

Dec. 6, 1949

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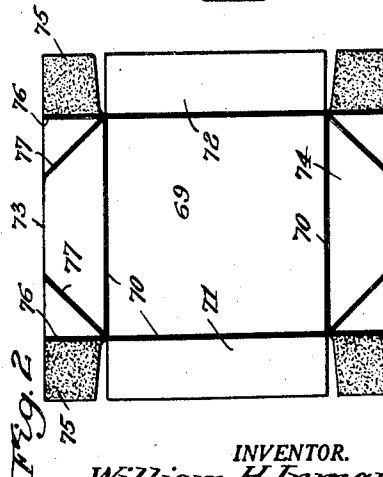
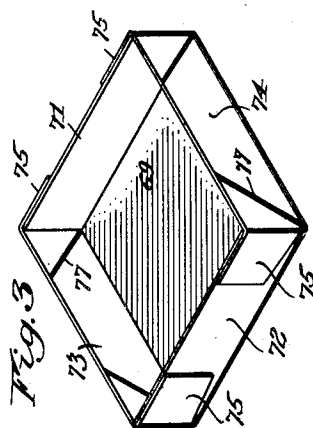
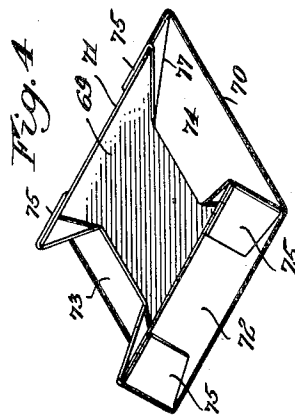
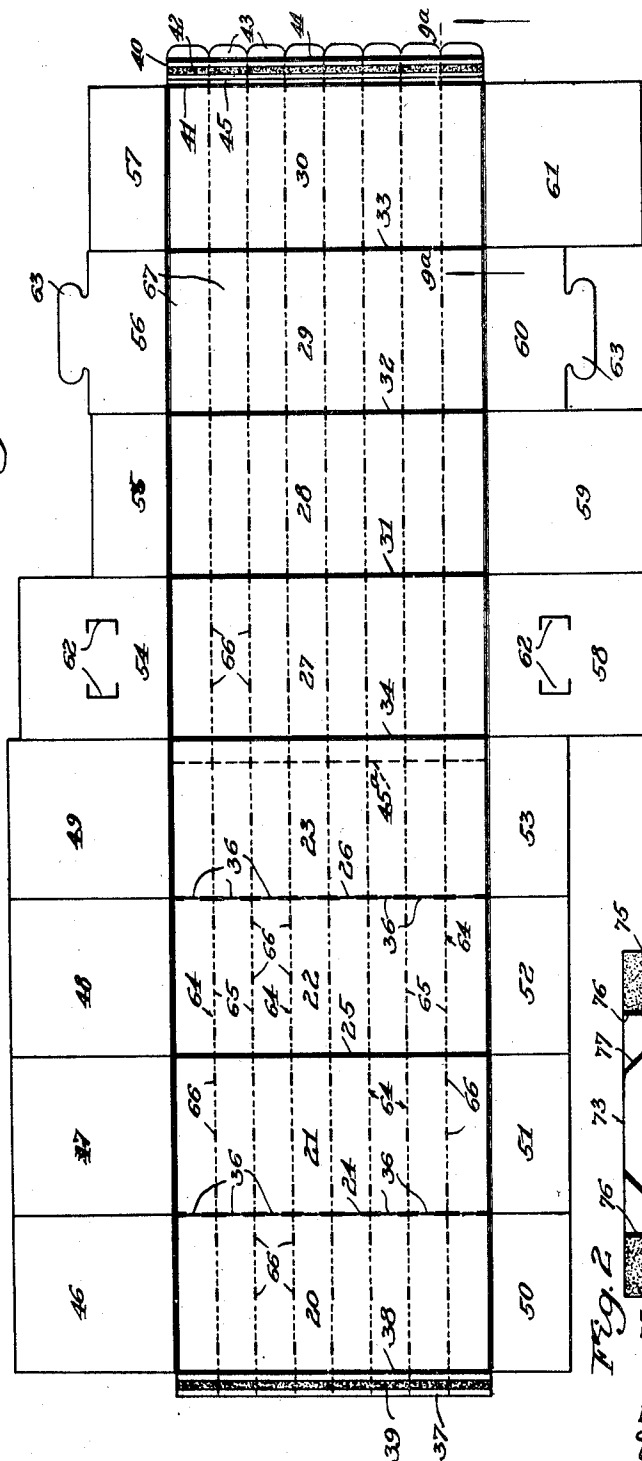
2,490,133

