United States Patent [19]

Austin, Jr. et al.

[11] **3,746,156**

[45] **July 17, 1973**

[54] **DISPLAY PACKAGE FOR COLLAPSIBLE TUBE OR THE LIKE**

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[73] Assignee: **Container Corporation of America**, Chicago, Ill.

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[52] **U.S. Cl.** **206/45.14**, 206/45.19

[51] **Int. Cl.** **B65d 5/50**

[58] **Field of Search** ..... 206/45.14, 45.19, 206/45.31, 46 FR; 229/16 D, 34 HW

[56] **References Cited**

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3,684,085	8/1972	Desmond	206/45.31 X
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3,592,338	7/1971	Hanson	206/45.19
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3,360,117	12/1967	Powers et al.	206/45.14

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[57] **ABSTRACT**

A display carton for a collapsible tube is formed from a unitary cut and scored blank to form a carton sleeve. The sleeve is formed with an auxiliary panel supporting the tube being displayed. The auxiliary panel is connected to and extends from one of opposed side panels forming the sleeve, and extends to the other of the opposed side panels in contact therewith, the auxiliary panel having a V-configuration in transverse cross-section. One end of the sleeve is provided with a closure structure holding the tube closure in position and includes a closure flap with extensions therefrom together with a distal portion contacting the rear panel of the sleeve. The extensions have an aperture therein to receive the tube closure. The other end of the sleeve is provided with closure structure including a closure flap with extensions therefrom together with a distal portion contacting a rear panel of the sleeve. The extensions include foldably connected portions defining a groove for retaining the flattened end of the container tube.

The collapsible tube is end loaded into the sleeve after the first closure structure has been formed, the tube closure being received in the aperture of such closure structure. The other closure structure is then formed after the end loading of the tube, and during the forming operation thereof a groove is formed therein for retaining the flattened end of the collapsible tube.

