Dec. 15, 1925. 1,565,419

J. COOKE

MACHINE FOR LABELING HAND STAMPS

Filed July 14, 1924 3 Sheets-Sheet 1

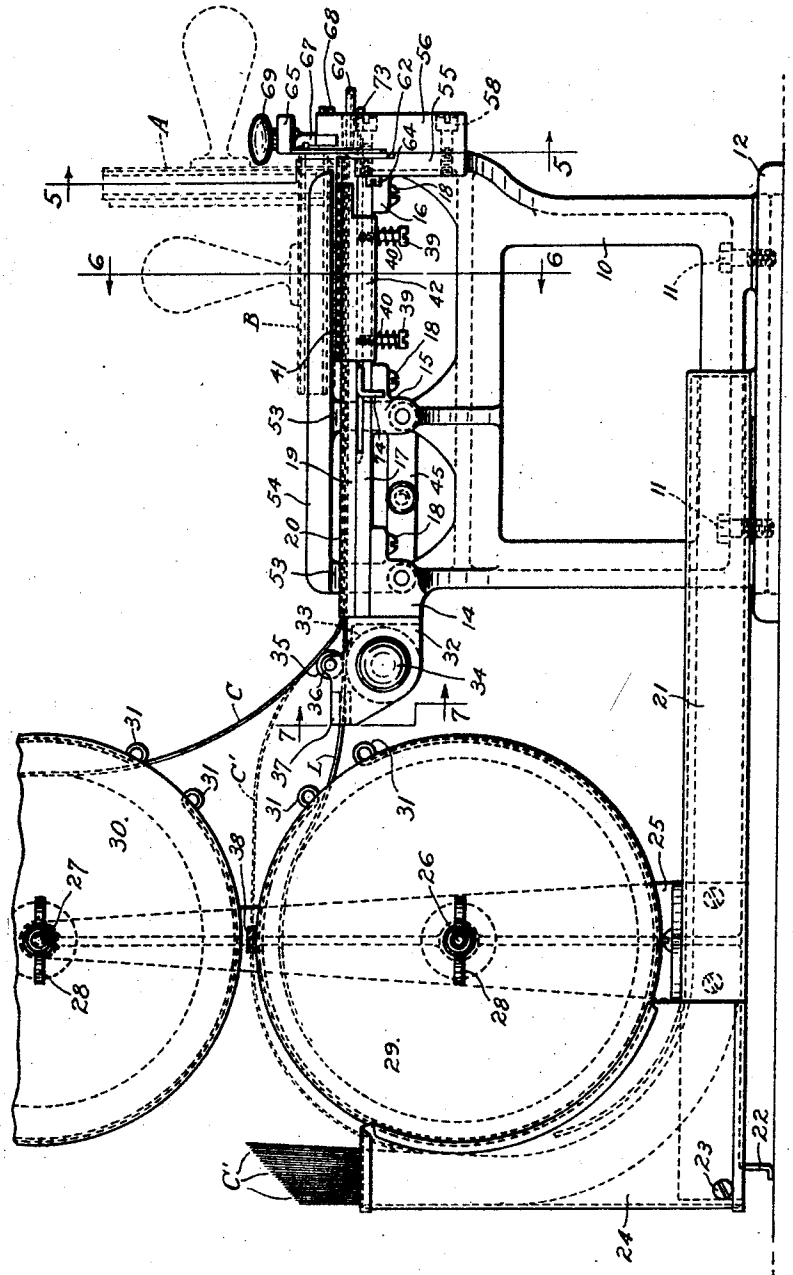


Fig. 1.

