United States Patent

[11] **3,613,973**

[72] Inventor **Harold R. Jaeschke**
Milwaukee, Wis.

[21] Appl. No. **844,957**
[22] Filed **July 25, 1969**
[45] Patented **Oct. 19, 1971**
[73] Assignee **Hoerner Waldorf Corporation**
Ramsey County, Minn.

[54] **TAPE DISPENSING CARTON**
10 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **225/47,** 225/49, 206/52, 206/58
[51] **Int. Cl.** **B26f 3/02,** B65d 85/00
[50] **Field of Search** 206/52, 58; 225/47, 48, 49, 50

[56] **References Cited**

UNITED STATES PATENTS

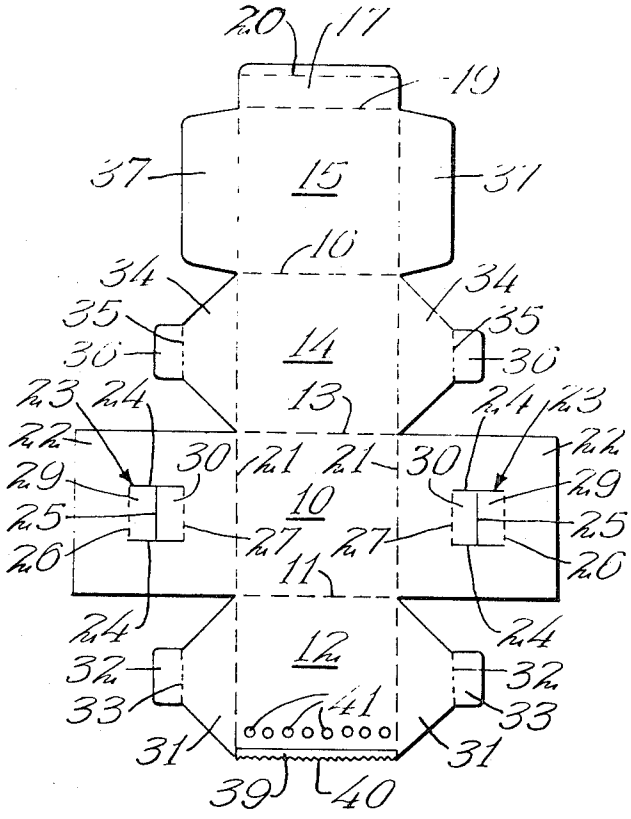
2,591,576	4/1952	McCormick	206/52
2,743,009	4/1956	Williamson et al.	206/58
3,229,812	1/1966	Metzger	206/58

FOREIGN PATENTS

93,111	12/1958	Norway	225/48

Primary Examiner—Andrew R. Juhasz
Assistant Examiner—Leon Gilden
Attorney—Robert M. Dunning

ABSTRACT: A carton is provided for rotatably supporting a wide roll of material such as tape so that the tape may be dispensed. The full sized end flaps hinged to one carton wall are provided with opposed inwardly foldable flaps which are held in inwardly projecting position by flaps hinged to the ends of end wall flaps hinged to adjoining carton walls. Hollow rectangular supports are provided which extend into the core of the tape roll to rotatably support the same.



