Jan. 25, 1966 R. W. FOOTE 3,231,130

LABEL DISPENSER

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FIG. 1

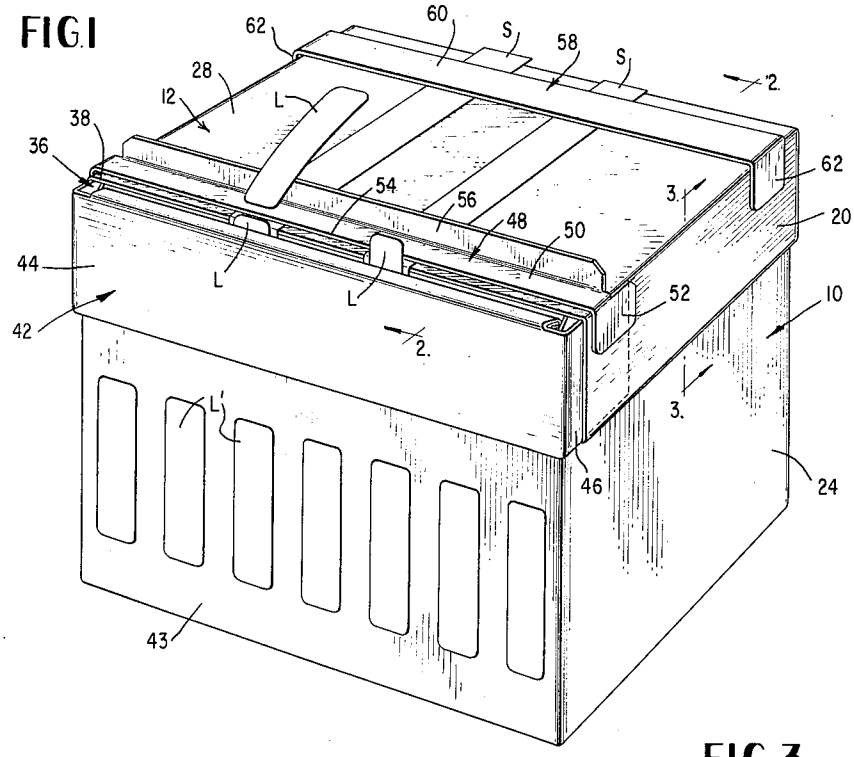


FIG. 2

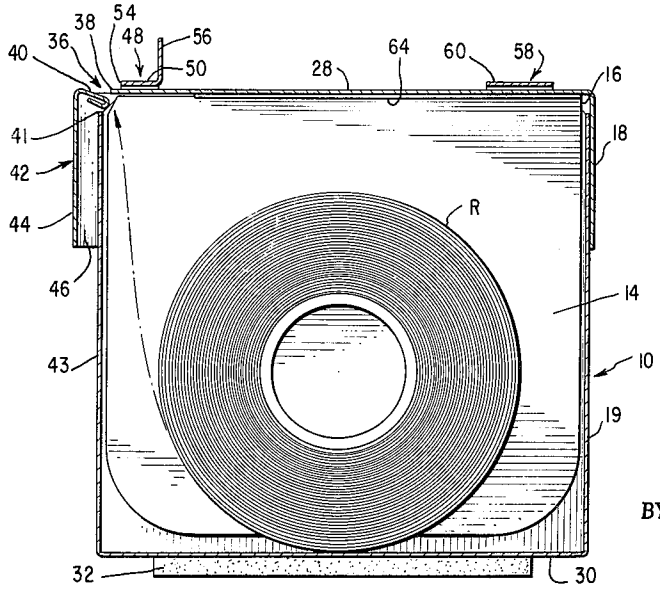
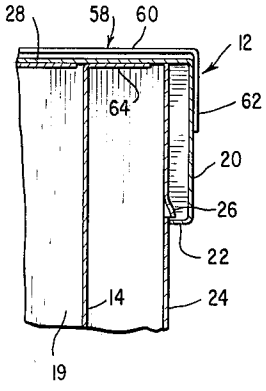


