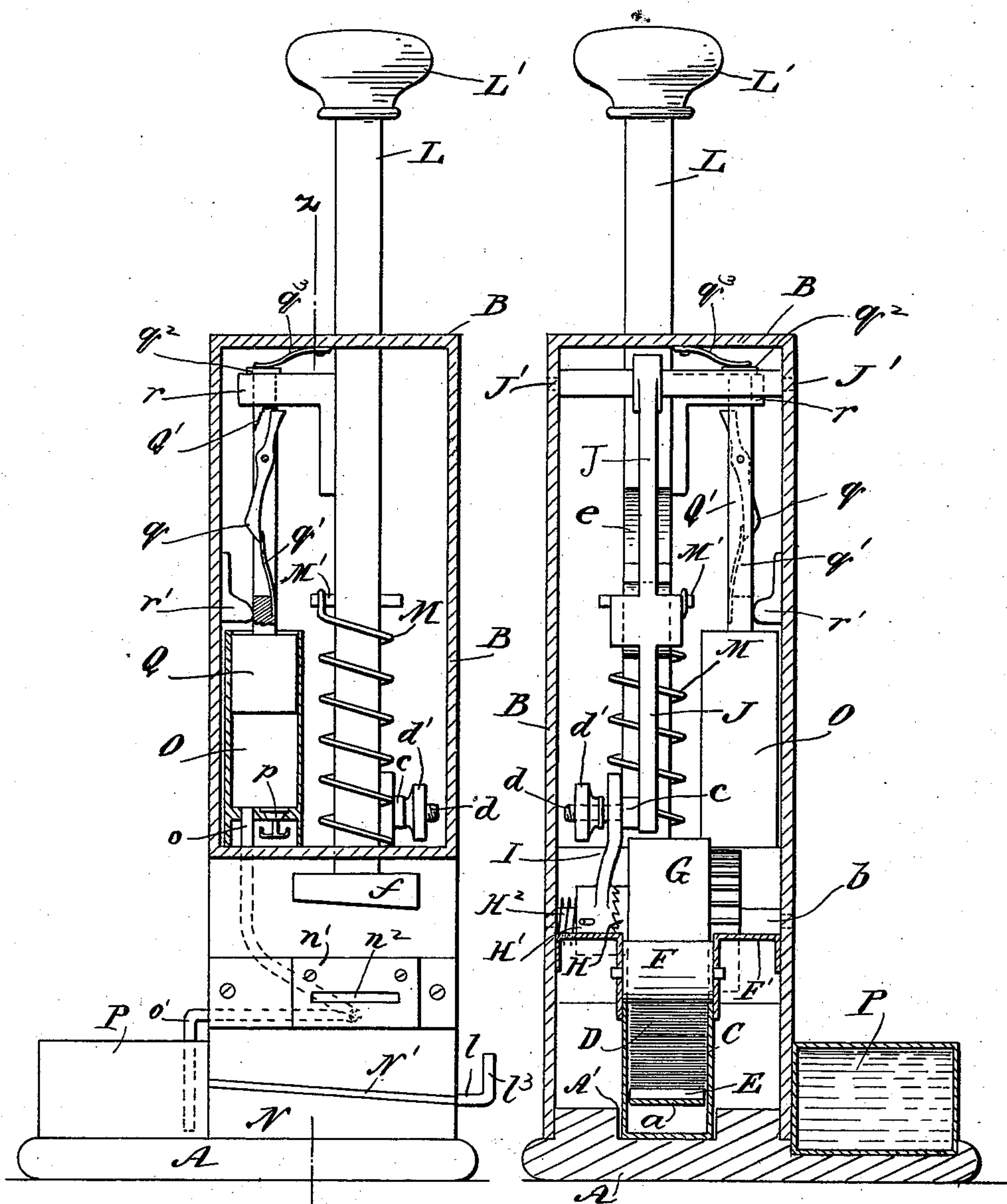


2 Sheets—Sheet 1.

Patented July 23, 1895.

Fig. 1.

Fig. 2.



