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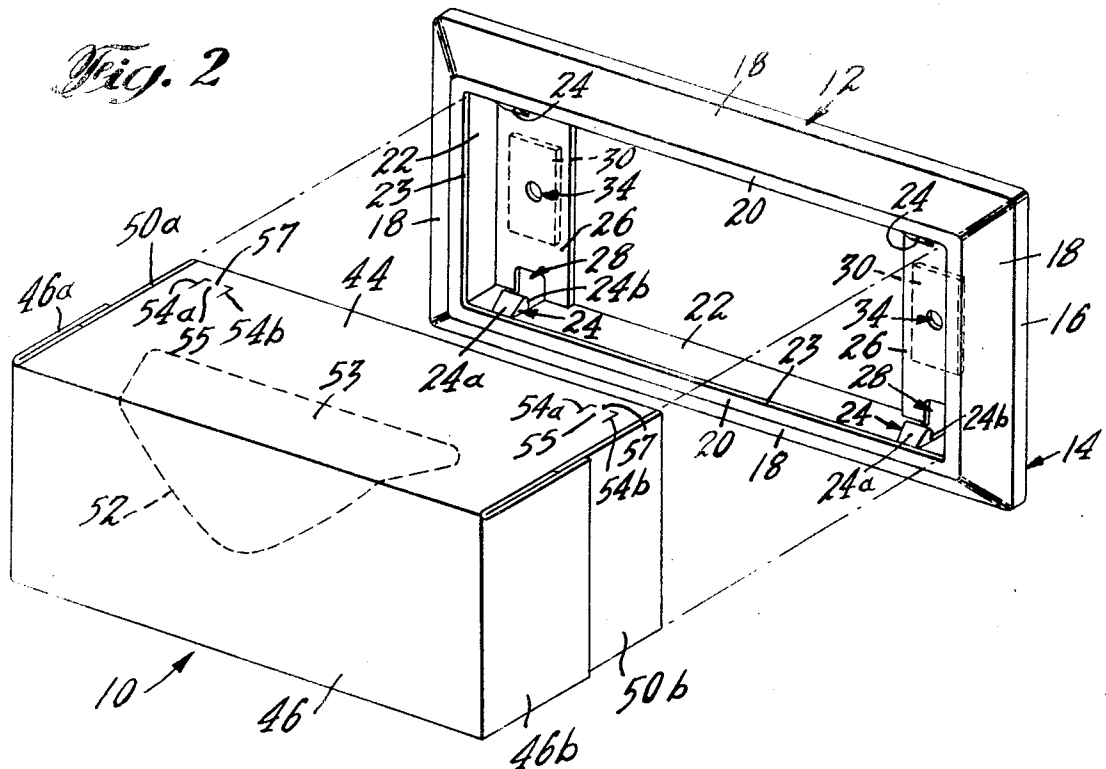
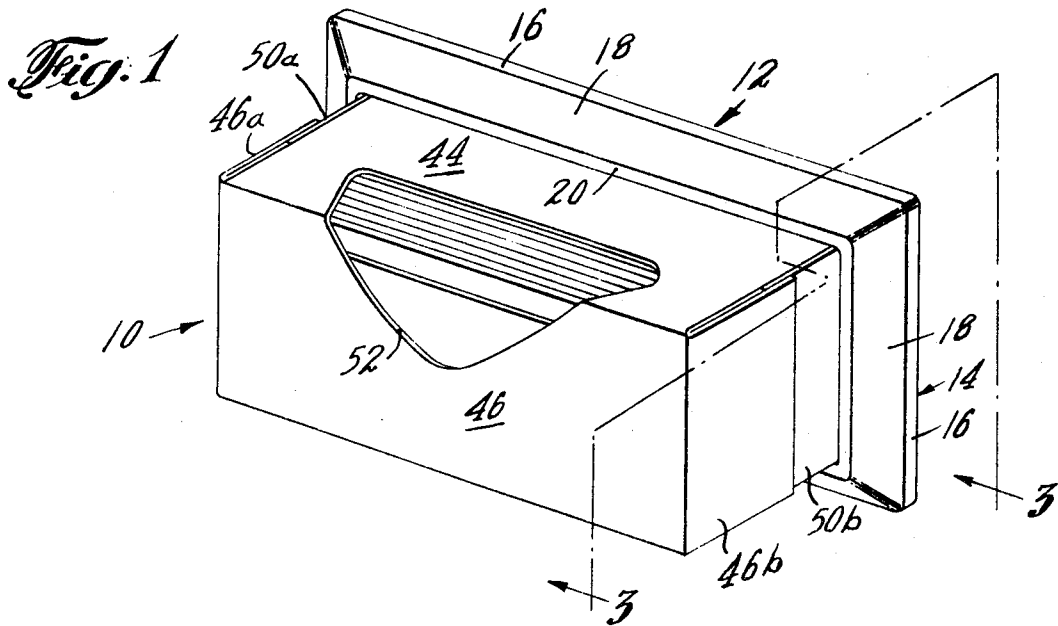
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3,514,014

