

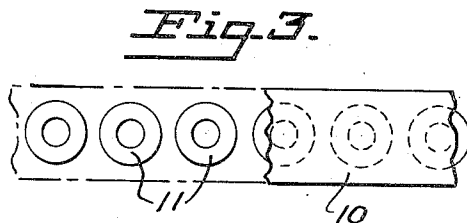
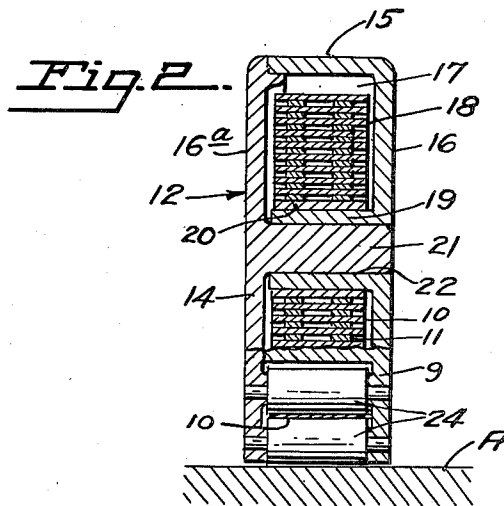
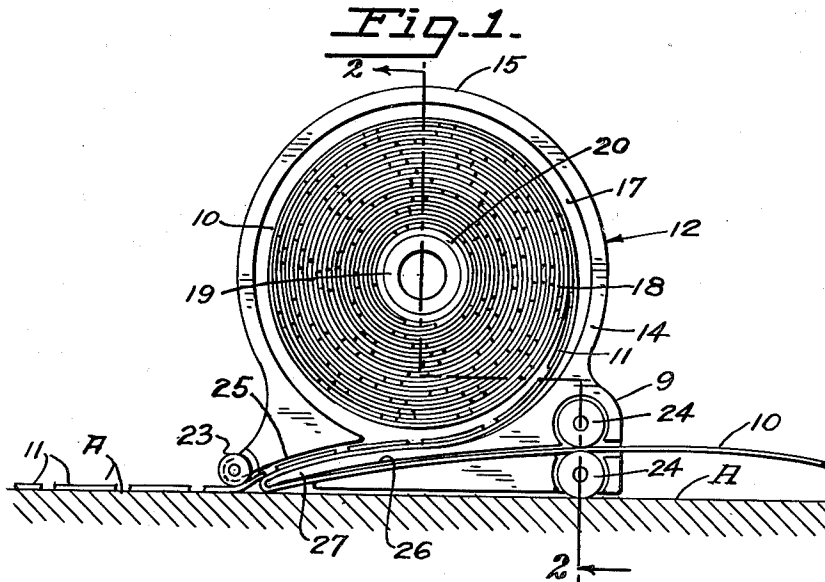
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ADHESIVE LABEL AND TAPE DISPENSER AND APPLICATOR

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ADHESIVE LABEL AND TAPE DISPENSER
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This invention relates to devices for dispensing and applying labels and tapes having a pressure-sensitive adhesive coating.

Labels of the character referred to have heretofore been produced and mounted in single file on a tape-like backing strip. To remove the labels from the backing strip and to dispense the same, they are merely successively peeled from the strip. Likewise, tape having one surface coated with a pressure-sensitive adhesive has been heretofore produced with a similar and registering backing strip overlying the adhesive surface of the tape. To use the tape, it and its backing strip are peeled apart.

It is the principal object of my present invention to provide an improved, simple and inexpensive device for dispensing and applying labels and tape of the character referred to in which the labels or tape are peeled from the backing strip as they are dispensed and applied.

It is a further object of my invention to provide a device of the character referred to which peels the label or tape material, strips the labels or tape from the backing sheet and properly applies the label or tape to the desired surface with a single manipulation of the device.

One form which the invention may assume is exemplified in the following description and illustrated by way of example in the accompanying drawings, in which:

Fig. 1 is a view in side elevation of a label and tape dispenser and applicator, showing one side wall removed to more clearly show the construction and operation of the device.

Fig. 2 is a view in vertical section through the same taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary view illustrating one type of material which may be dispensed and applied by my improved device.

