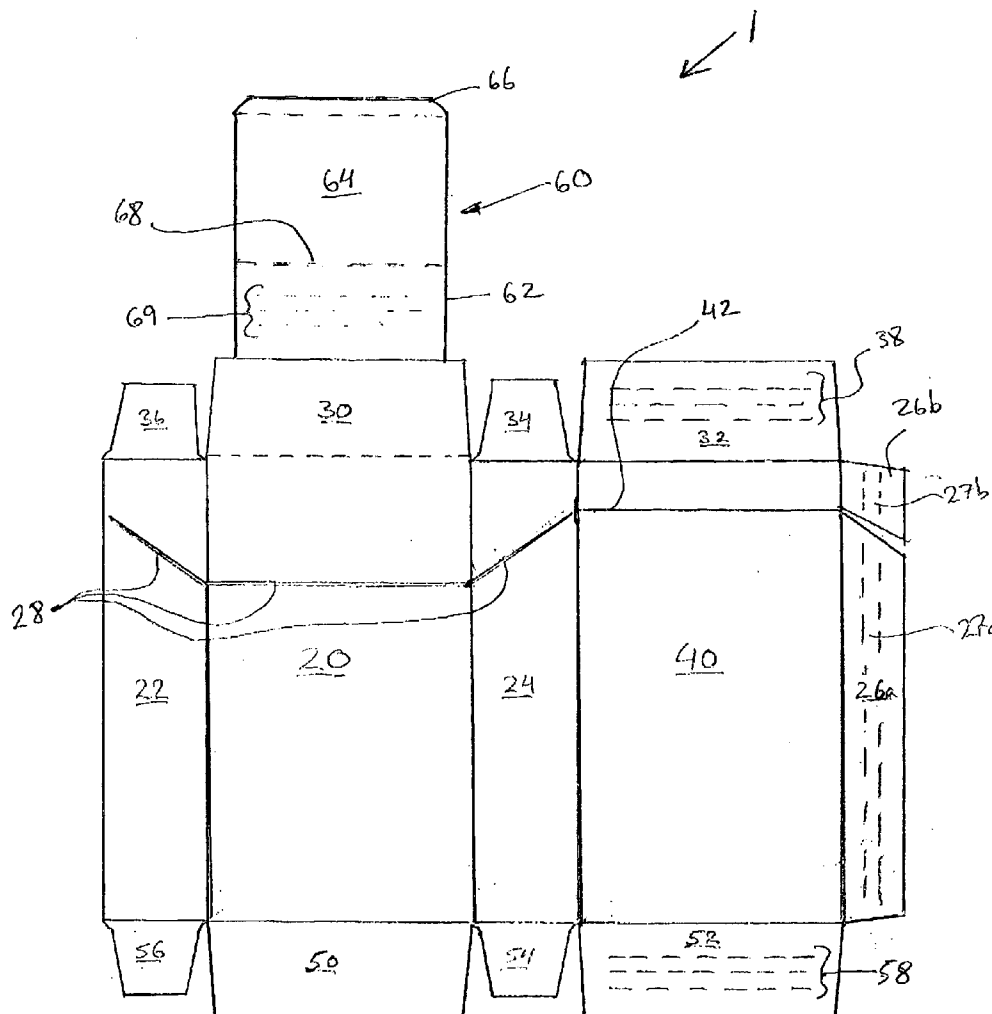




US 20060138207A1

(19) **United States**(12) **Patent Application Publication****Levine et al.**(10) **Pub. No.: US 2006/0138207 A1**(43) **Pub. Date: Jun. 29, 2006**(54) **KNOCK-DOWN, FOLDED, FLIP-TOP
CIGARETTE BOX WITH POP-OUT TAB****Publication Classification**(76) Inventors: **Andrew Levine**, Williamsville, NY
(US); **Richard Oleszak**, Williamsville,
NY (US); **Philip Rechin**, East Amherst,
NY (US)(51) **Int. Cl.**
B65D 17/00 (2006.01)
B65D 43/16 (2006.01)
(52) **U.S. Cl.** **229/225**; 229/146; 229/160.1Correspondence Address:
SHLESINGER & FITZSIMMONS
Suite 1323
183 E. Main Street
Rochester, NY 14604 (US)(57) **ABSTRACT**

