July 6, 1954 R. E. VAN ROSEN ET AL 2,682,988

PICNIC CARRIER

Filed Nov. 27, 1951 3 Sheets-Sheet 1

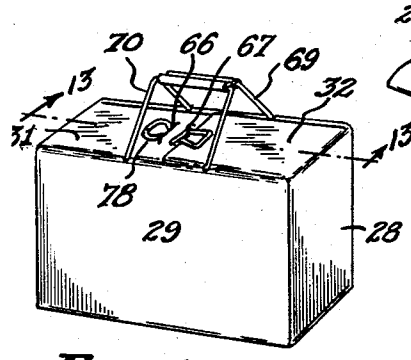

FIG. 1.

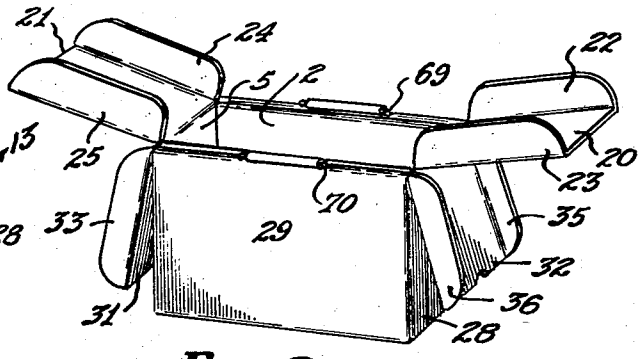

FIG. 2.

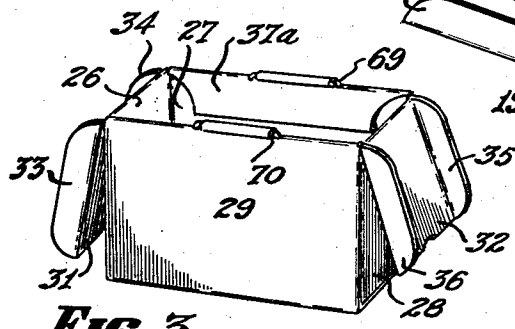

FIG. 3.

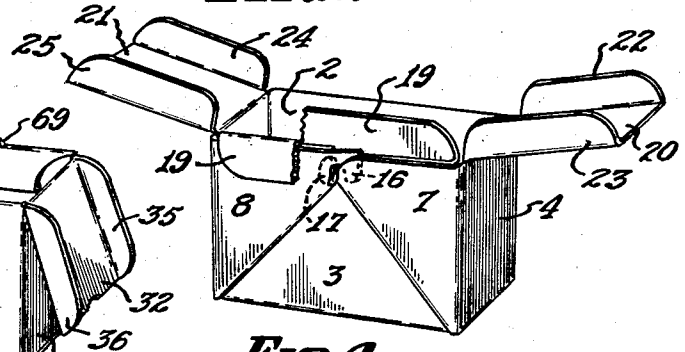

FIG. 4.

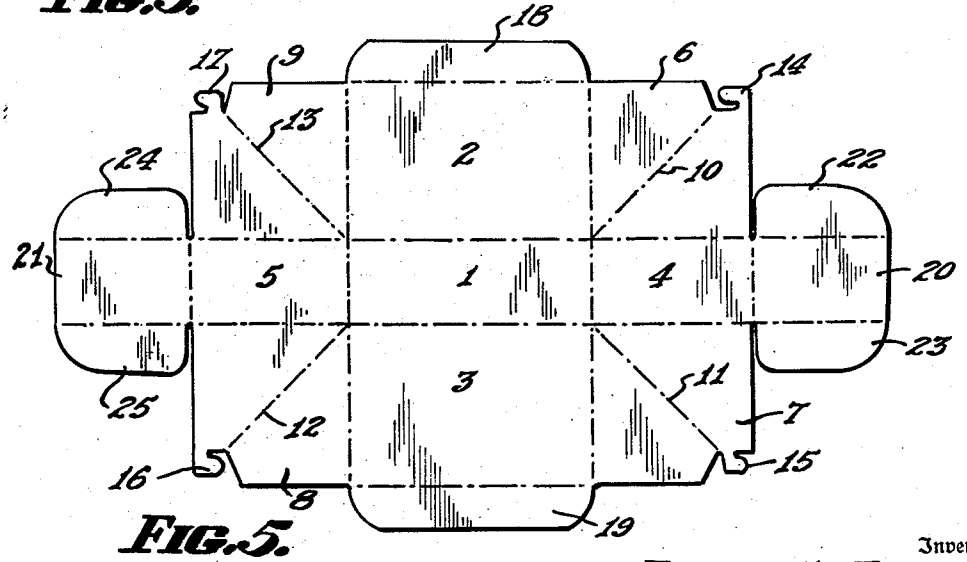

FIG. 5.

