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LABEL DISPENSER

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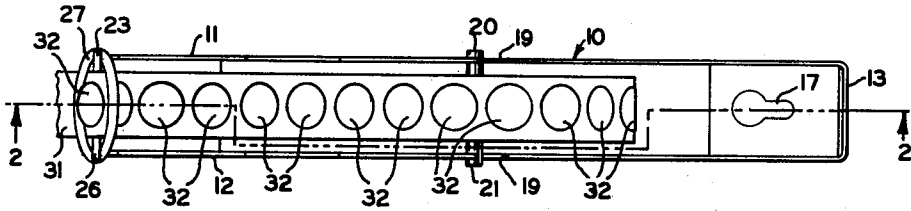


FIG. 1

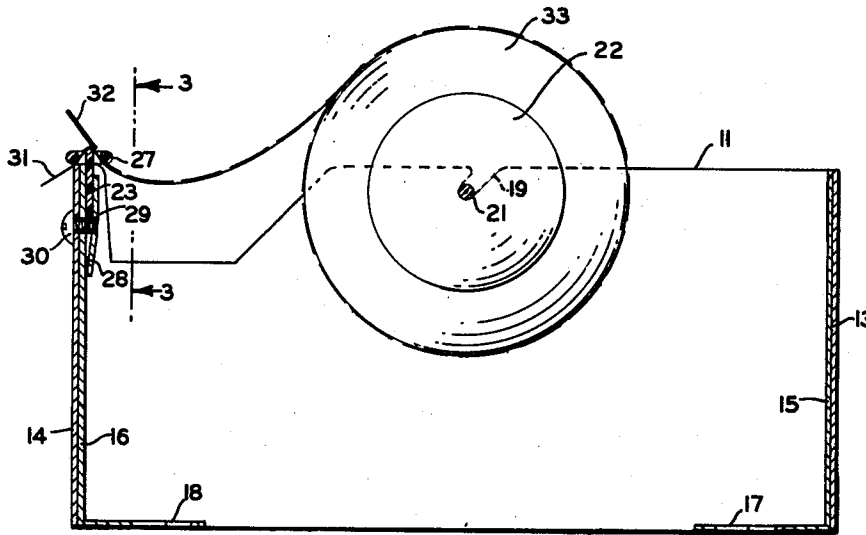


FIG. 2

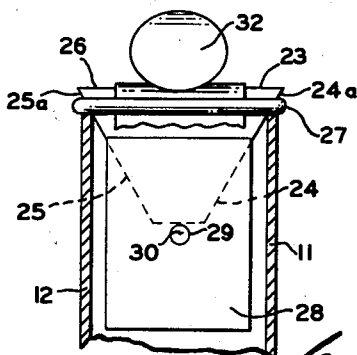


FIG. 3

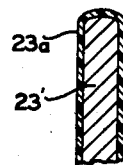


FIG. 4

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LABEL DISPENSER

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10 Claims. (Cl. 221-70)

This invention relates to label dispensers and more particularly to dispensers for pressure sensitive adhesive labels lightly adherently carried by a backing strip or liner usually in roll form.

In dispensing labels of this character the backing strip is progressively drawn from a supply roll and bent sharply over a projecting edge. The stiffness of the label stock resists bending of the label with the backing strip, and as a result, the labels are peeled from the backing strip as they pass over the edge and are issued in the direction in which they are presented to said edge. The operator then grasps the issued label with his fingers and applies it to the article to be labeled.

Previous dispensers for such labels have been objectionable because of inconvenience encountered in threading the backing strip with labels mounted thereon over a series of guides or rollers enroute from the supply roll to the stripping edge. It is contemplated by the present invention to provide an improved dispenser having retaining means operative to normally maintain a backing strip in contact with a stripping edge, said retaining means being readily removable from its operative position to permit placement of a new strip of such labels over said edge, after which said retaining means may be returned to its operative position.

One object of the present invention is to provide a new and improved label dispenser for dispensing pressure sensitive labels mounted on a backing strip.

A further object of the invention is to provide a label dispenser of the aforementioned character which is simple in construction and economical to fabricate.

The invention has as a further object the provision of a dispenser of the character described which is constructed in a novel manner to permit a supply roll of labels mounted upon a backing strip to be quickly and easily placed in operative position therein without the usual inconvenience encountered in prior art dispensers.

