

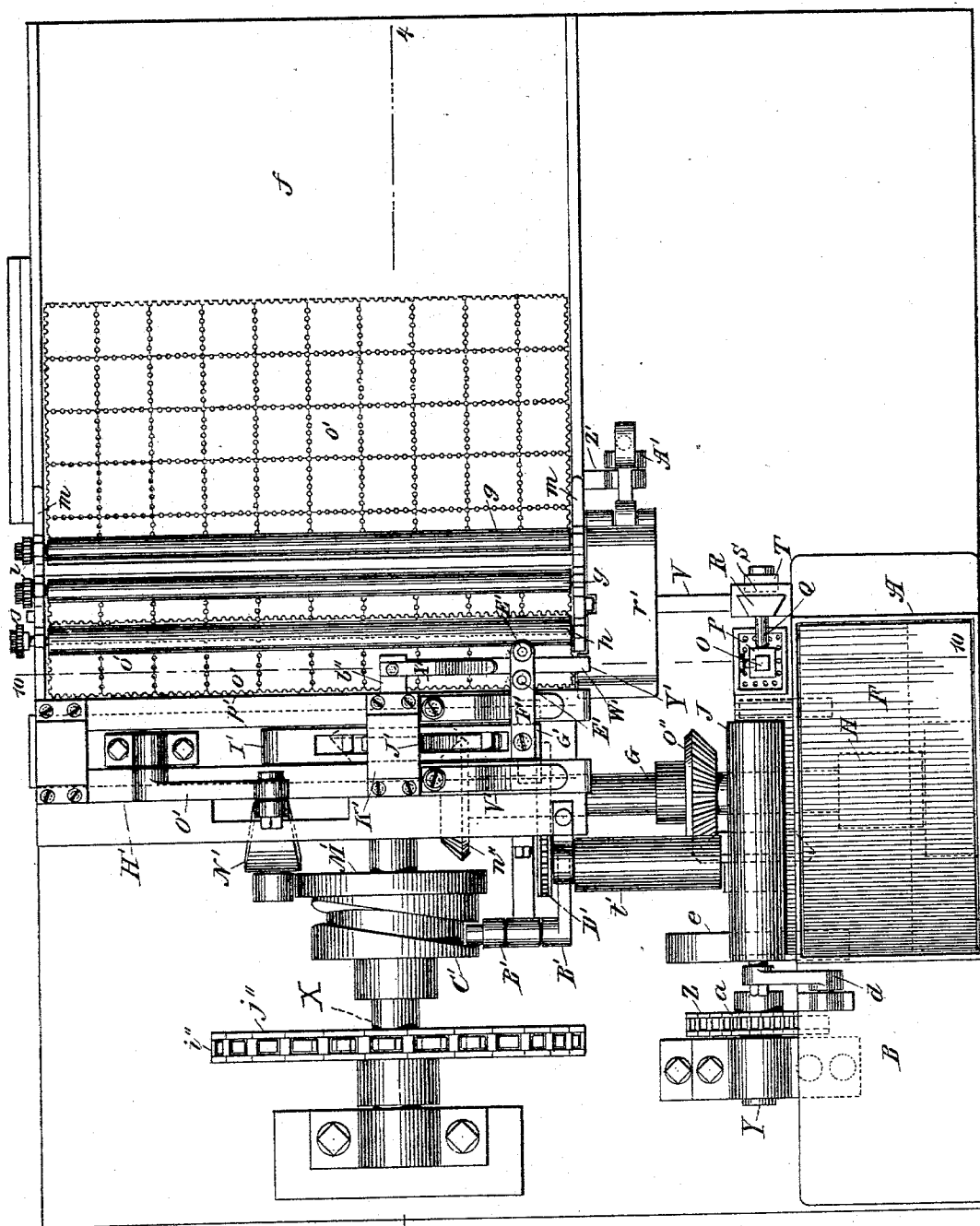
(No Model.)

7 Sheets—Sheet 1.

F. W. FOWLER.
MACHINE FOR APPLYING STAMPS TO ENVELOPS OR CARDS.

No. 583,989.

Patented June 8, 1897.



WITNESSES:

William P. Goebel.
Edmund R. Collins

FIG. 1.

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BY

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(No Model.)

7 Sheets—Sheet 2.

F. W. FOWLER.

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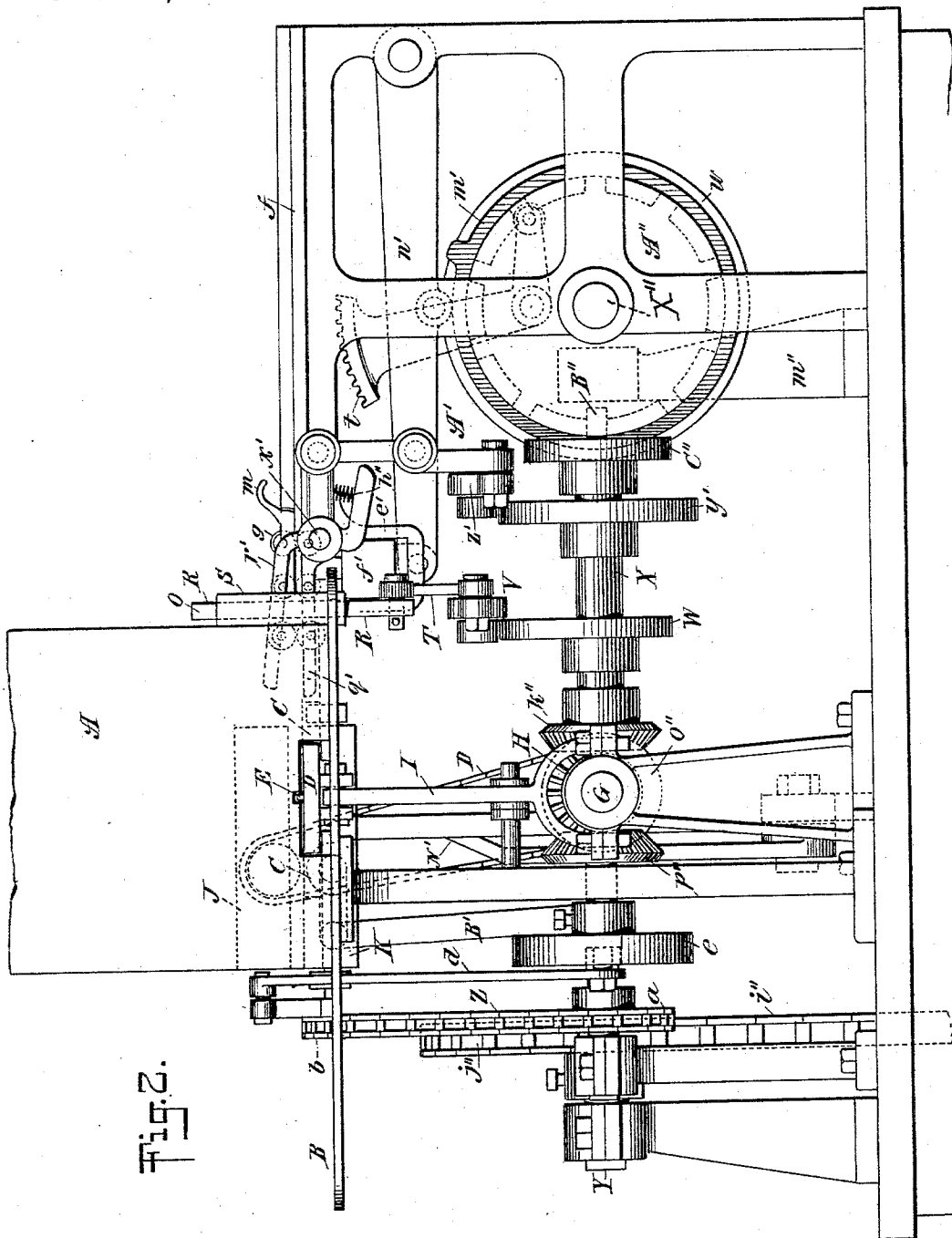


Fig. 2.

