United States Patent [19]

Buttery

[11] **3,777,957**

[45] **Dec. 11, 1973**

[54] **DISPENSING CARTON**

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[73] Assignee: **Brown Company**, Kalamazoo, Mich.

[22] Filed: **Aug. 2, 1972**

[21] Appl. No.: **277,374**

[52] **U.S. Cl.** ..... **225/50**, 206/58, 229/17 S

[51] **Int. Cl.** **B26f 3/02**

[58] **Field of Search** ..... 225/50, 48, 49; 206/58; 229/17 S

[56] **References Cited**

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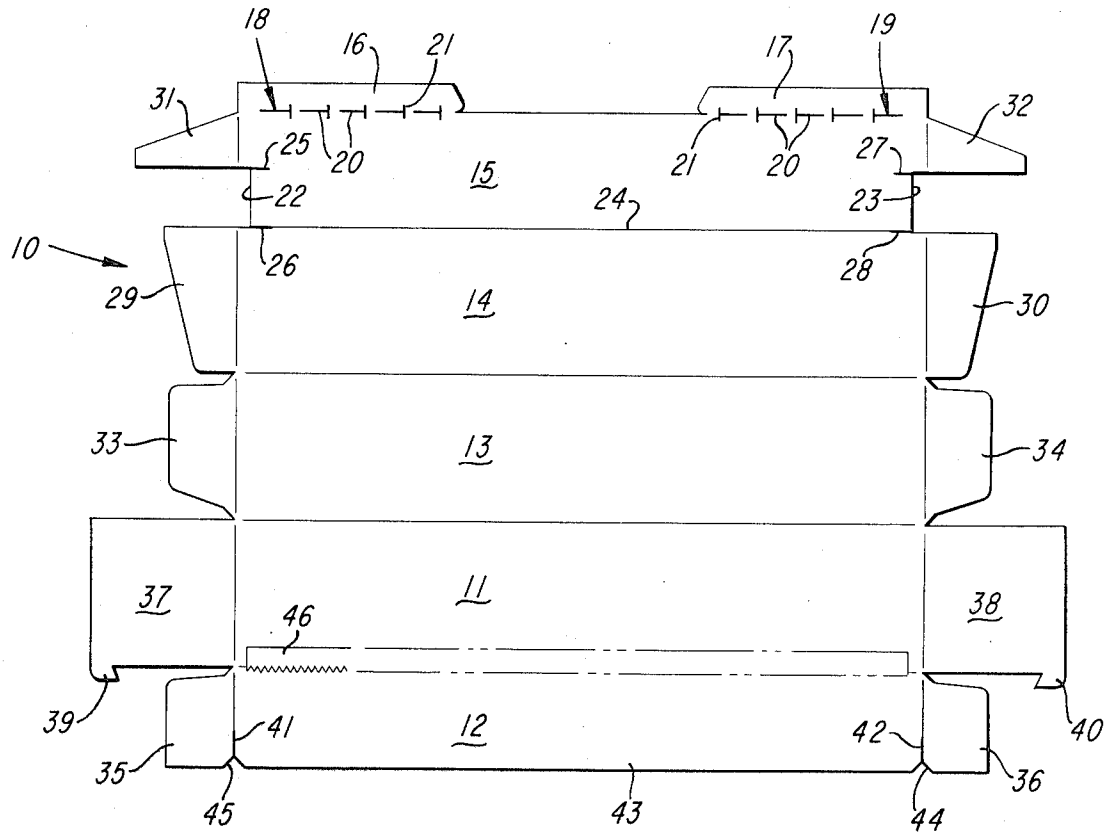
Primary Examiner—Frank T. Yost

Attorney—Gordon W. Hueschen et al.

[57] **ABSTRACT**

A paperboard carton for packaging and dispensing from a roll stock a sheet-form material such as film, foil, or the like, comprises a hinged cover member provided with notches in the cover front panel thereof and with projecting lock tabs on the carton body which lock tabs project through and engage said notches.

