

(No Model.)

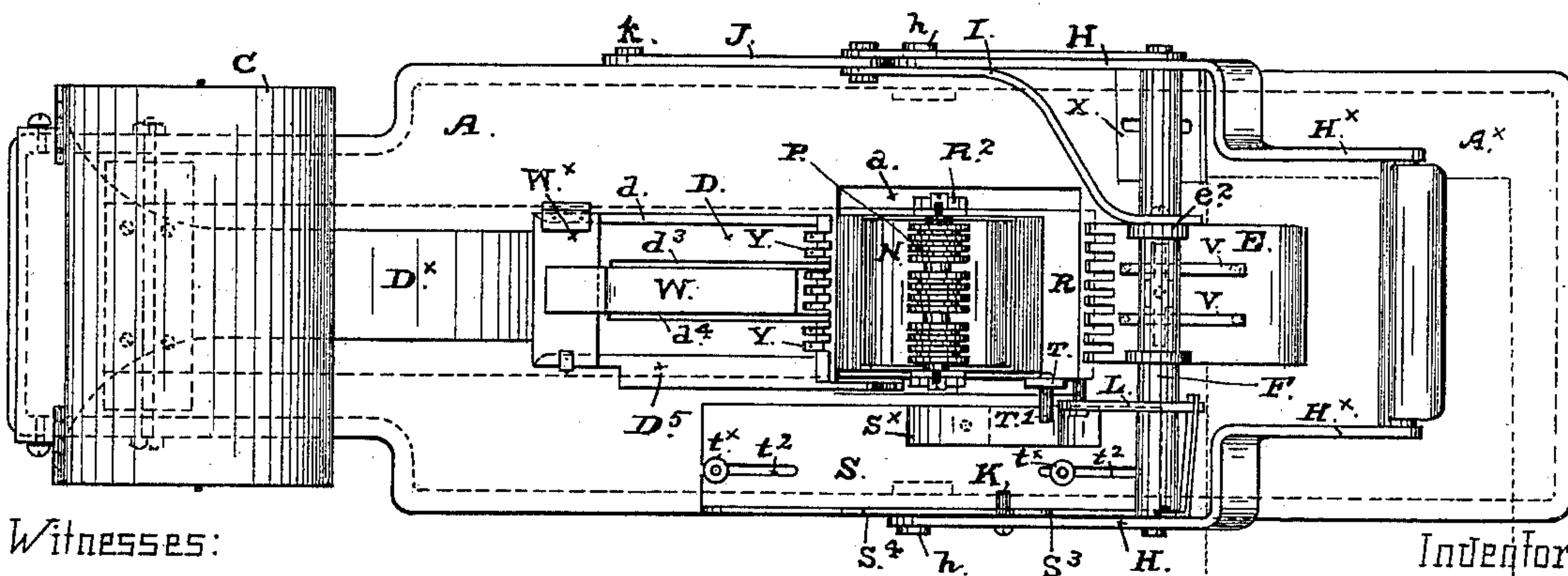
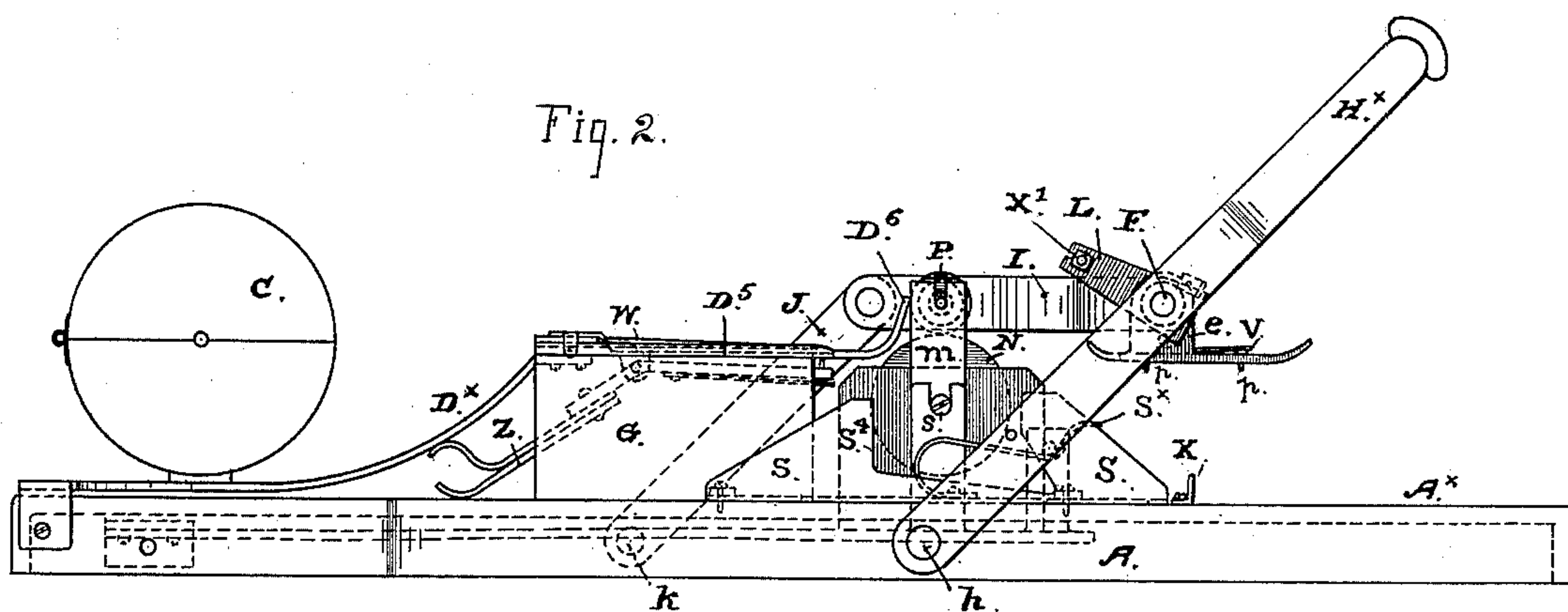
