A box adapted to retain a spirally-wound roll of products and dispense the products from a lead end of the spirally-wound roll is provided. In one embodiment, the box includes: a front panel, a top panel, a bottom panel, a rear panel, a first interior side panel, a first exterior side panel, a second interior side panel, a second exterior side panel, a first retaining strip arranged to fold over the top panel, a second retaining strip arranged to fold over the top panel, and a hang tab. The first and second retaining strips may be releasably secured to the top panel. The top panel opens to receive the spirally-wound roll. The top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.
PHOTO CORNER/MOUNTING SQUARE DISPENSER BOX

BACKGROUND

[0001] The present exemplary embodiment relates to a dispenser box. It finds particular application in conjunction with dispensing continuous rolls of adhesive products, and will be described with particular reference thereto. However, it is to be appreciated that the present exemplary embodiment is also amenable to other like applications.

[0002] Dispenser boxes for dispensing a continuous roll of various types of products, including adhesive products, are known. However, existing dispenser boxes dispense product from the bottom of the box or from a side of the box that is not protected from contamination or soiling.

[0003] For example, U.S. Pat. No. 4,004,683 to Pomeroy et al. discloses packaging for power loads. A flexible rubber strip has openings slightly smaller than the shank of a power load spaced along its length. Power loads having shank and head portions are inserted through the openings up to the head portion in which position the power loads are gripped by the rubber to hold the power loads until forcefully removed. The strip with power loads is contained in a box with one end of the strip protruding through an opening in the top of the box. An operator of a powder actuated tool grabs the protruded end of the strip and pulls a section of the strip from the box. The operator inserts the first power load into the cartridge receiving chamber of the powder actuated tool and, by peeling the strip over the head portion of the power load, separates the power load from the strip. The box containing the strip can be clipped to the operator's belt or contained in the pocket of an apron.

[0004] Similarly, U.S. Pat. No. 4,339,055 discloses a package for dispensing nipple markers for use in X-ray technology. The packaged product is a roll of base tape having successive pads releasably adhered thereto, each pad containing a lead disc for placing over the nipple of an X-ray patient. The roll is contained in a surrounding package and dispensable through a slit therein. The tape is severable to remove the pads for use.

[0005] Thus, there is a need for an improved dispenser box that protects the product being dispensed from contamination and/or soiling, particularly for boxes dispensing adhesive products on continuous rolls.

BRIEF DESCRIPTION

[0006] In one aspect, a box adapted to retain a spirally-wound roll of products and dispense the products from a lead end of the spirally-wound roll is provided. In one embodiment, the box includes: a package blank having a front panel, a top panel, a bottom panel, a rear panel, a first interior side panel, a first exterior side panel, a second exterior side panel, a first retaining strip disposed adjacent the rear panel and arranged to fold over a first portion of the top panel, a second retaining strip disposed adjacent the rear panel and arranged to fold over a second portion of the top panel, and a hang tab disposed adjacent the rear panel and between the first and second retaining strips, each panel disposed along fold lines and arranged to fold and thereby form a rectangular volume adapted to receive and retain the spirally-wound roll, means of securing the first exterior side panel to the first interior side panel, means of securing the second exterior side panel to the second interior side panel, means of releasably securing the first retaining strip to at least one of the top panel and the front panel, and means of releasably securing the second retaining strip to at least one of the top panel and the front panel. The top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.

[0007] In another embodiment, the box includes: a front panel, a top panel adjacent the front panel, a bottom panel adjacent the front panel, a rear panel adjacent the bottom panel, a first interior side panel adjacent the rear panel, a first exterior side panel adjacent the front panel, positioned over the first interior side panel, and secured to at least one of the first interior side panel and the rear panel, a second interior side panel adjacent the rear panel, a second exterior side panel adjacent the front panel, positioned over the second interior side panel and, secured to at least one of the second interior side panel and the rear panel, a first retaining strip disposed adjacent the rear panel and arranged to fold over a first portion of the top panel, a second retaining strip disposed adjacent the rear panel and arranged to fold over a second portion of the top panel, a hang tab disposed adjacent the rear panel and between the first and second retaining strips, means of releasably securing the first retaining strip to at least one of the top panel and the front panel, and means of releasably securing the second retaining strip to at least one of the top panel and the front panel. The top panel opens to receive the spirally-wound roll. The top panel and bottom panel are disposed on opposing sides of the front panel. The front panel and rear panel are disposed on opposing sides of the bottom panel. The first and second interior side panels are disposed on opposing sides of the rear panel. The first and second exterior side panels are disposed on opposing sides of the front panel. The top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.