A knock down folded flip-top cigarette box provides a pop-out tab on an interior of its front panel so that when the top portion of the popped-open, completed box is opened along a fold line on the back panel, the pop-out tab is visible. A tab formation on the inner surface of the top panel and front panel can include a perforation allowing removal of a tab panel that includes the pop-out tab. The pop-out tab and the tab panel can include indicia, such as slogans, graphics, URLs, coupons, and the like. The knock down folded configuration allows the folded box to be shipped to a customer pre-glued and can be used, that is, completed, filled, and sealed, on standard, relatively low-cost equipment.

(21) Appl. No.: **11/333,641**(22) Filed: **Jan. 17, 2006****Related U.S. Application Data**(63) Continuation-in-part of application No. 29/211,881,
filed on Aug. 23, 2004, now abandoned.

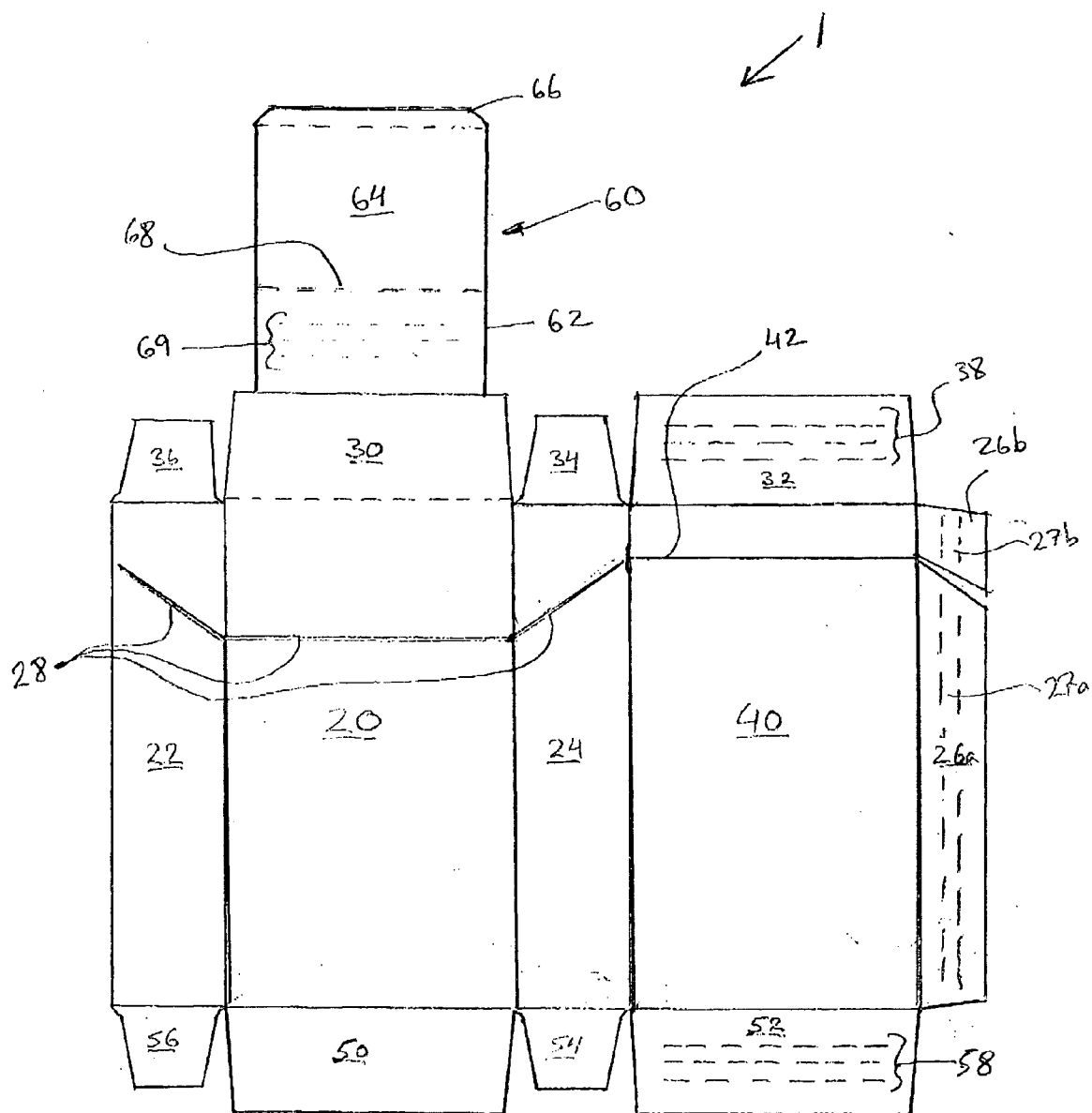


FIG. 1

FIG. 2

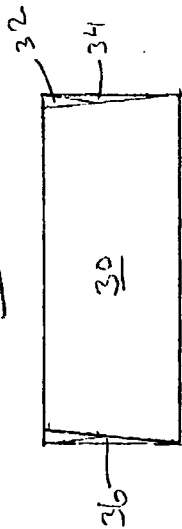


FIG. 3

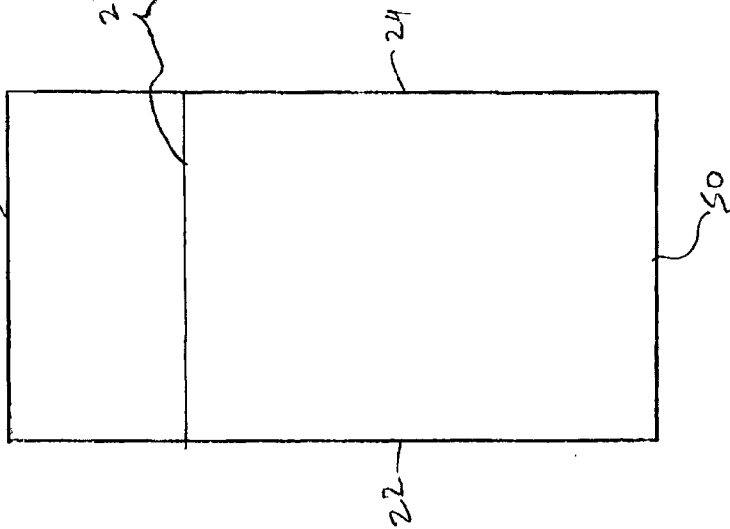


FIG. 4

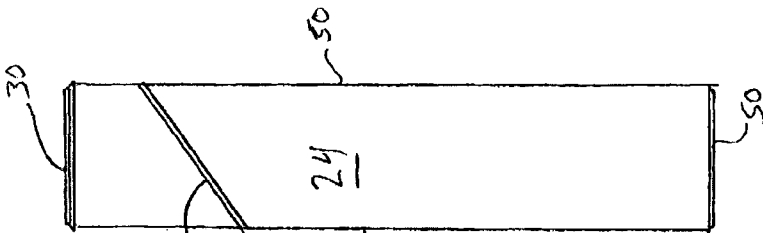
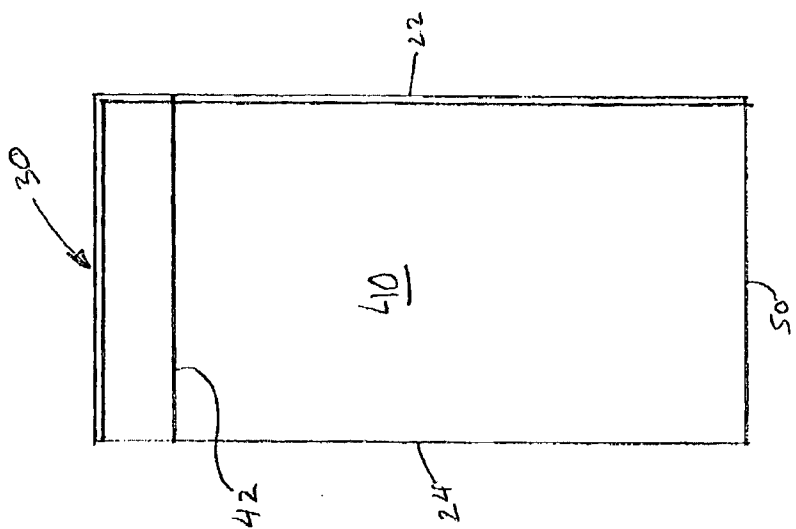
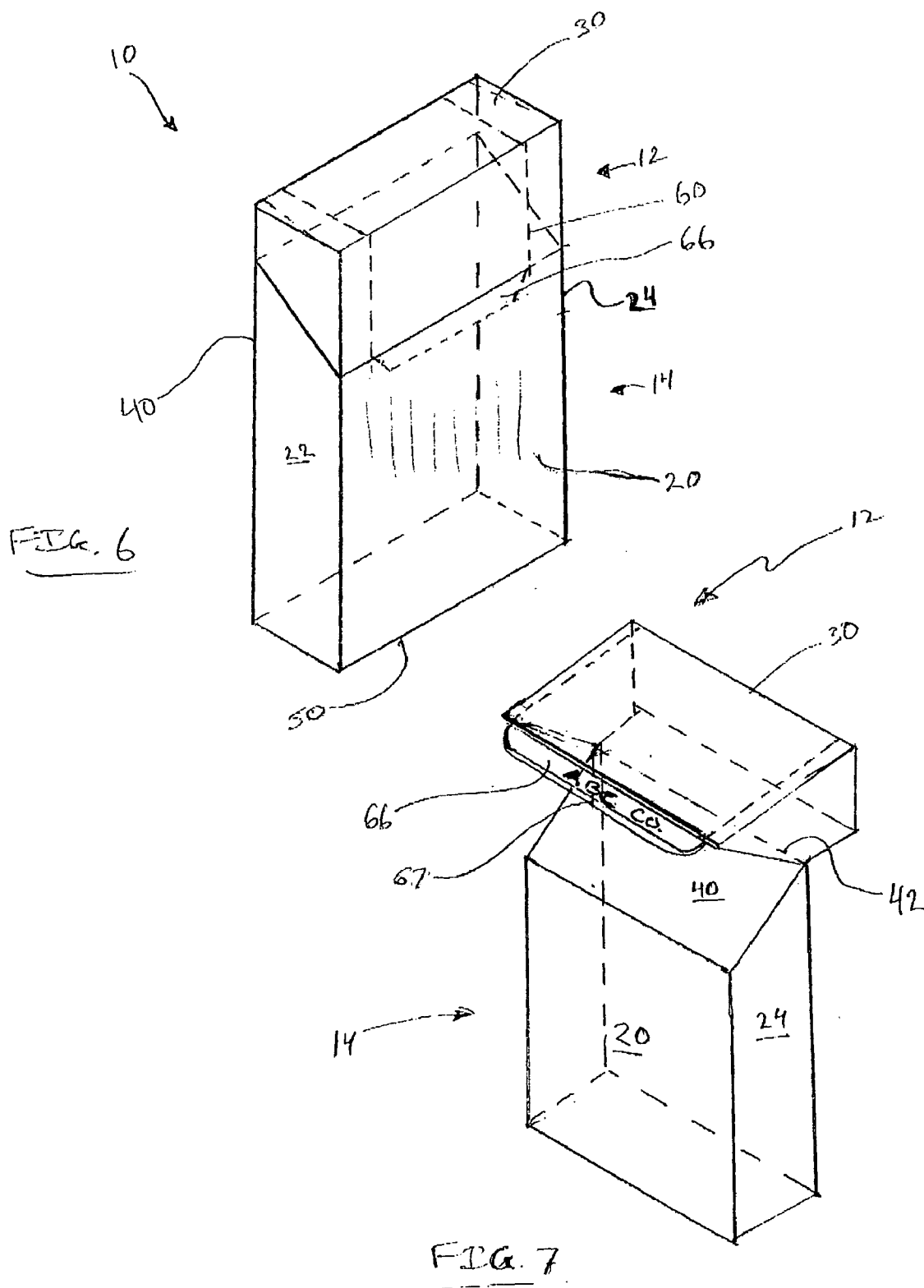


