March 14, 1967 P. J. DANIELS 3,309,206

DISPENSING CARTONS FOR STACKED FOOD ITEMS

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Fig. 1

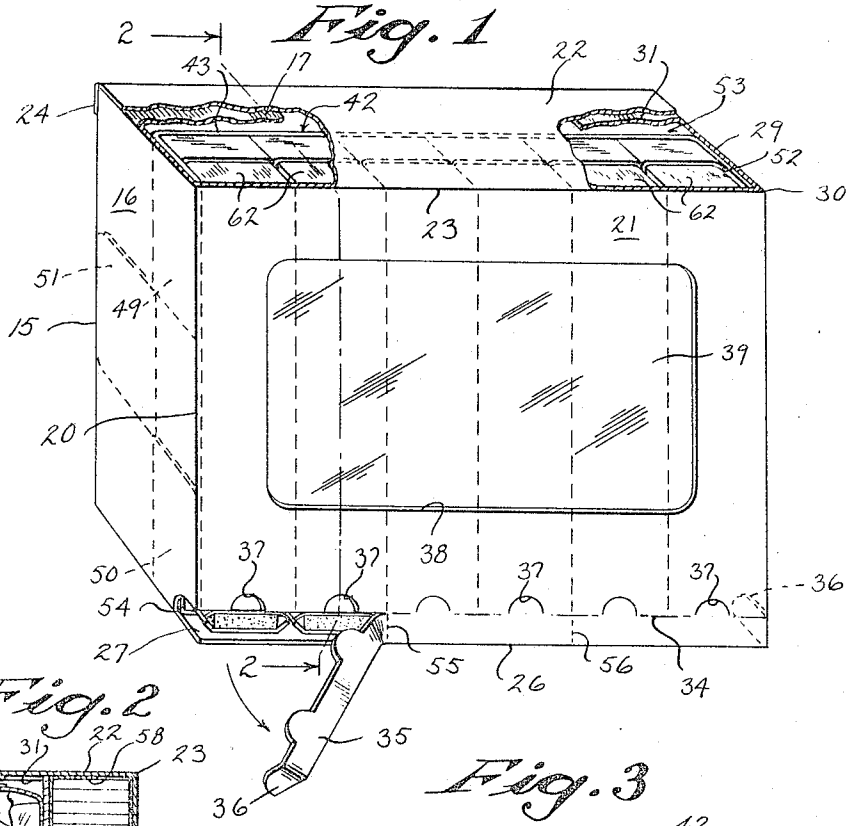


Fig. 2

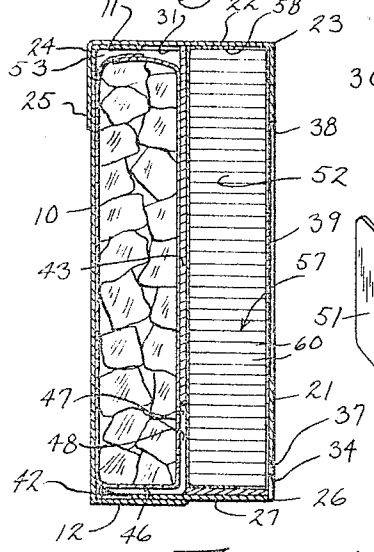


Fig. 3

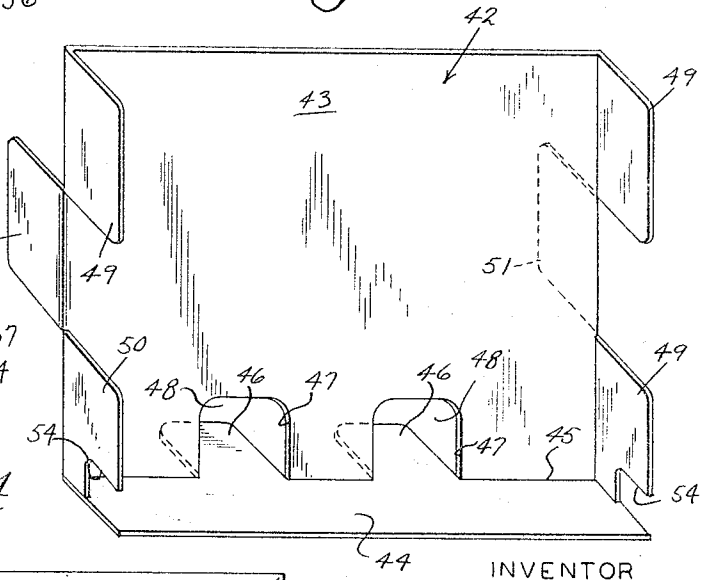
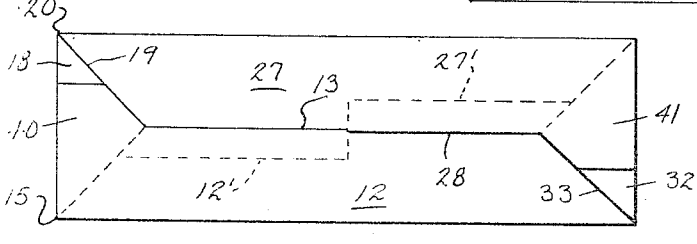