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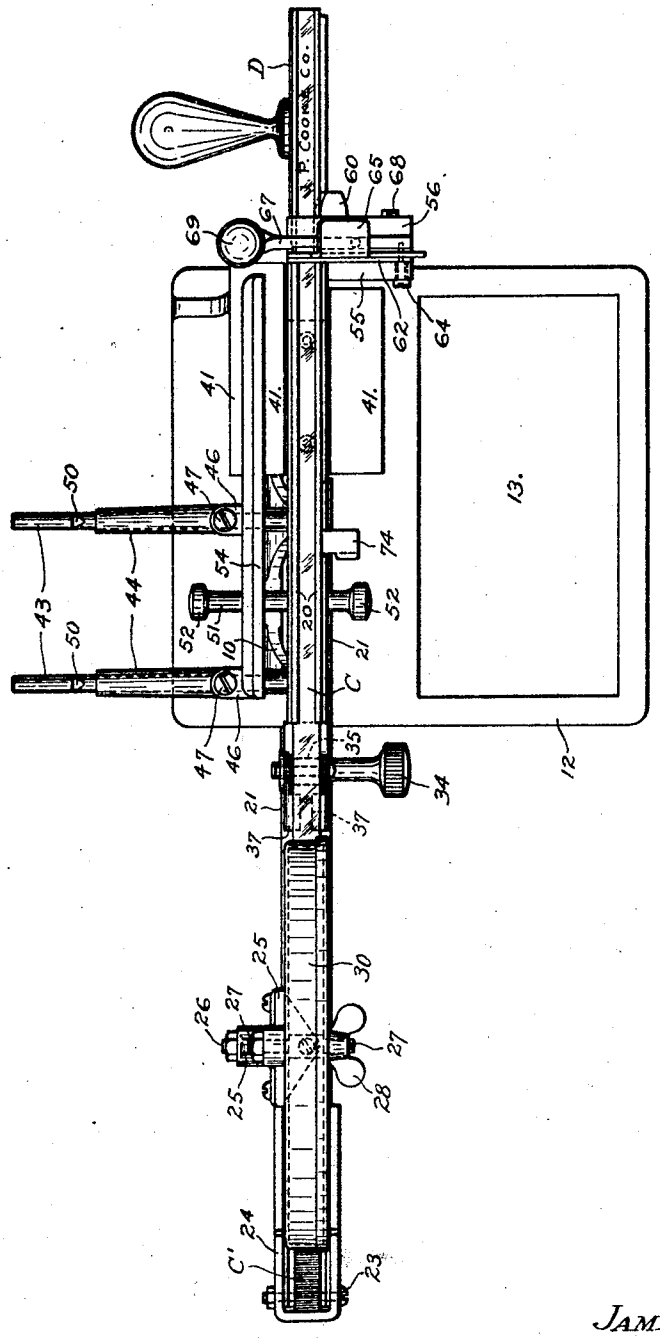


Fig. 2.