FRAME HOLDER AND CARTON THEREFOR

Filed June 17, 1968

3 Sheets-Sheet 1



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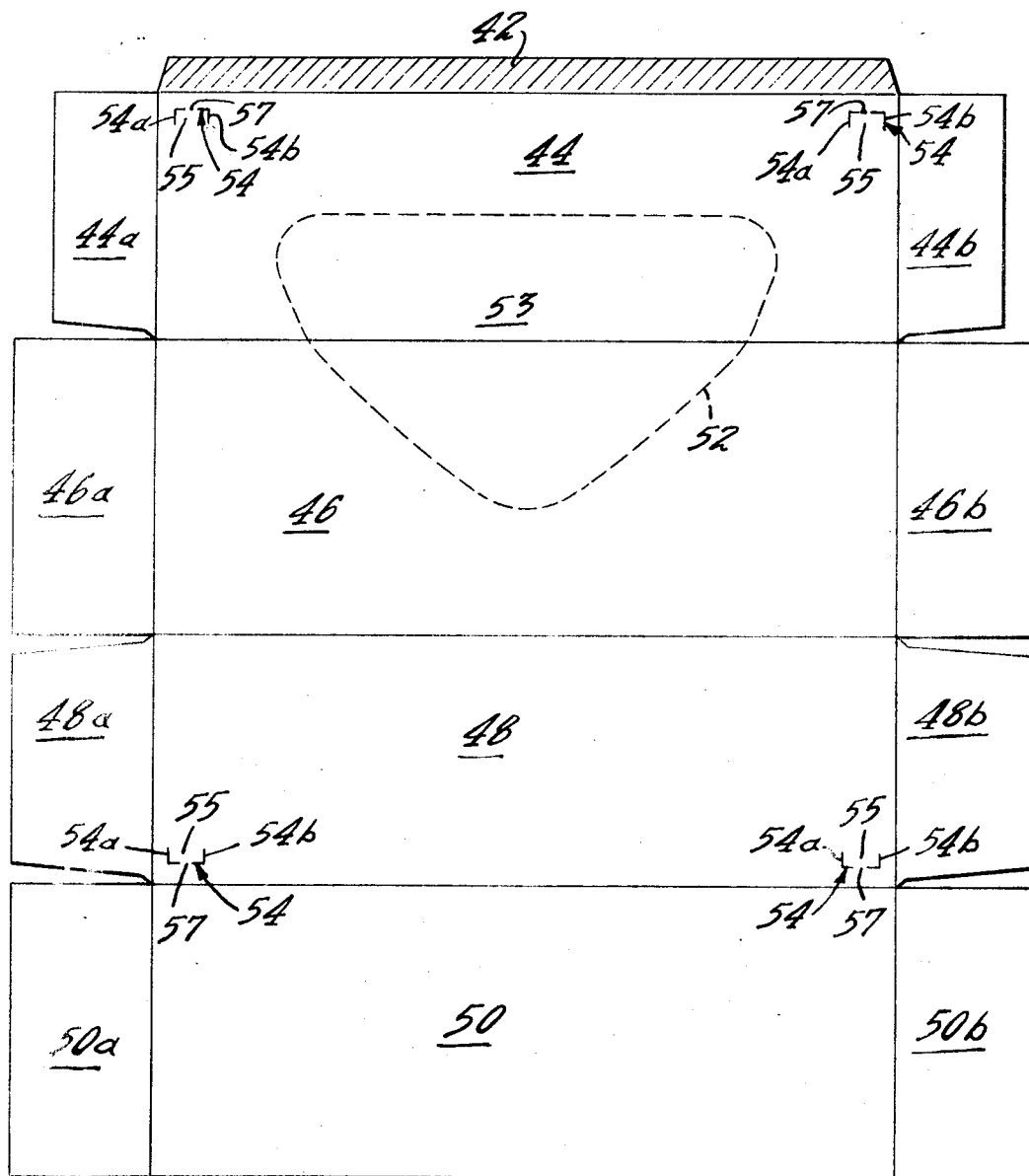
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Fig. 4



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FRAME HOLDER AND CARTON THEREFOR

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7 Claims

ABSTRACT OF THE DISCLOSURE

A rectangular dispenser carton is telescopically received in a rigid holder so as to be supported in cantilever fashion from a wall or other rigid support. The rigid holder is provided with a plurality of stationary locking members which engage a like number of locking slits in the top and bottom panels of the dispenser carton in locking abutment when the carton is telescoped into the rigid holder.

