

(No Model.)

2 Sheets—Sheet 1.

W. L. LIGHTFORD.
STAMP AFFIXING MACHINE.

No. 537,050.

Patented Apr. 9, 1895.

Fig. 2.

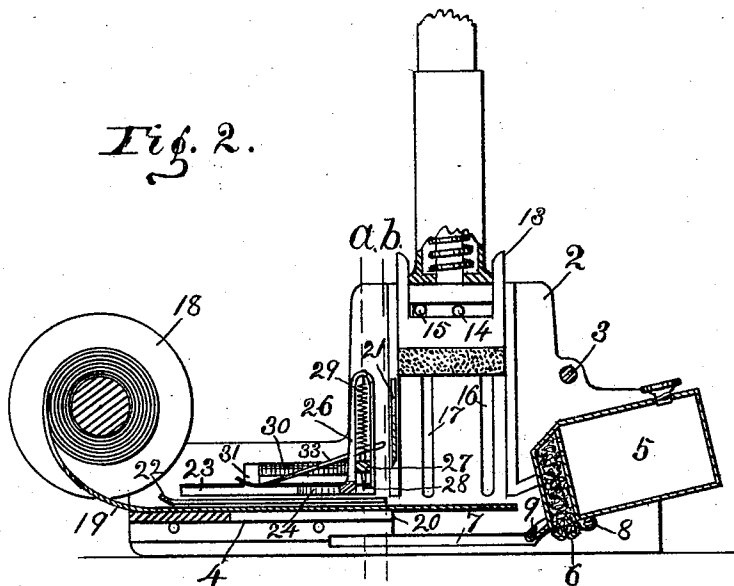
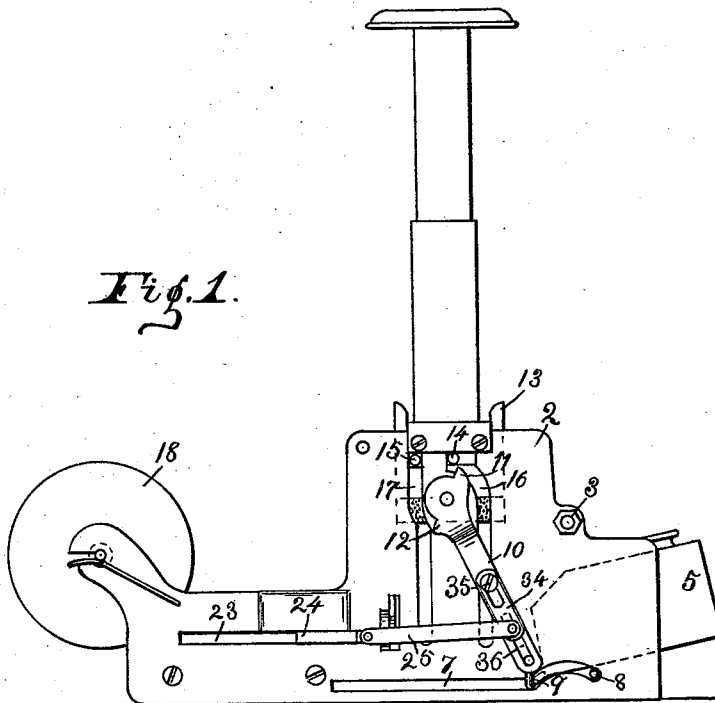


Fig. 1.



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Fig. 5.

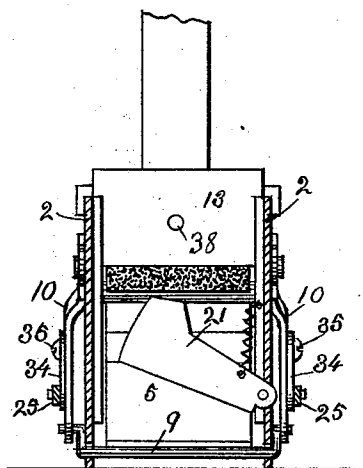


Fig. 4.

