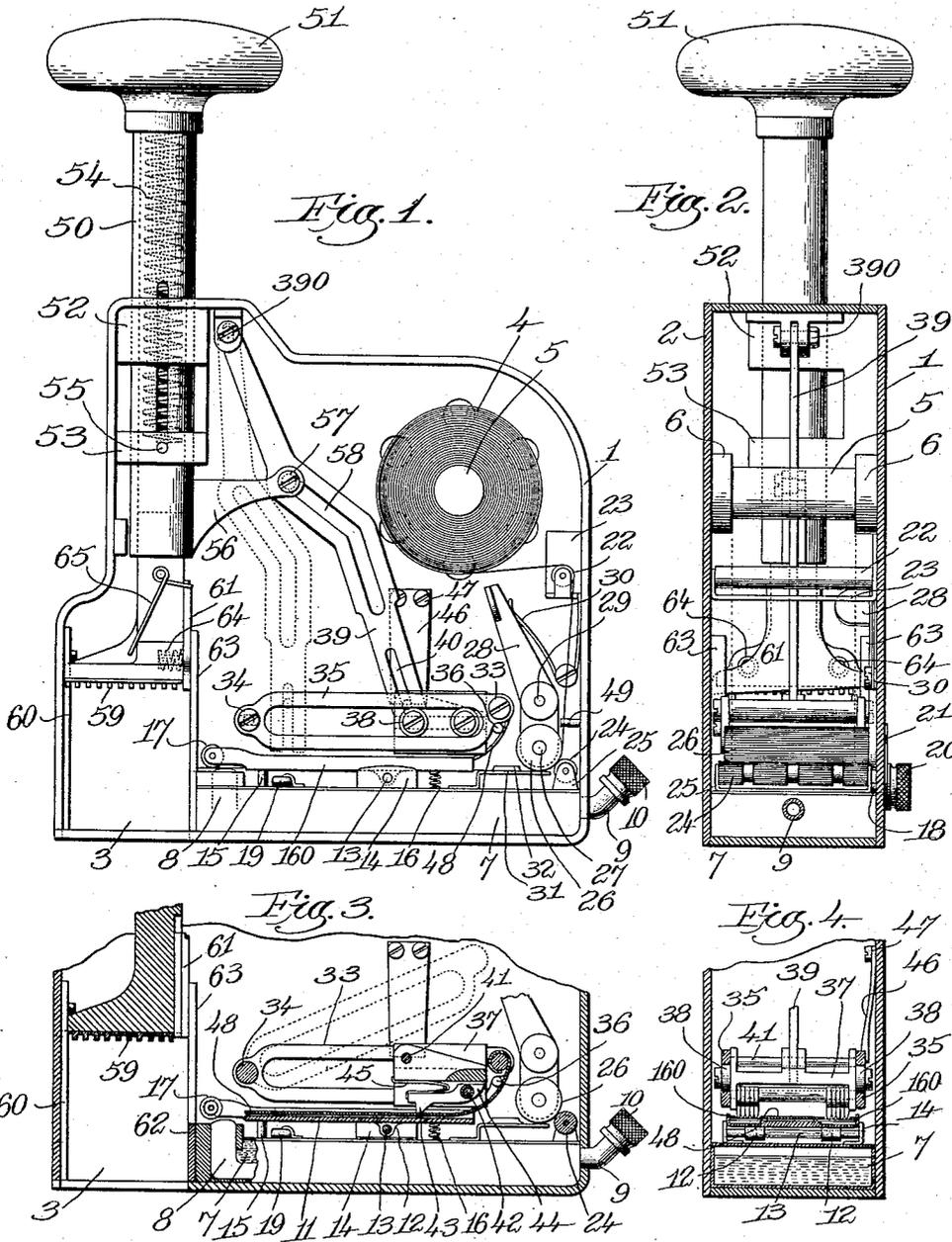


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 STAMP AFFIXING DEVICE.  
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1,171,786.

Patented Feb. 15, 1916.



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# UNITED STATES PATENT OFFICE.

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## STAMP-AFFIXING DEVICE.

