

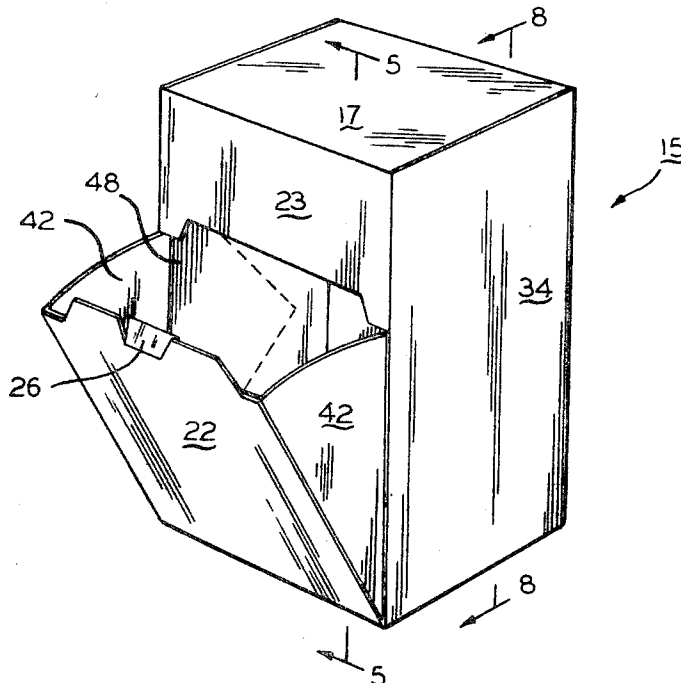
[72] Inventors **John D. Desmond;**
Joseph J. Hart, both of Philadelphia, Pa.
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 [73] Assignee **Container Corporation of America**
Chicago, Ill.

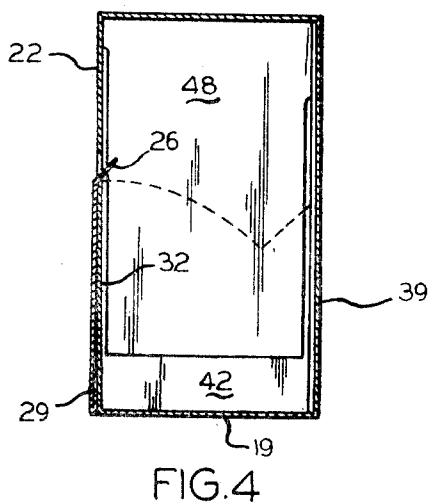
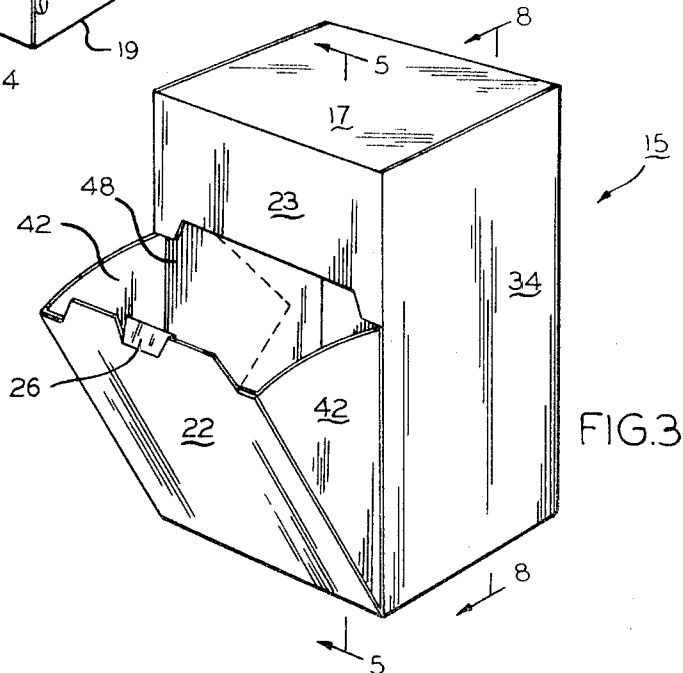
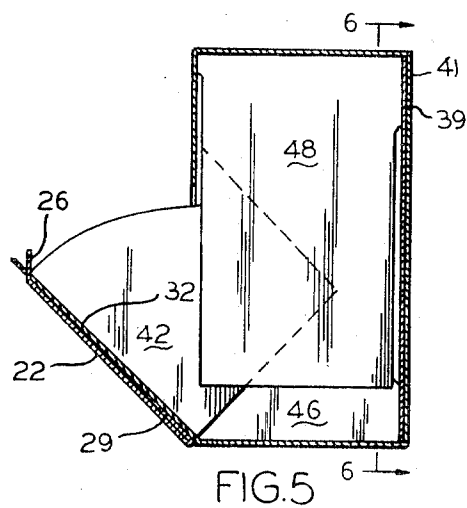
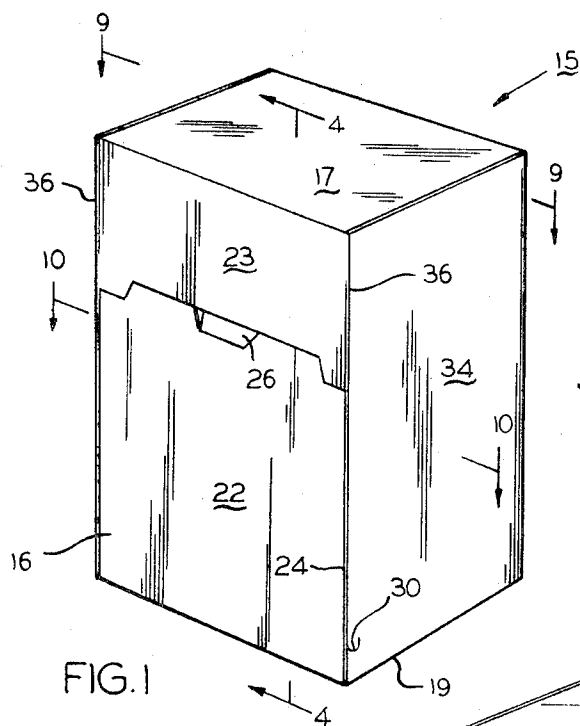
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Primary Examiner—Casmir A. Nunberg
Attorney—Carpenter, Ostis & Lindberg