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PICNIC CARRIER

Filed Nov. 27, 1951 3 Sheets-Sheet 2

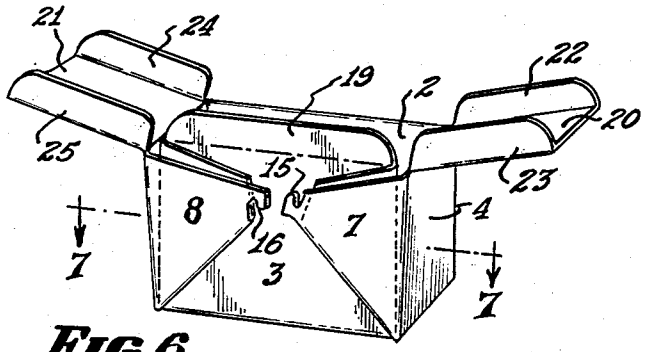


FIG. 6.

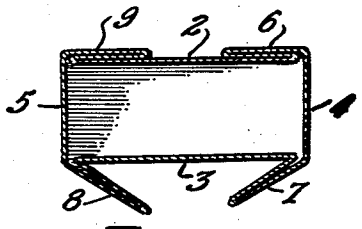


FIG. 7.

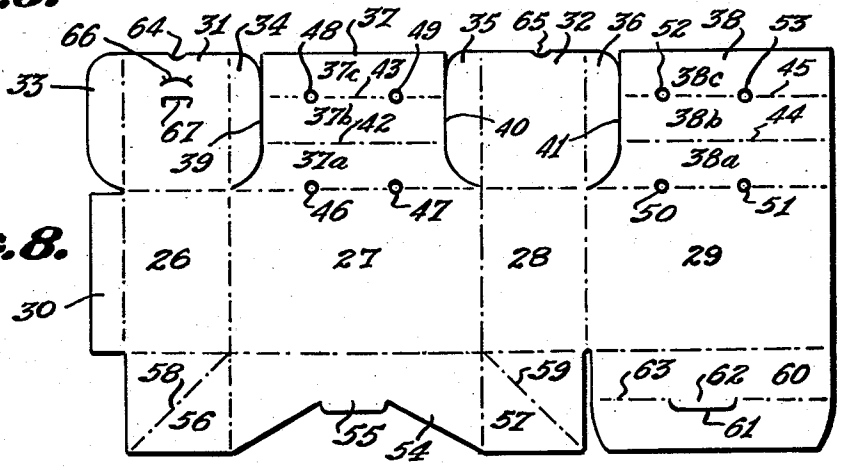


FIG. 8.

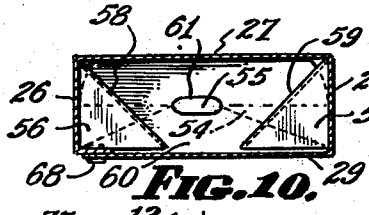


FIG. 10.

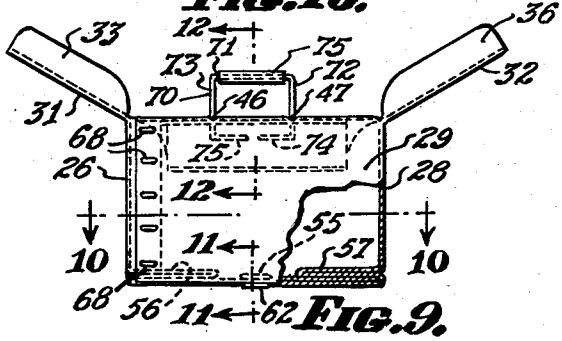


FIG. 9.

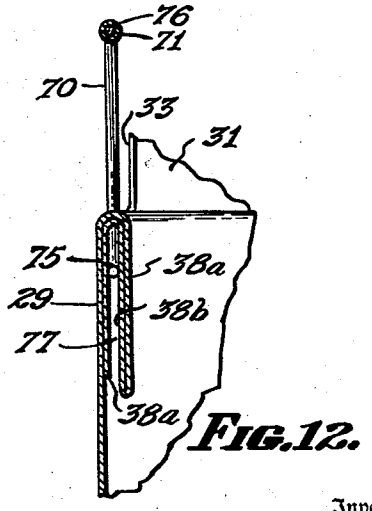
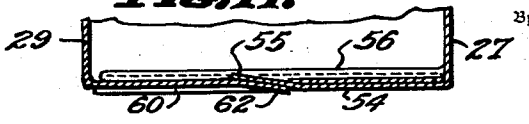


FIG. 12.