FIG. 3



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LABEL DISPENSER

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FIG. 4

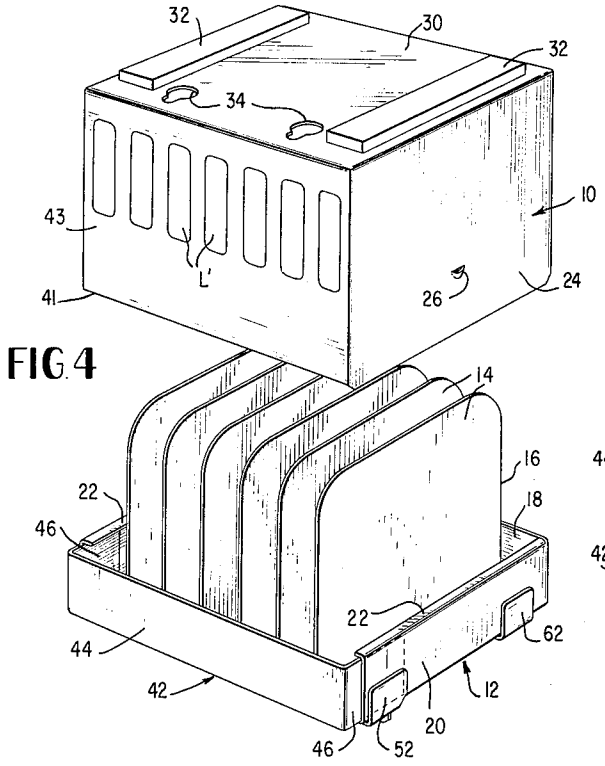
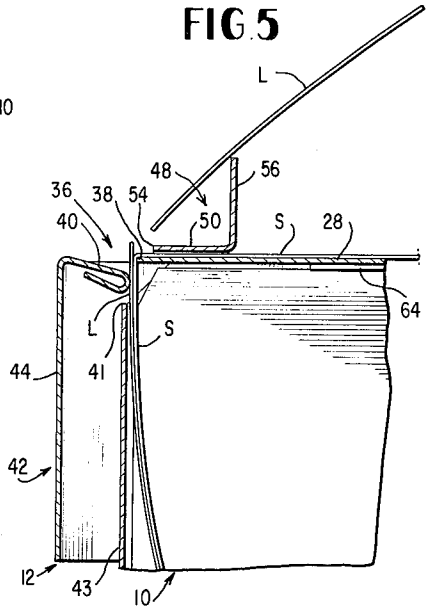


FIG. 5



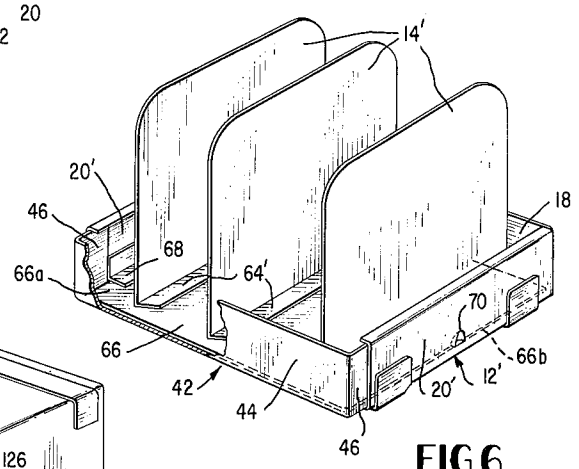
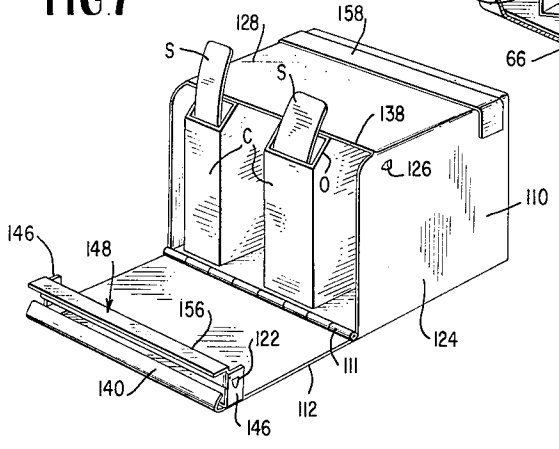


FIG. 6

FIG. 7



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LABEL DISPENSER

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9 Claims. (Cl. 221—70)

This invention relates to dispensing devices and more particularly to a device for dispensing labels which are coated with a pressure sensitive adhesive and are mounted on a backing or carrier strip from which they may be peeled for use.

