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POURING SPOUT CARTON

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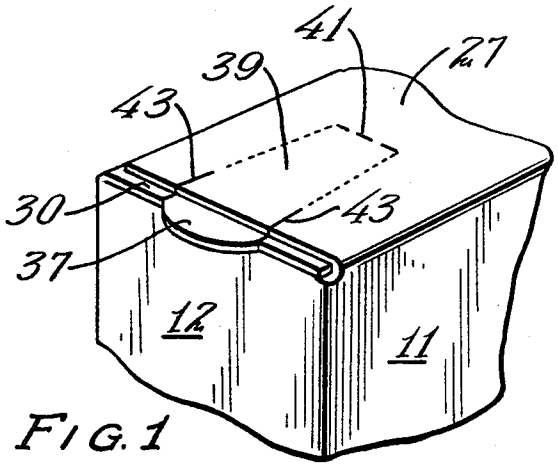


FIG. 1

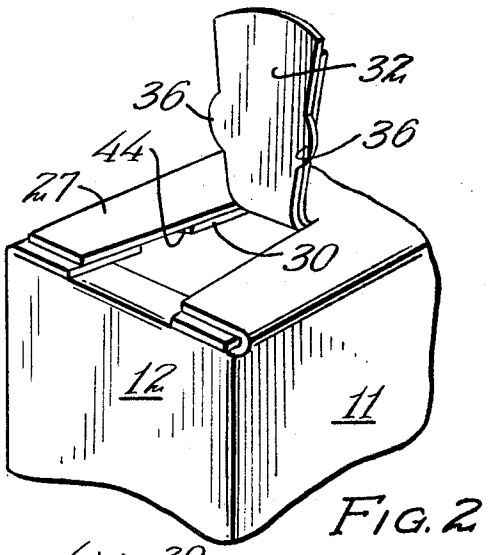


FIG. 2

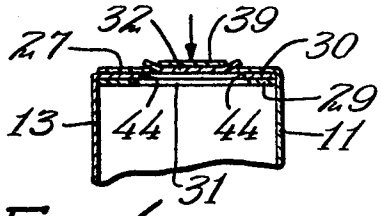


FIG. 4

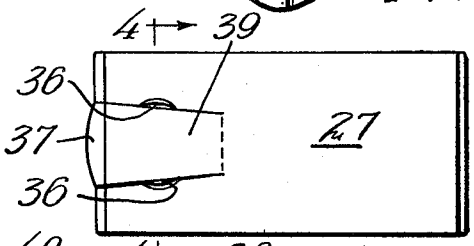


FIG. 3

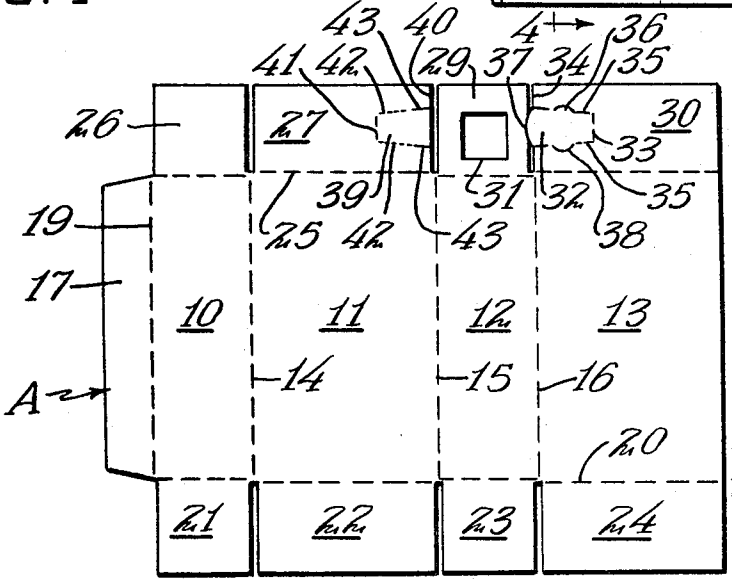


FIG. 5

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POURING SPOUT CARTON

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This invention relates to an improvement in pouring spout cartons, and deals particularly with a carton or container from which bulk material may be dispensed, and which may be simply and effectively reclosed when not in use.