1,171,786.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, ALFRED HALL, a citizen of the United States, and resident of Los Gatos, county of Santa Clara, State of California, have invented an Improvement in Stamp-Affixing Devices, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to a stamp affixing device, and its object is to provide a device of this character of simple and efficient construction, by means of which the stamps will be properly moistened, separated from a rolled strip and applied to the envelop or package by a single blow or stroke.

The device is so constructed that the roll of stamps may be locked within the casing to guard against theft or unauthorized removal of the stamps.

The device is adapted to make use of a roll of stamps in which the successive stamps are separated from each other by a row of perforations, and the feeding devices employed feed the stamps along by engagement with the perforations, thus insuring absolute accuracy of the delivery of each stamp from the device.

The device also comprises a braking means for engaging the strip of stamps and preventing any backward movement thereof by the feeding device.

The invention also comprises novel features in the construction of the feeding mechanism, the cutting mechanism for severing the stamps from the strip and other improvements, all of which will more fully appear from the accompanying drawings and description, and will be particularly pointed out in the appended claims.

The drawings illustrate the preferred form of stamp affixing device embodying the invention.

In the drawings: Figure 1 is a side elevation with the casing cover removed of the entire device. Fig. 2 is a rear elevation of the device with the casing cover in place, and with the casing and cover broken away to show the interior mechanism. Fig. 3 is a side elevation of the lower portion of the device shown in Fig. 1, with a number of the parts shown in vertical cross section. Fig. 4 is a vertical cross section of the lower por-

tion of the device taken transversely to Fig. 3. Fig. 5 is a detail view of the roll for holding the stamp strip against the moistener. Fig. 6 is a plan view of a portion of the perforated strip of stamps showing the relation of the feeding fingers thereto.

The device comprises a generally rectangular metallic casing having a body part 1 and a cover part 2, the latter being a generally flat plate fitting against the body part, and locked or removably secured thereto by any suitable means. The body part is formed at the forward end of the bottom with an opening 3 through which the stamps are discharged on to the envelop or package.

The roll of stamps is shown at 4 mounted on a stud 5 secured to and projecting from the face of the body part of the casing, so that when the cover is removed the roll may be placed on or removed from the stud 5. This stud is preferably provided with enlarged ends 6 to maintain the roll of stamps centrally of the stud.

At the bottom of the casing a tank 7 is provided, and this is shown as a flat tank completely covering the bottom of the casing and containing a wick 8 which projects slightly above the top surface of the tank at its forward end. Water is supplied to the tank through a nozzle 9 projecting from the rear end of the casing, and provided with a removable cap 10.

A guide table 11 is supported immediately above the tank, being provided with lugs 12 journaled on the shaft 13 secured in the vertical brackets 14 mounted on the tank. This guide table is normally held in feeding position with its forward end against the stop 15 by means of a spring 16 extending between its rear end and the top of the tank. The guide table is formed with upturned side edges 160 which serve as gages for the stamp strip and which project beyond the forward end of the guide table to serve as brackets in which is mounted the roll 17 shown in Fig. 5. This roll presses the stamp strip against the moistening device and is preferably constructed as shown to insure the complete moistening of the strip.

Means are provided for raising the guide table at its forward end together with the roll 17 to lift the stamp strip from off the moistening device when the stamp affixing

device is not in use. This means is shown as a rod 18 journaled on the top of the tank 7 beneath the forward end of the guide table, and provided with a bent end 19 and on the outside of the casing with a thumb nut 20 and a pointer 21 to indicate its position. By turning the thumb nut 20 the bent end 19 of the rod will be turned from the position shown in Figs. 1 and 3 to a vertical position, raising the guide table from off the stop 15 and thus elevating the stamp strip from contact with the moistening device or wick 8.

The stamp strip as it comes from the roll 4 passes over a suitable idler roll 22 journaled in a bracket 23 secured to the casing, and by means of this idler the stamp strip is guided down adjacent the rear end of the casing. A second roll 24 is mounted upon brackets 25 on the rear end of the tank 10, and this roll is preferably scored and corrugated as illustrated. A third and larger roll 26 is journaled on a stud 27 projecting from the lower arm of a lever 28 fulcrumed at 29 on the casing. A spring 30 pressing against the lever 28 and the casing normally forces the roller 26, which is corrugated as shown, toward the roller 24.

