

[54] **PHOTOFLASH CUBE PACKAGE**

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[58] Field of Search..... 206/45.34, 45.33, 45.14

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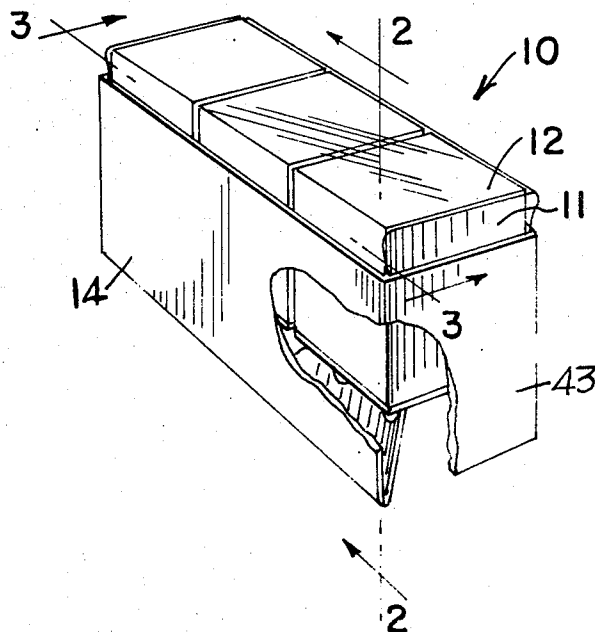
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[57]

ABSTRACT

A package of photographic flash cubes which comprises a plurality of the cubes enclosed in a container formed from a blank of paperboard or similar foldable sheet material which is cut and creased to provide side and end wall forming panels and a pair of extension flaps hinged to the top edge of the side wall panels which, in the set up and filled container, are folded inwardly and secured to the inside margins of the side wall panels so as to capture oppositely disposed marginal portions of a transparent film sheet, with the body of the film sheet forming the top side wall of the container through which top portions of the cubes may be observed and with infolded panels hinged to the bottom edges of the side walls and having their free edges engaging bottom portions of the cubes so as to lock the latter in the container.

