H. A. MOUNT.

STAMP AFFIXING DEVICE.

APPLICATION FILED MAY 29, 1912.

1,199,809. Patented Oct. 3, 1916.

Fig. 1.

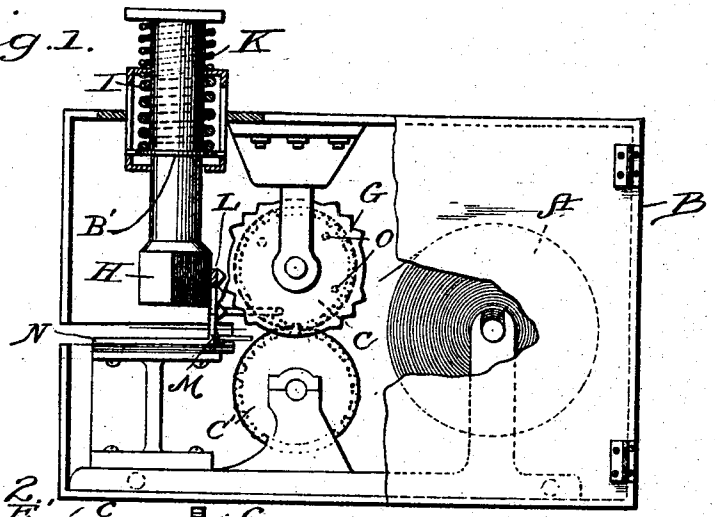


Fig. 2.

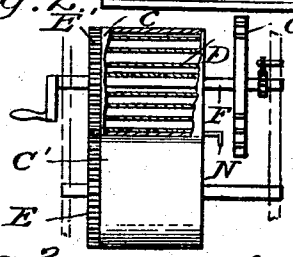


Fig. 3.

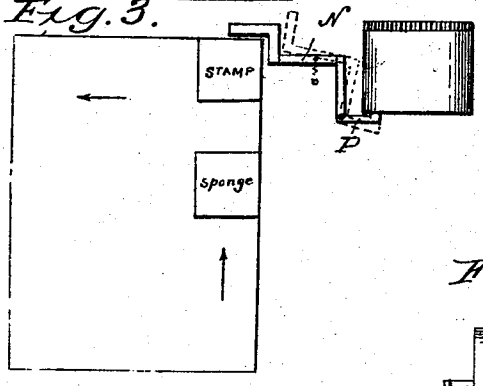
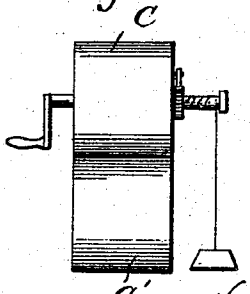


Fig. 5.



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UNITED STATES PATENT OFFICE.

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STAMP-AFFIXING DEVICE.

1,199,809. Specification of Letters Patent. Patented Oct. 3, 1916.

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To all whom it may concern:

Be it known that I, HOWARD A. MOUNT, citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Stamp-Affixing Devices, of which the following is a specification.

My present invention relates to a stamp affixing machine in which the stamps are drawn from the coil and presented to a device which severs the end stamp from the tape and presses the same upon a moistened letter.

The primary object of the present invention is to provide a motor for actuating the feed and stamp severing devices; said motor being automatically started and stopped by the insertion and removal of a letter.

Referring to the various figures of the drawing; Figure (1) is a side elevation of my entire invention. Fig. (2) is an end view of the feed rollers, the upper roller being shown in section. Fig. (3) is a horizontal sectional view on the line A—A of Fig. (1). Fig. (4) is a detail of the knife used for severing the end stamp, and Fig. (5) shows modified form of motor consisting of weight and cord, one end of which is secured to the drive shaft.

Referring to the various features of my invention by reference character, A— is the supply coil of stamps supported by a suitable bracket secured to the bottom of side of casing (B).

The feed rollers C—C′, are loosely mounted upon suitable shafts supported by brackets which are secured to the top and bottom of casing (B). I preferably provide both feed rollers with intermeshing gear wheels E—E′, although this arrangement is not essential to the operation of my device.

The motor shown in Figs. (1) and (2) consists of a coiled spring, located within one of the feed rollers, one end of which is secured to shaft (F), and the other end to the inner periphery of the feed roller. The spring is wound up by turning a crank upon one end of shaft (F), the shaft being held in position by a ratchet secured to the opposite end of said shaft and adapted to engage a gravity or spring pressed pawl, it being understood, that during this winding up operation the feed roller is locked against rotation by engagement of the controller to be hereinafter described therewith all as shown in Figs. (1) and (2).

