March 21, 1950 E. KELLERMANN 2,501,178

MITER FOLDER FOR LABELS

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Fig. 1.

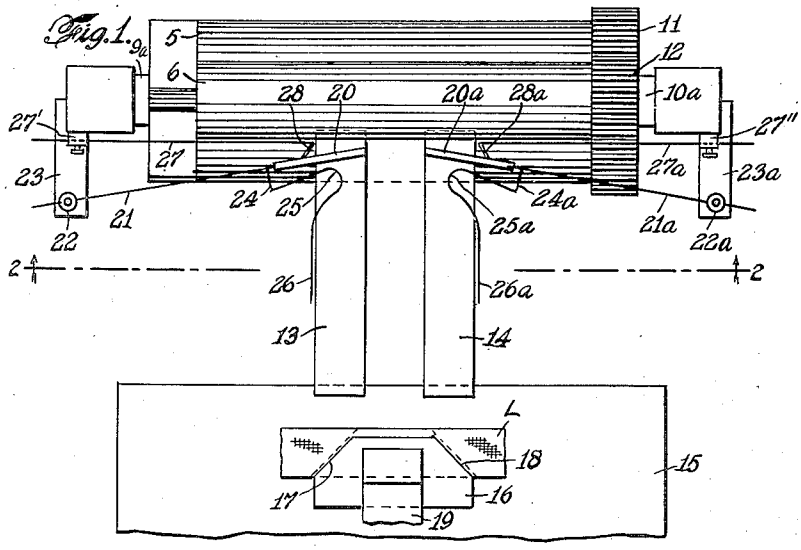


Fig. 2.

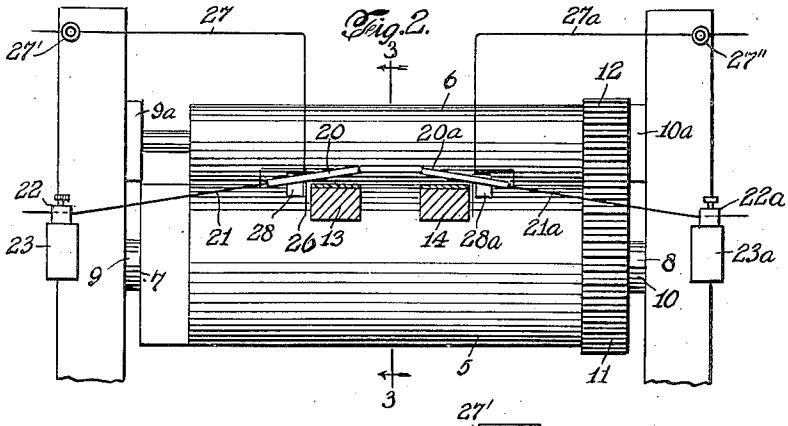
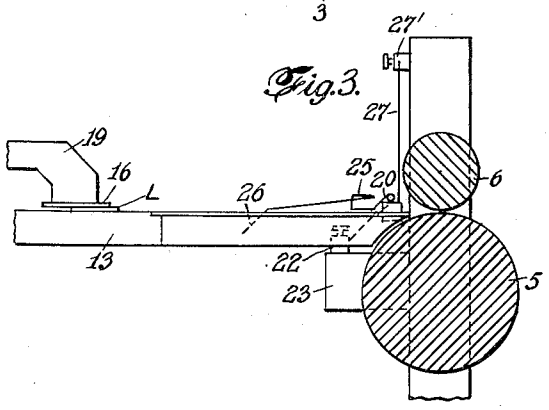


Fig. 3.



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MITER FOLDER FOR LABELS

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3 Claims. (Cl. 270—61)

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This invention relates to means for folding the ends of a cloth label on a bias, for which in connection with a machine constructed for this purpose, and one of the objects of the invention is to provide a combined label pushed and wing folding members, so arranged that the ends of a cloth label will be folded over the pusher, in a rapid operation, which may be repeated indefinitely without producing a defective operation.

Another object of the invention is to provide wing folding members of spring wire, so arranged that the ends of the cloth label will pass under these members when the label pusher advances a cloth label toward the folding wires.

With the above and other objects in view, the invention comprises certain new and useful constructions, combinations and arrangements of parts, clearly described in the following specification, and clearly illustrated in the drawings, in which:

Fig. 1 is a plan view.

Fig. 2 is a vertical sectional view, taken on line 2—2 of Fig. 1, looking in the direction of the arrows.

Fig. 3 is a vertical sectional view, taken on line 3—3 of Fig. 2, looking in the direction of the arrows.

