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J. AUGER ETAL  
TAPE AND LABEL DISPENSER

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FIG. 1

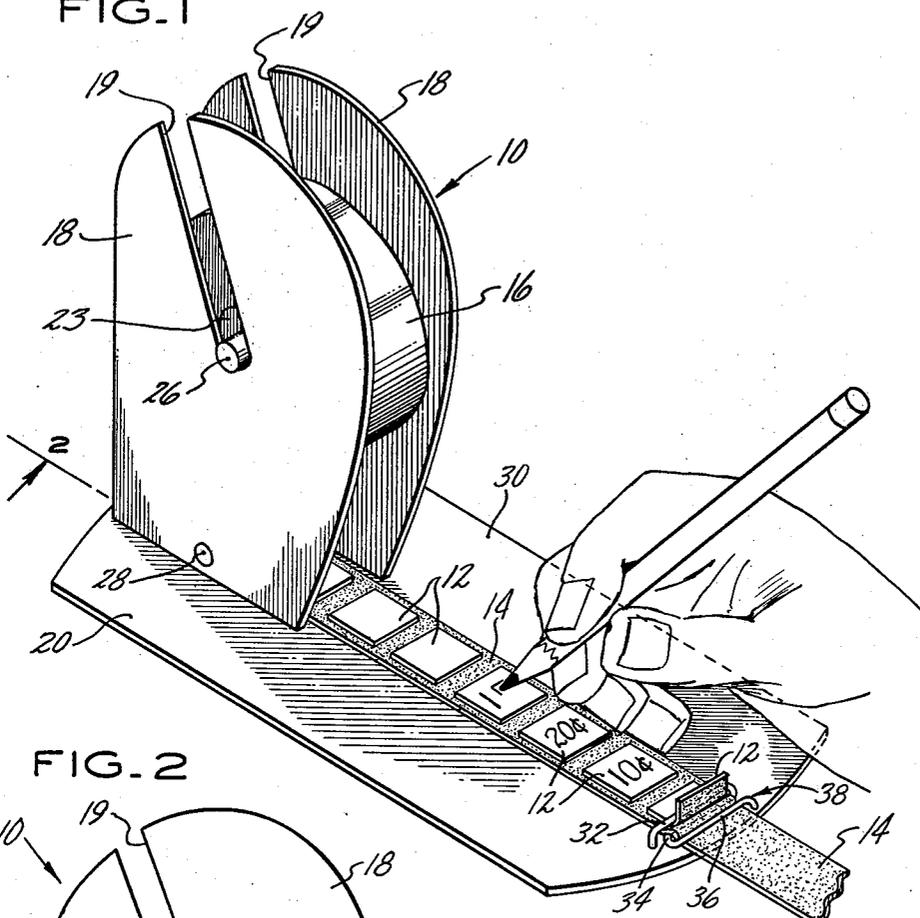


FIG. 2

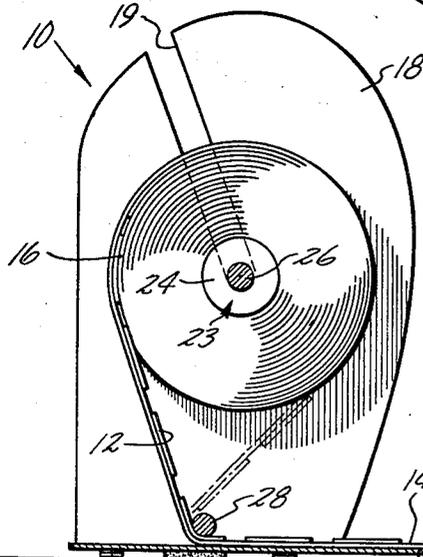
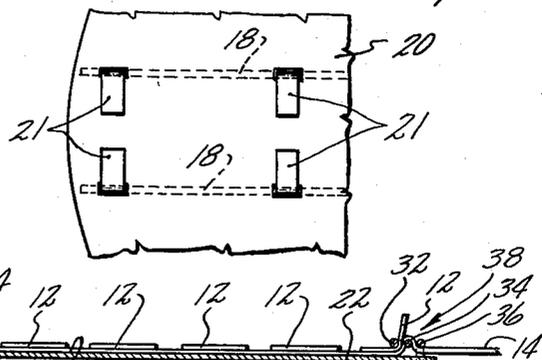