5 Claims, 7 Drawing Figures

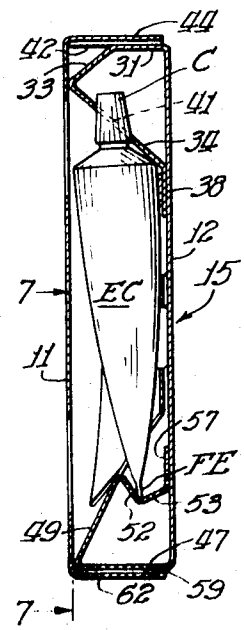


Fig. 2

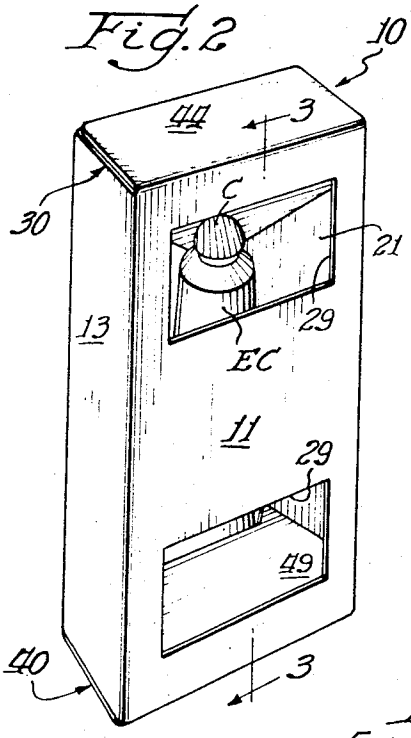


Fig. 1

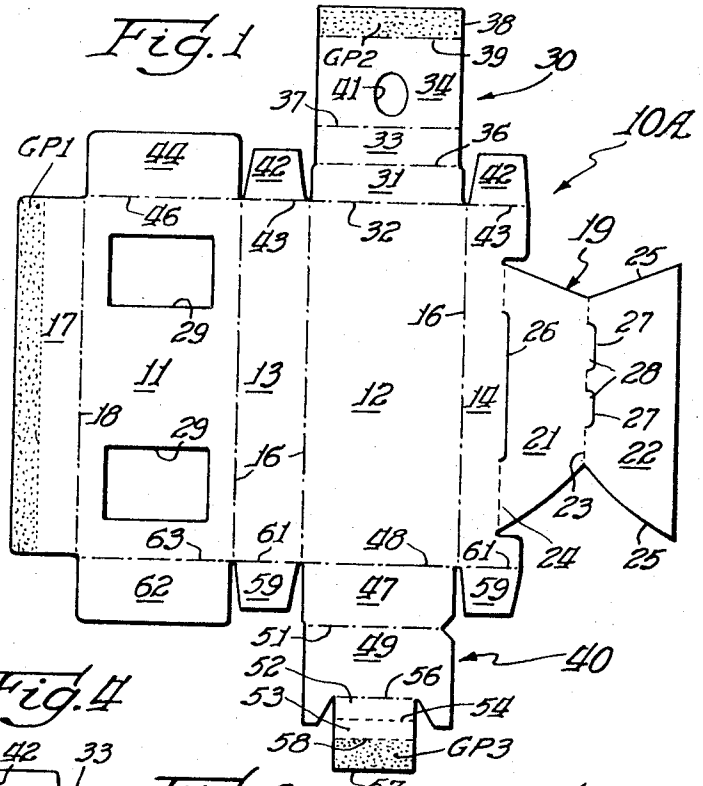


Fig. 4

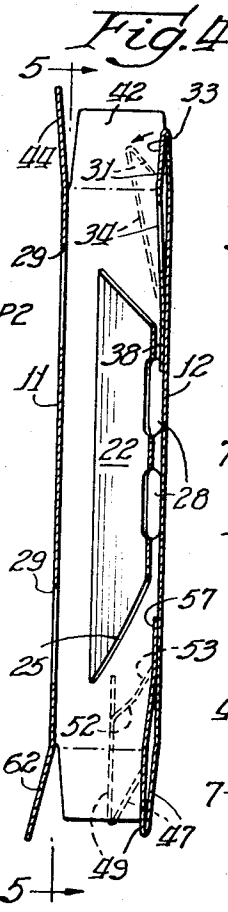


Fig. 3

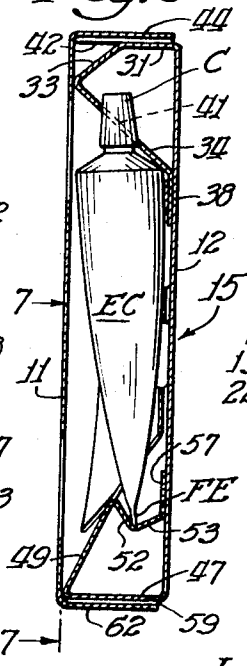


Fig. 6

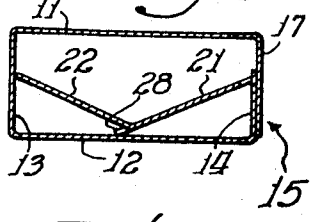


Fig. 7

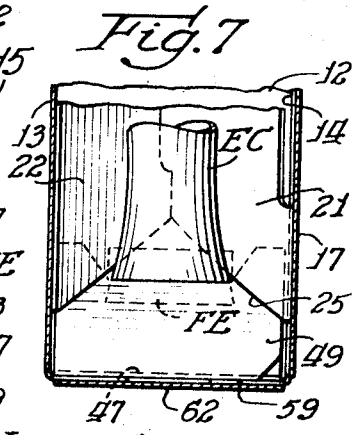
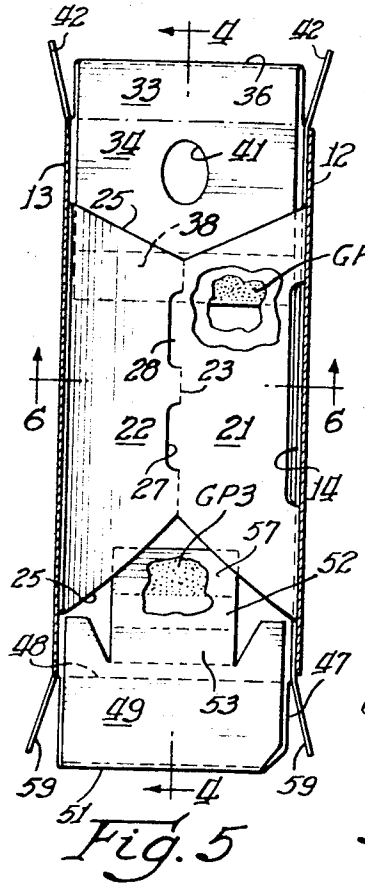


Fig. 5



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DISPLAY PACKAGE FOR COLLAPSIBLE TUBE OR THE LIKE

BACKGROUND OF THE INVENTION

The present invention is an improvement over the invention disclosed in John D. Desmond et al. application Ser. No. 57,784, filed July 23, 1970, for Display Carton, now U.S. Pat. No. 3,684,085.