FIG. 11.



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PICNIC CARRIER

Filed Nov. 27, 1951 3 Sheets-Sheet 3

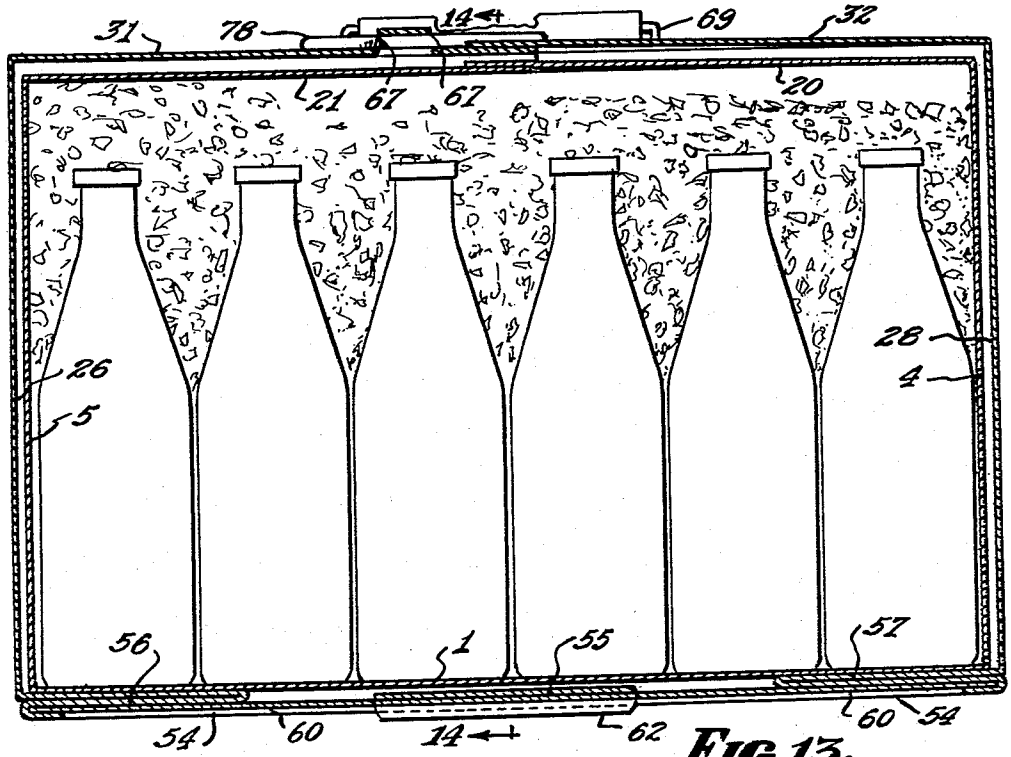

FIG. 13.

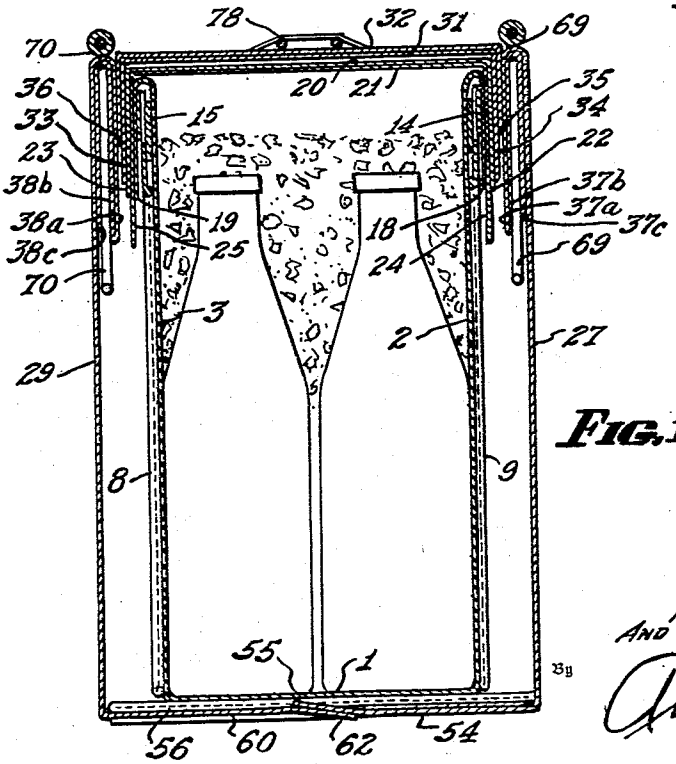

FIG. 14.

