Oct. 10, 1961 D. A. CLARK ET AL 3,003,673

BOX HAVING POURING SPOUT

Filed Sept. 23, 1959

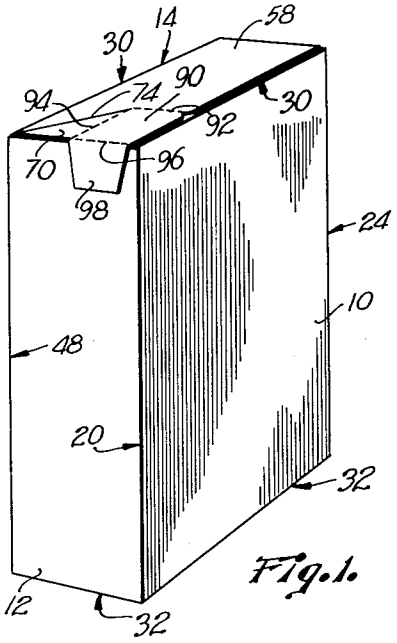


Fig. 1.

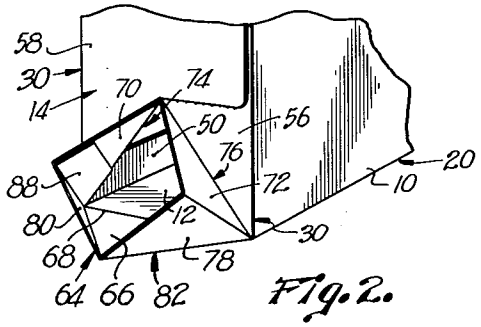


Fig. 2.

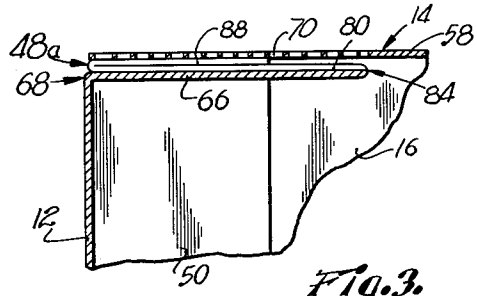


Fig. 3.

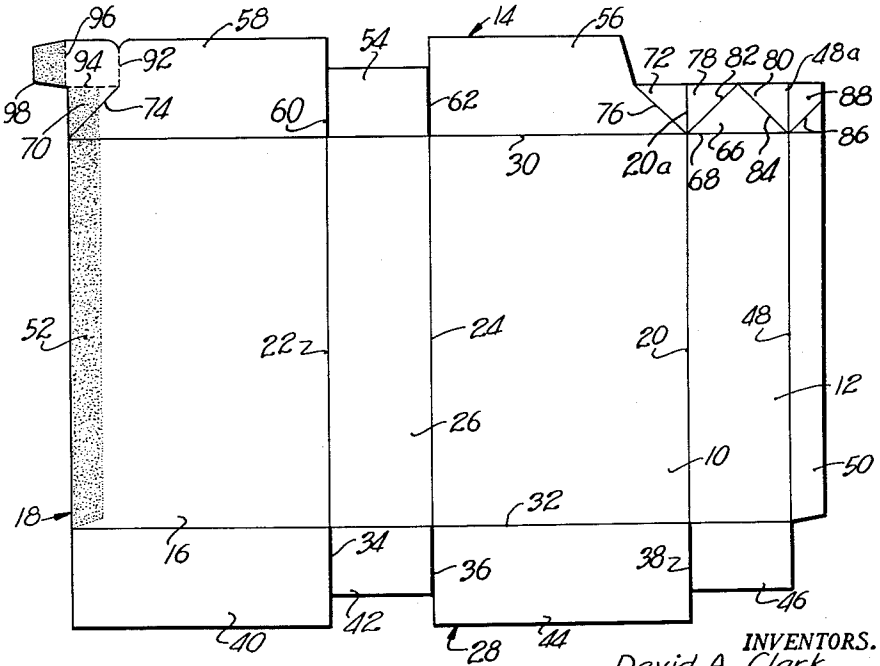


Fig. 4.

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United States Patent Office 3,003,673 Patented Oct. 10, 1961

3,003,673

BOX HAVING POURING SPOUT

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Filed Sept. 23, 1959, Ser. No. 841,881
3 Claims. (Cl. 229—17)

This invention relates to a pull-out pouring spout for boxes especially adapted for containers conventionally used in the packaging of soaps and detergents and other granular materials, the primary object being to eliminate spillage problems that consistently harass the purchasing public because of the nature of box opening means commonly employed throughout the industry.

