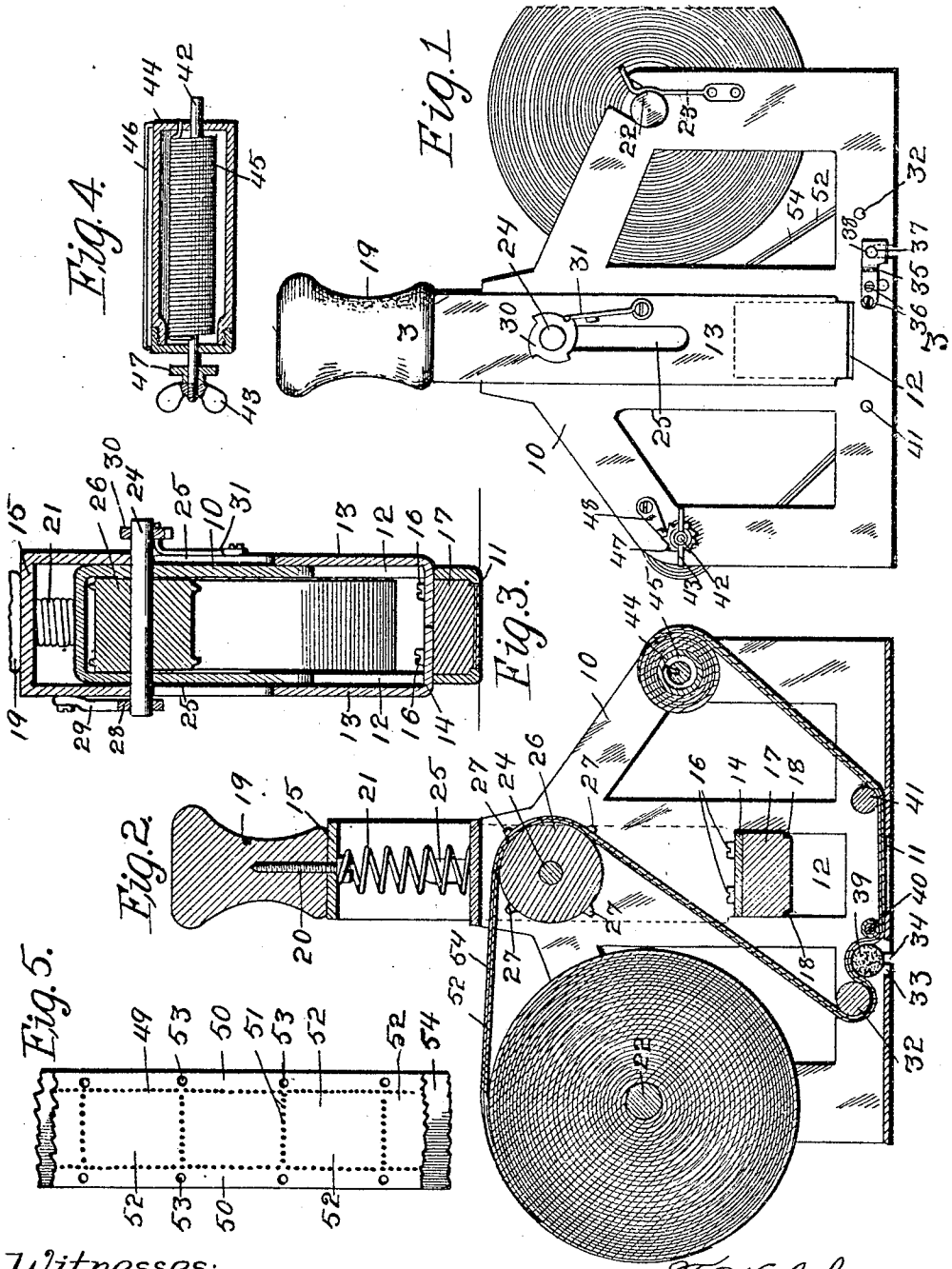
No. 844,302. PATENTED FEB. 12, 1907.

F. W. CHERRY.

POSTAGE STAMP AFFIXER.

APPLICATION FILED JULY 31, 1905.



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POSTAGE-STAMP AFFIXER.

No. 844,302. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed July 31, 1905. Serial No. 271,958.

To all whom it may concern:

Be it known that I, FRANK W. CHERRY, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a certain new and useful Postage-Stamp Affixer, of which the following is a specification.