Fig. 4



INVENTOR
PAUL J. DANIELS

BY Mosell & Mosell
ATTORNEYS

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DISPENSING CARTONS FOR STACKED FOOD ITEMS

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Fig. 5

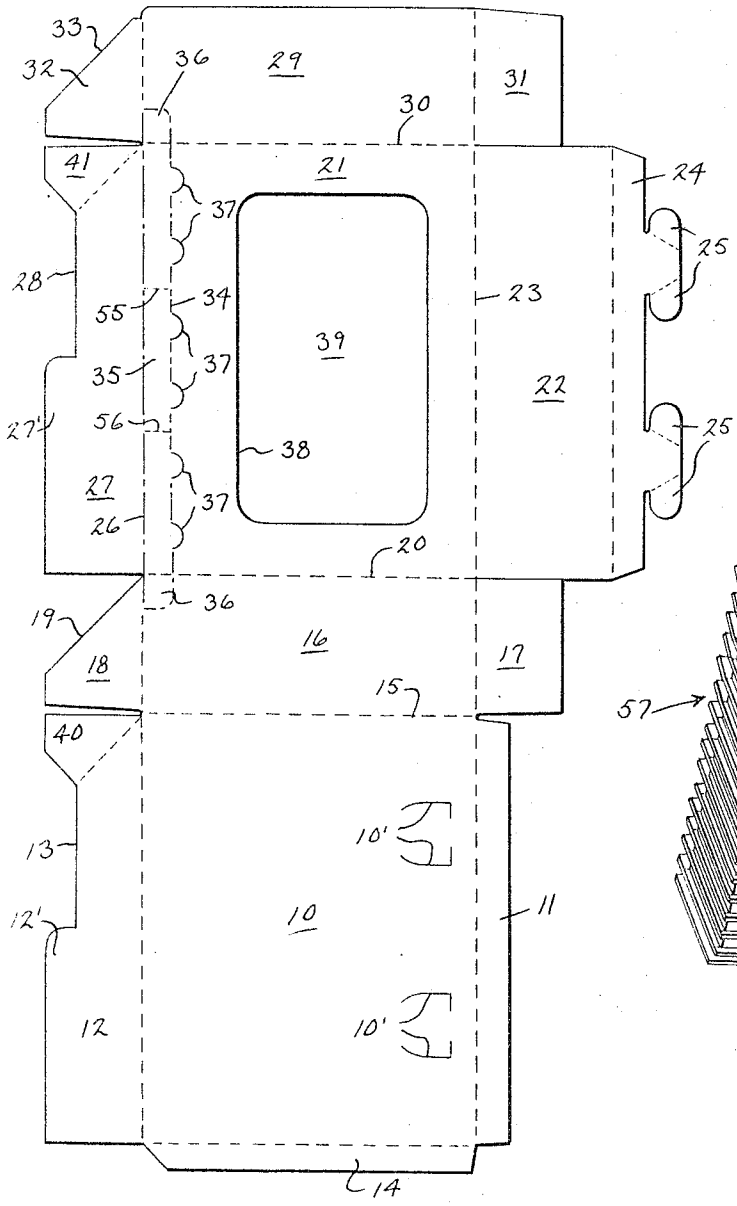


Fig. 6

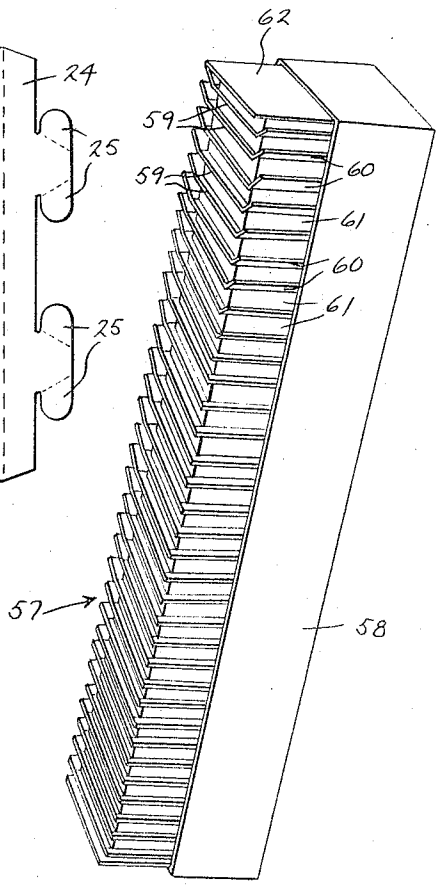
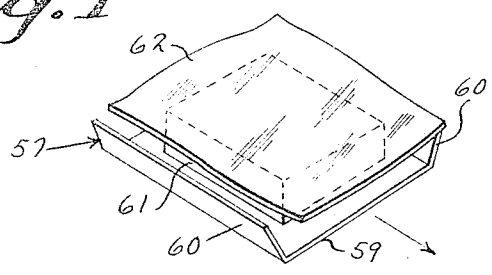


Fig. 7



INVENTOR
PAUL J. DANIELS

BY

Mosell & Mosell

ATTORNEYS

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DISPENSING CARTONS FOR STACKED FOOD ITEMS

Paul J. Daniels, 880 Siesta Drive, Sarasota, Fla. 33581

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4 Claims. (Cl. 99—192)

This invention relates to improvements in dispensing cartons for stacked food items, and more particularly to refrigerated dispensing cartons.

In restaurants it is common practice to purchase butter or margarine in patty form. These patties are commonly referred to in the trade as pats and this term will be used hereafter. Each of these pats comprises an individual square or section, usually mounted on a shallow cardboard mat with a top covering of waxed paper having projecting margins. These are usually furnished by the dairy or other supplier in elongated cardboard trays, each of which contains several dozen projecting pats. At the present time it is common practice in restaurants to lay out the pats on a large tray of ice, with the tray in a convenient location for the waitress, or in the case of a cafeteria, for the customer. This is a messy situation, as the ice melts and it is necessary to replace it at regular intervals and see that the ice water does not overflow. In addition, broken and wasted pats are common with this type of handling. Also, the edges of the pats are more or less exposed so that there is the danger, when removing one pat from an ice tray, of contacting an adjacent pat, with resulting sanitation problems. In addition, the present method of laying out butter pats is space and labor consuming. This is particularly objectionable in cafeterias. Even if the pats are left in the elongated cardboard trays, refrigeration must still be provided while they are in an accessible position to the customer or waitress.