A great many forms of pouring spout cartons and containers have been produced. For the most part, such structures are used in conjunction with paperboard cartons made of relatively thin carton stock. In some instances, pouring spout constructions which function effectively in conjunction with thin walled cartons do not function effectively with containers formed of thicker materials such as corrugated paperboard. It is a feature of the present invention to provide a pouring spout construction which may be used in cartons and containers made of corrugated paperboard, and which may be simply and effectively reclosed when not in use.

During recent years, the use of corrugated paperboard for use in containing bulk materials such as parts used in assembly processes has greatly increased. Such containers may be used for shipping the parts in bulk to the user, and may be readily printed to indicate the source and the contents. When not in use, such containers may be readily stored in a relatively small space. When in use, a number of the parts may be poured onto the assembly table or into suitable trays. It is desirable that the pouring openings be reclosed when not in use.

An object of the present invention resides in the provision of a carton of the type described which is generally of conventional form, having a tubular body, and end closure flaps hinged to the opposite ends of the body. The closure flaps of two opposed walls, which are normally the narrower walls of the rectangular carton are folded into a common plane, and the two flaps hinged to the wider walls are folded down over the first folded coplanar flaps and secured in face contact. One of the innermost flaps is provided with a dispensing opening formed therein either by cutting an aperture in the flap, or forming a removable area to provide the opening which is defined by weakened lines of separation. Two registering tabs are cut in the edges of the two uppermost flaps which are in superimposed relation and which overlie the dispensing opening in the inner flap. The lowermost of the two tabs is provided with a pair of rounded ears on opposite sides thereof which extend laterally beyond the sides of the tab in the uppermost flap. The tabs are hinged along registering fold lines parallel to the wall to which the innermost flap is hinged. When the two tabs are grasped and hinged upwardly, the ears will flex sufficiently to permit the tabs to expose the dispensing opening. When hinged downwardly, the rounded edges of the ears permit the two tabs to swing back into their original position, the ears extending below portions of the uppermost flap and holding the tabs in closed position.

These and other objects and novel features of the present invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

FIGURE 1 is a perspective view of the dispensing carton in closed position.

FIGURE 2 is a perspective view of a portion of the carton showing the dispensing opening in open position.

FIGURE 3 is top plan view of the carton with the tabs in slightly open position.

FIGURE 4 is a vertical sectional view through the dispenser carton, the position of the section being indicated by the line 4—4 of FIGURE 3.

FIGURE 5 is a diagrammatic view of the blank from which the carton is formed.

The blank from which the carton is formed is indicated by the letter A in FIGURE 5 of the drawings. As indicated in this view, the carton includes an end wall **10**, a side wall **11**, an end wall **12**, and a side wall **13** which are hingedly connected along parallel fold lines **14**, **15**, and **16**. A glue flap or stitch flap **17** is connected to one end wall panel of the series, the glue flap **17** being shown as hingedly connected by the fold line **19** to the end wall **10**.

The lower edges of the side and end walls are connected along fold lines **20** which may be offset slightly as indicated to compensate for the thickness of the paperboard, the portions of the fold lines **20** connecting the end walls **10** and **12** to the bottom closure flaps **21** and **23** being slightly offset upwardly from the portions of the fold lines **20** connecting the side walls **11** and **13** to the bottom closure flaps **22** and **24**.

Top closure flaps are connected to the upper edges of the wall panels along fold lines **25** which may be similarly slightly offset. The portions of the fold lines **25** connecting the upper end closure flaps **26** and **29** hinged to the end walls **10** and **12** might be slightly lower than the portions of the fold lines **25** connecting the side walls **11** and **13** to the side wall upper closure flaps **27** and **30**, respectively.