The object of my invention is to provide a device of simple, durable, and inexpensive construction designed to be grasped in an operator's hand and to be placed to position on a letter to be stamped and to be automatically actuated to affix a stamp to said letter.

A further object is to provide a paper web composed of continuous marginal strips and stamps separate from the body of the web by rows of perforations, so that the stamps may be quickly and easily removed from the web by a pressure upon one side of the stamp of sufficient force to tear the stamp from the web along the rows of perforations.

My invention consists in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a side elevation of the complete machine. Fig. 2 shows a vertical central sectional view of same. Fig. 3 shows a sectional view on the indicated line 3 3 of Fig. 1. Fig. 4 shows a detail sectional view of the drum upon which the web is wound after the stamps have been detached, and Fig. 5 shows a plan view of the web to illustrate the arrangement of the perforations therein.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the frame of the machine. This frame comprises a bottom, sides, and a top, and it supports all of the operative parts of the device. Formed in the bottom near the center of the frame 10 is an opening 11 of substantially the same size as a postage-stamp. The sides of the frame are provided with slots 12 to receive the plunger, which plunger comprises a metal strap oblong in cross-section, as shown in Fig. 3, and comprising sides 13, a bottom 14, and a top 15. Secured to the bottom 14 by means of the screws 16 is a plunger-block 17, with a notch 18 extending around its lower corner. The under surface of said block between the notches is designed to pass through the opening 11, said notch forming a shoulder to engage the top of the bottom piece of the frame surrounding the opening 11. On top of the plunger 13 is a handle 19, connected with the top piece 15 by means of a screw 20, which screw also serves as a support for an extensible coil-spring 21, the lower end of which rests upon the top of the frame 10. In this way the plunger is normally held in its elevated position.

Supported at one end of the frame 10 is a shaft 22, detachably connected with the frame and held in position in the frame by a spring-hook 23, said shaft designed to receive a web of paper, as will hereinafter appear. The means for determining the distance the web of paper is advanced upon each movement of the plunger comprises a rotatable shaft 24, mounted in the frame 10 directly below the handle 19 and having its ends projected through slots 25 in the sides 13 of the plunger. Fixed to the center of the shaft is a wheel 26, formed with teeth 27, spaced apart at equal distances. Fixed to one end of the shaft 24 is a ratchet-wheel 28, engaged by a spring-actuated pawl 29, carried by the plunger, so that during each downward movement of the plunger the pawl 29 will engage and rotate the ratchet-wheel 28. Fixed to the other end of the shaft 24 is a ratchet-wheel 30, engaged by a spring-actuated pawl 31. Fixed to the adjacent side of the plunger by means of these pawls, it is obvious that a downward movement of the plunger will cause the shaft 24 to be rotated a distance corresponding to one space of the ratchet-wheels 28 and 30. In the present instance these ratchet-wheels have four teeth, and hence they will be turned one-fourth of a revolution on each movement of the plunger.

Mounted in the machine-frame beneath the shaft 22 is a guide-roller 32. Adjacent to this guide-roller I have formed in the bottom of the frame a slot 33, and in the sides of the frame adjacent to the slot 33 the slots 34. Pivoted to the frame 10 are the hangers, one of which is shown in Fig. 1 and comprises a body portion 35, pivoted at 36 and having an opening at 37, designed to receive the shaft 38 of the absorbent wetting-roller 39. This roller may readily be placed in position by admitting it in the slot of the frame, and

it is then held in place by means of the hanger 35. Adjacent to the roller 39 is a guiding-roller 40, and in the machine-frame, on the side of the slot 11 opposite from the roller 40, is another direction-roller 41. I have also provided a spring-actuated winding-drum to receive the web after the stamps have been removed therefrom, as follows: The numeral 42 indicates a shaft rotatably mounted in the frame 10 at the end opposite from the shaft 22. This shaft may be clamped to the frame 10 by means of the thumb-nut 43, screwed to one end thereof to engage the adjacent side of the frame 10. Rotatably mounted upon the shaft 42 is a hollow drum 44, and coiled upon the shaft 42 within the drum 44 is a spring 45, one end of which is fixed to the drum and the other to the shaft. On the periphery of the drum is a wire loop 46, designed to receive and hold the end of a paper web. I have provided for adjusting the tension of the spring 45, as follows: Fixed to the shaft 42 is a ratchet-wheel 47, engaged by a pawl 48 on the machine-frame to prevent backward movement of the ratchet-wheel.

