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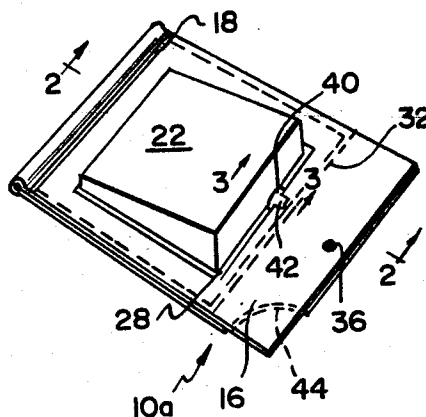
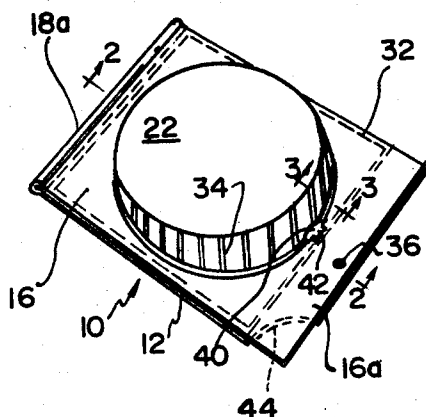
[54] **PACKAGE WITH HINGE**
13 Claims, 4 Drawing Figs.

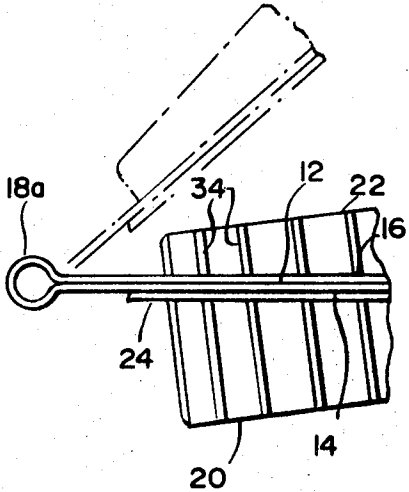
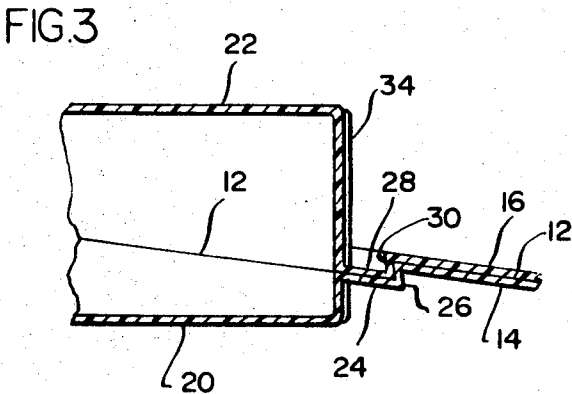
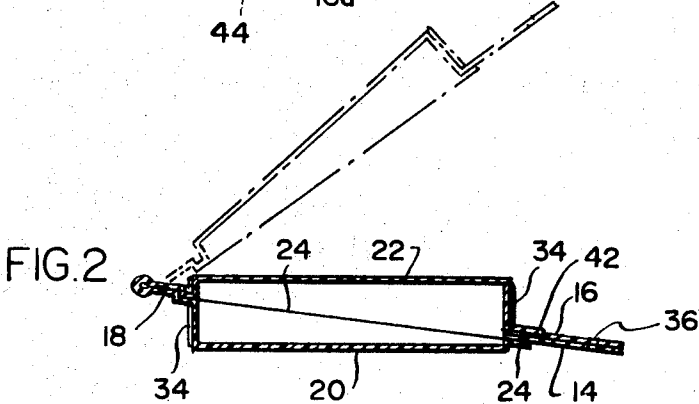
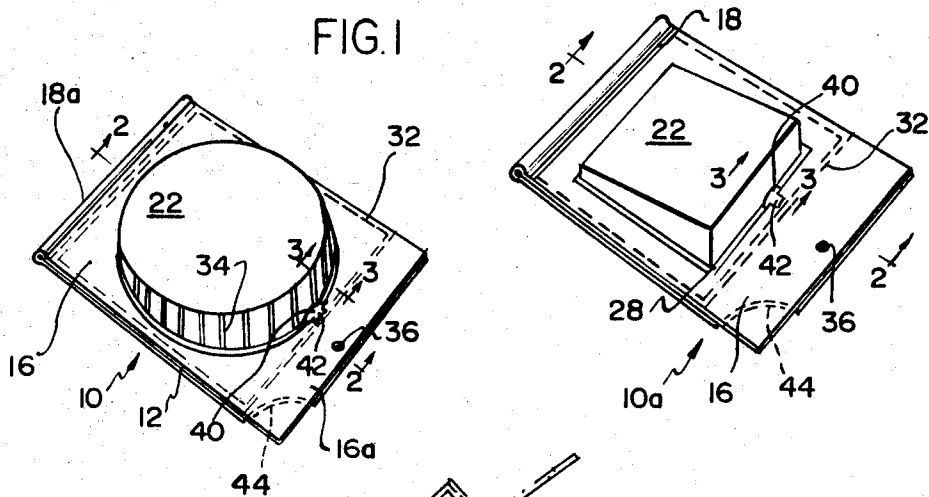
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[50] Field of Search 220/30, 31,
60, 35; 206/46, Food; 99/714