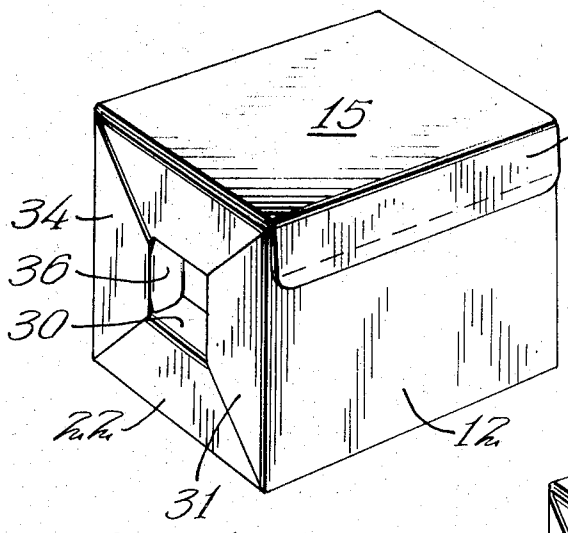


FIG. 1

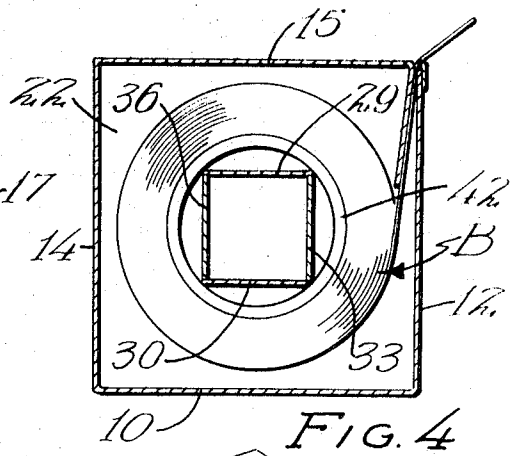


FIG. 4

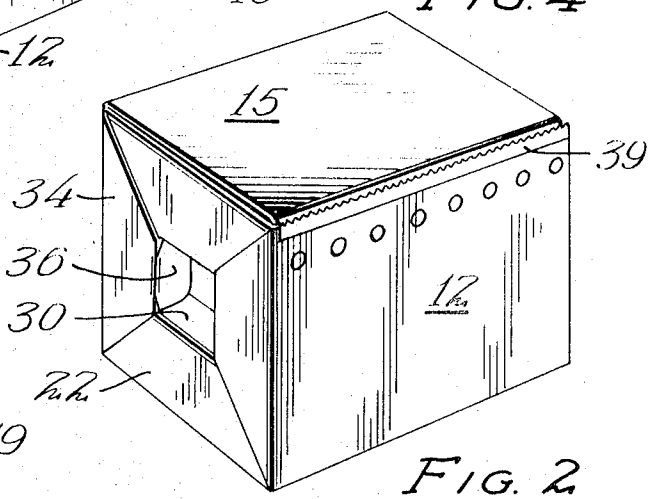


FIG. 2

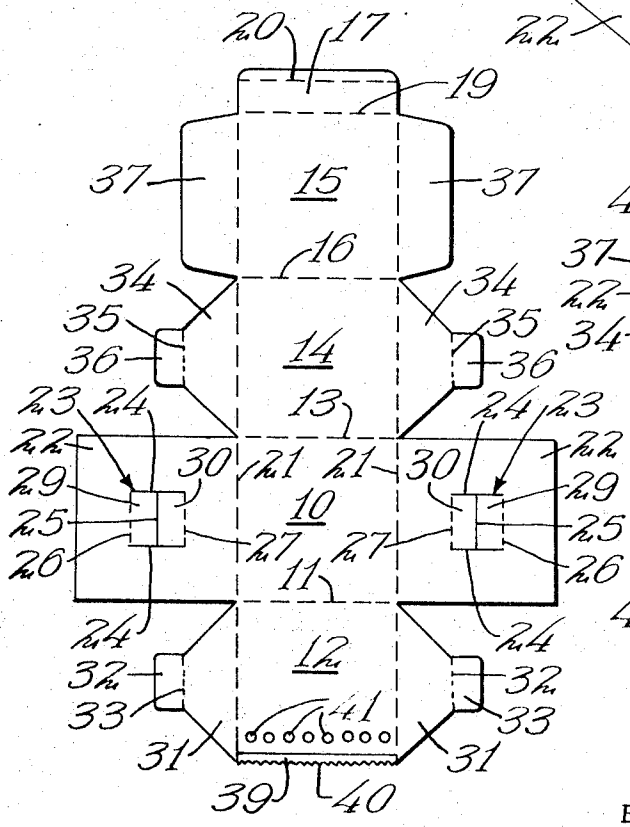


FIG. 5

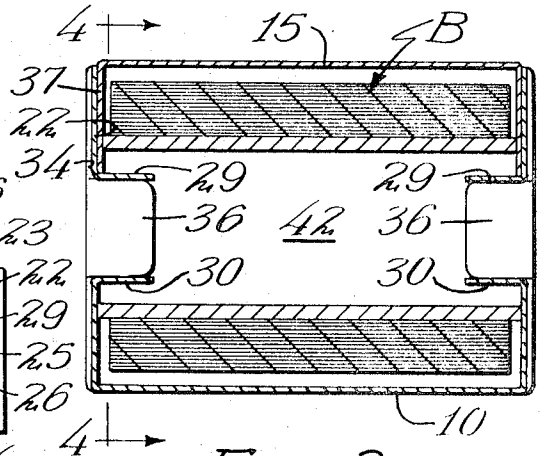


FIG. 3

INVENTOR
HAROLD R. JAESCHKE

BY Robertson, Dunning

ATTORNEY

TAPE DISPENSING CARTON

This invention relates to an improvement in tape dispensing carton, and deals particularly with a carton capable of rotatably supporting a hollow roll of tape or similar material.

BACKGROUND OF THE INVENTION

Various means have been provided for rotatably supporting a roll of tape within a carton. Where the roll is relatively narrow, or short in axial length, tabs may be provided on opposite wall of the carton, the fold lines of one pair of tabs being at right angles to the fold lines supporting the other pair of tabs so that the overlapping flaps form a rectangular support within the core of the tape roll. U.S. Pat. No. 2,767,833 issued Oct. 23, 1956, to Milton W. Hedin shows a construction of this type. U.S. Pat. No. 3,014,578 issued Dec. 26, 1961 to William M. Tolaas, shows a pair of tabs hinged to opposite walls of the enclosing sleeve which extend diagonally into overlapping relation to form a roll support. U.S. Pat. No. 2,970,686 granted Feb. 7, 1961 to William M. Tolaas shows a support for a somewhat wider roll of tape. Flaps which are folded inwardly off the side walls of the carton support a sleeve about which the tape roll may pivot. While such a structure has been successfully used, it does involve an extra part which is time consuming and costly to insert.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a dispensing carton having a pair of hollow rectangular sleeves extending inwardly from opposed walls thereof and designed to engage in the core of a roll of material such as tape. While tape has been described as the product, obviously, the carton would be similarly useful in supporting ribbon or other materials wound about a hollow core. The tape core may rotate freely about the square sleeves as the tape is dispensed.

