Aug. 25, 1964 D. WEINSTEIN 3,146,112

ICE CREAM CONE PACKAGE

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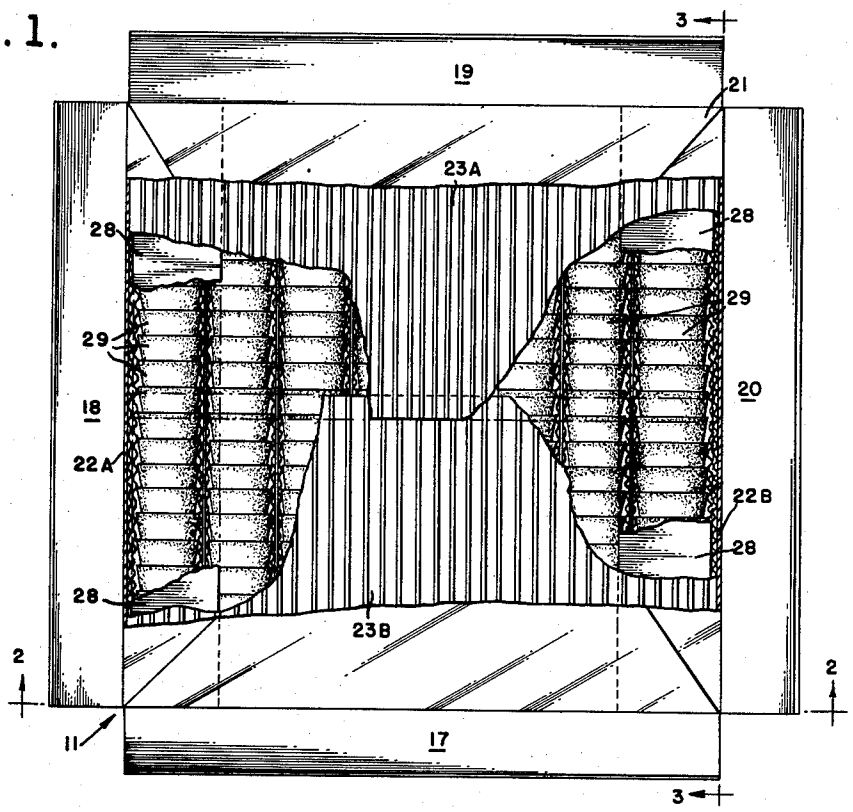
FIG. 1.



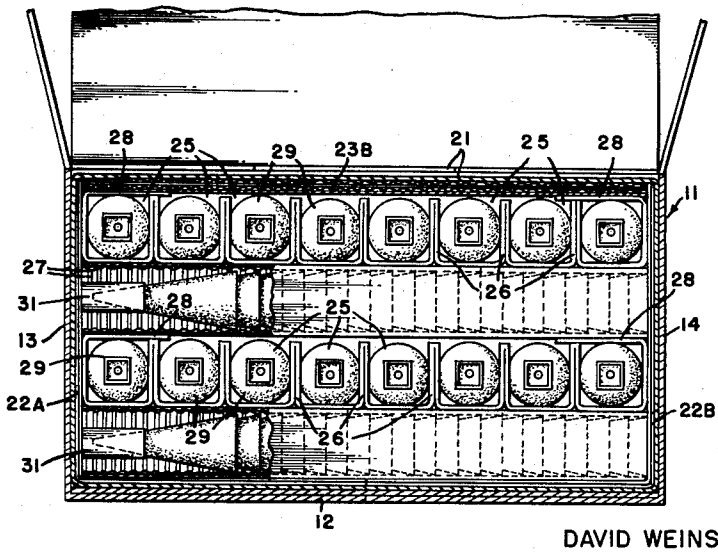


FIG. 2

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FIG. 3.

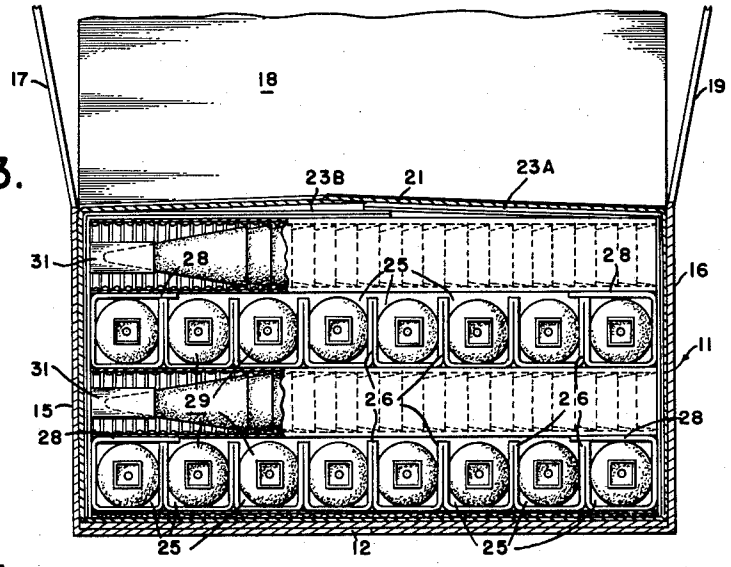


FIG. 4.