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UNITED STATES PATENT OFFICE

2,682,988

PICNIC CARRIER

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Application November 27, 1951, Serial No. 258,394

8 Claims. (Cl. 229—14)

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Our invention relates to a paperboard carrier in which a plurality of bottles may be carried in iced condition. In particular, our invention relates to a portable paperboard structure into which a plurality of bottles, such as beverage bottles and the like, may be packed in ice and conveniently transported to a picnic area or other place not having readily available facilities for cooling the bottles.

There are, of course, currently available numerous types of insulated containers, usually metallic, in which iced bottles may be carried, but these containers are relatively expensive and hence uneconomical for the average person who has occasion to use such a container only a few times during the course of a year. Consequently, it is a primary object of our invention to provide an inexpensive paperboard container in which iced bottles may be carried, the container being such that it may be reused several times, if desired, or discarded after its initial use without any appreciable loss to the user.

It is another object of our invention to provide a carrier of the character described which can be manufactured of paperboard and assembled from cut and scored blanks. Thus, the construction is one which can be shipped to the user in knocked-down form and erected by him simply by erecting the knocked-down container parts.

Another object of our invention is the provision of a bottle carrier of the class described comprising an outer container part including carrying handles and a separate inner container part for receiving the bottles and ice, the inner container part being water-proofed.

Another object of our invention is the provision of a carrier comprising two parts, the container parts each including integral means adapted to maintain the parts, when assembled one inside the other, in spaced relationship so as to provide an insulating air space therebetween.

Yet another object of our invention is the provision of a two part container in which depressible handles are provided in the outer part, the handle members being depressible, there being flap members arranged between the container parts providing openings into which the handles may be depressed, the said flap members also being the means for maintaining the parts in spaced relationship and serving to prevent accidental entanglement of the depressed handles with any object placed in the container, whether it be the inner container part or contents carried in the outer container should the structure be used without its inner part.

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These as well as other objects which will appear hereinafter or will be apparent to one skilled in the art upon reading these specifications, we accomplish by that construction and arrangement of parts of which we shall now describe an exemplary embodiment.

Reference is made to the accompanying drawings wherein:

Figure 1 is a perspective view of our cooling container.

Figure 2 is a view similar to Figure 1 but showing the container with both inner and outer parts with their covers or lids opened and the handle members in the outer part in depressed condition.

Figure 3 is a perspective view of the outer part of the container only, the closure members being in open position.

Figure 4 is a perspective view of the inner part of the container with the cover flaps in opened position and one of the outfolded, side wall flaps torn away to illustrate the manner in which the bellows-folding corner connecting webs are interlocked.

Figure 5 is a plan view of the blank from which the inner part of the container is formed.

Figure 6 is a perspective view of the inner part of the container in an intermediate stage of its erection.

Figure 7 is a sectional view taken along the line 7—7 of Figure 6.

Figure 8 is a plan view of the blank from which the outer part of the container is formed.

Figure 9 is an elevational view of the outer part of the container, with parts broken away and others shown by dotted lines.

Figure 10 is a sectional view taken along the line 10—10 of Figure 9.

Figure 11 is a partial sectional view taken along the line 11—11 of Figure 9.

Figure 12 is an enlarged partial sectional view taken along the line 12—12 of Figure 9.

Figure 13 is a vertical sectional view taken along the line 13—13 of Figure 1, illustrating the relation of parts in the erected and closed container.

Figure 14 is a sectional view taken along the line 14—14 of Figure 13.

Briefly, in the practice of our invention, we provide a carrier made up of an inner container part and an outer container part, the inner part comprising a bottom, side and end walls, and cover members articulated to the upper ends of the end walls and adapted to fold inwardly to cover the top of the container part so formed. The inner container part is preferably formed

from a single cut and scored blank, the side and end walls of which are connected together by bellows folding corner portions extending the full heights of the side and end walls, thereby providing a receptacle the body of which is free from seams or other free edges throughout its depth. The body of the inner container part is therefore completely tight and when rendered waterproof on its inner surfaces, as by a coating of wax or other proofing substance or by having a waterproof layer laminated thereto, the inner container is rendered watertight and hence capable of holding ice and water formed as the ice melts. Thus, the bottles to be carried are placed in the inner container whereupon ice is packed around them, as will be readily understood.