WITNESSES:

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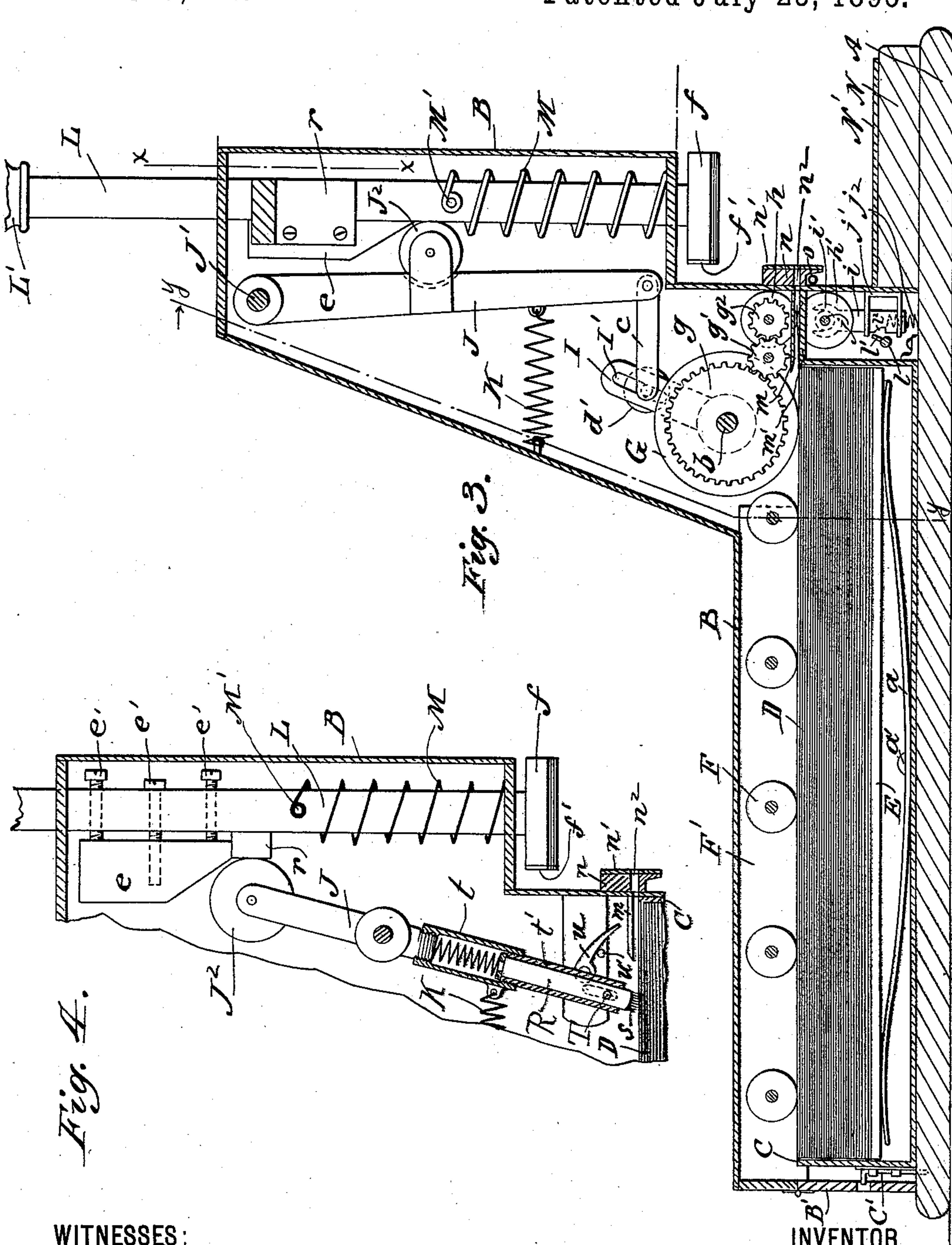
(No Model.)

2 Sheets—Sheet 2.

T. C. DEVLIN.
STAMP AFFIXING MACHINE.

No. 543,441.

Patented July 23, 1895.



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UNITED STATES PATENT OFFICE.

THOMAS C. DEVLIN, OF PORTLAND, OREGON, ASSIGNOR OF ONE-HALF TO
D. SOLIS COHEN AND SIGEL GRUTZE, OF SAME PLACE.

STAMP-AFFIXING MACHINE.

