United States Patent

[11] **3,567,014**

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[73] Assignee **The Churchill Company, Inc.**

[54] **TRAY FOR SHIPPING AND DISPLAYING MERCHANDISE**
10 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **206/44,** 229/34
[51] **Int. Cl.** **B65d 5/50**
[50] **Field of Search** ..... 206/44, 47, 45, 45.28, 45.3; 229/16 (D), 34

[56] **References Cited**
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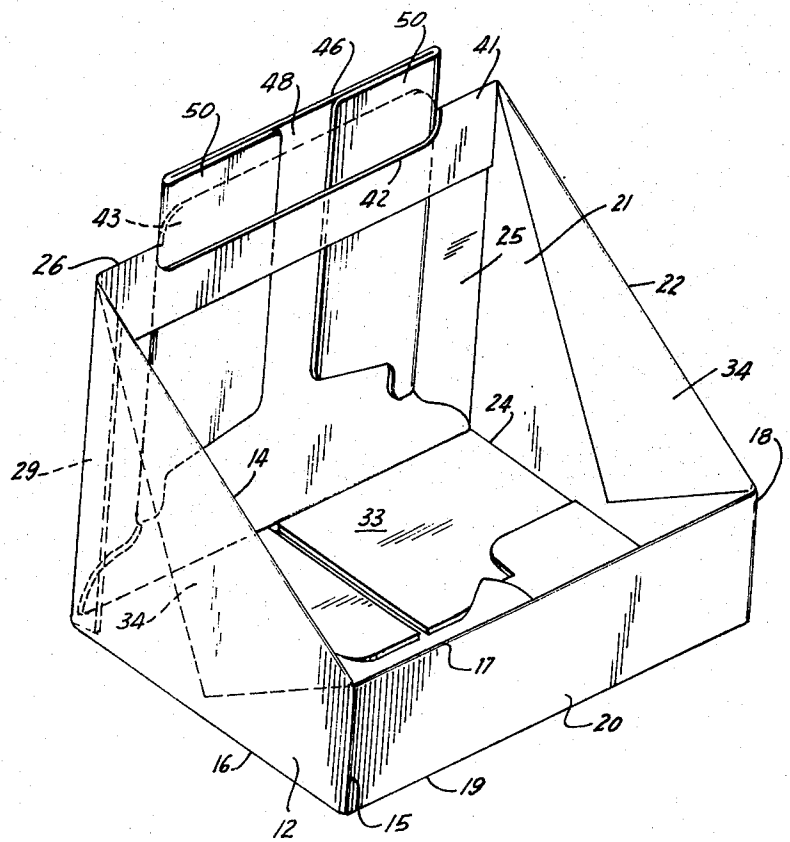
ABSTRACT: Open-topped tray has flap hinged to upper edge of its rear wall, flap being folded down parallel to face of rear wall. Slot extends along hinge line. A display slide is arranged between the flap and rear wall, and in shipping position a portion of the slide projects through the slot. Slide movable upwardly to display position wherein its lower margin is sandwiched between the flap and rear wall to maintain the slide erect.