A further feature of the present invention resides in the provision of a dispensing package of the type described in which the tabs which form the inwardly extending rectangular projections also serve as a means of holding the carton assembled. In usual practice, end wall flaps being normally the full size of the ends of the carton. The center portions of these end flaps are provided with generally H-shaped cut lines, the ends of which are connected by fold lines. The cut lines form a pair of end abutting tabs which may be folded inwardly into parallel relation.

The sidewalls of the carton on opposite sides of the bottom wall are provided with closure flaps which terminate in substantially rectangular tabs which are of proper width to extend between the inturned tabs of the full size end wall flaps, the walls are held in right angular relation. At the same time, the four inturned tabs form a rectangular support for a roll of tape or other similar material.

A further feature of the present invention resides in the fact that the fourth wall of the rectangular carton is provided with a tuck which may be adhered along a limited area of adhesive to the outer surface of the adjoining sidewall. The areas of adhesion connecting the tuck flap to the wall which it overlaps are spaced from the free edge of the tuck flap so that the tuck flap may be grasped and pulled away from the wall to which it is adhered, permitting the carton to be opened to provide access to the tape roll, and so that the end of the tape may be detached from the remainder of the roll and directed over the exposed edge of the end wall of the series. This end edge of the series is normally provided with a metal cutting edge or equivalent device which is cancealed during storage and shipment of the package. After the end of the tape has been cut off, the package may be reclosed by tucking the tuck flap inwardly of the wall to which it was previously adhered.

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.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the complete package in closed position.