SPECIFICATION forming part of Letters Patent No. 543,441, dated July 23, 1895.

Application filed May 1, 1894. Serial No. 509,632. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. DEVLIN, of Portland, in the county of Multnomah, State of Oregon, have invented certain new and useful Improvements in Stamp-Affixing Machines, of which the following is a full, clear, and exact specification.

This invention relates to machines for affixing postage or other stamps to envelopes or packages, and has for its object to provide an automatic and perfectly-operating device of this character, through the agency of which the stamp may be cut from a sheet or strip, moistened, and secured upon the envelope at the proper corner or upon any other desired portion thereof by the mere movement of one single rod or lever, this invention being an improvement upon that for which I have made application for Letters Patent of the United States, the said application bearing date April 25, 1894, Serial No. 508,929.

This invention consists in the novel and simplified construction and arrangement of parts, hereinafter fully described and set forth in particularity.

In the accompanying drawings, forming part of this specification, in which like letters of reference designate corresponding parts in all the views, Figure 1 is a front elevation of a device embodying my invention, the front wall thereof being taken upon a sectional line corresponding to $x x$ in Fig. 3. Fig. 2 is a transverse section upon the line $y y$, Fig. 3, looking forwardly. Fig. 3 is a vertical longitudinal section upon the line $z z$, Fig. 1. Fig. 4 is a similar view of the upper portion of a modified form of the device.

The present invention is constructed of a base-piece A, extending upwardly from which is a housing or casing B of such a suitable size and shape as to inclose the whole of the mechanism hereinafter described. At the center of that portion of the base-piece supporting the casing is a longitudinal box C, adapted to receive a quantity of the postage or other stamp strips D, which said strips each preferably comprise ten of the postage-stamps, the said box C being of substantially the width of one of the stamps. At the bottom of this stamp-box is a steel or other me-

talic plate spring a , secured at the center thereof by a screw a' and supporting a movable false bottom E, which, when the stamp-strips D are placed thereon, serves with the aid of the spring a to force the said strips upwardly against the friction-rollers F, which are journaled in the beams F', secured to the top of the casing above the stamp-box C, which said beams extend downwardly beyond the top of the said stamp-box at each side thereof. This stamp-box C, which rests in a groove A' in the base-piece A, is held in position by a bolt C' and may be slid in place or removed from the device through the door B' at the rear of the casing B.

Near the forward end of the stamp-box is a roller G, mounted upon a journal b , having its bearings at either side of the casing. This roller G bears upon the stamp-strips D, and the periphery thereof is preferably roughened to facilitate contact with the topmost of the said strips, or may be provided with short fine teeth, if desired. At one side of the said roller is secured a drum H, and upon the journal b , on which the said roller and drum are mounted, is a friction-clutch H', which is normally held in contact with the drum H by means of the spring H², which said clutch is adapted to rotate the said drum only upon the rearward movement thereof. To the arm I of this clutch, which extends upwardly therefrom, and has an elongated groove I' at the top thereof, is secured a connecting-rod c , which is secured to the said clutch-arm by a pin d passing through the groove I', the said pin being screw-threaded and having thereon a thumb-nut d' , by means of which and of the pin the connecting-rod c may be held at any point in the said groove I'. This connecting-rod is pivoted at its forward end to a lever J, which is itself pivoted at the top thereof in the casing at J', and has near the center thereof a friction-roller J², the said lever being connected to the casing by a spiral spring K.

Toward the front of the device, in the upper or projecting part of the casing B, is a vertically-movable rod L, having a knob L' at the top, and near the middle a block e , beveled at the lower portion thereof and adapted, when the rod is depressed, to engage with the friction-roller J² and force the lever

J rearwardly, thereby turning the roller G through the agency of the connecting-rod *c* and the clutch H'. This rod L has a spiral spring M surrounding the same at the lower end thereof, which said spring is fastened to the rod by a pin M', and at the bottom of the said rod is secured a pressing-block *f*, carrying at the rear thereof the inclined cutter-blade *f*'.