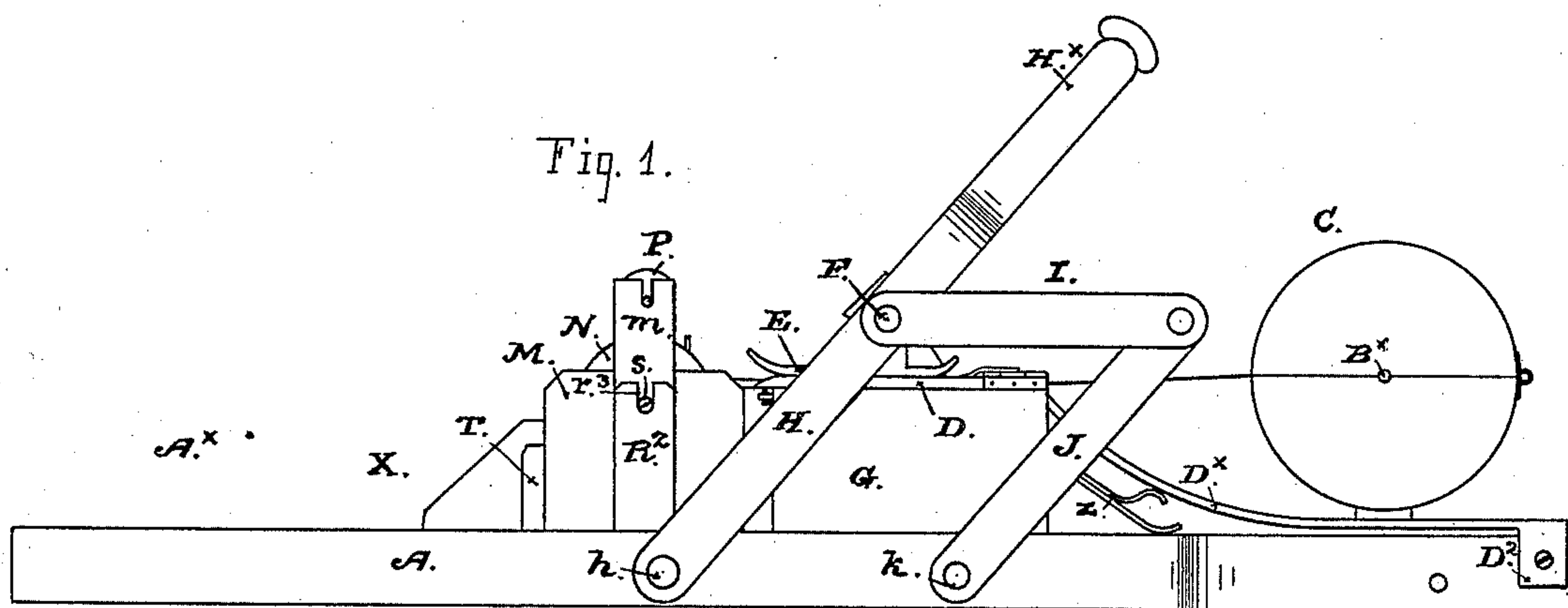
2 Sheets—Sheet 1.

