

945,838.

5 SHEETS—SHEET 1.



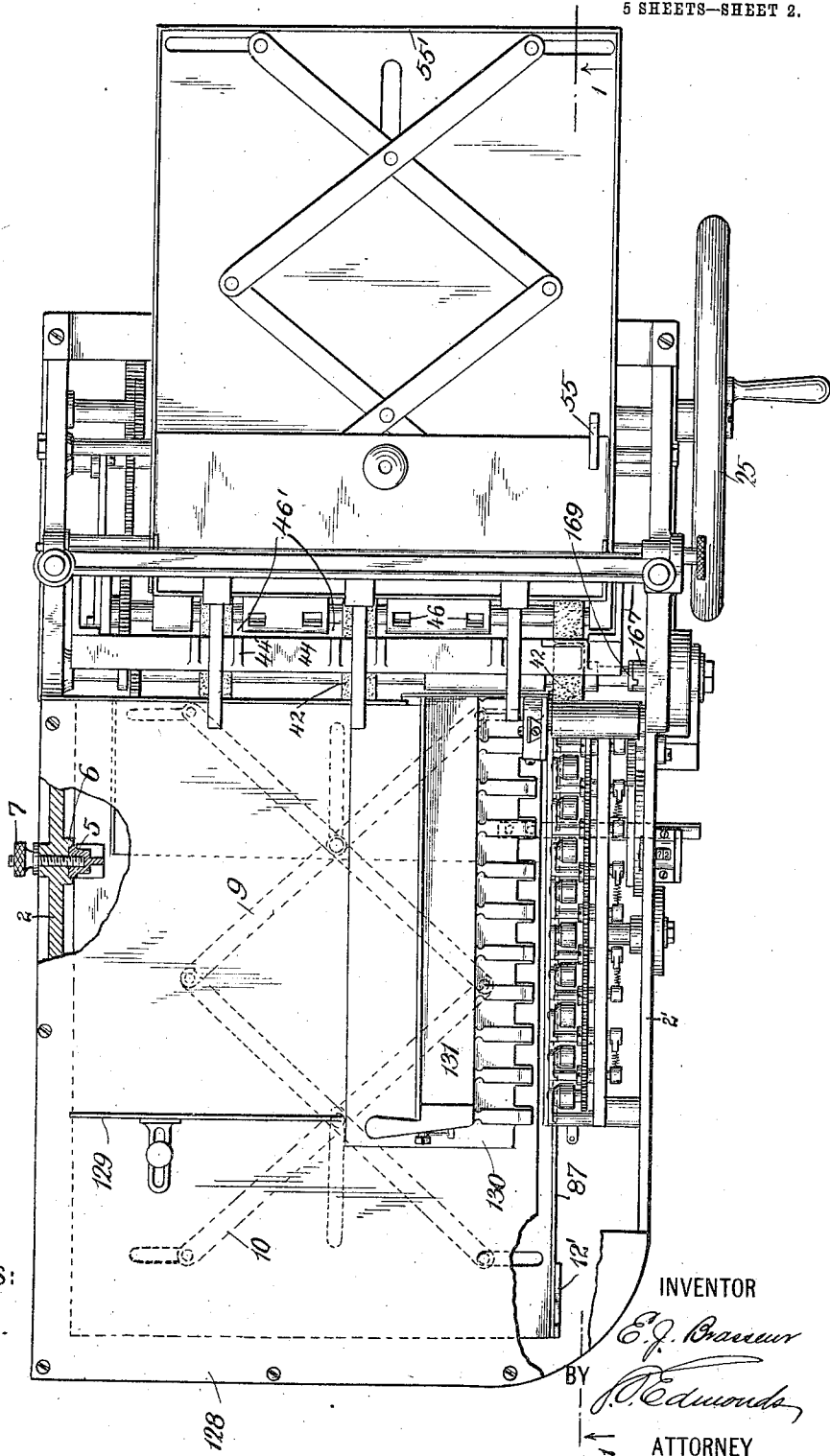
E. J. BRASSEUR.
 ENVELOP SEALING AND STAMP AFFIXING MACHINE.
 APPLICATION FILED MAR. 14, 1908.

945,838.

Patented Jan. 11, 1910.

5 SHEETS—SHEET 2.

Fig. 2,



WITNESSES:
[Signature]
[Signature]

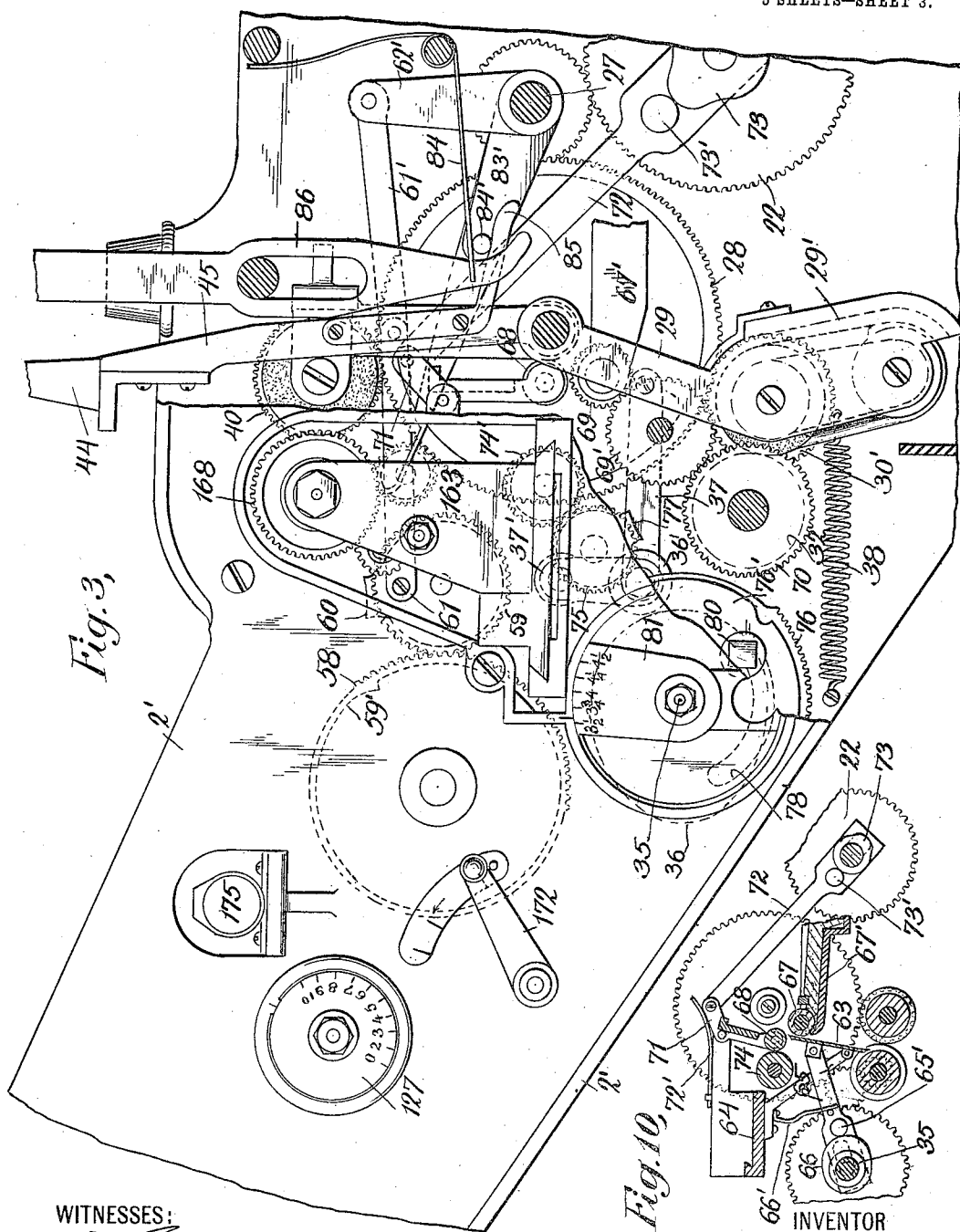
INVENTOR
E. J. Brasseur
 BY
[Signature]
 ATTORNEY

E. J. BRASSEUR.
 ENVELOP SEALING AND STAMP AFFIXING MACHINE.
 APPLICATION FILED MAR. 14, 1908.

945,838.

Patented Jan. 11, 1910.

5 SHEETS—SHEET 3.



WITNESSES:

H. Edmund.
J. Bartlett.

Fig. 10, 72, 71

INVENTOR

E. J. Brasseur

BY

R. Edwards
 ATTORNEY

E. J. BRASSEUR.
 ENVELOP SEALING AND STAMP AFFIXING MACHINE.
 APPLICATION FILED MAR. 14, 1908.

945,838.

Patented Jan. 11, 1910.