1. Field of the Invention

This invention relates to that class of packages for displaying merchandise packed in elongated containers such as collapsible tubes for toothpaste, cosmetics and the like.

2. The Prior Art

The prior art is exemplified in U.S. Pats. to Wolowicz, et al., No. 3,344,911; McGarty et al., No. 3,302,778; Hennessey, et al., No. 3,270,867 and Hennessey No. 2,946,433, which patents show various arrangements for maintaining an article in position in a display package.

SUMMARY OF THE INVENTION

The present invention has for its principal purpose the provision of an end loaded package for a collapsible tube, the package being formed from a cut and scored paperboard blank or the like and formed into a sleeve having end closure panels adapted to hold the tube in position.

The sleeve is formed with an auxiliary panel extending from one of the opposed side panels forming the sleeve, the auxiliary panel having a V-configuration in cross-section, with the free edge thereof in engagement with the other of the opposed side panels, with the apex of the V contacting the inner side of the rear panel.

The collapsible tube is adapted to be end loaded to a position for support on the auxiliary panel, and one end of the sleeve is provided with a closure structure having an aperture therein to receive the container closure. The opposite end of the sleeve is provided with a closure structure which is folded to provide a groove to receive and support the flattened end of the tube previously end loaded into the sleeve.

THE DRAWINGS

FIG. 1 is a plan view of a unitary cut and scored paperboard blank for constructing a display package according to the present invention;

FIG. 2 is a perspective view of a display package formed from the blank of FIG. 1;

FIG. 3 is a longitudinal sectional view taken along the line 3—3 of FIG. 2, looking in the direction of the arrows;

FIG. 4 is a view similar to FIG. 3, but showing the display package prior to loading thereof;

FIG. 5 is a view looking in the direction of the arrows 5—5 of FIG. 4;

FIG. 6 is a transverse sectional view looking in the direction of the arrows 6—6 of FIG. 5; and

FIG. 7 is a view taken along the line 7—7 of FIG. 3 looking in the direction of the arrows.

The improved display package according to the present invention is denoted generally by the reference numeral **10**, and is particularly adapted to display therein an elongated article EC such as a collapsible tube or the like. The latter has a closure C at one end thereof, and a flattened end FE at the other end thereof, see FIGS. 3 and 6. The package **10** is formed from a cut

and scored paperboard blank **10A** consisting of a front panel **11**, a back panel **12** and opposed side panels **13** and **14**, all of the aforesaid panels being hingedly joined along parallel score lines **16**. A glue flap **17** is hingedly connected to front panel **11** along a fold line **18**, and is provided with a glue path GP1 thereon, whereby the glue flap **17** may be glued to the outer side of the side panel **14** to form a carton sleeve **15** as seen with particular reference to FIGS. **4**, **5** and **6**.

An auxiliary panel indicated generally by the reference numeral **19** consists of auxiliary panel portions **21** and **22**, the latter being joined along a cut and scored line **23**. Auxiliary panel portion **21** is joined to one of the side panels **14** along a score line **24** discontinuous with a central cut portion **26** thereof. The auxiliary panel **19** adopts a V-configuration within the sleeve **15** as seen particularly in FIG. **6**, and cut portions **27** of the fold line **23** provide supporting tabs **28** bearing against the inside of the back panel **12**. As seen in FIG. **6**, the free edge of the auxiliary panel portion **22** bears against the inside of the opposite side panel **13**.

The auxiliary panel portions **21** and **22** are essentially trapezoidal in shape, being joined along their smaller dimensions parallel to score line **24**. The auxiliary panel **19** thus has converging lines **25** at each end thereof.

Frong panel **11** has a pair of spaced rectangular openings **29** therein through which the elongated article EC may be viewed when loaded into position on the auxiliary panel portions **21** and **22** of the auxiliary panel **19**.

