

S. B. WHITE.
 STAMP AFFIXING MACHINE.
 APPLICATION FILED SEPT. 30, 1909.

968,619.

Patented Aug. 30, 1910.

3 SHEETS—SHEET 1.

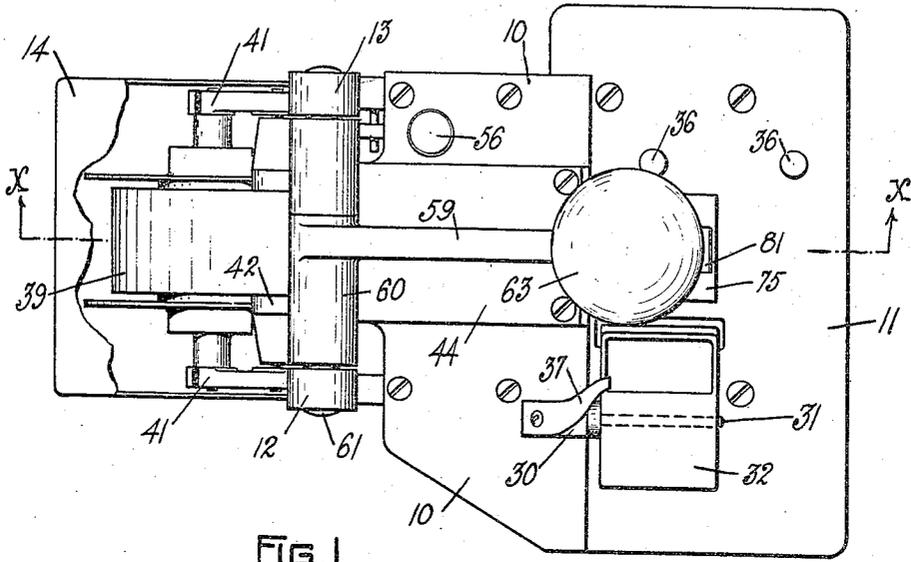


FIG. 1.

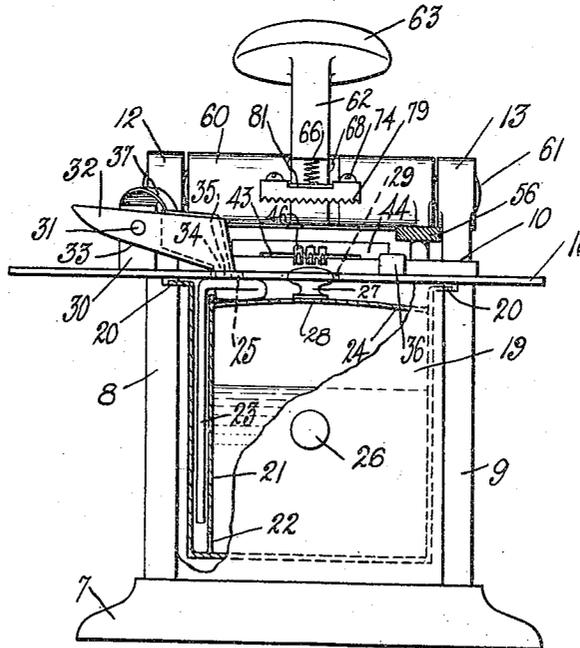


FIG. 2.

WITNESSES.