FIG. 5





KNOCK-DOWN, FOLDED, FLIP-TOP CIGARETTE BOX WITH POP-OUT TAB

RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. Patent Application No. 29/211,881, filed on 23 Aug. 2004 by Andrew Levine, Richard Oleszak, and Philip Rechin.

BACKGROUND AND SUMMARY

[0002] Embodiments relate to packaging for tobacco products. More specifically, embodiments relate to an improved paper-based box or pack for cigarettes and similar tobacco products.

[0003] Prior art cigarette boxes have included tabs used for various purposes, but no hinge- or flip-top cigarette box has enabled a pop-out tab for display of indicia or coupon without undue materials usage. U.S. Pat. Nos. 5,236,804, 5,363,955, 5,533,612, 6,742,652, 6,889,827, 6,932,219, and 6,957,765 show several configurations of cigarette box, some of which include tabs or flaps attached to the top of the box.

[0004] U.S. Pat. No. 5,236,804 to Evers discloses a hinged lid box with attached pop-out coupon that includes a tab attached to the top of the box. The tab extends down from the front of the top panel, covering an insert in the front of the box, which tab is then covered by the front panel of the box. The structure of the blank requires folding of the front panel from over the top of the box, requires an extra, separate insert, and results in multiple layers of material on the front panel.

[0005] U.S. Pat. No. 5,363,955 to Fleenor discloses a hinged lid box with attached pop-out coupon that includes a tab attached to the top of the box. The tab extends down from the front of the top panel, covering an insert in the front of the box, which tab is then covered by the front panel of the box. The structure of the blank requires folding of the front panel from over the top of the box, requires an extra, separate insert, and results in multiple layers of material on the front panel.

[0006] U.S. Pat. No. 5,533,612 to Focke discloses a hinge-lid pack for cigarettes similar to the previous two above. The top portion of the front panel includes a tab that is inserted behind the bottom portion of the front panel, extending down from the perforation line on an interior surface of the bottom portion. The tab is part of the same panel as the top portion and is double-creased to allow insertion behind the lower portion while maintaining the outer surface of the top portion flush with that of the lower portion.

[0007] U.S. Pat. No. 6,742,652 to Focke et al. discloses a folding box for cigarettes with coupon. The coupon is part of an insert that must be attached to the box blank before assembly.

[0008] U.S. Pat. No. 6,889,827 to Stringfield discloses a resealable cigarette package that employs a tab insertable into a slot in the front panel to reseal the package. The tab extends down from and is part of the hinged part of the top panel.

[0009] U.S. Pat. No. 6,932,219 to Chacko et al. discloses a multi-pack packaging sleeve with multiple boxes connected via folds in a single large blank.

[0010] U.S. Pat. No. 6,957,765 to Howell et al discloses a package having locking mechanism and reinforced cell in which a tab can be used to reseal the package after opening. The tab is part of a panel attached to the top panel and folded into the box behind the front panel. When the box is opened, the top panel and the tab-carrying panel are pulled out of the box to expose the contents. The tab can then be inserted into a slot on the front panel after the top and tab-carrying panels are folded over the end of the box to reclose the box.

[0011] The structures of the prior art are generally die-cut blanks that must be assembled, folded, and glued by equipment located at a customer's facility before the packages can be filled. The equipment required by a customer for this type of die-cut blank is costly, with such equipment costing well over \$1 million, and the tooling is specific to a given package configuration.