1 Claim, 6 Drawing Figures



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SHEET 1 OF 2

FIG. 1

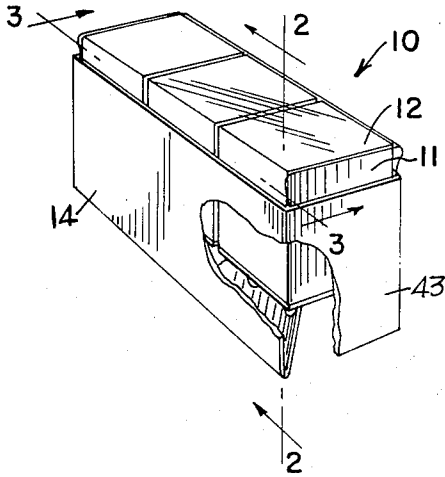


FIG. 5

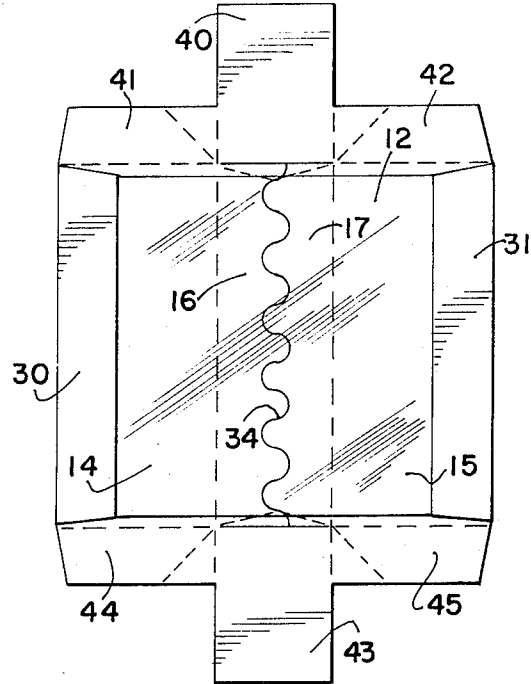
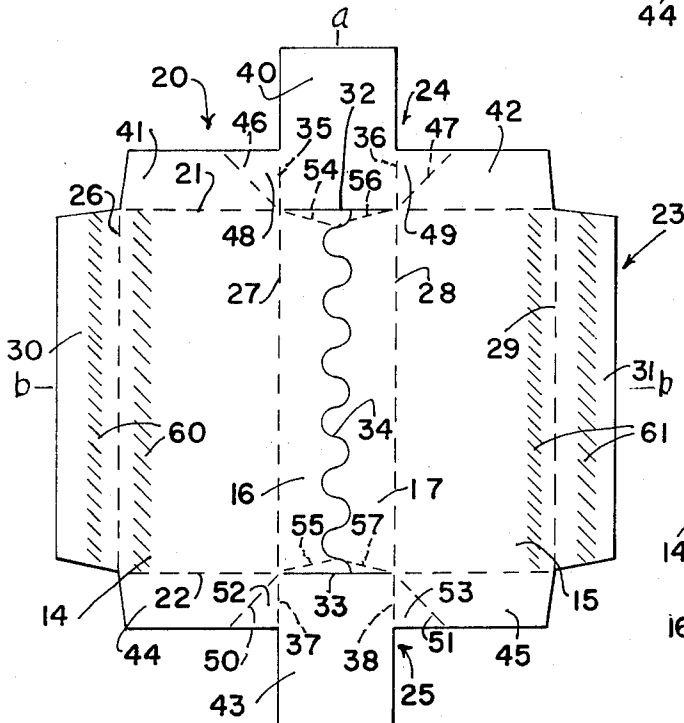
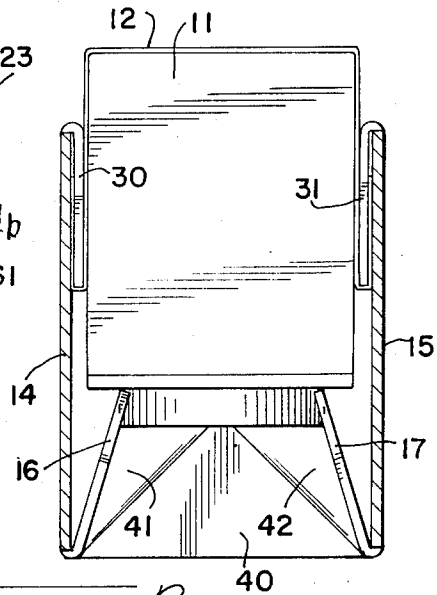