The carton sleeve **15** is provided with first closure structure **30** consisting of a first outer closure flap **31** foldably connected to the back panel **12** along a fold line **32**. First extensions **33**, **34** thereof are foldably connected to the first closure flap **31** by fold lines **36** and **37**, and a distal portion **38** is connected to the extension **34** along a fold line **39**, the distal portion **38** having a glue patch GP2 thereon for gluing same to the inside of back panel **12**. An aperture is provided in the extension **34** for the reception of the closure C of the elongated container EC when the same is loaded into the package **10**, as will be discussed hereinafter

The first closure structure **30** also consists of dust flaps **42** foldably connected to the side panel **13** and **14** by fold lines **43**, and outer first closure flap **44** is connected to the front panel **11** at a fold line **46**.

A second closure structure for the package thus far described is referred to generally by the reference numeral **40**, and includes a second outer closure flap **47** foldably connected to the rear panel **12** along a fold line **48**. The second closure structure **40** also includes an extension **49** therefrom foldably connected to the second closure flap **47** along a fold line **51**. Flap members **52** and **53** are foldably connected to each other along a fold line **54**, and a fold line **56** connects the extension **52** to extension **49**. A distal portion **57** is foldably connected to flap extension **53** along a fold line **58**, and distal portion **57** has a glue patch GP3 thereon whereby distal portion **57** may be secured to the inside of back panel **12**.

The second closure structure **40** also includes dust flaps **59** connected by fold lines **61** to the side panels **13** and **14**, and an outer closure flap **62** connected to the front panel **11** along a fold line **63**.

The first closure structure **30** is formed at one end of the sleeve **15** by gluing the distal portion **38** to the in-

side of the rear panel **12** as seen particularly in FIG. **4.** The completion of the closure structure **30** is seen in FIG. **3,** and presents the extension **34** in position whereby the aperture **41** thereof is adapted to receive the closure C of the elongated container EC.

After the loading of the container ED, the erection of the other closure structure **40** is carried out, the distal portion **57** thereof being adhered to the inside of the rear panel **12,** and elements **49, 52** and **53** being folded to the position seen in FIG. **3** after the container EC is placed in position as seen in FIG. **3.**

It will be noted that the extensions **49** and **34** partly underlie the auxiliary panel portions **21** and **22,** presenting for view what may be considered mitred corners between said elements.

We claim:

1. A display package for an elongated article such as a collapsible tube or the like having a flattened end and a closure at the opposite end thereof, said article being adapted to be end loaded into said package, said package being formed from a unitary cut and scored paperboard blank and comprising:

a. a sleeve including opposed front and rear panels;

b. a display opening in said front panel for affording a view of at least a portion of said article;

c. an auxiliary panel extending from one of said opposed side panels to the other of said opposed side panels for support of said article within said sleeve;

d. said auxiliary panel having a V-configuration in transverse cross section and having a free edge thereof contacting the other of said opposed side panels;

e. first closure means extending from one end of said sleeve and being adapted to be infolded into said one end for closing thereof and for retaining said closure of said article in position;

i. said first closure means including a a first closure flap and first extensions therefrom;

ii. said first extensions including a distal portion extending along the inside of said rear panel and being affixed thereto;

iii. said first extensions including a flap member having an aperture therein to receive said container closure;

iv. said first closure means being in collapsed condition but being adapted to be erected to receive said article closure in said aperture upon end loading of said article into said sleeve;

f. second closure means foldably extending from the other end of said sleeve and being adapted to be infoled into said other end for closing thereof and for retaining the flattened end of said article in position;

i. said second closure means including a second closure flap and extensions therefrom;

ii. said last named extensions including a distal portion extending along the inside of said rear panel and being affixed thereto;

iii. said last named extensions including flap members foldably connected to each other to define a line of fold extending parallel to the foldable connection between said second closure means and said rear panel and defining a groove for retaining the flattened end of said article in position;

iv. said second closure means being normally in collapsed condition but being adapted to be erected to a position where said groove is engaged with the flattened end of said article upon end loading of said article into said sleeve.

2. A display package according to claim **1** wherein said distal portions are affixed to said rear panel by glue.

3. A display package according to claim **1** wherein said main panel has a pair of openings therein spaced by a panel portion.

4. A display package according to claim **1** wherein said auxiliary panel is comprised of pane' portions of trapezoidal configuration.

5. A display package according to claim **4** wherein said flap extensions and said trapezoidal portions define mitres at the junctures thereof.

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