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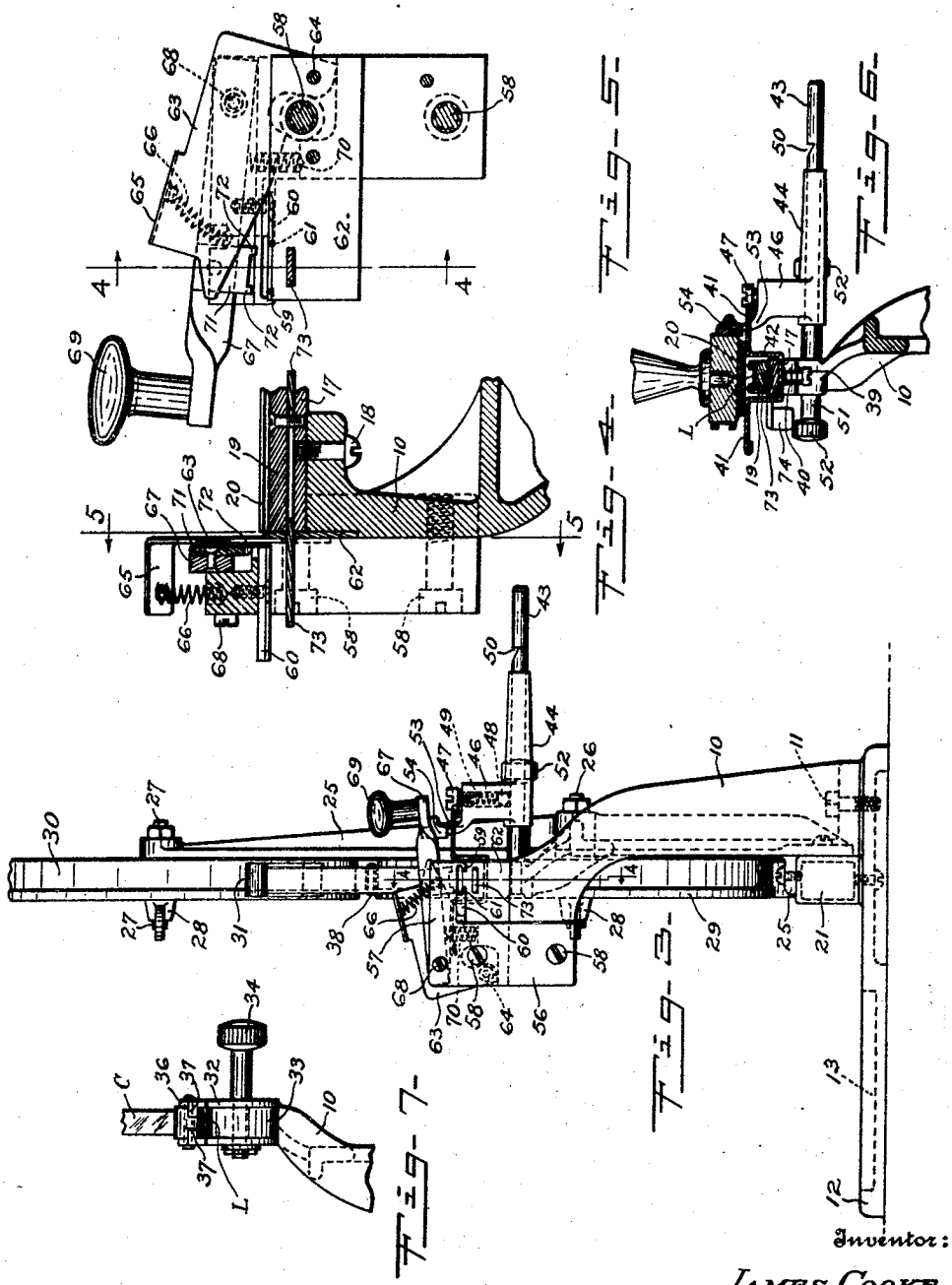


Fig. 5.

Fig. 6.

Fig. 4.

Fig. 3.

Fig. 7.

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UNITED STATES PATENT OFFICE.

JAMES COOKE, OF OMAHA, NEBRASKA.

MACHINE FOR LABELING HAND STAMPS.

Application filed July 14, 1924. Serial No. 725,927.

To all whom it may concern:

Be it known that I, JAMES COOKE, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Machines for Labeling Hand Stamps, of which the following is a specification.

My invention relates to machines for labeling hand-stamps, and is particularly intended for use with label-holders of the kind disclosed in Letters Patent No. 1,511,028, issued to me October 7, 1924, and when such label holders have been applied to the blocks or mounts of the hand-stamps by the means shown in my companion application filed July 14, 1924, Serial No. 725,926. It is the object of my invention to provide a mechanism to facilitate the printing of labels for hand-stamps directly from the stamps themselves, after the same have been mounted; to facilitate the insertion of the printed label into the label-holder upon the stamp-mount or block; to facilitate the insertion into the label-holder of a transparent protective strip over the label therein; to provide means for shearing off the label strip and the protective strip after the same have been inserted in the holder; and to provide means for crimping in the points of the flanges at the open end of the label-holder to permanently retain the label and protective strip therein. The machine herein disclosed, in combination with my label-holders, and the means for applying the holders to stamp-mounts as set forth in the companion application, constitute a highly efficient group of devices, by means of which clean, sightly, and substantially permanent labels may be applied to hand-stamps, at a cost so small as to enable the use of such labels on all hand-stamps used upon the ordinary wooden mounts.

In the accompanying drawings Fig. 1 is a front view of a labeling machine embodying my invention, Fig. 2 is a plan view of the same, Fig. 3 is an end view thereof, Fig. 4 is a detail longitudinal vertical section on the plane of the line 4—4 of Fig. 5, Fig. 5 is a detail transverse vertical section on the plane of the lines 5—5 of Figs. 1 and 4, Fig. 6 is a vertical section on the line 6—6 of Fig. 1, and Fig. 7 is a vertical section on the line 7—7 of Fig. 1.