CARTON

Filed Aug. 25, 1945

4 Sheets-Sheet 1

Fig. 1



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Fig. 6

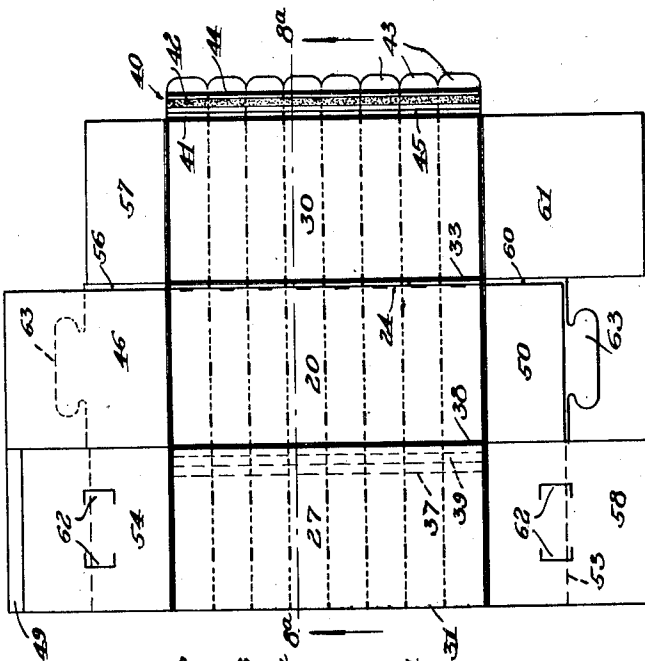


Fig. 5

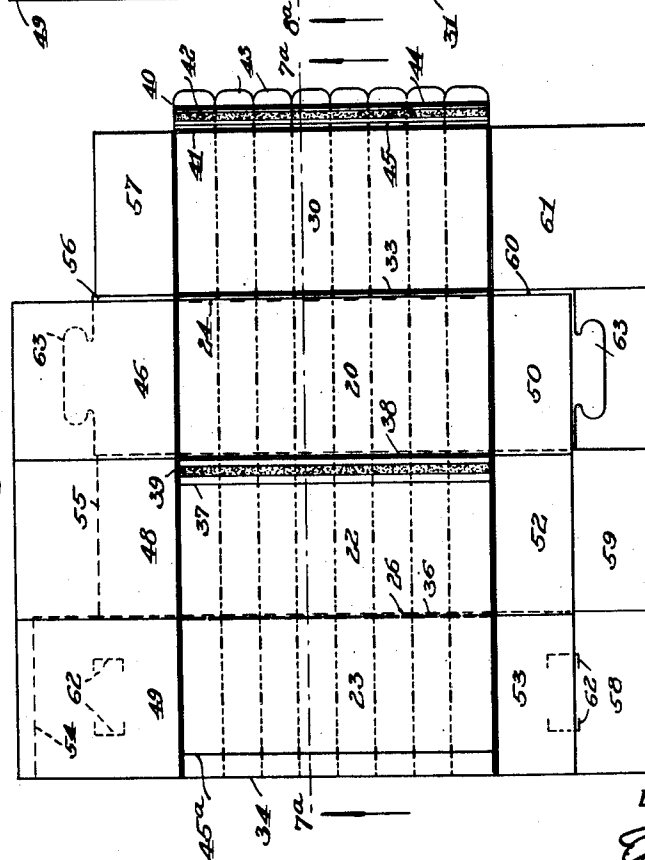


Fig. 7

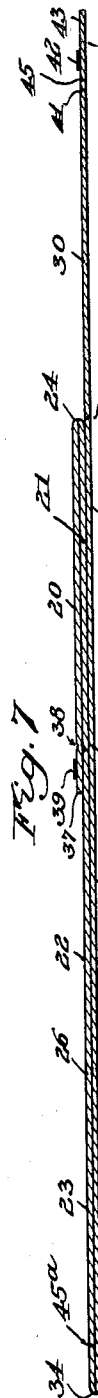