The foregoing as well as other objects will become apparent as this description proceeds, especially when considered in connection with the accompanying drawing illustrating one embodiment of the invention, wherein:

FIGURE 1 is a plan view of a dispenser constructed in accordance with the invention;

FIGURE 2 is a vertical sectional view of the device taken along the line 2-2 of FIGURE 1;

FIGURE 3 is a fragmentary vertical sectional view taken along line 3-3 of FIGURE 2; and

FIGURE 4 is an enlarged fragmentary vertical sectional view taken through a modified form of plate for use in the improved dispenser.

The same reference numerals throughout the several views indicate the same parts.

The illustrated embodiment of the invention comprises an open-topped rectangular casing or main frame generally designated by the numeral 10 and which includes a pair of vertical side walls 11 and 12, a rear wall 13 and a front wall 14. The rear wall 13 and the front wall 14 have right angular bracket members 15 and 16 respectively, secured thereto by spot welding or other suitable fastening means, and said bracket members have horizontally inwardly extending portions provided with key-hole slots 17 and 18, respectively, permitting the dispenser to be readily secured to a bench or counter top.

The side walls 11 and 12 are provided in their upper

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edges with corresponding forwardly and downwardly extending slots 19 to provide bearings for trunnions 20 and 21 affording a rotatable support for a spool 22.

The front wall 14 is provided with an upstanding portion or extension in the form of a plate member 23 which is illustrated in FIGURE 3 as being generally triangular in shape. The plate member 23 has a projecting upper edge portion 26 which has a length greater than the width of the front wall 14. The plate member 23 also has downwardly facing inwardly inclined side edges 24 and 25, the upper ends of which have an outwardly divergent configuration, and extend above and outwardly of the side walls 11 and 12 to provide shoulders 24a and 25a shown most clearly in FIGURE 3. The plate member 23 is suitably secured to the front wall 14, as by means of a retaining plate 28 which is held in clamping engagement therewith by a screw 30 extending through suitable apertures in the front wall 14 and bracket member 16 and threaded into an aperture 29 in the plate 28.

The upper edge portion 26 of the plate 23 preferably has a low friction surface. To this end the plate 23 may be made of polytetrafluoroethylene or other suitable low friction material. Alternatively, the plate 23 may be made of a metal, for example aluminum, the surface of which is overlaid with polytetrafluoroethylene, for example in the form of a pressure sensitive adhesive tape. In FIGURES 1 to 3 the plate 23 is shown as made entirely of polytetrafluoroethylene, whereas in FIGURE 4 the plate 23' is shown fragmentarily as being made of metal overlaid with a polytetrafluoroethylene layer 23a.

A supply of labels 32 mounted on a backing strip 31 is presented in a roll 33 which, in turn, is mounted on the spool 22. The edge 26 of the plate member 23 provides an edge over which the liner or backing strip 31 can be bent to dispense a pressure sensitive adhesive label 32 therefrom.

Means are provided for maintaining the backing strip 31 sharply bent in the U-shaped path over the edge 26 of plate 23 as shown in FIGURE 2. In the preferred form of the invention retaining means in the form of an elastomeric annular member 27 is utilized for this purpose. The member 27 is preferably an O-ring of circular cross-section formed of material such as silicone rubber having low friction qualities and to which label stock adhesive does not firmly adhere. The ring 27 overlays the upper edges of the side walls 11 and 12 and encircles the plate 23, snugly engaging the shoulders 24a and 25a. The ring 27 has a normal inner diameter which is substantially less than the spacing between the shoulders 24a and 25a so that when it is in the operative position shown, it is stretched somewhat and is retained in operative position by the shoulders 24a and 25a and its inherent resiliency. The O-ring 27 retains the backing strip 31 in its folded position as a result of the portions thereof which are generally parallel to the edge 26 overlaying and holding portions of the strip in juxtaposition with respect to the opposite faces of the plate 23. The ring 27 cannot be displaced by the action of the backing strip 31 bearing thereagainst during a dispensing operation, but it can be readily removed and replaced manually.

To dispense a label, an operator grasps the free end of the backing strip 31 and draws a portion of said strip bearing a label 32 over the edge 26, peeling the backing strip from the label at said edge, and advancing said label to a position such as that shown in the drawing wherein the operator can grasp the same in his fingers and apply it to an article to be labeled. When the supply of labels is exhausted the operator merely supplies the spool 22 with a fresh roll 33, removes the annular member 27 from the retaining shoulders 24a and 25a, draws the backing strip 31 from the new roll 33 over the edge 26, folds the strip over said edge and replaces the annular member 27.

If desired, the backing strip 31 can be threaded over the edge 26, without removing the annular member 27, since a space exists between portions of said member and the adjacent faces of the plate member 23 as shown in FIGURES 1 and 2.