In the illustrated embodiment of my invention, the main frame-member 10 is secured by screws 11 to the rear portion of a base-plate 12. The front portion of said base-plate has a shallow rectangular recess 13 therein for holding an ink-pad in convenient position for use in inking the stamps, when the same are to be used to print the labels which are applied to the stamp-mounts. The upper portion of the frame-member 10 is extended forwardly, as best represented in Fig. 3, so as to overhang the adjacent portion of the base-plate, and upon said projecting or overhanging upper part of the member are the heads 14, 15 and 16, having horizontally alined upper surfaces on which the bar 17 is secured by screws 18. On the upper side of said bar 17 is secured the channel-bar 19, which has inwardly turned flanges 20 at its upper edges, as shown in Fig. 6. Said channel-bar 19 is employed to hold and guide the paper strip L on which the labels are printed, and also to guide the transparent protective strips C and C′ which are used to cover the printed labels. The strips C′ are contained in a magazine of which the lower portion is formed by a horizontally disposed rectangular tube 21. Said magazine-tube has a closed end which is secured upon the base-plate 12 beneath the heads 14 and 15 and against the front side of the frame-member 10, the main portion of the tube extending laterally of the base-plate as shown in Fig. 1, and being provided with a foot 22 adapted to rest upon the support, such as a table or bench, upon which the base-plate is placed. At the open end of the magazine-tube, adjacent to the foot 22, is a pivot-screw 23 on which is mounted the throat-piece 24. The latter is normally in the vertical position shown in Fig. 1, whereby the end portions of the strips C′ are caused to be turned up vertically, the curvature of the strips on different radii, at the portions connecting the horizontal and vertical parts, causing the projecting ends thereof to be successively offset, and thus facilitating the withdrawal of single strips from the magazine. For convenience in filling the magazine, the throat-piece is turned down to a horizontal position, at which a pile of the strips may be readily inserted through the same into the tube 21, and the throat-piece then turned up to the normal vertical position.

To the rear side of the magazine-tube 21, adjacent the inner end of the throat-piece,

is secured a standard 25 which extends up vertically therefrom, and upon said standard are the horizontal pins 26 and 27 which project forwardly therefrom, and at their front ends are shouldered, threaded, and have wing-nuts 28 screwed on the threaded portions. Disposed concentrically about said pins 26 and 27 are the drums or casings 29 and 30, of which the front sides are removable, said removable sides being normally held in place by the wing-nuts 28. Within the drums, and fitting revolubly upon the pins 26 and 27, are spools or continuous coils of the strips L and C, from which the ends extend out through openings therefor in the peripheral edges of the drums, said openings being formed between small curled ends 31 on the metal strips from which the sides of the drums are made.

To the end of the frame-head 14 is secured a bracket-member 32 having a flat upper face which is alined horizontally with the bottom of the channel in the bar 19. Between the flanges at the lower portion of said bracket-member is revolubly mounted a disk or roller 33 having a forwardly extending shaft or stem terminating in a knurled knob or handle 34 by which the roller may be turned. The upper portion of said roller extends through an opening in the upper part of the bracket, and is engaged by a small friction-roller 35 which is revolubly mounted between lugs 36 extending up at the front and rear sides of the bracket, as shown. At the end of the bracket adjacent to the drum 29 are inturned flanges 37, similar to the flanges 20 on the channel-bar 19, and the strip L from said drum 29 is passed under said flanges, and between the rollers 33 and 35, thence into the channel-bar 19 beneath the flanges 20, to which the strip may be fed by turning the handle 34 of the feed-roller 33. When the strip C from the drum 30 is to be used, said strip is carried above the roller 35 and entered directly into the channel at the end of the bar 19, as shown. A guide-loop 38 is provided at the upper side of the drum 29, through which the strips C′ are passed, as shown by dotted lines in Fig. 1, when said strips C′ are to be used in place of the strip C, and said strips C′ are extended from the guide-loop above the roller 35 and into the end of the channel 19, in the same manner as the continuous strip C.

