Dec. 15, 1942. G. W. GOODWIN 2,305,349

CONTAINER

Filed March 25, 1940 2 Sheets-Sheet 1

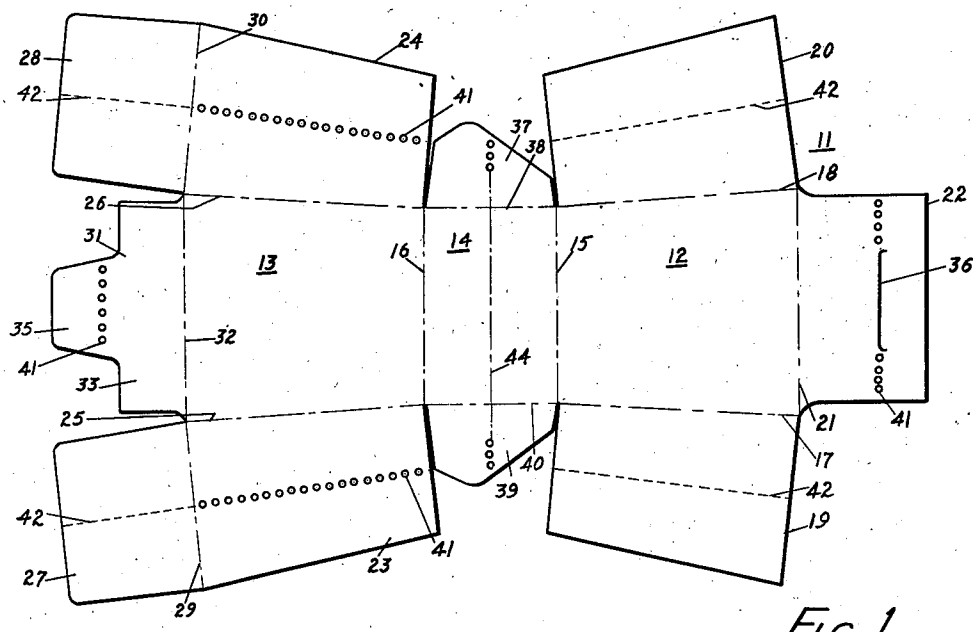


FIG 1

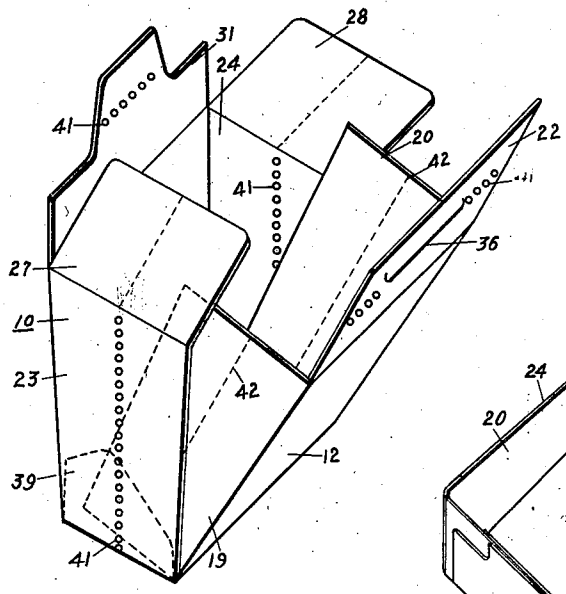


FIG 2

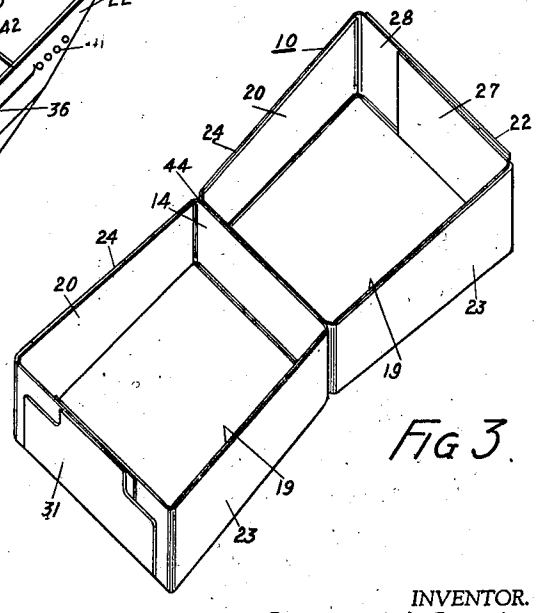


FIG 3

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CONTAINER

Filed March 25, 1940 2 Sheets-Sheet 2

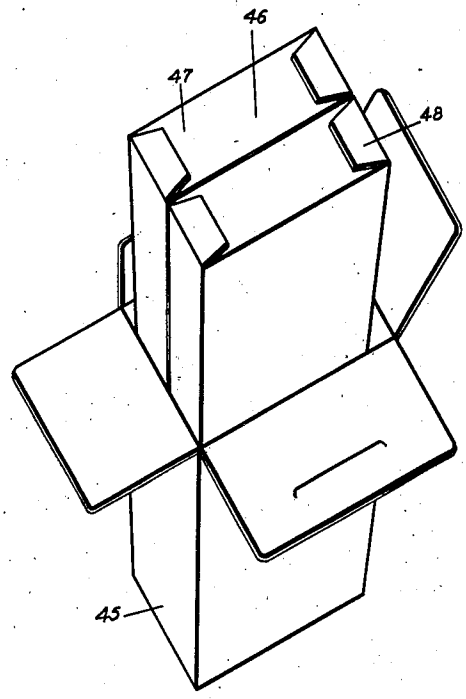


FIG 4

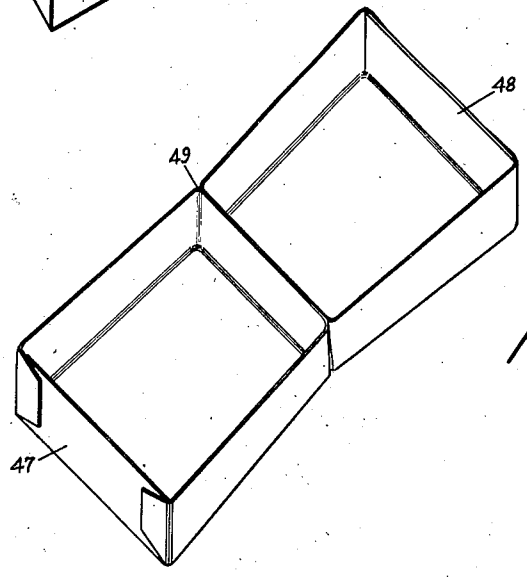


FIG 5

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Patented Dec. 15, 1942 2,305,349

UNITED STATES PATENT OFFICE

2,305,349

CONTAINER

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Application March 25, 1940, Serial No. 325,716

3 Claims. (Cl. 229—51)

My invention relates to containers for frozen foods, and more particularly to containers for ice cream.

An object of my invention is to provide an original container for frozen foods which can be cut in half along a weakened line and the two halves folded back along a hinge line to enable a person to put the ice cream in the freezing compartment of a refrigerator.

Another object of my invention is to provide a container for frozen foods such as ice cream which can be cut along a preexisting line to enable a person to put the container in the freezing compartment of a refrigerator.

Still another object of my invention is to provide a container for frozen foods having a line along which the container can be cut and another line along which it can be folded to change it from a package which is too thick to readily place in a freezing compartment of a refrigerator to a thin package which can be easily slipped in.

A still further object of my invention is to enable a purchaser of ice cream to conveniently cut the package in which the ice cream is purchased and slip the cut package in the space in the freezing compartment of a refrigerator which is normally occupied by one tray of ice cubes.

Still another object of my invention is to split a carton of frozen food into two substantially equal portions.

Still another object of my invention is to establish a perforate line along which a carton may be cut to reduce its thickness and to so construct the carton that the overlapping which is necessary to fasten it together lies adjacent to the perforate portion thereby preventing the contents of the carton from leaking out of the perforations.

A further object of my invention is to provide a double container for frozen foods; the inner container of which is removable from the outer container and which is separated along three sides to allow a purchaser to cut the food and fold open the container with the food therein to reduce the thickness of the container and permit the container to be placed in a relatively thin compartment in a refrigerator.

Other objects and a fuller understanding of my invention may be had by referring to the following description and claims, taken in combination with the accompanying drawings in which:

Figure 1 shows in plan a blank applicable to the forming of a carton which embodies the features of my invention;

Figure 2 is a perspective view of the blank shown in Figure 1 as the blank is being folded into a carton;

Figure 3 is a perspective view of my carton as formed from the blank shown in Figure 1 after the carton has been cut along a prepared line;

Figure 4 is a perspective view of another form of my invention; and

Figure 5 is a view of the inside container shown in Figure 4 after the inside container has been removed from the outside container and folded open.

