

June 16, 1964

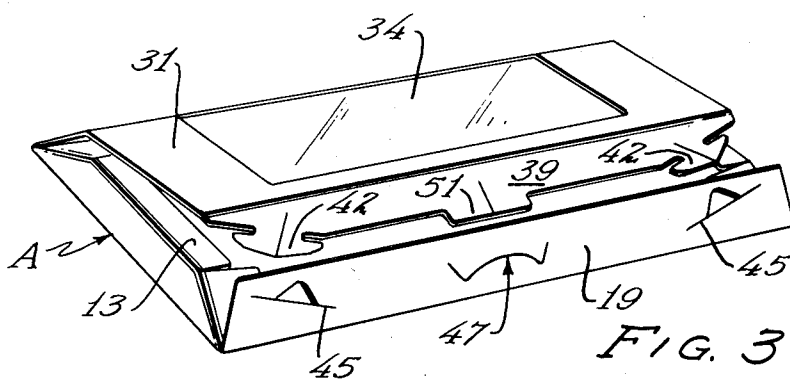
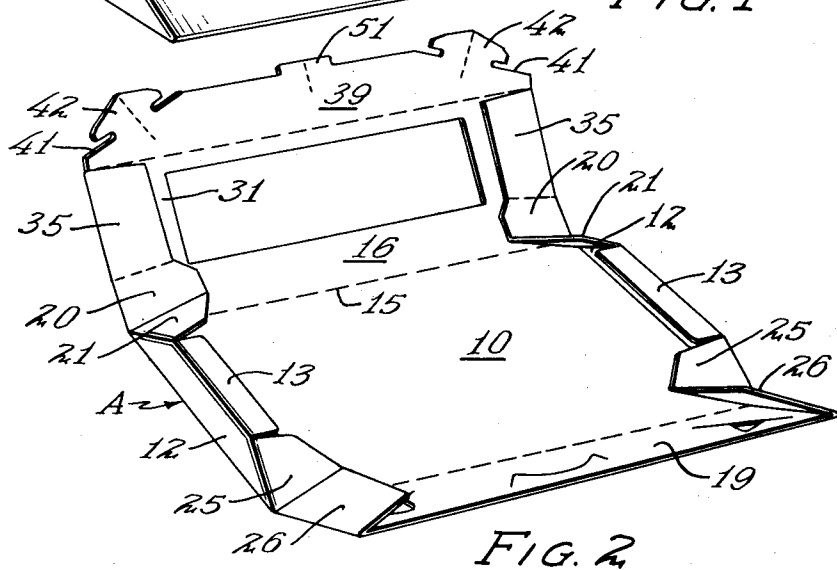
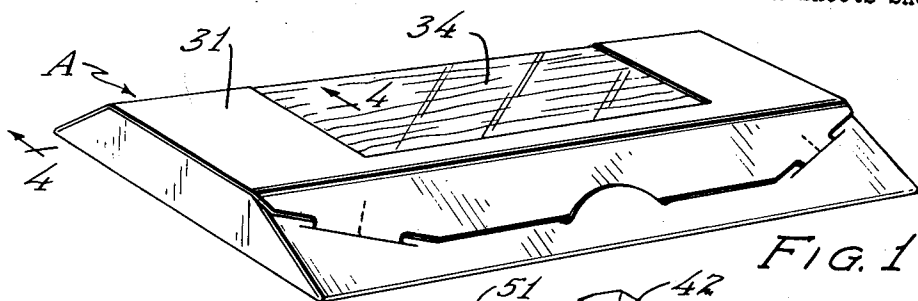
H. S. MEYERS