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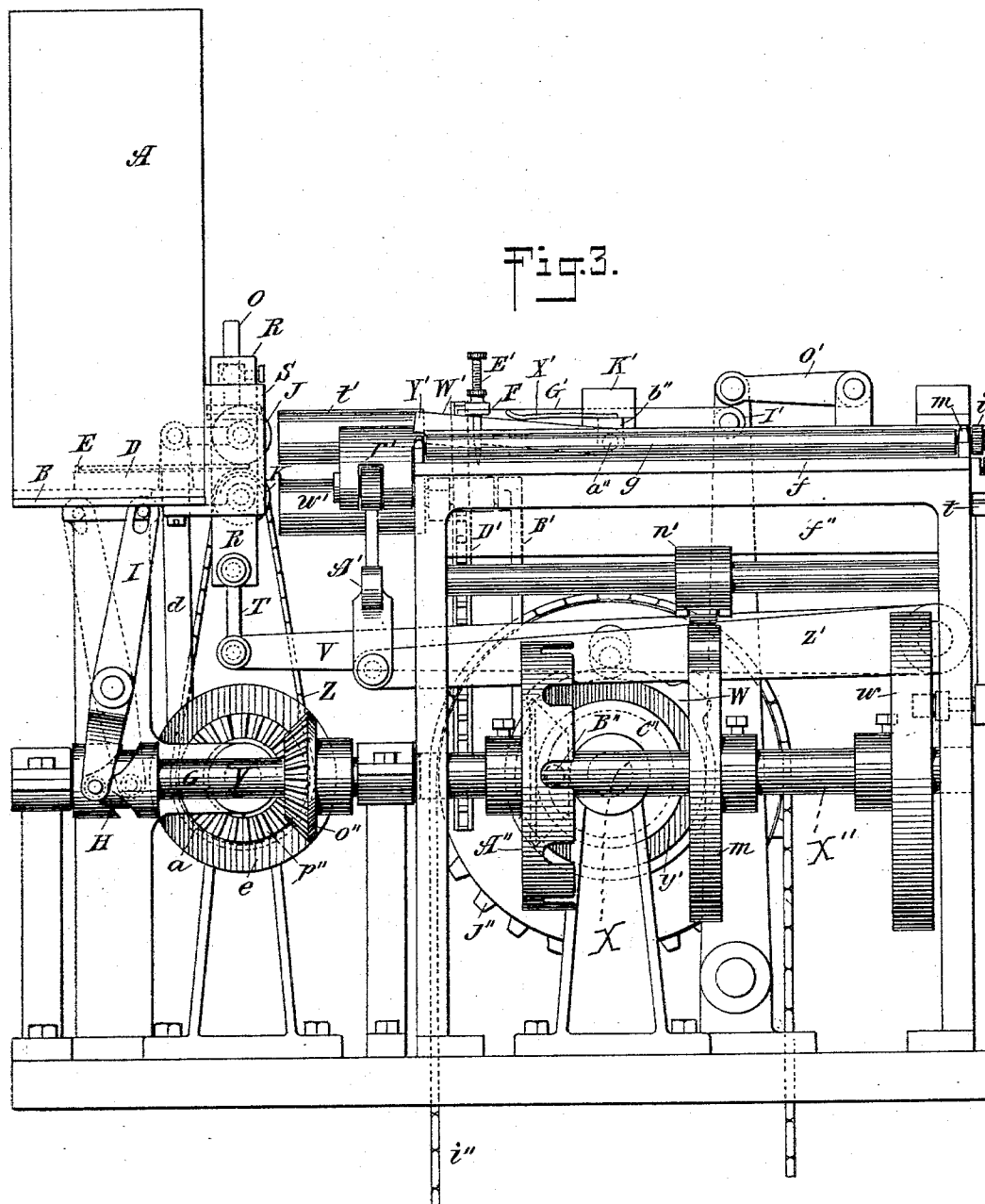
7 Sheets—Sheet 3.

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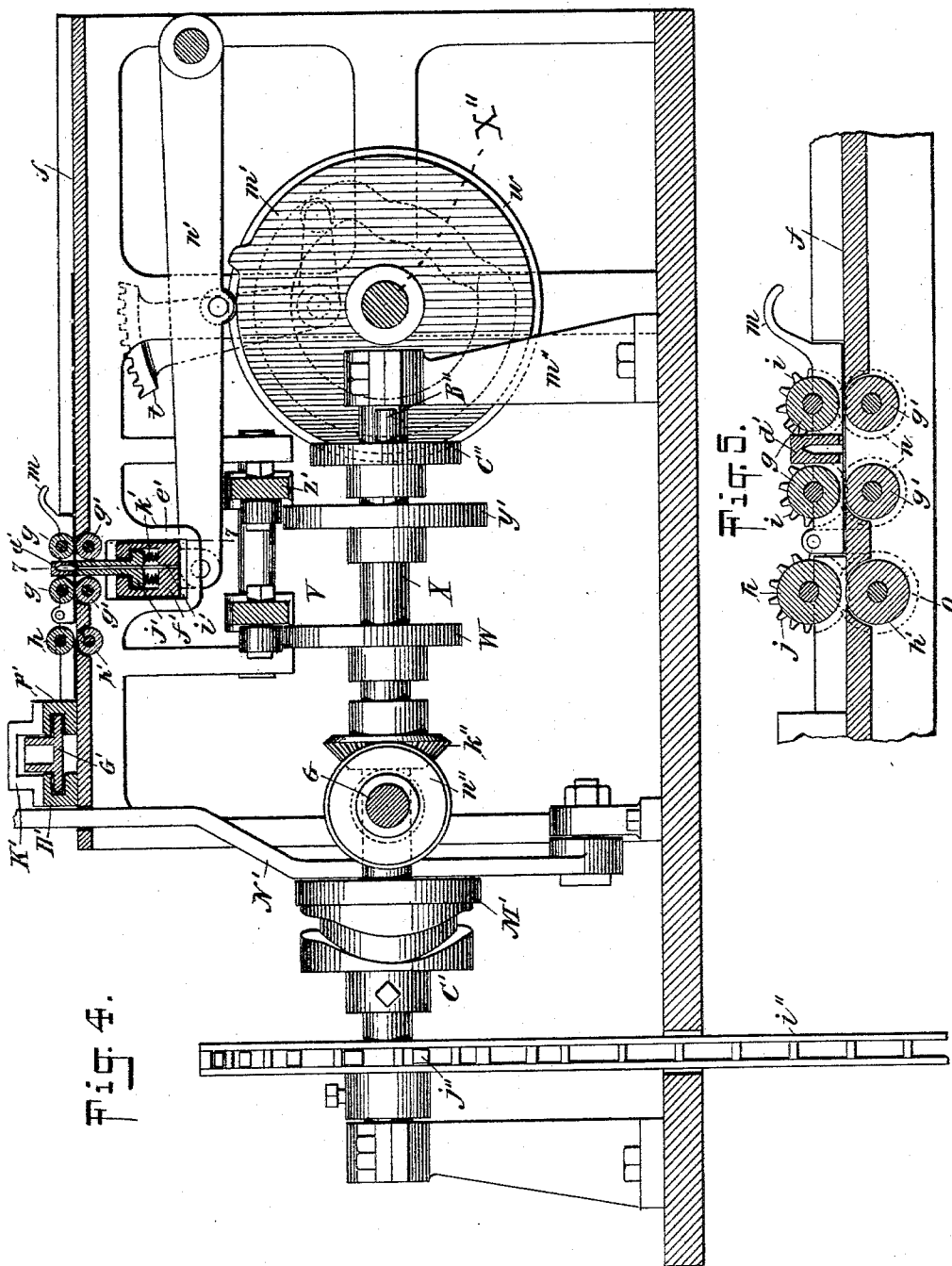
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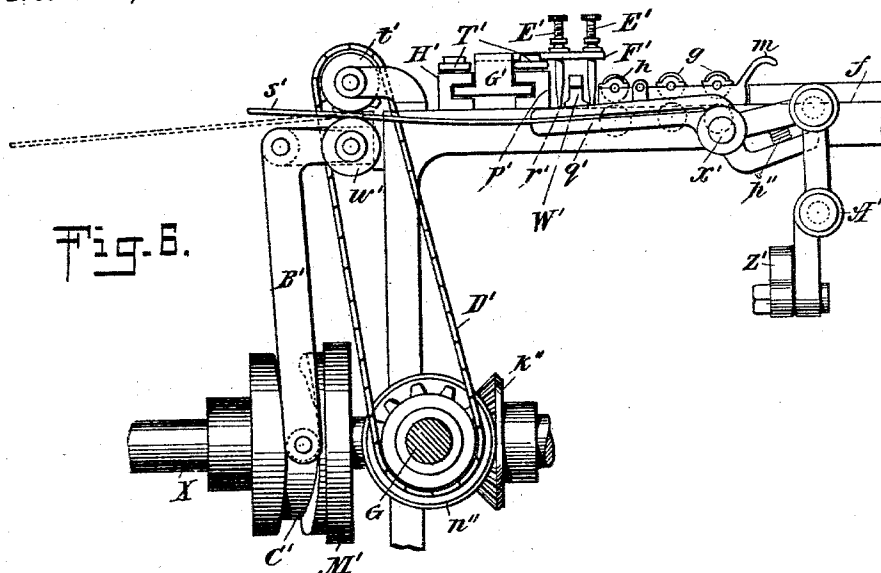