[0012] Embodiments provide a flip-top cigarette box in a knock-down folded carton arrangement, advantageously eliminating the need for the costly, package-specific customer equipment of the prior art. The assembled, folded flip-top box is pre-glued, which allows a customer to run this packaging on standard seal end equipment. Such seal-end equipment is much less expensive than that required by the prior art, less than \$100,000 at the time of the invention, and because this is standard equipment, a customer might already have this equipment in-house, providing a cost effective way to enter a new market.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] **FIG. 1** is a plan view of a blank for a box according to embodiments.

[0014] **FIG. 2** is a top view of a box according to embodiments.

[0015] **FIG. 3** is a front view of a box according to embodiments.

[0016] **FIG. 4** is a right side view of a box according to embodiments.

[0017] **FIG. 5** is a back view of a box according to embodiments.

[0018] **FIG. 6** is a perspective view of a box according to embodiments.

[0019] **FIG. 7** is a perspective view of a box according to embodiments with its top portion flipped back and open.

DESCRIPTION

[0020] With reference to the **FIGS. 1-7**, **FIG. 1** shows a blank 1 for constructing a flip-top cigarette box 10 with a pop-out tab on the inside of the top portion as will be explained below. **FIGS. 2-5** show various views of the closed, constructed box, and **FIGS. 6 and 7** show perspective views of the box in closed and open configurations, respectively.

[0021] Now with particular reference to **FIG. 6**, a flip-top cigarette box 10 according to embodiments has a top portion 12 and a bottom portion 14, the top portion 12 flipping back when the box is opened. The box includes a front panel 20, left and right wall panels 22, 24, a top panel 30, a back panel 40, and a bottom panel 50. The pop-out tab is part of an inner panel 60, a portion of which is affixed to the top panel 30.

When the box is closed, the pop-out tab **66** is hidden within the box **10** and behind the lower portion of the front panel **20**.

[0022] When the box is opened, as seen in **FIG. 7**, the top portion **12** of the box flips back on a hinge line **42** of the back panel **40**, allowing access to the interior of the box. In this position, the pop-out tab **66** is visible below the top portion of the front panel **20**. Embodiments include indicia **67** on the tab **66**, such as advertising or promotional text, graphics, web addresses, or other text or graphics. Embodiments can include a perforation on the fold line **68** or elsewhere along the tab panel **64** to enable easy removal of the tab panel **64** from the box, as to allow a user to retain a coupon or the like printed on the tab panel.

[0023] To construct a knock-down, folded box **10** according to embodiments, a preferred blank **1** as seen in **FIG. 1** is employed. The blank includes the front and back panels **20**, **40** in a side-by-side arrangement, separated by right wall panel **24**. Left wall panel **22** is formed on the left of front panel **20**, bottom panel **50** is formed on the bottom of the front panel **20**, and top panel **30** is formed on the top of front panel **20**. Back panel **40** carries left wall glue flaps **26a**, **26b** on its right, top glue flap **32** on its top, and bottom glue flap **52** on its bottom. The glue flaps **26a**, **26b**, **32**, **52** can include scrimming or roughened portions **27a**, **27b**, **38**, **58** onto which adhesive can be machine applied for assembly. The scrimming or roughened portions retain the adhesive better than smooth flaps would. The right wall panel **24** carries a bottom right dust flap **54** at its bottom and a top right dust flap **34** at its top, and the left wall panel carries a bottom left dust flap **56** at its bottom and a top left dust flap **36** at its top. A perforation line **28** is formed across the front panel **20** and the left and right wall panels **22**, **24** to enable the top portion **12** of the box to be separated and flipped back along crease/fold line **42** on back panel **40**. The pop-out tab **66** is carried on the end of a tab formation **60**, which is formed at the top of the top panel **30**. The tab formation **60** includes a top tab portion **62**, a tab panel **64**, and preferably includes a roughened portion **69** to aid in adhesive retention during assembly.