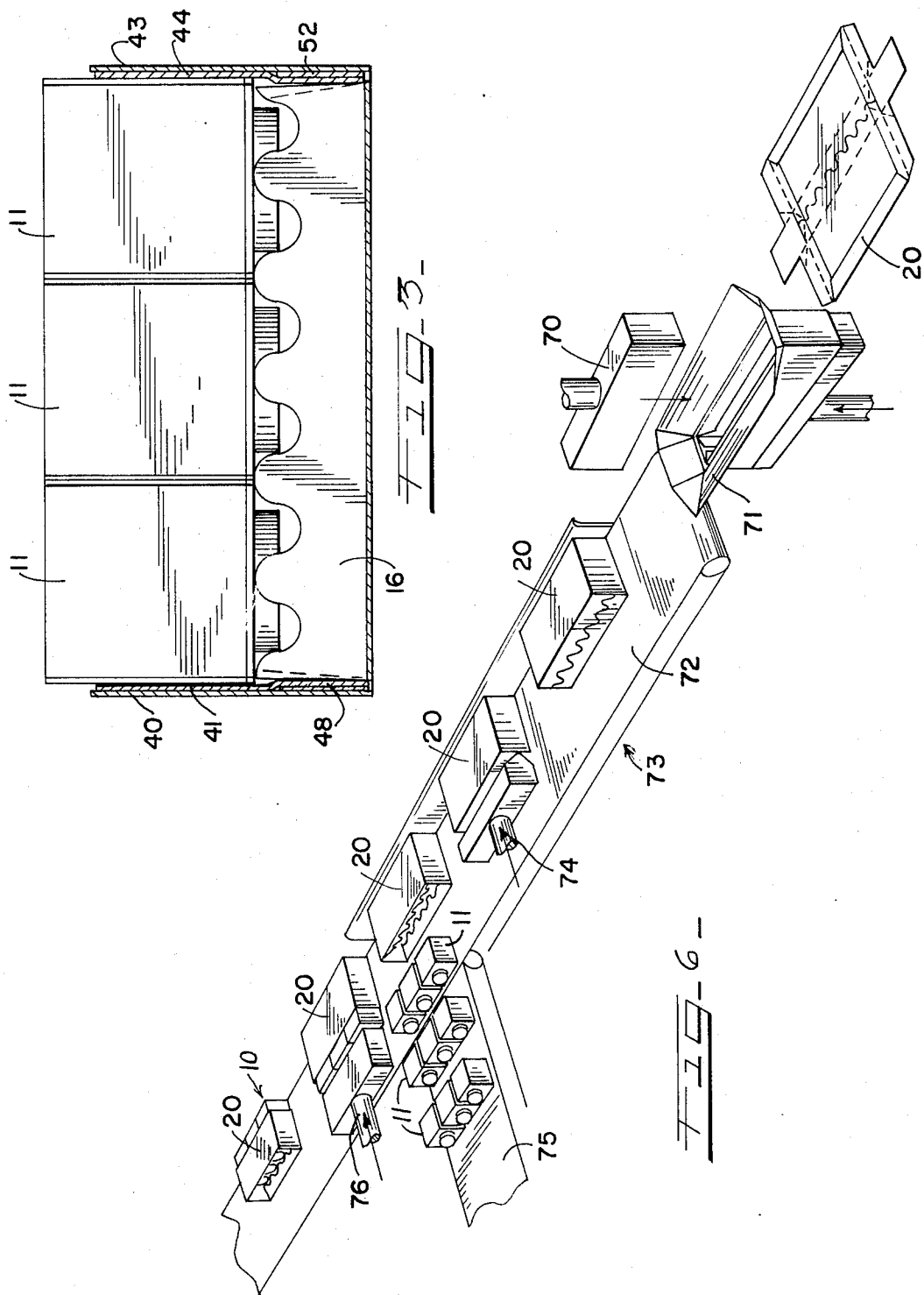
FIG. 4a

FIG. 2



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PHOTOFLASH CUBE PACKAGE

This invention relates to the packaging of products and is more particularly concerned with a package assembly for use in the marketing of a product such as, photographic flash cubes, or other product units, a plurality of which will fit into a container or wrapper of generally rectangular cross section.

In the packaging of certain products, it has been found desirable to provide a package unit for marketing the product which will accommodate a predetermined number of the product units with at least a portion of each product unit visible so that its condition may be observed and with the products retained in the package assembly so that they may be readily removed from the package, one by one, if desired. One such product for which it has proven difficult to design a satisfactory package is the cube-shaped photoflash unit which has been marketed recently and which is characterized by a cube shape with a miniature reflector and light bulb built into each of four peripheral sides of the cube, a contact base on the bottom for mounting the unit in a bracket on the camera and a transparent cover member on the top and on each of the four light producing sides. Since three of the units provide light for a dozen flash pictures, it is desirable to provide a package of three such units which corresponds in number of flashes available to the commercial packages of single bulbs. The cubes are arranged so that all four flash bulbs in each unit are visible for inspection. It is a general object, therefore, of the present invention to provide a package which is especially adapted for marketing photographic flash cubes, or similar products, which presents a neat and attractive appearance, which employs a minimum of packaging material, and which can be formed and filled economically with the use of relatively simple machinery of a type readily available.

A more specific object of the invention is to provide a package suitable for the marketing of photographic flash cubes, or the like, in multiple units, which utilizes a disposable container or wrapper assembly adapted to be supplied at low cost.

A further object of the invention is to provide a package for photographic flash cubes, or the like, which is formed from a single blank of paperboard or similar material, cut and scored to provide, when set up, a tray-like container with an open top having a cover in the form of a transparent film and an open bottom having hinged flaps for engaging the bottom faces of a row of flash cubes so as to lock the cubes in the container with top portions thereof visible through the transparent cover.