Since the weight load which must be borne by the inner container is considerable, it is preferable to provide an outer container part having attached handle members for transporting the iced bottles. Not only is the outer container necessary for the necessary strength requirements, but in addition it provides an insulating medium; and by arranging the container parts so that they are suitably spaced apart, an air space is provided between the inner and outer parts which further aids in insulating the structure. The outer container part is also formed from a single blank, but it need not be a seamless or tight blank since it is not necessary that the outer container part be waterproof. Preferably, the outer container part has cover members responding in position substantially to those of the inner part thus providing for ready access to the iced bottles contained therein. Wire handle members are provided for carrying the structure and these may be made depressible so that they will not project when not in use, as when the container is placed in the trunk of a car or the like, or if it is desired to place other packages or articles on top of the container.

A salient advantage of the carrier is that it is inexpensive and hence expendable should the user not wish to be bothered taking it home after a picnic or other event where it has been used. The carrier also affords a convenient mode of merchandising beverages such as are commonly used for picnics and the like, a container containing, for example, twelve bottles of soft-drinks, beer, or the like being sold in iced condition by the retailer, such as an ice house, pony keg station or other outlets having facilities for icing the containers. Since the carrier is inexpensive, it does not add a great deal to the cost of the beverages themselves, and in addition to its convenience and utility, it also affords the beverage manufacturer ample opportunity to advertise his products on the walls of the carrier. The carrier can also be used as an inducement to purchase the manufacturer's product in quantity.

For a detailed description of our invention, reference is now made to Figure 5 of the drawings wherein we have illustrated a blank for forming the inner part of our container. The blank comprises a bottom panel **1** having articulated thereto side wall panels **2** and **3** and end wall panels **4** and **5**. The ends of the side and end wall panels are joined together by means of substantially rectangular bellows-folding corner members **6**, **7**, **8** and **9** which fold along the diagonal score lines **10**, **11**, **12** and **13** respectively. The outer free corner of each of the bellows-folding members is cut away so as to provide interlocking eleemnts **14**, **15**, **16** and **17**, respectively. The interlocking elements are so arranged that they form interlocking pairs, the element **14** being adapted to interlock with the element **17** and the element **15** to interlock with the element **16**, as will be explained more fully hereinafter.

The blank for the inner container part also includes side flanges **18** and **19** articulated to the free edges of the side wall panels **2** and **3**, and cover members **20** and **21** articulated to the ends of the end wall panels, the cover members **20** and **21** having side flanges **22**, **23**, and **24**, **25** respectively.

The inner container is erected in the manner illustrated in Figure 6 of the drawings, the side and end wall members being folded upwardly relative to the bottom panel with the bellows folding corner members folded outwardly along their diagonal score lines. As will be evident from Figure 6, the bellows-folding corner members are folded so as to overlie the side wall panels. Thus, the bellows-folding corner members **7** and **8** overlie side wall panel **3** and bellows-folding corner members **6** and **9** overlie side wall panel **2**. The proportioning of the parts is such that when the bellows-folding members **7** and **8** are folded along the side wall panels **3**, the interlocking elements **15** and **16** may be interengaged so as to lock the bellows-folding members together in the manner illustrated in Figure 4. The side flanges **18** and **19** are provided to hold the bellows-folding corner members in interlocking engagement. After the interlocking elements have been engaged, the side flange members **18** and **19** are folded outwardly and downwardly and overlie the bellows-folding members throughout substantially their full length, thereby preventing them from becoming disengaged. To become disengaged, one of the bellows-folding members, such as the member **8** must be moved upwardly with respect to the bellows-folding movement member **7**, and such movement is prevented in the completely erected container by the side flange **19**. Also, as will be pointed out more fully hereinafter, the side flanges serve as spacing members between the inner and outer container parts.

The inner container part, as already indicated, must be waterproofed so that it will be leakproof and retain the water created as the ice melts. To this end the blank for the inner container part may be treated to render it waterproof in any of the many known ways, preferably by a coating of waterproofing substance such as wax or the like on its inner surface. In place of a coating of waterproof material, the inner surface of the blank may have laminated thereto a film or foil which in itself is waterproof. While a surface coating of waterproofing substance is generally sufficient, it is also within the spirit of our invention to completely impregnate the board of the inner container part with the proofing substance in which instance the inner container part will withstand greater abuse and forestall the possibility of a sharp piece of ice cutting through an interior coating and destroying the proofness of the container.