L. J. BORIE.

MACHINE FOR AFFIXING POSTAGE STAMPS, &c.

No. 405,393.

Patented June 18, 1889.



Witnesses:

Wm. Mayer

J. E. Ford

Fig. 3.

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By Smith & Orton  
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Inventor

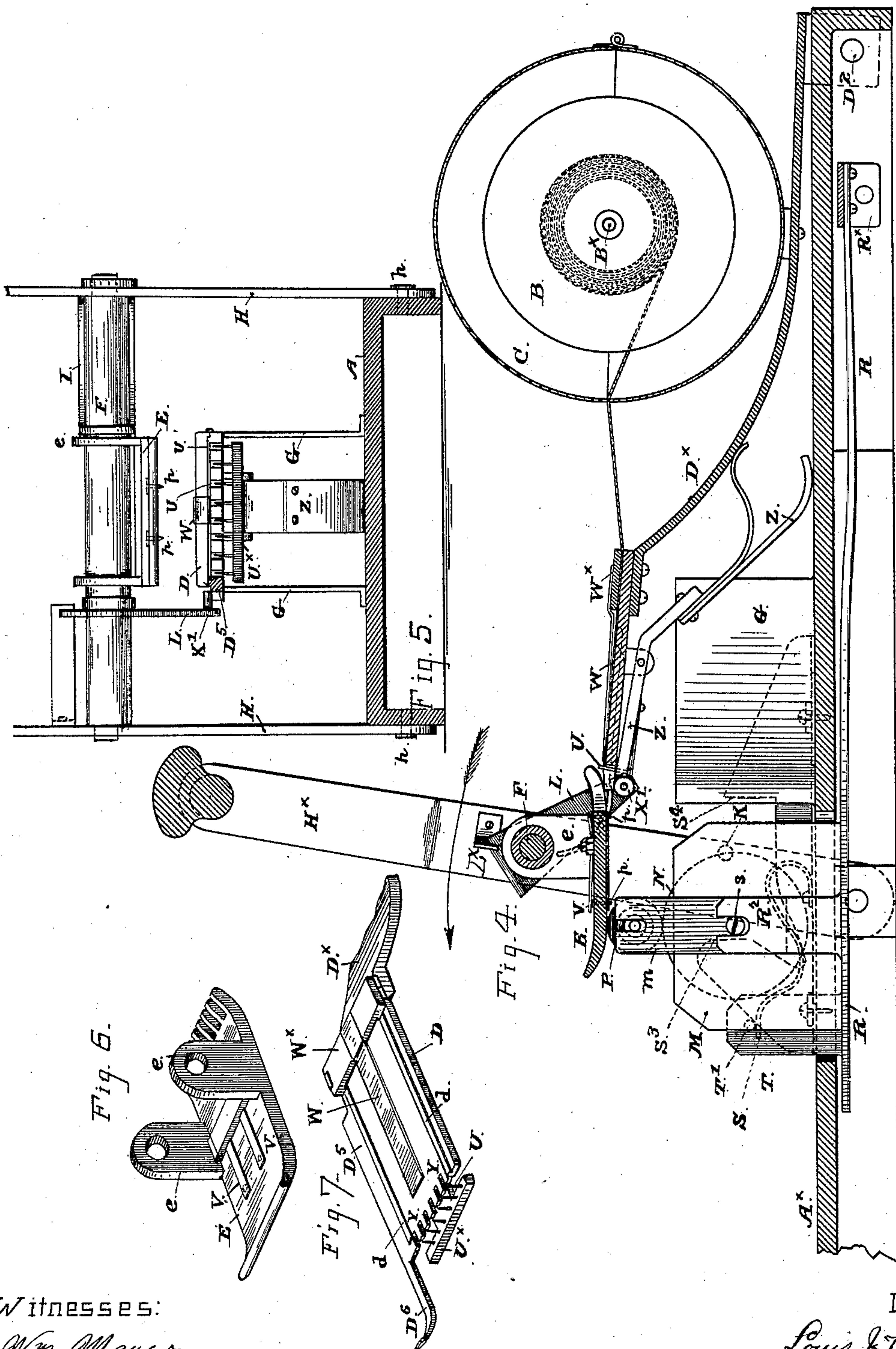
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# UNITED STATES PATENT OFFICE.