There is an increasing use of so-called pressure sensitive labels, that is labels which are coated with a pressure sensitive adhesive and for purposes of supply are mounted on a backing or carrier strip, usually a waxed paper or the like, which is supplied in coils or rolls. While these labels are readily removed from the carrier strip, it is a little difficult to remove them by hand and, therefore, various dispensers have been proposed and by which the strip is passed around an edge and through an angle so that the label will automatically peel therefrom. For the most part, however, these dispensing devices have been complicated in structure, involve moving parts and, therefore, are excessively expensive as well as being subject to faulty operation and repair.

Other types of dispensers have been somewhat simpler in construction, but have not proved completely satisfactory because the labels are not uniformly dispensed and can become adhered to the dispenser or otherwise improperly dispensed so that the labels are as difficult to handle as by manual removal from the carrier strip. Moreover, many of the prior art dispensers are limited for accommodation of a single roll only of the label carrying strip, whereas it is frequently desired to have a plurality of different labels readily accessible, as, for example, the pharmacist uses a variety of such labels as "poison," "shake well," "for external use only" and the like.

Having in mind the foregoing difficulties, it is the primary object of the present invention to provide a simple, inexpensive device for dispensing pressure sensitive labels accurately and neatly.

It is another object of the invention to provide a dispenser that may accommodate a plurality of rolls of labels whether such rolls are of the same or different widths.

It is another object of the invention to provide a label dispenser having simplicity of design, economy of construction and efficiency in operation.

The novel features that are considered characteristic of the invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of specific embodiments when read in connection with the accompanying drawings, wherein like reference characters indicate like parts throughout the several figures and in which:

FIG. 1 is a view in perspective of a label dispenser in accordance with the present invention;

FIG. 2 is a cross-sectional view taken on line 2—2 of FIG. 1;

FIG. 3 is a fragmentary enlarged cross-sectional view taken on line 3—3 of FIG. 1;

FIG. 4 is an exploded view in perspective of the device shown in FIG. 1, but in inverted position;

FIG. 5 is an enlarged fragmentary cross-sectional view taken on the plane of FIG. 2, and showing the dispensing portion of the device and the relative positions of the labels and backing strip in operation;

FIG. 6 is a view in perspective of a portion of the device as shown in FIG. 4, but illustrating a modification thereof, and

FIG. 7 is a view in perspective of a further modification of the dispensing device.

Referring now in detail to the drawings and specifically to FIGS. 1–5, a dispenser in accordance with the present invention comprises a housing including a container **10** and a closure **12** therefor for enclosing one or more rolls R of carrier strips S having labels L mounted thereon. According to this modification, as more clearly shown in FIG. 4, the container **10** comprises an open top rectangular shell, whereas the closure **12** comprises a cover having fixed therein a plurality of partitions **14** which subdivide the interior of the container into a plurality of roll containing chambers between such partitions and between the end partitions and the side walls of the shell.

The rear edges **16** of the partitions **14** are spaced from the rear wall **18** of the closure **12** a distance to accommodate the corresponding rear wall **19** of the container **10**, as best shown in FIG. 2, to thereby prevent relative movement between the closure and container in one direction. The lower or inner edges of the side walls **20** of the closure **12** are turned inwardly to form flanges **22** which snuggly straddle the side walls **24** of the container **10** to prevent relative movement therebetween in the other direction, and the flanges **22** are adapted to engage over latching protrusions **26** extending from the side walls **24** to thereby retain the closure **12** on the container **10** when in use. The principal wall **28** of the closure **12** normally embodies the front or top wall of the dispenser, and the rear or bottom wall **30** of the container conveniently is provided with friction pads **32** for supporting the device on a table or bench top and also with keyhole openings **34** to enable removable mounting of the device on a vertical surface by means of headed studs in known manner.