[54] **DISPENSER BIN CARTON**
5 Claims, 12 Drawing Figs.

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 229/7
 [51] Int. Cl..... B65d 1/22,
 B65d 5/42
 [50] Field of Search..... 312/258,
 294, 296, 326, 329; 229/17 B

ABSTRACT: A dispenser bin carton formed from a cut and scored blank and characterized by front, back, top, bottom and opposed side panels, the front panel being separable into a fixed portion and a movable bin front portion, the latter being reinforced by a locking panel glued thereto and having bin side panels extending therefrom movable between reinforcing flaps extending from the top and bottom panels to prevent product interference with opening and closing.





INVENTORS
JOHN J. DESMOND
JOSEPH J. HART

BY *Carpenter, Oster & Luedberg*
ATTORNEYS

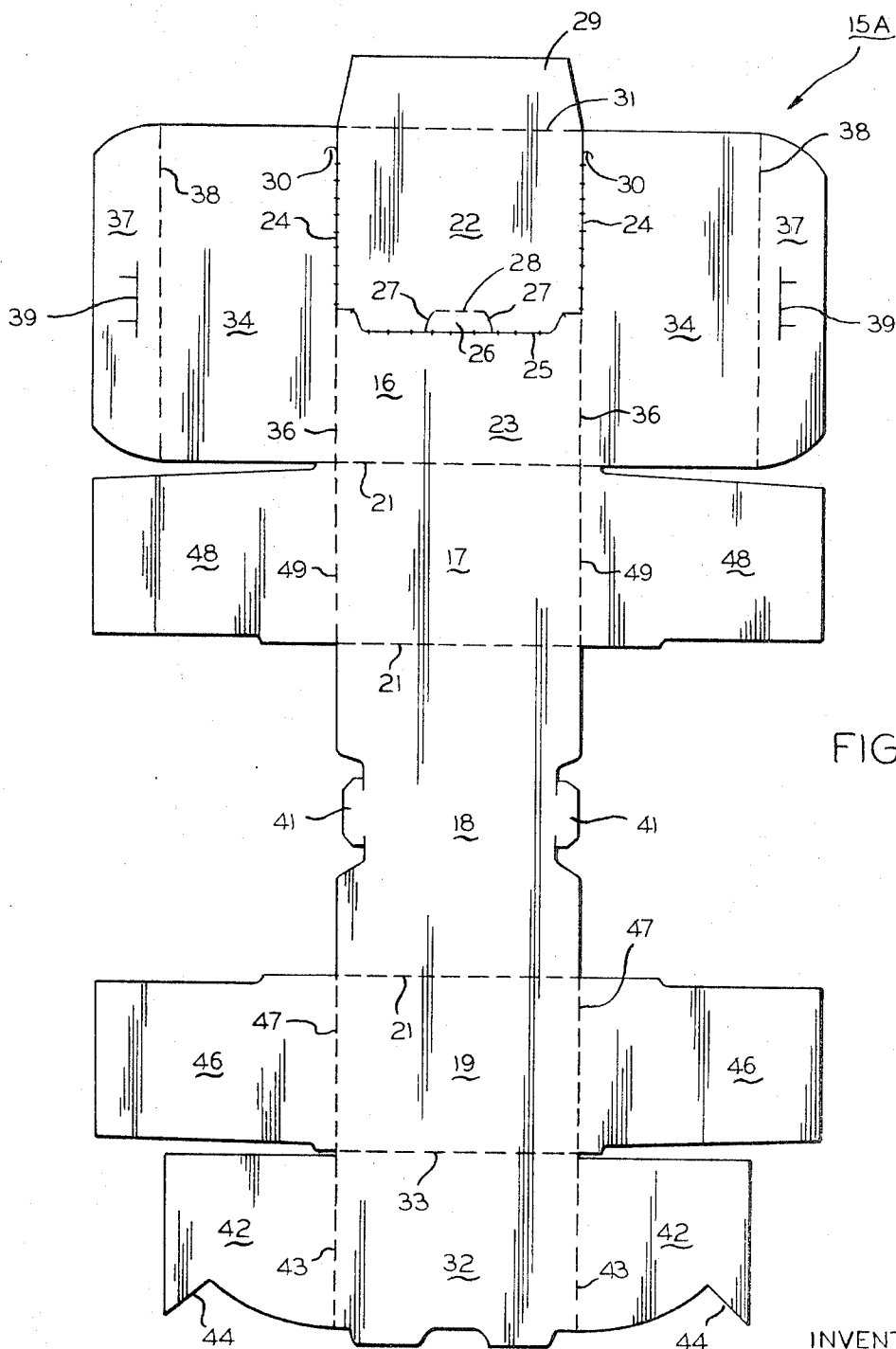
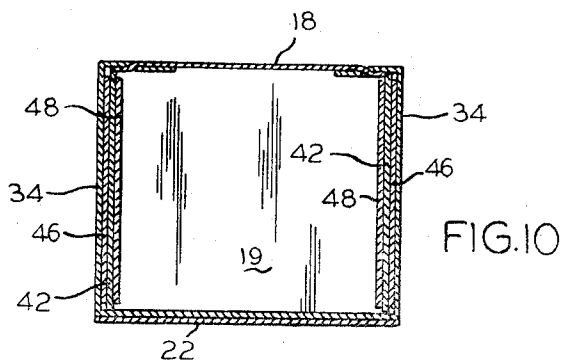
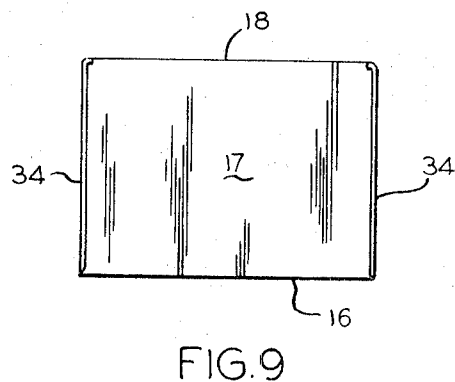
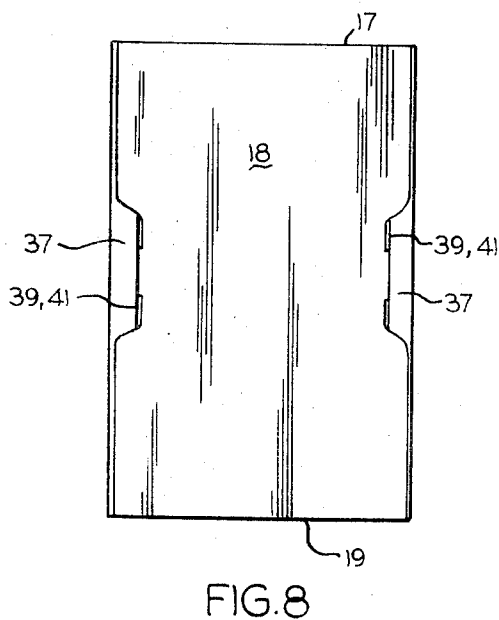
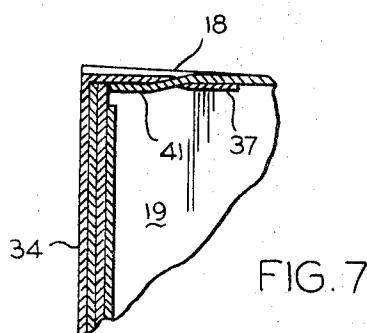
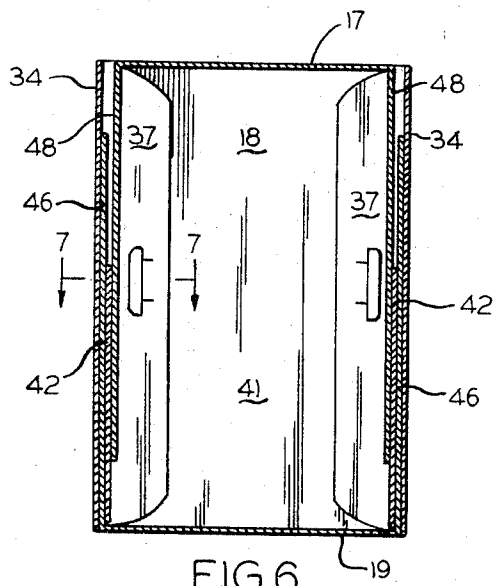