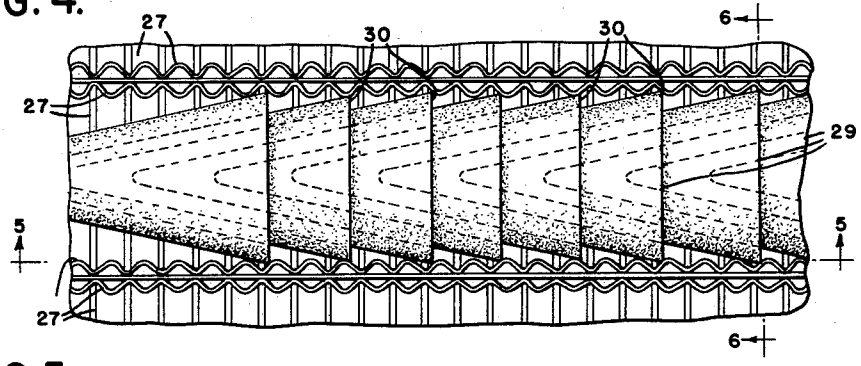
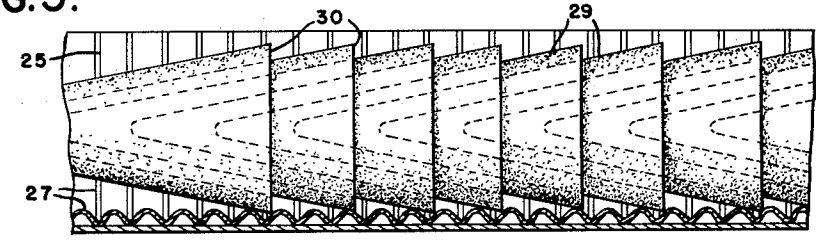


FIG. 5.



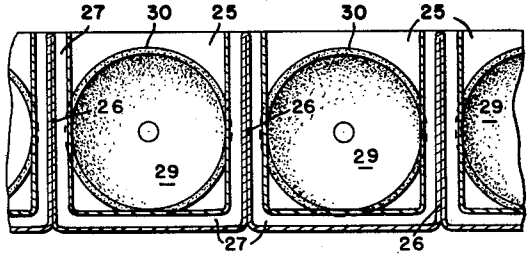


FIG. 6.

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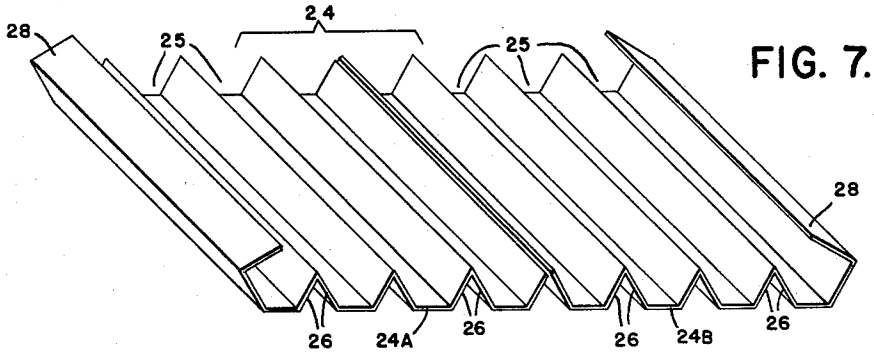


FIG. 7.

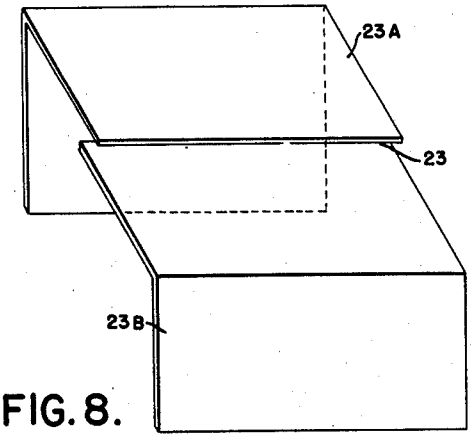


FIG. 8.