3,137,435

SLICED MEAT PACKAGE

Filed Feb. 1, 1963

2 Sheets-Sheet 1



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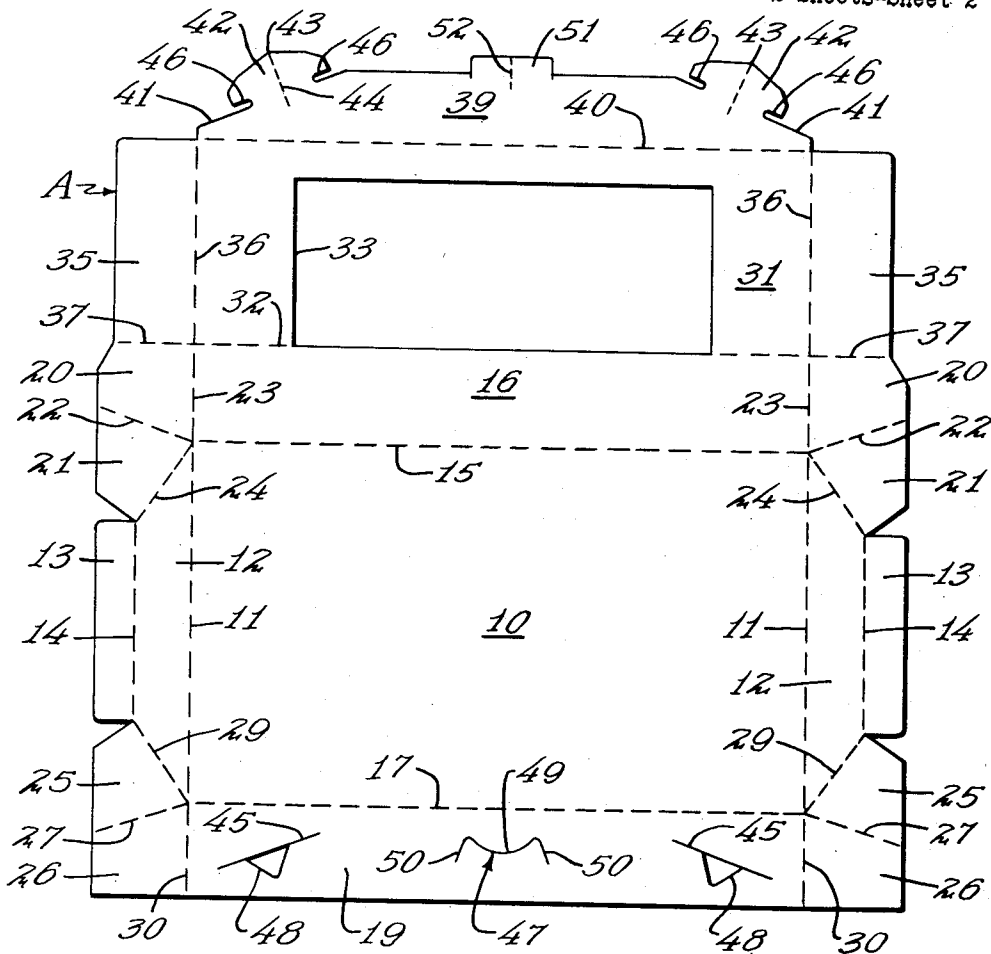


FIG. 5

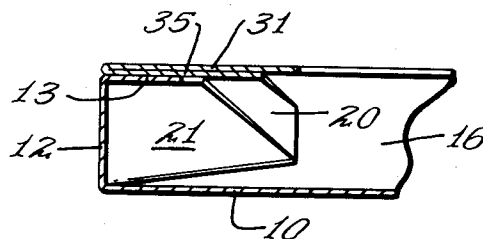


FIG. 4

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SLICED MEAT PACKAGE

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7 Claims. (Cl. 229—40)

This invention relates to an improvement in sliced meat packages and deals particularly with a package for containing bacon and other sliced meats and the like. During recent months, one of the prominent meat packing companies has come out with a meat carton which is generally trapezoidal in vertical section when closed. While this package has been used successfully for some time, some difficulty has been experienced in maintaining the carton closed. Due to the particular trapezoidal shape of the package, difficulty has been experienced in maintaining the carton locks engaged. The object of the present invention lies in a particular arrangement of locks and locking tongues which have been found more effective than those previously employed for the purpose.

It is an object of the present invention to provide a carton of the type described which includes a cover panel having a locking flange hingedly connected thereto and folded into face contact with the front wall which slants upwardly and inwardly from its connection with the bottom panel. The front wall panel is provided with a pair of locking slits near opposite ends of the front wall panel which incline upwardly and outwardly toward the ends of the front wall panel at an acute angle to the fold line connecting the front wall to the bottom panel. The locking tongues of generally T-shaped form are connected at their bases to the flange and having cross bar portions designed to extend through the locking slits. The cross bars of the T-shaped locking tongues are provided with edges which substantially coincide with the slits when the locking tongues are engaged. The cross bar of the tongues are also substantially equal in length to the length of the slits. By angling the locks and the tongues, the locks are much less likely to become disengaged than where the cross bars of the T-shaped locks extend generally parallel to the fold line connecting the front wall to the bottom panel.