Fig. 8

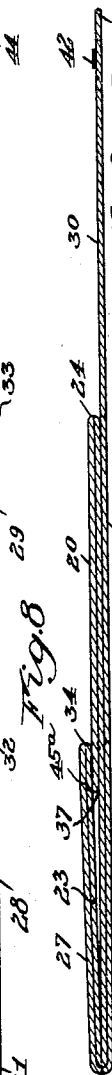


Fig. 9



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Fig. 10

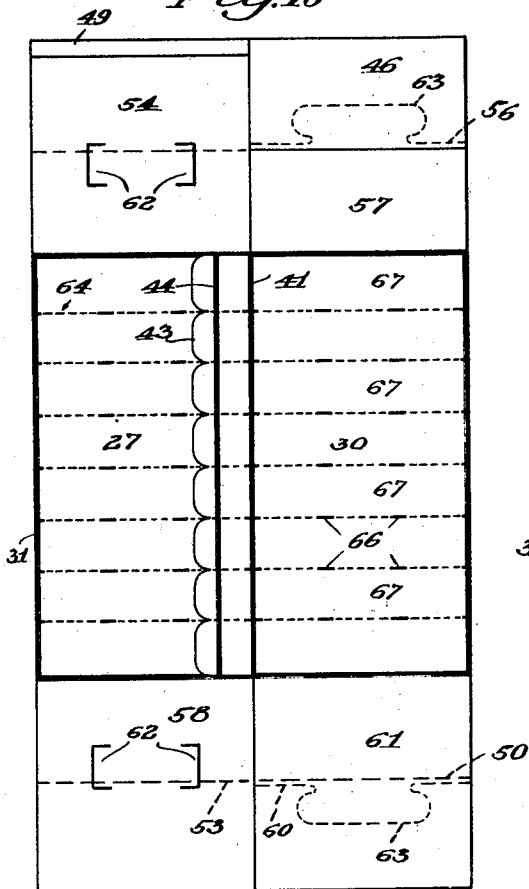


Fig. 12

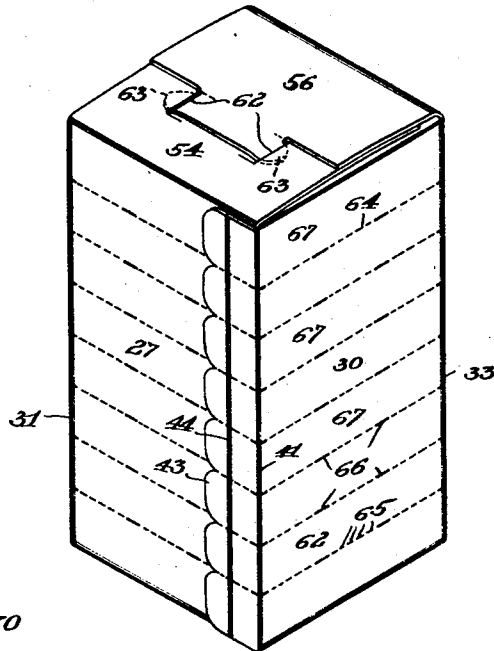
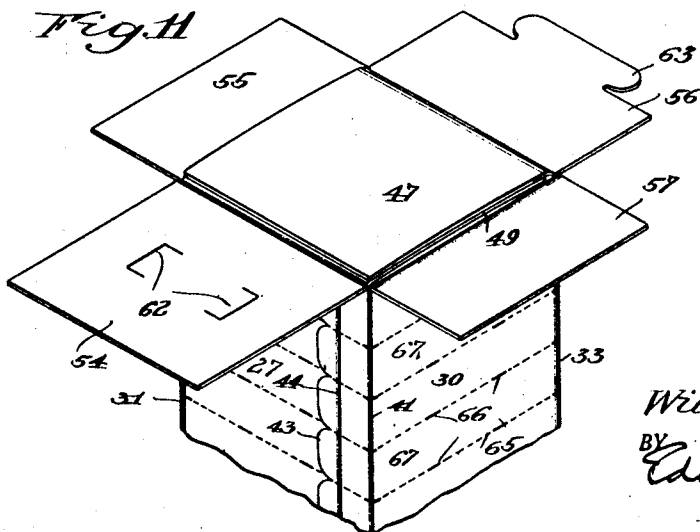


