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3 SHEETS—SHEET 1.

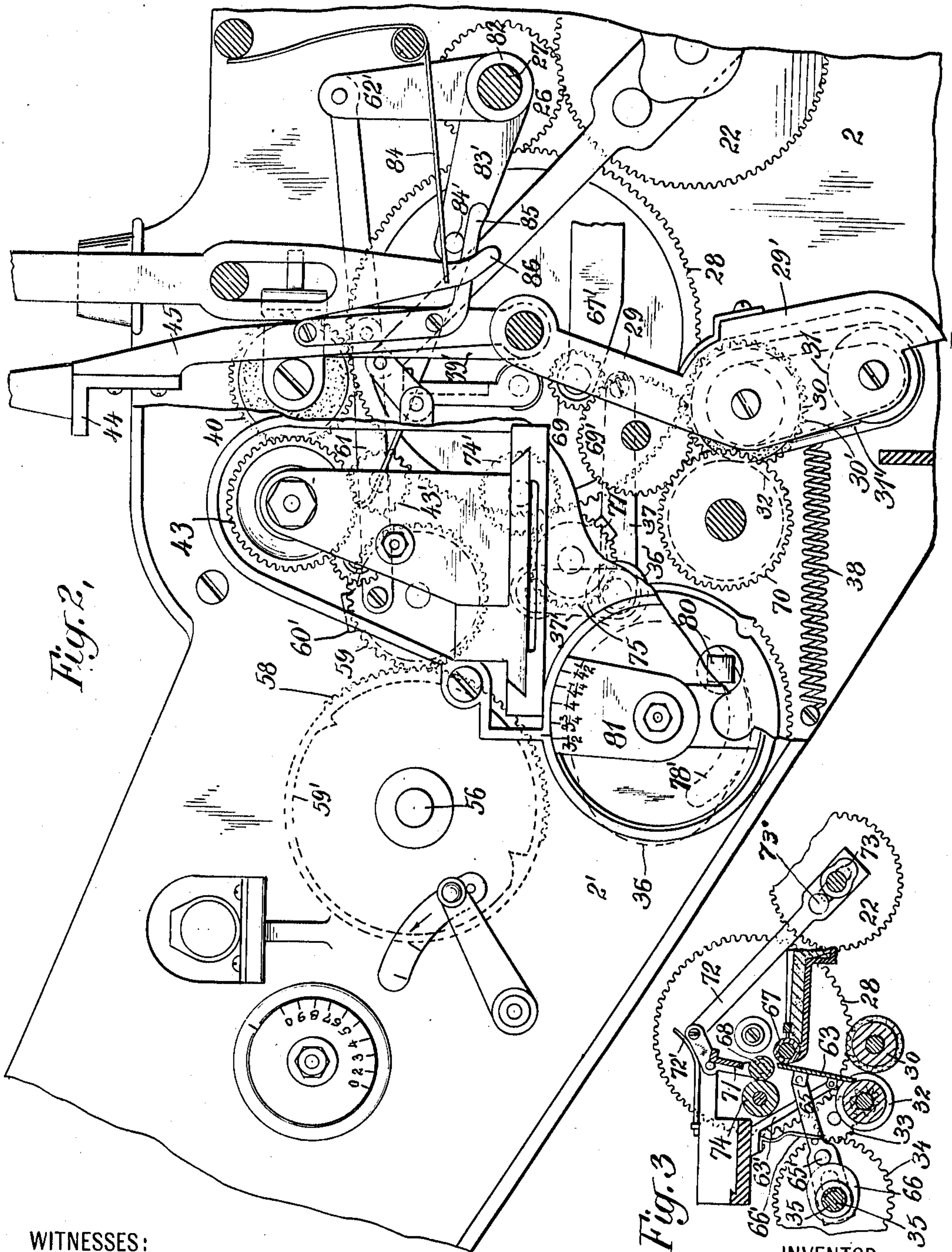


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E. J. BRASSEUR.
MACHINE FOR SEALING ENVELOPS.
APPLICATION FILED JAN. 12, 1910.

Patented Apr. 11, 1911.

3 SHEETS—SHEET 2.



WITNESSES:

Edmunds.
Henry Meyer.

