

S. B. WHITE.
 STAMP AFFIXING MACHINE.
 APPLICATION FILED JULY 11, 1910.

1,043,554.

Patented Nov. 5, 1912.

3 SHEETS—SHEET 1.

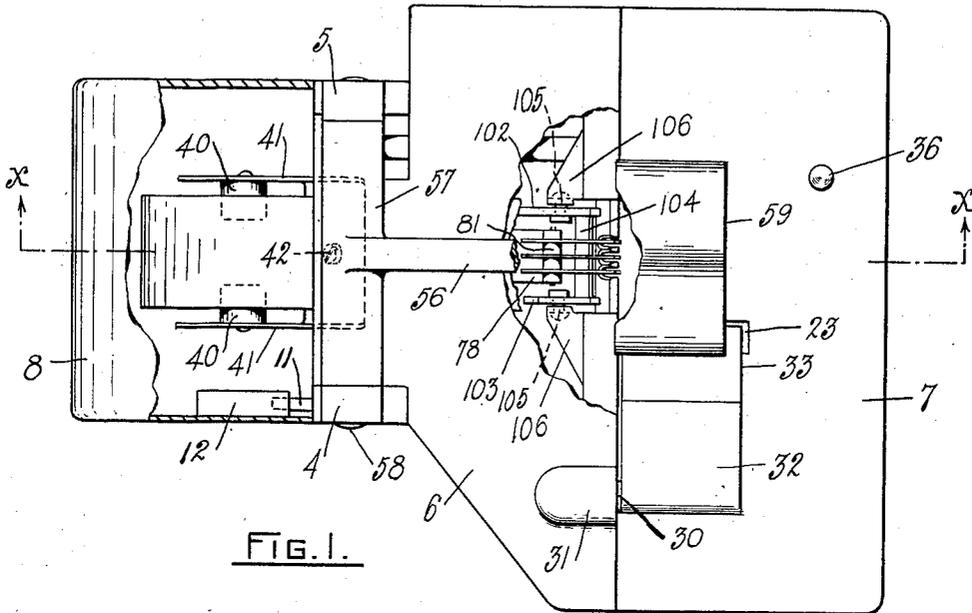


FIG. 1.

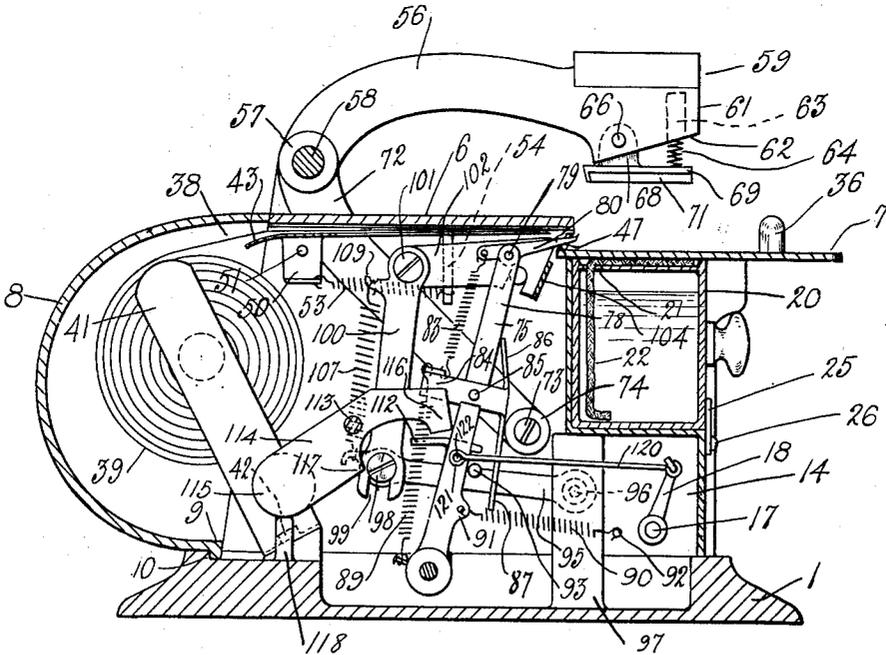


FIG. 2.

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3 SHEETS—SHEET 2.