Fig. 11



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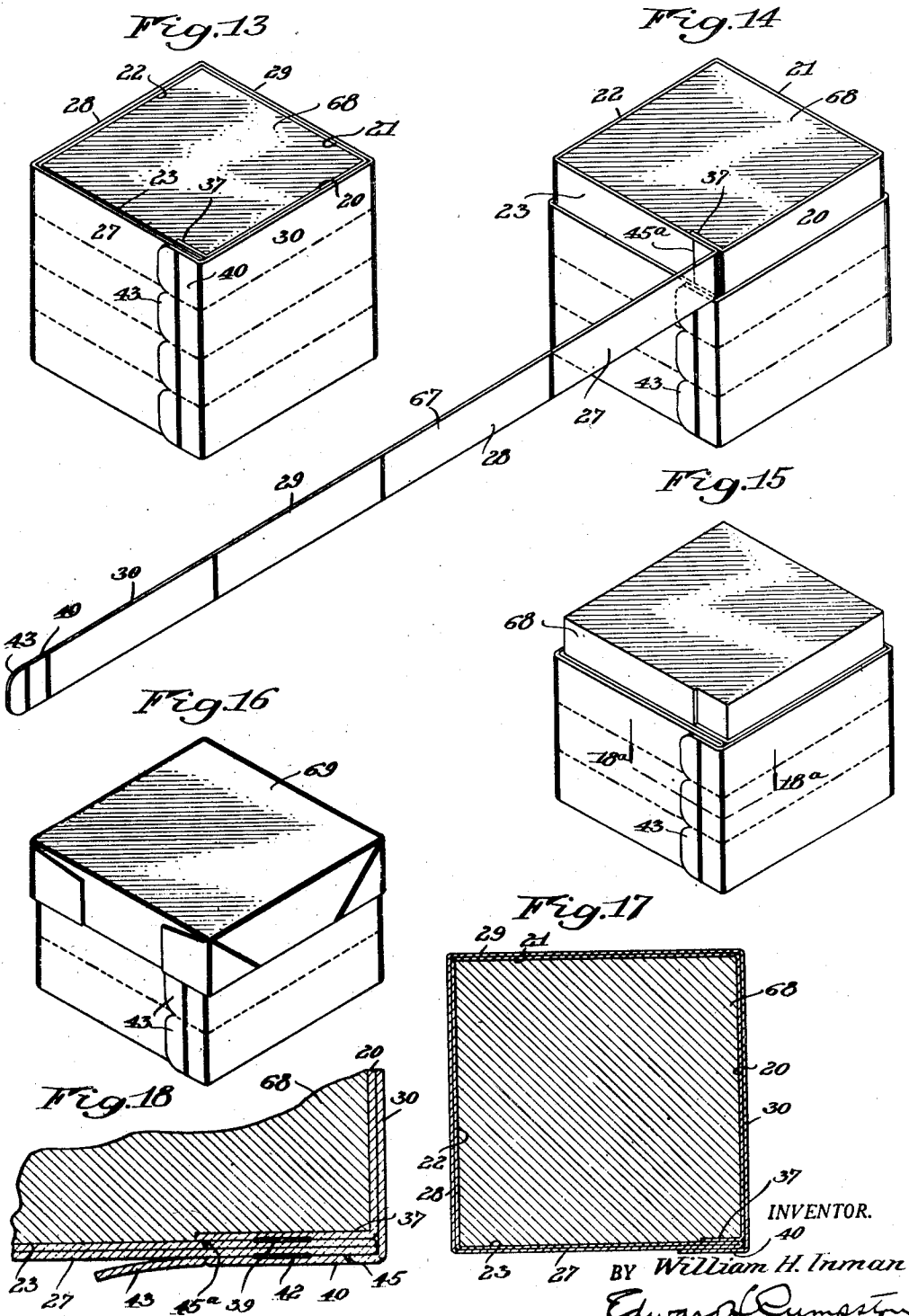
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UNITED STATES PATENT OFFICE