Fig. 3

INVENTOR

Ernest J. Brasseur

BY

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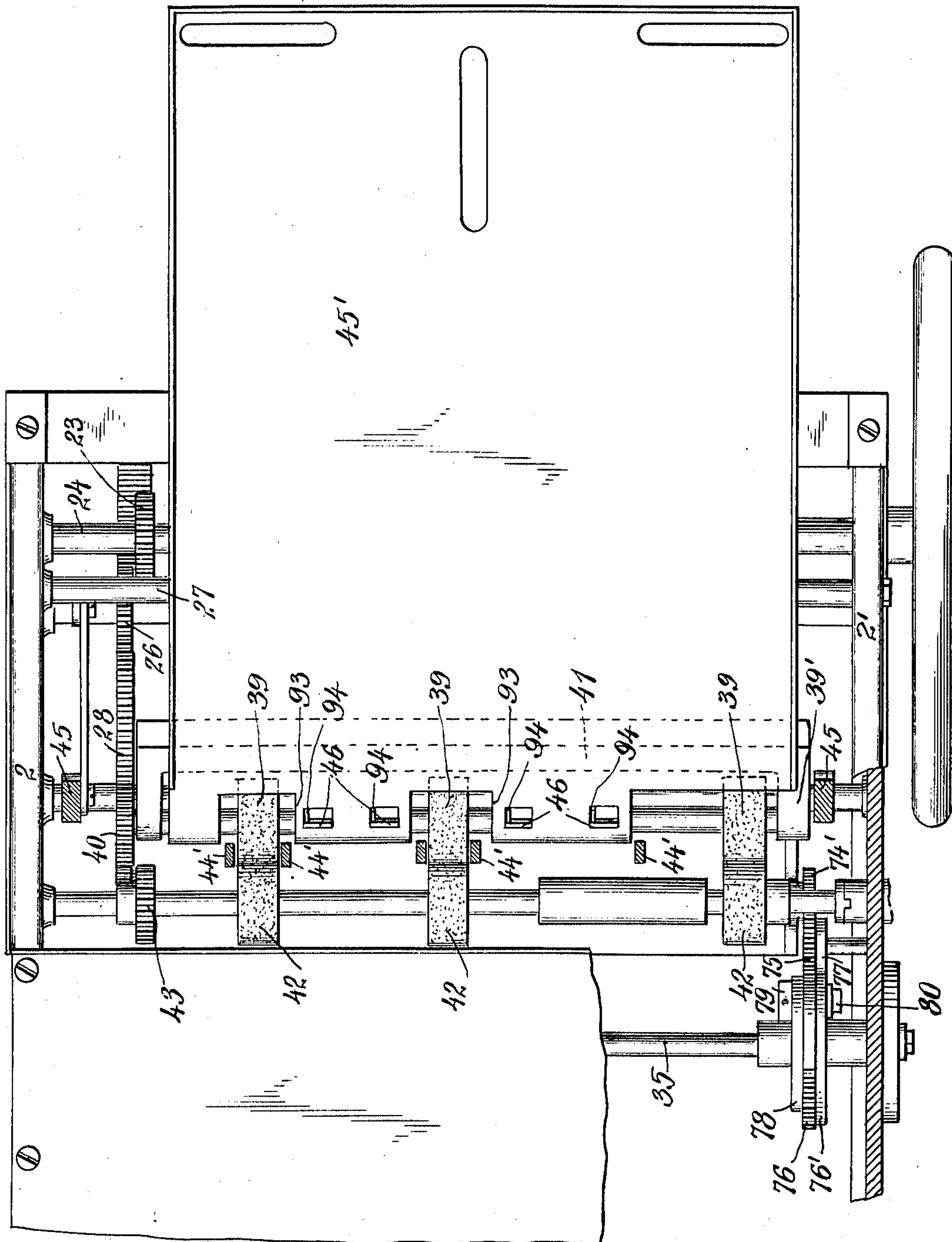
ATTORNEY

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WITNESSES:

W. Edwards
Henry Meyer

Fig. 5.

INVENTOR

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UNITED STATES PATENT OFFICE.

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

MACHINE FOR SEALING ENVELOPS.

989,229.

Specification of Letters Patent.

Patented Apr. 11, 1911.

Original application filed March 14, 1908, Serial No. 421,017. Divided and this application filed January 12, 1910. Serial No. 537,646.

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 Machines for Sealing Envelops, of which the following is a specification.

This invention relates to machines for sealing envelops and is directed to the provision of a machine of this type which is reliable in operation even though the thickness of the envelops varies considerably because of differences in the number of inclosures therein. This reliability of operation is secured primarily, by the provision of means for turning the flaps of the envelops bodily or as a whole relatively to the body-portions thereof, so that the flaps will be laid down flat upon the body-portions. To aid in effecting this, the envelops are moved along a predetermined path in the direction of their width. In machines of this character heretofore proposed, it has been common to move the envelops in the direction of their length and to employ a member for pressing the flap against the body-portion so arranged that it first engages the flap at one end of the latter and thereafter moves along to the opposite end. With such machines, particularly when a number of inclosures are contained in the envelops, the flaps are frequently drawn down properly at one end but not at the other, a fold being made in the flap and this folded portion extending beyond the body-portion of the envelop.

