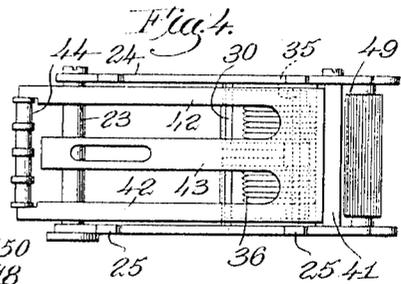
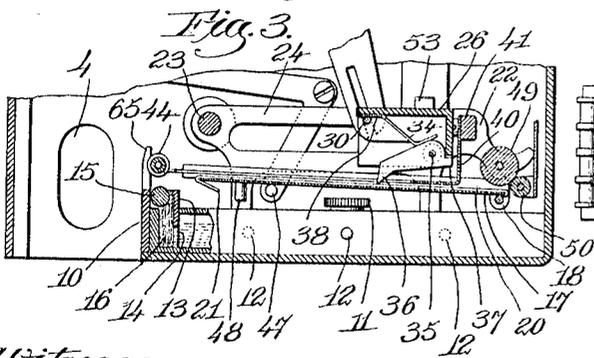
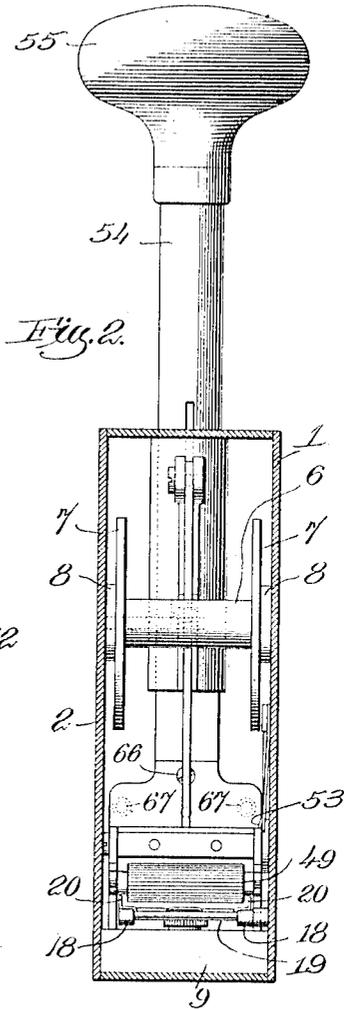
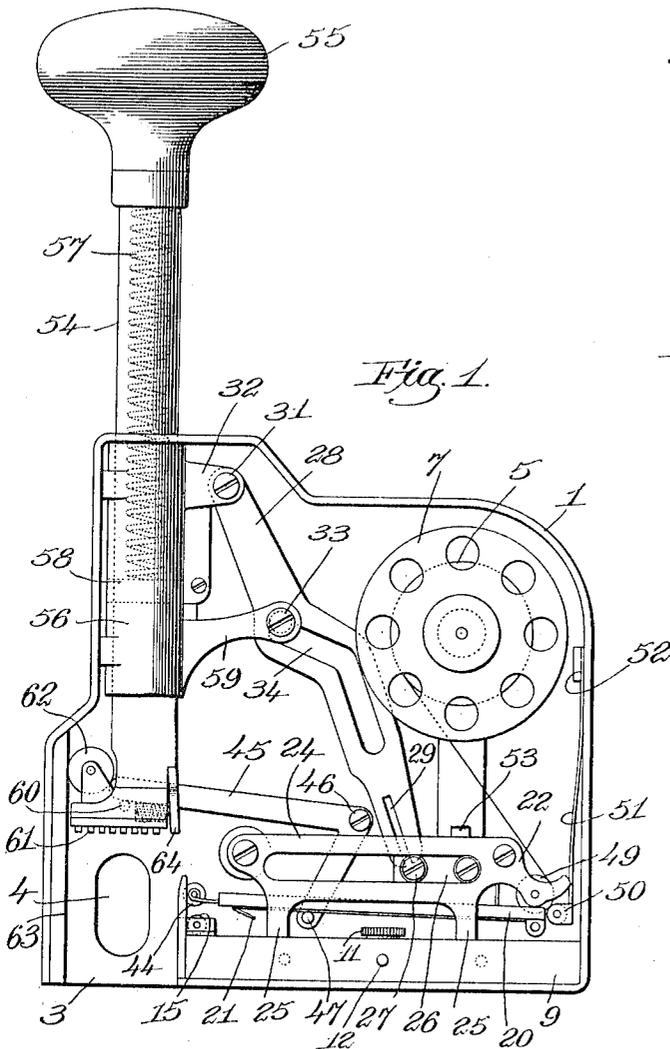


A. HALL.
 STAMP AFFIXING DEVICE.
 APPLICATION FILED FEB. 26, 1912.

1,071,912.