An aperture **31** is provided in the end wall closure flap **29**, the area within the aperture either being cut away or connected to the remainder of the flap along readily separable weakened lines of separation. A tab **32** is provided in the end edge of the top closure flap **30**, the tab **32** at least partially overlying the aperture **31**. The tab **32** is defined by a hinge line **33** which is parallel to the end edge **34** of the flap **30** the tab further being defined by weakened lines of separation **35** which diverge slightly from the ends of the fold line **33** to the end edge **34** of this flap. The weakened lines of separation are provided with outwardly rounded cut lines **38** which form laterally projecting ears **36** on opposite sides of the tab **32**. The end edge **37** of the tab **32** preferably extends beyond the flap edge **34** to simplify the grasping of the tab.

A tab **39** is also provided in the end edge **40** of the closure flap **27** which is most closely adjacent the end closure flap **29** in the flat condition of the blank. The tab **39** is connected to the remainder of the flap **27** by a fold line **41** which generally registers with the fold line **33** when the flaps **27** and **30** are in superposed relation. A tab **39** is further defined by slightly diverging weakened lines of separation **42** which extend toward the flap edge **40**. The weakened lines of separation **42** terminate in cut lines **43** extending inwardly from the flap edge **40** toward the ends of the fold line **41**.

The lower end of the carton is closed in the conventional manner, folding the end closure flaps **21** and **23** inwardly into a common plane, and folding the closure flaps **22** and **24** inwardly into face contact and securing the flaps together. The top of the carton is also closed in a conventional manner, the end closure flaps **26** and **29** being folded down into a common plane, the flap **30** being folded to overlie the coplanar flaps **26** and **29**, and the flap **27** being folded over the flap **30** and being secured thereto in face contact therewith. When closed, the carton appears as indicated in FIGURE 1 of the drawings. Preferably, the end closure flap **27** is slightly

narrower than the flap **30** to expose narrow end portions of the inner flap **30**.

When it is desired to open the carton, the end portion **37** of the flap **32** is engaged between the fingers and is pulled upwardly, hinging the combined flaps **32** and **39** upwardly as indicated in FIGURE 2 of the drawings. During this operation, the ears **36** of the tab **32** distort or flex to the mount necessary to permit the two tabs to be raised in unison.

When the carton is to be closed, the combined tabs are swung down and pressure is applied to the tabs between the ears **36**. As a result, the tabs flex sufficiently to permit the ears to pass between the edges of the aperture formed by the tab **39**, and reenter the notches **44** in the flap **30** which were created by cutting the ears **36**. The rounded edges of the ears act to cam the tabs back into place to reclose the carton.

The use of an aperture **31** in the innermost flap has the advantage of providing a structure which will readily fold on conventional equipment. Obviously, the length of the flap **29** could be reduced to permit the carton contents to be dispensed when the combined tabs **32** and **39** are hinged upwardly into the position shown in FIGURE 2.

In accordance with the patent statutes, I have described the principles of construction and operation of my pouring spout carton; and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the following claims without departing from the spirit of my invention.

I claim:

1. A reclosable pour spout carton including a rectangular tubular body including side and end walls, and closure flaps secured to said walls and including an end wall closure flap hinged to an end wall, and side closure flaps secured to said side walls, said side wall closure flaps overlying said end closure flap and being secured in face contact, a pair of substantially registering tabs formed in the end edges of said side wall closure flaps overlying said end wall closure flaps and hinged to the side wall closure flaps along registering fold lines parallel to said end edges, side edges of said tabs extending from the ends of said registering fold lines to said end edges of said side wall closure flaps and spaced from the outer edges thereof, and a pair of ears projecting laterally from the side edges of the lowermost of said tabs extending beneath portions of the uppermost side wall closure flaps on opposite sides of the uppermost of said tabs, said ears being defined by outwardly curved cut lines which terminate substantially at the side edges of the tabs.

2. The structure of claim **1** and in which said end wall closure flaps is apertured in at least a part of the area underlying said tabs.

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