Referring now to Figure 8, we have illustrated a blank suitable for forming the outer container part of the carrier. The blank comprises an end wall **26**, a side wall **27**, an end wall **28** and a side wall **29** in articulation in the order named, the end wall **26** carrying a glue flap **30**. The end walls **26** and **28** have cover members **31** and **32** articulated to their respective upper edges, the

cover member 31 having side flanges 33 and 34 and the cover member 32 having side flanges 35 and 36. The side wall members 27 and 29 have extensions 37 and 38 articulated to their respective upper edges. The extensions, it will be noted, are reduced in width by the width of the side flanges 34, 35 and 36, which are separated therefrom by the lines of severance 39, 40, and 41 respectively. The extension 37 has parallel lines of articulation 44 and 45 therein defining extension portions 38*a*, 38*b* and 38*c*, the extensions being folded upon their lines of articulation as will be explained hereinafter. Also, the extension 37 is provided with a spaced pair of openings 46 and 47 lying along the line of articulation between the extension portions 37*a* and the side wall 27, and the extension also has a spaced pair of mating openings 48 and 49 lying along the line of articulation 43 between the extension portions 37*b* and 37*c*. In the same manner, the extension 38 is provided with openings 50 and 51 along the line of articulation between the extension portion 38*a* and the side wall 29, and a mating pair of openings 52 and 53 lying along the line of articulation 45 between extension portions 38*b* and 38*c*.

The bottom closure for the outer container part is constructed in accordance with the teachings of Ringler patent, No. 2,492,712, issued December 27, 1949 and entitled Tubular Carton With Strong End Closures. The bottom closure comprises a closure flap 54 articulated to the bottom edge of the side wall panel 27, the closure flap being, in general dimensions, of a size substantially to cover the entire bottom of the container; but the free edge of the flap is cut back as shown to provide the tab 55 at its mid-section. The side edges of flap 54 are articulated to webs 56 and 57 which are also articulated to the ends of the end walls 26 and 28 lying on each side of a side wall 27. The webs are provided with diagonal score lines 58 and 59. The side wall 29 is provided with an articulated closure flap 60 which is free of attachment to the web 57. The flap 60 is provided with a line of cut forming slit 61 of shallow U-shaped configuration, demarking tab 62; and the ends of the slit are connected with the side edges of the flap 60 by score line 63. The position of the score line is such that in the closed container it will lie substantially along a prolongation of the base of tab 55.

The essentials of the blank for the outer container part have been described above. The container may be modified in known ways to give it additional characteristics and utility. For example, the cover members 31 and 32 may be provided with recesses 64 and 65 to facilitate their being opened. Furthermore, the cover member 31, which is the first folded member, may be provided with the irregular slits 66 and 67 adapted to receive a bottle opener for use in opening bottles carried in the container. The outer container part is assembled by first tubing the side and end wall members, the glue flap 30 being secured to the free end of side wall 29 by any suitable means such as the staples 68 shown in Figures 9 and 10. Adhesive or other suitable fastening means could be used if so desired. After the blank has been tubed, the tube is expanded and the bottom closure effected in the manner illustrated in Figures 9, 10 and 11 of the drawings, the closure flaps 54 and 60 extending across the open bottom end of the container with the webs 56 and 57 innermost and the tab 55 in engagement with the slit 61.

The extensions 37 and 38 are next infolded

in the manner now to be described and handle elements 69 and 70 associated therewith. The handle elements each comprise (see Figure 9) a bail portion 71, side portions 72 and 73 and inturned leg portions 74 and 75. The bail portions, if desired, may be provided with tubular gripping members 76 which facilitate carrying by preventing the wire of the bail from cutting into the user's hand.

The extensions 37 and 38 are infolded in the manner which can be best seen in Figure 12 wherein the extension 38 is shown in infolded condition, with the portion 38*a* innermost and the portion 38*b* reversely folded thereagainst, and the portion 38*c* reversely folded with respect to portion 38*b* and lying along the inner surface of side wall 29. This arrangement brings the openings 52 and 53 into alignment with the openings 50 and 51 and also provides an opening 77 between the portions 38*b* and 38*c* into which the handle element 70 is inserted, the leg portions of the handle being passed through the openings 50—53 and engaged therebeneath in the manner illustrated in Figure 9. As will be evident, the handles may be depressed until their bail portions rest on the top edges of the side walls (see Figure 3) or they may be extended in the manner illustrated in Figure 1 for carrying purposes.