While one embodiment of the invention has been shown and described, together with one modification thereof, it will be appreciated that this embodiment and said one modification were selected for the purpose of illustration only and that other changes and modifications can be made therein without departing from the spirit of the invention, and all of such changes are contemplated as may come within the scope of the appended claims.

What is claimed is:

1. A label dispenser for dispensing labels mounted on and adhering to a backing strip by the sharp bending of the backing strip, said dispenser comprising a frame, means thereon for supporting a supply roll of labels adhering to a backing strip, a plate portion on said frame having outwardly divergent sides connected by a projecting edge over which the strip may be sharply bent to strip the labels therefrom, and a resilient annular member encompassing said plate portion adjacent said edge, said annular member having portions adapted to overlay portions of said strip to hold the same in juxtaposed relation with respect to the opposite faces of said plate portion to effect progressive bending of the strip about said edge as it is drawn from the roll.

2. A dispenser as described in claim 1 wherein said annular member is made of elastomer material and is circular in cross-section.

3. A dispenser according to claim 1 wherein at least the surface portions of said projecting edge portion adapted to be contacted by said strip are formed of low friction material.

4. A dispenser according to claim 1 wherein at least the surface portions of said projecting edge portion adapted to be contacted by said strip are formed of polytetrafluoroethylene.

5. A dispenser as described in claim 1 wherein at least the surface portions of said projecting edge portion adapted to be contacted by said backing strip are formed of low friction material and said annular member is made of low friction elastomeric material.

6. A dispenser as described in claim 1 wherein at least the surface portions of said projecting edge portion adapted to be contacted by said backing strip are formed of polytetrafluoroethylene and said annular member is made of silicone rubber.

7. A label-dispensing machine for dispensing labels mounted on and adhering to a backing strip, said machine comprising a frame, a spool for supporting a supply roll of labels, means for rotatably supporting said spool on said frame, a plate-like member presenting a projecting edge over which a backing strip may be bent, retaining means adjacent said edge, an elastomeric annular member encompassing said plate-like member and removably held adjacent said edge by said retaining means, one portion of said annular member being adapted to guide the backing strip in a path along one face of said plate-like member and another portion of said annular member adapted to hold the backing strip closely

adjacent the other face of said plate-like member to effect progressive bending of said strip about said edge as it is drawn from the supply roll.

8. A label dispenser for dispensing labels mounted on and adhering to a backing strip by the sharp bending of the backing strip, said dispenser comprising a frame, means on said frame for receiving and rotatably supporting a supply roll of said backing strip with labels adhering thereto, a thin plate portion on said frame facing said supporting means and having an outwardly divergent configuration terminating with an elongate straight projecting edge over which the strip may be bent to strip the labels therefrom, said divergent configuration providing retaining means for a continuous elastomeric member to retain the same in operative position encompassing said plate portion adjacent and generally parallel to said edge and around said strip to hold the strip adjacent the opposite faces of said plate to effect progressive bending of the strip about said edge.

9. A label dispenser for dispensing labels mounted on and adhering to a backing strip by the sharp bending of the backing strip, said dispenser comprising a frame, means on said frame for receiving and rotatably supporting a supply roll of said backing strip with labels adhering thereto, a thin narrow flat plate on said frame having a straight edge portion extending beyond the sides of said plate over which the strip may be bent to dislodge the labels therefrom, and a resilient O-ring having an operative position encompassing said plate portion adjacent and generally parallel with said edge, one portion of said O-ring when so positioned being adapted to guide the backing strip in a path along one face of said plate portion and an opposite portion of said O-ring being adapted to hold the backing strip closely adjacent the other face of said plate portion to effect progressive bending of said strip about said edge, the extended edge of said plate also providing retaining means for said O-ring in said operative position as the strip is drawn over said edge and permitting the manual removal of said O-ring to facilitate the removal or insertion of the strip over said edge.

10. A label dispenser for dispensing labels mounted on and adhering to a backing strip by the sharp bending of the backing strip, said dispenser comprising a frame, means on said frame for receiving and rotatably supporting a supply roll of said backing strip with labels adhering thereto, a generally triangularly-shaped plate member fixed on said frame to expose an elongate straight edge over which the strip may be bent to strip the labels therefrom, and an annular continuous elastomeric member having an operative position encompassing said plate member adjacent and generally parallel with said edge, other side edges of said plate member affording means for retaining said annular member in said operative position as the strip is drawn over said edge and permitting the manual removal of said annular member to facilitate the removal or placement of the strip over said edge.

References Cited in the file of this patent

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