

(No Model.)

2 Sheets—Sheet 1.

L. C. VANDERLIP & S. J. McAFEE.
MAILING MACHINE.

No. 536,710.

Patented Apr. 2, 1895.

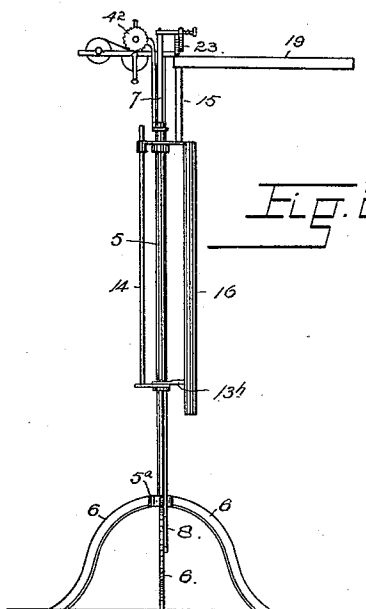


Fig. 2.

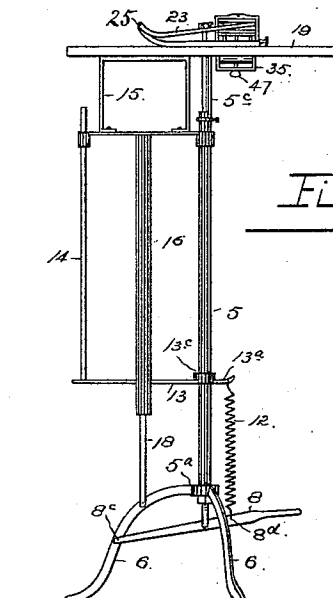


Fig. 1.

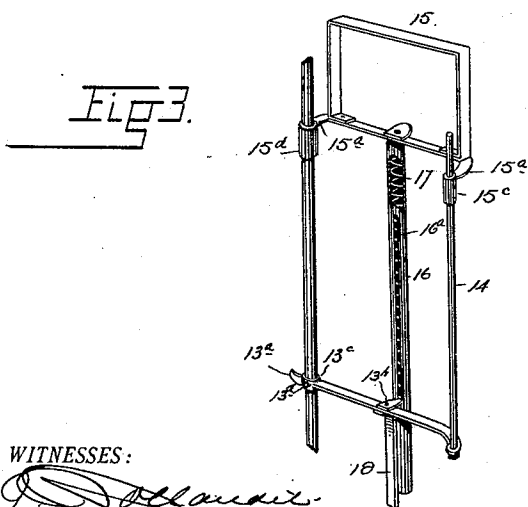


Fig. 3.

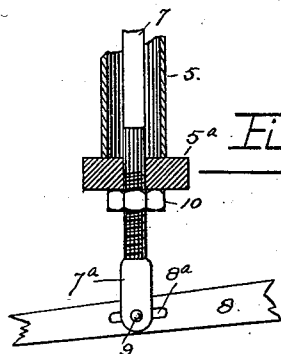


Fig. 4.