LOUIS J. BORIE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF  
TO GEORGE F. CHEVALIER, OF SAME PLACE.

## MACHINE FOR AFFIXING POSTAGE-STAMPS, &c.

SPECIFICATION forming part of Letters Patent No. 405,393, dated June 18, 1889.

Application filed August 20, 1888. Serial No. 283,267. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS J. BORIE, a citizen of the United States, residing in the city and county of San Francisco, and State of California, have invented certain new and useful Improvements in Machines for Affixing Postage-Stamps and Labels, of which the following is a specification.

My invention relates to machines for fixing postage-stamps to envelopes; and it consists in certain novel construction and combination of parts and mechanism, and in the production of a machine that separates the stamp from a strip or ribbon of stamps, moistens it on the gummed side, and applies it to the envelope in a rapid manner by the simple movement of a hand-lever.

The machine is adapted to place stamps on envelopes and similar packages with considerable saving in labor; and it can be arranged, also, to affix labels that are properly gummed and partially separated from one another by lines of perforations similar to postage-stamps.

The following description explains the nature of my improvements and the manner in which I proceed to construct and produce a machine in accordance with my invention, the accompanying drawings being referred to by figures and letters.

Figure 1 of the drawings represents my machine in side elevation. Fig. 2 is a side view taken from the left-hand side, showing the machine in elevation from that side. Fig. 3 is a top view. Fig. 4 is a vertical section, on a larger scale, taken longitudinally through the center of the machine. Fig. 5 represents the stamp-holding platen and the swinging presser-plate in front elevation, with the base of the machine in cross-section. In this view the water-box and reel are omitted. Figs. 6 and 7 are views in perspective of the presser-plate and the platen.

The same letters of reference are used to denote corresponding parts in all the figures of the drawings.

The parts of this improved machine comprises first, a spool or reel to hold the stamps or labels in the form of a ribbon, from which they are drawn off and separated one at a time as they are moistened and applied; second,

and, a platen that supports and presents the end of the ribbon of stamps in position; third, a swinging presser-plate having movement in the arc of a circle and operating to take the stamp from the platen, carry it forward in contact with a moistening device, and, finally, to apply it with suitable degree of pressure in a vertical direction down upon the envelope. In connection with the two principal parts of the machine—namely, the stamp-holding platen and the swinging presser-plate—there is a device on the plate to seize the stamp, and also on the platen to hold the ribbon when the first or end stamp is seized. These parts of the mechanism operate to detach the stamp from the ribbon at the line of perforations and fix it on the presser-plate in position to be carried forward in contact with the moistener and finally pressed down upon the envelope.

A is the base of the machine, made of convenient size to set upon a desk or table, and affording a rest or flat surface  $A^x$  at the front to take the envelope. An adjustable gage X is provided on this part to assist in properly placing the envelope for stamping. At the rear or opposite end of the table is set the spool or reel that carries the ribbon of stamps, and between these two points are set for operation the stamp-holding platen D, the moistening device, and the swinging presser-plate E. The spool B turns loosely on a spindle  $B^x$ , and to protect the stamps from dust and other matter liable to soil them a cylindrical case C, formed in two parts, hinged together at the back, is mounted in position to inclose the spool. This case, if used, may be of suitable length to contain several spools, each one carrying a ribbon of stamps of different denomination from the others, so that a supply of stamps may be always at hand in the machine ready for use. The case shown in Figs. 1, 2, and 3 of the drawings will accommodate three spools, and by changing their positions to bring the one to be used in the center of the case one spool can be substituted for the other, and either an empty spool be replaced by a full one or stamps of another denomination adjusted to be worked off in the machine.