A further feature of the present invention resides in the provision of a structure of the type described including a third locking slit intermediate the first mentioned slits and designed to accommodate a central tongue projecting from the flange. The slit and tongue are so related that when the tongue is in place, this tongue prevents any lateral movement of the flange relative to the front wall thus assisting in holding the locking tongues engaged.

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 carton in closed condition.

FIGURE 2 is a perspective view of the blank in partially folded condition.

FIGURE 3 is a view similar to FIGURE 2 showing the carton in a further stage of the closing operation.

FIGURE 4 is a sectional view through a detail portion of the carton, the position of the section being indicated by the line 4—4 of FIGURE 1.

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

The carton A is formed as is best illustrated in FIGURE 5 of the drawings. The carton includes a bottom panel 10 which is foldably connected along parallel fold lines 11 to trapezoidal end walls 12. The fold lines 11

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form the widest side of the trapezoidal end panels. Top flaps 13 are hingedly connected to the shorted edges of the end walls 12 along fold lines 14.

The bottom panel 10 is connected along a third edge by a fold line 15 to a rear wall panel 16, while the fourth side of the rectangular bottom panel 10 is connected along a fold line 17 to a front wall panel 19. A pair of gusset panels 20 and 21 are foldably connected together along a connecting line of fold 22 which permits the gusset flaps 20 and 21 to fold into face contact. The gusset flap 20 is foldably connected along fold lines 23 which are extensions of the fold lines 11 to the rear wall 16. The gusset flap 21 is foldably connected along a fold line 24 to the inclined rear edge of the corresponding trapezoidal end wall 12. The height of the rear wall 16 is substantially equal in length to fold lines 24 connecting the end walls 12 to the gusset flaps 21.

The forward corners of the carton are similarly connected by gusset flaps. The gusset flaps 25 and 26 are foldably connected together along an intermediate fold line 27. Each gusset flap 25 is foldably connected to the inclined forward edge of an end wall 12 along the fold line 29. Each gusset flap 26 is foldably connected to the front wall panel 19 along a fold line 30 which is an extension of a fold line 11. A top panel 31 is foldably connected to the upper edge of the rear wall 16 along a fold line 32. The top panel 31 may be provided with an aperture such as 33 which, in the finished carton is provided with a transparent window such as 34 through which the contents of the package may be viewed. End flanges 35 are hingedly connected to the ends of the top panel 31 along fold lines 36 which are extensions of the fold lines 11 and 23. The flanges 35 are also connected to the gusset flaps 20 along fold lines 37 which are extensions of the fold line 32. The purpose of the flanges 35 will be later described.

A locking flange 39 is foldably connected to the forward edge of the top panel 31 along a fold line 40 which is parallel to the fold lines 32. The ends of the flange 39 are beveled or anchored as indicated at 41. Generally T-shaped locking tongues 42 are connected at their bases to the beveled edges 41. The locking tongues 42 are provided with pointed ends 43 to simplify the task of inserting these tongues through the locking slits. Score lines 44 extend throughout the length of the locking tongues 42 from the pointed ends 43 to a point inwardly of the beveled ends 41. The score lines act to stiffen the locking tongues against bending transversely but permit the sides of the locking tongues to fold to some extent.

A pair of locking slits 45 are provided near opposite ends of the front wall panel 19, these slits extending upwardly and outwardly in diverging relation in set up condition of the carton. The slits 45 are arranged at an acute angle to the fold line 17, and substantially coincide with the shoulders 46 formed by the lower edge of the T-shaped locking tongues when the locking tongues are engaged in the slits. Rounded or V-shaped portions 48 of the front wall panel 19 are cut away above the slits 45 in order to simplify the insertion of the locking tongues through the slits 45. The slits 45 are substantially equal in length to the width of the cross bar portions of the tongues 42.

A slit 47 having an upwardly bowed center portion 49 and outwardly and upwardly diverging end portions 50 provided at the center of the front wall 19. A tongue 51 projects from the flange 39 at the center thereof, and the width of the tongue 51 is substantially equal to the width of the bowed portion 49 of the slot 47. As a result, when the tongue 51 is engaged, the tongue 51 will hold the flange 39 from lateral movement relative to the front panel 19. At the same time, the diverging ends 50 simplify the insertion of the tongue 51 into the slot. The

center of the tongue 51 is provided with a stiffening rib or score 52 extending into the flange 39 at right angular relation to the end of the flange.

