Sept. 15, 1970 H. G. ZASTROW 3,528,597

DISPENSING CONTAINER

Filed June 16, 1969

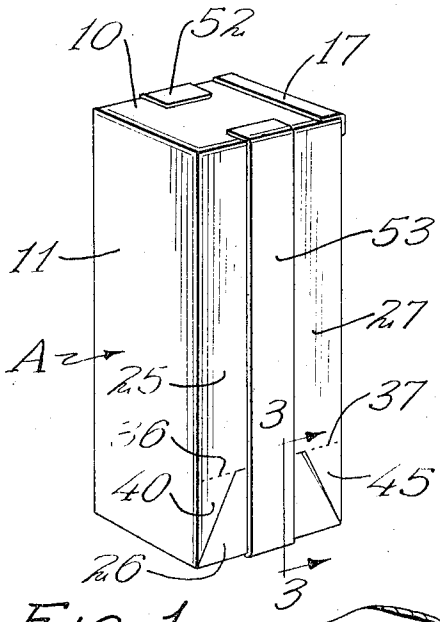

FIG. 1

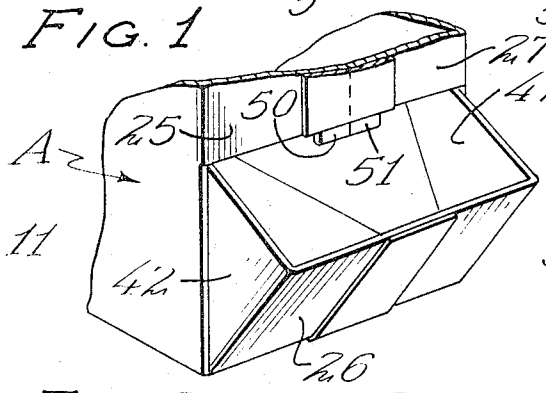

FIG. 2

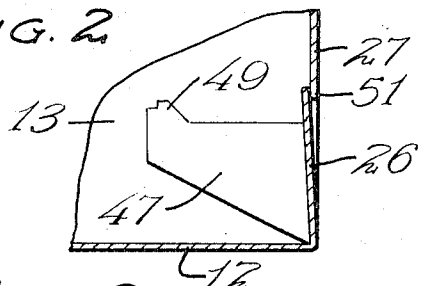

FIG. 3

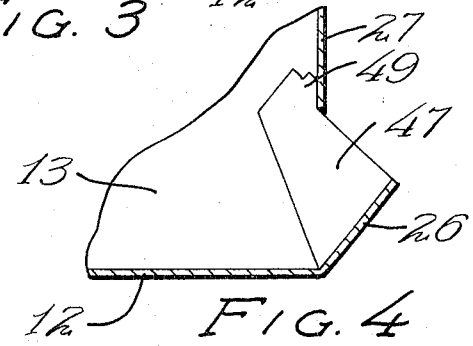

FIG. 4

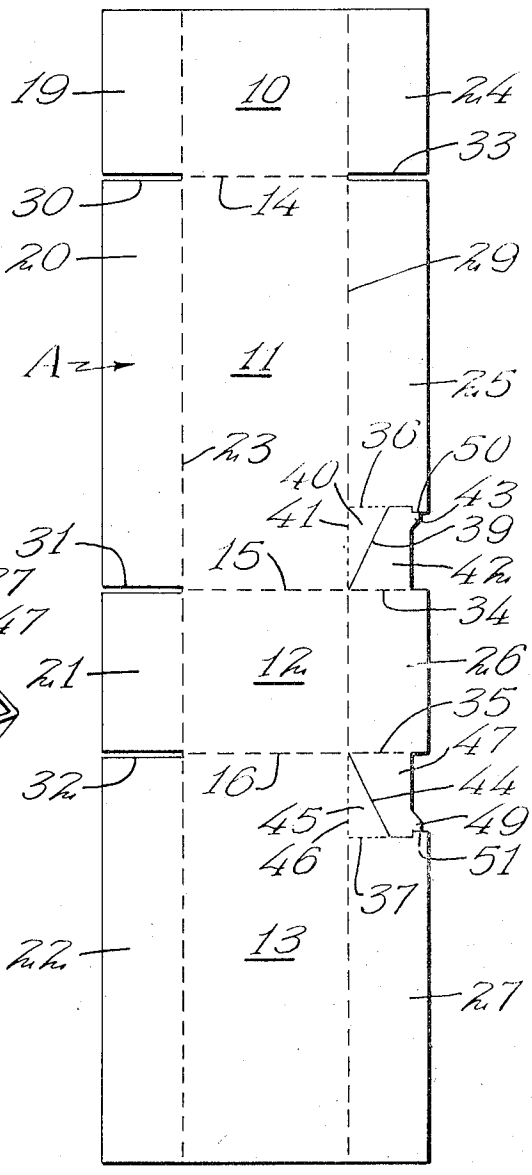

FIG. 5

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DISPENSING CONTAINER

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U.S. Cl. 229—17 9 Claims

ABSTRACT OF THE DISCLOSURE

A dispenser container includes a rectangular body, including a top panel, first side wall panel, bottom panel and second side wall panel connected in tubular relation. Rear closure flaps are provided to provide a rear closure. A top panel closure flap and side wall closure flaps form a partial front closure. The closure flap hinged to the front of the bottom wall is provided with side wings cut from the lower portions of the front side wall closure flaps to fold inwardly of the side wall panels and form, with the bottom wall closure flap, a hinged dispensing trough.

This invention relates to an improvement in dispensing container and deals particularly in a shipping container which may be used to ship a product and which may be opened up to permit the dispensing of the container contents.

Many of these include a wall panel provided for hinging the wall portion outwardly, the flaps or wings limiting the extent to which the wall portion may be hinged so as to form a dispensing trough. Such containers are useful in the packaging of bulk parts of one type or another, and similar containers have been used as feeders for poultry or for the like. The present invention resides in a device of the same general type. A feature of the present invention resides in the provision of a dispensing container in which the opening into the container through which the goods are dispensed, as well as the trough portion of the device, are formed entirely in the closure flaps of the container. As a result, the container may generally be of conventional form including four rectangularly arranged walls connected in tubular relation at a manufacturers joint. The only unusual feature lies in a modification of three of the closure flaps which are shaped to provide both the dispenser opening and the dispenser trough.

A feature of the present invention resides in the provision of a dispensing container of the type described in which the pivoted wall forming the main panel of the trough comprises one of the short flaps which usually lie inwardly of the remaining closure flaps, and in which the wings which form the ends of the trough are cut from portions of the adjoining overlying flaps. The wings forming the end of the trough are cut in such a manner that marginal portions of the outermost closure flaps overlie marginal portions of the inner closure flap which forms the dispenser trough so as to hold the contents properly enclosed during shipment and storage.