FIG. 3



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**TAPE AND LABEL DISPENSER**

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3 Claims. (Cl. 221-73)

This invention relates to a device for dispensing pressure sensitive labels or the like from a roll of tape to which the labels are adhered in end-to-end relation, and deals more particularly with such a dispensing device which includes an improved means for stripping the labels in succession from the tape as the tape and labels are pulled from the supply roll.

The general object of this invention is to provide a tape and label dispenser which is of a simple low-cost construction and which is convenient and easy to use for the purpose of supplying the user with pressure sensitive labels for marking or pricing goods or for any other purpose for which such labels may be put.

Another object of this invention is to provide a tape and label dispenser wherein the tape and labels as they are pulled from the supply roll pass over a flat area which supports the tape and labels to allow the labels to be marked before the latter are stripped from the tape and applied to the goods.

A further object of this invention is to provide a new and improved means for stripping or peeling pressure sensitive labels or the like from a backing strip to which the labels are adhered prior to their use.

Other objects and advantages of the invention will be apparent from the drawing and from the following description.

The drawing shows a preferred embodiment of the invention and such embodiment will be described, but it will be understood that various changes may be made from the construction disclosed, and that the drawing and description are not to be construed as defining or limiting the scope of the invention, the claims forming a part of this specification being relied upon for that purpose.

Of the drawing:

FIG. 1 is a perspective view, looking generally toward the front and left-hand side, of a tape dispenser embodying the present invention.

FIG. 2 is a vertical sectional view taken on the line 2-2 of FIG. 1.

FIG. 3 is a fragmentary bottom view of the tape dispenser of FIG. 1 showing the manner in which the roll supporting members are secured to the base member.

Referring now to the drawing, and more particularly to FIGS. 1 and 2, there is shown a tape dispenser 10 embodying the present invention. The purpose of the dispenser 10 is to supply the user with labels which are first marked with prices and/or other information and thereafter applied to goods of various descriptions. The labels in question are of the type which are provided with a pressure sensitive adhesive applied to one surface thereof so that the labels may be adhered without moistening to almost any clean, dry surface. For convenience in storing and dispensing, these labels are in some cases adhered in end-to-end fashion to a long backing strip or tape. The backing tape with the labels applied thereto is then wound into a roll and as the labels are needed the tape is unwound from the roll and the labels peeled from the tape for application to the goods to be marked. The tape material and the label adhesive are selected so that the labels may be relatively easily peeled or stripped from the backing tape without tearing the labels. Various suitable combinations of adhesive and tape material are

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well known in the art and are conventional so as to require no further description here.

Labels as above referred to are shown at 12, 12 in FIGS. 1 and 2. These labels are in turn adhered in end-to-end fashion to a backing tape 14 which is wound into a supply roll 16. In the illustrated case the tape is wound so that the labels face inwardly toward the center of the roll, but this is not essential and the tape dispenser 10 may also be used with supply rolls wound with the labels facing outwardly.

According to the invention, the tape and label dispenser broadly comprises a means for supporting a supply roll such as shown at 16, a means for stripping labels from the backing tape as the tape is pulled from the roll, a means for supporting an extent of the tape to permit marking of the labels thereon prior to being stripped from the tape, and a means for guiding the tape and labels for movement from the supply roll and over said supporting means before reaching said stripping means. In some cases, however, the labels may be pre-marked so as to require no further marking as they are taken from the supply roll. Therefore, to handle rolls of such pre-marked labels the aforesaid means for supporting the tape and labels for marking and the guide means may be omitted from the dispenser so that the tape is fed directly from the supply roll to the label stripping means.