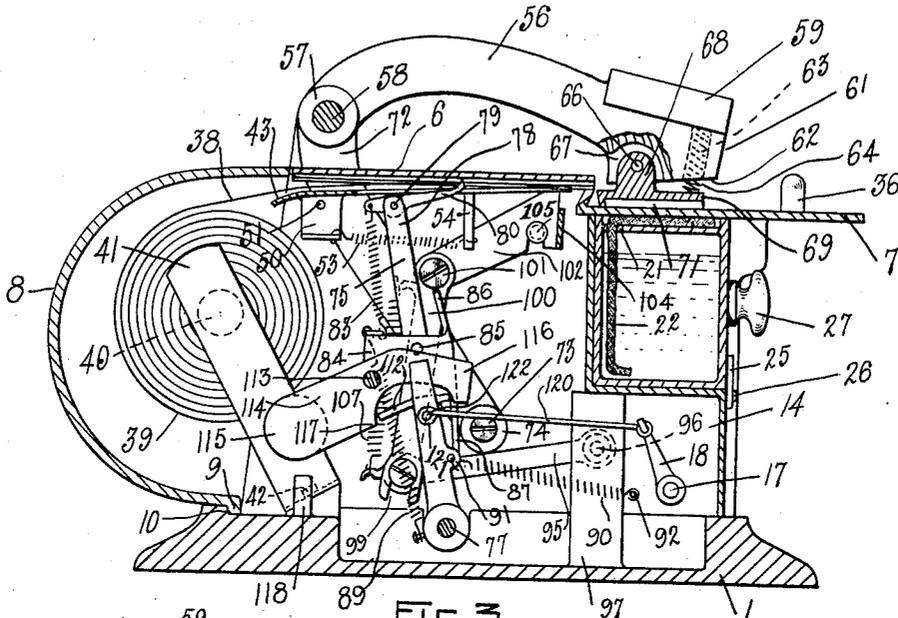


FIG. 3.

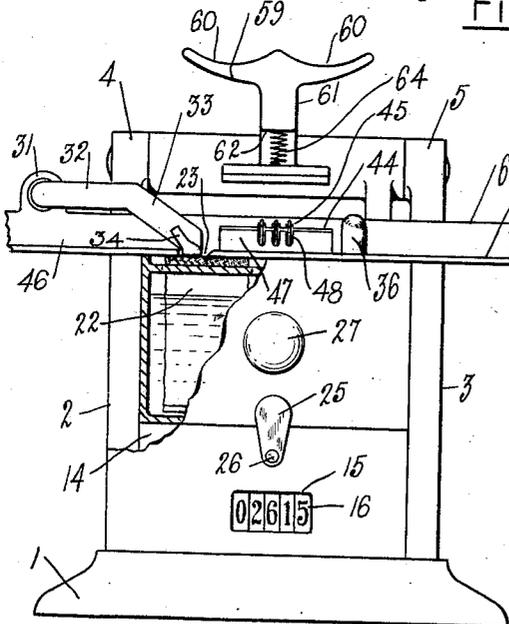


FIG. 4.

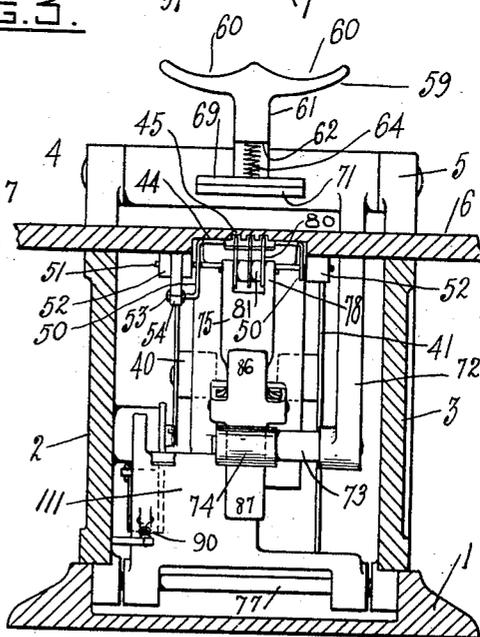


FIG. 5.

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3 SHEETS—SHEET 3.

Fig. 6.

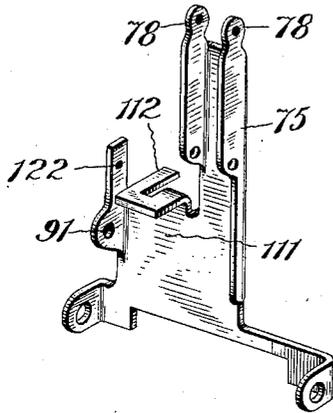


Fig. 7.

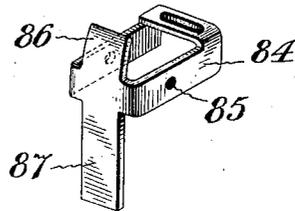


Fig. 8.