It is a general object of the present invention to provide a dispensing carton which is suitable for dispensing various stacked food items, but which is particularly suitable for the dispensing of food items such as butter or margarine which must be kept refrigerated.

A further object of the invention is to provide a dispensing carton which serves both as a shipping container and as an attractive throw-away dispensing device.

A further object of the invention is to provide a dispensing carton for stacked food items which has a novel arrangement for maintaining the food items in refrigerated condition while they are being dispensed.

A further object of the invention is to provide a dispensing carton as above described wherein there is a novel tear strip arrangement at the lower edge of the front wall which can be manipulated to provide a bottom dispensing slot for one or more stacks of the food items.

A more specific object of the invention is to provide a dispensing carton as above described wherein the tear strip is of novel form to provide a dispensing slot with a communicating finger recess for each stack to facilitate the grasping of a projecting marginal edge of paper to simplify the withdrawal of the lowermost pat from the stack.

A further object of the invention is to provide a dispensing carton which, in its preferred embodiment, may have a front window to display the contents.

A further object of the invention is to provide a dispensing carton as above described which is neat in appearance, upright in position, and otherwise so designed as to occupy a minimum of space.

A further object of the invention is to provide a carton as above described in which the refrigerant is in concealed condition, the arrangement providing for safe confinement of the melting ice water as well as easy renewal of the refrigerant package when required, the carton being such that after a meal is over it may be placed in a cooler so that the remaining butter pats may be kept in perfect condition until the next meal.

With the above and other objects in view the invention consists of the improved dispensing carton for stacked food items, and all of its parts and combinations, as set forth in the claims, and all equivalents thereof.

In the accompanying drawings illustrating one complete embodiment of the preferred form of the invention, in which the same reference numerals designate the same parts in all of the views:

FIG. 1 is a perspective view of the improved carton in dispensing position, part of the top being broken away and the tear strip being partly removed to expose the dispensing slot for two stacks;

FIG. 2 is a vertical sectional view taken approximately on the line 2—2 of FIG. 1;

FIG. 3 is a perspective view of the partition in condition for assembly into a carton;

FIG. 4 is a bottom view of the improved carton;

FIG. 5 is a plan view of a cut and scored blank for the carton;

FIG. 6 is a perspective view of a cardboard tray of butter pats of a type suited for the improved carton; and

FIG. 7 is a perspective view of one of the butter pat units.

Referring more particularly to the drawings, the carton proper is preferably formed from a single blank of relatively light-weight cardboard which is cut and scored as shown in FIG. 5. It includes a rear wall panel **10** having tongue slits **10'**, having a foldable top flange **11** and a lower edge bottom closure flap **12** formed with a locking recess having a marginal edge **13**. In addition, one side edge of the rear panel **10** has a foldable assembly flap **14**. Foldably connected to the opposite edge of the rear panel on a line of fold **15** is an end panel **16** having a foldable top flap **17** and a foldable bottom flap **18** with an obliquely cut edge **19**.

Foldably connected to a side of the end panel **16**, on a line of fold **20**, is a front panel **21**. A cover member **22** is foldably connected to the upper edge of the front panel on a fold line **23**. The cover member is preferably formed with a foldable rear flap **24** having projecting locking tongues **25** for coaction with the rear panel slits **10'**. Foldably connected to the lower edge of the front panel on a perforated or otherwise weakened line of fold **26** is a bottom closure flap **27** having a recess with an edge **28**. An end wall **29** of the same dimensions as the end wall **16** is foldably connected to the other side of the front panel **21** on a line of fold **30**. The end panel **29** has a foldable top flap **31** and a foldable bottom flap **32** with an obliquely cut edge **33**.