10 Claims, 6 Drawing Figures



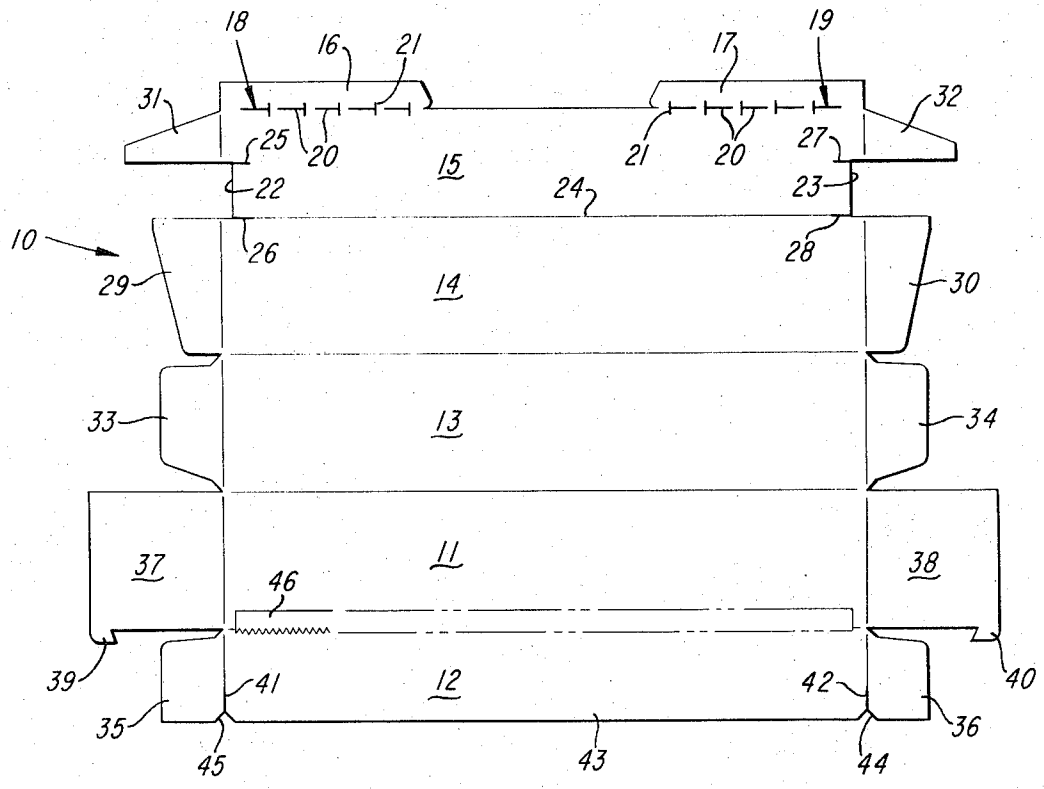


figure 1

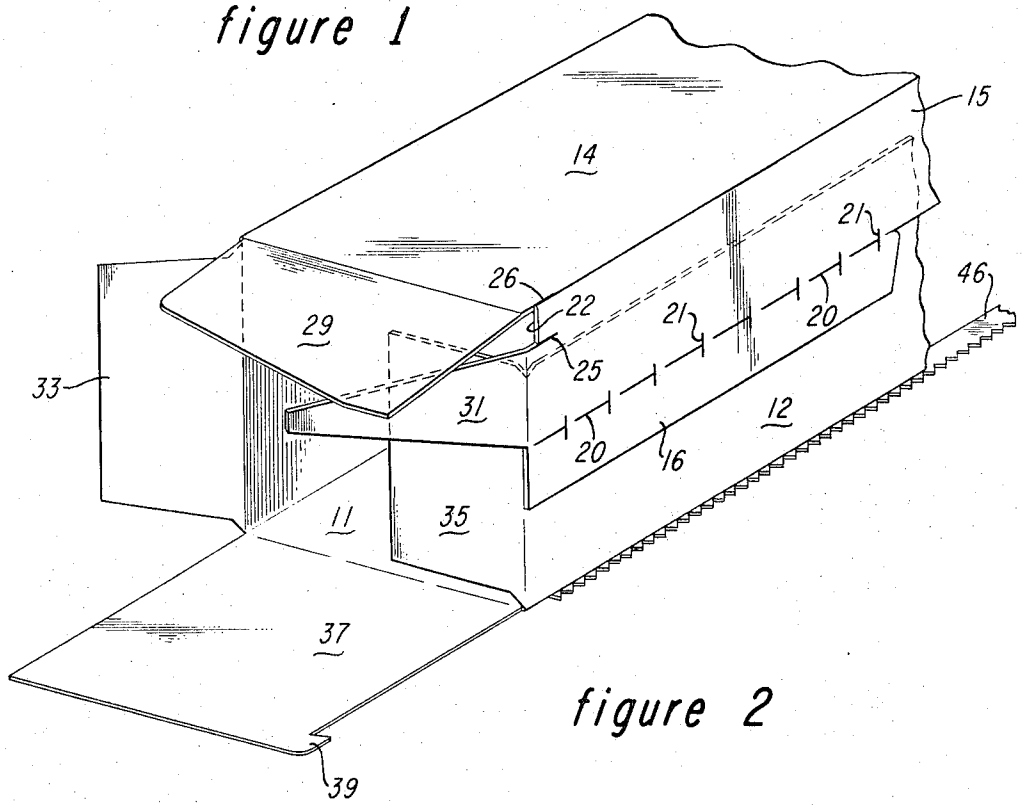


figure 2

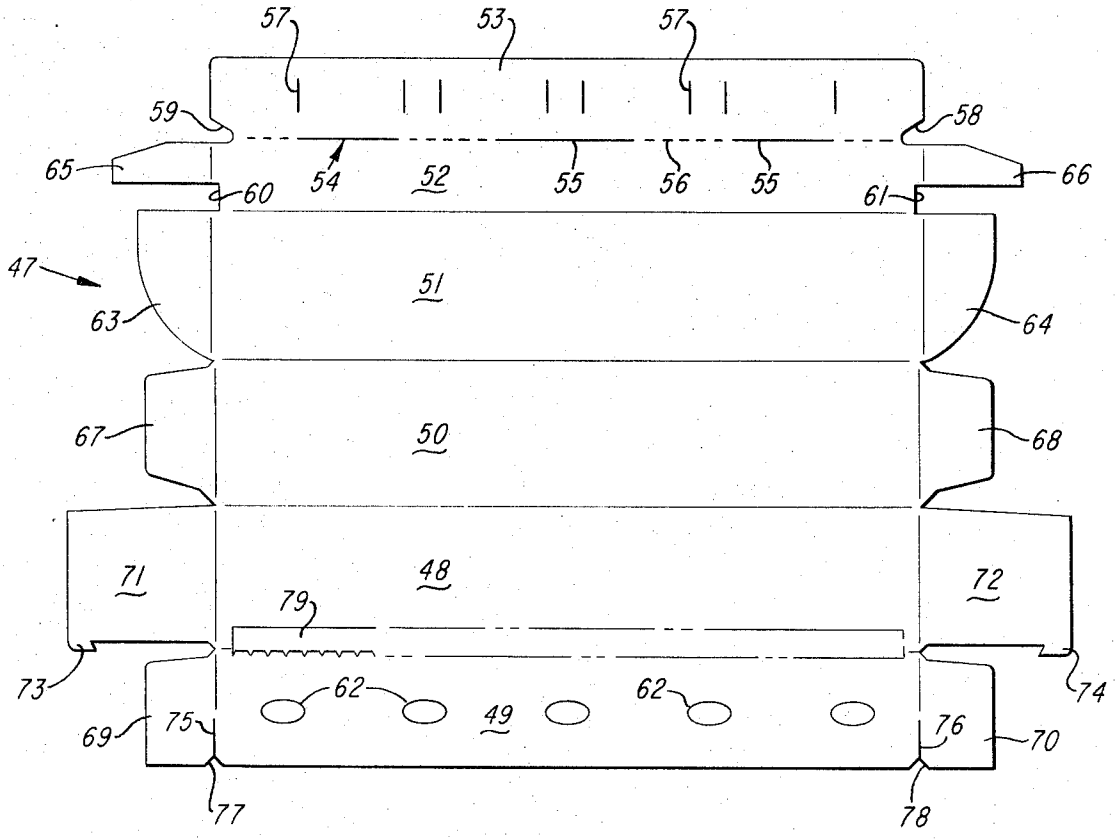


figure 3

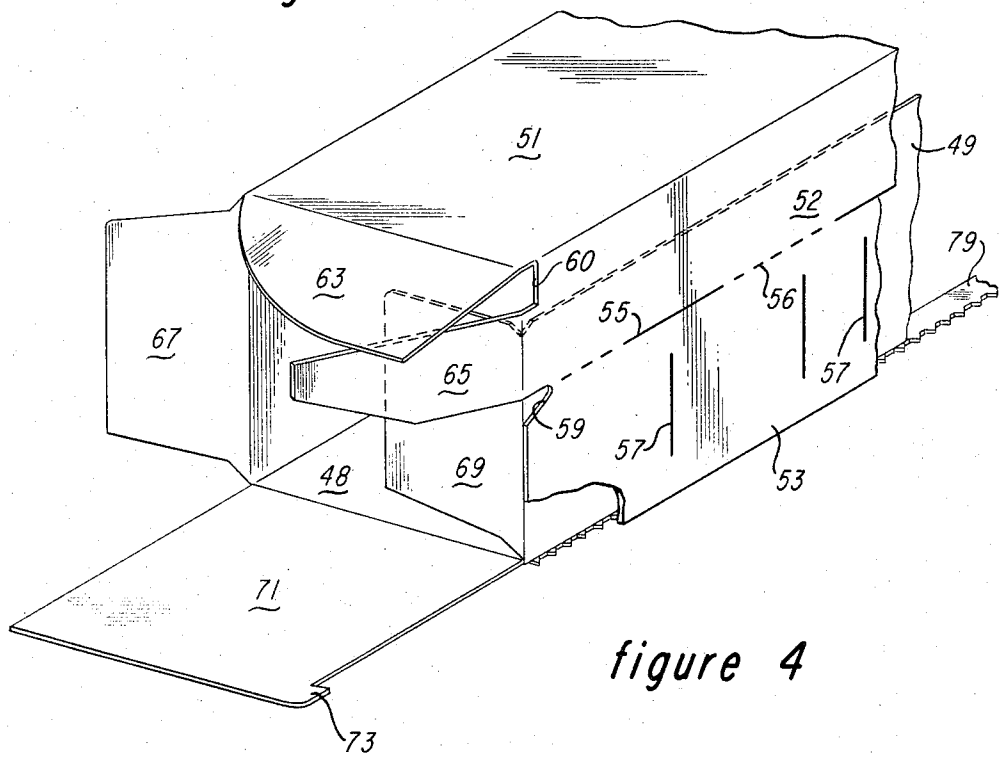


figure 4

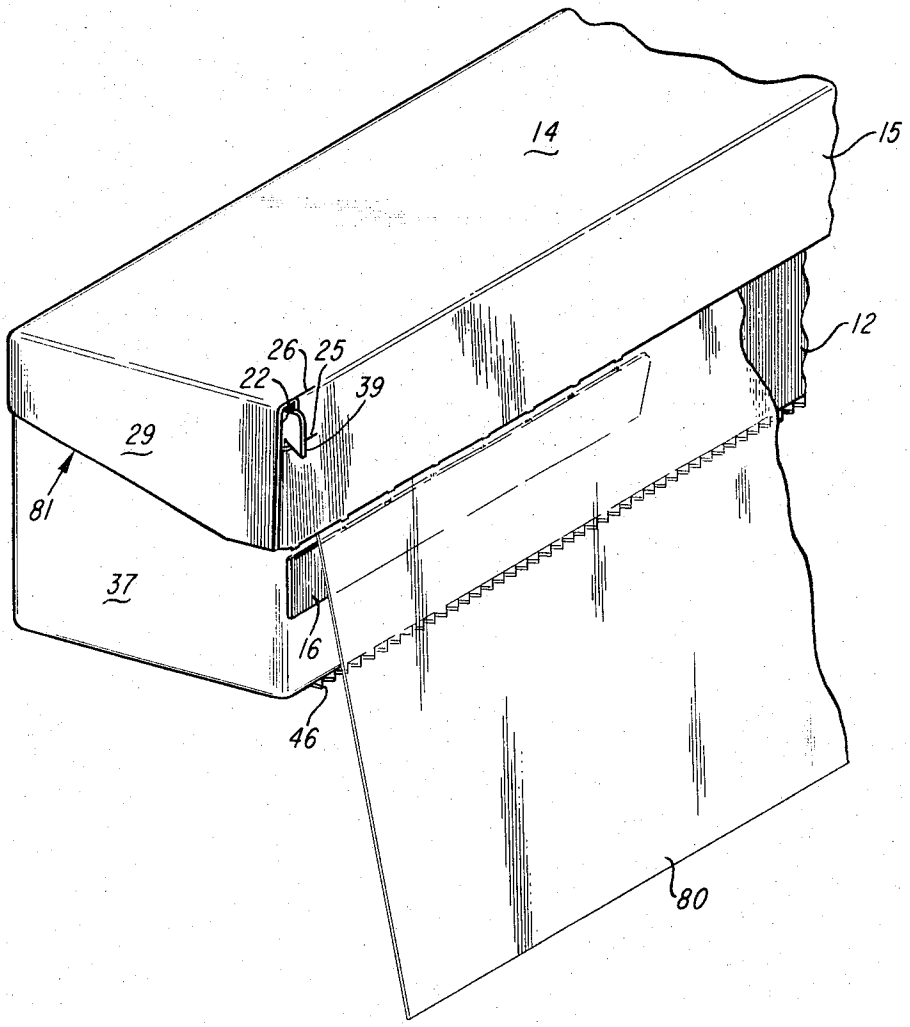


figure 5

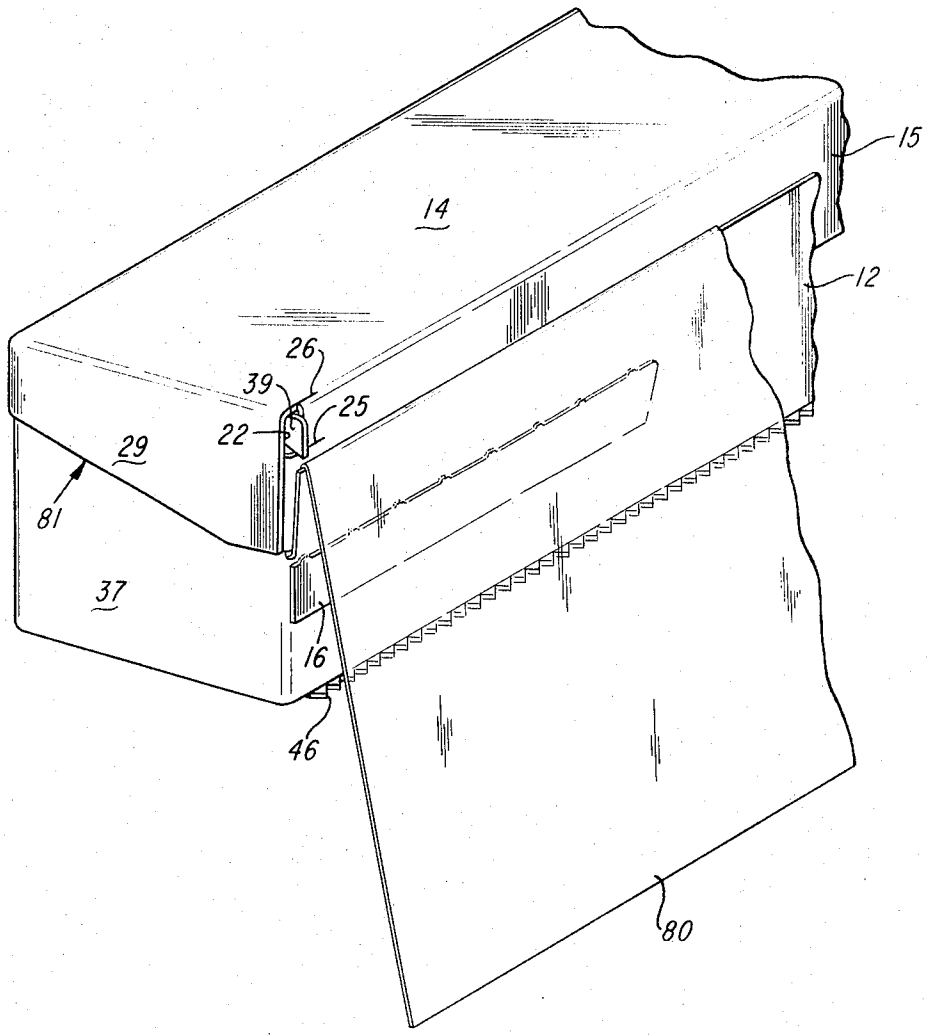


figure 6

DISPENSING CARTON

BACKGROUND OF THE INVENTION

This invention relates to dispensing cartons. More particularly, this invention relates to cartons for dispensing from a roll stock a sheet-form material such as film, foil, wax paper, or the like.

In use, the cover member of a dispensing carton tends to fly open as the sheet-form material is withdrawn therefrom. Also, on occasion the terminal portion of the roll stock extending out of the dispensing carton tends to slip back into the carton.

It is an object of the present invention to obviate the forementioned shortcomings of dispensing cartons and to provide a dispensing carton having a positive reclosure lock for the carton.

It is a further object of this invention to provide means for preventing the roll stock from slipping back into the carton.