FIG. 9.

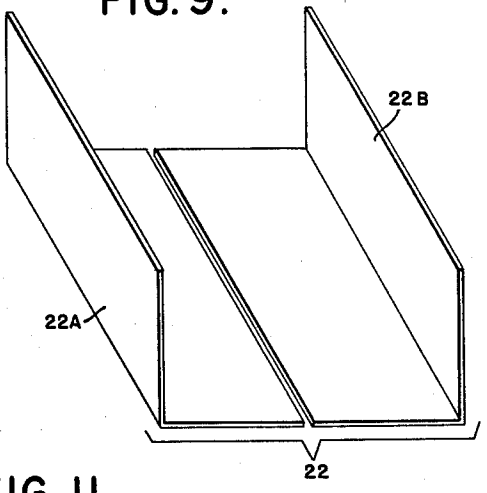


FIG. 11.

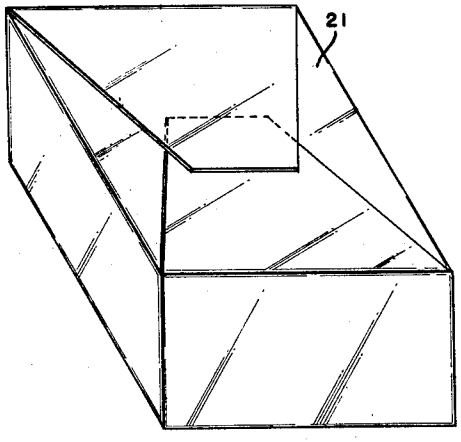
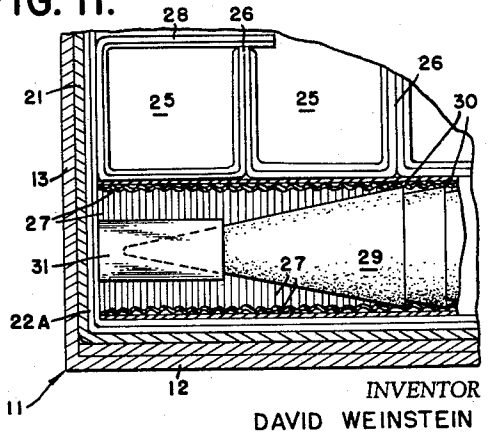


FIG. 10.



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3,146,112

ICE CREAM CONE PACKAGE

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Filed Dec. 20, 1961, Ser. No. 160,865
3 Claims. (Cl. 99—180)

This invention relates to packaging and it is more particularly concerned with the packaging of ice cream cones and similar products of tapered form in nested relation.

Ice cream cones are conventionally packaged in nested relation to conserve space, but in this form they are susceptible to breakage in transit. The forces of impact, jostling about in the package, the wedging of one cone within another, and other factors, including high humidity conditions which may develop in the ambient atmosphere, all contribute to breakage and spoilage of the cones during storage and transportation. As a result, substantial losses are incurred in the shipment and handling of this frail commodity in conventional packages.

The general object of the present invention is the provision of a container package for ice cream cones which protects them against many of the factors which cause or contribute to their loss in storage, handling and transportation.

A further object of the invention is the provision of a package for ice cream cones which simplifies the placing of the cones in and removing them from the container.

A specific object of the invention is the provision of a container package for ice cream cones which is so designed as to resist the forces which ordinarily tend to wedge nested cones together.

Another specific object of the invention is the provision of internal supporting structure in a container package which is effective to resist support forces and, yet, does not interfere with the placement therein and removal therefrom of the cones.

These and still further objects, advantages, and features of the invention will appear more fully from the following description considered together with the accompanying drawing.

In the drawing:

FIG. 1 is a top plan view of an embodiment of the invention containing ice cream cones with the lid flaps of the container open and portions of the interior parts of the package broken away.

FIG. 2 is a sectional view along the line 2—2 of FIG. 1.

FIG. 3 is a sectional view along the line 3—3 of FIG. 1.

FIG. 4 is a fragmentary top plan view of a section of the embodiment on a larger scale to illustrate the meshed relation between the corrugated walls and the rims of the nested cones.

FIG. 5 is a sectional view along the line 5—5 of FIG. 4.

FIG. 6 is a fragmentary sectional view along the line 6—6 of FIG. 4.

FIG. 7 is a perspective view of one of the inner corrugated sheets partially folded to form the channel pockets.