Fig. 6.

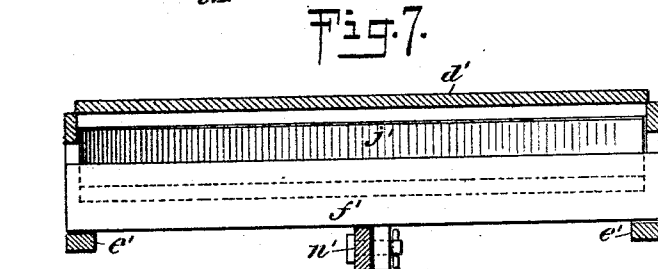


Fig. 7.

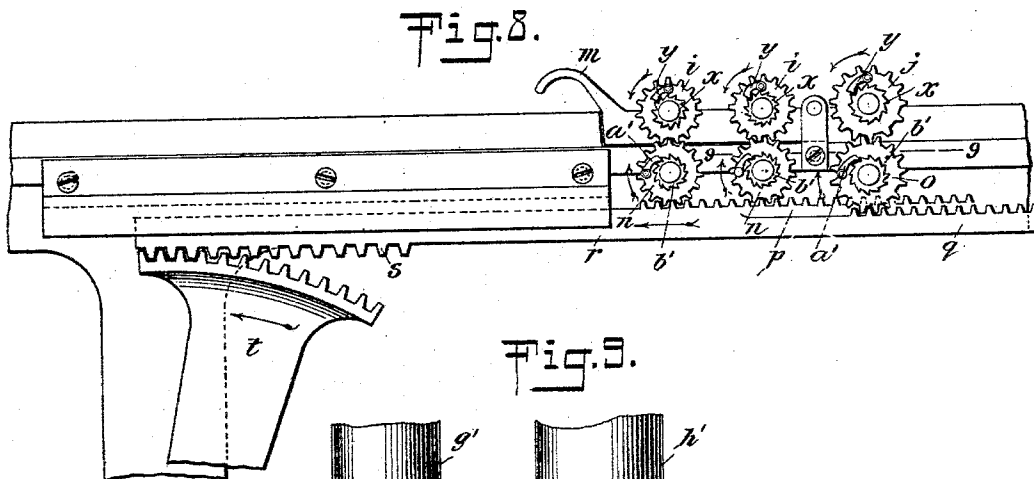


Fig. 8.

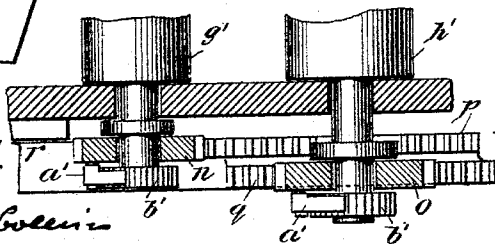


Fig. 9.