The stamp strip passes down through the idler 22 between the rollers 24 and 26, and from thence to the guide table 11. The rollers 24 and 26 serve not only to guide the stamp strip but as a braking device by means of which any movement of the stamp strip other than that caused by the positive action of the feeding device to be described, is prevented. This braking device prevents the stamp strip from retrograde movement during the backward movement of the feeding device. The stamp strip is preferably supported between the braking device and the guide table by a support 31 mounted on the tank 10 and provided with an edge gage 32.

The feeding mechanism comprises a frame 33 pivotally mounted to the casing at 34 and provided with longitudinally slotted side members 35. The pivot 34 is horizontally adjustable in an elongated slot in the casing so that the position of the frame may be adjusted slightly to correspond with any variation in the length of the stamps. In its normal position the free end of the frame rests upon the stud 36 mounted in the casing with the longitudinal slots and the side members 35 parallel with the guide table 11. A carriage 37 is provided at each side with rolls 38 riding in the longitudinal slots of the side members 35 of the frame, and this carriage is reciprocated longitudinally of the frame, and hence of the guide table, by a lever 39 having a slot 40 at its lower end fitting over a stud 41 in the carriage. The lever 39 is pivoted to the casing by a screw 390 having a slight vertical adjustment in an elongated vertical slot. This adjustment may be made use of either alone or in

connection with the adjustment of the screw 34 to provide for variations in the length of the stamps. This carriage is provided with a plurality of feeding fingers which are adapted in the forward movement of the carriage to enter and catch in the perforations between the successive stamps. In the construction shown, several of the feeding fingers are mounted at each side of the carriage, five of such fingers being shown at each side. These fingers are more closely spaced than the perforations in the strip, so that one or more of the fingers at each side is sure to engage a perforation at each side. Each feeding finger is freely mounted at its rear end upon a shaft 42 extending transversely in the carriage, and at its forward end is provided with a downwardly projecting feeding point 43 to catch in the perforations, the rear side of the point being beveled or inclined, and in front being substantially perpendicular, so that as the carriage moves forward the point will drop into the perforations, and as the carriage is retracted the point will ride over the strip of stamps. The downward movement of the feeding finger about the shaft 42 is limited by the projecting rear end 44 contacting with the carriage and the feeding finger is normally pressed downwardly by a grasshopper spring 45. It will thus be seen that each feeding finger acts independently of the others. The step formed by the projecting rear end 44 of each feeding finger prevents the feeding fingers from descending sufficiently to catch in or tear the strip, but allows them to descend sufficiently to insure their catching in the perforations.

A spring catch 46 is fastened to the side of the casing at 47, engages the top of the frame 33 and locks it in its operative position. The frame 33 carries a plate 48, which when the frame is in operative position covers the guide table 11 and extends between the side edges 160 to maintain the stamp strip in place, and this plate is slotted at each side to allow for the operation of the feeding fingers therethrough. This plate when in operative position presses at its forward end downwardly against the stamp strip, and thus acts as an additional braking device, preventing retrograde movement or buckling of the stamp strip at its forward end, due to any cause such as the return movement of the feeding fingers.

When it is desired to insert the roll of stamps the spring catch 46 is pressed back and the frame 33 swung unwardly about its pivot 34, as indicated in dotted lines in Fig. 3. The perforated roll is placed in position on the stud 5. The strip is then carried down over the idler 22. The lever 28 is swung against the spring 30 to separate the braking rolls 26 and 24, and the strip is passed between these rolls and also slipped

behind an edge guide 49 projecting from the back of the casing. The strip then passes over the support 31 guided by the edge gage 32, and is then laid over the guide table and beneath the roller 17. The frame 33 is then restored to and locked into operative position.