A further feature of the present invention resides in the provision of a dispenser container of the type described in which generally triangular portions are provided on the outermost closure flaps which overlie the ends of the inner flap which forms the main panel of the trough. These generally triangular portions are detachable so that by removing these areas, the trough may be opened in a conventional manner.

A further feature of the present invention resides in the provision of a dispensing trough which may be reclosed if desired. Tab means are provided for engaging the main wall of the trough to hold the trough in a closed position if and when desired.

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:

FIG. 1 is a perspective view of the container in closed position, or in position for storage and shipment.

FIG. 2 is a perspective view of the trough portion of the container after it has been opened.

FIG. 3 is a sectional view through the trough portion of the container and an adjoining portion of the bottom panel thereof, the position of the section being indicated by the line 3—3 of FIG. 1.

FIG. 4 is a sectional view similar to FIG. 3, but showing the trough in its open position.

FIG. 5 is a diagrammatic view of the blank from which the dispensing container is formed.

In view of the fact that the panels of the container are normally arranged so that the dispenser trough will be at the bottom of the container, the panels will be described in this manner. As indicated in FIG. 5 of the drawings, the container A includes a top panel **10**, a side wall panel **11**, a bottom panel **12**, and a second side wall panel **13** which are hingedly connected together along parallel fold lines **14**, **15**, and **16**. A glue flap or stitch flap may be provided on an end panel of the series and secured to the other end panel of the series in order to connect the walls in tubular relation. In the particular arrangement illustrated, the panels are held in tubular relation by a strip of tape **17**.

Closure flaps **19**, **20**, and **22** are hingedly connected to the panels **10**, **11**, **12**, and **13** respectively along a common line of fold **23**. Closure flaps **24**, **25**, **26**, and **27** are hingedly connected to the panels **10**, **11**, **12**, and **13** along a common line of fold **29**. Slots **30**, **31**, and **32** separate the closure flaps **19**, **20**, **21**, and **22**. A slot **33** separates the flap **24** from the flap **25**.

Perforated lines **36** and **37** extend across the closure flaps **25** and **27** in equally spaced relation to the fold lines **34** and **35** which are aligned with the fold lines **15** and **16** respectively. A cut line **39** extends diagonally from the juncture between the fold lines **34** and **29** to the fold line **36**. This provides a triangular section **40** which is defined by a perforated line **41** extending along the fold line **29**, the perforated line **36**, and the diagonal cut line **39**. Outwardly of the triangular removable section **40** is provided a generally trapezoidal wing **42** having an outwardly extending projection **43** on its extremity. The wing **42** forms one side of the dispensing trough.