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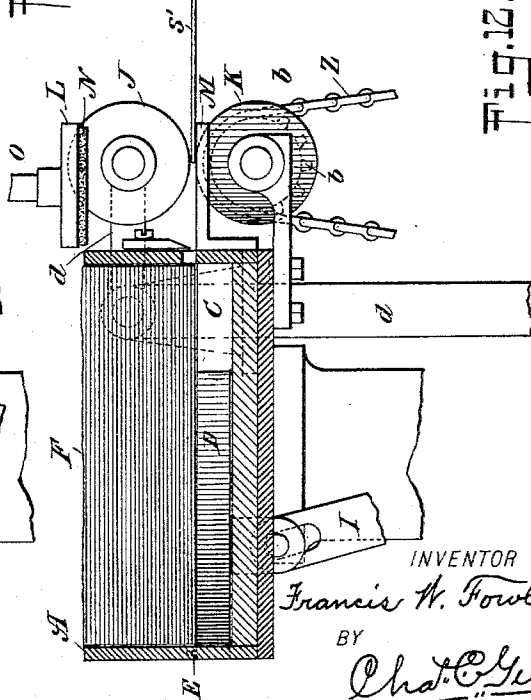
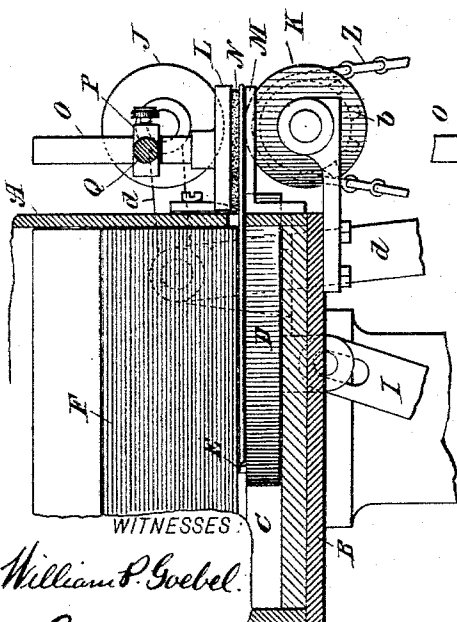
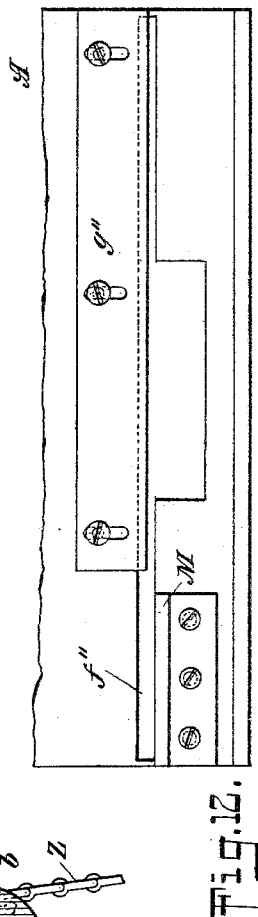
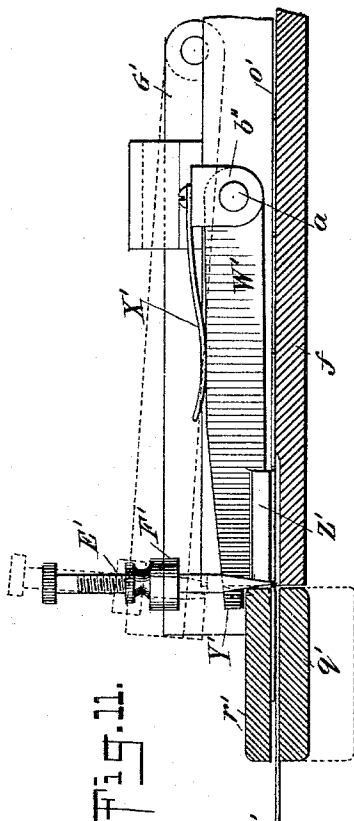
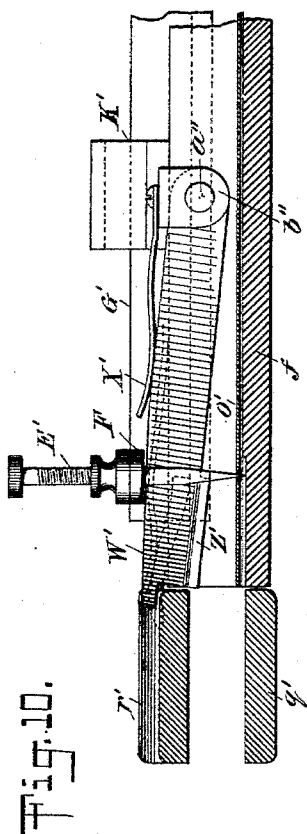
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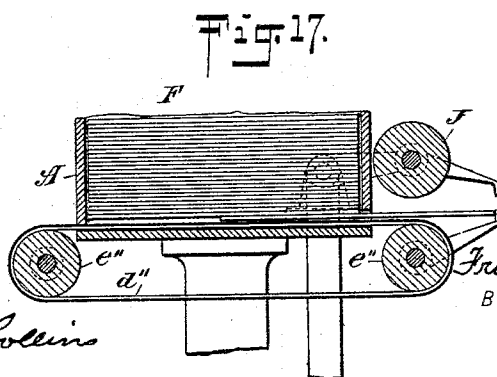
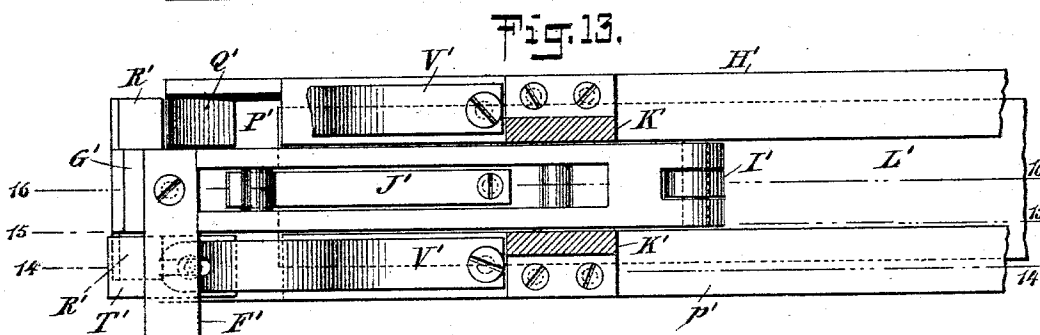
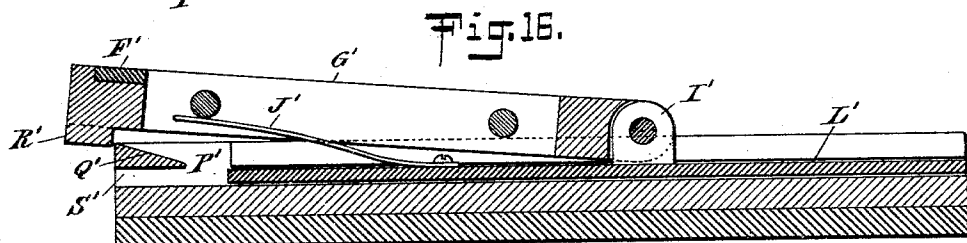
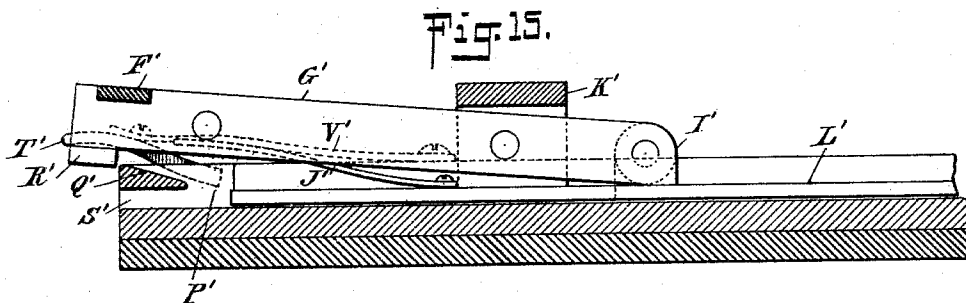
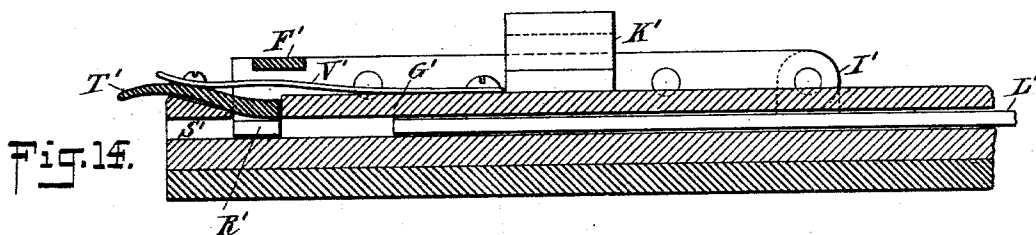
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UNITED STATES PATENT OFFICE.

FRANCIS W. FOWLER, OF BROOKLYN, NEW YORK.

MACHINE FOR APPLYING STAMPS TO ENVELOPS OR CARDS.

SPECIFICATION forming part of Letters Patent No. 583,989, dated June 8, 1897.

Application filed February 19, 1897. Serial No. 624,120. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS W. FOWLER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Machines for Applying Stamps to Envelops or Cards; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to improvements in machines for applying postage-stamps to envelops or cards, and comprises means for feeding the envelops or cards one at a time from a magazine or receptacle, means for moistening the surface at one corner of each envelop or card as fed inward, means for feeding a sheet of one hundred stamps, means for detaching a row of ten of the stamps from the sheet, feeding mechanism for moving the detached row of stamps toward the envelop as moistened and fed inward, pressure devices for affixing the stamps of said row one at a time upon the moistened surface of the envelops or cards and detaching the same, and devices for withdrawing the stamped envelops or cards from the machine, leaving the latter free to continue uninterruptedly its automatic operation of feeding the envelops or cards one at a time and affixing the stamps one at a time thereto.

The character of the machine by which my invention is carried into effect is fully illustrated in the accompanying drawings, and will be understood from the detailed description hereinafter presented.

Figure 1 is a top view of a machine constructed in accordance with and embodying the invention. Fig. 2 is a front elevation of same. Fig. 3 is an end view of same, looking at the right-hand end of Fig. 1. Fig. 4 is a vertical section of same on the dotted line 4 4 of Fig. 1. Fig. 5 is an enlarged detached vertical section, on the line 4 4 of Fig. 1, of the means for feeding inward the sheet of one hundred stamps. Fig. 6 is a detached view of a portion of the machine and shows in side

elevation the clamping means for affixing the individual stamp to the moistened envelop and detaching said stamp from the remainder of the row of stamps. This figure also shows the envelop in position within the said clamping devices and the rollers by which the stamped envelops are withdrawn from said devices and discharged from the machine. Fig. 7 is a detached vertical sectional view of a portion of the machine on the dotted line 7 7 of Fig. 4. Fig. 8 is an enlarged detached side elevation of a portion of the main machine, this figure illustrating particularly the means for feeding inward the sheet of one hundred stamps. Fig. 9 is a horizontal section of same on the dotted line 9 9 of Fig. 8. Fig. 10 is an enlarged sectional view on the dotted line 10 10 of Fig. 1 and illustrates one of the envelops or cards as having been fed inward to the moistening devices and the clamping devices in their open position ready to receive the same and clamp the postage-stamp thereon. Fig. 11 is a like section of same, but showing the envelop-moistener as having ascended from the envelop and the envelop as having been fed completely inward to the clamping device by which the stamp is affixed thereto, this figure showing the said clamping devices in their closed position. Fig. 12 is a detached elevation of a portion of the discharge side of the magazine or receptacle for the envelops or cards to be stamped, and illustrates more particularly the means by which the exit-opening from said magazine may be regulated as to size to suit the different thicknesses of mail-matter to be handled. Fig. 13 is an enlarged top view, partly broken away and partly in section, of the slide by which the single row of stamps is properly fed inward to meet the envelops and cards. Fig. 14 is a longitudinal section of same on the dotted line 14 14 of Fig. 13. Fig. 15 is a like section of same on the dotted line 15 15 of Fig. 13. Fig. 16 is a like section of same on the dotted line 16 16 of Fig. 13; and Fig. 17 is a vertical section showing a modification of one feature of the invention, this modification consisting in the use of a friction-belt for moving the envelops or cards from their magazine instead of the slide shown in Figs. 10 and 11 for accomplishing the same purposes.