Patented Sept. 2, 1913.



Witnesses:
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 Att'y.

UNITED STATES PATENT OFFICE.

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STAMP-AFFIXING DEVICE.

1,071,912.

Specification of Letters Patent.

Patented Sept. 2, 1913.

Application filed February 26, 1912. Serial No. 679,831.

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 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 means for automatically lifting the leading stamp from the moistening device after the severance of each stamp from the strip.

The device also comprises novel features in the construction of the feeding mechanism, the means for handling the stamp strip in its passage from the roll to the moistening device, in the moistening device and in other features, all of which will more fully appear from the accompanying description and drawings and will be particularly pointed out in the appended claims.

The drawings illustrate a 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 cut 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 bottom plan view of the mechanism for guiding the stamp to the moistening device.

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 onto the envelop or package. Side openings 4 are also provided in the cover and body part, through which the stamp may be viewed as it is pressed onto the envelop or package.

The roll of stamps is shown at 5 mounted on a stud 6 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 6. Circular flanged plates 7 on the stud 6 are provided, and the stud is provided with enlarged ends or washers 8 to maintain the flanged plates 7 with the interposed roll of stamps centrally of the stud.

At the bottom of the casing a tank 9 is provided. This tank fits snugly within the casing at the bottom between the rear wall of the casing and the fixed knife 10 to be described. The tank is provided on its upper surface with a removable screw cap or cover 11 to enable the tank to be filled with water. The tank is held firmly in place by pins 12 projecting from its sides and engaging apertures in the cover and casing. At its forward end the tank is provided with a suitable device for feeding the moisture to the adhesive side of the stamps. The construction shown for this purpose, which is exceedingly simple and efficient, comprises a frame 13 fitting within the forward end of the tank and resting upon the bottom thereof. This frame is slotted at its lower rear side and has journaled near its top and projecting slightly thereabove a roll 15. This roll is very finely corrugated longitudinally of its surface, and a wick 16 held in place between the end of the tank and the frame 13 feeds moisture to the surface of the roll, where it remains in a thin film by reason of the finely corrugated surface until its transfer to the adhesive of the stamp. The tank being removable from the casing may be readily cleansed, refilled or resupplied with the wick.

A guide table 17 is supported immediately above the tank and is shown as formed of sheet metal, being provided at its rear end with lugs 18 journaled on the shaft 19 pro-

jecting from the side wall of the casing. The guide table is formed with upturned side edges 20, which serve as gages for the stamp strip and which project slightly beyond the forward end of the guide table. The feeding devices which push the stamp strip forwardly over this guide table will in time wear the surface of the table, and this invention therefore provides removable hardened steel strips 21 seated in longitudinal depressions in the guide table and held in place by their ends being downturned and clamped about the ends of the guide table.

A frame 22 is pivotally mounted on the casing at 23 and provided with longitudinally slotted side members 24. The table is provided with legs 25, which when the table is in normal operative position rest upon the tank and maintain it parallel with the guide table.

A carriage 26 is provided at each side with anti-friction rolls 27 riding in longitudinal slots of the side members 24 of the frame, and this carriage is reciprocated longitudinally of the frame and hence of the guide table by a lever 28 having a slot 29 at its lower end riding over a stud 30 on the carriage. This lever 28 is pivoted at 31 to a projection 32 rigid with the casing and is operated by a vertically movable stud 33 riding in a cam shaped slot 34 formed in the lever.

The carriage 26 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, six 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 one or more perforations at each side. Each feeding finger is freely mounted at its rear end upon a shaft 35 secured transversely in the carriage and in its forward end is provided with a downwardly projecting feeding point 36 to catch in the perforations, the rear side of the point being beveled or inclined and its 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 35 is limited by the projecting rear end 37 contacting with the carriage, and the feeding finger is normally pressed downwardly by a spring. This spring is formed in the shape of a comb having a transverse portion 38 secured to the carriage and having its depending fingers 39 resting respectively upon the several feeding fingers. It will thus be seen

that the spring, being formed of one piece of metal, is held firmly and rigidly in place, and yet each feeding finger is enabled to act yieldingly and independently of the others. The stops formed by the projecting rear ends 37 of the feeding fingers prevent the feeding fingers from descending sufficiently to catch in or tear the stamp strip, but allow them to descend sufficiently to insure their catching in the perforations.

