W. C. LANDON.

STRAIGHTENING DEVICE FOR COILED STRIPS OF STAMPS OR THE LIKE.

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1,277,432.

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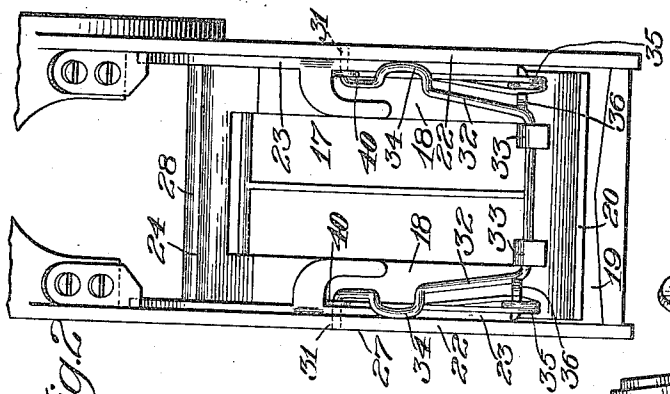

Fig. 2

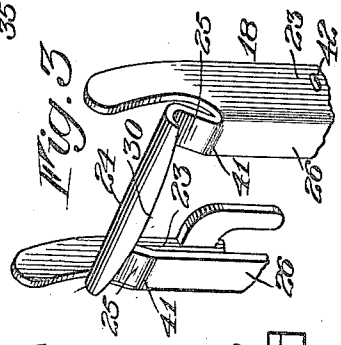

Fig. 3

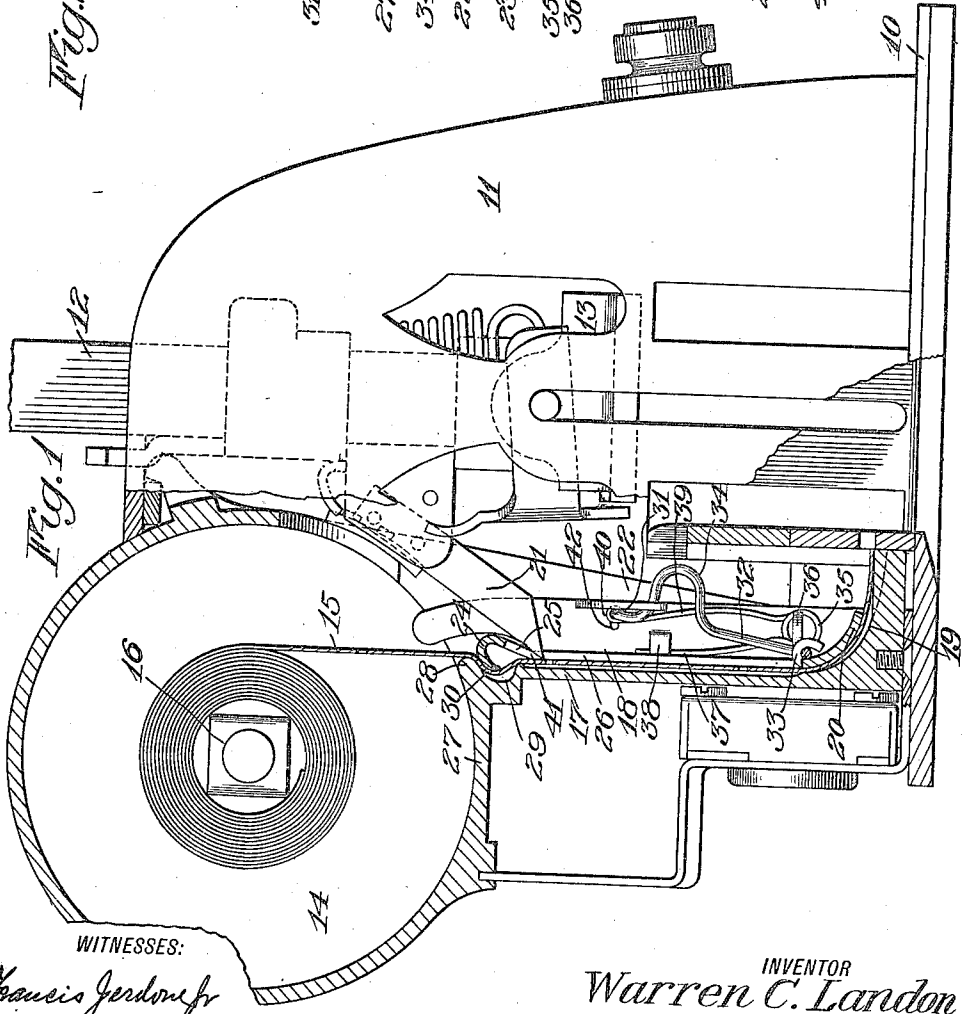

Fig. 1

WITNESSES:

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WARREN C. LANDON, OF ROCHESTER, NEW YORK, ASSIGNOR TO MULTIPOST COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

STRAIGHTENING DEVICE FOR COILED STRIPS OF STAMPS OR THE LIKE.

1,277,432. Specification of Letters Patent. Patented Sept. 3, 1918.

Application filed November 1, 1916. Serial No. 128,879.

To all whom it may concern:

Be it known that I, WARREN C. LANDON, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Straightening Devices for Coiled Strips of Stamps or the like; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference characters marked thereon.

My invention has for its object to provide a straightening or anti-curling device for removing the curl from strips of stamps or the like which are supplied in rolls or coils such as strips of postage stamps used in stamp affixing machines, whereby the curl in the stamps or labels due to their close confinement in the coil may be removed previous to their application to the objects to which they are to be affixed. To these and other ends the invention consists in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is an enlarged sectional elevation of a machine illustrating one embodiment of my invention applied thereto;

Fig. 2 is a rear face view of the straightening and stamp guiding mechanism, and

Fig. 3 is a detail perspective view of the top portion of the removable stamp guide carrying a portion of the straightening or anti-curling means.

Similar reference characters throughout the several views indicate the same parts.

In the use of stamp or label affixers, particularly in cases where the stamps or labels are wound in strips upon spools it has been found that by reason of the confinement of the strips in the roll that the curvature produced in the separate stamps tends to remain therein when they are fed from the machine which occasionally interferes with their proper application by the affixing mechanism. It is the object of the present invention to provide a satisfactory