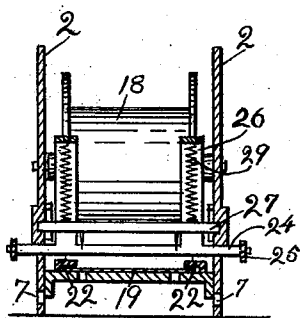
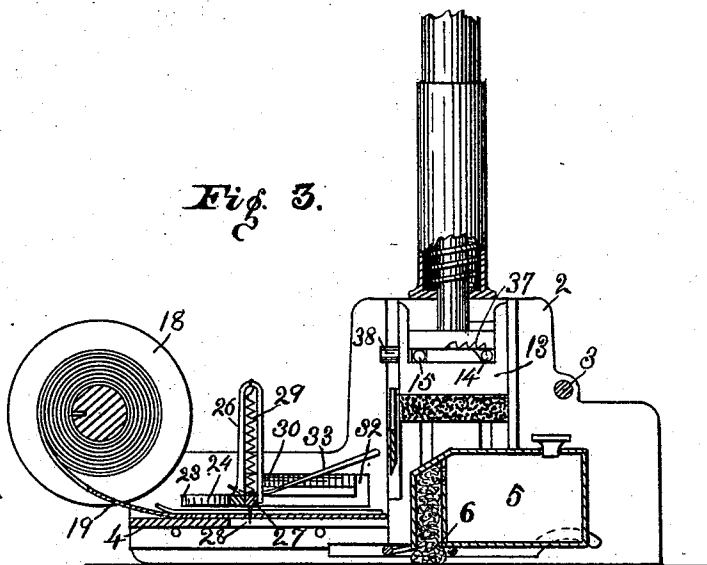


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM L. LIGHTFORD, OF INDIANAPOLIS, INDIANA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO FRANCIS P. BAILEY AND THOMAS E. HIBBEN, OF SAME PLACE.

STAMP-AFFIXING MACHINE.

SPECIFICATION forming part of Letters Patent No. 537,050, dated April 9, 1895.

Application filed October 20, 1894. Serial No. 526,444. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. LIGHTFORD, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Stamp-Affixing Machines, of which the following is a specification.

My invention relates to an improvement in a stamp-affixing machine, for which I, jointly with others, filed an application for a patent May 28, 1894, Serial No. 512,609, which application is now pending.

The object of my present invention is to provide improved means for feeding the stamps beneath the plunger.

The accompanying drawings illustrate my invention.

Figure 1 represents a side elevation with the several parts in their normal position. Fig. 2 represents a longitudinal vertical section of the same. Fig. 3 represents a similar section, showing the position of the parts when the moistening device has reached the limit of its forward movement, and the stamp feeding mechanism has engaged the strip of stamps. Fig. 4 represents a vertical transverse section at *a*—Fig. 2, the view being toward the left. Fig. 5 represents a vertical transverse section at *b*—Fig. 2, the view being toward the right.

In the drawings, 2, 2, indicate the side-plates of the machine, which are connected at one end by a cross-bar, 3, and, at the other end, are connected by a horizontal bed-plate, 4. A water reservoir, 5, provided with a moistening brush, 6, is mounted so as to slide longitudinally between the side plates, said reservoir being supported and guided in horizontal slots, 7, formed in the side-plates, by means of arms, 8, and 9. Arms 9 are connected at their outer ends to levers, 10, 10, pivoted, respectively, to the outer sides of the side-plates so as to swing in a vertical plane thereon. The upper ends of levers 10, 10 are each provided, on opposite sides of the pivot, with laterally projecting arms, 11, and 12. A vertically sliding plunger, 13, is mounted between the side-plates. Said plunger carries a pair of horizontal bars 14, and 15, whose ends project through the side plates in verti-

cal slots, 16, and 17, bar 14 being drawn normally toward the center of the plunger by means of the spiral spring 37; the arrangement being such that, as the plunger moves downward, bar 14 first engages arms 11 of levers 10, and swings the levers forward, thus carrying the water reservoir and its moistening brush forward to the position shown in Fig. 3, at which point bar 14 passes out of engagement with the levers, and bar 15, coming into engagement with arms 12 of the levers, the continued downward movement of the plunger swings the levers back to their normal position.