[0008] In yet another embodiment, the box includes: a front panel, a top panel adjacent the front panel, a bottom panel adjacent the front panel, a rear panel adjacent the bottom panel, a first interior side panel adjacent the rear panel, a first exterior side panel adjacent the front panel, positioned over the first interior side panel, and secured to at least one of the first interior side panel and the rear panel, a second interior side panel adjacent the rear panel, a second exterior side panel adjacent the front panel, positioned over the second interior side panel and, secured to at least one of the second interior side panel and the rear panel, a first retaining strip disposed adjacent the rear panel and arranged to fold over a first portion of the top panel, a second retaining strip disposed adjacent the rear panel and arranged to fold over a second portion of the top panel, a hang tab disposed adjacent the rear panel and between the first and second retaining strips, a first tab adjacent the first retaining strip and disposed along an adjacent edge of the first retaining strip opposite a fold line between the first retaining strip and the rear panel, a first retaining slit disposed at a location in the top panel to releasably receive the first tab when the top panel is folded into position and the first retaining strip is folded over the top panel, a second tab adjacent the second retaining strip and disposed along an adjacent edge of the
second retaining strip opposite a fold line between the second retaining strip and the rear panel, and a second retaining slit disposed at a location in the top panel to releasably receive the second tab when the top panel is folded into position and the second retaining strip is folded over the top panel. The top panel opens to receive the spirally-wound roll. The top panel and bottom panel are disposed on opposing sides of the front panel. The front panel and rear panel are disposed on opposing sides of the bottom panel. The first and second interior side panels are disposed on opposing sides of the rear panel. The first and second exterior side panels are disposed on opposing sides of the front panel. The top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a top view of an exemplary embodiment of a blank for an exemplary embodiment of a dispenser box;

[0010] FIG. 2 is a front view of an exemplary embodiment of a dispenser box; and

[0011] FIG. 3 is a top view of an exemplary embodiment of a dispenser box containing an exemplary roll of adhesive products for dispensing.

DETAILED DESCRIPTION

[0012] With reference to FIG. 1, a top view of an exemplary embodiment of a blank for an exemplary embodiment of a dispenser box 10 is provided. The blank may be plastic, cardboard, chipboard, or any other suitable material for a dispenser box. The dispenser box 10 includes a front panel 12, a rear panel 14, a top panel 16, a bottom panel 18, and four side panels 20, 22, 24, 26. There are two retaining strips 28, 30 and a hang tab 32 adjacent the rear panel 14. The retaining strips 28, 30 each include a tab 34, 36. The hang tab 32 includes an aperture 37. The top panel 16 includes a tab 38 and two retaining slits 40, 42. The bottom panel 18 includes two tabs 44, 46. The two side panels 20, 24 adjacent the front panel 12 each include two tabs 48, 50, 52, 54. The two side panels 22, 26 adjacent the rear panel 14 each include two retaining slits 56, 58, 60, 62.