[0024] To properly place the pop-out tab **66** so that it will be viewable when the box is opened, the tab formation **60** is folded away and down against the back of the blank so that the tab projects below the perforation line **28** of the front panel **20**. The fold line **68** allows the top tab portion **62** to fold with the top panel **30** while the tab panel **64** and the pop-out tab **66** remain in place.

[0025] A preferred method of construction of the box **10** in knock-down folded form can include folding the tab formation **60** against the top panel **30** and the front panel **20** so that the pop-out tab **66** extends below the perforation **28**. Preferably, adhesive is applied to the top tab portion **62** prior to folding so that the top tab portion is glued to the top panel **30**. With the tab formation **60** in place, the back panel **40** is folded against the front panel **20** and right wall panel **24**, applying adhesive to the roughened portions **27a**, **27b** of the wall glue flaps **26a**, **26b**, and the left wall panel is folded onto the adhesive-coated wall glue flaps **26a**, **26b**. This yields the knock-down, folded flip-top cigarette box that can then be shipped to a customer with seal end equipment for completion, filling, and sealing.

[0026] The customer can complete formation of the flip-top box by first compressing left and right edges of the box

to pop the box open, folding the bottom glue flap **52** perpendicular to the back panel **40**, applying adhesive to the roughened portion **58**, folding the bottom wall dust flaps **54**, **56** onto the bottom glue flap **52**, then folding the bottom panel **50** onto the amassed bottom glue flap **52** and bottom wall dust flaps **54**, **56**. The box is completed by folding the top glue flap **32** perpendicular to the back panel **40**, applying adhesive to the roughened portion **38**, folding the top wall dust flaps **34**, **36** onto the top glue flap **32**, then folding the top panel **30** and top tab portion **62** onto the amassed top glue flap **32** and top wall dust flaps **34**, **36**. Alternatively, the top panel **30**, the top glue and dust flaps **32**, **34**, **36**, and top tab portion **62** can be folded and glued before the bottom panel **50** and the bottom glue and dust flaps **52**, **54**, **56**. Product can be inserted into the box at some point between compressing the edges to pop the box open and folding the last of the top and bottom glue flaps **32**, **52**.

[0027] It will be appreciated that various of the above-disclosed and other features and functions, or alternatives thereof, may be desirably combined into many other different systems or applications. Also that various presently unforeseen or unanticipated alternatives, modifications, variations or improvements therein may be subsequently made by those skilled in the art which are also intended to be encompassed by the following claims.

What is claimed is:

1. A flip-top cigarette box blank comprising:

- a front panel;
- a left wall panel formed on a left edge of the front panel;
- a right wall panel formed on a right edge of the front panel;
- a back panel formed on a right edge of the right wall panel;
- at least two left wall glue flaps formed on a tight edge of the back panel;
- a bottom glue flap formed on a bottom edge of the back panel;
- a top glue flap formed on a top edge of the back panel;
- a bottom panel formed on a bottom edge of the front panel;
- a top panel formed on a top edge of the front panel;
- a tab formation formed on a top edge of the top panel, the edges comprising fold lines; and
- a perforation formed across the front panel and the left and right wall panels and meeting a fold line formed on the back panel.

2. The box blank of claim 1 wherein the tab formation comprises:

- a top tab portion extending from the top edge of the top panel;
- a tab panel extending from a top edge of the top tab portion; and
- a pop-out tab extending from a top edge of the tab panel.

3. The box blank of claim 1 further comprising at least one roughened portion formed on at least one of the left wall glue flaps, the top glue flap, the bottom glue flap, and the top tab portion.

4. The box blank of claim 1 further comprising:

a top right dust flap formed on a top edge of the right wall panel;

a bottom right dust flap formed on a bottom edge of the right wall panel;

a top left dust flap formed on a top edge of the left wall panel; and

a bottom left dust flap formed on a bottom edge of the left wall panel.