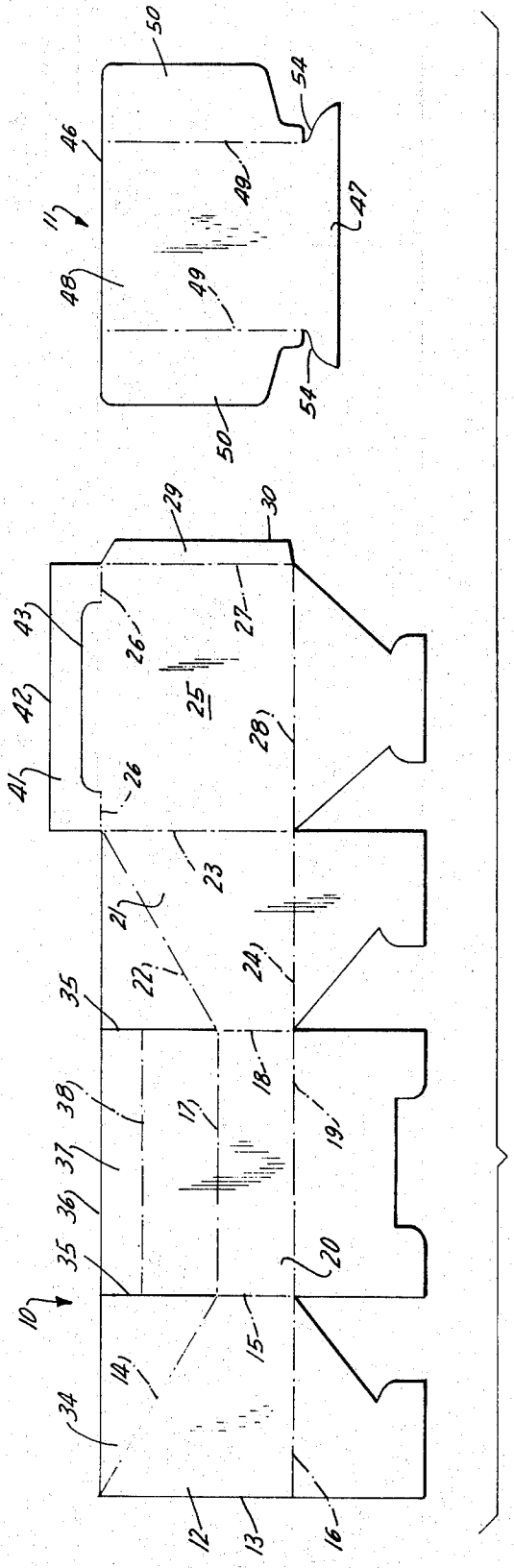


FIG. 1

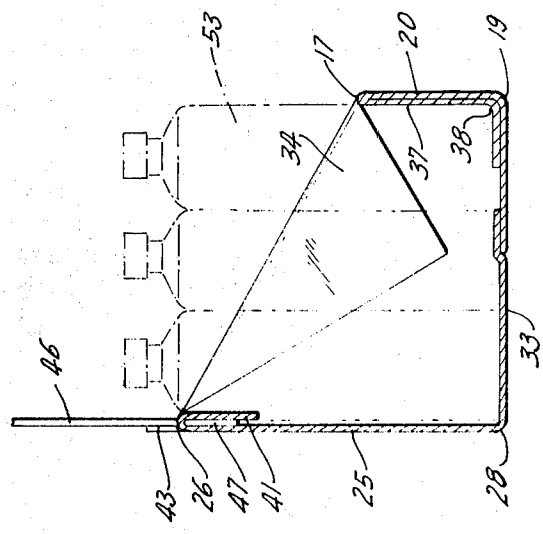


FIG. 4