Still other objects of the present invention will present themselves to one skilled in the art upon reference to the ensuing specification, the drawings, and the claims.

SUMMARY OF THE INVENTION

The present invention contemplates a dispensing carton having a generally polygonal cross-section and comprising a series of at least four hingedly interconnected side wall panels. The first side wall panel in said series is overlapped by the last side wall panel in the series and is adhesively affixed to the first side wall panel. A severance line is provided in the last side wall panel. Terminal flaps are hingedly connected to each of the side wall panels. The adjacent terminal flaps of the penultimate and the last side wall panel in the series are joined in an overlapping relationship and, together with the penultimate panel and the last panel, define a cover member for the carton. The adjacent terminal flaps of the first to the antepenultimate side wall panels, inclusive, are joined in an overlapping relationship and together define end walls of the dispensing carton. The cover member is provided with a notch therein situated at each end of the cover member and each end wall is provided with a coplanar lock tab which projects through and engages one of the notches in the cover member.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings,

FIG. 1 is a plan view of an integral carton blank cut and scored so as to provide a carton of the present invention;

FIG. 2 is a fractional perspective view showing a carton partially erected from the blank shown in FIG. 1;

FIG. 3 is a plan view of an integral carton blank cut and scored so as to provide another carton embodying this invention;

FIG. 4 is a fractional perspective view showing a carton partially erected from the blank shown in FIG. 3;

FIG. 5 is a fractional perspective view showing a fully erected carton embodying the present invention; and

FIG. 6 is a fractional perspective view showing another fully erected carton embodying the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the accompanying drawings, all parts are numbered and the same numbers identify the same parts in the several FIGURES.

Referring to FIG. 1, carton blank **10** comprises bottom panel **11**, and front side wall **12** and rear side wall **13** both hingedly connected to bottom panel **11**. Cover top panel **14** is hingedly connected to rear side wall **13**, and cover front panel **15** is hingedly connected to cover top panel **14** and is adapted to overlap front side wall **12** when the carton is erected. Cover front panel **15** is provided with glue strips **16** and **17** which are delineated by severance lines **18** and **19** comprising a series of spaced longitudinal slits or perforations that terminate in transverse slits **21** which add to the flexibility of glue strips **16** and **17** and also minimize disfiguring fractures. Glue strips **16** and **17** are adapted for adhesive affixation to front side wall **12** by means of an appropriate adhesive, e.g., a hot melt adhesive.

Cover front panel **15** is further provided with notches or cutouts **22** and **23** situated at opposite ends of cover front panel **15** and adjacent to the hinged connection along score **24** between cover front panel **15** and cover top panel **14**. For purposes that will be discussed in more detail hereinbelow, cuts **25** and **26** optionally can be provided beyond notch **22**, and cuts **27** and **28** optionally can be provided beyond notch **23**. Cuts **25, 26, 27** and **28** usually extend beyond the respective notches for a distance substantially equal to the depth of the respective notches.

