon rotation of said shaft, a second cam provided on said crank, a punch plate carried by said head and adapted for reciprocal slidable movement relative thereto, and cam-following means associated with said punch plate for cooperation with said second cam whereby said plate is slidably movable in timed relation to termination of travel of said head toward said base.

21. A machine for affixing labels to envelopes and the like comprising a base having a portion for receiving an envelope to be labeled, a frame mounted on said base, a shaft journaled in said frame, means for rotating said shaft, a crank mounted on each end of said shaft for rotation therewith, a first cam mounted on each crank, a head having lateral portions, cam-following means provided on the lateral portions of said head for cooperation with said first cams whereby said head is moved toward and away from said envelope-receiving portion of the base upon rotation of said shaft, a second cam provided on each crank, a punch plate, side plates secured to said punch plate, said side plates being carried by said head and adapted for reciprocal slidable movement, cam-following means provided in each side plate for cooperation with said second cams whereby said side plates may be slidably moved in timed relation to termination of travel of said head toward said base for effecting operation of the punch plate, a latch member normally biased into engagement with said punch plate, and latch-tripping means activated by said shaft for maintaining said latch member in tripped position for a predetermined interval to permit effective operation of said second cam.

22. A machine for affixing labels to envelopes and the like comprising a base provided with a portion for receiving an envelope for labeling, a main frame disposed on said base, a shaft journaled in said main frame, drive means for rotating said shaft, means operatively engaged to said shaft for affixing labels to envelopes disposed on the base, and labeled-envelope ejecting means comprising a driving roller mounted in said base for engaging on its upper peripheral surface the under face of a labeled envelope, means for rotating said driving roller, a support frame mounted on said main frame for vertical rocking movement, an idler roller carried by said support frame and being presented upwardly of said driving roller, and cam means operable by said shaft for rocking said support frame in timed relation to the label affixing operation to bring said idler roller in cooperative relation with said driving roller to expel a labeled envelope from the machine.

23. A machine for affixing labels to envelopes and the like comprising a base provided with a portion for receiving an envelope for labeling, a main frame disposed on said base, a shaft journaled in said main frame, drive means for rotating said shaft, a cam mounted on said shaft, means operatively engaged to said shaft for affixing labels to envelopes disposed on the base, and labeled-envelope ejecting means comprising a driving roller mounted in said base for engaging on its upper peripheral surface the under face of a labeled envelope, means for rotating said driving roller, a support frame mounted on said main frame for vertical rocking movement, an idler roller carried by said support frame and being presented upwardly of said driving roller, cam-following means provided on said support frame for engagement with said cam in timed relation to the label affixing operation for rocking said support frame downwardly to bring said idler roller in cooperative relation with said driving roller to expel a labeled envelope from the machine, and resilient means for normally biasing said support frame in upwardly rocked position.

24. In a machine for affixing labels to envelopes and the like, drive means comprising a prime mover, a drive shaft associated with said prime mover for operation thereby, a driven shaft, a clutch comprising a driving member mounted on said drive shaft, and a driven member disposed on said driven shaft for coupling engagement therewith to effect transmittal of rotation to said driven shaft, a rock lever engaging said driven member for optionally moving same into clutch-engaging position, a latch member pivotally mounted on the machine for normally engaging said lever to prevent engagement of the clutch, a switch disposed for closure on contact with an envelope inserted into the machine, a solenoid in circuit with said switch for energization upon closure thereof and having an armature engaged to said latch member whereby upon closure of the switch said latch member will be tripped to release the lever for moving the driven member into clutch engagement, and means for

effecting resumption of engagement between the lever and the latch member for disengaging the clutch in predetermined timed relation to the engagement thereof.

25. In a machine for affixing labels to envelopes and the like, drive means comprising a prime mover, a drive shaft associated with said prime mover for operation thereby, a driven shaft, a clutch comprising a driving member mounted on said drive shaft, and a driven member disposed on said driven shaft for coupling engagement therewith to effect transmittal of rotation to said driven shaft, a rock lever engaging said driven member for optionally moving same into clutch-engaging position, a latch member pivotally mounted on the machine for normally engaging said lever to prevent engagement of the clutch, a switch disposed for closure on contact with an envelope inserted into the machine, a solenoid in circuit with said switch for energization upon closure thereof and having an armature engaged to said latch member whereby upon closure of the switch said latch member will be tripped to release the lever for moving the driven member into clutch engagement, circuit-opening means engaged to said rock lever for deenergization of the solenoid upon clutch engagement, and means for returning the rock lever to latched condition for disengagement of said clutch in predetermined timed relation to engagement thereof.

26. In a machine for affixing labels to envelopes and the like, drive means comprising a prime mover, a drive shaft associated with said prime mover for operation thereby, a driven shaft, a clutch comprising a driving member mounted on said drive shaft, and a driven member disposed on said driven shaft for coupling engagement to effect transmittal of rotation to said driven shaft, a rock lever engaging said driven member for optionally moving same into clutch-engaging position, a latch member pivotally mounted in the machine for engaging said lever to normally maintain the clutch in disengagement, a first switch having a contact blade secured to said rock lever for operation upon movement thereof, said first switch being in closed condition when said lever and latch member are engaged, a second switch normally open and disposed for closure on contact with an envelope inserted in the machine, a solenoid having an armature engaged to said latch member, said solenoid being in circuit with said first and second switches whereby upon closure of said second switch the solenoid is energized to cause tripping of the latch member for releasing the rock lever to allow clutch engagement with the first switch being opened by movement of the rock lever to thereby deenergize the solenoid, and cam means operable by said shaft for returning the rock lever to latched condition for disengagement of the clutch.

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