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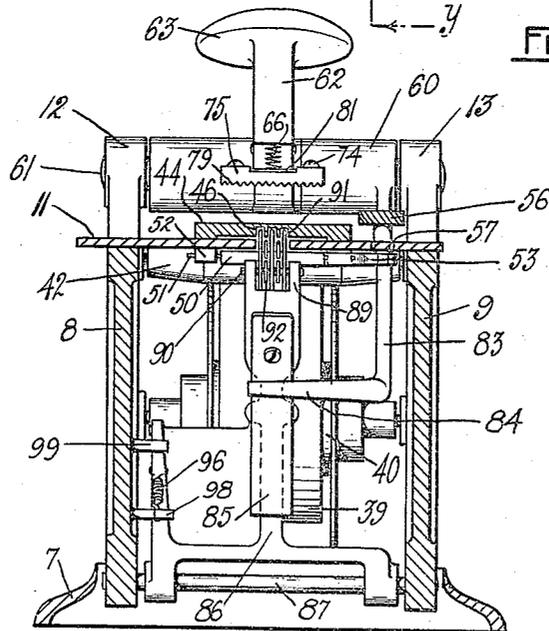
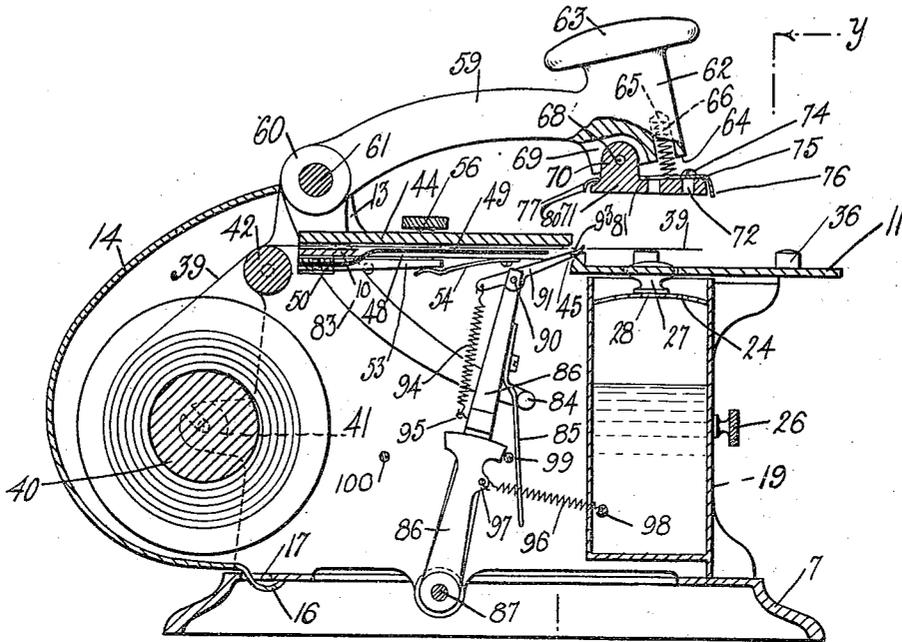


FIG. 3.

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FIG. 4.

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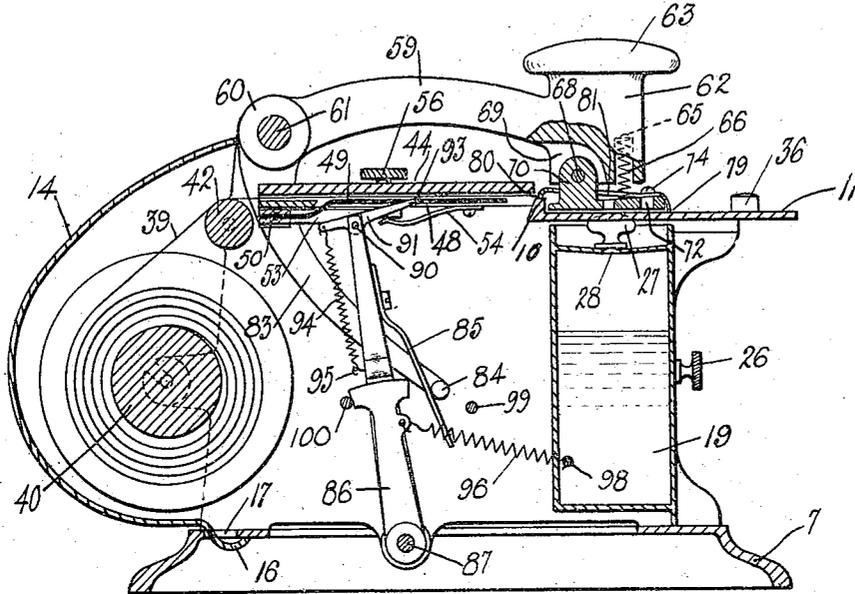


FIG. 5.