Cover top panel end flaps **29** and **30** are hingedly connected to cover top panel **14**, and cover front panel end flaps **31** and **32** are hingedly connected to cover front panel **15**. End flaps **31** and **32** are adapted to underlie end flaps **29** and **30** and to be adhesively attached to the latter. When the carton is erected, end flaps **29, 30, 31** and **32**, together with respective top panel **14** and front panel **15**, define a dispensing carton cover member having notches **22** in the front face thereof.

Rear side wall end flaps **33** and **34** are each hingedly connected to rear side wall **13**, and front side wall end flaps **35** and **36** are hingedly connected to front side wall **12**. Bottom panel end flaps **37** and **38** are each hingedly connected to bottom panel **11** and are adapted to overlie and to be adhesively affixed to the respective adjacent rear side wall end flaps **33** and **34** anc the front side wall end flaps **35** and **36**. Preferably the configuration of bottom panel end flaps **37** and **38** is such that end flaps **37** and **38** are substantially coextensive with the transverse cross-sectional area of the dispensing carton, i.e., the width of bottom panel end flaps **37** and **38** is substantially the width of bottom panel **11** and the length of the bottom panel end flaps **37** and **38** is substantially the width of rear side wall **13**. In any event, end flaps **33, 35** and **37** are adapted to be joined in an overlapping relationship so as to define one end wall of the dispensing carton. Similarly, end flaps **34, 36** and **38** together define the other end wall of the dispensing carton.

Bottom panel end flaps **37** and **38** are further provided with coplanar lock tabs **39** and **40** which are situated so as to project through and engage notches **22** and **23**, respectively, when the dispensing carton is erected.

Slits 41 and 42 in front side wall 12 extend from the top or leading edge 43 of front side wall 12 to about the line of attachment of glue strips 16 and 17 and serve to facilitate the insertion of cover front panel 15 behind front side wall 12 in an erected carton once the carton has been opened by parting severance lines 18 and 19. Similarly, optional notches 44 and 45 further facilitate the insertion of cover front panel 15.

Cutter blade 46 is affixed to bottom panel 11 in any convenient manner, e.g., by means of integral lugs punched inwardly therefrom (not shown) and the cutting edge of blade 46 operatively extends across hinged connection between bottom panel 11 and front side wall 12, i.e., when the dispensing carton is erected, the cutting edge of blade 46 projects or extends beyond front side wall 12. Cutter blade 46 also provides a reinforcement for the edge of bottom panel 11 which is subjected to stress during the cutting operation.

A dispensing carton can be erected from blank 10 by first folding blank 10 over on itself so that cover front panel 15 overlaps front side wall 12 and then adhesively attaching panel 15 to wall 12 underneath glue strips 16 and 17. The resulting carton tube is then squared in a conventional manner and a roll of a desired sheet-form material inserted therein. End closure is then achieved by folding in and adhesively securing the terminal flaps.

Referring to FIG. 2, end flaps 33 and 35 are first folded in, followed by end flap 37, and then glued together. As end flap 37 is folded inwardly, lock tab 39 is placed in notch 22. Thereafter, end flap 31 of cover front panel 15 is folded inwardly and end flap 29 of cover top panel 14 folded over end flap 31 and adhesively secured thereto.

The notches in cover front panel 15, such as notch 22 shown in FIG. 2, need only be large enough to accommodate lock tab 39. However, in order to facilitate reinsertion of lock tab 39 in notch 22 once the cover member has been lifed up and is reclosed, it is desirable to make notch 22 somewhat larger than the cross-sectional area of lock tab 39. By providing cuts or slits 25 and 26, however, the overall dimensions of notch 22 can be minimized.

Another embodiment of the present invention is illustrated in FIGS. 3 and 4. Paperboard blank 47 comprises bottom panel 48 to which are hingedly connected front side wall 49 and rear side wall 50. Cover top panel 51 is hingedly connected to rear side wall 50, and cover front panel 52, in turn, is hingedly connected to cover top panel 51. Tear strip 53 is substantially coextensive with cover front panel 52 and is delineated by severance line 54 which comprises spaced slits 55 connected by perforations 56. Transverse slits 57 enhance the flexibility of tear strip 53. Cutouts 58 and 59 at both ends of tear strip 53 generate tabs at opposite ends of tear strip 53 and facilitate tearing or severing.

Cover front panel 52 is further provided with notches 60 and 61 which serve the same purpose as notches 22 and 23 in the embodiment shown in FIGS. 1 and 2.

Spaced cut scored regions 62 are provided in front side wall 49 and tear strip 53 is adapted to be adhesively secured thereto.

Cover top panel end flaps 63 and 64 are hingedly connected to cover top panel 51 and cover front panel end flaps 65 and 66 are hingedly connected to cover front panel 52 between cutout 59 and notch 60 and between cutout 58 and notch 61, respectively. End flaps 65 and 66 are adapted to underlie respective end flaps 63 and 64 and to be adhesively attached thereto. When the dispensing carton is erected, panels 51 and 52, together with end flaps 63, 64, 65 and 66, define a dispensing carton cover member provided with notches 60 and 61 in the front face thereof.