My invention is adapted to make containers for frozen foods such as "Birdseye" frozen foods and ice cream containers more convenient for the purchasing public to handle. The standard sized frozen food containers and the common pint and quart containers for ice cream are of an awkward shape which does not readily permit a purchaser to place the container in the freezing compartment of a home refrigerator.

In order for a person to put a package in the freezing compartment, it is sometimes necessary for him to remove several trays of ice cubes and the metal division plate between the trays. To obivate this difficulty, I have provided my container with a weakened line which divides the container substantially in half and along which the purchaser can cut. By cutting along this weakened line, the purchaser severs the contents and three sides of the package, leaving a fourth side of the package to serve as a hinge line along which the two resultant halves of the container can be swung into an end-to-end position with their two cut faces substantially in a plane. I so place the weakened line that when my container and contents are cut along it the resultant halves are substantially one-half the thickness of the purchased package. By so positioning this weakened line the resultant package, after cutting and folding, is relatively long and is thin and narrow. A package of this shape is easy to place in the freezing compartment of a home refrigerator. All that is necessary to place the package is that one ice tray be removed and the ice cream slipped in its place. The original container serves as the tray and the food is kept in good condition. If the tray does not have ice cubes in it, the ice cream in its split package may be placed in the tray and the tray returned to its place in the freezing unit.

With reference to the drawings, my invention comprises a carton or container for frozen foods indicated generally by the reference character 10.

In Figure 1 of the drawings I illustrate a carton blank 11 from which my container may be

formed. The blank 11 comprises a plurality of portions which, when the blank is folded, become side, top, bottom and flap portions of the container 10. It is to be understood that when I speak of a "bottom portion" of the blank 11 it means that portion of the blank 11 which becomes the bottom of the container 10 after the blank is folded and attached together to become the container. The blank 11 comprises a front face portion 12 and a back face portion 13 integrally connected to a base portion 14 along lines 15 and 16 respectively. Integrally connected along fold lines 17 and 18 to each side of the front face portion 12 are side portions 19 and 20; reference character 19 indicating the left side portion and reference character 20 indicating the right side portion and integrally connected to the front face 12 along fold line 21 is an outer top flap 22. Attached to the back face 13 are left and right side portions 23 and 24 which are substantially similar in shape to the left and right side portions 19 and 20. The left side portion 23 is integrally connected to the back face 13 along fold line 25, and the right side portion 24 is integrally connected to the back face 13 along fold line 26. A pair of inner top flaps 27 and 28 are provided, 27 being the left inner flap and attached to the left side portion 23 along fold line 29, and 28 being the right inner flap and attached to the right side portion 24 along fold line 30. An outer top flap 31 is provided and is connected to the back face 13 along the fold line 32. The outer top flap 31 comprises a broad portion 33 which extends substantially entirely across the width of the back face 13 and which is connected to the back face 13 along the fold line 32 and a narrow tongue portion 35 which is integral with the broad portion 33. A groove 36 is provided in the first outer top flap 22 into which the tongue 35 of the second top flap 31 is adapted to fit, thereby providing a tongue and groove connection for holding the top flaps in place when the container is closed. A right sealing flap 37 is attached to the base portion 14 along the fold line 38, and a left sealing flap 39 is attached to the base portion 14 along the fold line 40.

A line of perforations 41 is put into the left and right side portions 23 and 24.

The perforations which I illustrate are of the type where a series of closely spaced circular portions of the cardboard material is actually cut out and where a small amount of cardboard material is allowed to remain between any two perforations. This type of perforation actually removes a large percentage of the cardboard along the line on which a person desires to cut and makes cutting very much easier. It is to be understood, however, that any other kind of perforation is within the scope of this disclosure and that any means for making the container easier to cut along line 41 is considered by the inventor to be an equivalent of the illustrated method. For example, a heavy crease along line 41 instead of the perforations shown weakens the container and brings it within the scope of this disclosure. Also, the well known methods of weakening a line such as partially cutting or indenting the material at closely spaced intervals is contemplated by the inventor. The sides 19 and 20 are imperforate and may be preferably weakened along lines 42. The weakened lines may be obtained by creasing or by partially cutting or indenting the material at closely spaced intervals.