The magazine to receive the letters or cards

to be fed therefrom and stamped is more clearly illustrated in Figs. 1, 2, 10, and 11, in which A designates a rectangular magazine, box, or casing of appropriate outline, mounted upon a suitable bed-plate B and having within its lower portion the guides C C, between which is arranged the reciprocating slide D, which at its rear end is provided with the pin E, of suitable height to move forward one envelop or card from the lower end of the stack of envelops or cards F, as illustrated in Fig. 10. The slide D at each forward or inward movement toward the stamps will carry one envelop with it, and upon its return movement to its normal position (illustrated in Fig. 12) will bring the stud or pin E into position to move forward another envelop upon its further movement toward the stamps. The slide D receives its motion from the shaft G, cam H, and pivoted lever I, as shown more clearly in Fig. 3. The cam H is rigid on the shaft G, and when said cam revolves with the latter it will impart an oscillating motion to the lever I, which is connected with the slide D and reciprocates the same. The action of the slide D is simply to feed the envelops or cards F one after another to the pair of rolls J K and to the moistening-plunger L, the full inward movement made by the slide D being shown in Fig. 10, which illustrates the envelop as having been fed inward between the rollers J K and over the small table M, which is directly below the moistening-plunger L, the latter being arranged to descend upon and moisten the corner of the envelop when the latter reaches its position upon the table M, and to thereafter ascend in order that the rollers J K may move the moistened envelop or card inward to receive the stamp. Upon reference to Fig. 1 it will be observed that the rollers J K fully engage the envelop, but do not cover the corner of same intended to receive the stamp, this corner being left entirely clear of the rollers J K in order that it may be moistened by the plunger L. The plunger L will have a soft facing, which will be kept moistened by water applied to the upper surface of the plunger, which, as indicated in the drawings, is cup-shaped and provided with small apertures, through which the water may pass to the soft surface or pad N, the purpose being to preserve the pad N in a constantly moist condition. The upper surface of the plunger L, while being cup-shaped, will not carry any great quantity of water, but the latter will preferably be fed to the plunger from a reservoir through a small pipe, which will feed the water in drops to the said plunger. The plunger L is secured upon the lower end of a stem O, and this stem is, by means of a sleeve P and rod Q, Fig. 1, connected with the slide R, which is adapted to have a vertical reciprocatory motion in the guide S under the action of the link T, Fig. 3, pivoted lever V, and cam W, mounted on the shaft X, as shown more

clearly in Figs. 2, 3, and 4. The plunger R has imparted to it simply a vertical motion, and it is so timed with the slide D that it will only descend after the card or envelop has reached the table M to be moistened, and will then promptly ascend free of the envelop in order that the rollers J K may feed the latter inward to receive the stamp. The rollers J K have an intermittent revolving motion and receive the same from the shaft Y through the medium of the sprocket-chain Z and sprocket-wheels *a b*, the latter being on the shaft of the roller K, and this roller, by frictional contact with the roller J, serving to cause the revolving of the latter. The roller J is arranged to have a vertical reciprocation in order that when the card or envelop is fed outward upon the roller K and table M, the said roller J, may be in an elevated position, (shown in Fig. 10,) and that thereafter, after the envelop is in position upon the roller K and table M, the said roller J may descend upon the same, Fig. 11, so as to aid in feeding it inward to the stamping mechanism. The roller J is carried by the pivoted bell-crank lever *d*, whose lower arm is engaged by the cam *e* on the shaft Y, Fig. 2, which cam imparts a rocking motion to said bell-crank lever *d*, and thereby the short arm of said lever effects the elevation of the roller J from the roller K and the depression of said roller J upon the envelop or card when the latter is upon the roller K.

The mechanism described above constitutes the means for holding the cards or envelops to be stamped, feeding them outward, one after another, to the means by which they are moistened at one corner preparatory to receiving the stamp and the rollers, which, after the moistening has been effected, carry the cards or envelops inward to the stamping mechanism.

Stamp-feeding mechanism.—The stamps in sheets of one hundred are fed inward upon the table *f*, Fig. 1, and below the rollers *g* and roller *h*, which have upon their outer ends the gear-wheels *i j* and are carried at their ends in the hinged bars *m m*, which when turned upward will elevate the rollers *g*, in order that the stamps may be introduced below the same or removed or adjusted from below the same, as may be desired. The gear-wheels *i j*, carried by the rollers *g h*, mesh with the gear-wheels *n o*, as more clearly illustrated in Fig. 8, and these latter gear-wheels are in engagement with the racks *p q*, formed on the slide *r*, and receive their motion therefrom. The slide *r* is provided upon its lower surface with the teeth *s*, and these are engaged by the rocking segment *t*, which is in the form of a bell-crank lever and is operated, as illustrated in Fig. 2, by the cam *w*. The segment *t* imparts simply a reciprocating motion to the slide *r* and racks *p q* to effect the revolving motion of the gear-wheels *n o*, and these gear-wheels when in motion cause the gear-wheels *i j* and through them the rollers

g h to revolve, feeding the sheet of stamps inward upon the table *f*. It is desirable that the rollers shall have an intermittent motion and only revolve when the slide *r* and segment *t* are moving outward, and hence, as illustrated in Figs. 8 and 9, the ends of the shafts of the rollers *i j* carry the ratchet-wheels *a*, and upon the face of the gear-wheels *i j* are secured the pawls *y* to engage these ratchets. Likewise the gear-wheels *n o* are loose upon their shafts and carry pawls *a'*, while rigidly secured upon the shafts of said gear-wheels *n o* are the ratchet-wheels *b'*. The pawls *y* and *a'* are arranged to slide over the teeth of their respective ratchet-wheels during the inward travel of the slide *r* and to engage said teeth during the outward travel of said slide, and hence when the slide *r* is traveling outward toward the right-hand end of the machine the gear-wheels *n o* will revolve and impart motion to the gear-wheels *i j*, thus feeding inward the sheet of stamps. The timing of the slide *r* is such that with each inward feeding movement of the sheet of stamps the said sheet will travel a distance equal to one of its rows of stamps, and this feeding inward of one of the rows of stamps is only done after the innermost row of stamps has been consumed by the pasting of one stamp at a time upon the envelopes or cards as the latter are fed inward by the rollers *J K*. The roller *h* is in advance of and larger than the rollers *g*, in order that the roller *h* may have a somewhat quicker movement than the rollers *g*, and this is for the purpose, as illustrated in Fig. 1, of causing the innermost detached row of stamps on the table *f* to travel away from the main body of the sheet of stamps. The increased size of the gear-wheels *j o* necessitates the additional rack *q* on the slide *r*.

Directly below the rollers *g h* are the corresponding rollers *g' h'*, Figs. 4 and 5, and upon the ends of the shafts of these rollers *g' h'* are secured the above-mentioned gear-wheels *n o* and ratchet-wheels *b'*. The rollers *g' h'* are clearly illustrated in Figs. 4 and 5, while the gear-wheels *i j n o* with their pawls and ratchets are clearly shown in Figs. 8 and 9. The hinged bars *m*, carrying the rollers *g*, are located one at each side of the table *f*, as shown in Fig. 1.