A slit in the front of the case allows the end of



the ribbon of stamps to be drawn out to the platen D. This part is fixed on the end of a hinged plate D<sup>x</sup>, that is attached at the other end to the base A by a hinge or pivot D<sup>2</sup>, and from this end extends forward and with an upward curve to bring the plate D on a level with the top of the supporting-block G, and in substantially a horizontal position to rest on this support. The platen while resting on this block is at suitable height for the presser-plate E to operate with it, and this last-named part of the mechanism, being made to move in the arc of a circle through the medium of a pivoted oscillating frame H, plays between the platen and the envelope-holding table A<sup>x</sup> at the front of the machine, and is pressed alternately upon the platen and the envelope presented in position to be stamped at every stroke or oscillation of the presser.

The frame is composed of the two arms H H, that are pivoted at *h h* to the base A, and are joined together at the upper ends into a handle H<sup>x</sup>. Between the two arms is fixed the presser-plate E upon a cross-bar F, on which it is arranged to swing freely by being attached to it by the lugs *e e*, as seen in Figs. 3, 4, and 6 of the drawings. To one of the lugs, or at *e*<sup>2</sup>, Fig. 3, is secured the end of a flat bar I, that is pivoted at the opposite end to an arm J, extending upward from a pivot *k* on the side of the base, and is of suitable length to form with the parts H and J a parallelogram, the length of these two arms being the same between the points E and *h*. By this means the bar I is kept always horizontal and the bottom face of the presser-plate maintains the same horizontal position at all times. At one end of the oscillating movement it comes down perpendicularly upon the platen to seize the stamp, and at the other end, in like manner, it meets and presses upon the face of the envelope.

Between the two upright sides G of the platen-support the plate D<sup>x</sup> plays, while the platen itself rests at the sides on the top edges of the sides. In front of this support is located the moistener, so that in the movement of the presser in the forward direction after it has taken the stamp and detached it from the ribbon, the lower or gummed face of the stamp is drawn over the roller of the moistener and sufficiently wet by such contact to adhere to the envelope. This part of the mechanism comprises a water-box M, a fountain-roller N, and a smaller moistening-roller P, placed upon the fountain-roller and by contact with it acting to turn that roller in the box. The construction and arrangement of these parts will be understood from Figs. 2, 3, and 4 more particularly. The open water-box M is mounted on the end of the spring-plate R, that is attached at its rear end to the cross-piece R<sup>x</sup> underneath the base, and from that point extends forward to the opening *a* in the base, where the box is set. The box sets between the uprights R<sup>2</sup> on the plate, and while

being held in place by the trunnions *s* and open slots *r*<sup>3</sup> in the ends of the uprights it can be readily taken out to fill or empty. The supports *m*, fixed on the sides of the water-box, hold the moistening-roller in position over the larger roller N that sets in the box. The spring-plate R also carries an upright post T, having a stud or pin T' standing out horizontally and in line with a spring-tongue S<sup>x</sup>, that is part of or is fixed on a slide S, and by means of a stop-pin K on the arm of the oscillating frame at that side of the machine and the standing edges S<sup>3</sup> S<sup>4</sup> on the slide this last-named part is caused to move longitudinally at suitable intervals in the swing of the pivoted frame H, so that the spring is carried along under the stud T'. The form of this tongue S<sup>x</sup> is such that in the backward movement of the slide or in the direction toward the spool end of the machine the free end of the plate R is elevated and held up until the contrary movement of the slide takes place, and by this means the moistening-roller is brought into position to act against the bottom face of the presser-plate when it moves forward; but as it is necessary to prevent this contact during the backward movement of the presser when it is returning empty the pin K is made to move the slide in the opposite direction and lower the water-box after the presser E has passed across the roller P in the forward movement and before the backward movement begins, so that the presser will clear the roller when passing over it toward the platen to take another stamp. Consequently the slide will raise the moistener into place in the backward stroke and will allow it to drop when moved in the opposite direction. The slide is held by the pins *t*<sup>x</sup> and slots *t*<sup>2</sup> upon the top of the base A along one side of the opening *a*, and the tongue S<sup>x</sup> is fixed to it at one end to bring its free end under the stud T', as shown in Figs. 2, 3, and 4. The outer side of the slide is turned up perpendicularly to the base and is cut away to produce the vertical edges S<sup>3</sup> S<sup>4</sup> for the pin K to play between.