All of the parts thus described, except the bed-plate 4, are found in the above mentioned pending application, and need not be here more minutely described.

Heretofore in this class of machines, it has been found difficult to feed the strip of stamps beneath the plunger an exact distance. For the purpose of accomplishing this result I provide the following mechanism: A reel, 18, carrying a long strip of stamps, 19, coiled thereon, is mounted in suitable bearings in the side-plates. One end of said strip is passed along the upper surface of the bed-plate 4 to its inner end, 20, which forms, together with the swinging plate 21, a pair of shears for cutting off the stamps. Guides, 22, arranged at each edge of the strip and secured to the bed-plate, compel the strip to lie smoothly along the bed-plate, and prevent its being lifted by the feed mechanism. Mounted above the bed-plate so as to slide horizontally in slots, 23, formed in the side-plates, is a frame, 24, whose ends project through the slots and are connected on each side, by connecting rods, 25, to the levers 10. Frame 24 is provided with a pair of slotted uprights, 26, in which a cross-bar, 27, provided with downwardly projecting needle-points, 28, is fitted to slide vertically, said bar being drawn normally upward by means of spiral springs, 29. Cross-bar 27 projects at each end into grooves, 30, formed in the inner sides of the side-plates. Said grooves are connected at opposite ends with the slots 23, by short vertical slots, 31, and 32. Attached to each of the side-plates, on its inner side, is a flat

spring, 33, whose free end projects into the path of the cross bar 27 as it moves toward the stamp-reel; the arrangement being such as to tend to force the cross-bar downward.

5 For the purpose of nicely adjusting the length of movement of frame 24, one end of each of the connecting rods 25 is pivoted to a slotted plate 34, which is adjustably secured to the lever 10 so as to be adjusted longitudinally thereon by means of a clamping screw, 35, the pivot extending through the plate into the slot, 36, in the lever, and thus preventing the plate from swinging on its clamping screw.

15 The operation of my stamp feeding device is as follows: The parts being in the position shown in Figs. 1, and 2, the movement of the levers 10, which carries the reservoir forward to the position shown in Fig. 3, as hereinbefore described, at the same time, by means of the connecting rods 25, carries frame 24 forward to the position shown in Fig. 3. During this movement the cross-bar 27 is carried along the grooves 30, in the side-plates, beneath the springs 33, thus lifting and putting said springs in tension. When the bar reaches the forward end of the grooves 30 it is suddenly forced downward through the vertical slots 31, by the recoil of the springs, 33, thus projecting the needle-points attached to the under side of the bar, into engagement with the stamp strip, and at the same time putting spiral springs 29 into tension. Upon

the return movement of the levers 10, bar 27 moves along the slots 23, thus holding the needle-points positively in engagement with the stamp-strip and drawing the strip along the bed-plate toward and beneath the plunger, until, the inner end of the slots being reached, the cross-bar is pulled upward along vertical slots 32, and out of engagement with the stamp-strip, by the recoil of springs 29. By the continued downward movement of the plunger the swinging shear-plate 21 is operated by engagement with pin 38, thus cutting off a portion of the stamp-strip, which is carried downward by the plunger and pressed against the moistened surface beneath.

I claim as my invention—

In a stamp-affixing machine, the combination of a pair of side-plates each provided with the slot 23, groove 30, and vertical slots 31 and 32, the bed-plate 4 connecting said side plates, the sliding frame 24 mounted in slots 23, and carrying cross-bar 27, means for imparting a reciprocating movement to said frame, springs arranged to draw said cross-bar normally upward, and springs attached to the main frame and arranged to force the cross-bar downward at one end of its path of movement, all arranged to co-operate as and for the purpose set forth.

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