Intermediate the rollers *g g* and carried by the bars *m* is secured the elongated socket or sheath *d'*, as shown more clearly in Figs. 4 and 5, and below said socket or sheath *d'* and mounted in the guides *e'*, formed in the frame of the machine, is the elongated box or frame *f'*, carrying the knife *i'* and inclosing the lower end of the sheath *j'* for said knife, said sheath *j'* being mounted upon the springs *k'*, and hence being adapted to yield downward under pressure. The knife *i'* equals in length the width of the sheet of stamps being fed inward on the table *f* and is free within the sheath *j'*. The purpose of the knife *i'* is to detach at the proper time an entire row of

stamps from the main body of the sheet of stamps on the table *f*, and the knife *i'* is given its upward movement for the purpose of detaching the one row of stamps by means of the cam *m'* and lever *n'*, the latter, as shown in Fig. 4, being connected with the frame *f'* and operating, when acted upon by said cam *m'*, to drive said frame *f'* and knife *i'* upward until the cutting edge of the knife passes upward between the two rows of stamps and enters the sheath or socket *d'*. The upward movement of the frame *f'* acts to force the upper edges of the sheath *j'* against the lower edges of the socket *d'*, and these parts *j' d'* operate to pinch the meeting edges of the two rows of stamps between which the knife *i'* is ascending, thereby insuring a complete and clean detachment of the inner row of stamps from the main body of the sheet of stamps. When the frame *f'* is permitted to descend, the pressure on the springs *k'* will be relieved, and the upper end of the sheath *j'* will cease to press against the lower edges of the socket *d'*, and hence at this time the sheet of stamps may be fed freely inward by the rollers *g* and *g'* preparatory to another row of stamps being detached by the knife *i'*.

The detached row of stamps, which in the drawings is lettered *o'*, is fed up against the edge of the outer guide *p'*, Fig. 1, in line with the moistened corner of the envelop and also in line with the jaws *q' r'*, Fig. 6, whose purpose is to press the stamps one after another upon the moistened corner of the envelopes and detach the stamps as they are applied to the envelopes from the strip of stamps *o'*. The form of the jaws *q' r'* is illustrated in Fig. 6, and the said jaws are therein shown as pressing a stamp upon the corner of the envelop, which in said figure and Fig. 11 is lettered *s'*.

The envelopes or cards, after being moistened by the plunger *L*, are carried inward by the rollers *J K* until they are between the auxiliary rollers *t' w'* and have their moistened corners over the lower jaw *q'* and below the upper jaw *r'*, and while the envelopes are in this position the detached row of stamps *o'* is fed inward sufficiently for the outer one of the stamps of the row *o'* to pass over the moistened corner of the envelop and below the upper jaw *r'*. When the envelop and stamp are in this position, the upper jaw *r'* will close downward and press the stamp upon the moistened corner of the envelop and in addition depress the lower jaw *q'* sufficiently to effect the detachment of the stamp then fastened to the envelop from the remaining portion of the row of stamps *o'*. The lower jaw *q'* is pivotally mounted, as shown in Fig. 6, upon the pivot *x'*, and upon this same pivot is mounted the upper jaw *r'*. The lower jaw *q'* is permitted to have a limited downwardly-turning movement under the pressure of the upper jaw *r'*, and the jaw *r'* receives its movement from the cam *y'*, acting upon the pivoted lever *z'*, which, as shown in Figs. 2 and 3, is connected by the rods *A'*, and the pivot-shaft *x'*,

carrying the upper jaw r' . The shank end of the upper jaw r' is connected to the rods A' , and between it and the shank end of the jaw q' is a coiled spring h' , Fig. 6, by which the said lower jaw q' is yieldingly maintained in its relation to the upper jaw r' . After the envelop or card has received the stamp and the latter has been detached by the movement downward of the jaws $q' r'$ to the position shown in Fig. 6 the said jaws will open to release the envelop or card, and at this time the rollers $t' w'$ will revolve and withdraw the then stamped envelop or card from the jaws $q' r'$ and cause the same to travel to the left, looking at Fig. 1, and permit it to fall into a suitable receptacle or upon a chute or whatever may be provided to receive the stamped envelops or cards. The roller w' will be mounted in the upper arm of a bell-crank lever B' , as shown in Fig. 6, in order that the said roller w' may be lowered entirely free of the roller t' , as shown in Fig. 3, during the time the rollers $J K$ are feeding the moistened envelop or card forward to the jaws $q' r'$ and that after the moistened envelop or card has reached the jaws $q' r'$ the said roller w' may ascend to firmly hold the same against the roller t' . The bell-crank lever B' is operated by the cam C' to have an oscillating motion, and the rollers $t' w'$ will be caused to revolve in order to feed the stamped envelop or card s' outward to the left, as shown by dotted lines in Fig. 6, by means of the sprocket-chain D' or other suitable gearing adapted for this purpose. The rollers $J K$ feed the moistened envelops between the rollers $t' w'$ and jaws $q' r'$, and the rollers $t' w'$ thereafter discharge the stamped envelops or cards from the machine.

The detached row of stamps o' is fed inward by intermittent movements to the jaws $q' r'$ by means of the two vertical pins $E' E'$, connected to the bar F' , which extends over the row of stamps o' and is secured to the front end of the slide G' , which has a reciprocating motion between the guide p' and guide H' . The slide G' is illustrated more clearly in Figs. 13 to 16, inclusive, in which it will be seen that the slide G' is pivotally secured at its outer end upon the stud I' and has a normal upward tension imparted to it by the spring J' . The slide G' is confined within the guiding loop or sleeve K' and receives its reciprocating motion between the guides $p' H'$ from the main slide L' , to which the stud I' is rigidly secured. The slide L' , carrying the hinged slide G' , receives its reciprocating motion in the guides $p' H'$ from the cam M' on the driving-shaft through the medium of the lever N' and link O' , the latter being pivotally connected to said slide L' , as shown in Fig. 1. When the slides $L' G'$ are moving toward the envelops or cards, the pins E' are in their depressed position in order to engage the row of stamps o' by entering the perforations between two of the stamps, and at such time said pins will move the row of stamps o' a

distance sufficient to cause one of the stamps to pass between the jaws $q' r'$ and over the moistened corner of the envelop. During the return movement of the slides $L' G'$ in a direction from the envelops or cards the pins E' will remain in their elevated position, so as to pass over without contact with the stamps o' . In Fig. 10 the slide G' is shown in its depressed position with the points of the pins E' in contact with the row of stamps o' , said pins being in their rear position and the jaws $q' r'$ being opened from one another; while in Fig. 11 the pins E' are shown in their depressed position and in the position they occupy after being moved toward the envelops or cards to feed a stamp between the jaws $q' r'$, which, as above described, at such time have between them the moistened envelop or card and close to press the stamp thus fed by the pins E' upon the moistened corner of the envelop and to detach said stamp.

The means for depressing the pins E' upon the row of stamps o' and of permitting the elevation of said pins E' during their return movement, so that they may pass over the stamps o' , are shown in detail in Figs. 13 to 16, inclusive. The front ends of the guides $p' H'$ have formed in them the recesses P' the front surfaces of the walls of which are downwardly inclined, as indicated at Q' , and the front end of the slide G' is provided with a cross-bar R' , which is of a size adapted to pass downward through said recesses P' and enter the forward part of the grooves S' through which the slide L' has its movement. The extent of the reciprocating motion of the slide G' is a limited one, being equal to the distance represented by one stamp of the row of stamps o' . The normal outward position (from the jaws $q' r'$) of the slide G' is that illustrated in Fig. 14, in which it will be seen that the cross-bar R' of said slide is within the grooves S' , and under this condition the pins E' are in their depressed position. When the slide L' and slide G' move inward to feed the row of stamps o' toward the envelops or cards, the cross-bar R' remains in the grooves S' until it passes beyond the end thereof, at which time the spring J' will elevate said slide G' with its transverse bar F' and pins E' , as shown in Fig. 15, this upward movement carrying the cross-bar R' against the projecting ends of the cams T' , which are simply two metallic pieces of the outline illustrated in Figs. 14 and 15 and carried at the outer ends of the leaf-springs V' , which are secured at their rear ends to the guides $p' H'$. Upon the outward movement of the slide L' carrying the slide G' , from the position illustrated in Fig. 15 to that illustrated in Fig. 14 the cross-bar R' will follow the lower surfaces of the cams T' and pass down the inclined front walls Q' of the recesses P' and return to the grooves S' , as shown in Fig. 14. The cross-bar R' thus moves inward horizontally along the groove S' in order that the pins E' may during such movement feed the row of stamps

o' inward toward the envelopes or cards, and upon reaching the extent of its inward movement said cross-bar R' then immediately is elevated by the spring J' against the lower surfaces of the cams T', whereupon the slides L' G' reverse their movement or return outward to their normal position, and while doing so pull the cross-bar R' along the under surfaces of said cams T', which during such movement force said cross-bar R' downward (depressing the slide G') into the grooves S' preparatory to the succeeding inward movement of said slides L' G' to feed another stamp to the jaws q' r'.