Figs. 4, 5, 6, and 7 show in detail more particularly the means by which the stamp is seized and fixed to the under side of the presser to be moistened and afterward pressed upon the envelope, and is also separated at the line of perforations from the end of the ribbon. The presser has four pins *p* setting from the upper side through holes, and of suitable length to project below the bottom face, beyond which their points are held by the flat springs V V with sufficient force to make them penetrate and take hold of the stamp on the platen when the presser is brought down upon it at the backward stroke. The springs are confined at the middle, but are free at the ends that bear upon the heads of the pins, and under the amount of pressure necessary to cause them to take into the stamp the pins are prevented by the springs from being forced back as their points



touch the stamp. That part of the surface of the platen directly under the points is grooved, as shown at  $d^3 d^4$ , Figs. 3 and 7, so that there is no solid surface for the points to strike, but as the presser is brought down upon the envelope to affix the stamp the resistance then offered to the points by the substance of the envelope is sufficient to overcome the strength of the springs V, and the points are consequently pressed back into the presser. The result of this is to strip the stamp from the points and leave it fixed to the envelope as the presser is raised. The platen D on which the stamp is presented to be seized by the presser has a flat spring-tongue W, fixed at its rear end to the hinged piece  $W^x$  and setting longitudinally over the top of the platen to bear upon the upper face of the stamp. The piece  $W^x$  is hinged at one side, so that it can be turned up out of the way to adjust the end of the ribbon in place at the beginning of operations, and the space under the hinged piece is of suitable size for the stamps to pass easily under it. Beneath the front end of the platen and in position to work through open slots Y Y provided in that edge is arranged a number of pins U U on a cross-bar  $U^x$ , that is operated by the movements of the pivoted bar Z to project the pins through the slots as often as the platen is raised into the position represented in Fig. 4 and to draw them down below the surface when the platen rests upon the bed-block, as shown in Figs. 1, 2, and 5. In the first-mentioned position, when standing above the surface of the platen, these pins catch into the perforations that separate the first stamp from the next one on the ribbon, so that as the presser, having seized the first stamp, draws it forward toward the moistening-roller, the ribbon is held back and the separation at the line of perforations takes place. As will be readily understood, this operation leaves the end stamp always in position at the front of the platen to be properly taken by the pins of the presser at the next forward movement. When the stamp is seized by the presser at this time, the platen is at rest in horizontal position upon the top of the bed-block G, and as the presser rises and moves forward the platen is caused to rise with it, so that the stamp is at first drawn along and then off the end of the platen; but at this time the pins U require to be drawn down below the surface to clear the stamp. The movement of the platen to follow the presser is produced by the arm L, carried by the oscillating frame H, the lower end of the arm having a roller-stud  $X'$ , and the arm itself being held in position by the spring  $L^x$ , which allows it to yield or move to a limited extent upon the bar F as a center. Its lower end sets in position to bring the roller  $X'$  upon the track  $D^5$  at the side of the platen during the backward movement of the presser-plate, and by

virtue of this position the roller drops off the end of the track and comes below it at the end of such backward stroke, so that when the forward movement begins the platen is raised up by the arm, and is held against the bottom of the presser as long as the roller continues to travel along beneath the track and until it passes from under the end of the horn  $D^6$ . When the end of the arm clears the horn, the platen drops back into place upon the block G, and in this position the roller  $X'$  strikes and travels upon the top of the surface  $D^5$  during the backward stroke of the oscillating presser.

The lever Z, that carries the pins U, is pivoted at  $Z^2$  in lugs on the bottom of the platen, and from behind this point the lever is carried at an angle down toward the base, where it terminates in a curved end, between which and the hinged plate  $D^x$  is interposed a flat spring. By virtue of this arrangement the outer end of the lever carrying the pins U is thrown up when the platen is raised, as in Fig. 4, while in the other position resting upon the support G the curved end of the lever Z is brought back by the pressure of the hinged plate  $D^x$  upon the spring, and the pins are therefore drawn down out of action into the slots Y.

By referring to the detail view, Fig. 7, it will be seen that the platen has tracks or raised portions at  $d d$  along the edges running longitudinally. These are provided for the bottom of the presser-plate to run on, so that the pressure shall be taken off the stamp when the pins have seized it, and so that the stamp next behind also shall not be caught by the presser.