It is the most important object of the present invention to provide a pull-out pouring spout for containers that is adapted to be folded to a closed condition after each use and which will positively prevent spillage of the material therefrom without need for resealing as initially packaged.

Still another important object of the present invention is to provide a spout that is initially held in place by hold-down means that includes a readily removable, tear-out tab.

A further important object of the instant invention is the provision of individual components of the spout itself, together with other parts of the box made in a way to preserve the usual shape and configuration of the box insofar as the provision of a flat, horizontal top is concerned.

In the drawing:

FIG. 1 is a perspective view of a box having a pouring spout made pursuant to our present invention.

FIG. 2 is a fragmentary, perspective view showing the spout pulled out in condition for use.

FIG. 3 is an enlarged, vertical, fragmentary, cross-sectional view through a portion of the box and more particularly, through the pouring spout when closed substantially midway through the main segment of the spout; and

FIG. 4 is an inside plan view of the blank from which the box is made.

The box as illustrated in FIG. 1 is provided with a right side panel **10**, a front end panel **12**, and a top, broadly designated by the numeral **14**, the left side panel being shown in FIG. 3 and designated by the numeral **16**.

Looking, therefore, to FIG. 4 of the drawing, blank **18** from which the box is made, has a line of bend **20** separating panels **10** and **12** and lines of bend **22** and **24** that set off a rear end panel **26** between the panels **10** and **16**. The panels **10**, **12**, **16** and **26** are in turn separated from top **14** and bottom **28** by transverse lines of bend **30** and **32** respectively. Lines of severance **34** and **36** disposed as continuations of lines of bend **22** and **24** respectively, and a line of severance **38** continuing from line of bend **20**, separate bottom **28** into a plurality of flaps **40**, **42**, **44** and **46** that are folded in the usual and conventional manner about the line **32** in overlapping relationship to form the bottom **28**, suitable adhesive being employed in the normal way to hold the bottom **28** properly assembled.

A line of bend **48** presents a marginal flap **50** whose outer face (not shown) is connected to the left side panel **16** by adhesive **52** when the panels **10**, **12**, **16** and **26** are folded along lines **20**, **22**, **24** and **48** to present the polygonal form of the box as shown in FIG. 1.

The top **14** is made up in a manner similar to bottom **28** of a flap **54** including the flap **42** integral with the rear end panel **26** at the line of bend **30**. A lower top flap **56** is integral with front side panel **10** through line of bend **30**, and an upper top flap **58** is integral with left side panel **16** through line of bend **30**. Lines of

cut **60** and **62** aligned with the lines of bend **22** and **24** respectively, separate the flap **54** from the flaps **56** and **58**.

Pull-out pouring spout **64** for the top **14** is disposed adjacent the end panel **12** and includes a plurality of triangular segments, one of which is identified as a main segment and designated by the numeral **66**. Segment **66** is an integral part of the end panel **12** and joins therewith by a line of fold **68** forming one edge of the segment **66** and constituting a continuation of the line of bend **30**. Additionally, the spout **64** includes a pair of secondary segments **70** and **72**, the former of which connects with flap **58** by a line of fold **74** and the segment **72** joins with flap **56** by a line of fold **76**.

Spout **64** includes still further, a pair of median segments **78** and **80** that are integral with main segment **66** along lines of fold **82** and **84** respectively. The segments **72** and **78** are integrally connected by continuation **20***a* of the line of bend **20**, and marginal flap **50** is integral with segment **80** by continuation **48***a* of the line of bend **48**. When the flap **50** is joined to the panel **16** along glue strip **52**, a portion of the flap **50** overlaps segment **70** and is adhered thereto. Consequently, the line of fold **68** extends across the line of bend **48** terminating at the free ends of the marginal flap **50**. And, a diagonal fold line **86** provided in the marginal flap **50**, becomes contiguous with the line of fold **74**. Hence, as seen in FIG. 2, a portion of the marginal flap **50**, designated by the numeral **88**, becomes a part of the spout **64** because of its adhesive joinder with the segment **70**.

It is thus seen that when the spout **64** is folded in the closed position illustrated in FIG. 1, the portion **88** of marginal flap **50**, is interposed between the segments **70** and **80** of the spout **64**. Also, when the spout **64** is in the closed condition, the segments **78** and **80** overlap the segment **66** and of course, the segment **72** overlies the segment **78**, thereby placing segment **72** within the same horizontal plane as the portion **88** of marginal flap **50**.