5. A flip-top cigarette box comprising:

a top portion;

a bottom portion;

front, back, right and left wall, top, and bottom panels;

a perforation extending across the front, right wall, and left wall panels and dividing them into top and bottom portions;

a fold line across the back panel, ends of the fold line intersecting ends of the perforation, thereby enabling flipping back of the top portion of the box by separating the perforation and folding the top portion back on the fold line; and

a tab formation, at least a top tab portion of which is attached to an interior surface of the top panel, at least a tab panel of the tab formation following an interior surface of the top portion of the front panel, and at least a pop-out tab of the tab formation projecting below the perforation in the front panel and following at least a portion of an interior surface of the bottom portion of the front panel.

6. The flip-top cigarette box of claim 5 wherein:

the left and right wall panels are formed on respective left and right edges of the front panel;

the back panel is formed on one of a right edge of the right wall panel and a left edge of the left wall panel;

the top panel is formed on a top edge of the front panel; and

the bottom panel is formed on a bottom edge of the front panel.

7. The flip-top cigarette box of claim 6 further comprising at least two wall glue flaps formed on an edge of the back panel opposite the edge joined to the one of the left and right wall panels.

8. The flip-top cigarette box of claim 6 further comprising at least one of a top glue flap and a bottom glue flap formed on respective edges of the back panel.

9. The flip-top cigarette box of claim 6 further comprising at least one of:

top right and left wall dust flaps formed on respective top edges of the right and left wall panels; and

bottom right and left wall dust flaps formed on respective bottom edges of the right and left wall panels.

10. A method of constructing a knock down, folded, flip-top cigarette box comprising:

providing a box blank with:

front, back, right and left wall, top, and bottom panels;

a perforation extending across the front, right wall, and left wall panels and dividing them into top and bottom portions;

a fold line across the back panel, ends of the fold line intersecting ends of the perforation, thereby enabling flipping back of the top portion of the box by separating the perforation and folding the top portion back on the fold line; and

a tab formation, at least a top tab portion of which is attached to an interior surface of the top panel, at least a tab panel of the tab formation following an interior surface of the top portion of the front panel, and at least a pop-out tab of the tab formation projecting below the perforation in the front panel and following at least a portion of an interior surface of the bottom portion of the front panel; and

folding the tab formation along the top edge of the top panel so that the tab formation lies against the top panel and the front panel.

11. The method of claim 10 wherein:

providing a box blank further comprises:

providing the top panel along a top edge of the front panel;

providing the right and left wall panels along respective right and left edges of the front panel;

providing the back panel along a right or left edge of a respective one of the right and left wall panels; and

providing at least one wall glue flap on an edge of the back panel opposite the edge adjoining the one of the right and left wall panels; and

constructing further comprises:

joining the at least one wall glue flap on the back panel with the other of the right and left wall panels.

12. The method of claim 11 wherein joining the wall flap comprises:

folding the back panel along the edge of the one of the right and left wall panels so that it is adjacent the one of the right and left wall panels and the front panel;

applying adhesive to the at least one wall glue flap; and

folding the other of the right and left wall panels onto the at least one wall glue flap to form the knock down folded flip top box.

13. The method of claim 12 further comprising shipping the knock down folded flip top box to a customer, the customer completing assembly into an unfolded flip-top box.

14. The method of claim 13 further comprising compressing right and left edges of the knock down folded flip top box to pop the box open, folding one of the top and bottom glue flaps substantially perpendicular to the back panel, applying adhesive to the one of the top and bottom glue flaps, folding a corresponding pair of the top and bottom wall dust flaps

onto the one of the top and bottom flaps, folding a corresponding one of the top and bottom panels onto the amassed dust and glue flaps, folding the other of the top and bottom glue flaps substantially perpendicular to the back panel, applying adhesive to the other of the top and bottom glue

flaps, folding a corresponding pair of the top and bottom wall dust flaps onto the other of the top and bottom glue flaps, and folding a corresponding one of the top and bottom panels onto the amassed dust and glue flaps.

* * * * *