

S. B. WHITE.
STAMP AFFIXING MACHINE.

APPLICATION FILED FEB. 28, 1910. RENEWED MAR. 11, 1911.

1,124,368.

Patented Jan. 12, 1915.

2 SHEETS—SHEET 1.

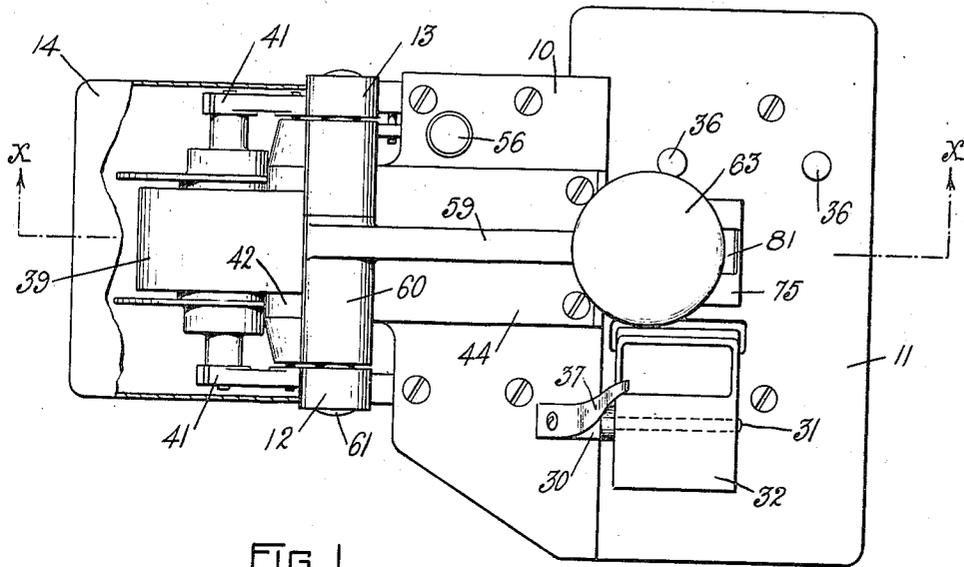


FIG. 1.

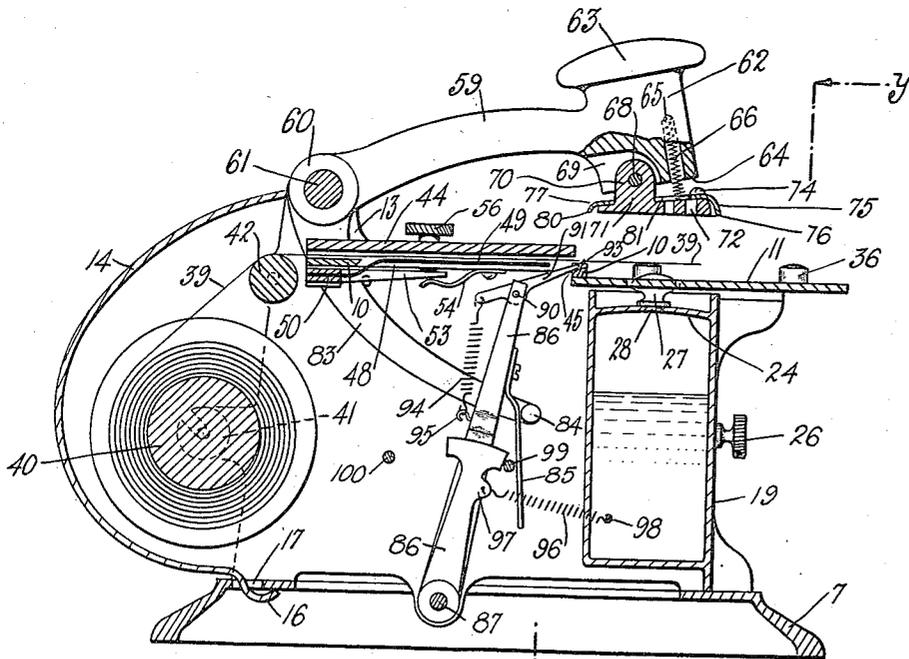


FIG. 2.