At the lower side of the bar 17, between the heads 15 and 16, are vertically extending screws 39, about which are disposed small coil springs 40. Said springs 40 yieldingly support a table consisting of horizontal front and rear portions 41, and an intermediate U-shaped portion 42 which passes around beneath the bar 17, the bottom part of said U-portion having openings through which the screws 39 extend loosely, and the springs 40 normally hold said bottom part up against the lower side of the bar 17. When in normal position, the horizontal upper portions 41 of the table are at a level slightly above the upper side of the channel-bar 19, and by downward pressure upon said upper portions, sufficient to compress the springs 40, the table may be depressed to a level slightly below the upper side of the channel-bar.

In the frame-heads 14 and 15 are secured the ends of a pair of guide-rods 43 which extend horizontally rearward therefrom. Upon said rods is mounted the gage-head, which consists of a pair of sleeves 44 fitting slidably upon the rods and connected to each other by a cross-bar 45 formed integrally therewith. Near the front end of each of the sleeves 44 is an upwardly extending tubular lug 46, of which the opening is closed at the upper end by a screw-plug 47. Adjoining the rod 43, at the bottom of the opening through the tubular lug is a ball 48 which is pressed yieldingly downward against the rod by a small spring 49 disposed in the passage between the ball and the screw-plug 47. Near their rear ends the guide-rods 43 have notches 50 therein, into which the ball 48 may drop to limit rearward movement of the gage-head thereon. At other positions of the gage-head the balls serve to frictionally retain the same in adjusted relation to the rods. Extending forwardly and rearwardly from the cross-bar 45 are stems 51, terminating in small knobs 52 which may be conveniently grasped to push or pull the head forward or back upon the rods. Integral fingers 53, extended upwardly and forwardly from the lugs 46, carry the gage-bar 54 which extends horizontally between said fingers, and has a portion which projects over the rear part of the depressible table 41. The front face of the gage-bar is parallel with the channel-bar 19, and serves to aline the stamp-mounts or blocks with the label-strip held in said channel.

The frame-head 16 has formed integrally therewith a forwardly extending lug 55 of which the outer side-face is vertical. On said outer face of the lug 55 is secured a thick plate having a rectangular vertical portion 56, said plate-portion extending above the upper edge of the lug, and from said upper part of the vertical portion 56 a horizontal portion 57 extends rearwardly. Screws 58 pass through the vertical plate-portion to attach the same to the lug 55. The lower edge of the horizontal portion or arm 57 is at a level such as to be substantially in horizontal alinement with the upper edge of the channel-bar 19, and at the end of said arm is an inturned flange 59 which is alined with the rear flange 20 of said channel-bar. A thin plate 60 is secured on

the lower side of the arm 57 and projects laterally therefrom, the rear edge of said plate having a flange 61 extending oppositely to the flange 59, so that between said flanges 59 and 61 there is formed a passage which is open at the lower side, said passage being adapted to receive therein portions of the label-holding channels while the same are attached to the blocks or stamp-mounts on which they are used, and to hold said label-holding channels in alinement with the passage through the channel-bar 19. The vertical side-face of the lug 55 is shouldered or recessed adjacent to its upper edge to receive the fixed shear-blade 62, which adjoins the ends of the bars 17 and 19, the sharpened upper edge of said blade being slightly above the bottom of the channel through said bar 19, but below the inturned flanges 20 of said bar. The movable shear-blade 63 fits within a recess therefor formed at the inner side of the plate-member 57 and the upper part of the member or portion 56, said blade 63 being pivoted on a screw 64 near the front edge of said member 56. At the upper edge of the blade 63 a flange 65 is turned out over the top of the arm 57, and between said flange and arm is arranged a coil spring 66 which presses upwardly on the flange and normally holds the blade in the raised position shown in Figs. 3, 4 and 5. The inner side of the arm 57 is recessed adjoining its upper edge to receive the crimping-lever 67, which fits movably in said recess, adjacent to the outer side of the shear-blade 63. Said lever 67 is pivoted at its front end on a screw 68 extended through the arm 57, and at the rear end of the lever is an upwardly extending knob 69. A small coil spring 70, disposed in a cavity in the upper part of the plate-portion 56, engages the lower side of the lever 67 and normally holds the same in the raised position shown. At the side of the lever 67 adjoining the shear-blade 63, and positioned longitudinally of the lever as shown in Fig. 5, is the crimping-plate 71 which has at its lower edge the lugs 72, the latter being adapted to engage and crimp down the ends of the inturned flanges of a label-holding channel when the latter is held in the passage between the flanges 59 and 61, with its end adjoining the shear-blades.