For actual label dispensing, the principal wall **28** of the closure **12** is provided with a slot **36** preferably adjacent one edge thereof through which the label bearing strip S may be threaded. The slot **36** is formed, as best shown in FIGS. 2 and 5, preferably by one edge **38** of the wall **28** and by a lip portion **40** extending inwardly from the main body or bight portion **44** of a U-shaped strip **42**, the main body portion **44** constituting the fourth side wall of the closure **12** and the arms **46** of which fit within the side walls **20** of the closure **12**, and may be secured thereto in any convenient manner depending upon the material from which the device is fabricated. The upper edge **41** of the front wall **43** of the container **10** is spaced below the level of the top wall **28**, and the closure front wall **44** is spaced forwardly of the front wall **43** to accommodate the lip **40**, as best shown in FIG. 5.

A hold-down bar **48** is mounted on the closure **12** spaced slightly from the wall **28** to enable the free passage of the label bearing strip S thereunder, but nevertheless retaining the strip relatively flat against the wall **28**. The bar **48** preferably is U-shaped with the bight portion **50** overlying the wall **28**, and the arms **52** thereof depending against and secured to the side walls **20** of the closure **12**. Conveniently, the arms **52** and arms **46** of the front wall portion **42** overlap the same portions of the closure side walls **20**, and may be jointly secured together as by spot welding if fabricated of metal.

The bight portion **50** constitutes a flat strip parallelly spaced from the closure wall **28**, and with its leading edge **54** spaced rearwardly a slight distance from the edge **38** of the slot **36** to preclude engagement of labels with the bar edge **54** as they are peeled from the strip as the latter is drawn around the slot edge **38**. A pick-off bar **56** is disposed across the closure **12** above the hold-down bar

48 to be engaged by and support the labels L as they are removed from the strip S. This pick-off bar 56 constitutes a narrow strip or the like and conveniently may comprise an upstanding flange on the rear edge of the hold-down bight portion 50.

A second hold-down bar 58 preferably is secured on the closure 12 adjacent but spaced inwardly of the rear wall 18. This bar 58 comprises a flat U-shaped strip having its hold-down bight portion 60 parallel with but spaced slightly from the closure wall 28, and its end arms 62 depending against and secured to the closure side walls 20. This bar serves to retain the strips S in orderly fashion on the top wall 28 and also as a tear-off bar for excess strip material.

In the foregoing modification, the partitions 14 are secured to the inner side of the top wall 28 by flanges 64 fixed to the wall 28, as shown in FIG. 3. In many cases, it may be desired to accommodate labels of different widths as well as to enable conversion from one width to another. For this purpose, the partitions may be removably mounted in the closure 12, and one suitable arrangement is shown in FIG. 6 wherein the flanges 64' of the partitions 14' are secured to a plate 66 having one edge portion 66*a* removably inserted under an inwardly extending flange 68 on one side wall 20' of the closure 12', the opposite edge portion 66*b* of the plate 66 being releasably retained by a protrusion 70 extending inwardly from the opposite closure side wall 20'.

With the foregoing arrangement, the partitions 14' may be selectively positioned on a plate 66 to accommodate rolls of different widths. The user may have a plurality of plates 66 with the partitions 14' differently spaced thereon so that the dispenser can be modified according to the widths of the rolls and labels to be used at that particular time. One plate 66 may be removed by springing the one side wall 20' outwardly to release the plate edge 66*b* from the protrusion 70 so that the plate edge 66*b* can be swung upwardly until free of the adjacent side wall and then slid laterally to remove the edge portion 66*a* from under the flange 68. An alternate plate 66 can then be inserted by reverse operation, or in lieu thereof, roll containing cartons may be placed in the dispenser.