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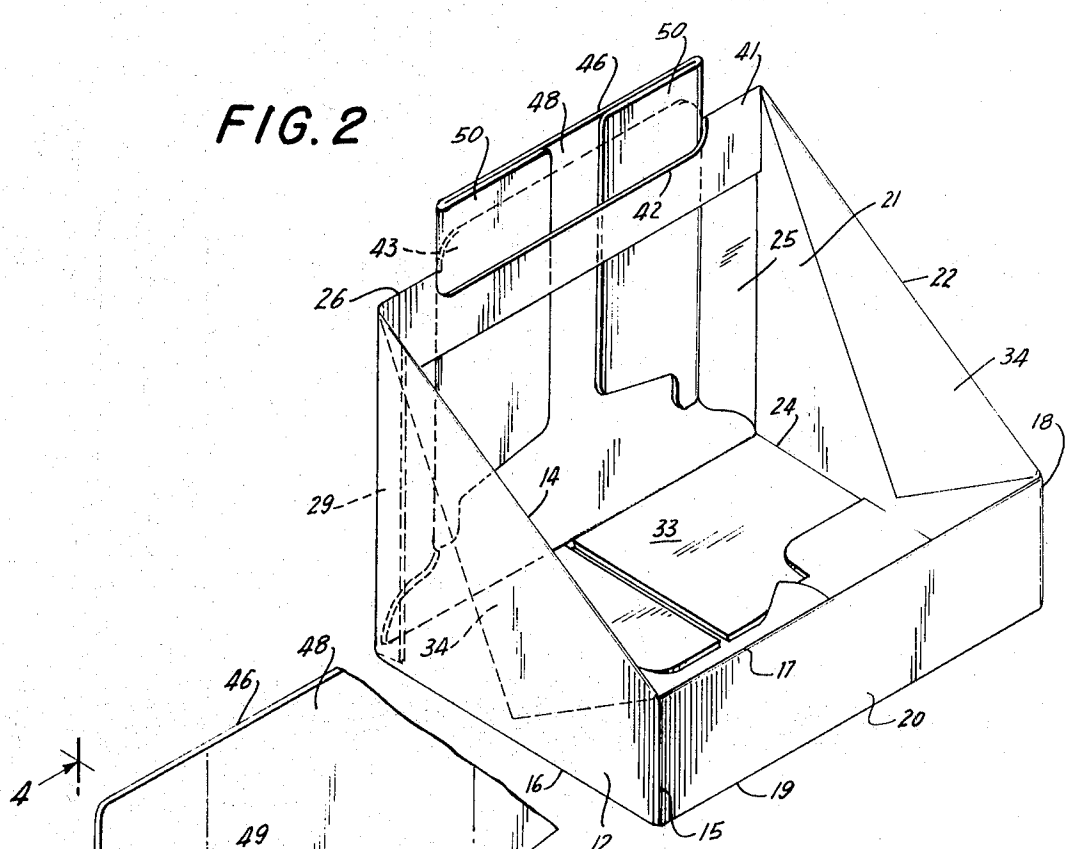
FIG. 2