One object of the present invention is to guard against this and this is done by folding the flap as a whole so that at all points along its length it is drawn down upon the body-portion the proper distance. Other features of the invention will be described in detail hereinafter and definitely set forth in the claims appended hereto.

The preferred embodiment of the invention is illustrated in the accompanying drawing in which—

Figure 1 is a central section of the machine, Fig. 2 is a view partly in section and partly in elevation showing a portion of the operating mechanism, Figs. 3 and 4 are enlarged detail views of portions of the operating mechanism hereinafter described, and

Fig. 5 is a view partly in plan and partly in section.

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 envelops 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 envelops 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 levers 10 being 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 envelops 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 envelops 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, 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 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 envelops 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 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 crank. 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, 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. 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. Pusher 44 consists of a bar having fingers extending upwardly and downwardly therefrom, as shown at 44', 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 93, 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 (Fig. 5) acted upon by spring 94 to hold it yieldingly in a vertical position. These 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' thereon engaged by teeth formed on 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.

Mounted on tray 45' is a yielding stop 53 adapted to slide over the surface of the tray and to hold the envelops in an upright position, the envelops being held between this stop and the hinges 46 and fingers 47. This stop is actuated by a lazy tongs similar to that above described in connection with the pusher for the unsealed envelops. A spring 54 acts on the levers of this lazy tongs to

draw them to a position of parallelism, and thus press the top 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 up-turned 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 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. 2) 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. 2), which is linked in a similar manner to the other arm 45 carrying a 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. 3 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 3. 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. 2), 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. 3) 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. 2) 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 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 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. 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 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. 2, 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. 2) 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, and in the other direction by a guide 88 (Fig. 1) 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, the other being supported by the plate corresponding to extension 14 and which is adjustable on plate 13 so 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. 3, 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. 3. 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 spring 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, 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, have 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. 2) 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, enters 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 93' on the edge of the tray 45' for the sealed envelops. The portions of the edge of this tray between these notches also extend between the sections of the roller 39, 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 teeth 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 construction of the envelop sealing devices herein shown possesses important advantageous features, particularly in that it can be relied on to properly seal the envelops though they vary in thickness considerably. With the plate 63 and roller 68 in the Fig. 3 positions when the envelop is moved upwardly flap-foremost, the flap will readily pass in between rollers 67 and 68. As it begins to do so, plate 63 and roller 68 move to the Fig. 1 position. Then during the upward movement of the envelop caused by rollers 30 and 32, the body portion of the envelop moves straight up along plate 63 and the flap, being held between rollers 67 and 68, is turned relatively to the body-portion of the envelop. As soon as the upper edge of the body portion passes the line of coaction of rollers 68 and 74, the former is returned to its Fig. 3 position, pressing the flap against the body portion between it and roller 74. The flap is thus turned bodily down upon the body portion and pressed smoothly against the same and the result will be the same whatever the thickness of the inclosures within the envelop. Also when the top of the flap is passing between rollers 74 and 68, the flap will be curved about roller 68 somewhat so that its gummed surface will be held against the moistening roller 67 and will be well moistened thereby.

The machine constructed and operating as above described is adapted particularly for use in connection with means for automatically affixing stamps to the envelops. Portions of the stamp-affixing mechanism are shown in the drawings; these are described in detail in Patent Number 945838 granted to me January 11, 1910, and no claim is made herein to these features of the complete machine. The sheets of stamps are fed edgewise to carry the strip at one edge thereof between two sets of rollers 90 and 91 whereupon this strip is severed from the sheet. As each envelop passes through the machine these rollers are automatically actuated to feed this strip a distance equal to the length of one stamp, a stamp is moistened by the rollers 92, one of which dips into water contained in a suitable removable tray and a stamp is rolled upon the envelop being sealed in the machine by being pressed against the envelop by the end section of the forwarding roller 42. This

stamp-feeding and affixing means is automatically controlled by the advancing envelopes so that a stamp will be fed only when the envelop is being moved into position to receive it.

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

1. The combination of envelop-forwarding means, a support for the sealed envelopes, inclined stop-fingers mounted above one end of said support and projecting beyond said end, means for forwarding the envelopes upon said support and in front of said fingers, a wall movable over said support and a spring acting on said wall to press the envelopes against said fingers, substantially as set forth.

2. The combination of envelop-forwarding means, a support for the sealed envelopes, inclined stop-fingers mounted above one end of said support and projecting beyond said end, means for adjusting said fingers toward and away from said support, means for forwarding the envelopes upon said support and in front of said fingers, a wall movable over said support, and a spring acting on said wall to press the envelopes against said fingers, substantially as set forth.

3. The combination of a pair of sectional envelop forwarding rollers, an envelop pusher, an envelop-support and means for operating said pusher to carry it into coaction with an envelop forwarded between said sectional rollers and to move said envelop upon said support, said pusher having parts thereon extending between the sections of one of said rollers and the movement of the pusher carrying said parts between the sections of the other roller, substantially as set forth.