The extension portions 38*a* and 38*b* also serve as spacers to maintain the inner container part spaced from the outer container part and prevent any possible entanglement between the handle element and the inner container part. While we have described in detail the manner in which the portions of the extension 38 are folded, it will be understood that the parts of extension 37 are folded in like manner, and the handle element 69 inserted through the openings 46—49.

The individual container parts having been thus assembled and appearing as illustrated in Figures 3 and 4 respectively, the inner container part is inserted in the outer container part, it being understood, of course, that the parts are so proportioned that one will fit nicely within the other and yet be spaced apart so as to provide an insulating air space between the inner and outer container parts. In Figure 2, the inner container part is shown fitted in the outer container part, the cover members of both parts being opened as they would be when the carrier is being packed with bottles and ice; and in Figure 1 the carrier is seen with the cover members closed and the handle elements in carrying position. As can be seen in Figure 1, the outer cover members 32 and 33 are of a size so as to overlap slightly in the closed position, the cover members 32 overlying the end of the cover member 33. A conventional metal bottle opener 78 may then be fitted in the slits 66 and 67 of the cover member 33, the end of the bottle opener overlying the cover member 32 so as to hold it in the closed position.

Referring to Figures 13 and 14 we have illustrated in cross section and exaggerated condition the manner in which the inner and outer container parts fit together in the assembled and closed carrier. In particular, it will be noted that the side walls of the inner container part are spaced from the outer container part by the thickness of the various flanges, extension portions and bellows-folding parts, thereby providing space for the circulation of air between the inner and outer container parts. Likewise, the web members making up parts of the bottom closure for the outer container part also serve to space the bottom of the inner container part

from the bottom of the outer part sufficiently to permit circulation of air therebetween. Likewise, by providing an inner container part slightly shorter in length than the outer container part, adequate air space will be provided between the end walls of the respective parts. The downturned flanges 19 and 20 and the extension portions 37a and 38a also provide smooth surfaces between which the cover flanges may be inserted.

As already indicated, the carrier is strong enough to bear the weight of a full load of bottles and the ice packed around them, and the inner container part when properly waterproofed is capable of remaining watertight from one to three days. If not abused it may be reused several times without losing its watertightness.

Modifications may be made in our invention without departing from the spirit of it. Having thus described our invention in an exemplary embodiment, what we desire to secure by Letters Patent is:

1. In combination in a paperboard carrier in which the articles being carried may be packed in ice, an inner container part and an outer container part, both of paperboard and each formed from a single paperboard blank, said inner container part comprising a bottom, side and end walls, corner connecting webs between the side and end walls and coextensive therewith, and cover members articulated to the top edges of said end walls, said inner container part being treated as to its inner surfaces at least with a waterproofing substance, said outer container part comprising a bottom, side and end walls, and cover members corresponding in position to the cover members of said inner container part, said inner container part being dimensioned so as to fit within said outer container part in spaced relation thereto, the corner connecting webs of said inner container part being folded to lie along the side walls of said inner container part, and flanges articulated to the top edges of said last mentioned side walls, said flanges being folded outwardly and downwardly over the upper portions at least of said corner connecting webs to hold them in folded condition, extensions articulated to the top edges of the side walls of said outer container part, said extensions being folded inwardly to form abutments for contact with the flanges on said inner container part, whereby to space apart said inner and outer container parts to provide for the circulation of air therebetween.

2. In combination in a paperboard carrier in which the articles being carried may be packed in ice, an inner container part and an outer container part, both of paperboard and each formed from a single paperboard blank, said inner container part comprising a bottom, side and end walls, corner connecting webs between the side and end walls and coextensive therewith, and cover members articulated to the top edges of said end walls, said inner container part being treated as to its inner surfaces at least with a waterproofing substance, said outer container part comprising a bottom, side and end walls, and cover members corresponding in position to the cover members of said inner container part, said inner container part being dimensioned so as to fit within said outer container part in spaced relation thereto, the corner connecting webs of said inner container part being folded to lie along the side walls of said inner container part, and flanges articulated to the top edges of said last mentioned side walls, said flanges being folded outwardly and downwardly over the upper portions at least of said corner connecting webs to hold them in folded condition, extensions articulated to the top edges of the side walls of said outer container part, said extensions being folded inwardly to form abutments for contact with the flanges on said inner container part, whereby to space apart said inner and outer container parts to provide for the circulation of air therebetween and handle elements comprising wire bails having inturned legs associated with said outer container part, said legs passing through openings in the top edges of the side walls of the outer container part, said handle elements being depressible downwardly between the inner surfaces of said last mentioned side walls and the said infolded extensions.