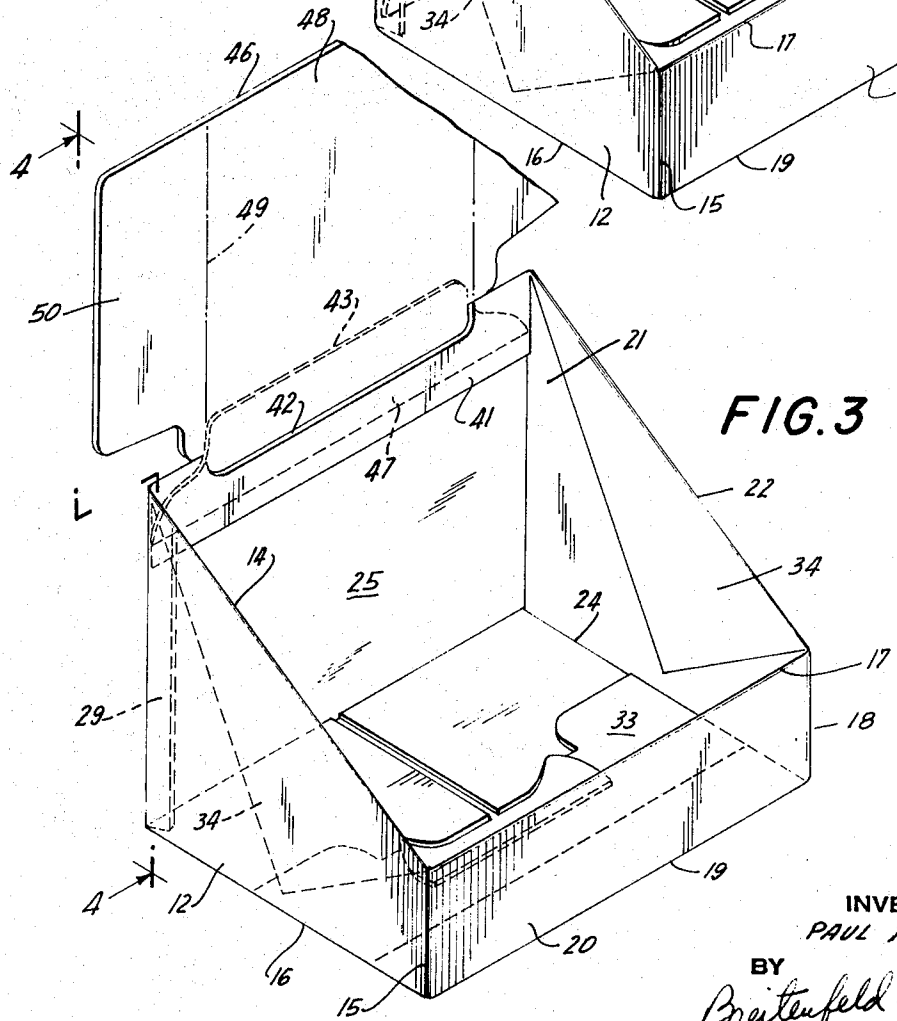


FIG. 3

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TRAY FOR SHIPPING AND DISPLAYING MERCHANDISE

This invention relates to merchandise containers, and more particularly to such containers within which merchandise is packed for shipment to, and display at, the place where it is sold.

Shipping and display containers are known which incorporate display panels bearing advertising matter intended to attract prospective purchasers. These containers are usually provided with covers hinged to the container rear wall; at the retail location, the container is opened, and the cover folded in half and its free end tucked behind the merchandise to create an upstanding display panel.

This conventional construction creates a number of problems. For example, due to the necessary shape of the blank from which such a container is formed, there is inevitably an extensive waste of the sheet material from which the blank is cut. Also, many retailers have difficulty setting up the display panel, and as a result they are sometimes set up in an unattractive manner or not at all.

It is an object of this invention to overcome these problems by providing a merchandise tray formed from a blank which permits extremely efficient use of the sheet material from which the blanks are cut, and including a display panel shiftable from its shipping condition to its display condition by a single upward pulling motion.

These and other objects are achieved according to this invention by providing an open-topped tray having interconnected bottom, side, front, and rear walls. A flap is hinged to the upper edge of the rear wall and folded down parallel to one face, preferably the front face, of the rear wall. A slot extends along part of the length of the hinge line. A separate display slide is arranged between the rear wall and flap. In its shipping position, the lower edge of the slide rests on the tray bottom wall, and an upper portion projects through the slot. When desired, the slide is shifted to its display position simply by pulling it upwardly through the slot, this movement being limited by the lower margin of the slide which is wider than the slot. The slide is maintained erect while in its display position due to its lower margin being sandwiched between the flap and rear wall.

Additional features and advantages of the invention will be apparent from the following description in which reference is made to the accompanying drawings.

In the drawings:

FIG. 1 is a face view of the blanks from which a tray and display slide according to this invention may be formed;

FIG. 2 is a perspective view of the tray with the slide in shipping condition;

FIG. 3 is a similar view with the slide in display position; and

FIG. 4 is a cross-sectional view taken along line 4–4 of FIG. 3.

The merchandise tray chosen to illustrate the present invention is formed from the blanks shown in FIG. 1, the blanks being cut from any suitable sheet material, such as cardboard. Blank **10** is used to produce the tray proper, and blank **11** defines the display slide.