2,490,133

CARTON

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Application August 25, 1945, Serial No. 612,630

8 Claims. (Cl. 229—51)

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This invention relates to cartons made of cardboard, or other foldable fibrous material, cut, scored and folded to form a strong, moisture-resisting container for ice cream or other solid or semi-solid contents and comprising efficient means for stripping the container walls in successive sections, to expose the contents in unwrapped condition for ready access thereto, as particularly convenient in retail or home dispensing of the contents.

One object of the invention is to provide a container of the above character having a strong and highly insulated construction combined with effective and convenient provisions for stripping off successive portions of the container walls to expose successive zones of the contents in unwrapped condition for ready removal and service in limited quantities.

Another object is to provide such a container having inner and outer, or double walls for strength and insulation, so constructed that the double walls may be conveniently stripped off in successive sections to expose successive zones of the contents in unwrapped condition and adapted to be readily cut off with a knife, for example, for distribution in limited portions.

Another object is to provide a container of the above nature comprising an auxiliary cover for closing the end of the carton after its integral closure flaps have been removed by the stripping off of one or more wall sections.

A further object is to provide such a carton and auxiliary cover so folded and glued as to be capable of collapsing into flat shape for convenience in storage and transportation in quantities.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Fig. 1 shows a one-piece blank in flat shape for forming the carton;

Fig. 2 shows a blank in flat shape for forming an auxiliary cover for the same;

Fig. 3 shows the auxiliary cover folded and glued and in erected shape;

Fig. 4 shows the auxiliary cover while being collapsed into flat shape;

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Fig. 5 shows the blank of Fig. 1 reversely folded upon itself adjacent its center and with one end folded back;

Fig. 6 shows the left hand or central portion folded to overlap an end portion of the blank;

Fig. 7 is an enlarged section on the lines 7a—7a in Fig. 5;

Fig. 8 is an enlarged section on the line 8a—8a in Fig. 6;

Fig. 9 is an enlarged section on the line 9a—9a in Fig. 1;

Fig. 10 shows a blank folded and glued in collapsed condition for transportation;

Fig. 11 shows an end of the carton erected and partly closed;

Fig. 12 shows the carton erected, filled and closed;

Fig. 13 shows the filled carton with upper portions of its walls and contents removed;

Fig. 14 shows the stripping of a further section or band of the carton walls to expose a zone of the contents;

Fig. 15 shows the band fully removed to expose a zone of the contents;

Fig. 16 shows the remainder of the container with the auxiliary cover in place;

Fig. 17 is a sectional plan view through the container and contents, and

Fig. 18 is an enlarged sectional view on the line 18a—18a in Fig. 15.

The embodiment of the invention herein disclosed, by way of illustration, comprises, preferably, a one-piece blank (Fig. 1), cut and scored to form an inner set of four rectangular side walls, 20 to 23, inclusive, separated by spaced, scored fold lines, 24, 25 and 26, and also an outer set of rectangular side walls, 27 to 30, inclusive, separated from each other by spaced score lines, 31, 32 and 33. The two sets of walls are separated by a scored fold line 34 lying adjacent the center of the blank, as shown. The scoring of these folding lines may be accomplished by indenting the material from one or both sides, as at 35 (Fig. 9), although it is preferred to additionally weaken the lines 24 and 26 to facilitate the folding of the material at such lines, for a purpose hereafter described, this additional weakening being preferably accomplished by intermittent cuts or slits 36 extending entirely through the material.