Referring to the drawings, which show the practical embodiment of the invention, 5 designates a lower roller and 6 an upper roller, which is considerably smaller in diameter than the roller 5. The shaft ends 7 and 8 of the lower roller turn in the bearings 9 and 10, and the ends of the upper roller turn in suitable upper bearings 9a and 10a. The roller 5 is equipped with a spur gear 11 which engages the smaller spur gear 12 of the upper roller 6, so that the upper roller turns at a faster speed than the lower roller.

Extending from the plane of the upper surface of the lower roller are two parallel horizontal supports 13 and 14, which are spaced apart from each other. The inner ends of these supports are disposed in close relation to the upper surface of the lower roller, and the outer ends are disposed adjacent the table 15, the upper surfaces of the supports 13 and 14 being disposed in the same plane as the upper surface of the table 15.

A pusher plate or member 16 is arranged to slide horizontally on the table 15 and over the supports 13 and 14, and this pusher plate is formed with opposite diagonal corners 17 and 18, disposed at approximately an angle of 45 degrees to the axis of the plate. The plate is mounted on the lower end of the angular foot 19, which may be operated in any desired manner by mechanism not shown. The bottom face of this pusher plate is provided with a non-slip surfacing, which may be rubber or other material.

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Near the inner end of the horizontal support 13 a small roller 20 is supported in angular relation thereto, and in an overlying position, by means of the wire arm 21, the outer end of which is secured to and supported on the binding post 22, carried by the frame member 23.

From the wire arm 21 another wire arm 24 extends, and is provided with a folding loop 25, which overlies the support 13, and this loop terminates in a pendant stop terminal 26, which engages the outer side of the support 13. Extending from a binding post 27' above the frame member 23 is another wire arm 27, and to the inner vertical end of this wire arm the metal guide 28 is connected. The wire arm 27 is supported at a higher elevation than the wire arm 24, and the metal guide 28a is carried by the vertical leg of the wire arm 27, secured to the binding post 27' above frame member 23.

Over the horizontal support 14 this arrangement is duplicated by the small roller 20a, the supporting wire 21a, the binding post 22a, and the frame member 23a, and by the wire 24a, the folding loop 25a, stop terminal 26a, and the wire arm 27a leading to the binding post 27'', and metal guide 28a.

The folding loops 25 and 25a extend toward each other over the supports 13 and 14, in the same general plane, and the rollers 20 and 20a are located inwardly of these folding loops, closer to the rollers 5 and 6.

When a foldable cloth label L is advanced under the wire loops 25 and 25a, the end portions of the label will be moved, by the action of the pusher plate, under the initial wire loops 25 and 25a, and the ends of the label will be folded diagonally over the pusher plate. As the pusher plate continues to advance the label, the end portions or wings of the label will be forced under the small rollers 20 and 20a, and will be folded over the diagonal corner portions 17 and 18 of the pusher plate, and as the pusher plate continues to advance these folded wings or outer portions will be forced between the upper smaller roller 6 and lower larger roller 5, thus closing the folded wings neatly on the body of the label.

The action is progressive and it is seen that the preliminary step of folding the label ends is performed by the action of the wire loops 25 and 25a, and the final action is performed by the rollers 25 and 25a. The metal guides serve to confine the outer ends of the label and to insure

neat feeding to the rollers. The folding of the ends of a label according to the invention serves to provide attachment tabs or lugs by which to attach the labels in concealed manner to the garments intended to carry these labels.

It is understood that various changes in the details of construction, their combination and arrangement, may be resorted to within the scope of the invention, as defined by the claims hereof.

Having described the invention I claim as new:

1. In mechanism for folding cloth labels having a support and a horizontally movable pusher plate slidable thereon with diagonally disposed opposite corners, the features which include a pair of oppositely disposed wire loops extending inwardly over said support positioned to overlie the path of the pusher plate and having ends forming label feed stop terminals extending alongside said support, and stationary folders disposed in the path of said pusher plate in spaced relation to the wire loops.

2. In mechanism for folding cloth labels having a horizontal support and a horizontally arranged pusher plate slidable thereon, said plate having diagonally disposed opposite corners, the features which include a pair of oppositely disposed wire loop members projecting

in upon said support and spaced therefrom sufficiently to allow the plate to pass therebeneath, said wire loop members having their ends forming label feed stop terminals disposed along the sides of said horizontal support, a pair of folding rollers mounted in proximate association with said wire loop members positioned to overlie in the path of said pusher plate but beyond the loop portions of said members, and further means cooperating with said wire loop members and folding rollers for folding the labels.

3. Mechanism according to claim 2, wherein the further means include a pair of stationary folding members spaced apart and disposed beyond the wire loop members at both sides of the path of movement of the pusher plate.

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