FIG. 2

INVENTORS
JOHN J. DESMOND
JOSEPH J. HART
BY *Carpenter, Oster & Lindberg*
Attorneys



INVENTORS
JOHN J. DESMOND
JOSEPH J. HART
BY *Carpenter, Oster,
& Lindberg*
77745

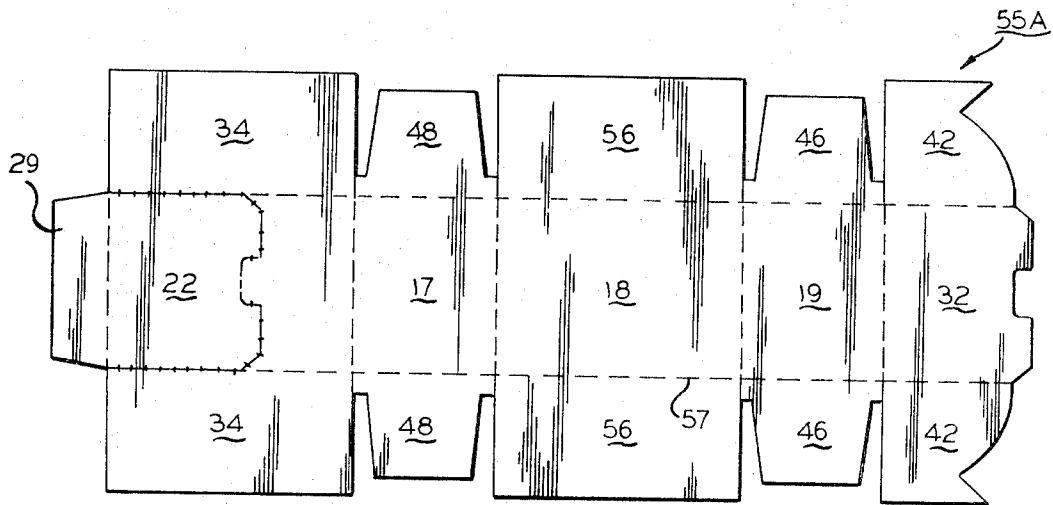


FIG. 11

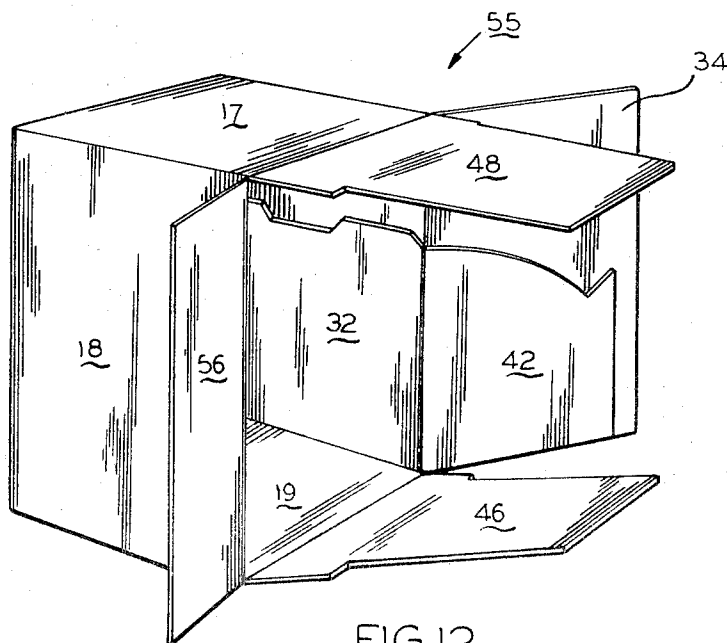


FIG. 12

INVENTORS
JOHN J. DESMOND
JOSEPH J. HART
BY *Carpenter, Orlin & Lundberg*
ELL45

DISPENSER BIN CARTON

It is an object of this invention to provide a dispenser bin carton having a bin front movable between a closed bin position and a bin delivery position, and characterized by bin sides movable between carton flaps in such a fashion that the product within the carton does not interfere with bin opening and closing.

Another object is to provide a dispenser bin carton formed from a unitary cut and scored blank, and characterized by a bin front having a double thickness for the reinforcement thereof.

Yet another object is to provide a dispenser bin carton characterized by a movable bin front which is formed as a part of the front panel of the carton, the panel being adapted to be separated into a fixed portion and into a movable portion forming part of the movable bin, the movable bin front having a double thickness for reinforcement thereof.

DRAWINGS

FIG. 1 is an isometric view of a dispenser bin carton having the improvements according to the present invention embodied therein;

FIG. 2 is a plan view of the inside face of a unitary cut and scored blank for forming the carton of FIG. 1;

FIG. 3 is an isometric view similar to FIG. 1, showing the dispenser bin thereof in a position for delivery of the contents of the carton; FIG. 4 is a vertical sectional view looking in the direction of the arrows 4-4 of FIG. 1;

FIG. 5 is a vertical section looking in the direction of the arrows 5-5 of FIG. 3;

FIG. 6 is a sectional view looking in the direction of the arrows 6-6 of FIG. 5;

FIG. 7 is a detailed sectional view taken along the line 7-7 of FIG. 6 looking in the direction of the arrows;

FIG. 8 is a rear elevational view of the carton seen in FIGS. 1 and 3 looking in the direction of the arrows 8-8 of FIG. 3;

FIG. 9 is a top plan view of the carton looking in the direction of the arrows 9-9 of FIG. 1;