FIG. 2 is a perspective view of the same package after it has been opened and reclosed.

FIG. 3 is a sectional view taken on a vertical plane to the axis of the tape roll.

FIG. 4 is a transverse sectional view through the package, the position of the section being indicated by the line 4—4 of FIG. 3.

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

DESCRIPTION OF THE PREFERRED EMBODIMENT

As indicated in FIG. 5 of the drawings, the carton includes a bottom panel 10 hingedly connected along the fold line 11 to a first sidewall 12. The opposite side of the bottom panel 10 is connected along a fold line 13 to a second sidewall 14. A top panel 15 is foldably connected to the second sidewall panel 14 along a fold line 16. A tuck flap 17 is hingedly connected to the edge of the top panel 15 along a fold line 19 which is parallel to the previous fold lines 11, 13 and 16. An added parallel fold line 20 extends across the tuck flap 17 near the end thereof. This fold line 20 is merely for the purpose of permitting the lower end of the tuck flap to be swung forwardly in grasping the tuck flap to remove it or detach it from the first sidewall 12.

The bottom panel 10 is foldably connected along parallel fold lines 21 to end closure flaps 22 which are preferably the full size of the end closure. H-shaped cut lines indicated in general by the numeral 23 are formed in the center portions of the closure flaps 22. The H-shaped cut lines 23 include a pair of parallel cut lines 24 which are in right angular relation to the fold lines 21 and which are equally spaced from the side edges of the closure flaps 22. The H-shaped cut lines 23 also include a cut line 25 connecting the center portions of the cut lines 24. Fold lines 26 and 27 connect the ends of the cut lines 24 thereby forming a pair of rectangular tabs 29 and 30 in end abutting relation at the center portion of each end closure flap 22.

End closure flaps 31 are provided connected to opposite ends of the first sidewall 12 along extensions of the fold line 21. These closure flaps 31 may be rectangular, but are shown as trapezoidal in shape, the longer parallel edge of the trapezoid being a portion of the fold line 21 which extends the width of the sidewall 12, and the other edge of the trapezoidal flap being defined by a fold line 32 which is of a length substantially equal to the distance between the fold lines 26 and 27. A rectangular tab 33 is hinged to each closure flap 31 along the fold line 32. The tabs 33 are of substantially the same size and shape as the opposed tabs 29 and 30 in the end closure flaps 22.

The second sidewall 14 is provided with end closure flaps 34 which are similar in shape to the flaps 31. The trapezoidal flaps 34 have their longer parallel edges an extension of the fold lines 21, and have their shorter parallel edges defined by fold lines 35 which connect the closure flaps 34 to generally rectangular tabs 36 which are of approximately the same dimension as the tabs 33.

The top panel 15 is connected along extensions of the fold line 21 to tuck flaps 37 which are designed to tuck inwardly of the end closure flaps 22 when the carton is closed. The length of these flaps cannot materially exceed the distance between the score lines 21 and the score lines 26 connecting the tabs 29 to the end closure flaps 22. A cutting edge is provided on the first sidewall 12. In the particular arrangement illustrated, the cutting edge comprises a strip of metal 39 having a serrated edge 40 which projects slightly beyond the upper edge of the first sidewall 12 when the carton is erect.

In forming the carton, the blank is folded along the fold line 11 so that the sidewall 12 lies flat against the bottom panel 10. The blank is then folded along the fold line 15 so that the wall panel 15 overlies the panel 14, and the glue flap 17 overlaps the edge of the panel 12. As is indicated in FIG. 5 of the drawings, a series of spaced spots of adhesive 41 is applied to the outer surface of the first sidewall 12 adjacent to the cutting

edge strip 39. The glue flap 17 is thus adhered to the panel 12 to form a flat tubular carton.