Referring more particularly to the accompanying drawings, in Fig. 3 I have illustrated, by way of example, one type of material which may be dispensed and applied by my improved device. This material comprises a tape-like backing strip 10 on which separate labels 11 are mounted in single file at equally spaced distances apart longitudinally of the backing strip 10. The underside of these labels are, of course, coated with a suitable pressure-sensitive adhesive so that they may be peeled from the backing strip and will readily adhere, when light pressure is applied thereto, to the surface upon which said labels are to be used.

Obviously, other forms of labels or, in fact, a tape may be substituted for the labels, if de-

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sired, in that my device is operative to dispense and apply longitudinally spaced labels mounted on a strip of backing sheet or a continuous tape mounted on the backing sheet.

The dispenser or applicator embodying my invention is generally indicated at 12 and is relatively light and small so that it may be grasped in the hand of the user and manipulated. The device comprises a casing 14 here shown as formed of a marginal wall 15 and two side walls 16 and 16a. These latter walls are in parallelism, of course, and are spaced apart by the annular wall 15.

The side wall 16a is detachably associated with the marginal wall 15 and the other side wall 16 in order that it may be removed to expose a cylindrical chamber 17 in the casing. This chamber 17 is cylindrical and is adapted to receive a supply roll 18 of the material to be dispensed.

In the chamber 17 the wall 16 is formed with a concentrically located trunnion 19 which projects axially therefrom toward the wall 16a. This trunnion is provided to rotatably receive the core 20 of the roll of tape-like material 18 to be dispensed.

The side wall 16a is formed with a concentrically located axially projecting pintle 21 adapted to engage an axial bore 22 in the trunnion 19 to aid in aligning the side walls 16 and 16a relative to each other and to maintain the same in rigid relationship. If desired, the fit between the pintle 21 and the bore 22 may be such that there will be sufficient friction between the two to maintain the side wall 16a properly positioned relative to the side wall 16, but enabling the same to be detached therefrom.

One side of the casing is formed with an outwardly projecting frame 9, as shown, to act as a mounting for an applicator roller 23 and a pair of feed rollers 24. The outer face of the frame 9 of the casing is flat and is disposed on a plane parallel to the axis of the chamber 17. The frame 9 extends forwardly and rearwardly of the vertical center line of the chamber approximately equal amounts, and its lateral dimension is, of course, the same as that of the casing.

At the forward end of this frame 9 I rotatably mount the applicator roller 23, which is rotatable about an axis which is parallel to the axis of the chamber. The applicator roller 23 is, of course, parallel to the axis of the chamber.

At the rearmost end of the frame portion 9 of the casing are the two feed rollers 24 which are

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likewise rotatable about axes which are parallel to the axis of the chamber 17. The rollers 24 are of equal diameters and they are so mounted in the frame 9 and relative to each other that they will frictionally engage a backing strip led therebetween.

It will be noticed that the periphery of the lowermost roller projects beyond the outer flat surface of the frame portion of the casing, while the periphery of the applicator roller 23 is in approximately the same plane as that surface.

The rollers 23 and 24, of course, are rotatable about axes parallel to the axis of the chamber 17, as illustrated in Fig. 2.

I form a discharge slot 25 from the chamber 17 through the frame portion 9 of the casing. This discharge slot 25 commences approximately at the vertical center of the chamber and extends tangentially forwardly at an acute angle to the outer flat surface of the frame portion of the casing and extends through such surface at a point just short of the applicator roller 23.

I form a second slot 26, which I prefer to term a feed slot, which extends through the outer flat surface of the frame 9 at a point spaced a very short distance rearwardly of the mouth of the discharge slot 25, and which extends substantially parallel to the discharge slot 25 for the length of the latter, and thence rearwardly through the rearmost end of the frame. The feed slot 26 is so located that a tape led therethrough will pass centrally between the feed rollers 24 and be engaged thereby.

The spacing between the slots forms a relatively thin peeling tongue 27 which extends substantially tangentially of the chamber 17. The outer terminal of this tongue is located at a point substantially in the same plane as the outer flat surface of the frame portion 9 of the casing.

While I refer to the slot 25 and the inner surface of the tongue 27 as being substantially tangential to the chamber 17, I wish it understood that I may, as illustrated, slightly bow the tongue for ease in passing a tape thereover.