FIG. 8 is a perspective view of the upper cardboard liner in two parts.

FIG. 9 is a perspective view of the lower cardboard liner in two parts.

FIG. 10 is a perspective view of the plastic envelope.

FIG. 11 is a fragmentary sectional view of a corner portion of the embodiment as shown in FIG. 2, on a larger scale.

Referring now with more particularity to the drawing, the embodiment illustrated comprises a conventional cardboard carton or box **11** having the usual bottom panel **12**, side panels **13** and **14**, end panels **15** and **16** and top closure flaps **17**, **18**, **19** and **20**, forming a complete enclosure.

Along the interior walls of the panels, there is disposed a bag or envelope **21** of flexible plastic film of any conventional type as a humidity barrier. The bag is open at the top through which other parts of the package and the cones are inserted into the container and it is sufficiently long to permit folding over after the container is filled.

Within the bag **21**, there is disposed along the bottom panel **12** and side panels **13** and **14**, a U-shaped liner **22** in two parts, **22A** and **22B**.

Along the end panels **15** and **16** and the top closure flaps **17**, **18**, **19** and **20**, there is disposed an inverted U-shaped liner **23** in two parts, **23A** and **23B**, forming a complete inner enclosure with the liner **22**.

Within the space bounded by the liners **22** and **23**, there are provided layers of channel pockets for holding the cones. These channel pockets are formed by sheets **24** of corrugated cardboard in two sections, **24A** and **24B**. The sheet is bent and folded along its width at spaced longitudinal intervals to provide the channel pockets **25** separated by double thickness walls **26** with the corrugations **27** of the sheets on the inner side of the pockets and extending transversely thereof. Providing the sheets in two parts facilitates inserting them into and removing them from the carton, but the invention is not so limited and it is within its spirit to make the sheets in one section or in more than one section.

At the outer ends of the sheets **24**, end flaps **28** are provided and bent to fold over and overlie the adjacent end channel pockets thereby forming shelves to support the next layer. The next layer is formed as the one just described, but is oriented transversely thereto, as shown. Successive layers are similar provided in alternating relation.

The channel pockets thus formed in each layer by the bending of the corrugated sheets of cardboard, present the corrugations **27** on the interior surfaces of the pockets in transverse relation relative to their longitudinal axis. The cones **29** in nested relation are placed longitudinally in these pockets and, as a result, the rims **30** at the mouth of the cones mesh with the corrugations. This meshing relation provides resistance to movement of the cones relative to each other and reduces the tendency to wedging of adjacent cones. The forces of impact, jostling, and other factors tending to cause breakage are also resisted thereby.

The tips of the exposed cones of a series of nested cones in the channel pockets may be provided with cardboard tubular tips **31** to hold them in place.

The packaging is completed by folding the upper part of the plastic envelope **21** over at the top, turning down the top closure flaps **17**, **18**, **19** and **20** and finally securing them in place by any conventional means, such as glue, stapling, adhesive tape, etc.

Having thus described my invention, I claim:

1. An ice cream cone package comprising an outer carton, a plurality of layers of elongated channel pockets within said carton, the longitudinal axes of said pockets in each layer being parallel to each other and at right angles to the longitudinal axes of the pockets of adjacent layers, a plurality of channel pockets in each layer being formed of a single sheet of corrugated cardboard folded to provide each pocket with a bottom wall and two adjacent side walls, said sheet having an integral flap overlying one of the channel pockets as a support for an adjacent layer of pockets, said bottom and side walls having corrugations on their inner surfaces, groups of nested ice cream cones on the interior of the channel pockets, the rim of each cone being engaged with a sepa-

rate set of three corrugations, one on the bottom wall and one on each side wall.

2. An ice cream cone package as defined by claim 1 and a tubular spacer on the tip of the final cone of each group of nested ice cream cones.

3. An ice cream cone package comprising an outer carton, a bag of a flexible moisture resistant plastic film within said carton, a plurality of layers of elongated channel pockets within said bag, the longitudinal axes of said pockets in each layer being parallel to each other and at right angles to the longitudinal axes of the pockets of adjacent layers, a plurality of channel pockets in each layer being formed of a single sheet of corrugated cardboard folded to provide each pocket with a bottom wall and two adjacent side walls, said sheet having an integral flap overlying one of the channel pockets as a support for an adjacent layer of pockets, said bottom

and side walls having corrugations on their inner surfaces, groups of nested ice cream cones on the interior of the channel pockets, the rim of each cone being engaged with a separate set of three corrugations, one on the bottom wall and one on each side wall.

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