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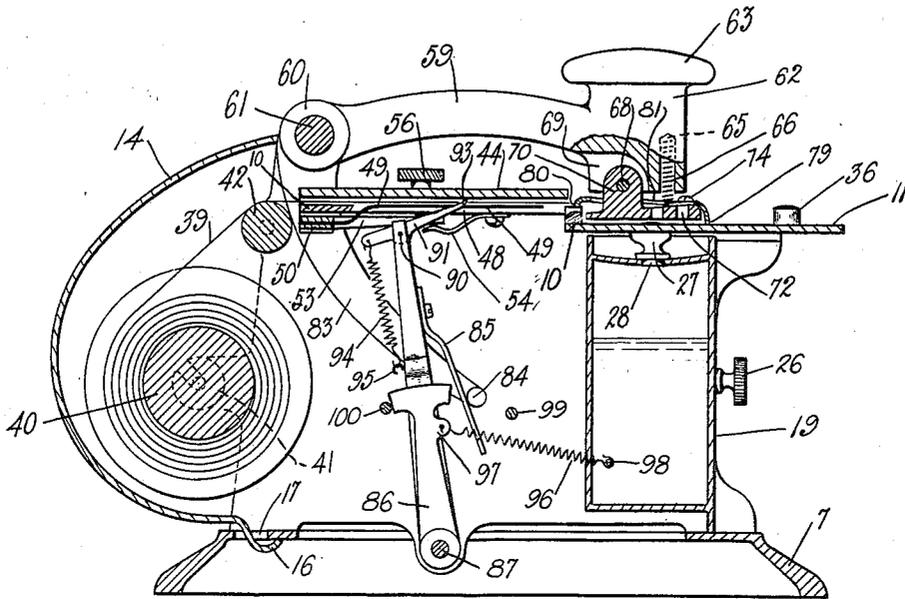


FIG. 3.

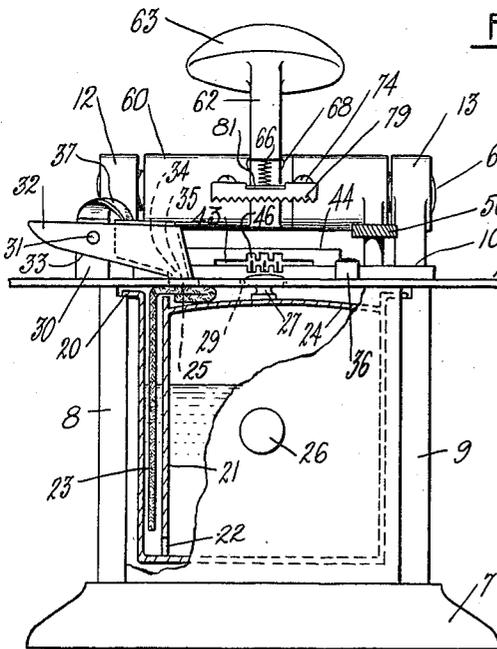


FIG. 4.

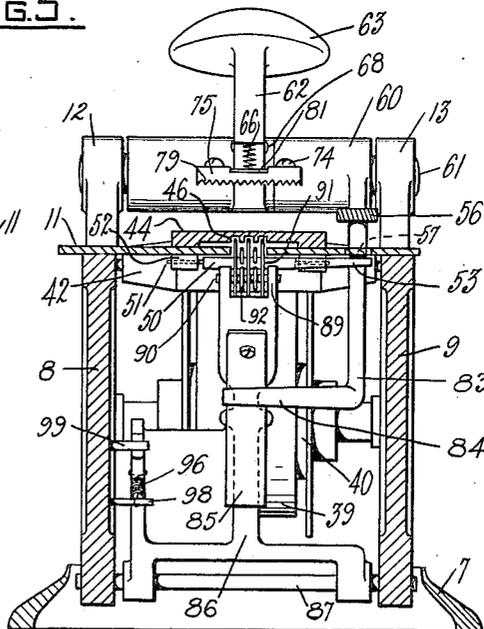


FIG. 5.

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UNITED STATES PATENT OFFICE.

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STAMP-AFFIXING MACHINE.

1,124,368.