In the use and operation of the dispenser hereinbefore described, the device is placed in inverted position, as shown in FIG. 4, and the side walls 24 of the container 10 are sprung inwardly to free the protrusions 26 from the closure flanges 22 so that the container 10 can be removed from the closure 12 or 12'. Rolls R of strips S carrying labels L are then placed in the respective compartments formed by the partitions 14 or 14', and the leading end of the strips S conveniently inserted under the lip 40 and through the slot 36 at this time. Even though the inverted closure 12 or 12' may be resting on a flat surface, the pick-off bar 56 spaces the front of the closure above such surface so that the leading ends of the strips may readily be inserted through the slot 36, and the lip 40 serves as a guide to facilitate feeding the lead ends of the strips through the slot. The container 10 is then placed on the closure 12 or 12' and pressed down until the protrusions 26 snap under the flanges 22.

When the dispenser is loaded and closed, it is then turned upright and the lead ends of the strips S are threaded under the hold-down bar 48. This threading operation is facilitated by the spacing between the slot edge 38 and the adjacent edge 54 of the hold-down bar because the lead end of a strip may be engaged with the top wall 28 in front of the hold-down bar edge 54 and the strip then pushed downwardly and rearwardly so that its leading edge slides on the wall 28 and under the bar 50. In like manner, the lead end of the strip can be threaded under the rear hold-down bar 60. When all of the strips are threaded, a label L' can be removed from each of the strips and mounted on the front wall 43 of the container in alignment with its respective strip to identify the location of the particular labels.

After the device is loaded and threaded as described above, it is ready for use. An operator may obtain a selected label by pressing the particular strip S against the wall 28 behind the front hold-down bar 48 and sliding the strip toward the rear hold-down bar 58, thus pulling the strip from the container and over the slot edge 38. As the portion of the strip S within the container approaches the slot 36, it and a label L thereon, FIG. 5, engage the lip 40 and are held thereby in a plane substantially perpendicular to the wall 28 so that the strip is bent substantially ninety degrees as it passes over the slot edge 38 and under the hold-down bar 50.

As the strip S passes over the slot edge 38, the label L is held by the lip 40 perpendicular to the wall 28 so that the inherent stiffness of the label causes its leading edge to peel from the strip as it is withdrawn from the container. The label being dispensed cannot engage or become snagged on the adjacent edge 54 of the hold-down bar 50 which would foul the proper dispensing operation because the edge 54 is spaced rearwardly of the slot edge 38. However, as the trailing edge of the label L passes beyond the lip 40, the lack of support by the lip and the movement of the strip S cause the label L to tilt toward the hold-down bar 48, and engage the pick-off bar 56 just as the trailing edge of the label separates from the strip. The label is held on the pick-off bar 56 by its adhesive backing and is readily available in this position to the operator. The excess portion of the strip S may be removed by the operator holding the strip against the wall 28 and pulling the excess upwardly against the rear edge of the rear hold-down bar 58.

Another modification of the invention is shown in FIG. 7 as comprising a container 110 and a closure 112, but in this case, the container is open at its front and the closure constitutes the front wall and is attached to the lower front portion of the container by a hinge 111. The top wall 128 is integral with the container 110 with the rear hold-down bar 158 mounted thereon, whereas the front hold-down bar 148, including the pick-off bar 156, and the lip 140 are carried by arms 146 extending rearwardly from the sides at the top of the closure 112 and which are adapted to overlie the side walls 124 of the container. Latch elements 126, such as protrusions, are provided on the container side walls 124 and cooperating latch elements 122, such as openings to mate with the protrusions, are provided on the arms 146. The slot forming edge 138 of the top wall 128 is spaced rearwardly of the front of the container 110 to accommodate the lip 140.

The container 110 may have partitions 14 or 14' positioned therein or, as shown, they may be omitted for reception of cartons C respectively containing individual rolls of label bearing strips S, the cartons having openings O in their upper front corners for the dispensing of the strip and labels therefrom. In accordance with this modification, the closure 112 is swung open after springing the arms 146 to release the latch elements 122, 126, and rolls or cartons C of strips S are inserted in the container 110 with the lead ends of the strips extending in front of the edge 138 and above the wall 128.