FIG. 10 is a horizontal section looking in the direction of the arrows 10-10 of FIG. 1;

FIG. 11 is a plan view of a unitary cut and scored blank for forming a dispenser bin carton according to another embodiment of the invention; and

FIG. 12 is an isometric view showing the steps in forming the carton according to the second embodiment of the invention.

The dispenser bin carton according to a first embodiment of the invention is referred to by the reference numeral 15 and is formed from a unitary cut and scored blank 15A seen in FIG. 2. The carton 15 and blank 15A seen in FIGS. 1 and 2 are comprised of a front panel 16, a top panel 17, a back panel 18, and a bottom panel 19 all of which are hingedly connected to each other along score lines 21.

Front panel 16 is divided into a movable bin front portion 22 and a fixed front panel portion 23, the former being defined by parallel cut and nicked lines 24 and a transversely cut and nicked line 25 extending across the front panel 16 and between the cut and nicked lines 24. An opening tab 26 for the bin front portion is defined by spaced cut lines 27 and a score line 28 parallel to the cut and nicked line 25.

A glue flap 29 is hingedly connected to the movable bin front portion 22 along a score line 31, and a bin front reinforcing panel 32 is hingedly connected at the other end of the blank 15A seen in FIG. 2 to the bottom panel 19 along a score line 33.

It may be noted at this point that the inside face of the cut and scored blank 15A is shown in FIG. 2. Glue flap 29 is glued to the inside face of the bin front reinforcing panel 32, see also FIG. 4, score lines 31 and 32 being substantially in register. Bin front-reinforcing panel 32 is also glued to the movable bin front portion 22 adjacent score line 21.

Front panel 16 is hingedly connected to side panels 34 along parallel score lines 36. In order to provide for hinging movement of the movable bin front portion 22, the cut and nicked lines 24 are each provided at the ends thereof with a hinging nick 30 extending into side panel 34. It may be noted that cut and nicked line 24 is coterminous with the score lines 36.