ABSTRACT: An integral one piece food package for stacked sliced luncheon meat and the like which has opposing shell halves joined by a hinge offset from the seam line. Each shell half has a peripheral flange projecting outwardly along the seam line and the hinge interconnects the flanges of the shell halves to provide an integral one piece package. A cooperating groove and channel system provides a weak snap lock along the seam line and, this in addition to the natural resilience of the flange and hinge, keeps the package closed when not in use. The channel can have a transverse depression rendering it peripherally contractible.





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PACKAGE WITH HINGE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to preformed packages for sliced meat products and the like.

2. Description of the Prior Art

A variety of various sizes and shapes of sandwich meat packages are available. However, so far as is known, no commercially available package has heretofore combined the advantages of low cost manufacture, easy stacking and hanging features, ease in opening and reclosing the package, adaptability to receive sliced products from an automatic loader operating at a high rate of speed, improved label display surface and accessibility of products for easy removal from the package.

SUMMARY OF THE INVENTION

The present invention provides a plastic package including two shell halves joined along a seam line by a hinge system which is offset from the seam line. Preferably, the seam line is generally in a plane at an angle to the package sidewalls and extends from adjacent the package top wall on one side of the package to a position adjacent the package bottom wall on the other side of the package.

While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will be described herein in detail a specific embodiment and modification of the invention with the understanding that such description is illustrative and is not intended as limiting the spirit and scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of two forms of packages of this invention;

FIG. 2 is a section along line 2-2 through package 10a in FIG. 1;

FIG. 3 is an enlarged fragmentary section along lines 3-3 in FIG. 1 showing the locking system for the package; and

FIG. 4 is an enlarged fragmentary section illustrating a modification of the package hinge as used in package 10 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings, two packages 10 and 10a are shown in FIG. 1. The packages differ in that package 10 is for containing round slices of sandwich meat and package 10a is for containing square slices and also in that different hinge systems are used in the two packages. The packages of 10 and 10a are each of one piece integral plastic sheet construction and can be readily formed by vacuum forming or other techniques. Preferably the material used should be a stiff, but flexible and resilient plastic sheet material which is transparent for viewing the product contained within the package.

The package includes a pair of opposing shell halves 20 and 22, each forming a portion of the enclosure for containing the food product. The shell halves can be opened and closed along a seam line at 12 which is at an angle to and between the opposing top and bottom parallel surfaces of the package. Shells 20 and 22 are provided with peripheral flanges 14 and 16 respectively which face each other when the package is in its closed condition as shown in full lines in FIG. 2.

Flanges 14 and 16 are joined to each other along one side of the package by hinge means shown at 18 or 18a. In the form shown in FIG. 2, hinge 18 comprises a heat seal line facially heat sealing flanges 14 and 16 to each other. In another form, shown in FIG. 4, hinge 18a is an interconnecting portion between flanges 14 and 16 having a generally cylindrical or tubular cross section. In either case, the resilience of the material forming the flange serves to help urge the package towards its closed position. The package can be readily opened by moving the free or unhinged portions of flanges 14 and 16 away from each other as shown in phantom in FIGS. 2 and 4.

The package is also provided with a locking system along the seam line 12. Referring especially to FIGS. 2 and 3, the locking system is a peripheral snap lock defined by cooperating molded female and male portions of the shell halves 20 and 22 respectively. Accordingly, extending around the bubble portion of shell half 20 is a female portion or groovelike depression in flange 14 defining a shoulder 24 and an upstanding wall 26 where flange 14 joins the bubble portion. Extending around the bubble portion of shell half 22 is a male or channel portion having a base 28 and an outer wall 30. Walls 26 and 30 are slightly at acute angles relative to shoulder 24 and base 28 and are angled inwardly slightly in their upward extent to provide a snap lock to retain the package 10 or 10a in a normally closed position.

Referring to FIGS. 1 and 2, in a preferred form of the locking system, a formed area or cylindrical groove 40 traverses the male or channel portion of the snap lock system and extends at 42 into flange 12 to the line of adhesive 32. The groove and extension permit slight contraction or flexing of the channel portion to a slightly smaller peripheral size for easier snap or ringing action and also permits the use of wider mating tolerances in the snap lock system which may result from material shrinkage or the like. Additionally, because the groove extends at 42 to the adhesive line, the groove can be used for evacuation of the package during closing and sealing in vacuum pack operations.

Also, in the preferred form, as seen in FIG. 1, one of the flanges 12 or 14, can be provided with a cutaway portion 44 for easier separation of the flanges during opening of the package.