BACKGROUND OF THE INVENTION

This invention relates to a combination of a dispenser carton and holder therefor, and more particularly to a dispenser carton provided with locking slits which are moved into edge to edge locking abutment with coacting locking members of a rigid, stationary holder therefor by telescoping the base portion of the carton into the holder.

Heretofore, holders have been provided for cartons used to dispense articles wherein the holder was constructed with movable parts or of flexible material in order to retain the carton in dispensing position. These holders have frequently proved to be undesirable in that they have been known to yield or move so as to release the entire carton during the time when an article was being removed from the dispenser carton. Furthermore, holders with moving parts such as spring-biased, hinged arms and the like have proven rather expensive to manufacture and are subject to the possible failure of the various mechanical components.

SUMMARY OF THE INVENTION

In accordance with the present invention, these shortcomings and deficiencies have been overcome effectively by providing a carton, suitably of paperboard, having a dispensing opening in one or more panels and having locking slits in opposed sidewalls positioned to interlock with cooperative locking elements on a rigid, stationary, frame-like holder into which the base portion of the carton telescopes and by which it is supported in cantilever fashion. The present invention thus avoids all reliance upon flexibility or movement of the holder with its concomitant disadvantages.

In a preferred form of the present invention, a rigid holder is provided from a single molded plastic element. The holder has a frame portion into which the dispenser carton is telescoped in order to be secured in locking position. In the course of its insertion, a plurality of locking slits disposed in the top and bottom walls of the dispenser carton are forced into edge to edge locking abutment with the edges of the fixed locking members on the holder.

DESCRIPTION OF THE DRAWINGS

The inherent advantages and improvements of the present invention will become more readily apparent upon considering the following detailed description of the invention and by reference to the drawings in which:

FIG. 1 is a perspective view of the dispenser carton and holder in assembled position;

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FIG. 2 is an exploded perspective view showing the relationship of the holder and dispenser carton prior to assembly;

FIG. 3 is a cross-sectional view of the dispenser and holder taken along line 3—3 of FIG. 1; and

FIG. 4 is a plan view of a preferred form of blank construction for the dispenser carton.

While the various features of this invention are herein-after illustrated and described as being especially adapted for use in connection with a dispenser carton used to dispense a product such as paper towels, napkins or the like, it is to be understood that the various features of this invention can be utilized singly or in combination thereof with other types of dispenser cartons. Also, the words of description such as top, bottom, upwardly, downwardly and the like used in this application are for purposes of making the specified embodiment clear in nature and are not to be construed in a limiting sense. Thus, for example, FIGS. 1 and 2, for purposes of clarity in illustrating the dispensing features of the carton, show the dispensing opening oriented upwardly rather than downwardly as it would commonly be in normal usage by a consumer.

Therefore, this invention is not to be limited merely to the embodiments illustrated in the drawings, because the drawings are utilized merely to illustrate one of a wide variety of uses of this invention.

DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

Referring now to FIGS. 1—3 of the drawings, a dispenser carton is indicated generally at 10 and a rigid holder therefor is indicated generally at 12. The rigid holder 12, which may conveniently be molded in one piece from plastic material, is shown to have a rear edge 14 which is placed against a wall or other suitable supporting structure, not shown. Holder 12 has a vertically outwardly extending frame portion 16 which leads to a sloping portion 18 and a front or face portion 20 which parallels the rear or supporting edge 14. Holder 12 has an inner wall 22, connected to face portion 20 by a beveled corner 23, in which inner wall is formed a plurality of locking members 24. The surfaces 16, 18, 20, 22 and 23 constitute a peripherally extending frame for telescopically receiving the base portion of carton 10, beveled portion 23 facilitating the insertion of the carton into telescoped relationship within the holder and locking members 24 serving to maintain the carton in fixed, telescoped position after its insertion, as will be set forth in detail hereinafter.