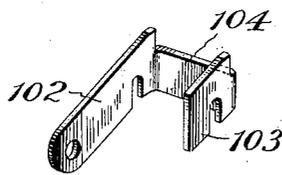
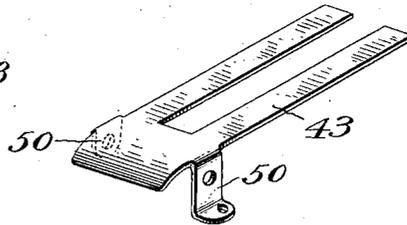


Fig. 9.



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UNITED STATES PATENT OFFICE.

SAMUEL B. WHITE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO OFFICE APPLIANCE MANUFACTURING COMPANY, A CORPORATION OF RHODE ISLAND.

STAMP-AFFIXING MACHINE.

1,043,554.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed July 11, 1910. Serial No. 571,262.

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 stamps or labels to envelopes, cards, and the like, and consists in various improvements in this class of machines, all of which will be described in the following specification and particularly pointed out in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan of my machine with parts broken away, and the stamp reel removed; Fig. 2 is a section of the same on line *x x* of Fig. 1; Fig. 3, a section similar to that of Fig. 2 showing the parts in another position; Fig. 4, a front elevation of the machine with parts broken away; Fig. 5, a like elevation of the same with the reservoir and indicator housing removed; Figs. 6 to 9 inclusive are perspective views of some of the levers.

The frame or housing may be of any construction best adapted for supporting the operative parts. In the form thereof herein shown it consists of a casing comprising a base 1, side walls, 2, 3, provided with upwardly extending ears or journals, 4, 5, a top plate 6, a platform or supporting plate 7, and a removable back plate 8 resting against the side walls and provided with a flange 9 registering in a recess 10 in the base. The plate 8 is retained in position by a hook 11 engaging a lock housing 12, as shown in Fig. 1, which may contain any desired locking mechanism adapted to be opened by a key. In the front of the casing upon the base is fixed a rectangular housing 14 provided with a sight opening 15 in which is mounted an adding device of any desired construction including the numeral disks 16 and shaft 17 upon which the disks are mounted. Fixed to the shaft 17 is the vibratory arm 18. Resting upon the housing 14 is a rectangular tank 20 provided with an opening 21 in its top to accommodate a wick 22 one end of which rests upon the top of the tank, below an opening 23 in the platform 7. The lower

end of the wick depends into the tank. The tank seated in the frame as described is removably held by the overlapping end of a button 25 pivoted at 26 to the front of the indicator housing. A knob 27 is fixed to the front of the tank to facilitate removal of the latter. Pivoted to a pin 30 upon a lug 31 on the plate 6 is a wick carrier or arm 32 with a downwardly inclined forward portion 33 in whose inclined extremity is a wick 34 which extends through the opening 23 and rests by gravity upon the wick 22 by which it is moistened. When the envelop to be operated upon is passed along the platform its upper face is moistened by the wick 34. A stop pin 36 is located upon the supporting plate 7 to stop the envelop at the proper point to receive a stamp.

The stamp strip 38 is fed from a spool 39 rotatably mounted in any convenient manner within the housing 8. The supporting means in the present instance comprises inwardly directed studs 40 upon flexible arms 41 fixed by screws 42 to the base 1. When a roll is exhausted the arms 41 may be expanded sufficiently to disengage the studs from the axial opening of the stamp spool. The stamp strip passes intermediate the top plate 6 and a supporting plate 43. The former is slightly recessed to form a guideway as at 44, and is provided with a plurality of longitudinally disposed grooves 45. The front edge of the stamp strip emerges from the guideway 44 at right angles to and above the path of the envelop. The latter rests on the table 7 with an edge abutting against a depending shoulder 46 upon the front of the plate 6. An upturned lip or ledge 47 upon the plate 7 has marginal cavities 48 in vertical alinement with the grooves 45 for a purpose to be later stated.

The supporting plate 43 has upon its rear portion depending lateral ears 50 perforated to receive loosely a rod 51 fixed in lugs 52 on the plate 6. A spring 53 connects the lower end of one of the ears 50 with a pin 54 in the bottom of plate 6 forward of the lugs. This spring serves to lightly press the forward end of the plate 43 against the stamp strip moving through the passage 44 which retains the strip in the passage.