The inner side wall 20 at one end of the blank is preferably extended laterally to provide a securing strip 37 having a scored fold line 38 provided with a glued area 39. At the opposite end of the blank the outer side wall 30 is extended to provide a securing strip 40 separated by a scored fold line 41 and provided with a glued area 42 spaced inwardly from the free lateral edge of the strip 40, so as to leave terminal portions or tabs 43 separated by fold lines 44, for a purpose hereafter described. At 45 is a score line preferably made by a slit extending part way through the material so as to effect a discontinuance of the surface fibers. At 45a is a similar score line cut partially through the material from the opposite surface of the blank for a purpose hereafter described.

The side walls 20 to 23, inclusive, of the inner set are extended at their opposite ends to form flaps, 46 to 49, inclusive, and 50 to 53, inclusive, respectively, these flaps serving to provide an inner closure for each end of the carton.

The side walls, 27 to 30, inclusive, of the outer set are likewise extended at their opposite ends to provide end closure flaps, 54 to 57, inclusive, and 58 to 61, inclusive, respectively. The end flaps 54 and 58 are each formed with a pair of spaced angular slits 62 for interlocking cooperation with tongues 63 on the end flaps 56 and 60, for locking all of the end flaps in closed position.

Extending laterally across all of the side walls are a plurality of lines of scoring 64, spaced equally from one another endwise of the carton, as shown. These lines are preferably made by intermittent short slits 65 extending through the material with further weakening of it by more widely spaced and longer slits 66. The slits 66 in the outer side walls 27 to 30, inclusive, are preferably staggered with relation to the similar slits in the inner side walls, to more effectively seal in the contents. These lines of scoring 64 divide the material into a series of elongated sections or bands, as 67, each terminating at one end in one of the tabs 43 referred to above.

In the folding and gluing of the blank, the inner set of side walls, shown at the left in Fig. 1, are folded about the line 34 so as to overlie the outer set of side walls 27 to 30, inclusive, as shown in Fig. 5, except that the inner side wall 20 is folded back about the line 24 to overlie the inner wall 21, as shown in Figs. 5 and 7. The walls 23 and 27 are then folded about the score lines 26 and 31 so as to overlap the glued strip 37, by which the wall 20 is secured and sealed to the wall 23, as shown in Figs. 6 and 8. Thereafter the side wall 30 is folded about the line 33 so that its glued strip 40 overlaps the wall 27 and is adhesively secured and sealed thereto by the glued area 42, but leaving the tabs 43 free so that they can be grasped in the fingers.

The blank is arranged, by the above steps, into a collapsed tubular shape, convenient for storage and transportation, as shown in Fig. 10, and may be readily erected into the rectangular shape shown in Fig. 11. In this shape, one end of the tube is closed by folding in the opposite pairs of flaps, 50 to 53, inclusive, of the inner side walls, after which the flaps 59 and 61 of the outer walls are folded in, followed by closing of the flaps 58 and 60 and the interlocking of the same by inserting the tongue 63 in the slits 62. The container may then be filled at its other end with ice cream, or other contents, after which the filling end is similarly closed, the container and contents being then as shown in Fig. 12. The

side walls of the outer set are preferably made somewhat wider than the corresponding inner side walls to provide extra material for the folding of the outer side walls around the inner walls, as indicated in Fig. 5, and, similarly, the line of folding of the outer closure flaps is preferably slightly elevated above the line of folding of the inner flaps for the same purpose. It is apparent from the above description that the invention provides a double walled construction of the general type disclosed in my Patent No. 2,348,070, in which both the side and end walls are of double thickness, affording strength and stiffness and a high degree of insulation, as desired in cartons for holding ice cream.