Secured to shaft (F) is segmental gear (G), the teeth of which engage rack (L), secured to the plunger H, and raise the plunger, thereby compressing strong spring (I), until a toothless space is presented to said rack, whereupon spring (I) will forcibly urge the plunger downwardly, thereby detaching the end stamp from the tape and pressing the same upon the moistened corner of a letter presented for the affixing operation. As shown in the drawing the periphery of the segmental gear G is divided into eight equal parts, four toothed and four toothless, a toothless space alternating with a toothed portion. However any suitable number of toothed and toothless spaces may be used according to the number of reciprocations of plunger H desired to one revolution of the segmental gear G. The type shown will give four reciprocations downward of the plunger H for each revolution of the segmental gear wheel. In order that the rack on the plunger may engage the segmental gear wheel, I have shown the rack teeth as mounted on a web which is extended outwardly from a side of the plunger, the teeth of the rack being preferably equal in number to each group of teeth on the segmental gear. The plunger is normally held slightly above the feed of stamps by a weak spring (K).

At (M) is shown a knife blade with adjusting slots, see Fig. (4), which coöperates with a straight edge of the plunger for severing the stamp. In order to present a straight edge of the plunger to the knife any suitable guides for preventing rotation of the plunger may be used. I prefer to use a

collar B′ rigidly secured to the plunger, and having diametrically oppositely extending guide fingers which engage corresponding slots in a guide member secured to the top of casing (B).

The collar as shown, forms an abutment for spring (I). Pivoted at (P) is the controller (N), bent so as to present one end for actuation by the letter and the other end being provided with an inwardly projecting member adapted to engage successively, a series of locking openings O in the end of the feed roller (C), the openings being in the rotor of the motor. Normally the controller is so actuated by a retractile spring that the inwardly projecting member will engage the first locking opening presented thereto and stop further action of the motor. Now when a letter is inserted in the machine the controller is pushed by the letter to releasing position shown by dotted lines in Fig. (3). As soon as the release is effected the letter is withdrawn slightly, so as to permit the retractile spring to force the inwardly projecting member of the controller to engage the first locking opening and thereby stop the motor, so that but one stamp will feed forward at each insertion of a letter. It will be understood that the amount of peripheral movement given to the feed rolls at each operation of the feed roll must be equal to the length of one stamp.

Any suitable moistening device may be used to moisten the letter before having a stamp affixed thereto. I have shown in Fig. (3) a sponge arranged above the letter feed slot and adapted to moisten the corner of the letter, as the letter is being fed into the machine. The operation is briefly stated as follows: The letter is placed in the feed slot and pushed past the dampening sponge and into contact with the controller, as shown in Fig. (3), it being noted that inner longitudinal edge of the letter engages the downwardly inclined knife blade, the upper edge of said knife projecting slightly above the top of the letter. The above arrangement prevents any interference between the letter and the feed of the stamp which is projected above the letter top. When the controller has released the motor, the letter is immediately withdrawn slightly, so that said controller can engage the first locking opening and stop the motor when one stamp has been projected over knife (M), and above the letter. Simultaneously with the stopping of the motor plunger (H) is projected downwardly as described, and severs the end stamp as it passes knife (M), and presses the stamp upon the moistened letter, whereupon spring (K) withdraws the plunger from contact with the letter and the latter can be withdrawn, the machine being ready for the reception of a second letter. If desired, the operation of the machine may be repeated automatically by holding the controller free of the locking openings, either manually or by any suitable catch.

Having described my invention, what I desire to claim is,

1. In a machine of the class described, the combination of means for supporting a tape of stamps, means for moistening the corner of a letter, means for feeding said tape, means for severing the end stamp from said tape and pressing said stamp upon the moistened letter, a spring motor for actuating said feed means, and controlling means for said motor adapted to be actuated by contact with the letter as the latter is being placed in position to receive a stamp.

2. In a machine of the class described, the combination of means for supporting a tape of stamps, means for feeding said tape, a stationary support for said letter, means for severing the end stamp from said tape and pressing said stamp upon a moistened letter; a motor for actuating said feed means and said severing and pressing means and starting and stopping means for said motor adapted to be actuated by contact with a letter as the latter is being placed in position to receive the stamp to start the motor.

3. In a machine of the class described, the combination of means for supporting a tape of stamps, means for feeding said tape, a stationary support for said letter, means for severing the end stamp from said tape and pressing said stamp upon a moistened letter, a spring motor for actuating said feed means and starting and stopping means for said spring motor adapted to be actuated by contact with a letter as the latter is being placed in position to receive the stamp to start the motor.

4. In a machine of the class described, the combination of means for supporting a tape of stamps, means for feeding said tape, a stationary support for said letter, means for severing the end stamp from said tape and pressing said stamp upon a moistened letter; a spring motor for actuating said feed means and said severing and pressing means and starting and stopping means for said spring motor adapted to be actuated by contact with a letter as the latter is being placed in position to receive the stamp to start the motor.