WITNESSES.

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UNITED STATES PATENT OFFICE.

SAMUEL B. WHITE, OF PROVIDENCE, RHODE ISLAND. ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE OFFICE APPLIANCE MANUFACTURING COMPANY, OF PROVIDENCE, RHODE ISLAND, A FIRM.

STAMP-AFFIXING MACHINE.

968,619.

Specification of Letters Patent. Patented Aug. 30, 1910.

Application filed September 30, 1909. Serial No. 520,320.

REISSUED

To all whom it may concern:

Be it known that I, SAMUEL B. WHITE, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Stamp-Affixing Machines, of which the following is a specification.

My invention relates to machines for affixing postage stamps and gummed labels to envelopes, cards and other articles, and is purposed to attain this end by a simple, inexpensive, and compact structure.

Further objects of the invention are to insure a severance of each stamp exactly at its line of perforation, and to maintain the stamp strip under perfect control at all times.

Additional objects of invention will appear from an examination of the drawings and following description.

Invention resides in the construction, combination, and mode of operation of parts hereinafter described and set forth in and falling within the scope of the claims hereto appended.

In the accompanying drawings which form a part of this specification Figures 1 and 2 are plan and front elevations respectively of a machine embodying my invention, a portion of the rear casing being broken away in Fig. 1, and a part of the tank being broken away in Fig. 2, Fig. 3, a section of the same on line *x x* of Fig. 1 omitting the moistening device, Fig. 4, a section on *y y* of Fig. 3, and Fig. 5, a section similar to that of Fig. 3 showing the parts in another position of operation.

Like reference characters indicate like parts throughout the views.

In its present form of embodiment my machine comprises a hollow base 7 for a casing comprising side walls 8, 9, a top plate 10 and a platform or supporting plate 11 which projects forwardly and laterally in front of and in a slightly lower horizontal plane than the top plate. Upon the rear upper portions of the walls 8 and 9, are vertical ears 12 and 13 respectively. The casing includes an outwardly curved wall 14 which rests against the rear edges of the side walls and upon the base 7, being removably connected with the latter by a tongue 16 which passes through a slot 17 in the base.

The front of the casing is closed by a rectangular tank 19 supported in the casing by lateral flanges 20. It is provided with an interior vertical partition 21 adjacent one end provided at its bottom with an opening 22 forming a vertical tube in which depends a wick whose upper end rests upon the top 24 of the tank immediately below an opening 25 in the plate 11. Upon the front of the tank is a knob or handle 26. A screw 27 is threaded into a supply opening 28 in the top 24 and its convex head extends through an opening 29 in the plate 11, slightly projecting above the plane of the latter. The top 24 is of thin spring metal and slightly convex. It follows that when the head of the screw 27 is downwardly pressed the liquid in the tank 19 is forced through the opening 22 upwardly around the wick 23 thus supplementing the capillary action of the wick, particularly when the supply of liquid in the tank is at a low level.

Near one end of the plate 10 is a block 30 with a pivot pin 31 upon which is mounted a carrier 32 having an inclined lower face 33 and provided with an opening 34 in its bottom through which projects a wick 35 extending also through the opening 25 and in contact with the wick 23. The carrier and its wick are normally downwardly pressed by a spring 37 fixed to the block 30 and contacting with the top of the carrier. The envelop is manually fed along the plate 11 from the left beneath the carrier 32, being guided in its course by the inclined bottom of the latter, and in passing has its upper face moistened by the wick 35 which is charged with moisture absorbed from the wick 23. The advance of the envelop is checked at the proper point by pins 36 upon the plate 11.