Blank **10** is provided with a number of slits, indicated by solid lines, and a number of score lines, indicated by broken lines, which divide the blank into several areas defining different parts of the tray. Thus, beginning at the left end of blank **10** in FIG. 1, one tray sidewall **12** is defined by the cut edge **13**, and score lines **14**, **15**, and **16**. The tray front wall **20** is defined by the score lines **15**, **17**, **18**, and **19**, the other sidewall **21** is defined by the score lines **18**, **22**, **23**, and **24**, the rear wall **25** is defined by the score lines **23**, **26**, **27**, and **28**, and a connection flap **29** is defined by the score line **27** and cut edge **30**.

The four panels hinged to the lower edges of sidewalls **12** and **21**, front wall **20**, and rear wall **25**, along score lines **16**, **24**, **19**, and **28**, respectively, interlock to define the bottom wall **33** of the tray. Triangular flaps **34**, connected to sidewalls **12** and **21**, are defined by slits **35**, cut edge **36**, and score lines **14** and **22**, respectively. Between the triangular flaps **34** is a rectangular flap **37**, connected to front wall **20**, defined by the cut edge **36**, slits **35** and score line **17**, and having an intermediate score line **38**. Score lines **19** and **38** are equidistant from score line **17**.

Connected to the upper edge of rear wall **25**, along score line **26**, is a flap **41**, defined on three sides by cut edges **42**. Preferably, score line **26** extends for only short distances from each end of flap **41**, and these short lengths meet the ends of an inverted U-shaped slit **42** extending into the flap **41**. Slit **42** defines an extension **43** projecting upwardly from rear wall **25**, and also defines a slot when flap **41** is folded down toward rear wall **25**, the slot being colinear with score line **26**.

Display slide **46**, formed from blank **11**, includes a lower margin **47** about equal in width to the width of rear wall **25**. The lower margin merges into a central main panel **48** of the slide, the width of the main panel being a little smaller than the length of the slot between flap **41** and rear wall **25**. Hinged to each side of the main panel **48**, along vertical score lines **49**, are auxiliary panels **50**.

The blank **10** is received by the merchandise packer in flattened condition with rear wall **25** folded along score line **23** against sidewall **21**, sidewall **12** folded along score line **15** against front wall **20**, and connection flap **29** glued to the inner face of sidewall **12**. The tray is then set up as shown in FIG. 2 with the four walls **12**, **20**, **21**, and **25** in mutually perpendicular relation, and the panels forming the bottom wall **33** interlocked. Flap **37** is folded inwardly along score line **17** to overlap the inner face of front wall **20** (see FIG. 4), and its margin is bent upwardly along score line **38** to overlie the bottom wall **33**. Flaps **34** are also folded inwardly along score lines **14** and **22** to overlap the inner faces of sidewalls **12** and **21**, respectively. Flaps **34** and **37** are, of course, not essential, but they do enhance the strength and appearance of the upper edges of the tray front and sidewalls.

Flap **41** is then folded downwardly toward a position parallel to the inner face of rear wall **25**. At the same time, display slide **46**, the auxiliary panels **50** of which have been folded against one face of the main panel **48**, is inserted through the slot defined by slit **42**. The parts are arranged, as shown in FIG. 2, with the lower edge of slide **46** resting on the bottom wall **33**, slide **46** parallel to and in face-to-face contact with rear wall **25**, and sandwiched between wall **25** and flap **41**, and the upper portion of slide **46** projecting through the slot and extending above the top of rear wall **25**. Merchandise, in the present example bottles **53** (FIG. 4), is then packed in the tray. The bottles fit snugly within the tray, and hence the bottles in the back row press flap **41** toward rear wall **25**. For shipment, the merchandise-filled tray is slipped sideways into a sleeve (not shown) which covers its top, bottom, front, and rear. Since the height of the sleeve is about equal to the height of the bottles **53**, the height of slide **46** should be no greater than the height of the bottles, so that the slide fits into the sleeve when the slide is in its shipping position as shown in FIG. 2.