5 SHEETS—SHEET 4.

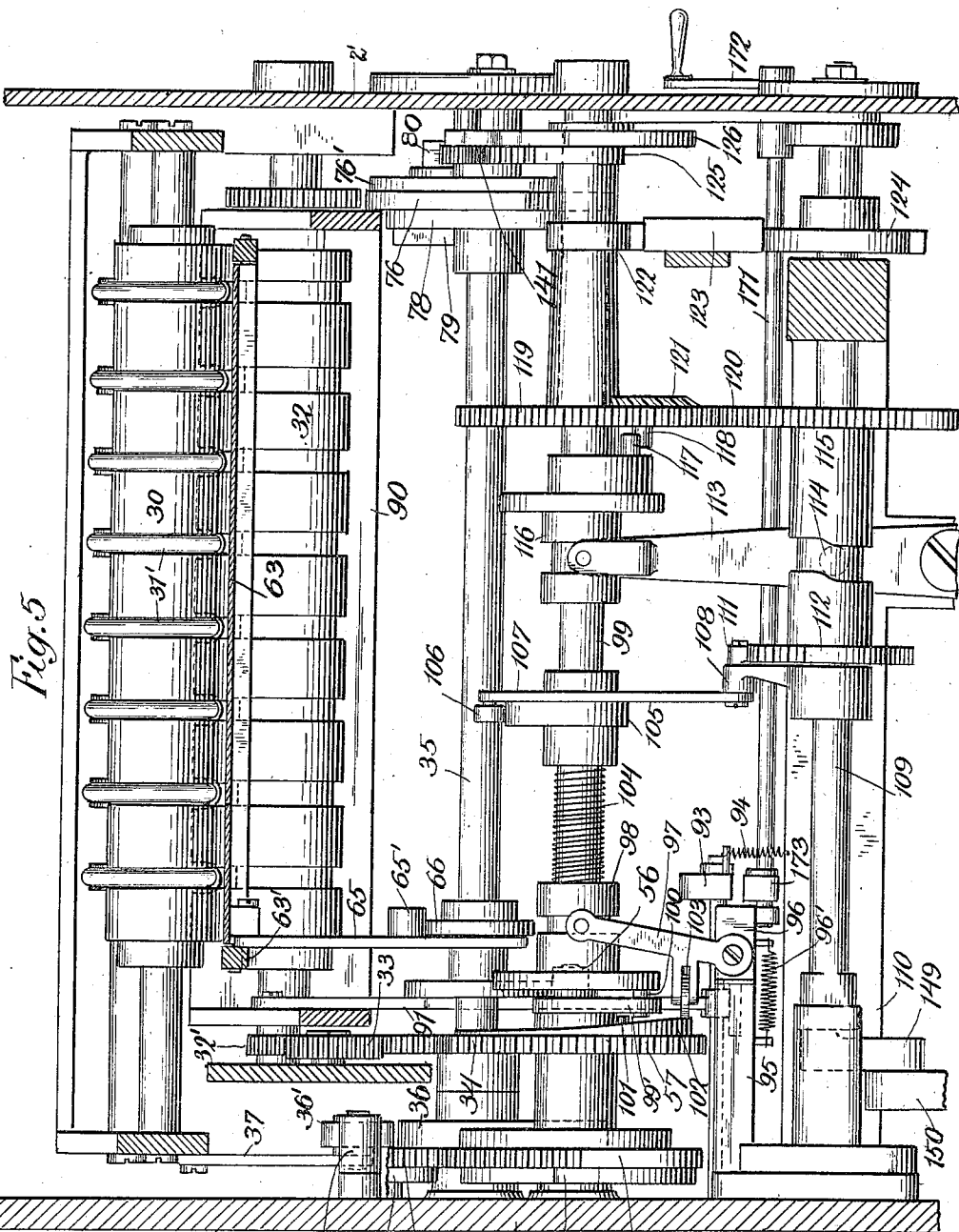


Fig. 5

WITNESSES:

J. Edmunds
J. Bartholomew

INVENTOR

E. J. Brasseur
 BY *J. Edmunds*
 ATTORNEY

E. J. BRASSEUR.
 ENVELOP SEALING AND STAMP AFFIXING MACHINE.
 APPLICATION FILED MAR. 14, 1908.

945,838.

Patented Jan. 11, 1910.

5 SHEETS—SHEET 5.

Fig. 6,

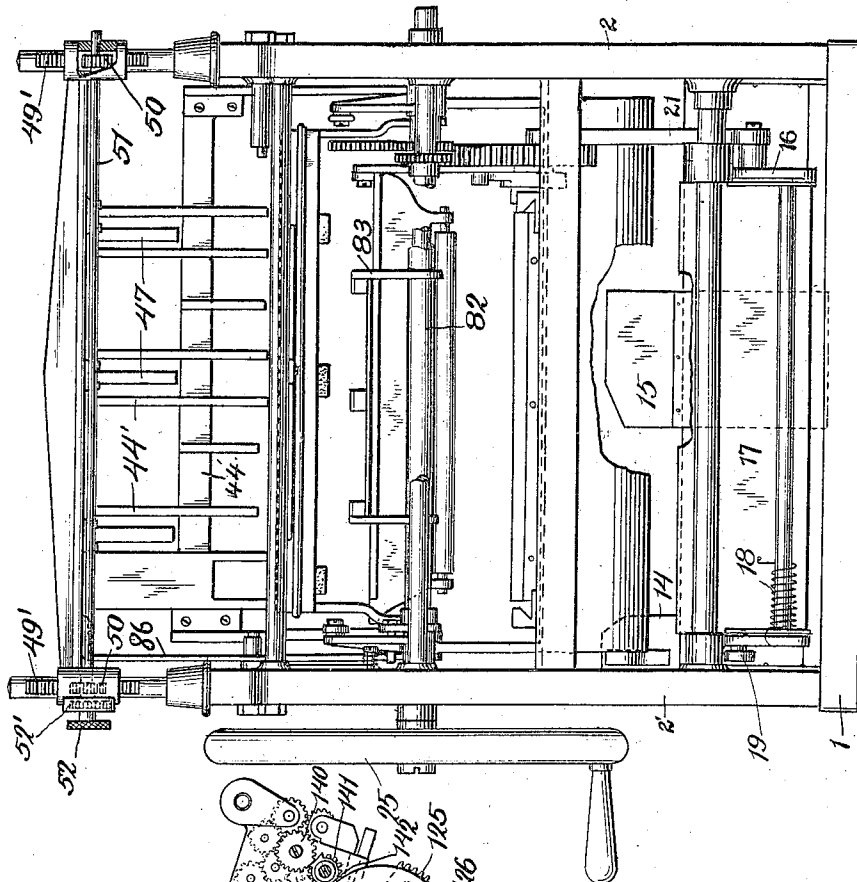


Fig. 7,

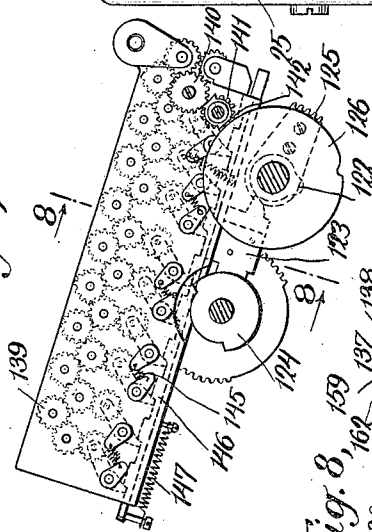


Fig. 8,

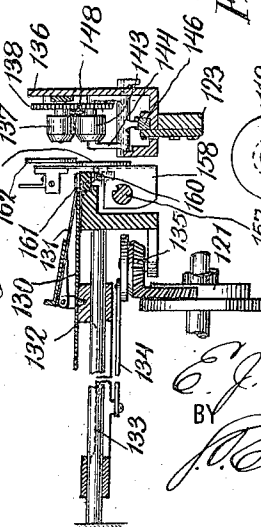
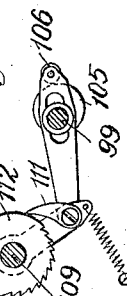


Fig. 9,



WITNESSES:

Edmund
J. Bartlett

INVENTOR

E. J. Brasseur
 BY *R. Edmunds*
 ATTORNEY

UNITED STATES PATENT OFFICE.

ERNEST J. BRASSEUR, OF CHICAGO, ILLINOIS, ASSIGNOR TO A. B. DICK COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ENVELOP-SEALING AND STAMP-AFFIXING MACHINE.

945,838.

Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed March 14, 1908. Serial No. 421,017.

To all whom it may concern:

Be it known that I, ERNEST J. BRASSEUR, a subject of the King of Belgium, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Envelop-Sealing and Stamp-Affixing Machines, of which the following is a specification.

This invention relates to machines for sealing envelopes and affixing stamps thereto. More specifically, the invention relates to machines for this purpose of the type disclosed in an application filed by me March 23, 1907, and serially numbered 364,125.

One object of the invention is to provide an envelop-sealing and stamp-affixing machine having a provision for adjustment whereby the stamps may be affixed to the envelopes in the desired position with relation to the edges of the envelopes; with such an adjustment, the machine may be used to affix stamps to envelopes of different sizes and the stamps affixed in all cases at the desired distance from the upper edge of the envelop.

Another object of the invention is to so construct a machine of this type that when the operation of affixing stamps to envelopes is started the affixing of a stamp to the first envelop to be fed forward is assured and the forwarding of a stamp before an envelop is in position to receive it is avoided.

A further object of the invention is to so improve the construction of machines of this type as to secure greater reliability and efficiency in operation and to permit the machine to be run at comparatively high speed by an unskilled operator.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which Figure 1 is a central section of the machine on line 1—1 of Fig. 2; Fig. 2 is a top view broken away in part; Fig. 3 is an elevation of a portion of the machine with the side-frame broken away in part; Fig. 4 is a detail view hereinafter referred to; Fig. 5 is a horizontal section of a portion of the operating mechanism; Fig. 6 is an end view of the machine broken away in part; Figs. 7, 8 and 9 are detail views of portions of the stamp-affixing mechanism, the line of the section of Fig. 8 being line 8—8 of Fig. 7; and Fig. 10 is a detail view showing a different position of certain of the parts shown in Fig. 1.