The stamps 39 in strip form are fed from a roll 40 journaled in bearings 41 formed upon the side walls of the casing. The strip thence passes over a tension roll 42 mounted in the walls above the roll 40 and passes intermediate the plate 10 and a plate 44 fixed upon the latter plate, and slightly interspaced therefrom as at 43. The front face of the plate 10 is slightly in advance of the corresponding face of the plate 44. The plates 10 and 44 are provided upon their respective inner faces with a plurality of central longitudinally disposed grooves 45

and 46. The front end of the stamp strip emerges from the passage 43 at right angles to and above the path of the envelop.

The tensioning means for the stamp strip during its advance is the following. The plate 10 has a central longitudinal slot 48 in which are a plurality of spring rods 49 fixed at their rear ends in a block 50 located immediately below the plate 10. The block 50 has pivot points 51 journaled in lugs 52 upon the bottom of plate 10. The rods 49 direct and press the stamp strip into contact with the under face of plate 44. Integral with the block 50 is a forwardly extending arm 53 whose outer end is upwardly pressed by a spring 54 in contact with its lower face and fixed to the bottom of plate 10. This spring normally maintains the rods 49 against the stamp strip. When, however, it is desired to introduce a fresh strip into the machine it is necessary to lower the rods 49. This result is attained by means of a pin 56 whose lower end is fixed to the arm 53, and which passes through an opening 57 in the plate 10 and extends above the latter. Downward pressure upon this pin turns the block 50 and its rods 49 downwardly out of the path of the stamp strip.

The stamp affixing device comprises a forwardly directed upwardly inclined arm 59 integral with a rocking sleeve or hub 60 on a rod 61 in the ears 12 and 13. The operating arm 59 terminates in a substantially vertical head portion 62 having a broad bearing portion 63 upon its top, and provided with an upwardly inclined bottom face 64. The head portion has a vertical cavity 65 to form a seat for a spiral spring 66. Pivoted upon a pin 68 in a cavity 69 of the head behind the cavity 65 is a lug 70 upon the upper face of a rectangular horizontal plate 71 preferably provided with perforations 72. The rear edge of the plate 71 is in vertical alignment with the front edge of the plate 10. Fixed by a screw 74 or otherwise to the upper face of the plate 71 is a plate 75 of spring material having downwardly directed forward and rear ends 76 and 77 respectively, which are respectively provided with teeth or serrations 79 and 80. The plate 75 is provided with a central opening 81 to allow the passage of the lug 70 therethrough. The toothed lower edge 80 of the flange 77 extends to the rear of the back edge of the plate 71 so that the teeth of said flange are in alignment with the upper forward margin of the plate 10. When therefore a stamp strip projects over the elevation of the run 11 and its line of perforations is upon said elevation in front of the plate 44, the descent of the arm 59 as shown in Fig. 5 will bring the toothed edge 80 of the spring plate 75 down upon the strip immediately over the elevation of the run and over the perforations, and the teeth 79 upon the forward

margin of the stamp strip on the plate 11, thus rigidly holding the stamp during the continued descent of the plate 71 whose action upon the stamp thus held is to tear the latter along its row of perforations, and press the same to the moistened face of the envelop beneath. This pressure also depresses the screw 27 which operates the moisture supply through the tank.

The mechanism for feeding the stamp strip to the affixing mechanism includes a downwardly and forwardly inclined arm 83 upon the sleeve 60 provided with a laterally extending end portion or pin 84 which bears against a flat spring 85 upon the front of an upright lever 86 pivoted at its lower end to a transverse pin or rod 87 in the side walls of the casing. The upper end of the lever 86 is provided with vertical ears 89 in which is fixed a pintle 90 upon which are pivoted intermediate their length a plurality of levers 91 interspaced from each other by plates 92. The forward ends 93 of these levers are slightly upturned, and the rear end of each lever is connected by a retractable spring 94 to a hook 95 in the lever 86 below the pintle 90. The lever 86 is forwardly drawn by a spiral spring 96 connecting it at an intermediate point 97 with a pin 98 in the wall of the casing. Extreme forward and rearward travel of this lever is prevented by pins 99 and 100 respectively in the casing wall. The lever ends 93 normally project upwardly through the opening in the plate 10 above the plane of the plate and in the path of the stamp strip as shown in Fig. 3. The levers 91 are so interspaced as to naturally bring the several ends 93 into several openings of the line of perforations in the stamp strip. A plurality of these levers is employed to insure at least one end 93 entering a perforation.