[0013] The dispenser box 10 is formed by folding the material along the dotted lines and inserting tabs in retaining slits and other openings associated with the box. For example, if the top view depicts the interior of the dispenser box 10, tabs 34, 36, 38, 44, 46, 48, 50, 52, 54 are folded up. Side panels 20, 22, 24, 26 are also folded up. Top panel 16 and retaining strips 28, 30 are folded up. Bottom panel 18 is folded up along the fold with rear panel 14 and front panel 12 is folded toward rear panel 14 along the fold with bottom panel 18. With top panel 16, front panel 12, bottom panel 18, and rear panel 14 folded in position, retaining strip 28 is positioned over top panel 16 and tab 34 is inserted in retaining slit 40 of top panel 16. Likewise, retaining strip 30 is folded over top panel 16 and tab 36 is inserted in retaining slit 42 of top panel 16. With tabs 38, 44 folded in position, side panel 22 is positioned over the tabs 38, 44. Side panel 20 is positioned over side panel 22 and tabs 48, 50 are inserted in corresponding retaining slits 56, 58 on side panel 22. With tab 46 folded in position, side panel 26 is positioned over tab 46. Side panel 24 is positioned over side panel 26 and tabs 52, 54 are inserted in corresponding retaining slits 60, 62 on side panel 26.

[0014] The above steps result in forming the dispenser box 10 in a closed condition. Various alternate sequences may be used to produce the same result. The dispenser box 10 can be re-opened by removing tabs 34, 36 from retaining slits 40, 42, raising retaining strips 28, 30 from their folded position, and raising top panel 16 from its folded position. The dispenser box 10 may now be used to dispense products, such as photo corners, mounting squares, or other adhesive products, from a spirally-wound roll. A typical roll includes a carrier strip with a plurality of individual products adhered to the carrier strip via an adhesive backing. A roll of products with adhesive on both sides may also be placed in the dispenser box 10. These rolls may include a continuous protective strip opposite the carrier strip in relation to the products to which each product also adheres. Alternatively, these rolls of “double-sided” adhesive products may include a plurality of individual protective strips corresponding to the plurality of products. Each individual protective strip sticks to the adhesive associated with a corresponding product opposite the carrier strip in relation to the product.

[0015] A roll of products to be dispensed can be placed in the dispenser box 10 through the opening provided when the top panel 16 is raised so that the leading end of the roll is pointed upward toward the corner formed by the top panel 16 and side panels 22, 24. The leading end of the roll can be fed through this corner as the top panel 16 is closed and secured by the retaining strips 28, 30. The leading end of the roll can be pulled out as needed to dispense individual products. As products are removed from the carrier strip, the empty carrier strip can be torn off and discarded. The leading end of the roll can be fed between the retaining strips 30, 28 and top panel 16 as products are being dispensed and can remain in this position when the dispenser box 10 is not in use.

[0016] In another embodiment, the top panel 16 may have an oval or rectangular-like opening positioned so that it is between retaining strips 28, 30 when the top panel 16 and retaining strips 28, 30 are folded in place. The opening is adapted to receive the leading end of the roll. Accordingly, the leading end can be fed through the opening as the top panel 16 is closed and secured by the retaining strips 28, 30. In this embodiment, the roll of products can be oriented in either direction, particularly if the opening is centrally located in the top panel 16. As such, the leading end of the carrier strip can be fed between one retaining strip 28 or 30 and top panel 16, depending on the orientation of the roll in the dispensing enclosure 10. In other words, if the roll is oriented so that the leading end is unrolled by pulling it to the left, the leading end of the carrier strip is fed between (left) retaining strip 30 and top panel 16. Conversely, if the roll is oriented so that the leading end is unrolled by pulling it to the right, the leading end of the carrier strip is fed between (right) retaining strip 28 and top panel 16.

[0017] In other embodiments, the size of the various panels comprising the dispenser box 10 may be altered to suit the dispensing requirements. The size and shape of the various tabs may also be altered in other embodiments. Similarly, the size and shape of the retaining slits may be altered in other embodiments. Likewise, the size and shape of the hang tab and associated aperture may be altered in
other embodiments. For example, the hang tab may include a hook portion rather than an aperture to accomplish the same function of suspending the dispenser box from, for example, a rod or projection. In other embodiments, one or more of the tabs and corresponding retaining slits may be replaced by other means of securing the top panel, side panels, and retaining strips. For example, glue, adhesive, staples, tape, projection/receptacle combinations, interconnecting rib combinations, latch/catch combinations, and other suitable securing means may be implemented in any combination in other embodiments of the dispenser box.