In order to more fully insure the uniform feeding of the row of stamps o', there is provided the hinged bar W', (shown more fully in Figs. 1, 3, 10, and 11,) which has a spring X' pressing upon it and which passes directly between but entirely free of the pins E' E'. The front end of the bar W' is furnished with a projecting shoulder or finger Y' of sufficient extent to pass above the upper jaw r', as illustrated in Figs. 10 and 11. The finger Y' on the bar W' projects over the upper clamping-jaw r', and this jaw r', when in its closed position, (shown in Fig. 11,) will have no effect upon the bar W' further than to permit the spring X' to close said bar W' downward; but when said jaw r' opens upward to free the stamped envelop or card it will act upon the finger Y' and elevate the bar W' free of the row of stamps o', as shown in Fig. 10. The bar W' has no sliding movement, but simply a hinged movement from the stationary pivot a'', which is mounted in the lug b''. During all of the time that the jaw r' is in its open position, both to receive the moistened envelop or card and the stamp to be applied thereon, the bar W' will be held elevated, as shown in Fig. 10; but as soon as the line of stamps o' has traveled inward sufficiently to deliver a stamp below the jaw r' the said jaw will close downward, as shown in Fig. 11, and this will permit the spring X' to close the bar W' downward and cause its wider surface Z' to press upon that stamp upon the table f which is adjacent to the stamp then between the jaws q' r' and over the envelop or card; in which position it will firmly maintain the line of stamps o' undisturbed upon the bed or table f, while the jaw r', pressing downward against the envelop or card and against the lower jaw q', causes the said jaw q' to turn downward sufficiently to tear the stamp then upon the envelop from the main line of stamps o'. The surface Z' of the bar W' thus acts as a clamp to hold the line of stamps o' from slipping during the final limited downward movement of the jaws q' r', which serves to detach the stamp then pressed upon the envelop or card between said jaws q' r'.

The timing of the machine is such that the slides L' G' will make ten inward movements to feed the ten stamps of the row one after another, while the feeding mechanism feed-

ing in the sheet of stamps has only sufficient movement to feed in one row of stamps to take the place of the line of stamps o' then consumed by having been applied to the envelopes or cards. The movement of the slides L' G' will correspond with the movement of the slide D and plunger L in order that as each moistened envelop is delivered to the jaws q' r' the slide G' with its parts will instantly have a corresponding movement to deliver a stamp to the moistened envelop or card then between the jaws q' r'.

The magazine A for receiving the envelopes or cards to be moistened and stamped has the exit-opening f'', as shown in Fig. 12, extending entirely across it on a level with the upper surface of the slide D, and this opening f'' will be of a width adapted to permit the passage through the same of all usual thicknesses of envelopes. In order that the exit-opening f'' may be adapted to the thickness of the envelop or card to pass through the same, (for the purpose of preventing more than one envelop or card at a time from escaping through the opening f''), I provide the adjustable plate g'', which is clearly illustrated in Fig. 12, and which is adjustable vertically to more or less open or close the opening f''. The plate g'' renders the opening f'' adjustable in accordance with the thickness of the individual envelopes or cards contained in the magazine A.

Power may be applied to the machine through the sprocket-chain i'' and sprocket-wheel j'', the latter being on the driving-shaft X, whose end opposite to the sprocket-wheel j'' is mounted in the standard m'', Fig. 4. The shaft X carries the cams y', W', M', and C', and also the bevel gear-wheel k'', which engages the bevel gear-wheel n'', secured on the shaft G, which carries the cam H for the slide D, and also the bevel gear-wheel o'', which engages the bevel gear-wheel p'' on the shaft Y, this latter shaft carrying the cam e for the bell-crank lever d and also the sprocket-wheel a for the chain Z. The shaft X also imparts an intermittent motion to the shaft X'', Figs. 2 and 3, which extends transversely below the table f and carries the cam m for the knife i', cam w for the feed-segment t, and the notched or ratchet wheel A'', which is engaged by the pin B'' on the wheel C'', the latter being on the shaft X and the rotation of which imparts an intermittent revolving motion to the shaft X'' and the cams carried thereby. The shaft X has ten revolutions to one revolution of the shaft X''. Thus the ten individual stamps of the row o' are fed to the envelopes, while one row of stamps of the main sheet of stamps is fed inward and detached. I reserve the right to modify the power-shafts and their intermediate gears, whereby motion is imparted from one to the other of said shafts, as circumstances may render desirable.

The machine above described thus comprises a magazine to receive the envelopes or

cards to be stamped and provided with means for feeding the envelopes or cards outward, one after another, to the moistening-plunger and feed-rollers, which deliver the moistened envelopes or cards to the jaws by which pressure is applied for affixing the stamp to the envelopes or cards and to feed-rollers, which, after the stamps have been affixed to the envelopes or cards, will withdraw the said envelopes or cards from the said jaws and discharge them from the machine, and also comprises means for feeding in a sheet of one hundred stamps, detaching the rows thereof one after another, as required, and feeding the detached row of stamps by successive movements to deliver the end stamp of the row between the said jaws and over the moistened corner of the envelop or card, the said jaws clamping the stamp upon the said moistened corner of the envelop or card and detaching the same from the row of stamps, thus effecting the stamping of the envelop or card and permitting the discharging-rollers, above referred to, to withdraw the stamped envelop or card and discharge the same from the machine.

I do not limit the invention to all of the details and structural features shown in the drawings and described above, since many of the same may be modified within the skill of the mechanic without departing from the spirit of the invention, and in Fig. 17 I illustrate a modified form of the invention in which in lieu of the slide D for feeding the envelopes or cards one after another from the magazine A, I provide a soft-surfaced belt d'' , traveling on rollers e'' and passing through the lower end of the magazine A directly below the stack of envelopes or cards F. The belt d'' will have an intermittent motion in order to feed the envelopes or cards one after another outward to the position shown in Figs. 1 and 17 to receive the moisture from the plunger L, whereupon the rollers J K will come into play and take the then-moistened envelop or card inward to the jaws $q' r'$, as above described. In the modified form of the invention illustrated in Fig. 17 the roller e'' will correspond with the roller K of Fig. 10. Fig. 17 is presented to show that it is not necessary in all cases to use the slide D and that the mechanical details of parts of the machine may be modified when considered necessary or desirable.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for stamping envelopes and cards, the magazine to receive the envelopes or cards and having the exit-opening therefrom, means for imparting a limited outward movement to said envelopes or cards in succession from said magazine, a moistened plunger in the path of said envelopes or cards, for moistening the corner of the same, means for reciprocating said plunger from the main driving-shaft of the machine and in time with the means which feed the envelopes or cards to the plunger, and additional feeding means

for then moving the moistened envelopes or cards inward, combined with mechanism for feeding the stamps to the moistened corner of the envelopes or cards, and means for pressing the stamp upon said moistened corner: substantially as set forth.