The operation of the strip feed is as follows. With the parts in the position indicated in Fig. 3 the operating arm is depressed to affix a stamp. The arm 83 through its end 84 throws the lever 86 against its back stop 100 bringing the fingers 91 to a position behind a row of perforations in the strip 39, against which strip the lever ends 93 are pressed by the springs 94. The spring 85 which is stronger than the spring 96, and against which the end of the arm 83 immediately contacts, insures the movement of the arm 86 to its rearmost limit and consequently the positioning of the levers 91 at a point behind a row of perforations, regardless of the thickness of the envelop beneath the bearing plate or shoe 71, and cushions the blow of the latter. As soon as the arm 59 is released the spring 85 elevates the bearing plate above the line of travel of the stamp strip and forthwith the spring 96 forwardly impels the lever 86, causing the lever ends 93, in engagement

with a line of perforations, to carry the strip forward the distance of one stamp.

The lever ends 93 normally register in the grooves 46 which serve as guides therefor and assist in the thorough engagement of the said ends in the perforations.

The resilient or flexible top or cover 24 of the tank acts as a pump for raising the water and may be manually operated through the projection 27, as well as automatically by the plate 71. The force of the blow of the latter is somewhat cushioned by the yielding projection.

It will be observed that by tearing the stamp from the strip rather than by severing the same by a knife, the stamps are severed exactly at their lines of perforations.

What I claim is,

1. In a machine of the type set forth, the combination with a run for the article to be stamped, of a stamp affixing device above the run, a carrier above the run adjacent the affixing device, an absorbent material in the carrier, a wick in contact with the absorbent material and located in a liquid receptacle below the run, and means actuated by the affixing device for elevating the liquid in the receptacle.

2. In a machine of the type set forth, the combination with a run for the article to be stamped provided with an opening, a stamp affixing device, a tank below the run, a flexible cover upon the tank, and a projection upon the cover extending through the opening in the path of the affixing device.

3. In a machine of the type set forth, the combination with a run for the article to be stamped, of a stamp-affixing device above the run embodying a plunger, a tank below the run and means carried by the tank below the plunger and in the path thereof for cushioning the stroke of the affixing device.

4. In a machine of the type set forth, the combination with the run provided with an elevation for supporting the articles to be stamped, of a vibratory operating arm above the run, oscillatory means cooperating with the arm for feeding a stamp into the path of the arm, means for engagement with said elevation during the descent of the arm, means for cooperation with said arm to actuate said feeding means, and resilient means cooperating with said arm to insure movement of the latter to its rearmost position.

5. In a machine of the type set forth, the combination with the run provided with an elevation for supporting the article to be stamped, of a vibratory operating arm above the run, vibratory means for feeding a stamp to the operating arm, oscillatory means actuated by the operating arm for operating the vibratory means, means for engagement with said elevation during the descent of the arm, means for cooperation

with said arm to actuate the feeding means, and resilient means cooperating with said arm to insure movement of the latter to its rearmost position.

6. In a machine of the type set forth, the combination with a run for supporting the article to be stamped, of a vibratory operating arm above the run, an arm pivotally mounted adjacent the run for feeding a stamp to the run, spring means for moving the arm in one direction, oscillatory means actuated by the operating arm for moving the arm in the opposite direction and a stronger spring movable with the oscillatory means for insuring the movement of the latter to its rearmost position.

7. In a machine of the type set forth, the combination with the frame and run provided with an elevation to support a stamp strip, of an operating arm pivotally mounted in the frame above the run provided with a head portion, a bearing plate pivotally connected with the bottom of the head portion, and a yielding member movable with said bearing plate and having a portion for engagement with said elevation during the descent of the arm.

8. In a machine of the type set forth, the combination with the frame and run, of an operating arm pivotally mounted in the frame above the run provided with a head portion, a bearing plate pivotally connected with the bottom of the head portion, a yielding member carried by said bearing plate and a spring intermediate the bearing plate and head portion.