Referring to these drawings, the machine

consists of a base 1, upon which are mounted side-frames 2 and 2'; practically all of the operating parts of the machine are located between these side-frames and are mounted thereon. The unsealed envelopes are placed upon a tray 3 carried by an angle-piece 4 provided with an upwardly extending arm 5 adapted to be moved vertically between guides 6 formed on the inner side of the side-frame 2. A screw 7 having a knurled head extends through an opening in the side-frame 2 and a slot in the arm 5 to secure the tray 3 in any desired position of vertical adjustment. The unsealed envelopes are moved forwardly over the tray 3 by a pusher 8 which is actuated by a lazy-tongs consisting of two pairs of crossed levers 9 and 10. The arrangement of these levers is shown in dotted lines in Fig. 2. The levers 10 are pivotally connected by a stud 11, which extends downwardly through a slot in tray 3 and has one end of a spring 12 connected thereto, the other end of the spring being secured to the piece 4. As will be readily understood, this spring acts on the levers 9 and 10 to draw them toward a position of parallelism, and thus force the pusher 8 forwardly over the tray 3. In order to hold the pusher in inoperative position, as when placing unsealed envelopes upon the tray 3, a stud 8' is fixed to the pusher and is adapted to be received and held in a notch formed in a piece 12' extending upwardly from the tray 3 at the rear edge thereof. The pusher acts to press the unsealed envelopes against a plate 13 at the forward end of tray 3. This plate extends but a short distance above the surface of tray 3, except at one end thereof, where it is extended, as indicated at 14, Fig. 6, to coact with one end of the forward envelop on tray 3 to support the latter in a vertical position. A second end-supporting plate 15 (Fig. 6) is adapted to slide back and forth upon the stop-plate 13 to coact with the opposite end of the forward envelop, the provision for adjustment of this plate permitting coaction thereof with the ends of envelopes of different sizes.

Extending between the side-frames is a rod on which are mounted two levers 16 having a flap-turning member 17 pivotally mounted upon the free ends thereof, this member being acted upon by a spring 18 (Fig. 6) to press its free edge against the

forward envelop on the tray 3. At one end, member 17 carries a roller 19 adapted to ride on the plate, 13 and a cam 20 fixed thereto in order to give the desired movement to the upper edge of the flap-turning member 17 as the latter is reciprocated. One of the levers supporting the flap-turning member 17 is connected by a link 21 with a gear 22 mounted on a stub-shaft projecting inwardly from the side-frame 2, this gear meshing with a pinion 23 mounted on a power-shaft 24. This shaft is driven in any suitable manner, as by means of an electric motor or the hand-wheel 25 shown in Figs. 2 and 6. Gear 22 also meshes with a pinion 26 loosely mounted on a shaft 27 journaled in bearings formed on the side-frames, and this pinion meshes with a gear 28 loosely mounted on a stub-shaft projecting inwardly from the side-frame 2. Loosely suspended from this stub-shaft and from a similar stub-shaft projecting inwardly from the side-frame 2' by means of arms 29, (Figs. 1, 3 and 4), is a frame 29' in which two forwarding-rollers 30 and 31 are journaled, the shaft of the roller 30 carrying a pinion 30' which meshes with the gear 28. Each of these rollers has a plurality of circumferential grooves therein, and endless belts 31' run in the grooves of these rollers, their outer faces being flush with the faces of the rollers.

Directly opposite the roller 30, is a forwarding-roller 32 mounted in bearings formed in the side-frames, the shaft of this roller carrying a pinion 32' which meshes with an idler-pinion 33, this pinion also meshing with the gear 28. Roller 32 is also provided with circumferential grooves, for a purpose hereinafter mentioned. The pinion 33 meshes with a gear 34 secured upon a shaft 35 mounted for rotation in bearings formed in the side-frames 2 and 2', and this shaft carries a cam 36 against which bears a roller 36' carried by links 37, 37', the link 37 being pivotally connected at one end to one of the arms 29 and the link 37' being pivotally mounted on a stud projecting inwardly from the side-frame 2. A spring 38 is secured at one end to the frame 29' and at the other to the side-frame 2, so as to hold the roller 36' against the surface of cam 36.

An upper forwarding-roller 39 is mounted for rotation in arms 39' loosely mounted on the stub-shaft which carries the gear 28 and the similar stub-shaft on the other side of the machine, and the shaft of this roller carries a gear 40 meshing with the gear 28. The arms 39' carrying this roller are connected by a bar 41, which is acted upon by a spring 41' secured on a rod extending between the side-frames to turn roller 39 about its pivotal axis and carry it into engagement with a second upper forwarding-roller 42, which is mounted for rotation in stationary

bearings supported on the side-frames. The shaft of roller 42 also carries a gear 43 which meshes with a stationarily mounted idler-pinion 43' meshing with the gear 28. The rollers 39 and 42 preferably consist of a plurality of roller sections, these sections being arranged opposite each other, as shown in Fig. 2. When the envelops are forwarded upwardly between these two sectional rollers, they pass up in front of a pusher 44 carried by arms 45, which are loosely pivoted at their lower ends, one upon the stub-shaft carrying the gear 28 and the other upon the similar stub-shaft on the other side of the machine.

The pusher consists of a bar, to which the reference 44 is applied in the drawings, extending across the machine as shown in Fig. 6; the bar is shown in section in Fig. 1; it is provided with a plurality of integral fingers extending upwardly and downwardly therefrom, as shown at 44' in Fig. 6, and the ends of the downwardly extending fingers of this pusher are adapted to lie between the sections of the forwarding-roller 42 when the pusher 44 is in the rearward position, this position being indicated by the dotted lines in Fig. 1. When the pusher is turned about its pivotal support, it moves the envelop which is then in front of it onto the receiving tray 45' for the sealed envelops. The edge of this tray is provided with a plurality of slots, as shown at 46' in Fig. 2, into which the downwardly extending arms of pusher 44 may pass.

Adjacent to the edge of tray 45' are a plurality of openings, in each of which is mounted a hinged member 46, (Figs. 1 and 2) acted upon by a spring to hold it yieldingly in a vertical position, as shown in Figs. 1 and 2. The hinges 46 lie opposite the spaces between the downwardly extending arms on the pusher 44. When pusher 44 moves an envelop onto tray 45', the lower edge of the envelop engages the hinged members 46 and turns those members on their pivots until they pass into the openings in tray 45', and as the envelop passes beyond the hinged members they spring up into the vertical position again, so that when the pusher 44 is withdrawn the envelop will be held against backward movement at its lower edge by the hinges 46. The upper edge of the envelop will be held by vertically adjustable, inclined stop-fingers 47, which extend between the upwardly extending fingers of the pusher 44. These fingers are carried by a bar 48, which is adapted to slide vertically on posts 49. Each of these posts has a rack 49' formed therein, with which meshes a pinion 50 carried by a rod 51 mounted for rotation in bearings formed on the bar 48. A knurled thumb-nut 52 is secured on the end of rod 51 for operating the latter, and the rod may have a friction wheel 52' se-

cured thereon to hold the rod against unintended movement.

Mounted on tray 45' is a yielding stop 53 adapted to slide over the surface of the tray and to hold the envelopes in an upright position, the envelopes being held between this stop and the hinges 46 and fingers 47. This stop is actuated by a lazytongs similar to that above described in connection with the pusher for the unsealed envelopes, this lazytongs being shown in Figs. 1 and 2. A spring 54 acts on the levers of this lazytongs to draw them to a position of parallelism, and thus press the stop 53 over the surface of tray 45' with a yielding pressure. In order to hold the stop 53 in the rearward position, to permit of more readily removing the sealed envelopes, a latch 55 is secured thereon and adapted to coact with the upturned edge 55' of tray 45'.

Mounted for rotation on a stationary stub-shaft 56 projecting inwardly from the side-frame 2, is a gear 57, which meshes with the gear 34 on shaft 35. Shaft 56 also carries a mutilated gear 58 fixed to gear 57 and adapted to mesh with a gear 59 loosely mounted on a stub-shaft projecting inwardly from the side-frame 2. Secured to the mutilated gear 58 on shaft 56, is a stop-disk 59', with which coöperates a disk 60' secured to one face of the gear 59 and provided with a single tooth 60 adapted to lock gear 59 against rotation except when the teeth of the mutilated gear 58 are coacting with those of gear 59. A link 61 (Fig. 3) is pivotally connected to gear 59 eccentrically, and at its other end is pivotally connected to one of the arms 45 carrying the pusher 44. This arm is also connected by a link 61' to the free end of a crank 62 (Fig. 1) secured to the shaft 27, and the other end of shaft 27 carries a similar crank 62' (Fig. 3), which is linked in a similar manner to the other arm 45 carrying the pusher 44, so that both ends of pusher 44 move together.