In cross-section the molded frame is seen to be substantially a hollow shell and, if desired, the frame defined by the spaced surfaces 16, 18, 20, 22 and 23 may be reinforced by a suitable number of integrally molded struts or bridges 25, as shown in FIG. 3, which span the space behind these surfaces. Such struts will substantially increase the rigidity of the overall frame structure.

A pair of mounting panels 26 are molded at opposite ends of the holder integrally with the adjacent portions of inner wall 22 substantially flush with rear edge 14 and in a plane with the support surface.

The holder is illustrated as having four locking members 24, one each contiguous the respective corners of the frame and positioned in the inner wall 22 adjacent the end portions thereof. Each locking member 24 on holder 12, when viewed in the direction parallel to bottom wall 22, constitutes a substantially triangular projection on wall 22 with a sloping surface 24a which extends inwardly from inner wall 22 and rearwardly toward the rear or base of the holder 12 and terminates in a carton-locking edge 24b. An aperture or void 28, incident to the re-

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tractible mold elements utilized in forming the locking members 24 during the molding of the frame, is present in inner wall 22 and mounting panels 26, rearwardly of each locking member.

As shown in FIG. 3, pressure-sensitive adhesive means 30, suitably formed of two-side coated pressure-sensitive tape, is provided on the rear surface of the mounting panels 26 to enable the holder to be adhesively attached to a rigid structure, such as a wall. The exposed adhesive surface of the tape is protected in conventional manner by a covering release-coated paper sheet 32 which is readily removable by peeling away when it is desired to secure the holder to a support structure.

As an alternate means for attaching the holder to a wall or the like, the pair of support panels 26 are each provided with an aperture 34 through which a screw may be inserted for attaching the holder to a wall. When used in this manner, the pressure-sensitive adhesive tapes may be removed from support panels 26.

In FIG. 4 are illustrated the details of the dispenser carton blank 10. The blank, normally of paperboard or equivalent semi-rigid sheet material, is divided by parallel score lines into hingedly connected glue flap 42, top wall panel 44, front wall panel 46, bottom wall panel 48 and rear wall panel 50. Hingedly attached to the side edges of the top, front, bottom and rear wall panels, respectively, are end flaps 44a and 44b, 46a and 46b, 48a and 48b and 50a and 50b. In erecting the carton, the respective end flaps are bent inwardly into overlapping relationship and adhered to form the opposed end walls of the carton in conventional manner.

Top panel 44 and front panel 46 are provided with a line of perforations 52 which define a tear-out panel 53 with a portion thereof being in top panel 44 and a portion in front panel 46.

Top wall panel 44 and bottom wall panel 48 contain pairs of horizontal locking slits 54. Each horizontal locking slit 54 terminates in a short vertical slit extension at each end, these vertical slit extensions being designated 54a and 54b respectively which, together with the related horizontal slits, define deflectable tabs 55 in the top and bottom panels as indicated. The slits 54 which define tabs 55 are so placed that, on erection of the carton in conventional manner by forming right angle bends at the score lines between the panels and adhering glue flap 42 to the area of panel 50 adjacent its free edge, the locking slits 54 are near the base of the carton and are equidistant from it. Furthermore, the locking slits are so placed that when the carton 10 is inserted in telescoped relationship in the holder 12, each locking slit will come into locking abutment with the locking edge 24b of the corresponding locking member 24 of the holder 12. In inserting the carton into the holder, the sloping surface 24a of each locking member 24 momentarily distorts the carton wall below the locking slits 54. This distortion is relieved when the carton reaches a position in which the locking edges 24b slide past the locking slits 54 in the carton and the tabs 55 are deflected inwardly out of the plane of the carton wall by the force of locking members 24 exerted against the wall. Carton locking slits 54 then assume a position of locking abutment with edges 24b of locking members 24 on the holder, while carton tabs 55 lie slanted inwardly of the carton along sloping surface 24a of the holder locking members 24, as shown in FIG. 3.

In a preferred version of the invention, each locking slit 54 is interrupted by a very small bridge 57 of uncut paperboard which during filling, shipping and storage of the carton, retains the tab 55 in the plane of the carton wall, but which, on telescoping the carton into the holder, is readily ruptured by the holder locking member, thus freeing the tab 55 for deflection inwardly of the carton wall as described above. The small bridges 57 across the locking slits 55 are formed in the course of the manu-

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facture of the cartons by having a small nick filed or peened in the edge of the slit-cutting knife.