4. The combination of a pair of sectional envelop-forwarding rollers, an envelop pusher, an envelop-support having projections at one end thereof entering between the sections of one of said rollers, and means for operating said pusher to carry it into coaction with an envelop forwarded between said sectional rollers and to move the envelop upon said support, said pusher having parts thereon extending between the sections of one of said rollers and the movement of the pusher carrying said parts between the sections of the other roller and the projections at the end of said support, substantially as set forth.

5. The combination of a pivotally mounted plate, means for forwarding envelopes flap foremost adjacent to said plate, a flap-moistening device, a pair of envelop-forwarding rollers, and means for moving one of said envelop-forwarding rollers bodily and for simultaneously moving said plate about its pivot to two positions, in one of which it guides the flaps of the envelopes

into coaction with said moistening device and in the other of which it permits the body-portion of the envelopes to pass between said forwarding rollers, substantially as set forth.

6. The combination of a pivotally mounted plate, means for forwarding envelopes flap foremost adjacent to said plate, a flap-moistening device, an envelop-forwarding roller, means for moving said plate about its pivot to two positions in one of which it guides the flaps of the envelopes into coaction with said moistening device and in the other of which it permits the body-portions of the envelopes to pass adjacent to said forwarding roller and an envelop-forwarding roller coacting with said roller and positioned to insure contact of the envelop-flap with the moistening device when the envelop is being forwarded by said rollers, substantially as set forth.

7. The combination of a pivotally mounted plate, means for forwarding envelopes flap foremost adjacent to said plate, a flap-moistening device, a pair of envelop-forwarding rollers, and means for moving said plate about its pivot to two positions, in one of which it guides the flaps of the envelopes into coaction with said moistening device and in the other of which it permits the body-portions of the envelopes to pass between said forwarding-rollers, and means for moving one of said forwarding-rollers into position for pressing the flaps of the envelopes into engagement with said moistening device, substantially as set forth.

8. The combination of a pivotally mounted plate, means for forwarding envelopes flap foremost adjacent to said plate, a flap-moistening device, a pair of envelop-forwarding rollers, one of which is movable, and means for rocking said plate to guide the flap of an envelop into coaction with said moistener, moving said movable forwarding roller to press said flap against the moistener, rocking said plate to permit the body portion of the envelop to pass between said forwarding rollers and moving said movable forwarding roller to grip the envelop between it and the other forwarding-roller, substantially as set forth.

9. The combination of a pair of envelop-forwarding rollers, a pivoted plate, a flap-moistener, means for moving one of said forwarding-rollers bodily between said moistener and the other of said forwarding-rollers, and means for rocking said plate to a position for guiding the flap of an envelop between said moistener and the adjacent forwarding-roller and to a position for permitting the body portion of the envelop to pass between said forwarding-rollers, substantially as set forth.

10. The combination of two rollers, means for rotating one of said rollers, a moistener

adjacent to one of said rollers, and means for forwarding envelopes flap-foremost so that the flaps are inserted between said moistener and the adjacent roller and the envelopes passed between said rollers, substantially as set forth.

11. The combination of two rollers, means for moving one of said rollers toward and away from the other, a moistener adjacent to one of said rollers, and means for forwarding envelopes flap-foremost so that the flaps are inserted between said moistener and the adjacent roller and the envelopes passed between said rollers, substantially as set forth.

12. The combination of a pair of rollers, means for rotating one of said rollers, means for moving one of said rollers toward and away from the other, a moistener adjacent to said movable roller, and means for forwarding envelopes flap-foremost so that the flaps are inserted between said moistener and the adjacent roller and the envelopes passed between said rollers, substantially as set forth.

13. The combination of a pair of rollers, a member adjacent to one of said rollers, a plate, means for forwarding envelopes flap-foremost along said plate and means for moving said plate into position for guiding the flap of an envelop between said member

and the adjacent roller and into position for guiding an envelop between said rollers, substantially as set forth.

14. The combination of rollers, means for rotating one of said rollers, means for moving one of said rollers toward and away from the other, a moistener adjacent to said movable roller, a plate, means for forwarding envelopes flap-foremost along said plate, and means for moving said plate into position for guiding the flap of an envelop between said moistener and the adjacent roller and into position for guiding an envelop between said rollers, substantially as set forth.

15. The combination of a roller, a flap-retaining device, a pivoted plate, means for forwarding envelopes flap-foremost along said plate, and means for moving said plate into position for guiding the flap of an envelop into coaction with said retaining device and into position for guiding an envelop into coaction with said roller, substantially as set forth.

This specification signed and witnessed this 8th day of January, 1910.

ERNEST J. BRASSEUR.

Witnesses:

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