In arranging the stamps or labels for this machine they are prepared in long strips or ribbons and the end of one attached to the end of another by the blank strip that is found on the sheet of stamps when purchased in that form. A long ribbon of the stamps is thus formed and is wound upon the spool with the face inward, so that when drawn off from beneath the spindle the gummed side shall be under or will rest upon the surface of the platen. The spool filled in this manner is placed in the case, and the end of the ribbon is drawn forward and inserted under the spring-tongue W. By moving the handle H back and forth the presser operates to take the stamps from the platen, carry them forward over the moistening-roller, and finally press them upon the envelopes as they are presented one at a time upon the table or surface at the front of the machine.

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

1. In a machine for affixing postage-stamps and gummed labels, the combination of the oscillating presser-plate having devices to seize and attach the stamp or label to its bottom surface, the hinged platen, and a device



on the platen for seizing the strip or ribbon of stamps at the first line of perforations, arranged for operation as set forth.

2. In a machine for affixing postage-stamps and gummed labels, the combination, with the oscillating presser-plate having devices to seize and attach the stamp to its bottom surface, of the moistening device arranged for operation, as described, to rise into contact with the stamp on the bottom of the presser-plate in the forward movement thereof and to drop clear of it at the return movement, as set forth.

3. In a machine for affixing postage-stamps and gummed labels, a spool for holding the stamps or labels in the form of a perforated strip or ribbon, the movable platen for holding and presenting the stamps at the end of the ribbon, having a device to engage and hold the ribbon at the first line of perforations, a moistening device arranged in front of said platen, the traveling presser-plate having devices to seize and attach a stamp from the end of the ribbon to the bottom face of the presser-plate when brought in contact with the platen, and means, substantially as described, for elevating the platen to meet the bottom of the presser-plate and remain in contact therewith during the first part of its forward movement, for seizing and pulling off the end stamp presented on the platen, substantially as set forth.

4. In a machine for affixing postage-stamps and gummed labels, the stamp-holding platen D, having a spring-tongue for holding down the stamp, the tracks or raised sides  $d$   $d$ , and the longitudinal grooves  $d^3$   $d^4$  on either side of the tongue, in combination with the oscillating presser-plate E, having yielding points  $p$ , for seizing and attaching the stamp to its bottom surface, and the oscillating frame H, for operating the presser-plate, substantially as described, to operate as set forth.

5. The combination of the base A, the spool B, mounted thereon at one end, the table or surface A<sup>x</sup> at the opposite end, the hinged and movable platen D and platen-support G, the spring W, adapted to hold down the stamp on the platen, the bar U<sup>x</sup>, having pins U, arranged to play through slits in the platen and engage in the line of perforations in the ribbon of stamps, the oscillating presser-plate E, having yielding points  $p$   $p$ , a moistening device in front of said platen capable of movement, and mechanism, substantially as de-

scribed, operated by or from the oscillating movements of the presser-plate for bringing the moistening device into action during the forward movement of the presser-plate, when the stamp is on it, and for depressing said device out of contact on the return when the presser-plate is empty, as set forth.

6. In a machine for affixing gummed stamps or labels, a presser-plate having oscillating movement in an arc, as described, between a stamp-holding bed or platen and a table or surface on which the article to be stamped or labeled is laid, and a device, in combination therewith, for seizing and attaching the stamp or label to the bottom of said plate, and adapted to take the stamp or label at the beginning of the upward movement and to carry it forward in contact with suitable moistening devices during said movement, and, finally, withdraw and leave the stamp or label upon the article or surface placed to receive it at the end of the oscillating movement, as set forth.

7. The herein-described machine for separating gummed stamps or labels from a strip or perforated ribbon, moistening the gummed side, and, finally, affixing it by pressure upon the envelope or article to be stamped, consisting, essentially, of a spool for carrying the ribbon, the hinged platen D, for presenting the end portion of the ribbon, a device on said platen for seizing the ribbon at the line of perforations that separate the first stamp, the oscillating presser-plate E, capable of movement in a vertical arc in a forward direction from over the said platen, and of maintaining a horizontal position during such movement, a moistening device arranged in front of the said platen and adapted to be set in the path of the presser-plate in its forward movement, and to be drawn out of contact with it on the return, a device on the presser-plate operating to seize and attach the stamp to the bottom of the plate, consisting of yielding points or pins projecting beyond the bottom of the plate, and the table or surface in front of the moistening device to present the envelope or article to be stamped, substantially as described, for operation as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

LOUIS J. BORIE. [L. s.]

Witnesses:

C. W. M. SMITH,  
ALFRED A. ENQUIST.