I have arranged the postage-stamps for use in connection with my machine as follows: I have provided a continuous narrow paper web of a width substantially greater than the width of a postage-stamp. Formed in this web is a series of longitudinal perforations 49 to form continuous margins 50, and the space between the margins is divided by cross-rows of perforations 51, thus forming the stamps 52. In the margins 50 are the perforations 53 for purposes hereinafter made clear. It is to be understood that one side of the paper web is gummed in the usual manner and adjacent to the gummed surface is the second paper web 54, formed of material that will not adhere to the gummed surface.

In practical use I first roll upon the shaft 22 a web consisting of two layers, the one comprising the stamps and the other the part 54. I then place the roll in the frame, as shown in the drawings, and pass the end of the web comprising the two layers first over the wheel 26, with the teeth 27 thereof projecting through the openings 53, then under the directing-roller 32, then under the roller 40, then under the roller 41, and finally I secure the end of the web to the loop 47 of the winding-drum. I provide for moistening the gummed surface of the stamps by placing the absorbent-roller 39 in position between the rollers 32 and 40 and so arranged that the stamps will bear upon the said absorbent-roller. The teeth 27 of the wheel 26 are so arranged with relation to the stamps that during each downward movement of the plunger the web will be advanced just the distance of one stamp length, so that at all times a stamp in the web will be accurately centered over the opening 11 in the bottom of the machine-frame. The spring-actuated winding-drum will always hold the web stretched taut between the rollers 40 and 41 above the opening 11. When the plunger is moved downwardly, it will engage the top of the web and force the stamp downwardly through the opening 11 and place it firmly upon an envelop or other article upon which the machine-frame is resting. At the same time it will tear the stamp from the web along the rows of perforations. The web 54 will not be torn loose, because it is not provided with perforations. Then when the plunger is elevated by the spring 21 the wheel 26 will be rotated sufficient to advance the web one stamp-space. The web will be then wound upon the drum 44 to keep it stretched tight across the top of the opening 11. Hence all the operator need do is to grasp the handle 19 and move the machine bodily to position adjacent to envelops or articles to be stamped, and when the machine is placed on an article to be stamped the operator simply presses downwardly upon the handle, thus completing the operation of tearing the stamp loose from the web and affixing it to the article and advancing the web one stamp-space. If at any time the moistening-roller becomes dry, it may be quickly and easily removed and again re-moistened and replaced without interfering with the other parts of the machine.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a stamp-affixer, the combination of a frame, a plunger therein, a roller having projections thereon actuated by a movement of the plunger, a loosely-mounted roller, a spring-wound roller and a web wound upon the loosely-mounted roller, said web formed with perforations to receive the projections on the roller, said web wound upon the loosely-mounted roller, passed around the roller with projections and having said projections extended through the openings thereof, and wound upon and attached to the spring-wound roller.

2. In a stamp-affixer, the combination of a frame, a web-supporting roll, a web-directing roller, a spring-actuated web, winding devices and an absorbent moistening-roller arranged adjacent to one of the directing-rollers in such manner as to have a web yieldingly held against it by the spring-actuated web-winding device.

3. In a stamp-affixer, the combination of a machine-frame formed with an opening in its bottom, a spring-actuated plunger movable to and from said opening, a web-supporting roller, a driving-wheel formed with web-engaging teeth mounted in the machine-frame, means actuated by the plunger for rotating said web-driving wheel a certain predetermined distance upon each movement of

the plunger, web-directing rollers and a spring-actuated web-winding device.

4. The combination of a machine-frame, comprising sides, top and bottom, said bottom formed with an opening, a roller for supporting a paper web detachably mounted in the frame, a plunger comprising sides, top and bottom vertically movable relative to the machine-frame, a plunger-block fixed to the bottom thereof and designed to pass into the opening in the bottom of the frame, an extensible coil-spring interposed between the top of the machine-frame and the top of the plunger, a driving-wheel mounted in the machine-frame between the sides of the plunger, ratchet devices connected with the plunger and the said driving-wheel for rotating it a certain pedetermined distance upon each stroke of the plunger, said driving-wheel formed with teeth, a detachable absorbent moistening-roller in the machine-frame adjacent to the opening in its bottom, directing-rollers on both sides of the absorbent-roller, a directing-roller in the machine-frame on the opposite side of the opening in its bottom and a spring-actuated winding-roller to receive a web.

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