The envelopes are forwarded, flap foremost, vertically upward, between the lower forwarding-rollers 30 and 32, and pass up along the face of a plate 63, which is pivotally mounted on arms 63' depending from an auxiliary frame 64. To this plate is pivotally connected one end of a link 65, in the other end of which is a slot through which the shaft 35 passes, and a stud 65' on this link bears upon the periphery of a cam 66 fixed on shaft 35. The lower edge of plate 63 is provided with teeth which project into the circumferential grooves in the roller 32, as indicated in Fig. 1, and a spring 66' bears against a pin on link 65, this spring acting on the link to hold the stud 65' always in contact with the surface of cam 66. As the envelop moves upwardly in front of plate 63, the latter is moved by cam 66 to the position in which it is shown in Fig. 10

and guides the flap of the envelop between two rollers 67 and 68. The two positions of these rollers and of plate 63 are shown in Figs. 1 and 10.

Roller 67 is provided with an absorbent surface and is mounted for rotation in bearings carried by a moistener-frame 67' mounted on a cross-bar 68'. This moistener consists of a receptacle for water as shown in Fig. 1 and a support for a wick 64' which feeds the water to the moistening-roller 67. On the end of the shaft of roller 67 is a pinion 69 (Fig. 3), which meshes with an idler-gear 69' mounted on a stub-shaft extending inwardly from the side-frame 2' and meshing with a gear 70 on the end of the shaft of the lower forwarding-roller 32 opposite the end carrying the pinion 32'. The roller 68 is journaled in arms 71, which are pivotally mounted upon the auxiliary frame 64, and one of these arms is pivotally connected to one end of a link 72, the other end of which is provided with a slot through which the shaft of gear 22 passes. On this shaft is mounted a cam 73 which coacts with a pin 73' on link 72 to turn arms 71 about their pivots and thus position the roller 68. A spring 72' (Fig. 10) bears on one of the arms 71 and tends to turn it in the direction to hold stud 73' against the surface of cam 73. Roller 68 is not positively driven but is rotated when carried into coaction with a roller 74 mounted parallel thereto in bearings carried by the side-frames. The shaft of this roller carries a gear 74' (Fig. 3) which meshes with an idler-gear 75 mounted on a stub-shaft projecting inwardly from the side-frame 2'. This gear is adapted to mesh intermittently with a mutilated gear 76, and a stop-plate 76' is secured to one face of mutilated gear 76 and coacts with a disk 77 provided with a single tooth and secured to one face of gear 75 to hold the gear 75 against rotation except when the teeth thereof are engaged by the teeth of mutilated gear 76.

An adjustment is provided for a purpose hereinafter set forth whereby the position of shaft 35 during the period of rest when the tooth on disk 77 is in coaction with stop-plate 76' may be regulated as desired. This is effected by arranging gear 76 and plate 76' in any suitable manner so that they may be turned on shaft 35 as desired and then locked upon the shaft when the proper position has been determined. In the construction illustrated, the gear 76 and plate 76' are loose on shaft 35 and at the side of gear 76 is a disk 78 (Fig. 5) which is secured to shaft 35. On the other side of disk 78 is an arm 79 projecting from a collar which is loose on shaft 35 as shown in Fig. 5.

A bolt 80 passes through openings in the stop-plate 76' and the mutilated gear 76 and the slot 78' in disk 78, and the end of 131

this bolt enters a threaded opening in the arm 79. In the side-frame 2' is an opening located in such a position that a wrench may be inserted through this opening to engage the head of bolt 80, and the opening for bolt 80 through gear 76 is so positioned that when the bolt is opposite this opening in the side-frame 2' the teeth of mutilated gear 76 are not in engagement with the teeth of gear 75. Shaft 35 passes through the bearing therefor in side-frame 2', and on its end carries a plate 81 provided with a plurality of scale markings as shown in Fig. 3, these marks being labeled, as shown in Fig. 3, to indicate different widths of envelops, and coacting with a mark on the frame.

Loosely mounted on shaft 27 is a sleeve 82 (Fig. 1), on which are a plurality of arms 83, which project inwardly of the machine and into the path of the envelops. At one end sleeve 82 is provided with a crank 83' (Fig. 3) and a spring 84 secured to the side-frame 2' bears on a pin 84' fixed to crank 83' to turn the sleeve in a direction to carry the ends of the arms 83 downwardly upon the upper edge of an advancing envelop. Such movement of arms 83 is arrested either by a finger 85 secured to one of the arms 45 carrying the envelop-pusher 44 or by the lower end of an arm 86 depending from the bar 48 which carries the fingers 47.

As thus constructed, the pile of unsealed envelops is placed upon the tray 3 as above described and pressed forwardly over the same by the pusher 8. The envelops are held against edgewise movement in one direction by the up-turned edge of tray 3, shown at 87 in Fig. 2, and in the other direction by a guide 88 depending from a rod 88' extending between the side-frames of the machine and secured in any position upon rod 88' by a set-screw 89. The foremost envelop of the pile is thus pressed against the plate 13 and one end of the envelop is supported by the extension 14 and the other by plate 15, the latter having been moved to such a position on plate 13 that it coacts with the end of the envelop. The drive-shaft 24 is then rotated by the means provided for that purpose and operates to reciprocate the flap-turning member 17 through the gear 22, link 21 and arms 16. The drive-shaft also operates by means of gears 22 and 26 to rotate the gear 28, and this gear drives the lower forwarding-rollers 30, 31 and 32 and the upper forwarding-rollers 39 and 42. Gear 28 also drives shaft 35 through pinion 33 and gear 34. As member 17 moves vertically upward, its edge catches under the flap of the foremost envelop and then moves outwardly from the plates 14 and 15, due to the coaction of roller 19 with cam 20, so as to turn the flap of the envelop relatively to the body portion

thereof. As the flap in its turning movement approaches the plane of the body portion of the envelop, the rollers 30 and 31 have been moved away from the roller 32 by the cam 36 on shaft 35, and the flap is caught by the belts 31' which are then in motion and which with the member 17 serve to turn the flap until it lies in the plane of the body portion of the envelop. Cam 36 then allows rollers 30 and 31 to be drawn by spring 38 to the left in Fig. 1 until the flap of the envelop is caught between rollers 30 and 32 and the entire envelop is forwarded vertically upward, flap foremost. At this time, the rotation of shaft 35 causes cam 66 to turn the plate 63 about its pivotal axis to the position in which it is shown in Fig. 10, and cam 73 on the shaft of gear 22 turns roller 68 about its pivotal axis to the position in which it is shown in Fig. 10. Plate 63 thus serves to guide the flap of the envelop between roller 68 and the roller 67 mounted on the frame of the moistener. Roller 67 is continuously rotated by means of gears 69, 69', 70, 32', 33 and 28, in a direction opposite to the direction of movement of the flap of the envelop as it passes over roller 67, and as the surface of this roller is kept moistened by wick 64' the gummed portion of the flap of the envelop is thoroughly moistened. As soon as the end of the flap passes under roller 68, the latter is moved to the position in which it is shown in Fig. 1 by spring 72', cam 73 permitting this movement, and roller 68 when in this position insures good contact of the gummed portion of the flap with the moistening-roller 67. As roller 68 moves thus, plate 63 is moved back to its original position, as shown in Fig. 1, by springs 66', such movement being permitted by cam 66, so that as the body portion of the envelop is fed upwardly by rollers 30, 32, it passes along the face of plate 63 and between rollers 68 and 74, the natural tendency of the flap to turn relatively to the body portion of the envelop, together with the relative positions of the several rollers after roller 68 has been moved to the right, insuring the passage of the body of the envelop between rollers 68 and 74, rather than between rollers 68 and 67, following the flap.

The shape of cam 73 is such that roller 68 remains in the position in which it is shown in Fig. 1 but a short time and is immediately moved back to a position in which the envelop is grasped between it and roller 74. Just before the envelop is grasped between rollers 68 and 74, the ends of the fingers 83 come down upon the upper edge of the envelop to arrest it momentarily in its passage through the machine and insure proper positioning of the envelop in the machine with its upper and lower edges horizontally disposed. This movement of

fingers 83 is effected by spring 84 when permitted by the finger 85 as hereinafter explained. Roller 68 is not positively driven, so that it rotates only when it coacts through an envelop with the roller 74. Roller 74 is rotated by gear 74' on its shaft, meshing with gear 75 (Fig. 3), and gear 75 is driven intermittently by the mutilated gear 76 on shaft 35, gear 75 being locked against movement when its teeth are not engaged by the teeth of the mutilated gear. Thus, roller 74, and with it roller 68, has an intermittent movement, this movement being such that at the proper time rollers 74 and 68 will be rotated to forward the envelop lying between them vertically upward until its upper edge passes between the upper forwarding-rollers 39 and 42. These upper forwarding-rollers, rotated as above described, pass the envelop upward between them and in front of the envelop-pusher 44. Pusher 44 is moved forwardly from the position in which it is shown in dotted lines to the position in which it is shown in full lines in Fig. 1 as soon as the envelop is passed upwardly in front of it, this movement of the pusher being effected by a link 61 (Fig. 3) connected thereto and to gear 59 which is operated intermittently to make one revolution by the mutilated gear 58 mounted for rotation on stub-shaft 56 and driven by shaft 35 through the gears 34 and 57. In its backward position, the lower ends of the fingers on pusher 44 enter between the sections of the roller 42, so that the envelop forwarded by the upper forwarding-rollers must pass in front of the pusher; and in its forward position the lower ends of these fingers enter between the sections of the forwarding-roller 39 and into the wide notches 46' (Fig. 2) on the edge of the tray 45' for the sealed envelop. The portions of the edge of this tray between these notches also extend between the sections of the roller 39, as will be seen from Figs. 1 and 2, so that the envelop moved forward by pusher 44 must pass onto the surface of the tray 45'. As it does so, it engages the hinges 46 and turns these down into the plane of tray 45' until it passes them, whereupon the hinges spring upward into the vertical position in which they are shown. The hinges thus coact with the lower edge of the envelop when pusher 44 has been withdrawn, to prevent the envelop from being moved backward with the pusher and the upper edge of the envelop is similarly held by the fingers 47. The position of these fingers is adjustable vertically, so that they will cooperate properly with envelops of various sizes. This adjustment is effected by turning the thumb-nut 52, thus actuating the pinions 50 which coact with the racks on posts 49. In adjusting the fingers 47 thus, an adjustment is simultaneously effected of the range of movement