The closure 112 is then swung closed until the latch elements 122, 126 engage and, in this closing movement, the front hold-down bar 148 swings over the top wall 128, and automatically traps the strips S therebetween so that the strips have to be threaded only under the rear hold-down bar 158. In all other respects, the structural relation of the parts and the dispensing operation are the same as previously described with respect to the modification of FIGS. 1–5.

Although certain specific embodiments of the invention have been shown and described, it is obvious that many modifications thereof are possible. The invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

That which is claimed is:

1. A label dispenser comprising a housing for enclosing a coiled carrier strip on which labels coated with pressure sensitive adhesive are mounted, said housing having a wall means provided with a dispensing slot, said slot having spaced opposing bounding edges, a hold-down bar provided on said housing in overlying relation to said wall means parallel to the slot and having a leading edge spaced from the slot and disposed adjacent one edge of said slot, said hold-down bar being parallel to and spaced slightly from said wall means to accommodate free passage of the carrier strip therebetween but to retain the strip substantially parallel with said wall means, the other edge of said slot comprising a lip disposed inwardly of the plane of said wall means and having a strip-engaging edge portion lying slightly below and arranged complementary to the one edge of the slot and being substantially parallel with said one edge of the slot, said lip edge portion and the one edge of the slot being disposed in planes substantially perpendicular to said wall means and spaced apart substantially the thickness of the label-bearing strip, the leading edge of said hold-down bar nearest said slot being spaced slightly away from said one edge of the slot to preclude engagement of said leading bar edge by labels as they are peeled from the strip when the strip passes over said slot edge, and a pick-off bar disposed above and substantially parallel with said hold-down bar and spaced rearwardly of said leading edge of said hold-down bar, said pick-off bar having a narrow edge-like surface parallel to the wall means to be engaged by a label peeled from the strip, whereby the label-bearing strip is positioned substantially perpendicularly of said wall means by said lip portion and bent substantially ninety degrees as it passes over said one edge of the slot and under said hold-down bar to cause a label thereon to peel from the strip as the latter is moved through the ninety degree angle so that the label is lodged on the edge-like surface of said pick-off bar.

2. A label dispenser according to claim 1 wherein said hold-down bar is constituted by one flange of an L-shaped member with the free edge of said flange constituting the bar edge adjacent said slot, the other flange of said member constituting said pick-off bar and extending upwardly from the rear edge of said one flange with the free edge of said other flange constituting said label engaging edge.

3. A label dispenser according to claim 2 wherein said lip edge portion which engages the label-bearing strip is rounded to preclude dislodgment of the leading edge of a label as it passes thereover.

4. A label dispenser according to claim 3 comprising a second hold-down bar substantially parallel to said first mentioned hold-down bar and spaced from said wall for passage of the strip therebetween.

5. A label dispenser according to claim 4 wherein said housing is of a width to accommodate a plurality of coils of label-bearing strips with said slot extending transversely thereof to permit passage of the strips in side-by-side relation, said housing comprising a casing having an open side, and a closure including said slotted wall, said closure having a plurality of inwardly extending parallel partitions subdividing said casing into compartments for individually receiving the coils of label-bearing strips.

6. A label dispenser according to claim 5 wherein said partitions are attached to a carrier member which is releasably secured in said closure against the inner side of said wall.

7. A label dispenser according to claim 4 wherein said housing is of a width to accommodate a plurality of coils of label-bearing strips with said slot extending transversely thereof to permit passage of the strips in side-by-side relation, said housing comprising a casing having an open side, the wall means having a free edge constituting said one edge of the slot, and a closure for said casing closing off the open side and having said lip extending inwardly along one edge portion thereof.

8. A label dispenser according to claim 7 wherein said hold-down and pick-off bars are carried by said closure.

9. A label dispenser according to claim 1 wherein said housing comprises a casing having an open side and a closed side defining the wall means, the free edge of the closed side of said casing constituting said one slot edge, and a hinged closure for said casing and having an angular extension complementary to and completing the closed side and having said lip extending inwardly along the free end portion thereof.

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