3. In combination in a paperboard carrier in which the articles being carried may be packed in ice, an inner container part and an outer container part, both of paperboard and each formed from a single paperboard blank, said inner container part comprising a bottom, side and end walls, corner connecting webs between the side and end walls and coextensive therewith, and cover members articulated to the top edges of said end walls, said inner container part being treated as to its inner surfaces at least with a waterproofing substance, said outer container part comprising a bottom, side and end walls, and cover members corresponding in position to the cover members of said inner container part, said inner container part being dimensioned so as to fit within said outer container part in spaced relation thereto, the corner connecting webs of said inner container part having interlocks on their free ends, said corner connecting webs being folded to lie along said last mentioned side walls with said interlocks in engagement, flanges articulated to the top edges of said last mentioned side walls, said flanges being folded outwardly and downwardly over said interlocks to prevent their accidental disengagement, extensions articulated to the upper edges of the side walls of said outer container part, said extensions being divided into three portions each, namely, an inner portion folded inwardly and downwardly with respect to the side walls to which said extension is articulated, an intermediate portion reversely folded with respect to said inner portion and lying between said inner portion and the adjacent side wall, and an outer portion reversely folded with respect to said intermediate portion and lying along the inner surface of said adjacent side wall, there being openings along the edges between the side walls and the inner portions of said extensions and mating openings along the edges between the intermediate portions of said extensions and the outer portions thereof, and handle elements having legs passing through said openings, said handle elements being depressible between said intermediate and said outer extension portions.

4. In combination in a paperboard carrier in which the articles being carried may be packed in ice, an inner container part and an outer container part, both of paperboard and each formed from a single paperboard blank, said inner container part comprising a bottom, side and end walls, corner connecting webs extending between the side and end walls and coextensive therewith, out-turned flanges articulated to the top edges of said side walls, and cover members articulated to the top edges of said end walls, said inner

container part being treated with a waterproofing material, said outer container part comprising a bottom, side and end walls, inturned flanges articulated to the top edges of said last mentioned side walls, and cover members articulated to the top edges of said last mentioned end walls, said inner container part fitted within said outer container part with the out-turned flanges of said inner container part in face-to-face contact with the inturned flanges of said outer container part, whereby to space said inner container parts inwardly from said outer container parts.

5. The structure claimed in claim 4 wherein said outer container part is provided with handle elements extending between the side walls of said outer container parts and the inturned flanges thereof.

6. In combination for the purposes described, an inner container part and an outer container part, said inner container part comprising a bottom, side and end walls, corner connecting webs extending between the side and end walls, flanges articulated to the top edges of said side walls, and cover members articulated to the top edges of said end walls, said cover members having flanges articulated to the opposite side edges thereof, said outer container part comprising a bottom, side and end walls, extensions articulated to the top edges of said last mentioned side walls, and cover members articulated to the top edges of said last mentioned end walls, said last mentioned cover members having flanges articulated to the opposite side edges thereof, said inner container part being fitted within said outer container part with the flanges articulated to the side walls of the said inner container part folded outwardly and downwardly so as to lie between the side walls of said inner container part and the side walls of said outer container part, the extensions articulated to the side walls of said outer container part being folded inwardly and downwardly to lie between said outer side walls and said flanges, said cover elements being folded to overlie said respective container parts with said cover flanges folded to lie between said inner side wall flanges and said outer side wall extensions.

7. The structure claimed in claim 6 wherein said cover elements are adapted to overlap each other centrally of said containers, and wherein one of said outer cover elements has spaced slits therein defining a strap adapted to receive a bottle opener, said slits being so positioned that the bottle opener when received by said strap will overlie the other of said outer cover elements to thereby hold it in the closed position.

8. The structure claimed in claim 7 including handle elements comprising wire bails having inturned legs associated with said outer container part, said legs passing through openings in the top edges of said outer side walls, said handle elements being depressible downwardly between the inner surfaces of said last mentioned side walls and the said infolded extensions.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,163,209	Burt	Dec. 7, 1915
1,383,173	Throop	June 28, 1921
1,755,690	Heim	Apr. 22, 1930
1,985,111	Shofer	Dec. 18, 1934
2,179,555	Kells	Nov. 14, 1939
2,326,281	Becker	Aug. 10, 1943
2,354,401	Pemberton	July 25, 1944
2,492,712	Ringler	Dec. 27, 1949
2,518,818	Ringler	Aug. 15, 1950