When the tray reaches the retailer, it is slid out of the sleeve to expose the merchandise. Then, to expose the display slide **46**, the top of the latter is grasped and simply pulled upwardly. No other manipulation of the tray or slide is required. The upward movement of the slide terminates when the shoulders **54** of the lower margin **47** engage the inner surface of the hinge between flap **41** and rear wall **25** (FIG. 3). At this point, the lower edges of the auxiliary panels **50** clear both the edge of slit **42** and the folded upper edge **26** of the rear wall **25**, and hence these panels swing away from the main panel **48**, due to the inherent resilience of the sheet material of which the slide is formed. Thus, any advertising matter carried by the front face of display slide **46** becomes visible, and is located above the height of the merchandise in the tray. The slide **46** remains erect because its lower margin **47** is tightly sandwiched between rear wall **25** and flap **41**. Further support is provided by extension **43** which is in face-to-face contact with the rear face of the slide.

It should be pointed out that this invention provides a merchandise container with a raised display panel, but which nevertheless makes efficient use of the sheet material from which the parts are cut. Thus, referring again to FIG. 1, it will be appreciated that if the blank 11 is rotated through 90° and placed against one end of blank 10, both blanks fill a substantially rectangular area, and hence successive sets of blanks may be located very close to each other on large sheets from which they are cut. Consequently, a very small proportion of the material of the large sheets becomes waste.

The invention has been shown and described in preferred form only, and by way of example, and it is understood, therefore, that many variations may be made in the invention which will still be comprised within its spirit.

I claim:

1. A merchandise tray within which merchandise may be packed for shipment and thereafter displayed without removing the merchandise from the tray, comprising interconnected bottom, side, front, and rear walls, said tray having an open top, a flap hinged to the upper edge of said rear wall and folded down substantially parallel to one face of said rear wall, said flap being located in its folded down position during both shipment and display of merchandise in the tray, a slot extending along the hinge line between said flap and rear wall, and a display slide arranged parallel to said rear wall and located between said rear wall and said flap, a portion of said slide projecting through said slot when said slide is in its shipping position, and said slide being movable upwardly through said slot to a display position wherein its lower margin is located between said flap and rear wall, said flap and rear wall serving to maintain said slide erect.

2. A merchandise tray as defined in claim 1 wherein said flap is folded toward the front face of said rear wall, and said slide is located between said flap and the front face of said rear wall.

3. A merchandise tray as defined in claim 2 wherein the merchandise within the tray engages said flap and urges it toward said rear wall so as to snugly sandwich said slide between said flap and rear wall.

4. A merchandise tray as defined in claim 1 wherein the width of the lower margin of said slide is substantially equal to the width of said rear wall, but the remainder of said slide at least when in shipping position is narrower than said rear wall.

5. A merchandise tray as defined in claim 1 including an extension integral with said rear wall and projecting above the hinge line between said flap and rear wall, said extension serving to help maintain said slide erect when the latter is in its display position.

6. A merchandise tray as defined in claim 5 wherein said flap and rear wall are formed integrally, and said slot is defined by a slit extending from said hinge line into said flap, whereby when said flap is folded down the region bordered by said slit remains unbent and defines said extension.

7. A merchandise tray as defined in claim 1 including additional flaps hinged to the upper edges of said front and sidewall, each of said additional flaps being folded against the inner face of its respective wall.

8. A merchandise tray as defined in claim 1 wherein said display slide includes a main panel, and an auxiliary panel hinged to said main panel, said auxiliary panel being folded against said main panel when said slide is in its shipping position, and said auxiliary panel terminating above the lower margin of said slide, whereby when said slide is moved to its display position said auxiliary panel may be swung away from said main panel.

9. A merchandise tray as defined in claim 1 wherein the height of said display is substantially equal to the height of the merchandise packed in the tray.

10. A merchandise tray as defined in claim 1 wherein said bottom, side, front, and rear walls, and said flap are all integrally formed from a single blank of sheet material, and said slide is a separate element of sheet material.