device for removing the curl in the stamps or labels to be fed from the affixers or other machines before said stamps reach the point where they are to be affixed. In carrying out this idea I have preferably mounted the straightening device upon a yieldingly mounted stamp guide member behind which the stamps are passed, thus obviating the necessity of employing additional means for supporting this part.

While I have shown the straightening or anti-curler applied to a stamp affixer it will be understood that the same may be readily used in connection with stamp or label dispensing or feeding machines of various types if desired.

The machine in conjunction with which my present invention is employed, comprises a base 10 upon which is mounted a frame 11 carrying a reciprocating plunger 12 provided with a stamp affixing head 13. At one side of the machine the frame 11 is open and removably fitted therein is a circular stamp or label case 14, containing a roll of stamps or labels 15 on a spool 16, the end of the strip passing downwardly through the guideway composed of the backing 17 and the removable and flexibly mounted guide member 18. The backing and guide members terminate in laterally curved portions 19 and 20 respectively which are adapted to direct the free end of the stamp or label strip beneath the affixing head 13. The strip is fed forwardly and successively by a suitable feeding mechanism carried on the shaft or plunger 12 and in the present instance comprises feeding fingers 21, the pointed ends of which are adapted to engage the perforations between the successive stamps during their downward movement. The removable guide for guiding the stamp strip and preventing the withdrawal of the same, by a force applied to its free end, is provided with means for mounting said member whereby it may be conveniently removed to facilitate the insertion of the stamp strip in a manner which will be presently explained. The removable guide is disposed in front of the guideway 17 between the side walls 22 of the casing and comprises the spaced sides 23 between which the feeding fingers 21 project, the sides being connected at their lower ends by the curved portion 20 coöperating with the curved portion 19 of the backing as previously stated to guide the stamp strip beneath the affixing head 13. The upper ends of the sides 23 are connected preferably by