The package can be easily loaded using automatic loading equipment to stack meat within the enclosure. The package is then closed and can be peripherally sealed using suitable adhesive as shown by stippling 32. Where the heat seal hinge 18 is used, adhesive 32 is not needed along the hinge portion because the heat seal seals that portion. Vertical channels 34 on the sidewalls of the package prevent pressure resistance due to entrapped air during loading of meat, permit better evacuation for vacuum packing and also prevent suction resistance to removal of meat. The angular disposition of the seam line 12 permits access to the edges of slices of product all the way to the bottom of the stack of meat product within the package. A hanging port 36 is provided for hanging the package from usual display boards or racks. The angular disposition of the flange 16 relative to the top and bottom surfaces of the package provides an angular and easily viewable display surface for receiving a label such as at 16a. The flat top and bottom surfaces of shell halves 22 and 20 permit easy stacking of the packages for display purposes without creating undue sideward shifting of packages within stacks.

We claim:

1. A package for containing sliced stacked meat products or the like which comprises: shell means including a plurality of at least two shell members having walls forming an enclosure when closed along a seam line; resilient hinge means offset from said seam line joining said two shell members for movement relative to each other to open and close the package and urging the package to a normally closed condition; said walls including top and bottom walls and generally vertical sidewall means therebetween; outwardly projecting flange means on each of said two shell members extending around the enclosure at said seam line with the flange means of one shell member facing and abutting the flange means of the other shell member when the package is closed; and snap lock means along the seam line adjacent the junction of the flange means with the shell sidewall means comprising a shoulder below the flange means of one shell member in an upstanding wall projecting inwardly at a slight acute angle and spaced from said sidewall and a generally channel-shaped lip around the enclosure defining portion of the other shell member with its outer channel upstanding from the channel base at a slightly acute inwardly directed angle for engaging within and snap locking over the top edge of the wall upstanding from the shoulder of the first shell member.

2. A package for containing sliced stacked meat products or the like which comprises shell means including a plurality of at least two shell members having walls including top and bottom walls and generally vertical sidewall means forming an enclosure when closed along a seam line in the sidewall means, resilient hinge means for opening and closing said package along said seam line and a plurality of laterally spaced vertical channels extending between the top and bottom walls forming grooves on the inner surface of the sidewall means.

3. A package for containing sliced stacked meat products or the like which comprises: shell means including a plurality of at least two shell members having top, bottom and sidewalls forming an enclosure when closed along a seam line in the sidewalls; outwardly projecting flange means on each of said two shell members extending around the enclosure at the seam line with the flange means of one shell member facing and abutting the flange means of the other shell member when the package is closed; and resilient hinge means offset from said seam line joining said two shell members for movement relative to each other to open and close the package and urging the package to a normally closed condition, said hinge means consisting essentially of a heat seal facially securing a portion of said flanges to each other.

4. A package for containing sliced stacked meat products or the like which comprises: shell means including a plurality of at least two shell members having walls forming an enclosure when closed along a seam line; resilient hinge means joining said two shell members for movement relative to each other to open and close the package along the seam line; outwardly projecting flange means on each of said two shell members extending around the enclosure at said seam line with the flange means of one shell member facing and abutting the flange of the other shell member when the package is closed; adhesive means on said flanges peripherally of the seam line releasably sealing the flanges in facial contact with the package in closed condition to seal said enclosure, and channel means extending from the enclosure interior at the seam line to said adhesive line for evacuation of air from the enclosure during sealing.

5. A package for containing sliced stacked meat products or

the like which comprises shell means including a plurality of at least two shell members having walls forming an enclosure when closed along a seam line in the two shell members peripherally of the enclosure, resilient hinge means offset from said seam line joining said two shell members for movement relative to each other to open and close the package, snap lock means comprising male and female snap lock elements extending along said seam line and between the seam line and hinge means for releasably holding the package closed and means transversing said male snap lock member rendering the male snap lock member peripherally contractible.

6. The package of claim 2 wherein said walls include generally flat and parallel top and bottom walls and generally vertical sidewall means therebetween and said seam line is in the sidewall means in a plane between the top and bottom wall and at an angle to the top and bottom walls.

7. The package of claim 1 including a hanging hole in the portion of the flange means opposing the hinge means.

8. The package of claim 1 wherein said two shell members and hinge means are of integral one piece stiff transparent plastic material.

9. The package of claim 8 wherein the hinge means is offset from the seam line by a flange on each of said two shell members interconnecting the hinge means with the seam line and wherein said flanges and hinge means are of resilient material for normally urging the package to closed condition.

10. The package of claim 9 wherein said hinge means comprises a tubular element of generally cylindrical cross section extending along the flange edges.

11. The package of claim 1 including adhesive means on said flanges releasably sealing the flanges in facial contact with the package in closed condition to seal said enclosure.

12. The package of claim 5 wherein said rendering means comprises means defining a resilient yieldable area traversing said male snap lock member.

13. The package of claim 12 wherein said resilient area defining means comprises a groove.

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