of the stop-arms 83 due to the fact that the plate 86, depending from the support 48 for fingers 47, has a projecting finger at its lower end extending under the pin 84' on the crank 83' of the arms 83. It will be seen that as the pusher 44 is reciprocated in the manner above described, the finger 85 thereon will permit pin 84' to be moved downwardly by spring 84 to bring the ends of the stop-arms 83 down upon the upper edge of an envelop passing through the machine. The lower end of plate 86, however, coacts with the pin 84' to preclude the pin from making the full movement which the finger 85 on the pusher 44 would permit, and the point at which plate 86 arrests the movement of pin 84' is determined by the position of the fingers 47, which in turn are positioned with respect to the size of the envelops being sealed. As soon as the foremost envelop on the unsealed-envelop tray is fed forward, the pusher 8 on that tray moves the entire pile forward, so that the next envelop is in position to have its flap caught by the flap-turning member 17. On the sealed-envelop tray, the envelops are pressed forward against the hinges 46 and fingers 47 by the stop 53, which yields and moves backwardly over the tray as the stack of sealed envelops increases.

The stamps are affixed to the envelops as they pass between the rollers 42 and 39. In order to guard against wasting stamps, I provide means for controlling the actuation of the stamp-feeding and -affixing mechanism, such that this mechanism will be actuated only when an envelop is in position to be fed through the machine. This means includes a feeler 90 loosely suspended from the shaft of roller 74 directly over the forward envelop in the unsealed-envelop receptacle and adapted to reciprocate unrestrictedly, in which case the stamp-affixing mechanism will not operate, or on being reciprocated, to come into engagement with the flap of the forward envelop when the latter has been turned by the flap-turning member 17, and by having its movement thus restricted to permit the stamp-affixing mechanism to operate. Along one edge of feeler 90 are a number of notches (Fig. 5) which receive the belts 31' at the end of the movement of the feeler to the right in Fig. 1, when that movement is unrestricted. One of the arms by which the feeler 90 is loosely suspended is pivotally connected to a link 91, which passes directly under shaft 35 and carries a roller 91' bearing on the surface of a cam 92 secured on shaft 35. The other end of link 91 is pivotally connected to a crank on a sleeve which is loose on a stub-shaft projecting inwardly from the side-frame 2, and this sleeve carries a stop-finger 93. A coil-spring 94 is connected to finger 93 and to the frame of the machine and

acts upon the finger in a direction to hold roller 91' yielding in engagement with the periphery of cam 92. A hollow boss 95 (Fig. 5) projects inwardly from the side-frame 2, and a stud 96 is movable within this boss, a spring 96' being arranged to draw stud 96 into the opening in boss 95. A floating clutch-lever 97 is pivotally connected at one end to the end of stud 96 and at the other end is bifurcated, the bifurcated ends extending into a circumferential groove in a clutch-member 98. This clutch-member is loose on a shaft 99, one end of which is journaled in a bearing in the side-frame 2' and the other end of which is supported by the end of the stationary stub-shaft 56. Secured on the end of shaft 99 is a plate 99', through which extends a pin 100 on the clutch-member 98, adapted to be engaged by a stud 101 on the face of the gear 57. A cam 102 is also formed on this face of the gear. A roller 103 is carried by the floating clutch-lever 97 and is adapted to ride on the cam 102. The loose clutch-member 98 is pressed in the direction of the axis of shaft 99 by a spring 104 coiled on that shaft, and this spring is considerably stronger than the spring 96' which positions the stud 96. A cam 105 is secured on shaft 99 and coacts with a roller 106 carried by a link 107 which is provided with a slot through which the shaft 99 extends as shown in Fig. 9. The other end of link 107 is connected to a link 108 which is loose on a shaft 109, this shaft being journaled in bearings, one formed in the side-frame 2' and the other in an auxiliary frame 110 secured to the side-frame 2. The pivot connecting links 107 and 108 also carries a pawl 111 which is adapted to coact with the teeth of a ratchet 112, secured on shaft 109. This ratchet-wheel 112 is provided with ten teeth extending around one-half of its circumference and the other half of the wheel is smooth.

A lever 113 is pivotally mounted upon the auxiliary frame 110 and provided with a stud 114 which enters a cam-groove formed in a sleeve 115 secured upon the shaft 109. The free end of lever 113 is bifurcated and the bifurcated ends extend into a circumferential groove in a clutch-member 116 which is splined on shaft 99. This clutch-member carries a stud 117 adapted to engage a stud 118 on one face of a mutilated gear 119, the teeth of which extend around one-half of its circumference. This gear is adapted to mesh with a similar mutilated gear 120 secured on shaft 109, the teeth of the gears 119 and 120 coming into mesh as the pawl 111 coacts with the last of the ten teeth on the ratchet-wheel 112. The mutilated gear 119 is also provided with bevel-gear teeth 121 on one of its faces, for a purpose hereinafter set forth.

Formed on a sleeve which is integral with

gear 119 and loose on shaft 99 in a cam 122 (Figs. 5 and 7) adapted to actuate a sliding block 123 and on shaft 109 is a notched disk 124, the notch of which is arranged to receive the end of block 123 when the latter is actuated by cam 122, the disk precluding movement of block 123 except at the proper time. Also mounted on shaft 99 is a sector-gear 125 and a stop-disk 126. The end of shaft 109 extends through its bearing in frame 2' and has a disk 127 secured thereto, this disk being provided with scale markings as shown in Fig. 3 and the frame adjacent to the disk having a cooperating mark thereon.

The stamps to be affixed are fed from sheets consisting of ten rows of stamps and ten stamps in each row. These sheets are placed upon a tray 128 (Fig. 2) and positioned by an adjustable guide 129. A plate 130 is adapted to move over this plate and at its forward edge is provided with a plurality of projecting fingers spaced apart as shown. Pivoted on plate 130 is a plate 131 having corresponding fingers at its edge overlying the fingers of plate 130, this plate being acted on by a spring to hold the two lines of fingers in engagement. Plate 130 is secured on a support 132 (Fig. 8) adapted to slide on a rod 133 extending between the side-frames and a link 134 is connected at one end to this support and at the other is pivoted eccentrically to the upper face of a bevel-gear 135 adapted to mesh with the mutilated bevel-gear 121, the teeth of these gears being such that one revolution of mutilated gear 121 effects one revolution of gear 135.

Mounted for rotation upon the inner side of a plate 136 (Fig. 8) secured to frame 2' are a plurality of rollers 137 shaped as shown in Fig. 8 and each having a gear 138 formed on the end thereof. Between each pair of adjacent gears 138 is an idler-gear 139 meshing therewith so that all the rollers rotate in unison. The shaft of the forward-roller 137 is extended through plate 136 and carries a gear meshing with a gear 140 which meshes with a gear 141, and secured to this gear is a stop-disk 142 having two teeth as shown. Gear 141 is adapted to be engaged and rotated by mutilated gear 125 and the stop-disk 126 cooperates with disk 142 to preclude rotation of gear 141 except when it is so engaged.

Directly underlying each of the rollers 137 is a similar roller 143, each of these rollers being carried by a small bell-crank frame 144 pivoted on plate 136. Each of the rollers 143 has a gear formed thereon meshing with the gear 138 of the roller 137 directly overlying it. Springs 145 are arranged to act on the bell-cranks 144 to turn them in a direction to carry the rollers 143 into engagement with the rollers 137. The

downwardly extending end of each of the bell-cranks 144 enters a notch in a bar 146 (Figs. 7 and 8), which is secured to the sliding block 123. A spring 147 (Fig. 7) connected to bar 146 and the frame 136 serves to move bar 146 and block 123 in the direction opposite to that in which they are moved by cam 122. Each of the rollers 137 and 143 may have a circumferential groove therein between the body of the roller and the driving gear therefor, and a strip 148 may be so supported as to extend through these grooves opposite the line of engagement of the sets of rollers to preclude a stamp-strip from moving laterally and being caught in the gearing.

On the end of shaft 109 is a crank 149 (Fig. 5) connected by a link 150 to a sector-gear 151 (Fig. 1) pivoted on the frame 2. Gear 151 meshes with a pinion 152 which, with a gear 153, is mounted on a stub-shaft, and gear 153 meshes with a pinion on a shaft 154 which, near the other side of the machine, carries a bevel-gear 155 meshing with a bevel-pinion 156 on a shaft 157 mounted for rotation in bearings in a suitable auxiliary frame as shown in Fig. 1. Shaft 157 has a spiral groove cut therein as shown and extends through an opening in a block 158, this block being provided with a stud entering the spiral groove so that rotation of the shaft causes movement of the block axially thereon. Block 158 has a cutting roller 159 mounted for rotation in a bearing thereon, the shaft of which carries a pinion 160 meshing with a rack 161 secured to the auxiliary frame which supports shaft 157. Extending upwardly from the upper end of block 158 is an arm carrying an upper cutting-roller 162 adapted to coact with roller 159.