The upper flap **58** of the top **14** is provided with a tear-out tab **90** at one corner thereof adjacent the panels **10** and **12** and which tear-out tab **90** is manifestly in the same horizontal plane as the segment **70** of the spout **64**. Lines of weakness **92** and **94** between the tab **90** and the flap **58**, and a line of weakness **96** between the tab **90** and a hold-down tab **98**, permit lifting of the tab **90** and the tearing of the same away from the flap **58** and the tab **98**. As seen in FIG. 1, the tab **98** is folded downwardly into overlapping relationship to the end panel **12** and glued thereto. Consequently, the tab **98** remains in place on the end panel **12** when the tear-out tab **90** is removed. It is to be pointed out at this juncture that the line of weakness **94** joins the tear-out tab **90** with the segment **70** of the spout **64**. Consequently, when the tab **90** is removed, the spout **64** may be readily folded outwardly to the pouring position illustrated in FIG. 2.

It is preferable, when the flap **58** is adhered to the flap **56**, that no adhesive be provided for the tear-out tab **90** since the tab **98** will adequately hold the tab **90** against the segment **72** of the spout **64**. And, by virtue of the joinder of the tab **90** to the segment **70**, the entire spout **64** will be held closed with lines of fold **20***a* and **48***a* contiguous with the line of fold **68**.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. In a box, a hollow body having a pair of side panels, a pair of end panels, a bottom and a top; and a pull-out pouring spout for said top adjacent one of the end panels, said spout including a central main triangular segment having a line of fold forming one edge

of the main segment and the upper edge of said one end panel, a pair of secondary triangular segments disposed one on each side of said main segment and each joined with said top by a line of fold, and a median triangular segment between each secondary segment respectively and the main segment and joined therewith by lines of fold, the median segments overlapping the main segment and each secondary segment overlapping its corresponding median segment when the spout is closed, said top having a pair of relatively overlapped flaps, one of the secondary segments being integral with one of the flaps, the other secondary segment being integral with the other flap, said one flap having means thereon and connected with said one end panel for initially holding the spout closed, said spout holding means including a tear-out tab connected with the secondary segment of said one flap and overlapping the secondary segment of said other flap, and a hold-down tab connected with the tear-out tab and glued to said one end panel.

2. In a box, a hollow body having a pair of side panels, a pair of end panels, a bottom and a top; and a pull-out pouring spout for said top adjacent one of the end panels, said spout including a central main triangular segment having a line of fold forming one edge of the main segment and the upper edge of said one end panel, a pair of secondary triangular segments disposed one on each side of said main segment and each joined with said top by a line of fold, and a median triangular segment between each secondary segment respectively and the main segment and joined therewith by lines of fold, the median segments overlapping the main segment and each secondary segment overlapping its corresponding median segment when the spout is closed, said top having a pair of relatively overlapped flaps, one of the secondary segments being integral with one of the flaps, the other secondary segment being integral with the other flap, said one flap having means thereon and connected with said one end panel for initially holding the spout closed, said spout holding means including a tear-out tab connected with the secondary segment of said one flap and overlapping the secondary segment of said other flap, a hold-down tab connected with the tear-out tab and glued to said one end panel, and a portion interposed between the secondary segment of said one flap and the median segment therebelow.

3. In a box, a hollow body having a pair of side panels, a pair of end panels, a bottom and a top; and a pull-out pouring spout for said top adjacent one of the end panels, said spout including a central main triangular segment having a line of fold forming one edge of the main segment and the upper edge of said one end panel, a pair of secondary triangular segments disposed one on each side of said main segment and each joined with said top by a line of fold, and a median triangular segment between each secondary segment respectively and the main segment and joined therewith by lines of fold, the median segments overlapping the main segment and each secondary segment overlapping its corresponding median segment when the spout is closed, said top having a pair of relatively overlapped flaps, one of the secondary segments being integral with one of the flaps, the other secondary segment being integral with the other flap, said one flap having means thereon and connected with said one end panel for initially holding the spout closed, said spout holding means including a tear-out tab connected with the secondary segment of said one flap and overlapping the secondary segment of said other flap, a hold-down tab connected with the tear-out tab and glued to said one end panel, a portion interposed between the secondary segment of said one flap and the median segment therebelow, and a marginal flap on said one end panel secured to one of the side panels, said portion being a continuation of said marginal flap.

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