In dispensing the contents of the container, at retail or in home use, the closure flaps at one end of the carton are opened and the freely projecting tab 43 of the first side wall section or band 67 is grasped in the fingers and pulled to tear the band along the adjacent score line 64, first from each of the outer side walls in succession, until the center fold 34 is reached and then from each of the inner side walls, one after another, as indicated in Fig. 14, until the band is entirely stripped from the carton and contents, as indicated in Fig. 15, leaving a zone 68 of the contents in unwrapped condition so as to be accessible for slicing or cutting off with a knife. Each of the remaining bands may be successively removed in the same fashion, to unwrap successive zones of the contents, as desired in serving the same for use, but leaving the unused portions of the contents, from time to time, still contained in the remaining portions of the carton.

It will be noted that the central folded portion of the blank and the blank ends overlapped and glued thereto are disposed at one of the corners of the carton, this arrangement serving to further strengthen and stiffen the construction. At the same time, the location of these overlapping glued parts adjacent a corner of the carton serves to better support them during the tearing of each band, first from its glued attachment to the folded central portion and then the tearing of the folded central portion from the inner wall 20, as shown in Fig. 14. The severing of the surface fibers by the scores 45 and 45a serves to terminate such fibers and prevent any peeling of the surface portions beyond such scored lines.

After the carton has been opened and a portion of its contents removed, as described, the end of the carton so opened is closed by an auxiliary cover 69 (Figs. 2 to 4, inclusive, and 16). This closure is preferably made of a one-piece blank of foldable material, as shown in Fig. 2, comprising marginal, scored fold lines 70 forming opposite pairs of side walls 71 to 74, inclusive. The walls 73 and 74 have end flaps 75 separated from them by folding scored lines 76 and provided with adhesive, as indicated by stippling. The side walls 71 and 72 are erected as shown in Fig. 3, and the walls 73 and 74 are then erected and their flaps 75 folded about the corners thus formed and adhesively secured to the walls 71 and 72, as shown. The walls 73 and 74 are provided with inclined scored folding lines 77, so that the side walls may all be collapsed on the body portion as shown in Fig. 4, for disposing the cover in flat shape for storage and transportation. In use, the side walls are erected, as in Fig. 3, and the cover thus arranged is placed over the open end of the carton to protect the contents, as shown in Fig. 16.

The invention thus provides a container hav-

ing a particularly strong, rigid and well insulated type of construction, particularly adapted for insulating the contents against heat and moisture and for resisting the softening and disintegrating tendency of the moisture of the contents on the container walls. Combined with and facilitated by this double wall construction, is an ingenious arrangement whereby, notwithstanding the double walls, the container material may be stripped in successive bands from the contents to expose successive zones of material in unwrapped condition adapted to be cut or otherwise removed from the main body of the contents. The stripping bands in the outer wall portion are protected by the inner walls from deterioration by moisture, so that they may be readily torn along the scored lines, while the torn edge thus formed serves as a guide in the tearing of each strip from the inner walls which are in contact with the material. The container may be maintained in closed condition by the auxiliary cover provided and such features afford a highly efficient, convenient and satisfactory type of container for ice cream and similar materials.

It will thus be seen that the invention accomplishes its objects and while it has been herein described by reference to the details of a preferred embodiment, it is to be understood that such description is intended in an illustrative, rather than in a limiting sense, as it is contemplated that various modifications in the construction and arrangement of the parts will readily occur to those skilled in the art, within the spirit of the invention and the scope of the appended claims.

I claim:

1. A carton made of foldable fibrous sheet material and comprising a blank reversely folded upon itself adjacent its center and having said folded center adhesively secured and sealed between its opposite ends to provide inner and outer sets of carton side walls, extensions on said side walls providing flaps for closing the carton ends, and a plurality of lines of scoring in the material of said side walls and extending laterally around said carton in spaced relation to one another endwise of said carton to form bands adapted to be successively stripped from said side walls to expose successive zones of the carton contents in unwrapped condition for removal therefrom.

2. A carton made of foldable fibrous sheet material and comprising a blank reversely folded upon itself adjacent its center to provide inner and outer sets of carton side walls, said center fold being located substantially at a corner fold between adjacent carton side walls and being inserted and adhesively secured and sealed between opposite ends of said blank, extensions on said side walls providing flaps for closing the carton ends, and a plurality of lines of scoring in the material of said side walls and extending laterally around said carton in spaced relation to one another endwise of said carton to form bands adapted to be successively stripped from said side walls to expose successive zones of the carton contents in unwrapped condition for removal therefrom.