Figure 2 illustrates the manner in which the blank illustrated in Figure 1 is folded to form a carton capable of holding a liquid. The imperforate right side portion 20 is positioned inside the perforated right side portion 24 and the imperforate left side portion 19 is positioned inside the perforated left side portion 23, and they are stuck together by any suitable means such as glue. The presence of an imperforate side portion, such as 19 and 20 next to the perforate side portions 23 and 24 prevents foods from leaking out of the perforations 41 in side portions 23 and 24. This is important as the commercial method of making ice cream causes unfrozen ice cream mix to be placed in the containers and then it is frozen into ice cream. This ice cream mix, in its unfrozen condition, is semi-liquid and would leak out of perforations unless there was an imperforate sheet behind it. To provide a liquid seal at the bottom of the container, the sealing flap 37 is positioned between the side portions 20 and 24, and the sealing flap 39 is positioned between the side portions 19 and 23. Inner flap means 27 and 28 are adapted to be folded over the contents after they are placed in the container and the outer flap portions 22 and 31 fold over the inner flap portions and hold the container shut by means of the tongue and groove connection 35 and 36.

To assure that the purchaser can easily sever the container, the weakened lines 42 register with the lines of perforations 41. I also provide for perforating the outer top flap portions 22 and 23 along a line which substantially connects the line of perforations 41 in the left side portion 23 with the line of perforations 41 in the right side portion 24. It will be seen that the lines of perforations lie substantially in a plane and that the plane passes through the container substantially parallel to the front and back faces which comprise the broad or wide sides of the container and that therefore, when the container is cut along this plane, and the container opened up along a hinge line 44, the resultant container, as shown in Figure 3, will be long and narrow and approximately one-half the original thickness. Cutting the container along this plane changes the size and shape of the container enough to permit a person to put it into a standard freezing tray in an electric refrigerator. To simplify the manufacturing operations, the line of perforations 41 in the outer top flap 22 may be made co-extensive with the groove or slot 36.

Another embodiment of my invention is illustrated in Figure 4 in which an outside container 45 of standard shape is adapted to hold an inner container 46. The inner container 46 is adapted to hold the frozen food and comprises two halves 47 and 48. The two halves 47 and 48 are hinged together along line 49 and are adapted to fold back into an end-to-end position as shown in Figure 5. In this embodiment no severing of the container is necessary. A purchaser buys the outside container 45 with the inside container 46 and the frozen food inside it. Upon reaching home he opens the outside container 45 and takes the inside container out. A knife is passed along the plane between the two halves 47 and 48, thereby severing the food in two and allowing the container and food to be opened into the position shown in Figure 5 and then placed in a refrigerator.

Although I have described my invention with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous

changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

I claim:

1. A frozen food container severable along weakened lines, comprising a medial weakened line on two sides and the top of the container to facilitate the severing of the container in two halves, the bottom of the container establishing a hinge whereby the two halves of the container may be swung into a flat end-to-end position to adapt the container to be placed in the relatively shallow freezing tray of a refrigerator, each of said two sides having external perforate means and internal weakened imperforate means, said top having external perforate means and internal weakened imperforate means, said external perforate means establishing a weakened transverse line along the two sides and the top of the container whereby said container may be easily severed and said internal weakened imperforate means establishing an internal closure which prevents the frozen food from leaking out of said container.

2. A frozen food container having a weakened line extending along the top and the two sides thereof whereby said container may be easily severed to establish two shallow halves hinged together at their bottoms and whereby the said container may be adapted to being placed in a shallow freezing compartment of a refrigerator, each of said two sides having external perforate means and internal weakened imperforate means, said top having external perforate means and internal weakened imperforate means, said external perforate means establishing a weakened transverse line along the two sides and the top of the container whereby said container may be easily severed and said internal weakened imperforate means establishing an internal closure which prevents the frozen food from leaking out of said container.

3. In a frozen food container having two sides, a bottom and a top, of a weakened narrow portion comprising perforations extending substantially in a straight line intermediate the two sides and across the top of the container to facilitate the severing of the container in two halves, the bottom of the container establishing a hinge whereby the two halves of the container may be swung into a flat end-to-end position to adapt the container to be placed in the relatively shallow freezing tray of a refrigerator, each of said two sides having external perforate means and internal weakened imperforate means, said top having external perforate means and internal weakened imperforate means, said external perforate means establishing a weakened transverse line along the two sides and the top of the container whereby said container may be easily severed and said internal weakened imperforate means establishing an internal closure which prevents the frozen food from leaking out of said container.

GEORGE W. GOODWIN.