Rear side wall end flaps 67 and 68 are each hingedly connected to rear side wall 50, and front side wall end flaps 69 and 70 are hingedly connected to front side wall 49. Bottom panel end flaps 71 and 72 are hingedly connected to bottom panel 48 and are provided with lock tabs 73 and 74 which engage notches 60 and 61, respectively, and project therethrough when a dispensing carton is erected from blank 47.

End flaps 71 and 72 are adapted to overlie and to be adhesively affixed to the respective adjacent rear side wall end flaps 67 and 68 and the front side wall end flaps 69 and 70, and the end flaps together define the end walls of the dispensing carton.

Slits 75 and 76 in front side wall 49 as well as notches 77 and 78 facilitate insertion of cover front panel 52 behind front side wall 49 after an erected carton has been opened for the first time.

Cutter blade 79 is secured to bottom panel 48 so that the cutting edge thereof operatively extends across hinged connection between bottom panel 48 and front side wall 49.

A dispensing carton can be erected from blank 47 in a manner similar to that described hereinabove for blank 10. That is, blank 47 is folded over so that cover front panel 52 overlaps front side wall 49 and appropriate adhesive areas provided on the underside of tear strip 53 are in substantial registry with cut scored regions 62. Panel 52 is then adhesively attached to front side wall 49 and the resulting carton tube squared in a conventional manner. After container contents has been inserted in the produced tube, end closure is achieved by folding inwardly and gluing the terminal flaps.

Referring to FIG. 4, end flaps 67 and 69 are folded inwardly first and then end flap 71 folded thereover and the flaps adhesively secured to each other. As end flap 71 is folded inwardly, lock tab 73 is received in notch 60. Thereafter end flap 65 is folded inwardly and end flap 63 is folded over end flap 65 and attached thereto by gluing. Notches 60 and 61 in cover front panel 52 are made sufficiently large so that the lock tabs such as lock tab 73 can be accommodated therein and can be reinserted therein once the dispensing carton has been opened by raising the cover member defined by panels 51 and 52 and the corresponding end flaps.

A carton erected from blank 10 and which has been opened and then reclosed is shown in FIG. 5. Lock tab 39 engages notch 22 and projects therethrough, thereby retaining carton cover member 81 firmly in place as film 80 is withdrawn from the carton. In the embodiment shown in FIG. 5, film sheet 80 is contained in the carton as a roll stock, and is separated from the roll stock near cover top panel 14 and then passes downwardly between front side wall 12 and cover front panel 15. Lock tabs such as tab 39 engage cover front panel 15 and prevent cover member 81 from opening as film sheet 80 is withdrawn from the dispensing carton. Film sheet 80 can also be made to separate from the roll stock near bottom panel 11 by merely reversing the position of the roll stock within

the dispensing container, in which event the withdrawn film sheet first passes upwardly and over the upper edge of front side wall **12**, and then downwardly between front side wall **12** and cover front panel **15** with the upper edge of front side wall **12** acting as a brake on the film sheet being withdrawn and preventing the film sheet from slipping back into the carton.

A preferred manner of reclosure for the dispensing carton of this invention when film sheet **80** is contained in the carton as roll stock and is separated therefrom near cover top panel **14** is shown in FIG. **6.** Cover front panel **15** is tucked in behind front side wall **12** and film sheet **80** first passes downwardly and over the lower edge of cover front panel **15**, and then upwardly between cover front panel **15** and front side wall **12** as film sheet **80** leaves the dispensing carton. A desired length of film sheet **80** can then be severed by folding film sheet **80** back against cutter blade **46** and pulling. The lower edge of cover front panel **15**, together with the inner surface of front side wall **12**, act as a brake which prevents film sheet **80** from slipping back into the carton.

The foregoing discussion and the drawings are intended to be illustrative but are not to be taken as limiting. Still other variations and rearrangements of parts are possible and will readily present themselves to the skilled artisan.

I claim:

1. A carton for dispensing sheet-form material from roll stock contained within said carton, having a generally polygonal cross-section, and comprising

a series of at least four hingedly interconnected side wall panels, the first side wall panel in said series being overlapped by the last side wall panel in said series, the last side wall panel being adhesively affixed to said first side wall panel and having a severance line provided therein;

terminal flaps hingedy connected to each of said side wall panels;

the adjacent terminal flaps of the penultimate side wall panel in said series and the last side wall panel in said series being joined in an overlapping relationship and together with the penultimate wall panel and the last wall panel defining a cover member provided with a notch in said cover member at each end of the cover member;

the adjacent terminal flaps of the first to the antepenultimate side wall panels being joined in an overlapping relationship and together defining dispensing carton end walls; and

a lock tab provided in each of said end walls and coplanar therewith, projecting through and engaging one of said notches in said cover member.