The side-frame 2' is formed to provide a support for a removable moistener 163 (Figs. 1 and 3) for the gummed surface of the stamps. This moistener comprises two rollers 164 and 165, preferably provided with rubber surfaces, mounted for rotation in bearings in the frame of the moistener, the surfaces of these rollers being in contact and the roller 164 being partially immersed in water in a trough at the bottom of the moistener. Guide-rollers 165' and 166 are also mounted for rotation in bearings formed in the frame of the moistener. These rollers are all geared to a stub-shaft 167 (Fig. 2) carrying a gear 168 (Fig. 3) and this stub-shaft is adapted to be connected to the shaft of the upper forwarding-roller 42 by the clutch 169 (Fig. 2) when the moistener is slid into position. When the moistener is in position, roller 165' lies directly under and coacts with the end section of the upper sectional forwarding-roller 42 to forward a stamp and guide it downward between the moistening-roller 165 and the guide-rollers 166, a deflector-

plate 170 in the moistener insuring proper movement of the stamp. The gum on the stamp is moistened by roller 165 and the stamp is guided by the frame of the moistener upwardly between the two rollers 166, 70 preferably provided with a plurality of circumferential grooves, and is pressed onto an envelop passing between rollers 39 and 42 by the end section of roller 42.

Mounted for rotation in suitable bearings 75 is a shaft 171 (Fig. 5) on the end of which is secured a handle 172 (Fig. 3) lying adjacent to the side-frame 2' which may be suitably marked to indicate the three positions of the handle and shaft. On the other end 80 of shaft 171 is secured a lever 173, one end of which is adapted to coact with the end of the stud 96 and the other end of which is adapted to engage the finger 93. When handle 172 is in the position shown in Fig. 3, the end of lever 173 is opposite the end of stud 96 as shown in Fig. 5 and holds the stud against movement outwardly in its bearing 95. When handle 172 is moved to an intermediate position, lever 173 is in the position 90 shown in Fig. 1, free of finger 93 and not obstructing the movement of stud 96. When handle 172 is moved to the extreme left in Fig. 3, a projection on the lower end of lever 173 engages finger 93 and prevents 95 the latter from being moved opposite the end of stud 96 so as to obstruct the movement of the latter. A spring 174 coacts with lever 173 to hold it in the first or second of the three positions named; when in the 100 third position the spring is strained by the lever and as movement to this position strains spring 94 as well as spring 174, the lever will turn to the intermediate position as soon as it is released. 105

A cyclometer register 175 is mounted on the frame of the machine and connected in any suitable manner to the stamp-forwarding and affixing mechanism so as to be operated only when a stamp is affixed to an envelop. 110 Preferably the register is so inclosed within the frame of the machine that it cannot be operated in any way other than by operating the machine to affix stamps.

The operation of the mechanism for sealing the envelops has been above described. 115 The operation of the mechanism for affixing the stamps to the envelops will now be described. The pile of sheets of stamps is placed upon tray 128 and the top sheet is 120 passed forwardly until its edge is gripped between the fingers at the edges of plates 130 and 131. The power-shaft is then rotated and the machine operated as above described. In each rotation of shaft 35, the 125 feeler 90 will be reciprocated by the cam 92, the forward edge of the feeler either coming into engagement with the flap of an envelop or crossing the path of the envelop, its fingers passing between the belts 31'. The stop- 130

finger 93 is rocked on its pivot in correspondence with the reciprocation of the feeler 90; when the edge of the feeler crosses the path of the envelops, the end of stop-finger 93 moves to a position opposite the end of stud 96, but if the reciprocation of feeler 90 is restricted by the feeler coming into engagement with the flap of an envelop, the movement of stop-finger 93 ceases before the end of the finger is opposite stud 96. Also, in the operation of the machine, the gear 57 is continuously rotated, this gear being driven by the gear 34 on shaft 35. During each rotation of gear 57, the roller 103 on the floating clutch-lever 97 rides up on the cam 102 and the floating lever is thus moved about one or the other of its ends as a pivot.

The spring 104 on shaft 99 bearing against the clutch-member 98 is considerably stronger than the spring 96' actuating the stud 96, and therefore if the stop-finger 93 is not opposite the end of stud 96 so as to limit the movement of the latter, when roller 103 rides on cam 102, stud 96 will be moved outwardly in its bearing, that is, to the right in Fig. 5, and the end of clutch-lever 97 connected to the clutch-member 98 will remain stationary. If, on the other hand, stop-finger 93 is opposite the end of stud 96, the stud will be held against movement and cam 102 will act on lever 97 to cause the lever to move clutch-member 98 against the tension of spring 104 axially on shaft 99 to such extent that the pin 100 on clutch-member 98 will be moved out of the path of the pin 101 on gear 57. Thus, in every case when the upward movement of flap-turning member 17 does not result in the turning of the flap of an envelop and the movement of feeler 90 is not restricted by such flap, the stop-finger 93 moves to a position opposite the end of stud 96 and cam 102 causes movement of clutch-member 98 to carry pin 100 out of the path of pin 101, and in such case shaft 99 remains at rest. If an envelop flap is turned, however, and the movement of feeler 90 is restricted, finger 93 permits movement of stud 96 when lever 97 is actuated by cam 102 and clutch-member 98 remains at rest, so that as gear 57 rotates, stud 101 engages stud 100, thereby locking gear 57 in driving relation to shaft 99, and shaft 99 makes one complete revolution, at the end of which the continuance or discontinuance of its rotational movement will be governed as before by the extent of movement of feeler 90.

Each time shaft 99 makes one revolution, the cam 105 thereon operates pawl 111 to coact with one of the teeth of ratchet-wheel 112 and thus rotate shaft 109 one-twentieth of a revolution, such movement of shaft 109 taking place ten times in succession, so that the shaft is rotated one-half of a revolution.

When shaft 109 is moved thus by the coaction of pawl 111 with the last tooth of ratchet-wheel 112, the cam-groove in the sleeve 115 on shaft 109 actuates the lever 113 to move clutch-member 116 axially of shaft 99 until the stud 117 extends into the path of stud 118 on gear 119, and the next time shaft 99 makes one complete revolution gear 119 will turn with it. The movement of shaft 109 which effects the axial movement of clutch-member 116 carries the mutilated gear 120 to such position that the teeth thereof will be engaged by the teeth of the gear 119, and therefore when gear 119 turns through one complete revolution with shaft 99, the mutilated gear 120 and the shaft 109 to which it is fixed will be turned through one-half of a revolution, thereby carrying ratchet-plate 112 around to the position in which pawl 111 may coact with the first of the series of teeth thereon. As gear 119 makes the one revolution above referred to, the bevel-gear teeth 121 thereon engage the teeth of bevel-gear 135 and cause the latter to make one revolution, this movement of gear 135 operating through link 134 to move the plates 130 and 131, between which a stamp-sheet is gripped, forwardly until the fingers at the edges of the plates lie between the rollers 137 and 143, and then back again to their original positions. Just as the rotation of gear 135 commences, the cam 122 loose on shaft 99 and integral with gear 119 engages the block 123 and moves it and the bar 146 to which it is secured against the tension of spring 147, and bar 146 rocks each of the bell-crank levers 144 so as to carry the rollers 143 away from the rollers 137. The two lines of rollers remain separated thus until the plates 130 and 131 forward the edge of a stamp-strip between the two lines of rollers, whereupon cam 122 permits block 123 and bar 146 to be returned to their original positions by the springs 147 and 145, and rollers 143 are raised and grip the stamp-strip between them and rollers 137. Then as plates 130 and 131 are returned, the fingers thereof permit the stamp-sheet to slide between them.

Preferably the mechanism for operating the plates 130 and 131 is such that these plates are moved a little in excess of the amount necessary to feed the sheet the proper amount and in this movement the edge of the stamp-sheet engages the plate 148 and is buckled slightly thereby. When the two sets of rollers come together on the end strip of the sheet, they push this excess back between the plates and smooth out the sheet, as in this way a uniform and reliable feeding of the stamp-sheet is assured. When block 123 is actuated by cam 122, its end is preferably carried into engagement with the periphery of disk 124 where the latter is cut away so as to hold shaft 109

frictionally against unintended movement. If desired, the bar 146 may be arranged to act on the bell-crank carrying the forward roller 143 so as to press that roller against the overlying roller 137 when the rollers are in the Fig. 7 position.