Each of the side panels 34 is provided with a tuck-in flap 37 hingedly connected to side panel 34 along a score line 38, and each of the tuck-in flaps 37 is provided with a lock slot arrangement 39 cooperating with lock tabs 42 formed at each side of the back panel 18.

Bin side panels 47 are foldably connected to the bin front-reinforcing panel 32 along score lines 43, and each bin side panel 42 has a strike 44 adapted to engage with the inner face of the fixed front panel portion 23 when the carton 15 is assembled and in the delivery position seen in FIG. 3.

Stiffener flaps 46 for carton are foldable upward with respect to the bottom panel 19 along score lines 47, and upper stiffener flaps 48 are hingedly connected to the top panel 17 along score lines 49 and are foldable downward alongside stiffener flaps 46.

In the steps of forming the carton according to this embodiment of the invention, glue flap 29 is glued to both the bin front panel 22 and the bin front reinforcing panel 32 to provide a carton sleeve. After the sleeve is formed in the manner described, flaps 48 are folded downward along score lines 49 into position. Bin side panels 42 are then folded into position along their score lines 43 into position alongside the folded down stiffener flaps 48 extending downward from the top panel 17. Lower stiffener flaps 46 are folded upward along their score lines 47 from the bottom panel 19 along the inside of the bin side panels 42. Closing of the carton is completed by folding of the side panels 34 with respect to the front panel 16 along the cut and nicked lines 24 and score lines 36, side panels 34 being secured to the back panel 18 by tuck-in flaps 37 at the lock slot 39 and lock tab connections 41. The carton is now in position ready for dispensing by movement of the bin front panel 22 to the position seen in FIG. 3.

Referring now to FIGS. 11 and 12, there is shown another embodiment of the invention where closing of the sides of the carton is achieved by an extra outer glue flap as will be described. The carton according to this embodiment of the invention is referred to by the reference numeral 55 in FIG. 12, and is formed from a cut and scored blank 55A seen in FIG. 11. The construction of the carton seen in FIG. 12 is identical to the construction of the carton seen in FIG. 1 except that tuck-in flaps 37 are dispensed with. In lieu thereof side panels 56 are hingedly connected to the rear wall along score lines 57.

In forming the carton according to the second embodiment of the invention upper stiffener flap 48 is first folded into position and bin side panel 42 then folded into position against the folded down upper stiffener flap 48. As with the embodiment seen in FIG. 1, stiffener flap 46 is folded upward with respect to bottom panel 19 against the bin side panel 42. Side panel 56 is then folded against the positioned panels 42, 46, and 48 and side panel 34 is then folded against side panel 56 the latter being glued to side panel 56. The structure according to either embodiment of the invention prevents product interference in opening and closing of the bin front panel 22, the bin side panels 42 always moving between panels in such a fashion that the bin side panels are isolated from the contents of the carton.

An important factor of the invention is the fact that the movable bin front portion has a double thickness preventing bowing when opening and closing.

I claim:

1. A dispenser bin carton formed from a cut and scored paperboard blank comprising:
 - a. front, back, top and bottom panels hingedly connected to each other to define front and rear walls and a carton top and bottom;
 - b. said front panel being divided into a fixed portion and a movable bin front portion;

- c. a bin front-reinforcing panel hingedly connected to said bottom panel and secured to the back face of said movable bin front portion;
- d. a pair of side panels foldably connected to said blank and foldable to position to define side walls of said carton; including means for securing said side panels to said rear wall;
- e. bin side panels connected to said bin front reinforcing panel and foldable with respect thereto along correlative inside faces of said side panels;
- f. flaps extending from said top and bottom panels and foldable with respect thereto into facing relationship along the inner face of said side panels;
- g. said bin side panels extending between said flaps to prevent interference by the product within said carton during movement of said movable bin front portion, said reinforcing panel and said bin side panels to open and close position of said carton.

2. A dispenser bin carton according to claim 1, wherein said bin side panels have strike extensions therefrom engageable with said front panel fixed portion to limit movement of said movable bin front portion.

3. A dispenser bin carton according to claim 1, wherein said side panels are foldable with respect to said front panel and wherein said side panels are each provided with a hinging nick therein to restrain the movement of said movable bin front portion.

4. A dispenser bin carton according to claim 1, wherein said side panels have flaps connected thereto and provided with locking means in locking relationship with cooperating locking means on said back panel.

5. A dispenser bin carton according to claim 1, wherein said back panel has flaps extending therefrom foldable into position and secured to said bin side panels.

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