A diagonal cut line **44** extends from the intersection of the fold lines **35** and **29** to the perforated line **37**. This provides a triangular detachable section which is defined by the perforated line **37**, a perforated line **46** extending along the fold line **29**, and the cut line **44**. As will be later described, the triangular portion **45** may be removed when the dispensing trough is to be used.

The diagonal cut line **44** also provides a trapezoidal wing **47** similar to the wing **42** hinged to the closure flap **26** along the fold line **35**, and which is provided with an outwardly extending projection **49** at its extremity. The cut lines separating the ends of the wings **42** and **47** from the remainder of the closure flaps **25** and **27** are shaped to provide short downwardly extending projections **50** and **51** which assist in the reclosing of the dispensing trough.

In closing the container, the closure flaps **19** and **21** are folded into a common plane, and the closure flaps **20** and **22** are folded into face contact with the outer surfaces of the inner flaps **19** and **21** to fold into edge abutting relation. A strip of tape **52** is applied over the joint. Preferably the ends of the tape strip **52** extend over the top and bottom panels **10** and **12** as indicated in FIG. 1.

After the container has been filled, the opposite wall of the container is closed. This is accomplished by folding

the wings **42** and **47** along the fold lines **34** and **35** into right angular relation with the closure flap **26**, and folding these wings inwardly of the vertical wall panels **11** and **13**, folding the closure flap **26** and the opposite closure flap **24** into a common plane. The closure flaps **25** and **27** are folded to lie outwardly of the flaps **24** and **26**, and a strip of tape **53** is applied to the abutting edges of the closure flaps **25** and **27**, as indicated in FIG. 1 of the drawings. The lower portion of the dispensing container then appears as indicated in FIG. 3 of the drawings. The container is shipped in this condition. It will be noted that the triangular areas **40** and **45** overlie the ends of the flap **26** to prevent leakage of the contents.

When the contents are to be dispensed, the tape **53** is slit in substantial alignment with the perforated lines **36** and **37**, and the triangular areas **40** anl **45** are grasped and torn out. The trough may then be opened up into the position shown in FIGS. 2 and 4 of the drawings, the projections **43** and **49** engaging against the inner surface of the panels **25** and **27** to limit the extent to which the trough is opened. If it is desired to reclose the dispenser opening, the flap **26** may be swung back, and the upper edge of this flap may be flexed past the projections **50** and **51** to reclose the trough.

I claim:

1. A dispensing container including:

a top wall panel, a first side wall panel, a bottom panel and a second side wall panel in tubular relation,

rear closure flaps hinged to the rear edges of said panels and folded into superposed relation to form a rear closure,

top and bottom panel closure flaps hinged to the forward edges of said top and bottom wall panels and folded into a common plane,

side wings hingedly connected to the side elges of said side walls and folded inwardly into edge abutting relation, the lower edges of said side wall closure flaps terminating along lines substantially coinciding with the upper edge of said bottom panel closure flap.

2. The structure of claim **1** and in which said side wings include upwardly extending projections engageable with the inner surfaces of said side wall closure flaps.

3. The structure of claim **1** and including generally triangular detachable portions lying forwardly of the sides of said bottom panel closure flap.

4. The structure of claim **1** and including a strip of tape connecting the abutting edges of said side wall panel closure flaps.

5. The structure of claim **4** in which said strip of tape has its ends adhered to said top and bottom panels.

6. The structure of claim **1** and in which the lower edges of said side wall panel closure flaps includes tab means overlapping the upper edge of said bottom panel front closure flap.

7. A blank for forming a dispensing container including:

a series of panels including a top panel, a first side wall panel, a bottom panel and a second side wall panel, a bottom panel and a second side wall panel connected together along parallel fold lines,

a series of rear closure flaps hingedly connected to said panels along a substantially common line of fold,

said front closure flap connected to said top panel being disconnected from said front closure flap secured to said first side wall by a slot,

a weakened line of separation extending across each side wall front closure flap in equally spaced relation from said front closure flap secured to said bottom panel,

the areas between said weakened lines of separation and said bottom wall front closure flap being divided into two sections by a cut line extending diagonally from the junctures of said fold lines connecting said front closure flaps to said panels and the fold lines connecting said bottom panel to said side wall panels to said weakened lines intermediate the ends thereof,

the sections of said areas adjoining said fold lines connecting said side wall front closure flaps to said side wall panels being of generally triangular shape, and the other sections of said areas comprising generally trapezoidal wings hinged to opposite sides of said front closure flap hinged to said bottom panel.

8. The structure of claim **7** and in which said wings include projections directed away from the fold line connecting said front colsure flaps to said panels and adjacent said wakened lines of separation.

9. The structure of claim **7** and including weakned lines of separation extending from said first named weakened lines of separation to said fold lines connecting said bottom panel to said side wall panels and aligned with the fold lines connecting said front closure flaps to said wall panels.

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