To operate the machine to seal envelopes only, the handle 172 is turned to the position in which it is shown in Fig. 3, thus carrying lever 173 to the position in which it is shown in Fig. 5, with its end lying opposite the end of stud 96, and in each revolution of gear 57 clutch-member 98 will be moved axially of shaft 99, and that shaft, together with the entire stamp-affixing mechanism, will remain at rest. When it is desired to operate the machine to affix stamps to the envelopes, it is important that all of the parts be brought to such positions that the first envelop to be fed through the machine will have a stamp affixed thereto and no stamp or stamps will be forwarded to the position for affixing before an envelop reaches that position. To do this, handle 172 is turned to the left in Fig. 3 to such position that the lower end of lever 173 on the shaft of handle 172 engages stop-finger 93 and holds it in a retracted position, so that the movement of stud 96 is unobstructed. The machine is then operated, preferably at slow speed, and in each revolution of gear 57 the clutch-member 98 will be operated to connect the gear in driving relation to shaft 99 and the shaft will rotate with the gear. In each rotation of shaft 99, shaft 109 is turned through one-twentieth of a revolution by the ratchet and pawl mechanism above described, until the disk 127 on the end of shaft 109 is brought to such a position that the zero mark on the disk coincides with the mark on the frame 2' adjacent to the disk. The block 158 on shaft 157 and the cutting-rollers 159 and 162 carried thereby are then at the left end of their range of movement, as seen in Figs. 1 and 2. A sheet of stamps is then moved to the position in which its edge is gripped by the fingers on plates 130 and 131, a stack of envelopes is placed upon the tray 3, and operation of the machine may then be commenced. The first upward movement of flap-turning member 17 results in the turning of the flap of the foremost envelop, and in the first forward movement of feeler 90 the latter will have its movement arrested by the envelop flap; this will result in the coupling of gear 57 in driving relation to shaft 99 and shaft 99 will make one complete revolution. In this revolution, mutilated gear 119 will coast with the mutilated gear 120, so that shaft 109 will be turned through half a revolution. The following operations will then take place successively:—Cam 122 will operate bar 146 to separate the two lines of rollers 137 and 143; mutilated bevel-gear 121

will move plates 130 and 131 forward to insert the edge of the stamp-sheet between the two lines of rollers; cam 122 will then allow the two lines of rollers to be brought together by springs 145 and 147 to grip the end strip of the stamp-sheet between them; plates 130 and 131 will then be returned to their original position; the block 158 and the cutting-rollers 159 and 162 will then be operated by crank 149, link 150, sector 151 and the gearing connecting the sector to shaft 157, and the cutting-roller 159 will be rotated by the pinion 160 and rack 161, so that the two cutting-rollers will cut the end-strip of stamps from the sheet; mutilated gear 125 will engage the teeth of pinion 141, and by means of the gears 140, 139 and 138, all of the stamp-forwarding rollers 137 and 143 will be rotated a distance equal to the length of one stamp, and the cam-groove in sleeve 115 will operate lever 113 to move clutch-member 116 to inoperative position. The stamp fed forward in the movement of the rollers 137 and 143 will be grasped between the end-section of the upper forwarding-roller 42 and the roller 165', and as these rollers rotate continuously during the operation of the machine, the stamp will be detached from the strip and forwarded between them and guided by deflector-plate 170 between rollers 166 and 165, the latter of which moistens the gummed surface of the stamp; the stamp thus moistened passes up between the two rollers 166 being guided in this movement by a projection on the moistener frame, and is caught by the end-section of forwarding-roller 42, which presses it onto the surface of the envelop which has been forwarded through the machine.

In the succeeding operations of the machine, the shaft 157 will be rotated in the opposite direction, due to the opposite direction of movement of the sector gear 151, and such rotation of shaft 157 will operate to move the block 158 and the cutting-rollers carried thereby to the left in Figs. 1 and 2, until the block reaches its original position. This return movement of the block and cutting-rollers however, is effected in ten steps, since the half revolution of shaft 109 after mutilated gear 120 has passed out of engagement with gear 119 is effected in ten steps by the coaction of pawl 111 with the teeth of the ratchet-wheel 112. Each of these ten steps is made as shaft 99 makes one revolution and in each of these revolutions, the sector gear 125 rotates the roller 137 and 143 sufficient to feed the stamp-strip a distance equal to the length of one stamp. The end stamp of the strip is carried by this movement between the roller 165' and the end section of roller 42 which, being continuously driven, sever the stamp from the strip and affix it to the envelop which is

then in position between rollers 39 and 42 to receive it. When these ten stamps have been affixed, the operation is repeated, the stamp-sheet being again automatically forwarded by plates 130 and 131 to insert the end strip between rollers 137 and 143, this strip being then severed from the sheet and fed forward by the rollers and the end stamp of the strip severed and affixed. The disk 127 marked off as indicated and coacting with a mark on the frame, thus serves as an indicator of the proper time for starting operations to insure the affixing of the first stamp to the first envelop. Normally the feeler and parts connected thereto prevent the stamp-affixing mechanism from operating when no envelop flap is turned but by turning handle 172 to the position on the left in Fig. 3 and holding it there, this mechanism may be allowed to operate when no envelops are in position to coact with the flap-turning member so as to bring the first stamp to the position for starting without passing envelops through the machine; this position being indicated by the alining of the zero mark on disk 127 with the mark on the frame. Then handle 172 may be released, the envelops positioned on tray 3 and the operation started. The projection on the frame of the stamp-moistener which guides the stamps upwardly between the two rollers 166 preferably encircles the roller on the right in Fig. 1, the portion of the projection extending between the two rollers being disposed in one of the circumferential grooves in the roller 166 on the right, so that movement of the stamps in the proper path is insured.

In machines of this type, it is important that a provision for adjustment be made, whereby the stamps may be affixed to the envelops in various positions with relation to the edges thereof, so that the machine may be used to affix stamps to envelops of various sizes and the stamps may be affixed in every case at the same distance from the top edge of the envelop. Such an adjustment is provided in the machine disclosed in this application by so arranging the mutilated gear 76 that it may be secured upon shaft 35 in any one of a plurality of positions. In passing through the machine the envelops pause as they are released by the lower forwarding-rollers 30 and 31 and remain at rest momentarily in this position until the rotation of roller 74 commences. The time when the rotation of this roller commences with relation to the operation of the other parts of the machine is determined by the position of mutilated gear 76 on shaft 35, since this gear drives roller 74.

To adjust the parts in order to vary the position at which a stamp will be affixed to an envelop with relation to the lower edge of that envelop, a wrench is inserted through

the opening in frame 2' when the head of bolt 80 is directly opposite that opening and the bolt is turned to loosen it. Then, without withdrawing the wrench, the power-shaft 24 is operated a very slight amount, causing shaft 35 and the plate 78 secured thereto to turn while gear 76, stop-plate 76' and arm 79 remain stationary, a slot being provided in plate 78 to permit such relative movement. When these parts have been moved relatively a sufficient amount, bolt 80 is tightened again to secure gear 76 and stop-plate 76' to plate 78 and shaft 35. In this way, the time of rotation of roll 74 and the roll 68 cooperating therewith together with the envelop-sealing mechanism above those rolls may be adjusted with respect to the time of operation of the stamp-affixing mechanism. In other words, the envelops in passing through the machine pause momentarily while lying between the rolls 74 and 68 and the length of this pause may be adjusted by adjusting the time when roll 74 begins to rotate with relation to the time of operation of the stamp-affixing mechanism. Thus the distance between the stamp when affixed and the lower edge of the envelop may be adjusted as desired so that with envelops of different sizes, the stamps may always be affixed at the same distance from the upper edges of the envelops. To facilitate such an adjustment, plate 81 is provided on the end of shaft 35, this plate being marked off to indicate different widths of envelops. By loosening bolt 80, holding gear 76 and plate 76' stationary with a wrench coacting with bolt 80 and turning shaft 35, the mark corresponding to the width of the envelops to be passed through the machine may be brought into alinement with the mark on the frame and the parts may then be tightened up again. Then, on operating the machine, the stamps will be affixed at the proper distance from the upper edges of the envelops.

Having described my invention, what I claim as new therein and desire to secure by Letters Patent of the United States is:

1. In a stamp-affixing machine, a power-shaft, envelop-forwarding rollers connected thereto, a support for a plurality of stamps, stamp-affixing devices, means connected to said power-shaft for automatically feeding stamps successively from said support to said stamp-affixing devices, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edge of the envelop, substantially as described.

2. In a stamp-affixing machine, a support for a stack of envelops, a feeder for feeding the envelops successively from the support, means for forwarding the envelops through the machine, means for affixing the stamps to the envelops, and means for effecting an

adjustment of the position in which the stamp is affixed to the envelop with respect to the edges of the envelops, substantially as described.

5 3. In a stamp-affixing machine, means for forwarding the envelops successively, means for forwarding the stamps successively, a moistener for the gum of the stamps, means for rolling the stamps upon the envelops as
10 the latter pass through the machine, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edges of the latter, substantially as described.

15 4. In a stamp-affixing machine, means for forwarding the envelops, stamp-affixing mechanism, means for automatically controlling the operation of said mechanism, and means for effecting an adjustment of
20 the position in which the stamp is affixed to the envelop with respect to the edges of the envelops, substantially as described.

5 5. In a stamp-affixing machine, means for forwarding envelops successively along a predetermined path, a support for a plurality of stamps, means for feeding stamps
25 successively from said support along a path intercepting said path for the envelops, a roller at the junction of said paths for rolling the stamps upon the envelops, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edge thereof, substantially as described.

30 6. In a combined envelop-sealing and stamp-affixing machine, means for forwarding the envelops through the machine, a flap-moistener, means for sealing the envelop flaps, stamp-affixing mechanism, means
40 for automatically controlling the operation of said mechanism, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edges of the latter, substantially as described.