The upper side of the bar 17, from the central portion thereof to the end adjoining the shear-blades, is recessed to form a passage for receiving the ejector-bar 73, which is slidable longitudinally in said passage beneath the channel-bar 19, one end of the bar extending through an opening in the fixed shear-blade 62, and the other end of the bar having a forwardly extending lug 74 which projects from the front side of the bar 17 to form a handle by which the ejector may be moved. Normally the ejector is in a retracted position, at which the end thereof is flush with the outer side of the shear-blade 62.

The operation of the described mechanism may now be clearly perceived. It will be understood that each stamp-mount or block has a label-holding channel secured thereto at the front side thereof, which is the side normally held toward the user when the stamp is in use; and, when the channel is applied to the mount by the means described in my companion application hereinbefore referred to, the channel-flanges are crimped down or closed at the right end of the channel, while at the left end the flanges are in the normal form, or open to receive the label. It will also be understood that the blocks or stamp-mounts are of various lengths and widths, according to the dimensions of the rubber stamps carried thereby, and that the channels or label-holders and the labels contained therein must be of uniform width, to correspond with the uniform thickness of the blocks to which they are secured. When the stamps are relatively narrow, or of a width not greater than the width of the label-strip, the entire lettering or other indicia printed by the stamp may be shown on the label; but when the stamps are of greater width it will be obvious that only a part of the indicia thereon may be shown on the label, and it is usually possible to select some characteristic portion of the stamp, which when printed upon the label will serve to sufficiently identify the entire legend. Having selected that portion of the stamp which is to be shown on the label, the operator first sets the gage-bar 54 so that when the rear side of the block or mount is against said gage-bar the desired portion of the stamp will be in register with the channel between the flanges 20 of the bar 19. The adjustment of the gage-bar is conveniently effected by pushing or pulling upon one of the knobs 52, to appropriately move the gage-head, the stamp-mount being meanwhile disposed endwise upon the depressible table 41, the handle extending out to the right as indicated by the dotted lines A in Fig. 1. In this position the bottom or printing face of the stamp may be observed, and the desired portion thereof alined with the channel-bar 19, the gage-bar then being set to a position for engaging the rear side of the mount. A portion of the paper strip L from the drum 29 is constantly in the guide-channel beneath the flanges 20, and a portion of one of the cover-strips C or C′ is also in said channel, overlying the strip L. Before printing the label the overlying cover-strip is pushed back, or to the left, far enough to expose a suitable length of the strip L, said movement of the cover-strip being effected by frictionally engaging