In addition to being scored or otherwise weakened along the fold line **26**, the front panel is also scored along an upwardly spaced parallel line **34** to define a removable tear strip **35**. The tear strip preferably has ends **36** which extend into the end walls **16** and **29** to facilitate

original manipulation of the tear strip. In the preferred embodiment of the invention the tear line 34 has spaced semi-circular portions 37 to provide finger recesses for a purpose to be hereinafter referred to.

The particular top and bottom closure flap arrangements illustrated in FIG. 5 can be varied at will, the closure details illustrated forming no part of the present invention.

In the preferred form of the invention the front panel 21 is provided with a window opening 38 which may be covered with transparent material such as polyethylene 39. While the use of a window improves the appearance of the carton for dispensing purposes and better displays the butter or other product, it is in no way necessary to the functioning of the present invention. In some cases it may be less expensive to eliminate the window and print illustrations on the exterior simulating the goods in the carton, or merely have instructions for use, or advertising material for the dairy or other supplier.

The carton blank of FIG. 5 is assembled in the manner illustrated in FIG. 1. With the particular type of closures illustrated, the bottom is assembled by having the tongue portion 27' overlapped by the margin 13 of the recess of the bottom flap 12, and by having the flap 12' overlapped by the marginal edge 28 of the recess of the flap 27, as shown in FIG. 4. In addition, the tab 40 may be glued to the end wall flap 18 and the tab 41 may be glued to the end wall flap 32.

The top of the box is adapted to be closed by first folding the end wall flaps 17 and 31 and the rear panel flap 11 inwardly, by then folding the cover 22 on the line 23, as shown in FIG. 1, by folding the cover flap 24 downwardly at the rear of the carton, and by engaging the tongues 25 with the slots 10' (see FIG. 2). As before mentioned, various other top and bottom closures may be provided.

Before closing the top of the carton the partition 42 is inserted. This partition, which is illustrated in FIG. 3, comprises a main panel 43 having a front lower edge shelf 44 folded forwardly therefrom on a line of fold 45. During such folding, tongues 46 formed by U-shaped cuts 47 in the blank automatically swing rearwardly to expose ventilation openings 48. At the sides of the partition are forwardly folded wings 49 and 50 and rearwardly folded wings 51. The wings 49, 50 and 51 are of such length as to engage the front and rear panels of the carton, as shown in FIG. 1, to maintain the partition in properly spaced position from said front and rear panels so as to provide a front merchandise chamber 52 and a rear refrigerant chamber 53. In addition, the front shelf 44 and rear tongues 46 perform a similar partition centering function.

It is to be noted that the lower portions of the partition flaps 50 are notched out as at 54 (see FIG. 3) to register with those ends 36 of the tear strip which are in the end walls of the carton. This makes it possible to press inwardly on one of the ends 36 of the tear strip to break it inwardly, whereby the end of the tear strip 35 may be readily grasped to start the tearing operation, the partly torn off tear strip being illustrated in FIG. 1. The tear strip may be transversely scored as at 55 and 56. This makes it possible, in small volume restaurants, to remove only a portion of a tear strip at a time to leave the remaining stacks of butter protected. In such case the short length shown in FIG. 1 may be ripped off on the line 55 until the first two stacks of butter pats have been used up. Then the next section of the tear strip may be removed, etc. In larger restaurants it may be more desirable to remove the entire tear strip at once.

In use of the invention, if it is being used for butter pats, the dairy will assemble the cartons and fill the front compartment 52 with the pats 57 in stack form. Usually these pats will be in the elongated cardboard trays 58, as shown in FIG. 6. Usually these pats are each mounted on a cardboard mat 59 having upwardly bent side edges

60 (see FIG. 7), on which the pat 61 of butter or margarine is placed, there being top protecting separator sheets 62 of waxed paper or the like, with projecting edges 62'.