45 7. In a combined envelop-sealing and stamp-affixing machine, a support for a stack of envelops, a feeder for feeding the envelops successively from the stack, envelop-forwarding means, a flap-moistener, flap-sealing devices, stamp-affixing mechanism including a roller for rolling a stamp upon an
50 envelop while the latter is in motion, means for automatically controlling the operation of said mechanism, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edges of the latter, substantially as described.

60 8. In a stamp-affixing machine, a support for a pile of envelops, a flap-turning member for turning the flaps of the envelops successively, means for forwarding the envelops successively, stamp-affixing mechanism,
65 means for coacting with the flaps of the en-

velops when turned for automatically controlling the operation of said mechanism, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edges of the latter, substantially as described. 70

9. The combination of means for forwarding envelops successively, means for affixing stamps to the envelops so fed, a single means
75 for operating both of said means, and means for effecting an adjustment of the time of operation of one of said means with respect to the time of operation of the other to adjust the position in which the stamp is affixed to the envelop with respect to the edges of
80 the latter, substantially as described.

10. The combination of a support for a stack of envelops, a feeder for feeding the envelops successively from the support, envelop-forwarding means, means for affixing
85 stamps to the envelops as they are forwarded by said forwarding means, a single means for operating the feeder, forwarding means and stamp-affixing means, and means for effecting an adjustment of the time of operation
90 of said forwarding means with respect to the time of operation of the stamp-affixing means, substantially as described.

11. A stamp-affixing machine comprising means for forwarding envelops successively
95 through the machine, each envelop pausing in its passage, means for affixing a stamp to each envelop while it is passing through the machine and after it has made said pause, and means for adjusting the length of said
100 pause, substantially as described.

12. In a stamp-affixing machine, an intermittently-operated envelop-forwarding roller, a stamp-affixing mechanism, means
105 for operating said roller and said mechanism, and means for effecting an adjustment of the time of operation of said roller with respect to the time of operation of said stamp-affixing mechanism, substantially as described. 110

13. The combination of means for forwarding envelops successively, means for affixing stamps to the envelops so fed, means
115 for automatically controlling the operation of the stamp-affixing means, a single means for operating the envelop-forwarding means and the stamp-affixing means, and means for effecting an adjustment of the time of operation of said forwarding means with respect to the time of operation of the stamp-affixing
120 means, substantially as described.

14. In a combined envelop-sealing and stamp-affixing machine, a support for a stack of envelops, a feeder for feeding envelops
125 successively therefrom, an intermittently-operated envelop-forwarding roller, a flap-moistener, a flap-sealer, stamp-affixing mechanism including a roller for rolling the stamps upon the envelops, means for automatically controlling the operation of the 130

stamp-affixing mechanism, a single means for operating the forwarding roller and stamp-affixing mechanism, and means for effecting an adjustment of the time of operation of the stamp-affixing mechanism with respect to the time of operation of said forwarding roller, substantially as described.

15. In a stamp-affixing machine, a support for a stack of envelopes, a flap-turning member, stamp-affixing mechanism, means coacting with the flap of an envelop when turned for controlling the operation of said mechanism, envelop-forwarding means, a single means for operating said mechanism and for intermittently operating said forwarding means, and means for effecting an adjustment of the time of operation of said forwarding means with respect to the time of operation of said mechanism, substantially as described.

16. A stamp-affixing machine comprising means for forwarding envelopes successively through the machine, each envelop pausing in its passage, mechanism for affixing a stamp to each envelop while it is passing through the machine and after it has made said pause, means for automatically controlling the operation of said stamp-affixing mechanism, and means for adjusting the length of said pause, substantially as described.

17. A stamp-affixing machine comprising means for forwarding envelopes successively, stamp-affixing mechanism for affixing a stamp to each envelop so forwarded, a power shaft, connections from said shaft to said forwarding means and said mechanism, including a shaft and a mutilated gear mounted thereon, and means for adjusting the position of said gear upon its shaft, substantially as described.

18. In a stamp-affixing machine, a power-shaft, envelop-forwarding rollers connected thereto, a support for a plurality of stamps, stamp-affixing devices, means connected to said power-shaft for automatically feeding stamps successively from said support to said stamp-affixing devices, means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edge of the envelop, and an indicator for said adjusting means, substantially as described.

19. The combination of means for forwarding envelopes successively, means for affixing stamps to the envelopes so fed, and single means for operating both of said means, devices for effecting an adjustment of the time of operation of one of said means with respect to the time of operation of the other, and an indicator for said adjusting devices, substantially as described.

20. A stamp-affixing machine having means for forwarding envelopes successively, means for feeding stamps successively and

affixing them to the envelopes forwarded by said means, and means for indicating the position of the parts for starting the operation of the machine to insure the affixing of the first stamp fed by said stamp-feeding means to the first envelop forwarded by said envelop forwarding means, substantially as described.

21. A stamp-affixing machine having a support for a plurality of envelopes, means for automatically feeding the envelopes from said support successively, means for forwarding the envelopes so fed through the machine, a support for a plurality of stamps, means for automatically feeding the stamps from said support successively and affixing them to the envelopes fed by said envelop-feeding means, and means for indicating the position of the parts for starting the operation of the machine to insure the affixing of the first stamp fed by said stamp feeding means to the first envelop fed by said envelop feeding means, substantially as described.

22. A stamp affixing machine having a support for a plurality of envelopes, means for automatically feeding the envelopes from said support successively, means for forwarding the envelopes so fed through the machine, a support for a plurality of stamps, means for automatically feeding the stamps from said support successively and affixing them to the envelopes fed by said envelop feeding means, means for automatically controlling the operation of the stamp-feeding and affixing mechanism to preclude the operation of said mechanism when no envelop is in position to receive a stamp, and means for indicating the position of the parts for starting the operation of the machine to insure the affixing of the first stamp fed by said stamp-feeding means to the first envelop fed by said envelop-feeding means, substantially as described.

23. A stamp-affixing machine having a support for a plurality of envelopes, means for automatically feeding the envelopes from said support successively, means for forwarding the envelopes so fed through the machine, a support for a sheet of stamps consisting of a plurality of rows of stamps and a plurality of stamps in each row, means for automatically feeding stamps successively from the sheet on said support and affixing the stamps to the envelopes fed by said envelop-feeding means, and means for indicating the position of the parts for starting the operation of the machine to insure the affixing of the first stamp fed by said stamp-feeding means to the first envelop fed by said envelop-feeding means, substantially as described.

24. A stamp-affixing machine having a support for a plurality of envelopes, means for automatically feeding the envelopes from

said support successively, means for forwarding the envelopes so fed through the machine, a support for a sheet of stamps consisting of a plurality of rows of stamps and a plurality of stamps in each row, means for automatically feeding stamps successively from the sheet on said support and affixing the stamps to the envelopes fed by said envelop-feeding means, and means for indicating the position of the parts for starting the operation of the machine to insure the affixing of the first stamp fed by said stamp-feeding means to the first envelop fed by said envelop-feeding means, substantially as described.

25. A stamp-affixing machine having means for forwarding envelopes successively, a support for a sheet of stamps consisting of a plurality of rows of stamps having a plurality of stamps in each row, means for automatically feeding the stamps successively from the sheet on said support and affixing them to the envelopes forwarded by said envelop-forwarding means, and means for indicating the position of the parts for starting the operation of the machine to insure the affixing of the first stamp fed by said stamp-feeding means to the first envelop forwarded by said envelop-forwarding means, substantially as described.

26. The combination of means for forwarding envelopes successively, a movable stop device, means for automatically reciprocating said device to carry it into coaction with the edge of each envelop forwarded by said means, and means for affixing stamps to the envelopes forwarded by said forwarding means, substantially as described.

27. The combination of means for forwarding envelopes successively, a movable stop device, means for automatically reciprocating said device to carry it into coaction with the edge of each envelop forwarded by said means, means for adjusting the range of movement of said stop device, and means for affixing stamps to the envelopes forwarded by said forwarding means, substantially as described.

28. The combination of means for forwarding

envelops successively, a movable stop device past which the envelopes are forwarded by said means, means for reciprocating said stop device automatically to carry it into coaction with the edge of each envelop as the latter is forwarded, and means for affixing stamps to the envelopes, substantially as described.

29. The combination of a pair of rollers between which envelopes are forwarded successively, a stop device, means for automatically reciprocating said stop device to carry it into engagement with one edge of each envelop as the other edge passes from between said rollers, means additional to said rollers for forwarding the envelopes successively, and means for affixing stamps to the envelopes, substantially as described.

30. The combination of an envelop support, means for feeding envelopes therefrom successively, a pair of forwarding rollers between which the envelopes are passed, a pivotally mounted stop device, means for automatically rocking said device to carry its free end into engagement with one edge of each envelop as the other edge thereof passes from between said rollers, means for adjusting the range of movement of said device, means additional to said rollers for forwarding the envelopes successively, and means for affixing stamps to the envelopes, substantially as described.

31. In a stamp affixing machine, means for forwarding the envelopes, a support for a plurality of stamps, means for forwarding the stamps, means for moistening the stamps, means for rolling a stamp upon an envelop while the latter is being forwarded, and means for effecting an adjustment of the position in which the stamp is affixed to the envelop with respect to the edge of the envelop, substantially as described.

This specification signed and witnessed this 9th day of March, 1908.

ERNEST J. BRASSEUR.

Witnesses:

M. H. BURKART,
R. R. HARRINGTON.