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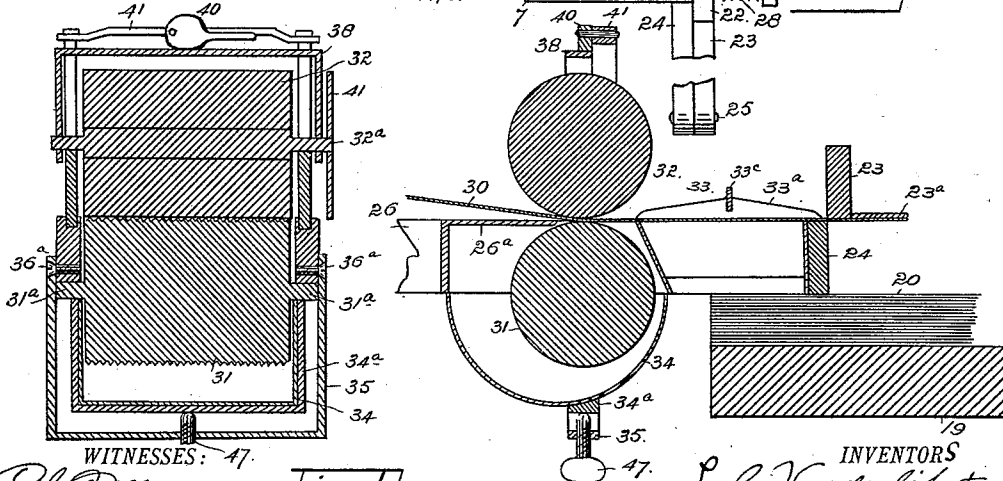
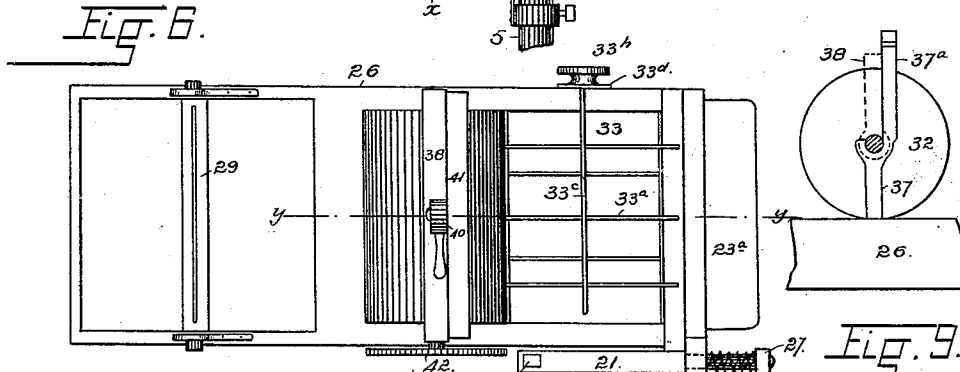
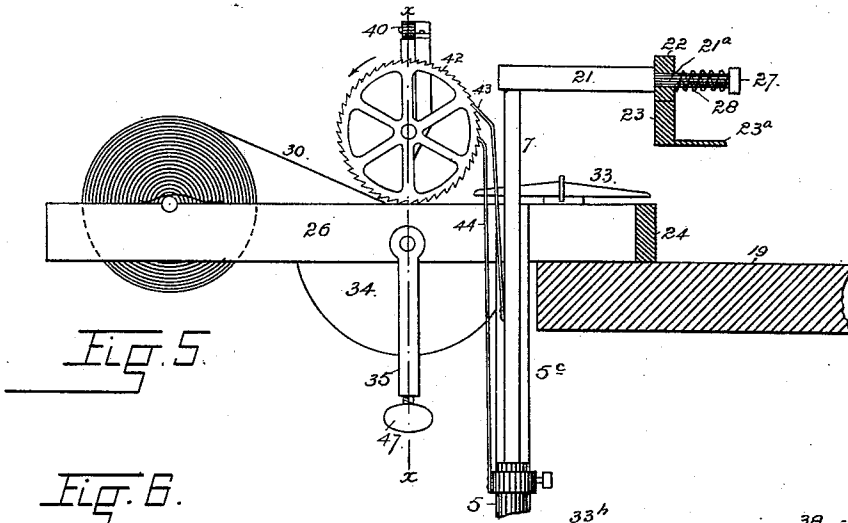
(No Model.)

2 Sheets—Sheet 2.

L. C. VANDERLIP & S. J. McAFEE.
MAILING MACHINE.

No. 536,710.

Patented Apr. 2, 1895.



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UNITED STATES PATENT OFFICE.

LORIN C. VANDERLIP AND SAMUEL J. MCAFEE, OF EVANS, COLORADO.

MAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 536,710, dated April 2, 1895.

Application filed February 21, 1894. Serial No. 500,994. (No model.)

To all whom it may concern:

Be it known that we, LORIN C. VANDERLIP and SAMUEL J. MCAFEE, citizens of the United States of America, residing at Evans, in the county of Weld and State of Colorado, have invented certain new and useful Improvements in Mailing-Machines; and we 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 figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in mailing machines or devices for gumming, cutting and applying printed name labels to mail matter, as newspapers.

The object is to provide a device which shall be of simple and economical construction, reliable, durable, efficient in use, and capable of rapid operation.

To these ends, the invention consists of the features, arrangements and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a front view of the machine shown on a small scale. Fig. 2 is a side view of the same. Fig. 3 is a fragmentary view in perspective, of the framework. Fig. 4 is a section, shown on a larger scale, taken through the lower part of the stationary tubular bar of the frame, the foot lever and the rod connected therewith, being shown in elevation. Fig. 5 is a side elevation, partly in section, of the operative parts of the mechanism, the lower framework being broken away. Fig. 6 is a top or plan view of the same, the table being removed. Fig. 7 is a vertical section taken on the line $x-x$, Fig. 5. Fig. 8 is a vertical section taken on the line $y-y$, Figs. 6 and 7. Fig. 9 is an end elevation of the elastic feed roller, the manner of supporting it upon the frame being illustrated.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views, let the numeral 5 designate a tubular bar whose lower extrem-

ity is attached to a sort of hub 5^a to which are attached the supporting legs 6.