Specification of Letters Patent.

Patented Jan. 12, 1915.

Original application filed September 30, 1909, Serial No. 520,320. Divided and this application filed February 28, 1910, Serial No. 546,314. Renewed March 11, 1911. Serial No. 613,851.

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.

This application is a division of my application Serial No. 520,320 filed September 30, 1909, upon which Patent No. 968,619 issued.

My invention relates to machines for affixing postage stamps and gummed labels to envelopes, cards and other articles, and more particularly to the mechanism for feeding the stamps and mechanism 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.

In the accompanying drawings which form a part of this specification, Figure 1 is a plan view of a machine embodying my invention, a portion of the rear casing being broken away; Figs. 2 and 3 are sections of the same on line $x-x$ of Fig. 1 showing the stamp feeding mechanism in different operative positions; Fig. 4, is a front elevation of the machine partly broken away; Fig. 5 is a section on the line $y-y$ of Fig. 2.

In the present instance my novel stamp feeding mechanism is embodied in a machine comprising a hollow base 7, a casing having 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 in the form of a strip 39 are fed from a roll 40 journaled in bearings 41 upon the side walls of the casing. A strip thence passes over a guide roll 42 mounted in the walls above the rolls 40 and passes through a guideway in the plate 44 which rests upon and is secured to the top plate 10 and is practically a part of said plate. The plate 44 is provided on its under surface with a guideway 43 for the stamp strip and a number of longitudinal grooves 46 are formed in the guideway to permit the ends of the feed levers to project through the perforations in the stamp strip in order that the feed levers may effectually take hold of and feed the strip. The guide

flange or ledge at the rear of the plate or shelf 11 is provided with notches or grooves 45 opposite the grooves 46, to accommodate the ends of the feed levers when in their foremost position.

The tensioning means for the stamp strip during its advance is the following. The plate 10 has a central opening 48 in which are a plurality of spring rods or fingers 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 underface 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 bears on 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 rod 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 alinement with the front edge of flange 10' on the plate 11. 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 there-through. 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 alinement with the upper forward margin of the tearing flange 10' of the plate 11. When, therefore, a stamp strip projects over the flange 10' 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

flange 10', 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 arm 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 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 arm 86 against its back stop 100 bringing the fingers 91 to a position behind the 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 and assist in the thorough engagement of the said ends in the perforations. 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.

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

1. In a stamp affixing machine, the combination with a plate having a guideway for a stamp strip, of a vibratory arm below the plate, a plurality of levers mounted upon said arm, and each provided with a pointed end adapted to engage the strip, a spring connecting each lever with said arm, means for advancing the arm, and a plurality of spring operated fingers cooperating with the guideway to control the movement of the stamp strip.

2. In a stamp affixing machine, the combination with a top plate forming a guideway for a stamp strip, of a block pivotally mounted beneath the plate, a plurality of fingers carried by said block and cooperating with the guideway to control the movement of the stamp strip, means for pressing said fingers against the guideway, a vibratory arm pivotally mounted beneath the guideway, and spring operated levers pivotally mounted on the arm and extending into the guideway, for the purpose set forth.

3. In a stamp affixing machine, the combination of the top plate constituting the guideway for the stamp strip, of a plurality of fingers cooperating with the guideway to regulate the movement of the stamp strip, spring means for normally holding the fingers in the guideway, and means for moving the fingers out of the guideway to permit of the insertion of a new stamp strip.

4. In a stamp affixing machine, the combination with a top plate having a guideway for a stamp strip, of spring fingers arranged to hold the stamp strip in the guideway, a vibratory arm below the guideway, spring pressed levers arranged on said arm and having free ends extending into the guideway between said fingers, and means for vibrating said arm.

5. In a stamp affixing machine, a top plate having a guideway for a stamp strip, in combination with fingers arranged to hold the strip in the guideway, a vibratory arm, spring pressed levers carried by said arm and projecting into the guideway for moving the stamps therein, a stop for limiting the rearward movement of said arm, means including a spring connection for moving said arm to its stop, and a spring for imparting forward movement to the arm to feed the stamp strip.

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

SAMUEL B. WHITE.

Witnesses:

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WILLIAM E. TEFFT.