5. In a machine of the class described, the combination of means for supporting a tape of stamps, means for moistening a letter, feed rollers for said tape, means for severing the end stamp from said tape and pressing the same upon said moistened letter, a

motor for actuating said rollers, and controlling means for said motor adapted to be actuated by contact with said letter as the latter is being placed in position to receive a stamp.

6. In a machine of the class described, the combination of means for supporting a tape of stamps, means for feeding said tape, a stationary support for the letter, means for severing the end stamp from said tape and pressing said stamp upon a moistened letter; a motor for actuating said feed means, connections between said feed means and said severing and pressing means whereby the latter is actuated by the former and controlling means for said motor adapted to be actuated by contact with a letter as the latter is being placed in position to receive the stamp to start the motor.

7. In a machine of the class described, the combination of means for supporting a tape of stamps, means for feeding said tape, a plunger for severing the end stamp from said tape and pressing said stamp upon a moistened letter, a rack on said plunger, a segmental gear, the teeth of which engage said rack, a motor for actuating said feed means and segmental gear, and starting and stopping means for said motor adapted to be actuated by contact with a letter as the latter is being placed in position to receive the stamp.

8. In a machine of the class described, the combination of means for supporting a tape of stamps, a pair of superposed feed rollers provided with intermeshing gears at corresponding ends, a segmental gear wheel secured to one of said feed rollers, a plunger adjacent to said feed rollers having a rack with which the teeth of the segmental gear engage; a motor for actuating the feed rollers whereby the teeth of the segmental gear engage the rack upon the plunger and raise the latter until a toothless space is presented to said rack and a spring adapted to be compressed by the upward movement of said plunger and to project said plunger downward when the teeth of said segmental gear have passed the rack on the plunger and means for automatically stopping said motor after each stamp has been affixed and means for starting said motor.

9. In a machine of the class described, the combination of means for supporting a tape of stamps, means for feeding said tape, means for severing the end stamp from said tape and pressing said stamp upon a moistened letter; a rotary motor for actuating said feed means provided with equi-distantly spaced locking devices upon the rotor thereof and a movable member adapted to be engaged by a letter as the latter is positioned in the machine and moved out of engagement with said locking devices, said member being normally positioned so as to engage said locking devices.

10. In a device of the class described, a hollow feed roller, a shaft loosely supporting said roller, a spiral spring within said roller, one end thereof being attached to the feed roller and the other to said shaft, a crank on one end of said shaft, a ratchet fastened on said shaft, a pawl engaging said ratchet, the ends of said feed roller being provided with a series of equi-distant apertures on a common circle drawn from said shaft as a center, a pivoted lever adapted for engagement with a letter at one end and provided with a projection at its other end adapted for engagement with said apertures, and a spring connected to said lever normally holding said projection in said apertures, said projection being but momentarily withdrawn from said apertures by insertion of a letter whereby the feed roller may be actuated.

11. In a machine of the class described, the combination of means for supporting a tape of stamps, a movable member for severing the end stamp from said tape provided with a projection, a feed roller for said tape, a movable element connected with said feed roller and provided with a projection adapted to contact with the projection on said stamp-severing member to actuate the latter and a motor for actuating said feed means and said movable element, said motor adapted to be started by the insertion of a letter.

12. In a stamp affixing device, the combination of means for supporting a tape of stamps, a movable member for severing the end stamp from said tape, provided with a projection, a feed roller for said tape, a rotatable element secured to said feed roller, a projection on said element adapted to contact with the projection on said movable member to actuate the latter, and a motor for actuating said feed roller.

13. In a stamp affixing machine, the combination of a stamp affixing member, feed rolls therefor and a spring motor for actuating said member and said feed rolls mounted within one of the feed rolls.

14. In a stamp affixing machine the combination of a stamp severing and affixing member, feed means for the tape of stamps and a spring motor for actuating said feed means and adapted to be put into action simultaneously with the insertion of a letter.

15. In a stamp affixing machine, the combination of a stamp affixing member, feed means for the tape of stamps, and a spring motor for actuating said affixing member and adapted to be put into action simultaneously with the insertion of a letter.

16. In a stamp affixing machine the combination of a stamp affixing member, feed means for the tape of stamps and a spring motor for actuating said feed means and said affixing member and adapted to be put in action simultaneously with the insertion of a letter.

17. In a stamp affixing machine, the combination of a stamp affixing member, feed means for the tape of stamps and connections between said member and said feed means whereby the former is actuated by the latter and a spring motor for actuating said feed means and adapted to be put into action simultaneously with the insertion of a letter.

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

HOWARD A. MOUNT.

Witnesses:
JOHN R. SPERRY,
E. E. RAMEY.

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