Another object of the invention is to provide a container for packaging products, such as, photographic flash cubes, which is in the form of an open top tray, with a film liner on the inside which has end margins anchored to inside top margins of opposed side walls and which is extended by engagement of the flash cubes therewith, as they are inserted from the bottom, so as to cover the top portions of the flash cubes when the flash cubes are seated therein and held in engagement with the liner by infolded locking flaps.

A still further object of the invention is to provide a container for packaging products, such as, photographic flash cubes, batteries, or the like, where partial visibility of the product is desired, wherein the container is formed from a foldable paperboard blank with

a flexible film sheet attached at opposite ends to side margins of the blank and with the blank cut and scored so that it may be set up in the form of an open top tray with the film sheet extending across the top when the products are positioned with the tops thereof engaging the film sheet and held therein by hinged flaps on the lower portions of the side walls to which the film sheet ends are attached.

These and other objects and advantages of the invention will be apparent from a consideration of the package which is shown by way of illustration in the accompanying drawings wherein:

FIG. 1 is a perspective view of a package assembly which embodies the principal features of the invention;

FIG. 2 is a cross sectional view taken on the line 2—2 of FIG. 1, to an enlarged scale;

FIG. 3 is a cross sectional view, taken on the line 3—3 of FIG. 1, to an enlarged scale;

FIG. 4 is a plan view showing the inside face of a blank cut and creased to provide the container for the package of FIG. 1;

FIG. 5 is a plan view showing the blank of FIG. 4 with a liner sheet attached preparatory to setting up the container; and

FIG. 6 is a schematic perspective view illustrating the manner in which the container is set up and filled with photographic flash cubes.

Referring to the drawings, there is illustrated in FIGS. 1, 2 and 3, a package which embodies the principal features of the invention and which is designed for marketing in retail stores, or the like, of photoflash cubes in units of three in a package. The illustrated package comprises a container or wrapper 10 enclosing three flash cubes 11, which are visible in part through a transparent film 12 constituting the top wall and portions of two oppositely disposed side walls of the container 10. The sheet 12 is rectangular in shape and has its opposite ends anchored to the inside faces of side wall panels 14 and 15. The flash cubes 11 are locked in the position shown by panels 16 and 17 which extend in hinged relation upwardly and inwardly from the bottom edges of the oppositely disposed side wall panels 14 and 15 with the free edges thereof engaging the bottom faces of the flash cubes 11.

The container 10 is formed from the blank 20, which is shown in FIG. 4, and the associated film sheet 12 which has its opposite side margins attached to the inside face of the blank 20. The blank 20 is derived from a sheet or web of paperboard material of relatively thin caliper, and is cut and scored preparatory to forming the container, as shown in FIG. 4. The cut and scored blank 20 is symmetrical about longitudinal and transverse center lines *a—*a** and *b—*b**. It is divided by the longitudinally spaced, transverse score lines 21 and 22 into a center section 23 and end sections 24 and 25. The center section 23 is divided by the longitudinally extending, parallel, transversely spaced score lines 26, 27, 28 and 29 into side wall forming panels 14 and 15, a center panel which is subdivided into panels 16 and 17, flap forming edge panels 30, 31 extending outwardly of the side wall panels 14 and 15. The locking panels 16 and 17 in the center of the blank are separated from the blank end sections 24 and 25 by cutting on the portions 32 and 33 of the transverse lines 21 and 22 which extend between the longitudinal lines 27 and 28. A longitudinally extending serpentine cutting line 34, which may be sawtooth in form, separates the pan-