Upon the side of the roller G, opposite to the clutch H', is secured, or is mounted upon the same journal as the said roller, a gear-wheel *g*, engaging by means of the smaller gear *g*' with the gear-wheel *g*², similarly secured to a roller *h*, journaled in the casing immediately behind the front wall thereof. Beneath this roller *h* is a pair of rollers *h*', which are loosely journaled to permit of slight vertical movement thereof and are held normally in engagement with the upper roller *h* by means of the rod *i*, having the forked head *i*', which bears against the under side of the axle *j*, on which the said lower rollers are loosely mounted, the said rod *i* resting in the support *j*' and having beneath the same a spiral spring *j*². The rod *i* may be depressed and the lower rollers *h*' released from engagement with the upper roller *h* by turning the shaft *l*, which has thereon a lug *l*', adapted to engage with the notch *l*² in the rod. This shaft is turned by means of a handle *l*³ upon the same outside of the casing.

At either side of the rollers *h* and *h*' are guide-pieces *m m*', which serve to guide the postage-stamp strips D between the said rollers. At the front of the casing is secured a block *n*, having thereon the hardened steel plate *n*', both the said plate and the block of the casing having slots *n*² therein aligning with each other and with the space intervening the guide-pieces *m m*'. Below the block *n* is a slab N, inclined to correspond with the pressing-block *f* and cutter-blade *f*', the said slab having a rubber or other flexible covering *m*' upon the upper surface thereof.

At one side of the rod L is an air-pump or cylinder O, having a pipe *o* branching off from the bottom thereof and opening immediately below the delivery-slot *n*², where it meets a pipe *o*', leading thereto from a water-reservoir P. The cylinder has at the bottom thereof a valve *p* adapted to open inwardly only.

Within the cylinder O, which is open at the top, is a piston-head Q, the rod Q' of which is provided near the top with a catch *q*, which is held in a slightly oblique position by means of the spring *q*'. This piston-rod Q' rests in the arm *r*, secured to the operating-rod L, and has at the top thereof a bead or flange *q*², upon which bears a spring *q*³, secured to the top of the casing. Immediately above the cylinder O is a lug or shoulder *r*', which is adapted, when the piston-rod Q' is depressed, to force the catch *q* inwardly or to a vertical position against the spring *q*'.

The operation of the device will be readily

apparent from the foregoing description, taken in connection with the drawings. The postage or other stamps having first been arranged in strips D and inserted in the stamp-box C, where they are held upwardly against the rollers F, the envelope or other package to be stamped is placed upon the slab N, the rod L is depressed by means of the knob L', the block *e* thereof engaging with the friction-roller J², thereby forcing the lever J rearwardly, and by means of the connecting-rod *c* the clutch-arm I as well, thereby turning the feed-roller G, which engages with the topmost of the stamp-strips D, and forces the same forward through the guide-pieces *m m*' in between the rollers *h* and *h*'; and the upper roller *h* being also turned through the agency of the gears *g, g*', and *g*² the said stamp-strip is fed forward through the slot *n*² the length of one stamp beyond the plate *n*'. As the block is beveled only at the lower portion thereof, by the time the stamp has been fed as above stated, the lever J and the feed-rollers will not be further actuated by the rod L. As this feeding is being effected, the block *r* upon the side of the rod L will engage with the projecting top of the catch *q* and depress the piston-rod Q', thereby forcing air through the pipe *o*, causing the water which will be present in the pipe *o*' to be sprayed upon a portion of the envelope or package upon the slab N. As the piston-rod Q' is depressed, the catch *q* will come in contact with the shoulder *r*', and be forced inwardly thereby, and thereafter as the operating-rod L is depressed the arm *r* will pass the catch *q*, thus failing to further depress the piston-rod Q'. As soon as the atomizer of which the pipe *o* forms part, has been caused to moisten or spray upon the envelope and the pressure from the inside of the cylinder ceases, the valve *p* will open to permit the entrance of air thereinto, thus stopping the spray of the atomizer. After the spraying of the envelope and the feeding of the stamps have been effected, the rod L continues downwardly, and the cutter-blade F' thereon, in conjunction with the plate *n*', shears off the protruding stamp, which falls upon the envelope or package and is pressed thereon by the block *f* when the latter comes in contact with the said envelope or package. Upon releasing the knob L' the spring K, which connects the lever J to the casing B, re-adjusts the parts to their former positions. The feed of the roller G is regulated by adjusting the pin *d*, which secures the connecting-rod *c* to the clutch-arm I.