In the illustrated dispenser 10 the means for supporting the supply roll 16 comprises two upright members 18, 18 which are fixed to the rear end portion of a longitudinally extending base member 20. The two members 18, 18 are made of flat sheet material and are spaced apart in parallel relationship transversely of the base 20. It is contemplated that the upright roll supporting members 18, 18 may be secured to the base 20 by various suitable means. For the purpose of illustration, however, FIG. 3 shows each of the members 18, 18 as having two tabs 21, 21 along its bottom edge, which tabs extend through corresponding openings in the base member 20. The tabs 21, 21 are bent at right angles to the bodies of the members 18, 18 to bring the same into engagement with the bottom surface of the base 20, and they are fixed to the base member by suitable means such as spot-welding. For the purpose of protecting the surface on which the tape and label dispenser 10 is placed, the base member 20 is preferably provided with pads 22, 22 of felt, cork or the like secured to its bottom surface as shown in FIG. 2.

At its upper end portion, each of the members 18, 18 is provided with a generally downwardly and forwardly extending slot 19 for receiving a spool 23. The spool 23 in turn has an enlarged diameter center portion 24 which fits the center opening in the supply roll 16 and two reduced diameter portions or trunnions 26 which are located one on either end of the center portion 24 and which are received by the slots 19, 19. This slot and spool arrangement facilitates the removal of the spool 23 for the purpose of installing a fresh supply roll in the dispenser. In normal use, the trunnions of the spool engage the bottoms of the slots 19, 19 to support the spool and supply roll for rotation relative to the upright members 18, 18.

Near the bottoms of the upright members 18, 18 is a guide means in the form of a transverse rod 28 fixed to and between the latter members in relatively closely spaced relation to the base 20. As the tape 14 leaves the supply roll 16 it passes generally downwardly toward the guide rod and is threaded between the latter rod and the base 20 so as to be guided into direct overlying relationship with the surface of the base 20 as it passes from the rod to the label stripping means. The base 20 in the illustrated dispenser is made of flat sheet material and forwardly of the

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roll supporting members 18, 18 includes a relatively extensive flat area 30 which serves as a means for supporting the tape and labels for marking of the labels as shown in FIG. 1. Preferably, the marking area 30 is of sufficient length to support several labels at one time so that if desired several labels may be marked without the necessity of advancing the tape after marking. The supply roll 16 is, of course, placed in the upright members 18, 18 in such a manner that the labels face upwardly as they pass over the marking area 30 and enter the stripping means. In the case where the tape is wound with the labels facing inwardly on the roll, the roll is placed in the members 18, 18 as shown by the solid lines of FIG. 2 so that the free end of the tape unwinds from the rear side of the roll and passes generally downwardly to the guide bar 28. However, if the tape is wound with the labels facing outwardly on the roll the roll is placed in the members 18, 18 as shown by the broken lines of FIG. 2 so that the free end of the tape unwinds from the forward side of the roll and passes generally downwardly and rearwardly to the guide bar 28.

Forwardly of the marking area 30 the tape and labels pass through a means which serves to automatically strip or peel the labels from the tape as the latter is pulled therethrough. In accordance with another aspect of the invention, this label stripping means comprises a means for guiding the tape in such a manner that it is bent transversely to form a relatively sharp crested transverse wave with the result that as the tape passes through said stripping means it first passes upwardly along one side of the wave, is then bent sharply over the crest of the wave, and then passes downwardly along the other side of the wave. As this occurs, a label adhered to the tape passes with the tape along the first side of the wave, but due to its inherent stiffness does not bend with the tape over the crest of the wave and is, instead, disengaged from the tape by the tape peeling from the label as it passes over the crest of the wave. From another viewpoint the action of the stripping means is such that the tape is bent or folded along a relatively sharp bend or fold line and at an angle of greater than 90° to itself and to the surface of the label so that as the tape is advanced through the stripping means the tape and label after passing the bend or fold line travel in substantially opposite directions to cause peeling of the label from the tape.