els 16 and 17 and permits these panels to be hinged on the score lines 27 and 28. The score lines 27 and 28 are extended at opposite ends at 35, 36 and 37, 38 to divide the end sections 24 and 25 into the end wall forming panel 40 and adjoining glue flaps 41, 42 at one end and the end wall forming panel 43 and adjoining glue flaps 44, 45 at the opposite end. The end wall panels 40 and 43 have a dimension in the lengthwise direction of the blank 20 which corresponds to the dimension of the panels 14 and 15 in a transverse direction of the blank 20 while the associated glue flaps or panels 41, 42 and 44, 45 have a dimension longitudinally of the blank which is approximately one-half the dimension of the panels 40 and 43 in the direction transverse of the blank. The glue flaps 41, 42 in the end section 24 of the blank are scored on lines 46 and 47 which extend diagonally of the intersection of line 21 with lines 27, 28 so as to define with the longitudinal score lines 35 and 36 foldable triangular webs 48 and 49 integrally connecting the end wall panel 40 with the respective glue flaps 41 and 42. At the other end of the blank the glue flaps 44 and 45 are provided with diagonal score lines 50 and 51 extending from the intersection of line 22 with lines 27, 28 which co-operate with the score lines 37 and 38 to form triangular webs 52 and 53 integrally connecting the glue flaps 44 and 45 with the end wall panel 43. The triangular webs 48, 49 and 52, 53 are adapted to fold, when the blank is erected, so as to lie against the inside faces of the end wall panels 40 and 43. The locking panels 16 and 17 are scored at their opposite ends on the diagonal lines 54, 55 and 56, 57 to facilitate infolding of these panels when the carton is erected.

The wall forming film sheet 12 is positioned on the blank 20 and attached thereto as shown in FIG. 5. Lines of adhesive 60 and 61 are applied to the panels 14, 30 and 15, 31. The sheet 12 which has a dimension transversely of the blank somewhat less than the distance separating the parallel, longitudinal score lines 26 and 29 is centered on the blank and the flaps or panels 30 and 31 are folded inwardly over the margins of the sheet 12 so as to attach the sheet margins to the blank and precisely control the length of the film sling which results when the blank is formed into the container and filled with the products to be packaged.

The cut and scored blank assembly 20, with the sheet 12 attached as shown in FIG. 5, is supplied to the packaging line where it is set up and filled as shown in FIG. 6. Preferably, the blank is set up into sleeve or tray form by a plunger 70 and associated folding die assembly 71 after which it is delivered to the top run 72 of a belt conveyor 73. The corner connecting panels 41, 42 and 44, 45 are provided with an adhesive on the outer faces so that they will be secured to the inside

faces of the end wall panels 40 and 43. A horizontally reciprocating plunger 74 moves across the belt and breaks the panels 16, 17 inwardly. An assembly of three flash cube units 11 is deposited on the top run 72 of the conveyor 73 by the supply conveyor 75 and a loading plunger 76 at the next station inserts the cube units 11 into the tray. The insertion of the cubes 11 simultaneously folds the sheet 12 into proper position and brings the panels 16, 17 into locking engagement with the bottom faces of the cubes 11 so as to retain the cubes 11 in the package, thereby automatically retaining the product and eliminating a closing operation required in the loading of ordinary containers having closure flaps while achieving the appearance of a film wrapped product simultaneously.

The resultant form of the package has advantages with respect to storage, shipping and display since a plurality of the packages can be accommodated in reduced space by stacking with the top of the product of one package nested into the void space in the bottom of another package.

While the invention is illustrated in connection with the packaging of photographic flash cubes it is not limited to the packaging of that particular product since other products of various shapes can be packaged, such as, cylindrical or oval-shaped batteries where partial visibility of the product is desired. We claim:

1. A package comprising an assembly of product units of generally cubical shape which are arranged in side-by-side row formation and enclosed in a sleeve-like container, said container being formed from a generally rectangular blank of foldable paperboard material which is cut and scored to provide a center portion and end portions with the center portion being divided by longitudinally, transversely spaced score lines into side wall forming panels which are hinged to upstanding parallel side wall forming relation and by a pair of locking panels which are freed at the opposite ends so as to be hinged inwardly of the bottom edges of the side wall forming panels and engaged beneath the bottom portions of said product units, the blank end portions each being divided by longitudinally extending score lines into an end wall forming panel which is hinged into end wall forming position at the ends of the side wall panels and a pair of adjoining corner connecting panels which are hinged thereto and connected to the adjacent side wall forming panels, and a flexible, transparent film connected to the top portions of the side wall forming panels and extending in the form of a sling across the top of the product units which are held in engagement therewith by the engagement of said locking panels with the bottom portions of said product units.

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