2. In a machine for stamping envelopes and cards, a magazine to receive the envelopes and cards and having an exit-opening therefor, means for imparting a limited outward movement to said envelopes or cards in succession from said magazine, the moistened plunger in the path of said envelopes or cards, the plunger to moisten the corner of the envelopes or cards, means for reciprocating said plunger from the main driving-shaft of the machine, and additional feeding devices for moving the moistened envelopes or cards inward from the said plunger, combined with means for feeding the stamps toward said moistened envelopes or cards, and means for pressing the stamps upon said moistened portion of the envelopes or cards and detaching the stamps as they are thus attached to the envelopes or cards from the main body of stamps: substantially as set forth.

3. In a machine for stamping envelopes and cards, the magazine receiving the envelopes or cards to be stamped and having an exit-opening therefrom, means for imparting a limited outward movement to said envelopes or cards in succession from said magazine, the moistened plunger in the path of the envelopes or cards to moisten the corner of the same, means for reciprocating said plunger from the driving-shaft of the machine, and additional feeding devices for moving said cards or envelopes inward from the said plunger, combined with mechanism for feeding the stamps in rows, means for applying the end stamp of the row to the moistened portion of the envelop or card then in position, means for detaching said end stamp from the row of stamps, and means for automatically withdrawing the stamped envelopes or cards and discharging them from the machine; substantially as set forth.

4. In a machine for stamping envelopes or cards, the magazine receiving the envelopes or cards and having an exit-opening therefrom, means for feeding the envelopes or cards from said magazine, a moistened plunger for moistening the envelopes or cards as they leave said magazine preparatory to receiving the stamps, feed devices for delivering the moistened envelopes or cards inward, and a clamp into which the envelopes or cards are fed, combined with means for feeding a row of the stamps by successive movements to said clamp, and means for causing said clamp to affix a stamp upon the envelop or card and detach the same from the main body of stamps: substantially as set forth.

5. In a machine for stamping envelopes and cards, the magazine having an exit-opening therefrom and adapted to receive the envelopes or cards, means at the base of the stack

of envelopes or cards for feeding the latter one after another inward to the machine, feed-rolls receiving the envelopes or cards as they leave the magazine, and means for moistening the envelopes or cards after leaving the magazine, the said feed-rolls being adapted to deliver the moistened envelopes or cards inward to the stamping mechanism, combined with means for feeding the stamps toward the moistened envelopes, means for affixing the stamps upon the moistened envelopes or cards, and feed-rollers arranged at right angles to the first-mentioned feed-rolls for withdrawing the stamped envelopes or cards from the stamping mechanism and discharging the same from the machine; substantially as set forth.

6. In a machine for stamping envelopes or cards the magazine receiving the envelopes or cards to be stamped and having an exit-opening therefrom, the reciprocating slide at the base of the envelopes or cards and having the stud or pin to engage the envelopes or cards and move them through said exit-opening, feed-rolls receiving the envelopes or cards as they leave said magazine, the table over which said envelopes or cards are fed by said slide, the moistening-plunger above said table for moistening the envelopes or cards after leaving said magazine, and a clamp to receive the moistened envelopes or cards when fed inward by said feed-rolls, combined with means for feeding the stamps to said clamp, and means for actuating said clamp to affix the stamp upon the envelop or card within it and to detach said stamp from the main body of stamps; substantially as set forth.

7. In a machine for affixing stamps to envelopes and cards, the table and rolls for feeding the main sheet of stamps inward, means for severing one entire row of the stamps from the sheet, and means engaging said detached row of stamps and feeding the same outward by successive intermittent movements, one stamp of said row being exposed by each of said intermittent movements, combined with means for clamping the exposed stamp of said row as they are fed outward upon the envelop or card; substantially as set forth.

8. In a machine for stamping envelopes and cards, means for feeding the main sheet of stamps inward, means for severing the innermost row of said stamps from the main sheet of stamps, means for imparting an accelerated feeding movement to the detached row of stamps, and means for feeding said detached row of stamps to meet the envelopes or cards, combined with a clamp which receives the envelop or card to be stamped and affixes the exposed stamp of said row upon the card or envelop; substantially as set forth.

9. In a machine for applying stamps to envelopes or cards, means for automatically feeding the envelopes or cards inward, a moistener in the path of said envelopes or cards for automatically moistening the corner of the same, and means for feeding a row of said stamps

by successive movements toward the envelopes or cards, combined with the pair of pivoted clamping-jaws to receive the envelopes or cards to be stamped and the stamps of said row as fed, said jaws being adapted to affix the exposed stamp upon the envelop or card and by their pivotal movement to detach the affixed stamp from the said row of stamps; substantially as set forth.

10. In a machine for applying stamps to envelopes or cards, the rollers for feeding inward the sheet of stamps, the sheath or socket between said rollers, the vertically-movable knife adapted to move between the said rollers and into said sheath for the purpose of severing one row of stamps from the main sheet of stamps, means for actuating said knife, means for pressing the adjoining edges of the two rows of stamps while said knife is passing between said rows, and means for feeding the detached row of stamps outward by intermittent movements, combined with a clamp into which the moistened envelop or card is fed to receive the end stamp of said row, and means for actuating said clamp to affix said end stamp and detach the same from said row; substantially as set forth.

11. In a machine for applying stamps to envelopes or cards, the feed-rollers for feeding in the sheet of stamps, the sheath between said rollers, the frame carrying the knife and adapted to have a vertical movement, and the frame yieldingly supported within the said knife-carrying frame and adapted to bind the adjoining edges of the two rows of stamps between which said knife moves, combined with the additional feeding-rollers for feeding the detached row of stamps inward, means for feeding the detached row of stamps outward by intermittent movement, the clamp for receiving the envelop or card to be stamped, and means for actuating said clamp to affix the end stamp of said detached row upon the envelop or card and to detach said stamp from the row; substantially as set forth.

12. In a machine for affixing stamps to envelopes or cards, means for moistening the envelopes or cards preparatory to receiving the stamps and means for feeding a row of stamps by successive intermittent movements toward the moistened envelopes or cards, combined with the pivotally-mounted clamping-jaws q' , r' , between which the moistened envelopes or cards and the stamps of said row are fed, means for clamping said jaws upon the stamp and envelop to attach the former to the latter, and means for imparting to said jaws in unison a pivotal movement to detach the affixed stamp on the envelop from the row of stamps held by the stamp-feeding means; substantially as set forth.

13. In a machine for applying stamps to envelopes, a clamp to receive the envelopes to be stamped, combined with mechanism for feeding a row of stamps by successive movements to said clamp, said means comprising the reciprocating slide, the auxiliary slide hinged

thereto and having a spring-tension upward, the pins adapted to engage the stamps and carried by said auxiliary slide, means for depressing said pins against the stamps during the feeding movement of said slides, and means for again depressing said pins against the stamps at the end of their return movement preparatory to the succeeding feeding operation; substantially as set forth.

14. In a machine for applying stamps to envelopes, the clamp to receive the envelop and affix the stamp thereon, combined with means for feeding a row of stamps by successive movements to said clamp, said means comprising the reciprocating slide, the auxiliary slide hinged thereto, pins carried by said auxiliary slide to engage the stamps, a spring acting to throw the end of said auxiliary slide upward, means for retaining said auxiliary slide and said pins in their lower position during the feeding of the stamps, the spring-cams for returning said auxiliary slide and said pins to their lower position upon the return movement of same; substantially as set forth.

15. In a machine for applying stamps to envelopes or cards, the clamp to receive the envelop or card to be stamped and the stamp to be applied thereon, combined with means for feeding a row of stamps by successive movements to said envelop or card, said means comprising the hinged slide, the pins carried thereby and engaging the stamps, means for retaining said pins in their lower position during the feeding of the stamps and in their upward position during their return movement over the row of stamps, the hinged bar binding the stamps remaining upon the bed-plate and adapted to be raised by said clamp, and means for actuating said clamp to affix the stamp upon the envelop or card and detach the same from the row of stamps held by said bar; substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS W. FOWLER.

Witnesses:

CHARLES C. GILL,
E. JOS. BELKNAP.