Through a longitudinal opening in the bar 5 is passed a rod 7 pivoted on the foot lever 8 which is provided with a slot 8^a to receive the pivot-pin 9 which passes through an aperture formed in the lower flattened extremity 7^a of the rod. Above the part 7^a of the rod, it is threaded to receive an adjusting nut 10 which is screwed thereon to engagement with the part 5^a which forms its stop. The function of the nut 10 is to regulate the vertical stroke of the rod 7. The foot lever is fulcrumed at 8^a on one of the legs 6, while at a point 8^b somewhat farther from the fulcrum than the pivot 9, the lever is attached to one extremity of a coil-spring 12 whose opposite extremity is secured to a stop 13^a forming a part of a cross-arm 13 having a collar 13^c through which the bar passes, and to which the arm is fastened by a set screw 13^d. To the extremity of the arm 13 opposite from the stop 13^c is made fast a vertical rod 14. Vertically movable on the bar 5 and rod 14 is a rectangular frame 15 provided with lugs 15^a to which are attached sleeves 15^b and 15^d through which the rod and bar respectively pass.

Centrally secured to the lower part of the frame 15 is a depending tube 16 carrying a coil-spring 17 whose lower extremity engages a stop 13^b made fast to the arm 13 and projecting into a longitudinal slot 16^a formed in the tube 16. The arm 13 is further supported by a vertical bar 18 made fast to the arm at one extremity, and to one of the supporting legs 6 at the opposite extremity. The frame 15 is thus supported upon its guiding parts 5 and 14 by the spring 17, the strength of which may be regulated as desired. To the top of the frame 15 is made fast a table 19, upon which the papers 20 to be mailed are placed, as shown in Fig. 8.

The rod 7 projects upward to a position in a plane above the table 19. To the upper extremity of this rod is attached an arm 21 which projects therefrom at right angles, and to a position over the table. The outer extremity 21^a of this arm is reduced in size and formed circular in cross-section, and passes through an elongated opening or slot formed in a lug 22 made fast to the back of the mov-

able cutter 23 which is provided with a flange 23^a. The movable cutter 23 is pivoted at one extremity, as shown at 25, to the stationary cutter 24 made fast to a rectangular horizontal frame 26 supported upon the upper extremity 5^c of the tubular bar 5.

The extremity 21^a of the arm 21 is threaded to receive an adjusting nut 27, while between the nut and the lug is located a coil-spring 28. Thus by adjusting the nut, the tension of the spring is regulated as desired, and the position of the movable cutter with reference to its coacting stationary cutter, controlled, whereby the cutters are maintained in contact with each other.

Suitably pivoted on the side of the frame 26 is a spindle 29 slotted to receive one extremity of the strip 30, upon which are transversely printed the names of all subscribers for the newspaper to be mailed. This strip is wound upon the spindle as shown in Fig. 5, and then passed between the gumming roller 31 and feed roller 32, and thence beneath the guide frame 33 to the cutters 23 and 24 as best illustrated in Fig. 8.

The gumming roller has a corrugated face and is located in a mucilage cup 34. It is provided with journals 31^a formed in its extremities and which are engaged by the upper edge of the cup and the frame 26, the engaging parts being provided with counterpart recesses to receive said journals. The cup 34 and therefore, the roller 31, are held in place by a yoke 35 whose arms are pivoted on the frame 26 by means of screws 36^a. This yoke is provided with a thumb screw 47 which passes through a threaded aperture formed in the yoke, its inner extremity being adapted to engage a band 34^a made fast to the mucilage cup which it clasps. By loosening this screw so that it disengages the part 34^a, the yoke may be swung to one side, and the cup and its roller removed when for any reason this may be necessary or desirable, as for the purpose of replenishing the contents of the cup. The frame 26 is provided with a transverse plate 26^a which extends close to the upper part of the roller 31 and prevents the roller from carrying too much mucilage from the cup.

The roller 32 is preferably composed of soft rubber provided with a spindle 32^a which projects therefrom to engagement with the posts 37 whose upper extremities are recessed to receive the spindle, the recesses being open to allow the spindle to be lifted therefrom when it is desired to remove the roller and its attachments. The roller is normally locked in position by means of a yoke 38 whose arms are apertured to receive the spindle extremities, which are movable therein. The top of this yoke is engaged by a cam 40 which is pivoted on a cross-arm 41 connecting the upper extremities of the extensions 37^a of the posts 37. The yoke 38, when in the vertical position, may be locked by this cam 40, thus maintaining the roller 32 securely in place.