an integral horizontal bar 24 adapted to form the movable and yieldable portion of the straightening or anti-curling device. The bar is supported by the angular portions 25 of the guide plates 26. The lower wall 27 of the container carries a rounded straight-edge 28 beneath which is provided a curved recess 29 at the top of the backing or rear guide 17. The rear face of the straightening or anti-curling bar 24 is provided with a bowed or curved edge 30, the central point of which is the first to come in contact with the stamp strips at their centers whereby a greater pressure is produced upon the central portion of the strip than upon the sides or edges thereof. The edge 30 is rounded and extends into the recess 29 beneath the rounded lips 28 instead of being positioned directly opposite thereto. With this arrangement of the coöperating parts the edges of the strip beneath the straight-edge 28 are brought relatively nearer together by effecting a greater deflection of the center of said strip, thus serving to remove the curl in the paper strip as it enters the guideway. The strip passing between the edges 28 and 30 being flattened in this manner, the separate stamps, or portions severed from the end of the strip do not curl or warp when fed into affixing position.

The means for resiliently mounting the anti-curling bar 24 in contact with the stamp strip comprises, in the present instance, the same means employed for yieldingly holding the movable guide in clamping position upon the backing 17 and comprises the laterally projecting horizontal ends 31 of the U-shaped member 32 attached to the guide member by means of the ears 33 at the bottom thereof. In forming the parts just described I have shown on the U-shaped member 32 outwardly curving loops 34 which extend beyond the edges of the side walls 22 to afford means whereby the member may be conveniently gripped by the operator's fingers, so that he may simultaneously retract the projecting ends 31 and thus release the guide and remove it from the guideway. The clamping or guide member is caused to normally exert a slight frictional contact with the stamp strip and to this end there is applied to each side of the member a spring 35 held in position at one end by an upstanding lug 36 on the side 23 and having one end 37 secured beneath a lug 38 and another end 39 provided with an eye 40 embracing and bearing against the horizontal end 31 of the U-shaped member 32. By this arrangement the extended ends of the spring are adapted to yieldingly hold the removable guide and anti-curling bar in engagement with the underlying stamp strip. The movable guide being thus yieldingly held will, when displaced at its lower end, rotate about the points 41 by reason of the movement afforded by the slots 42 and any additional tension under such circumstances is imparted to the spring 35 so that the greater the strain applied to the lower end of the stamp strip the greater becomes the clamping action between the plates 26 and the backing 17 of the guideway. This is also true with respect to the anti-curling bar and curved edge 28 as under such circumstances, the former will be moved nearer the latter to more tightly compress the stamp strip between the two. The shape of the anti-curling bar, as shown in Fig. 3, and its location beneath the straight edge is particularly adaptable for removing the curl from stamp or label strips which are gummed on one surface. In coiling the strips the gummed surfaces are on the inner sides of the convolutions and when the strips are fed forwardly the curved lips 30 of the bar 24 bearing against the paper not only bends it in a direction reverse to that which it occupied when in the coil, but also deflects it at the center to restore the fibers of the paper and stretch the gum coating on its inner face. By mounting the bar 24 so that it may yield means is provided for accommodating any inequalities occurring in the paper strip such as the enlargements or thickened portions occurring where the ends of short stamp strips are pasted together.

I claim as my invention:

1. A straightening device for stamp strips or the like, comprising a guideway, means for feeding strips through the guideway, a curved bar adjacent the guideway, and a wall having a curved recess with which said bar coöperates to straighten the strip.

2. In a straightening device for stamp strips or the like, the combination of a casing having an opening and a curved recess adjacent the opening, a bar having a curved edge, means for resiliently pressing said bar into said recess, and means for feeding said strip over the bar and curved edge in the recess to straighten the same.

3. A straightening device for stamp or label strips comprising means for supporting a stamp roll, a strip supporting edge, a guide for said strip, means for feeding the strip across the face of said edge and upon the guide, and means connected with the guide for applying pressure upon the side of the strip opposite the side engaging said edge and along the central portion thereof to a greater degree than upon the sides of the strip.

WARREN C. LANDON.