2. A dispensing carton having a generally rectangular cross-section and comprising

a bottom panel;

a front side wall hingedly connected to one edge of the bottom panel;

a rear side wall hingedly connected along one edge thereof to the opposite edge of the bottom panel;

a cover top panel hingedly connected to the opposite edge of the rear wall;

a cover front panel hingedly connected to the cover top panel, overlapping the front side wall, adhesively affixed to the front side wall, provided with a severance line, and provided with a notch in the cover front panel situated at each end of the cover front panel and adjacent to the hinged connection thereof with said cover top panel;

cover front panel end flaps each hingedly connected to the cover top panel;

cover front panel end flaps each hingedly connected to said cover front panel, underlying and adhesively attached to said cover top panel end flaps;

rear side wall end flaps each hingedly connected to said rear side wall;

front side wall end flaps each hingedly connected to said front side wall; and

bottom panel end flaps each hingedly connected to said bottom panel, overlying and adhesively attached to said rear side wall end flaps and said front side wall end flaps, and provided with a lock tab on each bottom panel end flap projecting through and engaging one of said notches in said cover front panel.

3. The dispensing carton in accordance with claim **2** wherein a cutter blade is affixed to said bottom panel and operatively extends therefrom beyond said front side wall.

4. The dispensing carton in accordance with claim **2** wherein a slit is provided in each hinged connection between the front side wall and each front side wall end flap, said slit extending from top of the front side wall to about the line of attachment of said cover front panel to said front side wall.

5. The dispensing carton in accordance with claim **2** wherein the bottom panel end flaps are substantially coextensive with the transverse cross-sectional area of the dispensing carton. end

6. An integral paperboard blank for forming a dispensing carton having a generally polygonal cross-section, cut and scored to provide

a series of at least four hingedly interconnected side wall panels, the first side wall panel in said series being adapted to overlap the last side wall panel in said series, and the last side wall having a severance line provided therein, and being adapted for adhesive affixation to said first side wall;

terminal flaps hingedly connected to each of said side wall panels;

the adjacent terminal flaps of the penultimate side wall panel in said series and the last side wall panel in said series being adapted for joining in an overlapped relationship and being adapted to define, together with the penultimate side wall panel and the last side wall panel, a cover member provided with a notch in said cover member at each end of the cover member;

the adjacent terminal flaps of the first to the antepenultimate side wall panels in said series being adapted for joining in an overlapped relationship and being adapted to define dispensing carton end walls; and

a lock tab provided on at least one of said adjacent terminal flaps adapted to form one of said end walls, said lock tab being adapted to project through and engage one of said notches in said cover member.

7. An integral paperboard blank for forming a dispensing carton having a generally rectangular cross-section, cut and scored to provide

a bottom panel;

a front side wall hingedly connected to one edge of the bottom panel;

a rear side wall hingedly connected along one edge thereof to the opposite edge of the bottom panel;

a cover top panel hingedly connected to the opposite edge of the rear wall;

a cover front panel hingedly connected to the cover top panel, adapted to overlap the front wall, adapted for adhesive affixation to the front side wall, provided with a severance line therein, and having a notch in the cover front panel situated at each end of the cover front panel and adjacent to the hinged connection thereof with said cover top panel;

cover top panel end flaps each hingedly connected to the cover top panel;

cover front panel end flaps each hingedly connected to said cover front panel, adapted to lie under said cover top panel end flaps, and adapted for adhesive affixation to said cover top panel end flaps;

rear side wall end flaps each hingedly connected to said rear side wall;

front side wall end flaps each hingedly connected to said front side wall, and

bottom panel end flaps each hingedly connected to said bottom panel, adapted to lie over said rear side wall end flaps and said front side wall end flaps, adapted for adhesive affixation to said rear side wall and flaps and said front side wall end flaps, and provided with a lock tab on each bottom panel end flap projecting toward a front side wall end flap, and adapted for engagement with one of said notches in said cover front panel.

8. The blank for a dispensing carton in accordance with claim **7** wherein a cutter blade is affixed to said bottom panel and operatively extends across the hinged connection between said bottom panel and said front side wall.

9. The blank for a dispensing carton in accordance with claim **7** wherein a slit is provided in each hinged connection between the front side wall and each front side wall end flap, said slit extending from the leading edge of the front side wall to about the line of attachment of said cover front panel to said front side wall.

10. The blank for a dispensing carton in accordance with claim **7** wherein the width of the bottom panel end flaps is substantially the width of the bottom panel and the length of the bottom panel end flaps is substantially the width of the rear side wall.

* * * * *

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,777,957 Dated 11 December 1973

Inventor(s) Kenneth T. Buttery

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

PATENT READS:	APPLICATION READS:
Col. 2, line 50: "anc"	Page 4, line 5: --and--
Col. 6, line 3 Claim 2 "cover front panel"	Page 10, line 16: Claim 2 --cover top panel--
Col. 6, line 32: Claim 5 Delete "end" after period (.) (printing error)	Page 11, line 4: Claim 5
Col. 8, line 3: Claim 7 second word in line should be --end-- (not "and)	Page 13, line 28: Claim 7 (last word in line) --end)

Signed and sealed this 26th day of November 1974.

(SEAL)
Attest:

McCOY M. GIBSON JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents

FORM PO-1050 (10-69)

USCOMM-DC 60376-P69
* U.S. GOVERNMENT PRINTING OFFICE : 1969 O—366-334