[0018] With reference to FIG. 2, a front view of an exemplary embodiment of a dispenser box 10 is provided. Front panel 12 and bottom panel 18 (FIG. 1) are folded in place as described above. Top panel 16 (FIG. 1) is folded in place and secured by retaining strips 20, 30 as described above. Side panels 20, 22, 24, 26 (FIG. 1) are also folded in place as described above. The hang tab 32 and aperture 37 are also shown in the front view.

[0019] With reference to FIG. 3, a top view of an exemplary embodiment of a dispenser box 10 containing an exemplary roll 70 of adhesive products for dispensing is provided. The roll 70 includes a carrier strip 72, a plurality of spaced apart adhesive products 74 with adhesive on both sides, and a continuous protective strip 76. A first side of each adhesive product 74 is adhered to the carrier strip 72 via adhesive material. A second side of each adhesive product 74 is adhered to the protective strip 76 via adhesive material.

[0020] As shown, the roll 70 is inside the dispenser box 10 with a leading end of the roll extending through an opening in a corner formed by top panel 16 and side panels 24, 26 (FIG. 1). A leading end of the protective strip 74 has been pulled away from the carrier strip 72 at the leading end, exposing at least one adhesive product 74 that remains adhered to the carrier strip 72. A leading end of the carrier strip 72 has been fed between the retaining strips 30, 28 and top panel 16. Note that the exposed adhesive product is at least partially protected from contamination or soiling by the hang tab 32.

[0021] The exemplary embodiment has been described with reference to the preferred embodiments. Obviously, modifications and alterations will occur to others upon reading and understanding the preceding detailed description. It is intended that the exemplary embodiment be construed as including all such modifications and alterations insofar as they come within the scope of the appended claims or the equivalents thereof.

1. A box adapted to retain a spirally-wound roll of products and dispense the products from a lead end of the spirally-wound roll, the box comprising a package blank having a front panel, a top panel, a bottom panel, a rear panel, a first interior side panel, a first exterior side panel, a second interior side panel, a second exterior side panel, a first retaining strip disposed adjacent the rear panel and arranged to fold over a first portion of the top panel, a second retaining strip disposed adjacent the rear panel and arranged to fold over a second portion of the top panel, and a hang tab disposed adjacent the rear panel and between the first and second retaining strips, each panel disposed along fold lines and arranged to fold and thereby form a rectangular volume adapted to receive and retain the spirally-wound roll, means of securing the first exterior side panel to the first interior side panel, means of securing the second exterior side panel to the second interior side panel, means of releasably securing the first retaining strip to at least one of the top panel and the front panel, and means of releasably securing the second retaining strip to at least one of the top panel and the front panel, wherein the top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.

2. The box set forth in claim 1 wherein the first and second interior side panels are adjacent the rear panel, wherein the bottom panel is adjacent the rear panel, wherein the front panel is adjacent the bottom panel, wherein the first and second exterior side panels are adjacent the front panel, wherein the top panel is adjacent the front panel.

3. The box set forth in claim 2 wherein the first and second interior side panels are disposed on opposing sides of the rear panel, wherein the bottom panel and hang tab are disposed on opposing sides of the rear panel, wherein the front panel and rear panel are disposed on opposing sides of the bottom panel, wherein the first and second exterior side panels are disposed on opposing sides of the front panel, wherein the top panel and bottom panel are disposed on opposing sides of the front panel.

4. The box set forth in claim 3, the blank further including:

a tab adjacent the top panel, disposed along a fold line, and arranged to form an interior right angle between the top panel and the second interior side wall;

a tab adjacent the bottom panel, disposed along a fold line, and arranged to form an interior right angle between the bottom panel and the second interior side wall; and

a tab adjacent the bottom panel, disposed along a fold line, and arranged to form an interior right angle between the bottom panel and the first interior side wall.