The stamp affixing device comprises a forwardly directed operating arm 56 integral with a hub 57 mounted on a shaft 58 journaled in the ears 4 and 5. The operat-

ing arm has upon its top a broad bearing portion 59 with depressions 60 to accommodate the operator's fingers. The end of the operating arm which is below the bearing portion, and which may be styled the head 61, has an inclined bottom face 62 containing a cavity 63 forming a seat for a spiral spring 64. Pivoted upon a pin 66 in a cavity 67 behind the cavity 63 is a lug 68 carrying a plate 69 to the under surface of which is fixed a pad 71. The rear margin of the plate 69 is adapted to cooperate with the ledge or tearing flange 47 in its descent, so that when a stamp projects over the table with its perforations above the flange 47, the descending plate will tear the strip at the line of perforations. The forward margin of the pad 71 contacts with the stamp before its rear margin, and hence, this portion of the stamp is held against the envelop during the descent of the rear edge of the bearing plate 69, which insures proper placing of the stamp upon the envelop and its detachment from the strip. The advantage of tearing the stamp from the strip, as accomplished by my machine, over shearing it, is that the severance is certain to take place at the line of perforations rather than through the stamp, as often occurs where a knife is used.

The mechanism for actuating the device for advancing the strip includes a downwardly and forwardly directed arm 72 on the hub 57 with a lateral pin 73 on its extremity upon which is an anti-friction roller 74. A vibratory lever 75 is pivotally mounted at its lower end to a shaft 77 fixed in the walls of the casing. In vertical ears 78 on top of the lever is a pintle 79 on which are pivoted intermediate their length stamp feeding pawls 80 interspaced from each other by disks 81. The forward ends of the pawls are upturned and their rear ends are connected by springs 83 to a horizontal frame 84 surrounding the lever 75 and pivoted thereto intermediate its length as at 85. Upon the front of the frame is an integral upwardly extending lug 86, and a downwardly directed arm 87 against which the roller 74 bears. The rear end of the frame 84 is connected by a spring 89 with the bottom of the lever 75. The latter lever is forwardly impelled by a spring 90 connecting with it at an intermediate part 91 and with a pin 92. Extreme forward movement of the lever 75 is prevented by a pin 93 in the casing wall. The forward ends of the levers 80 which register in the grooves 45, extend through a slot or opening in the plate 43 into the path of the stamp strip and are adapted to engage the stamp perforations.

The described strip feed mechanism is operated as follows. With the parts in the position shown in Fig. 2 the arm 56 is depressed to sever and affix a stamp. This

movement through the arm 72, pin 73, and finger 87 forces the lever 75 to its rearmost position bringing the points or fingers of the levers 80 behind a row of perforations into which said levers are pressed by the springs 83, the parts assuming the position shown in Fig. 3. It is essential that the lever 75 be always thrown sufficiently to the rear to insure the positioning of the levers 80 behind a row of perforations, regardless of the thickness of the envelop which limits the movement of the arm 56. This is accomplished by means of the cushioning arm 87 of the rocker 84. The spring 89 is stronger in effect than the spring 90 and the arm 87 maintains the relation to the lever 75 shown in Fig. 2, while the arm 56 is moving down through the first part of its travel and until the fingers 80 are in rear of the next stamp. The lever 75 then stops and during the latter part of the movement of the arm 56 the arm 87 yields, the lever 75 remaining stationary. Thus, letters of different thicknesses may be stamped without affecting the feed of the stamps.

It is necessary that the strip be tightly clamped during that portion of the descent of the plate 69 wherein the tearing operation is performed. The means for effecting this end consists of a lever pivoted at its forward end as at 96 to the forward portion 97 of the casing. A pin 98 in the free end of this lever is seated in an open vertical slot 99 in the lower end of a link 100, to whose upper end is pivoted as at 101 the rear end of an upwardly inclined plate 102 which constitutes a part of a clamping member comprising a second inclined plate 103 parallel with the first plate and connected with the latter by a plate 104 as shown in Figs. 1 and 8. The plates 102 and 103 are pivotally mounted upon pins 105 mounted in bearings 106. A spring 107 connects the end of lever 95 and a finger 109 on the upper part of link 100. The arm 95 is in the path of the bearing pin 73. As arm 56 descends the pin 73 depresses the arm 95 and elevates the forward upper faces of the plates 102 and 103 thereby clamping the stamp strip against the bottom of plate 6 at the instant the plate 69 reaches the stamp strip, thus cooperating with the forward margin of the pad 71 to stretch the strip tightly across and in contact with the ledge or tearing flange 47 while the rear margin of the plate 69 descends.

In operation the lever 75 is often thrown back with such violence as to naturally rebound forwardly and vibrate, thus causing the fingers 80 to tend to mutilate the stamps. This tendency is overcome by the following means. Fixed to the top of the lateral lug 111 upon the lever 75 is a rearwardly directed finger 112. Pivoted in the casing wall as at 113 is a gravity pawl 114 having a

weight 115 upon its rear portion, and a hook 116 upon its forward portion. The pawl has also a shoulder 117 in its rear portion in the path of the finger 112. A projection 118 on the base forms a rest for the end of the gravity pawl. When the lever 75 reaches its rearmost position the finger 112 strikes the shoulder 117 rocking the pawl and lowering the hook 116 into momentary engagement with the top of lug 111, thus preventing the rebound of the lever 75. Immediately thereafter the weight 115 elevates the hook 116 and releases the lever permitting it to be thrown forward by the spring 90.