To enable secure interlock of the carton with the holder, proper relationship in both size and registry of the locking elements on the two components must be provided. To this end, locking slits 54 on the carton are slightly greater in length than the locking edges 24b on the holder locking members and the distance between the faces of the mounting panels 26 and the locking edges 24b is carefully controlled with respect to the distance between the carton locking slits 54 and the rear wall 50 of the carton. Thus, in one form of the invention the distance of locking edges 24b of the holder from the faces of the mounting panels 26 was made $\frac{1}{32}$ of an inch while, in the carton, the distance from the locking slits 54 to the outer surface of the rear wall panel 50 was made to be $\frac{3}{32}$ of an inch. Similarly, the horizontal relationships between the locking members on the holder and the locking slits on the carton are carefully controlled, the distance from the inside corners of the holder to the locking members 24 being $\frac{3}{8}$ of an inch while, in the carton, the distance from the carton corner to the locking slits 54 is $\frac{1}{4}$ of an inch. The locking slits 54 in this instance are $\frac{1}{2}$ of an inch in length, whereas the locking members 24 of the holder are $\frac{3}{16}$ of an inch in width to allow for interlocking of the carton with the holder in spite of minor variations in carton dimensions occasioned by normal manufacturing tolerances. Other comparable placements and dimensions for the locking members 24 and the locking slits 54 are obviously possible as long as they are placed and dimensioned to properly interlock on telescoping the base section of the carton into firmly seated relationship to the holder. It will be observed that, after the interlock has been made, the carton cannot fall from the holder nor can it be removed without rupture of the carton wall below the locking slits 54.

While the dispenser carton has been illustrated with respect to the dispensing of paper towels and napkins, obviously cartons for dispensing other products may be adapted to use in this invention. Such cartons may vary substantially in the features incorporated in their construction in accordance with well-known art.

It is thought that the invention and may of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the construction and arrangement of the parts without departing from the spirit and scope of the invention, or sacrificing all of its material advantages, the form hereinbefore describing merely a preferred embodiment thereof.

I claim:

1. A combination of a dispenser carton and rigid holder therefor comprising:

- (a) a dispenser carton having front, rear, top, bottom and end walls,
- (b) said top and bottom walls having a plurality of locking slits therein,
- (c) a rigid holder for said carton,
- (d) said rigid holder including:

- (1) an inner wall surface adapted to receive said dispenser carton in telescoping relationship,
- (2) said inner wall surface having a plurality of locking members each including a locking edge engaged in locking abutment with one of said locking slits on said carton when said carton is telescoped into said holder.

2. A combination of a dispenser carton and rigid holder therefor as defined in claim 1 wherein said rigid holder is molded from a single piece of plastic material.

3. A combination of a dispenser carton and rigid holder therefor as defined in claim 1 wherein said locking slits in said carton include angled slit extensions defining tabs deflectable from the plane of the carton wall and said locking members slope progressively inwardly toward said container and rearwardly toward said bottom portion of

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said holder thereby providing surfaces to deflect said tabs from said plane sufficiently to allow said locking abutment to occur.

4. A combination of a dispenser carton and rigid holder therefor as defined in claim 1 wherein said locking slits on said carton have a length only slightly greater than the width of said locking members on said holder.

5. A combination of a dispenser carton and rigid holder therefor as defined in claim 3 wherein said angled slit extensions form substantially right angles with said locking slits, said tabs thereby being substantially rectangular in shape.

6. A blank construction for a dispenser carton of semi-rigid sheet material adapted to be held in a rigid holder comprising:

- (a) said blank having, in contiguous order, hingedly connected top, front, bottom and rear wall panels, and having end wall forming flaps hingedly attached to the side edges of each of said panels,
- (b) a tear-out dispensing panel defined by perforations in at least one of said panels,
- (c) a glue panel hingedly attached at one end of said blank whereby said blank may be formed into a tube,
- (d) a pair of locking slits in each of said top panel and said bottom panel, said locking slits having at each end thereof slit extensions extending at substantially right angles thereto thereby defining deflectable tabs in said top and bottom panels.

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(e) said locking slits being closely adjacent said rear panel when said blank is erected whereby said dispenser carton may be held in a rigid holder in substantially cantilever fashion.

7. A blank construction as defined in claim 6 for a dispenser carton adapted to be held in a rigid holder wherein the locking slits partially defining said deflectable tabs are interrupted by a small bridge of uncut sheet material, said bridge being rupturable by the rigid holder to complete the formation of the tab and deflect it inwardly of the carton when the carton is inserted into and suspended in substantially cantilever fashion by the holder.

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