The stamps are severed successively from the strip and pressed upon the envelop or package by a plunger device which also serves to operate the feeding mechanism. The plunger as shown comprises a tubular stem 50 provided with a head 51 and adapted for vertical movement in bearings 52 and 53 projecting from the forward upper end of the casing. A helical spring 54 is inclosed in the tubular portion 50 and abuts at its upper end against the head 51 and at its lower end against a pin 55, carried by the bearing 53. The tube 50 is slotted to allow it to move over the pin 55, and hence upon the depression of the plunger it will compress the spring so that when the plunger is released the spring 54 will return the plunger to the position shown in Fig. 1. The tubular stem carries projecting from its lower end an arm 56 having a stud 57 which rides in a cam shaped slot 58 in the lever 39, so that upon the reciprocation of the plunger the lever is operated to give the proper feeding and return movement to the carriage 37. The lower portion of the cam slot assumes a position parallel with the line of reciprocation of the plunger, as shown in dotted lines in Fig. 1, upon the completion of the feeding movement so that thereafter the movement of the plunger may not affect the feed of the stamp strip. The bottom of the plunger is rectangular and is preferably faced with a pad such as roughened rubber plate 59 and is of the size of a stamp. At one side it is guided in its vertical movement by the rib 60 on the front of the casing. The stamp is sheared at the line of perforations from the strip by the co-action of the knife 61 carried on the plunger with the fixed knife 62. The stamp strip is fed over the knife 62 and the sides of the plate from which the knife 62 is formed extend upwardly as shown at 63 and serve as guides for the knife 61. The cutting edge of the knife 61 is inclined as shown in Fig. 2 so that it shears across the strip in its descent and it is held up against the knife 62 by the springs 64. It is connected to the plunger by the spring 65 so that when the plunger reaches its lower limit the knife may yield upward without marring the envelop or package.

The operation of the device is apparent from the foregoing description. It will be seen that the downward movement of the plunger feeds the stamp over the moistener beneath the plunger, shears it at the line of perforations and fastens it to the envelop

or package. It is impossible to feed the stamp strip along except by the perforations so that there is no danger of severing the stamp save along the perforated line.

The invention having been fully described, what is claimed as new and desired to be secured by Letters Patent, is:

1. A stamp affixing device comprising a stamp affixing plunger, a frame pivoted at one end to swing vertically, a rectilinearly movable carriage mounted on said frame, means operated from or by said plunger for moving the carriage the distance between the lines of perforations of a perforated strip of stamps, a plurality of feeding fingers journaled on said carriage, and means for locking the frame in operative position and for releasing it so that it may be swung on its pivot to insert the stamp strip therebeneath.

2. A stamp affixing device comprising a stamp affixing plunger, means for guiding and feeding a stamp strip the length of a single stamp beneath said plunger and means comprising coöperating rollers for braking the movement of said stamp and means for separating said rollers.

3. A stamp affixing device comprising a stamp affixing plunger, means for guiding and feeding a stamp strip the length of a single stamp beneath said plunger and a pair of spring pressed rolls between which the strip passes to the feeding means for retarding and preventing retrograde movement of the strip a pivotal support for one of said rollers and means for oscillating said support to permit the insertion of the stamp strip.

4. A stamp affixing device comprising a reciprocating stamp affixing plunger, a fixed knife, means for feeding the stamp strip over said fixed knife beneath the plunger, a co-acting knife carried by the plunger, and a spring for holding said knives in contact during the downward movement of the plunger to insure their co-action and means for holding the knife yieldingly in position to allow the knife to move upward upon the plunger reaching its downward limit.

5. A stamp affixing device comprising a stamp affixing plunger a frame pivoted at one end to swing vertically, a rectilinearly movable carriage mounted on said frame, means operated from or by said plunger for moving the carriage the distance between the lines of perforations of a perforated strip of stamps, a plurality of feeding fingers journaled on said carriage, means for locking the frame in operative position and for releasing it so that it may be swung on its pivot to insert the stamp strip therebeneath, a spring plate connected at one end to said frame and extending in the direction of the feeding movement of the feeding fingers and having its free end pressing upon the

stamp strip when the frame is in operative position.

6. A stamp affixing device comprising a stamp affixing plunger a flat guide table  
5 having upturned side flanges, a frame pivoted at one end to swing vertically and extending above and longitudinally of said guide table, means operated from or by said plunger for feeding a stamp strip the length  
10 of a single stamp carried by said frame, a plate connected at one end to the free end of said frame and extending over and close to

said guide table between said side flanges, whereby when the frame is swung upwardly upon its pivot the guide table will be un- 15 covered to permit the insertion of the stamp strip.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALFRED HALL.

Witnesses:

CHARLOTTE M. SUMNER,  
FREDERICK S. GREENLEAF.

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