5. The box set forth in claim 1, the means of securing the first exterior side panel including:

a first tab adjacent the first exterior side panel and disposed at a mid-point between the top panel and bottom panel along an adjacent edge of the first exterior side panel opposite a fold line between the first exterior side panel and the front panel;

a second tab adjacent the first exterior side panel, disposed at a mid-point along an adjacent edge of the first exterior side panel opposite the fold line between the first exterior side panel and the front panel, and spaced apart from the first tab;

a first retaining slit disposed at a mid-point between the top panel and bottom panel in the first interior side panel at a location to receive the first tab when the first interior side panel is folded into position and the first exterior side panel is folded over the first interior side panel; and

a second retaining slit disposed at a mid-point between the top panel and bottom panel in the first interior side panel at a location to receive the second tab when the first interior side panel is folded into position and the first exterior side panel is folded over the first interior side panel.
6. The box set forth in claim 1, the means of securing the second exterior side panel including:

a first tab adjacent the second exterior side panel and disposed at a mid-point between the top panel and bottom panel along an adjacent edge of the second exterior side panel opposite a fold line between the second exterior side panel and the front panel;

a second tab adjacent the second exterior side panel, disposed at a mid-point along an adjacent edge of the second exterior side panel opposite the fold line between the second exterior side panel and the front panel, and spaced apart from the first tab;

a first retaining slit disposed at a location in the second interior side panel to receive the first tab when the second interior side panel is folded into position and the second exterior side panel is folded over the second interior side panel; and

a second retaining slit disposed at a location in the second interior side panel to receive the second tab when the second interior side panel is folded into position and the second exterior side panel is folded over the second interior side panel.

7. The box set forth in claim 1, the means of releasably securing the first retaining strip including:

a tab adjacent the first retaining strip and disposed along an adjacent edge of the first retaining strip opposite a fold line between the first retaining strip and the rear panel; and

a retaining slit disposed at a location in the top panel to releasably receive the tab when the top panel is folded into position and the first retaining strip is folded over the top panel.

8. The box set forth in claim 1, the means of releasably securing the second retaining strip including:

a tab adjacent the second retaining strip and disposed along an adjacent edge of the second retaining strip opposite a fold line between the second retaining strip and the rear panel; and

a retaining slit disposed at a location in the top panel to releasably receive the tab when the top panel is folded into position and the second retaining strip is folded over the top panel.

9. The box set forth in claim 1 wherein the opening through which the lead end of the spirally-wound roll is fed is formed along at least a portion of a right angle between the top panel and the first interior side panel.

10. The box set forth in claim 1 wherein the opening through which the lead end of the spirally-wound roll is fed is formed by an aperture in the top panel.

11. A box adapted to retain a spirally-wound roll of products and dispense the products from a lead end of the spirally-wound roll, the box comprising:

a front panel;

a top panel adjacent the front panel, wherein the top panel opens to receive the spirally-wound roll;

a bottom panel adjacent the front panel, wherein the top panel and bottom panel are disposed on opposing sides of the front panel;

a rear panel adjacent the bottom panel, wherein the front panel and rear panel are disposed on opposing sides of the bottom panel;

a first interior side panel adjacent the rear panel;

a first exterior side panel adjacent the front panel, positioned over the first interior side panel, and secured to at least one of the first interior side panel and the rear panel;

a second interior side panel adjacent the rear panel, wherein the first and second interior side panels are disposed on opposing sides of the rear panel;

a second exterior side panel adjacent the front panel, wherein the first and second exterior side panels are disposed on opposing sides of the front panel, the second exterior side panel being positioned over the second interior side panel, and secured to at least one of the second interior side panel and the rear panel;

a first retaining strip disposed adjacent the rear panel and arranged to fold over a first portion of the top panel;

a second retaining strip disposed adjacent the rear panel and arranged to fold over a second portion of the top panel;

a hang tab disposed adjacent the rear panel and between the first and second retaining strips,

means of releasably securing the first retaining strip to at least one of the top panel and the front panel; and

means of releasably securing the second retaining strip to at least one of the top panel and the front panel;

wherein the top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.