The carton illustrated will accommodate six of the trays 58 of FIG. 6. The tear strip 35 is of such width with respect to the thickness of the butter pat or other product that only the lowermost item in the stack may be withdrawn through the dispensing slot at a time. In that particular arrangement illustrated, the finger recesses 37 are so located that the projecting margin of the protecting sheet 62 of the lowermost pat may easily be grasped (see 62' in FIG. 1) to cause withdrawal of the lowermost butter pat, in the direction indicated by the arrow in FIG. 7. After such withdrawal the stack gravitates downwardly to position a new pat in registration with the dispensing slot.

Restaurant owners may order cartons of the type shown in FIG. 1 from the dairy and keep them in their coolers. Just prior to meal time one or more of the cartons may be removed and placed in upright dispensing position, as shown in FIG. 1. Upon removal from the cooler, a flexible waterproof bag 63 of polyethylene or other suitable material containing a refrigerant should be inserted in the rear compartment 53, as shown in FIG. 2, or the compartment may be otherwise rendered waterproof. While the refrigerant could, in certain cases, be Dry Ice, it is more convenient for the restaurant to use ice cubes 64. Cold water may even be used in the bag. These bags may be easily renewed when required. During use the descending cool air from the refrigerant compartment 53 will circulate forwardly through the circulation openings 48 into the front compartment to keep the product in properly refrigerated condition. Any warm air from the room which enters the dispensing slot of the carton will tend to rise, but this will pull in more cold air from the refrigerant compartment. In addition, there will be substantial chilling of the product by way of conduction through the panel 43 of the partition. If desired, the panel 43 may be provided with additional holes for faster heat exchange.

From the above it is apparent that with the present invention the restaurant can place butter or margarine in dispensing position without any handling of the individual pats, thereby promoting sanitation. Also, when the customer or waittress withdraws a pat from the bottom, the pat thereabove is protected from contamination. If any of the pats are left in the carton after a meal is over, the carton is merely returned to the walk-in cooler until the next meal. The carton is of such structure that it will balance itself very securely in upright position, the weight of the product on the bottom of the carton providing ample stability. After the carton has been emptied it may be discarded, as the cardboard is inexpensive.

While the carton has been described as particularly suited for the handling of butter or margarine pats, it is obvious that features of the present invention are adapted for wider use, and certain features of the invention are useful and novel both with and without the refrigerating feature.

Various other changes, modifications and adaptations may be made without departing from the spirit of the invention, and all of such changes are contemplated as may come within the scope of the claims.

What I claim is:

1. In a dispensing carton having a bottom and having foldably connected upright front, rear and side panels, a plurality of elongated trays within said carton having sides and ends and positioned upright on end in said carton against said front panel and each containing superimposed pats of a food spread which are separated by paper separators having projecting margins, said pats and separators projecting in horizontal position forwardly beyond the sides of the tray, there being a horizontal dispensing slot across the lower portion of the front wall

and having an upper margin in approximate alignment with the separator papers of the bottom-most pats, said slot also having a plurality of spaced finger recesses communicating with its upper margin, there being one recess for each upright tray, the height of the slot and size of said finger recesses being such as to permit the gripping of a projecting margin of a separator paper of a bottom-most pat between two fingers when one of said fingers is in a finger recess and when the other is in the slot, and said slot height being such that only the bottommost pat can be withdrawn from the tray and carton.

2. A dispensing carton as claimed in claim 1 in which there is an endwise pullable tear strip closing the slot and finger recesses during transit.

3. A dispensing carton as claimed in claim 2 in which the tear strip is transversely scored at spaced intervals to permit progressive removal of portions of the strip to expose pats at the bottom of certain stacks while leaving other stacks protected.

4. A dispensing carton as claimed in claim 1 in which there is an upright interior partition intermediate the front and rear panels dividing the interior of the carton into a front dispensing chamber and into a rear refrigerant chamber, and in which there is a waterproof receptacle containing refrigerant in said refrigerant chamber.

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JOSEPH R. LECLAIR, *Primary Examiner.*

DAVID M. BOCKENEK, *Examiner.*