When the carton is to be filled, the walls are folded into rectangular relation, and one end is closed. This is accomplished by folding the one tuck flap 37 inwardly into right angular relation to the top panel 15, and folding the corresponding closure flap 12 hinged to the bottom panel 10 into right angular relation to the panel 10 and outwardly of the flap 37. The tabs 29 and 30 are then folded along the fold lines 26 and 27 into right angular relation to the flaps 22. The corresponding closure flap 31 is then folded outwardly of the full size closure flap 22, and the tab 33 is inserted in the opening formed by the inward folding of the flaps 29 and 30. The same procedure is followed with the flap corresponding flap 34. This flap is folded down to overlie portions of the closure flap 22, and the tab 36 thereon is folded into the opening formed by the inward folding of the tabs 29 and 30, the tabs 33 and 36 extending between the tabs 29 and 30 and holding the tabs in substantially right angular relation.

The tape roll B having a hollow core 42 is then inserted into the container, the roll B being of a length to fit snugly between the end closures when they are formed. The other end of the carton is then closed in the same manner as the first, and the closed container appears as indicated in FIG. 1 of the drawings.

When the tape is to be used, the lower edge of the glue flap 17 is grasped and pulled outwardly to disconnect the glue flap from the front panel 12. The cover or top panel 15 is then opened and the desired amount of tape is unwrapped from the roll, drawn over the cutting blade 39, and the proper amount of tape is cut off. The cover may then be reclosed by tucking the tuck flap 17 as well as the tuck flaps 37 into the upper end of the carton. When reclosed, the carton appears as indicated in FIGS. 2 and 4 of the drawings.

I claim:

1. In combination with a roll of material on a hollow cylindrical core, a dispensing carton including:

top, bottom and first and second sidewalls connected in tubular relation,

a closure flap hinged to each end of one of said walls and extending substantially the full area of the end of the carton,

a pair of tabs defined by a substantially H-shaped cut line in the center of said closure flap and by fold lines extending between the ends of said cut line parallel to the lines of fold connecting said closure flaps to said one wall, said tabs being folded inwardly in parallel relation into the end of said hollow cylindrical core,

second closure flaps on the ends of the carton walls on each side of said one wall folded into face contact with said first named closure flap.

a tab hingedly connected to the end of each of said last named closure flaps folded inwardly between said parallel tabs on said first named closure flaps, forming with said first named tabs a generally rectangular sleeve within said hollow core.

2. The structure of claim 1 and in which said second closure flaps are substantially trapezoidal in shape with the shorter parallel side connected to said tab hinged thereto.

3. The structure of claim 1 and in which said one wall comprises the bottom wall, and said carton walls on either side of said one wall comprise said sidewalls.

4. The structure of claim 3 and including a tuck flap on said top wall detachably adhered to the outer surface of said front wall.

5. The structure of claim 3 and including a cutting edge on the upper edge of said front wall.

6. The structure of claim 3 and including tuck flaps on opposite edges of said top wall positioned inwardly of said first named closure flap.

7. A carton for a cylindrical object having a hollow cylindrical core, the carton including:

rectangularly arranged top, bottom and sidewalls connected in tubular relation to form a generally rectangular sleeve,

each end of said sleeve having an end closure including,

a first closure flap on one of said walls which is substantially the size of the sleeve end and adapted to extend across the same,

second closure flaps on the walls adjoining said one wall and adapted to be folded to overlie portions of said one wall,

a first pair of opposed tabs in the center of said first closure flap foldably connected thereto along parallel fold lines which are parallel to the fold line connecting said first closure flap to said one wall and adapted to be folded inwardly into parallel relation,

a second tab on each of said second closure flaps of a width substantially equal to the distance between said first pair of tabs and adapted to be folded inwardly between said first named tabs whereby,

said first and second tabs are adapted to form a hollow generally rectangular projection extending into said hollow core.

8. The structure of claim 7 and including a closure flap on the remaining wall of said sleeve folded inwardly of said first closure flap.

9. The structure of claim 7 and in which said top wall is connected to one of said sidewalls by a tuck flap on said top wall detachably secured to the outer surface of said one sidewall.

10. The structure of claim 9 and including tuck flaps on opposite sides of said top wall lying inwardly of said end closures.