In order to bend the tape 14 as above described the stripping means comprises three transverse tape guide members spaced apart in a longitudinal direction. These members are in turn arranged so that the tape may pass first under the first member, then over the middle member, and then back under the first member with the tape undergoing a sharp bend as it passes over the middle member. These three members may take various different forms, but in the illustrated case, they consist of three transversely extending arms 32, 34 and 36 of a wire element 38 which is bent upon itself, as shown in FIG. 1, to form the three arms. As illustrated, the three arms 32, 34 and 36 are disposed in substantially the same horizontal plane, although if desired the middle arm 34 may be located somewhat higher than the other two arms in order to produce a sharper bend or crest in the tape 14. Also as illustrated, the right-hand end of the forward arm 36 and the left-hand end of the rearward arm 32 are bent downwardly and secured to the forward end of the base 20.

In use, the tape 14 passes under the first or rearward arm 32, then over the middle arm 34 and then under the forward arm 36 as best shown in FIG. 2. This, as mentioned, produces a sharp crested transversely extending wave in the tape 14, as also illustrated in FIG. 2. The labels 12, 12 adhered to the tape 14 pass with the tape under the arm 32 but instead of passing with the tape over the middle arm 34 are stripped from the tape due to the sharp bending of the tape at this point. Thus, as the tape 14 is pulled slowly through the stripping element 38

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the labels 12, 12 will in succession be removed or disengaged from the tape. As each label is so disengaged the user may pick up the same and apply it to the goods to be marked thereby.

The invention claimed is:

1. A tape and label dispenser for use with a roll of tape having a plurality of pressure sensitive labels adhered to one surface thereof in end-to-end relation, said dispenser comprising a longitudinally extending base member having a flat upper surface, a pair of transversely spaced upright members secured to the rear end portion of said base member so as to extend upwardly from said flat upper surface and adapted to rotatably support a roll of tape such as aforesaid, said base member having such a length as to extend forwardly beyond said upright members so that the forward part of said upper surface is unobstructed by said upright members, means located at the forward end portion of said base for stripping labels in succession from said tape as the latter is pulled therethrough, said stripping means comprising a length of wire bent upon itself to form three transverse arms spaced longitudinally of said base and supported from said base so that said tape may pass under the first and last of said arms and over the middle of said arms to bend said tape into the form of a sharp crested transverse wave, and a guide bar extending transversely between said upright members and arranged to guide tape from said roll into overlying relation with said unobstructed forward part of said flat upper surface of said base before it passes through said stripping means.

2. A tape and label dispenser for use with a roll of tape having a plurality of pressure sensitive labels adhered to one surface thereof in end-to-end relation, said dispenser comprising a longitudinally extending base member having a flat upper surface, means fixed relative to the rear end portion of said base member and extending upwardly from said flat upper surface for rotatably supporting a roll of tape such as aforesaid, said base member having such a length as to extend forwardly beyond said roll supporting means so that the forward part of said upper surface is unobstructed by said latter means, means located at the forward end portion of said base for stripping labels in succession from said tape as the latter is pulled therethrough, said stripping means comprising three transverse arms spaced relative to one another longitudinally of said base member and spaced substantially equal distances above said flat upper surface so that said tape may pass under the first and last of said arms and over the middle of said arms to bend said tape into the form of a sharp crested transverse wave, and a guide member at the rear end portion of said base member extending transversely of said upper surface for guiding tape from said roll into overlying relation with said unobstructed forward part of said flat upper surface of said base before it passes through said stripping means.

3. A tape and label dispenser for use with a roll of tape having a plurality of pressure sensitive labels adhered to one surface thereof in end-to-end relation, said dispenser comprising an elongated member having a flat upper surface, means fixed relative to said member for rotatably supporting a roll of tape such as aforesaid, guide means for guiding tape from said roll to the rear end of said flat surface for movement of said tape longitudinally over said flat surface from said rear end of said flat surface to the forward end thereof, and means located at the forward end of said flat surface for stripping labels in succession from said tape as the latter is pulled therethrough, said stripping means comprising three transverse arms spaced relative to one another longitudinally of said flat surface and spaced substantially equal distances above said flat surface so that said tape may pass under the first and last of said arms and over the middle of said arms to bend said tape into the form of a sharp crested transverse wave.

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