The frame 22 carries a spring plate 40 having an upturned portion secured to a cross-bar 41 connecting the rear ends of the side members and having a body portion extending parallel to the guide table. This body portion is preferably divided into separate side tongues 42 and a central tongue 43 between which the feeding fingers operate. The side tongues 42 are prolonged forwardly and at their ends form bearings for a presser roll 44. This roll is preferably transversely grooved or corrugated, as shown, to press the stamp strip against the moistening device to insure the complete moistening of the strip. The spring tension of the plate 40 is such as to maintain the body or tongues thereof parallel with the guide table to allow the stamp strip to be fed therebetween and with the presser roll 44 pressing the stamp against the moistening device when the stamp strip is being fed forward. The chief function of the side tongues 42 is to hold the roll 44 yieldingly to press the stamp strip against the moistening roll 15, while the chief function of the central tongue 43 is to press the stamp strip yieldingly against the guide table over which it is being fed.

Means are provided for raising the stamp strip from off the moistening device automatically after the severance of a stamp from the strip. In the form herein illustrated the guide table and the superjacent spring plate with the interposed stamp strip are thus lifted automatically. This means comprises a lever 45 fulcrumed at 46 to the casing and having a stud 47 extending beneath the forward end of the guide table and suitably operated, as will be described. The guide table is also provided at its forward end with a depending leg 48 to contact with the top of the tank and limit its downward movement.

The stamp strip as it comes from the roll 5 passes downwardly and turns sharply about a suitable braking device before it passes along the guide table. This braking device comprises a large corrugated roll 49 journaled in the rear ends of the side members 24 of the frame 22 and a smaller roll 50 held yieldingly against the larger roll. This yielding contact is secured in the present instance by journaling the roll 50 in the lower end of a long spring 51 secured at its upper end 52 to the casing.

The frame 22 is locked in its normal or downward position by a spring catch 53, and upon pressing back this spring catch the frame may be swung upwardly about its pivotal stud 23 to enable the stamp strip to be slipped in place upon the guide table and beneath the spring plate 40.

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 and to elevate the stamp strip from the moistening device after the severance of the stamps. This plunger is shown as comprising a tubular stem 54 provided with a head 55 and adapted for vertical movement in a cylindrical bearing 56 rigidly secured in the forward upper portion of the casing. A helical spring 57 is inclosed in the tubular portion 54 and abuts at its upper end against the head 55 and at its lower end against a finger 58 depending from the projection 32 and projecting through the bearing 56 into the plunger, which is vertically slotted to allow it to move over this finger. Hence, upon the depression of the plunger, it will compress the spring, so when the spring is released it will return the plunger to the position shown in Fig. 1.

The plunger stem carries projecting from its lower end an arm 59, the bearing 56 being slotted to allow for the vertical movement of the arm, and this arm carries at its free end the stud 33, giving thereby vertical movement to the stud for operating the lever 28 already described. Hence, upon the reciprocation of the plunger the lever 28 is operated to give the proper feeding and return movement to the carriage 26, the lower portion of the cam slot 34 assuming a position parallel to the line of reciprocation of the plunger during the latter portion of the downward movement of the plunger, so that the movement of the plunger may be effected for each movement of the stamp strip during the severance of the stamp and its application to the envelop or package. The plunger is also provided at its lower end with a stud or pin 60 extending beneath the end of the lever 45 and so arranged that when the plunger rises to its upper position it raises the free end of the lever 45, thus lifting the guide table against the tension of the spring plate 40, thus raising the interposed stamp strip and the roll 44 to lift the leading stamp from off the moistening device.

The bottom of the plunger is rectangular and is preferably faced with a pad such as the roughened rubber plate 51, and is of the size of the stamp. The plunger is preferably provided at its forward side with an anti-friction roll 62 riding against a vertical rib or surface 63 on the casing.

The stamp is sheared at the line of perforations of the strip by the co-action of a

knife 64 carried by the plunger with the fixed knife 10. The stamp strip is fed over the knife 10 and the sides of the plate from which the knife is formed extend upwardly as shown at 65, and are beveled on their upward forward faces, thus serving as guides for the knife 64. This knife 64 is loosely mounted at its upper end to the plunger by the screw 66, and its lower edge is held yieldingly outwardly against the guides 65 by coil springs 67 seated in the plunger.