When it is desired to remove the roller 32, it is only necessary to throw the cam 40 to the unlocked position, when the yoke 38 may be moved to a horizontal position, and the roller lifted out of the recesses in its supporting posts. This roller 32 when locked in place presses the strip 30 tightly against the gumming roller. The strip 30 is fed between the rollers through the instrumentality of a toothed wheel 42 made fast to the spindle 32^a of the roller 32. This wheel is actuated in the direction indicated by the arrow by a pawl 43 which engages the teeth of the wheel at its free extremity, its opposite extremity being made fast to the upper portion of the rod 7. The wheel 42 is locked from rotation in the opposite direction by a stationary pawl 44 which engages the wheel 42 at a point below the engagement of the pawl 43. The pawl 44 is attached to the upper extremity of an adjustable collar secured to the tubular bar 5, by a set screw. As the outer extremity of the foot lever is pressed, the rod 7 is carried downward, and with it, the pawl 43, which is released from engagement with the wheel 42 and carried downward. As the rod 7 is making the downward movement, the pawl 43 is held in position by the pawl 44 which is located in front of the pawl 43, and acts as a guide therefor. As soon as the foot lever is released, the rod 7 is carried upward by the recoil of the spring 12, a corresponding movement being imparted to the pawl 43 which again engages the wheel 42, and gives the same, as well as the roller 32, a partial rotation, this movement being sufficient to feed a name-width of the strip 30 between the rollers, whereby the same may be severed by the cutters during the next downward movement of the foot-lever, the strip having been moved to the edge of the stationary cutter before beginning the operation.

The guide frame 33 is composed of a number of strips 33^a connected by a transverse arm 33^b having one extremity made fast to a plate 33^d engaging the frame 26, and held in place by a set screw 33^a. This guide frame, while the strip is being passed beneath it, is supported a short distance above the frame 26 to facilitate the introduction of said strip. After this strip has been placed beneath the device, however, the screw is loosened and the frame lowered (referring to Figs. 5, 6 and 8) until the parts 33^a engage the strip 30 and give it sufficient pressure to cause it to pass to the cutters in proper shape.

The newspapers to be mailed are all placed upon the table 19, folded in the usual manner, the table being pressed downward against the action of the spring 17 far enough to allow a considerable number of papers to pass between the table and the lower edge of the stationary cutter 24. Assuming that a name-width of the strip 30 has been drawn out over the edge of the stationary cutter, as shown in Fig. 8, if the lever 8 is pressed by the foot, the movable cutter 23 will descend, and, act-

ing in conjunction with the stationary cutter, sever the name strip which has already been gummed on its under surface by passing between the rollers 31 and 32. The label having been cut off, is pressed to engagement with the top paper by the action of the movable cutter and its flange 23^a, which, when the thickness of the movable cutter is added, should be about the width of the name-label. The foot lever is then released, the top paper removed, and the action repeated until all the papers have been labeled.

It will be readily observed that the movement of the roller 32 and the width of the strip 30 fed for each upward movement of the rod 7, may be regulated and accurately controlled by the adjustment of the nut 10 upon the lower threaded portion of the rod 7. It will also be observed that the tension of the springs 17 and 12 may be regulated by the vertical adjustment of the arm 13 on the bar 5.

Having thus described our invention, what we claim is—

1. In a mailing machine, the combination with a supporting frame and means for carrying, feeding and severing the name strip, of a corrugated gumming roller, a movable mucilage cup supported upon the frame and carrying said roller, the latter being so located that the name strip is fed to engagement therewith, a depending locking yoke movably supported upon the stationary frame in proximity to the mucilage cup, and suitable means attached to the yoke for engaging the mucilage cup and holding it in place, substantially as described.

2. In a mailing machine, the combination with a supporting frame and means for carrying, feeding and severing the name strip, of means for gumming the strip consisting of a mucilage cup, a roller supported therein, and a depending locking yoke movably supported upon the stationary frame and provided with a set screw adapted to engage and hold the cup in place, substantially as described.

3. In a mailing machine, the combination of an upright supporting frame, a spring-supported table mounted thereon, a vertically reciprocating rod supported on the upright frame and spring-actuated in one direction, a foot lever fulcrumed on the frame for moving the rod in the opposite direction, cutters for severing the name strip, one of them being movable and attached to the reciprocating rod, a gumming roll, a movable mucilage cup supported on the frame and carrying said roll, a depending locking yoke movably supported on the frame for holding said cup, a feed roll, a toothed wheel attached to the spindle of the feed roll and actuated from the reciprocating rod, a spindle upon which the name strip is wound, and a guide frame located between the feed roll and the cutters, substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

LORIN C. VANDERLIP.

SAMUEL J. McAFEE.

Witnesses:

GEORGE DEICHERT,
GEO. C. BANGS.