3. A carton made of foldable sheet material and comprising a blank reversely folded upon itself adjacent its center to provide inner and outer sets of carton side walls, said center fold being located substantially at a corner fold between adjacent carton side walls and being in-

serted and adhesively secured and sealed between opposite ends of said blank, said inner and outer sets of side walls being separate from each other except at said center fold, extensions on said side walls providing flaps for closing the carton ends, and a plurality of lines of scoring in the material of said side walls and extending laterally around said carton in spaced relation with one another endwise of said carton to form bands adapted to be successively torn from said side walls along said lines of scoring to expose successive zones of the carton contents in unwrapped condition for removal therefrom.

4. A carton made of foldable fibrous sheet material and comprising a blank reversely folded upon itself adjacent its center and having said folded center inserted between and adhesively secured to its opposite ends to provide inner and outer sets of carton side walls, extensions on said side walls providing flaps for closing the carton ends, and a plurality of lines of scoring in the material of said side walls and extending laterally around said carton in spaced relation to one another endwise of said carton to form stripping bands having free terminal portions lying in the outwardly disposed end of said blank and adapted to be grasped and pulled for successively stripping said bands from said side walls to expose successive zones of the carton contents in unwrapped condition for removal therefrom.

5. A carton made of foldable fibrous sheet material and comprising a blank reversely folded upon itself adjacent its center and having said folded center adhesively secured and sealed between its opposite ends to provide inner and outer sets of carton side walls, extensions on said side walls providing flaps for closing the carton ends, said side walls being formed with intermittent scores lying in lines extending around said carton and in spaced relation to one another endwise of said carton to form stripping bands, the said scores in said inner set of side walls being offset with relation to said scores in said outer set of side walls, and said bands having free terminal portions on the outside of said carton adapted to be grasped and pulled to successively tear said bands from said side walls along said score lines to expose successive zones of the carton contents in unwrapped condition for removal therefrom.

6. A carton made of foldable fibrous sheet material and comprising a blank reversely folded upon itself adjacent its center and having said folded center inserted between and adhesively secured to its opposite ends to provide inner and outer sets of carton side walls, extensions on said side walls providing flaps for closing the carton ends, and a plurality of lines of scoring in said side walls and extending around said carton in spaced relation to one another endwise of said carton to form stripping bands, each of said score lines having the portions thereof in said sets of side walls lying in registry with one another respectively, and each of said bands having a free terminal portion adapted to be pulled to continuously strip said band from said outer and inner sets of side walls to expose a zone of the carton contents in unwrapped condition for removal therefrom.

7. A carton made of foldable fibrous sheet material and comprising a blank reversely folded upon itself adjacent its center and having said folded center adhesively secured and sealed between its opposite ends to provide inner and outer sets of carton side walls, extensions on said side

walls providing flaps for closing the carton walls, a plurality of lines of scoring in the material of said side walls and extending laterally around said carton in spaced relation to one another endwise of said carton to form bands adapted to be successively stripped from both of said sets of side walls to expose successive zones of the carton contents in unwrapped condition for removal therefrom and a separately formed collapsible cover for enclosing an end of said carton after the stripping of a band therefrom.

8. A carton made of foldable fibrous sheet material and comprising a one-piece blank reversely folded upon itself adjacent its center and having said folded center inserted between and adhesively sealed to its opposite ends to provide inner and outer sets of carton side walls, extensions on each of said sets of side walls providing each carton end with inner and outer sets of closure flaps for tightly closing and supporting said carton side walls, and a plurality of lines of scoring in the material of said side walls and extending laterally around said carton in spaced

relation to one another endwise of said carton to form stripping bands having free terminal portions adapted to be pulled to successively strip said band from said side walls to expose successive zones of the carton contents in unwrapped condition for removal therefrom.

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