In Fig. 4 I have shown a modification of the device in which the lever J is pivoted at the center with the friction-roller J² at the top, and has at the end thereof pointed teeth *s* which engage with the stamp D. As the rod L is depressed, the block *e* forces the lever rearwardly at the top and forwardly at the bottom, thereby causing the said lever to feed the stamp-strip D through the guide-pieces

m m' and the slot *n*², as before. The lever J in this form is constructed in two parts, the upper of which is pivoted midway of its length and has its lower end screw-threaded to receive adjustably a cylindrical turnbuckle *t*, into whose lower end is also screwed the lower portion of the lever *t'*. Within the lower portion *t'* of the lever is slidably arranged a headed rod R, having a brush *s* at its lower protruding end. A pin T passed laterally through the rod plays in a slot in the said lower portion of the lever and thus prevents the turning of the rod and insures the correct operation of the brush at its end. It will be seen that by manipulation of the turnbuckle the length of the lever J may be varied. Secured to a suitable bracket on the casing of the apparatus is a lug or arm *u* by means of a pivot, the forward portion of said lug resting upon a pin *u'* to maintain it in the proper lowered position. This lug is in the path of the said pin T in the rod in the lower portion of the lever J, which said pin extends outwardly, and when the lever is moved forward moves below the lug *u* and raises it, allowing it to again fall to its place. When the lever J is returned the said pin rides over the lug *u* and thus raises the rod in the lever and the brush thereon from engagement with the stamps in their receptacles. When the lever is again in its retracted position the pin T has passed entirely over the lug, and the brush is again in engagement with the stamps. In this modification the block *e* is secured to the rod L by screws *e'*, consequently being adjustable to regulate the swinging of the lever according to the length of the stamps to be fed.

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

1. A stamp affixing machine comprising a spring-controlled actuating rod carrying a pressing block and cutter blade, a block on the actuating rod, a lever pivoted adjacent to said rod and in the path of said block, and adapted to be forced rearwardly by the downward movement thereof, a feed-roller arranged to bear upon the stamps, a clutch connecting with the lever and adapted to turn the said roller in a forward direction only, smaller rollers arranged in front of the feed roller and gearing therewith, a slotted plate secured in front of the said rollers and a stamp box adapted to receive strips of stamps,

having a spring bottom therein to hold the said stamps upwardly against the feed-roller, and a plurality of friction rollers arranged near the top of the box, substantially as shown and described. 60

2. In a stamp affixing machine, the combination, with a spring-controlled actuating rod, a stamp holder, feed-rollers, a cutter and pressing block, connecting to the actuating rod, of a moistening device comprising an air cylinder having a valve therein, a piston working in the said cylinder and resting in an arm secured to the actuating rod, a catch adapted to cause the said piston to be depressed at the first movement only of the actuating rod, and pipes leading from the said cylinder and from a water reservoir to a point below the stamp feed, substantially as shown and described. 70

3. A stamp affixing machine comprising a spring-controlled actuating rod carrying a pressing block and cutter blade, and having thereon an arm and a beveled block, a lever pivoted adjacent to the said rod, having a friction roller thereon, and connecting by means of a clutch to a feed roller, in such manner as to turn the same in a forward direction only, a pair of rollers gearing with the said feed-roller and having guides at either side thereof, a slotted plate secured in front of the said guides, a stamp receptacle adapted to receive strips of stamps, having a spring therein supporting a false bottom and adapted to hold the stamps upwardly in engagement with the feed-roller, a plurality of friction rollers arranged near the top of the stamp box, an air cylinder arranged near the actuating rod having a piston working therein and resting in the arm upon the rod, a catch upon the piston rod by means of which the said piston is depressed only upon the first movement of the rod, an inwardly opening valve in the bottom of the cylinder, and pipes leading from the same and from a water reservoir to a point below the delivery slot, substantially as shown and described. 80 85 90 95 100

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 25th day of April, 1894.

THOMAS C. DEVLIN.

Witnesses:

A. N. GAMBELL,
S. GRUTZE.