The indicator arm 18 is actuated through a link 120 attached by an eye 121 to a pin 122 upon the lug 111. The adding device may be of any approved design and is not, *per se*, a part of the present invention.

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

1. In a stamp affixing machine, the combination of a frame, a support for the article to be stamped, intermittently operating means for feeding a stamp strip to present the stamps successively above the support, an operating arm arranged to detach the end stamp from the strip and impress the same upon an article supported on the support, a clamp for holding the strip while the stamp is being detached, and means connecting the operating arm with the clamp whereby they operate in unison.

2. In a stamp affixing machine, the combination of a guideway for a stamp strip, means for feeding the stamp strip intermittently, means for detaching stamps therefrom successively, means connecting the detaching means with the stamp feeding means, and a latch for holding the stamp feeding means temporarily in its rearmost position, for the purpose set forth.

3. In a stamp affixing machine, the combination with a guideway for a strip of stamps, of a lever arranged to oscillate with respect to said guideway, pawls on the lever adapted to engage and feed the stamp strip, means for moving the lever rearward to engage a new stamp, and a latch arranged to temporarily lock the lever in its rearmost position to prevent rebound and means to feed the lever forward to feed the stamp strip.

4. In a stamp affixing machine, the combination with means for feeding a stamp strip intermittently and means for detaching successive stamps, comprising an operating lever, of a clamp for holding the strip while the end stamp is being detached, means connected to the operating lever for operating the clamp, and a spring connection between the operating lever and the clamp which permits the operating lever to move different distances to affix stamps upon articles of

different thicknesses, while the clamp moves uniformly to securely hold the strip, each time a stamp is being detached.

5. In a machine of the type set forth, the combination with a support for the article to be stamped, of a vibratory operating arm above the support, a lever pivotally mounted adjacent the support for feeding a stamp to the support, spring means for advancing the lever, oscillatory means actuated by the operating arm for rearwardly impelling the lever, and means for holding the lever against rebound at the end of its rearward travel.

6. In a machine of the type set forth, the combination with a support for the article to be stamped, of a vibratory lever adapted to advance a stamp to the support, spring means for advancing the lever, means for rearwardly impelling the lever, and means actuated by the lever for temporarily retaining the lever against movement.

7. In a machine of the type set forth, the combination with a support for the article to be stamped, of a vibratory operating arm above the support, a plate adjacent the support adapted to guide a stamp strip, a lever fixed to the operating arm, a vibratory lever below the plate, yielding means upon the vibratory lever adapted for engaging the strip, a spring for advancing the vibratory lever, a frame pivotally mounted intermediate its length upon the vibratory lever, vertical arms upon the front of the frame extending in opposite directions, yielding means upon the rear of the frame for upwardly tilting the front of the frame, and means upon the operating arm lever adapted to contact with the lower of the two arms.

8. In a machine of the type set forth, the combination with the casing and the support for the article to be stamped, of a ledge upon the support over which the forward stamp of a perforated stamp strip projects, means for intermittently advancing the strip, a vibratory arm mounted in the casing above the shelf, a bearing plate upon the arm adapted in its travel to clear the ledge, and means independent of but actuated in unison with the arm for clamping the stamp strip during a portion of the travel of the bearing plate.

9. In a machine of the type set forth, the combination with a plate adapted to guide a stamp strip, of means for detaching individual stamps, a vibratory lever below the plate, means upon the lever for engaging the strip, a spring for advancing the lever, means operated by the detaching means for returning the lever to original position, and means actuated by the lever returning means for binding the stamp after each advance of the lever.

10. In a machine of the type set forth, the combination with a casing provided with

a guideway for a stamp strip, a support upon the casing for an article to be stamped, a ledge upon the support in the path of the strip, a rock shaft on the casing, an operating arm upon the rock shaft extending over the shelf, a second arm upon the rock shaft, a vibratory lever below the guideway in the path of the second arm, means upon the lever for engaging the strip, a spring co-
10 operating with the second arm to rock the lever in one direction, a clamping frame

pivotally mounted in the casing below the path of the strip and adapted when tilted to press the strip against the casing, and means actuated by the second arm for tilt-
15 ing the frame.

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

SAMUEL B. WHITE.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."