The erection of the carton into closed form is accomplished more readily than would be surmised. The blank is first folded along the parallel fold lines 11, as well as along the extensions 23, 30, and 36 thereof. The gusset flaps 20 are then held in face contact with the rear wall 16, and the carton rear wall 16 is folded upwardly along the fold line 15 as indicated in FIGURE 2 of the drawings. This operation automatically swings the end walls 12 together with the top flaps 13 upwardly into right angular relation with the bottom panel 10. When the top panel or cover panel 31 is folded upwardly into right angular relation to the bottom panel 10, the end walls 12 are virtually upright, and the contents of the package may be placed upon the bottom panel 10. When the contents are in place, the front panel 19 may be folded upwardly by grasping the corners of the gusset flaps 26 and holding them against the inner surface of the front panel 19 during the folding operation. This automatically swings the gusset flaps 25 inwardly until the flaps 25 and 26 are in face contact. To complete the closing operation, from the position shown in FIGURE 3, the flanges 13 are folded inwardly and the cover panel 31 is folded down to overlie them. As the cover approaches the position shown in FIGURE 3, the flange 39 is folded into face contact with the front wall 19 and the locking tongues 42 are guided into the slots 45, and the central locking tongue 51 is guided into the slot 47. When the locking tongues are locked, the flange 39 is held from lateral movement relative to the front wall, and the angular relation of the locking tongues tends to securely engage in the slots 45 so that they will not accidentally come loose during handling or shipment.

In accordance with the patent statutes, I have described the principles of construction and operation of my improvement in sliced meat packages, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A locking structure for use in combination with a carton having a rectangular bottom panel, substantially parallel end wall panels hinged to opposite ends of said bottom panel, a rear wall panel hinged to, and extending upwardly from, a third edge of said bottom panel, a front wall panel extending upwardly and inwardly at an acute angle from the fourth edge of said bottom panel, a cover panel hinged to the upper edge of said rear wall panel, and a flange hinged to the forward edge of said cover panel and foldable in face contact to said front wall panel, said front wall panel having a pair of locking slits therein extending angularly upwardly and outwardly in diverging relation near opposite ends thereof, a pair of locking tongues on said flange and being of a width substantially equal to the length of said slots, said locking tongues being generally T-shaped and connected at the base of the T to the remainder of said flange, the cross bar portions of the T-shaped tongues being adapted to

underlie said front wall panel and each having an edge substantially coinciding with one of said slits when said tongues are inserted through said slits.

2. The structure of claim 1 and in which said locking tongues include central pointed ends.

3. The structure of claim 1 and in which the front and rear wall panels are connected to the end wall panels by pairs of gusset flaps folded into face contact.

4. The structure of claim 1 and in which said front wall panel includes a third slit generally midway between the ends thereof, and a tongue connected to the center of said flange adapted to extend through said third slit.

5. A carton locking structure for a carton including a rectangular bottom panel, parallel end wall panels hinged to said bottom panel and extending upwardly therefrom, a rear wall hinged to a third edge of the bottom panel and a front wall hinged to the fourth edge of the bottom panel, said front and rear walls inclining upwardly and inwardly, a cover panel hinged to the upper edge of said rear wall panel, a front flange hinged to the forward edge of said top panel and foldable into face contact with said front wall panel, said bottom panel, front and rear wall panels and said cover panel forming a structure of trapezoidal section when said cover is closed, the locking structure including a pair of tongues connected to said flange and projecting angularly outwardly in a direction generally toward the bottom corners of the front wall panel when the carton is closed, said front wall panel having locking slits extending at an acute angle to the lower edge of said front wall panel in a direction upwardly and outwardly toward the panel ends, said locking tongues being of generally T-shaped form connected to the flange along the base of the T and having a cross bar portion substantially equal in width to the length of said slits, the edges of the cross bar portions nearest the bases of the T-shaped tongues substantially coinciding with said slits when said tongues are inserted through said slits.

6. The structure of claim 5 and in which the front wall panel includes a third slit intermediate the first named slots and including a tongue projecting from the center of said flange and adapted to extend through said third slit.

7. The structure of claim 6 and in which said tongue engageable in said third slit holding said flange from lateral movement relative to said front panel when engaged.

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