The tongue 27, of course, is positioned in radial alignment with the chamber 17 and extends laterally between the side walls 16 and 16a so as to be of the same width as the chamber. The outer terminal of the tongue 27 is relatively thin and forms a peeling edge, as will be described, to peel the backing sheet from the labels or tape.

In use of the device, a supply roll of the tape or label material is rotatably fitted on the trunnion 18 and thus will be substantially concentrically mounted in the chamber 17 of the casing. The end thereof is then threaded forwardly through the discharge slot 25 and the backing sheet is partially stripped from the labels and reversely turned upon itself under the tongue 27 and thence rearwardly through the discharge slot 26 between the rollers 24 and thence outwardly through the rearmost end of the casing. The conditions just described will be substantially those shown in Fig. 1.

Assuming that the casing is grasped in the hands of the user and moved rearwardly (to the right with reference to Fig. 1) along the surface A, the lowermost feed roller 24 will be in engagement with that surface A and will be caused to rotate at the same peripheral speed as the speed of the casing along the surface A. The opposite feed roller, of course, will be rotated by frictional contact with the backing strip 10, thus causing a tendency for rearward feeding of the backing strip at double the rate of movement of the de-

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vice along the surface A. Due to the folding of the backing strip around the peeling edge of the tongue 27, the labels will be stripped or peeled from the backing strip at that point and will be deposited so that their upper surfaces will be engaged by the applicator roll 23, which will apply sufficient pressure thereto to cause the labels to adhere to the surface A.

Thus, it is seen that in the case of labels mounted in longitudinally spaced relation on a tape, these labels can be rapidly applied in the same relative positions to a surface over which the device is traversed as they assumed on the tape, and can be arranged in patterns by proper manipulation of the device, if so desired.

It should also be apparent that if a tape is substituted for the labels 11, that it can be applied over a surface in the same fashion because the tape bearing the adhesive surface will feed forwardly under the applicator roller, while the waste backing strip will discharge rearwardly from the device between the feed rollers 24.

Also, it is seen that labels on a continuous strip can be applied singly, if so desired.

From the foregoing it is obvious that I have provided a very simple and efficient label and tape dispenser and applicator which has a wide variety of uses, and which may be efficiently used to expeditiously successively apply separate labels or continuous tape to desired surfaces.

While I have shown the preferred form of my invention, it is to be understood that various changes may be made in its construction by those skilled in the art without departing from the spirit of the invention as defined in the appended claims.

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

1. A device of the character described comprising a casing for rotatably supporting a roll of label material composed of an adhesively coated layer and a continuous backing strip separably adhered together, a peeling edge relatively fixed to the casing and disposed at a point to receive the end of the material led substantially tangentially from the roll, said peeling edge being so formed that when the backing strip is folded thereover it will be running in a direction substantially opposite the direction in which the material is led from the roll to the peeling edge whereby to effectively separate the adhesively coated layer from the backing strip at the peeling edge, feeding means to engage the backing strip as it is led from the peeling edge, means mounting said feeding means for engagement with a surface and movement with the casing over said surface in a direction substantially opposite to that in which the material is led from the roll to the peeling edge, and applying means arranged adjacent the peeling means to engage the layer peeled from the backing strip and apply the same to a surface.

2. A device of the character described comprising a casing for rotatably supporting a roll of label material composed of an adhesively coated layer and a continuous backing strip separably adhering together, a peeling tongue carried by the casing and extending substantially tangentially with respect to a roll mounted on the casing whereby the material of the roll may be led substantially tangentially from the roll over the tongue, the outer terminal of said tongue constituting a peeling edge over which the backing strip may be acutely folded whereby to effect separation of the adhesively coated layer and the

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backing strip, a pair of feed rollers carried by the casing on axes parallel to the axis of revolution of the roll and between which the backing strip may be led after being folded over the peeling edge of the tongue, said rollers being operable by engagement with a surface and movement of the casing over said surface to unwind the material from the roll and cause separation thereof at the peeling edge, a rotatable applying roll carried by the casing closely adjacent to the peeling edge of said tongue but on the side thereof opposite the feed rolls and capable of engaging the adhesively coated layer as it is peeled from the backing strip to apply the same to the surface over which the device is moved.

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