9. In a machine of the type set forth, the combination with the frame and run, of an operating arm pivotally mounted in the frame above the run provided with a head portion, a bearing plate pivotally connected with the head portion, a yielding plate upon the bearing plate provided with downwardly directed end portions extending below the lower face of the bearing plate.

10. In a machine of the type set forth, the combination with the frame and run, of an elevation upon the run adapted to support a stamp strip, an operating arm pivotally mounted in the frame above the run provided with a head portion, a bearing plate upon the head portion adapted when the arm is vibrated to pass the elevation, and a spring plate upon the top of the bearing plate provided with a downwardly extending end adapted to engage the elevation during the descent of the arm.

11. In a machine of the type set forth, the combination with the frame and run, of an elevation upon the run adapted to support the projecting end of a perforated stamp strip, a vibratory arm mounted in the frame above the run, a bearing plate upon the arm adapted to contact in its travel with the projecting end of the strip, and means

upon the arm for binding the strip end to the elevation and to the run, during a portion of travel of the arm.

12. In a machine of the type set forth, the combination with a plate adapted to support a stamp strip, and means for detaching individual stamps, of a vibratory arm below the plate, means upon the arm for engaging the stamp strip, spring means for advancing the arm after engagement, and means actuated by the detaching means for returning the arm to original position.

13. In a machine of the type set forth, the combination with a plate adapted to support a stamp strip, and means for detaching individual stamps, of a vibratory arm below the plate, yielding means upon the arm for engaging the strip, a spring for advancing the arm, and means operated through the detaching means for returning the arm to its original position.

14. In a machine of the type set forth, the combination with a plate adapted to support a strip, of a plate upon the supporting plate, means for detaching individual stamps, a vibratory arm below the supporting plate, means upon the arm for engaging the strip, a spring for advancing the arm, means operated by the attaching means for returning the arm to original position, and means for binding the strip during the return movement of the arm.

15. In a machine of the type set forth, the combination with the frame and run, of a rock shaft in the frame adjacent the run, a sleeve upon the shaft, an operating arm upon the sleeve extending over the run, a second arm upon the sleeve, a plate adjacent the run adapted to support a stamp strip, a vibratory arm pivotally mounted in the frame below the plate and actuated by the second arm, yielding means upon the vibratory arm adapted to engage the strip, and a spring connecting the frame and the vibratory arm.

16. In a machine of the type set forth, the combination with a supporting plate for a

stamp strip, of a top plate upon the supporting plate provided with a groove upon its under face, a vibratory arm below the plates, a lever yieldingly mounted upon the arm provided with an upturned end adapted to register in the groove, and means for actuating the arm.

17. In a machine of the type set forth, the combination with the frame and run, of a rock shaft in the frame adjacent the run, a sleeve upon the shaft, an operating arm upon the sleeve extending over the run, a second arm upon the sleeve, a plate adjacent the run adapted to support a stamp strip, a vibratory arm pivotally mounted to the frame below the plate, a spring upon the vibratory arm in the path of the second arm, means upon the vibratory arm for engaging the strip, and a spring connecting the frame and the vibratory arm.

18. In a machine of the type set forth, the combination with a rock shaft, of a sleeve upon the shaft, an operating arm upon the sleeve, a second arm upon the sleeve, a vibratory arm adapted to feed a stamp strip to the operating arm, means for actuating the vibratory arm in one direction, and a spring upon the vibratory arm in the path of the second arm.

19. In a machine of the type set forth, the combination with the frame and run, of an elevation upon the run adapted to support the projecting end of a perforated stamp strip, a vibratory arm mounted in the frame above the run, a bearing plate upon the arm adapted to contact in its travel with the projecting end of the strip, and means for binding the strip end to the elevation and to the run during a portion of the travel of the arm.

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

SAMUEL B. WHITE

Witnesses.

HORATIO E. BELLOWS,
WALTER LOUIS FROST.