The operation of the device will be apparent from the foregoing description.

It will be seen that the downward movement of the plunger feeds the stamp strip over the moistening roll 15 beneath the plunger, shears it at the line of perforations, and fastens it to the envelop or package, and then upon its upward movement retracts the feeding device and elevates the guide table and roll 44 to lift the stamp strip out of contact with the moistening roll. It is impossible to feed the stamp strip along except by the perforations, so that there is no danger of severing the stamps save along the perforated line.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, devices adapted to guide the strip of stamps over the moistening device, and means acting automatically to lift the stamp strip and its cooperating guiding devices from the moistening device after the passage of each stamp thereover.

2. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, means extending beneath the stamp strip in proximity to the moistening device, and connections between said means and the said plunger whereby upon each upward movement of the plunger said means are elevated adjacent the moistening device to lift the stamp strip therefrom.

3. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table, having its forward end adjacent the moistening device to guide the strip of stamps over the moistening device, a spring plate above the guide table, a presser roll carried at the free end of the said spring plate and cooperating with the moistening device, and means automatically acting to elevate the spring plate and stamp strip to lift the stamp strip from the moistening device after the passage of each stamp thereover.

4. A stamp affixing device comprising a reciprocating stamp affixing plunger, a sup-

port for a roll of stamps, a moistening device, a guide table in proximity to and adapted to guide the strip of stamps over the moistening device, and means acting automatically to elevate the guide table adjacent the moistening device to lift the stamp strip from the moistening device after the passage of each stamp thereover.

5. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table in proximity to and adapted to guide the strip of stamps over the moistening device, and connections between the said guide table and the said plunger whereby upon each upward movement of the plunger the guide table is elevated adjacent the moistening device to lift the stamp strip therefrom.

6. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table, pivoted at its rear end and having its forward end adjacent the moistening device to guide the strip of stamps over the moistening device, a spring plate above the guide table, a presser roll carried at the free end of the said spring plate and cooperating with the moistening device, and means automatically acting to elevate the guide table superjacent spring plate and interposed stamp strip to lift stamp strip from the moistening device after the passage of each stamp thereover.

7. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of perforated stamps, a guide table recessed longitudinally, hardened steel strips located in said recesses, a carriage mounted to reciprocate over said guide table, connections to said plunger for reciprocating the carriage therefrom, feeding fingers yieldingly mounted in said carriage above said hardened steel strips whereby upon the forward movement of the carriage the fingers will catch the perforations in the stamp strip and move along on said hardened steel strips.

8. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table terminating adjacent said moistening device, a roller at the opposite end of the guide table around which the stamp strip is deflected from the supply roll on to the guide table, and a braking roll, and means for holding it yieldingly against said deflecting roll to retard the movement of the interposed stamp strip.

9. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of perforated stamps, a guide

table to direct the stamps beneath the plunger, a spring plate mounted above the guide table with a plurality of supported tongues extending longitudinally of the guide table, and feeding devices operating between said tongues to feed the stamp strip, a moistening device adjacent the end of the guide table, a presser roll supported in the free ends of two of said tongues to press the stamp strip yieldingly against the moistening device, and connections between the plunger and the feeding devices to secure the operation thereof upon the movement of the plunger.

10. A stamp affixing device comprising a reciprocating stamp affixing plunger, a moistening device adjacent said plunger, a guide table terminating adjacent said moistening device, a carriage mounted to reciprocate above said guide table, connections between said carriage and said plunger to reciprocate the former from the latter, a plurality of feed fingers journaled in said carriage and each provided with a downwardly projecting feeding point, and a comb spring on said carriage having its teeth engaging separately the feeding fingers.

11. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a tank, a moistening roll adjacent said plunger, a wick entering said tank and contacting with said roll periphery to maintain the same moistened, a presser roll cooperating with said moistening roll, and means operated by said plunger to feed the stamp strip over said moistening roll beneath said plunger and means acting automatically to lift the stamp strip from the moistening device after the passage of each stamp thereover.

12. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a tank, a metallic moistening roll provided with fine longitudinal corrugations on its periphery, a wick entering said tank and contacting with said roll periphery to maintain the same moistened, a presser roll cooperating with said moistening roll and means operated by said plunger to feed the stamp strip over said moistening roll beneath said plunger and means acting automatically to lift the stamp strip from the moistening device after the passage of each stamp thereover.

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

ALFRED HALL.

Witnesses:

B. G. MORRIS,
THOMAS J. DRUMMOND.