12. The box set forth in claim 11, the box further including:

a tab adjacent the top panel, disposed along a fold line, and arranged to form an interior right angle between the top panel and the second interior side wall;

a tab adjacent the bottom panel, disposed along a fold line, and arranged to form an interior right angle between the bottom panel and the second interior side wall; and

a tab adjacent the bottom panel, disposed along a fold line, and arranged to form an interior right angle between the bottom panel and the first interior side wall.

13. The box set forth in claim 11, the means of releasably securing the first retaining strip including:

a tab adjacent the first retaining strip and disposed along an adjacent edge of the first retaining strip opposite a fold line between the first retaining strip and the rear panel;

a retaining slit disposed at a location in the top panel to releasably receive the tab when the top panel is folded into position and the first retaining strip is folded over the top panel.

14. The box set forth in claim 11, the means of releasably securing the second retaining strip including:
a tab adjacent the second retaining strip and disposed along an adjacent edge of the second retaining strip opposite a fold line between the second retaining strip and the rear panel; and
a retaining slit disposed at a location in the top panel to releasably receive the tab when the top panel is folded into position and the second retaining strip is folded over the top panel.

15. The box set forth in claim 11 wherein the opening through which the lead end of the spirally-wound roll is fed is formed along at least a portion of a right angle between the top panel and the first interior side panel.

16. The box set forth in claim 11 wherein the opening through which the lead end of the spirally-wound roll is fed is formed by an aperture in the top panel.

17. A box adapted to retain a spirally-wound roll of products and dispense the products from a lead end of the spirally-wound roll, the box comprising:
a front panel;
a top panel adjacent the front panel, wherein the top panel opens to receive the spirally-wound roll;
a bottom panel adjacent the front panel, wherein the top panel and bottom panel are disposed on opposing sides of the front panel;
a rear panel adjacent the bottom panel, wherein the front panel and rear panel are disposed on opposing sides of the bottom panel;
a first interior side panel adjacent the rear panel;
a first exterior side panel adjacent the front panel, positioned over the first interior side panel, and secured to at least one of the first interior side panel and the rear panel;
a second interior side panel adjacent the rear panel, wherein the first and second interior side panels are disposed on opposing sides of the rear panel;
a second exterior side panel adjacent the front panel, wherein the first and second exterior side panels are disposed on opposing sides of the front panel, the second exterior side panel being positioned over the second interior side panel, and secured to at least one of the second interior side panel and the rear panel;
a first retaining strip disposed adjacent the rear panel and arranged to fold over a first portion of the top panel;
a second retaining strip disposed adjacent the rear panel and arranged to fold over a second portion of the top panel;
a hang tab disposed adjacent the rear panel and between the first and second retaining strips;
a first tab adjacent the first retaining strip and disposed along an adjacent edge of the first retaining strip opposite a fold line between the first retaining strip and the rear panel;
a first retaining slit disposed at a location in the top panel to releasably receive the first tab when the top panel is folded into position and the first retaining strip is folded over the top panel;
a second tab adjacent the second retaining strip and disposed along an adjacent edge of the second retaining strip opposite a fold line between the second retaining strip and the rear panel; and
a second retaining slit disposed at a location in the top panel to releasably receive the second tab when the top panel is folded into position and the second retaining strip is folded over the top panel;

wherein the top panel is adapted to provide an opening through which to feed the lead end of the spirally-wound roll from the interior of the box and generally toward the hang tab.

18. The box set forth in claim 17, the box further including:
a third tab adjacent the top panel, disposed along a fold line, and arranged to form an interior right angle between the top panel and the second interior side wall;
a fourth tab adjacent the bottom panel, disposed along a fold line, and arranged to form an interior right angle between the bottom panel and the second interior side wall; and
a fifth tab adjacent the bottom panel, disposed along a fold line, and arranged to form an interior right angle between the bottom panel and the first interior side wall.

19. The box set forth in claim 17 wherein the opening through which the lead end of the spirally-wound roll is fed is formed along at least a portion of a right angle between the top panel and the first interior side panel.

20. The box set forth in claim 17 wherein the opening through which the lead end of the spirally-wound roll is fed is formed by an aperture in the top panel.

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