the upper surface thereof with the fingers of the left hand, and pushing the strip back toward the entrance of the channel. The stamp is then inked by pressing the same upon the ink-pad held in the recess 13 of the base-plate, and the stamp is then placed lightly upon the table 41, the rear side of the mount engaging the gage-bar 54, and the right end of the mount being held against the shear-blade 63, so that the latter serves as an end-gage. The table 41 supports the same at a position above the label-strip until the proper alinement is secured, and then the label is printed by pressing the stamp down with sufficient force to depress the table and to force the utilized portion of the stamp down between the flanges 20 to engage the strip L held thereby. The printing position of the stamp is indicated by the dotted lines B in Fig. 1, and in Fig. 6 the stamp is shown resting upon the table ready for the printing operation. After the label is printed as described, the operator turns the mount so that the handle extends rearwardly and the label-holding channel is at the upper side; and the left or open end of the channel is then inserted in the passage between the flanges 59 and 61, the insertion of the channel in said passage being facilitated by first placing the forward edge of the channel against the flange 61 on the portion of the plate 60 which projects laterally or to the right of the arm 57. The mount in the label-receiving position is represented at D in Fig. 2, and in said position the label-holder is longitudinally alined with the channel-bar 19, their adjacent ends being in such proximity that when the label-strip is moved to the right its end will enter the holder. Movement of the label-strip is effected by turning the handle 34 of the feed-roller 33, the movement of the strip being continued until its end reaches the closed, right-hand end of the holder. The cover-strip is then pushed through the guide-channel, by pressing the fingers against the upper surface of said strip as before described, until the end of the cover-strip has also reached the closed end of the holder and thus overlies the label-strip throughout its length. The shear-blade is then depressed by pushing down on the flange 65, and both the label and cover-strip are thereby sheared off at the open left-hand end of the holder. The knob 69 of the crimping-lever is then forcibly depressed, so that the lugs 72 of the crimping-plate are engaged with the holder-flanges, and the latter crimped in to retain the label and cover-strip in the holder. The ejector-handle 74 is then moved to the right, whereby the end of the ejector-bar 73 is engaged with the end of the stamp-mount, and the latter pushed out far enough to release the holder from the flange 59. The protruded position of the ejector-bar is shown in Figs. 1 and 4.

It will be seen that all of the described operations may be performed in rapid sequence, or almost as quickly as the stamp-mount can be transferred from one position to another. In fact the right hand of the operator may be constantly employed for holding and moving the stamp-mount, grasping the handle of the mount from start to finish of the labeling operation. On first picking up the unlabelled stamp, the mount is held in the position A (Fig. 1) during the setting of the gage-bar; then the stamp is inked while the left hand is employed in pulling back the cover-strip to expose the label-strip for printing; then the stamp is placed in the position B indicated in Fig. 1, and pressed down to print the label; then the mount is transferred to the label-receiving position shown at D in Fig. 2, the label fed into the holder, the cover-strip fed in over the label, the shear-blade pushed down to cut off the two strips which have been inserted in the holder, the crimping-lever depressed to close the flanges at the open end of the holder, and finally the mount is pushed out and freed by the operation of the ejector-bar.

With reference to the transparent protective strips C and C′ it will be understood that either of the same may be used, according to the form which is most readily obtainable. The strip C, being in a continuous roll, is preferable as being the most convenient to use. The continuous-roll strip is not always obtainable, however, whereas the transparent material is almost always available in sheets from which the strips C′ may be cut to the desired dimensions. The material in the protective strips may be celluloid, although a suitable and less expensive material is now in the market under the name of cellophane.

Now, having described my invention, what I claim and desire to secure by Letters Patent is:

1. In a machine of the class described, means for guiding and supporting a label-strip while exposing one side of said strip to receive the imprint of a stamp, means for retaining a mounted label-holder channel in alinement with said guiding and supporting means to receive a label-strip therefrom, and shearing means arranged to sever the label-strip at a point intermediate said channel-retaining means and said strip-guiding and supporting means.

2. A structure as set forth in claim 1, including a depressible table arranged to yieldingly support a stamp at a position above the strip-guiding and supporting means.

3. A structure as set forth in claim 1, including a depressible table arranged to

yieldingly support a stamp at a position above the strip-guiding and supporting means, and adjustable means for gaging the position of the stamp upon the depressible table laterally of the guiding and supporting means.

4. A structure as set forth in claim 1, including a depressible table arranged to yieldingly support a stamp at a position above the strip-guiding and supporting means, and adjustable means for gaging the position of the stamp upon said table laterally of the guiding and supporting means, the shearing means having a portion arranged to gage the position of the stamp longitudinally of the strip-guiding and supporting means.

5. A structure as set forth in claim 1, including flange-crimping means engageable with a label-holding-channel when the latter is held by the retaining means therefor.

6. A structure as set forth in claim 1, including means for feeding a label-strip through the guiding and supporting means and into a channel held by the channel-retaining means.

7. A structure as set forth in claim 1, wherein the means for guiding and supporting the label-strip is adapted to receive also a protective strip overlying the label-strip and slidable relative thereto within the guiding means.

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