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3,288,344

DOUBLE CONTAINER DISPENSING PACKAGE
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5 Claims. (Cl. 229-7)

This invention relates generally to dispensing packages and more particularly concerns a novel and unusually effective package for dispensing a liquid beverage as well as another edible.

It is a major object of the invention to provide unusual combinations of advantages associated with a novel and simple dispensing package for a beverage and edible, such advantages overcoming problems associated with simultaneously dispensing multiple edibles. Specifically, there is a need in such locations as theaters for simply constructed packages capable of dispensing a liquid beverage and another edible, as for example popcorn or ice cream, particularly in such manner as to eliminate or reduce spillage during both package filling and package use. The latter problem has long existed where children purchase both beverage and popcorn and seek to manipulate the associated containers in a darkened theater. There is also a need for packages capable of these functions and further characterized as being subject to rapid assembly, without interference between the beverage straw and the other edible such as popcorn.

Basically, the invention comprises inner and outer cups, the inner cup shaped to hold an edible and to be received downwardly into the outer cup, the cups having interference fit limiting said downward reception with the cups then defining a liquid storage zone below the bottom of the inner cup, the side wall of the inner cup being displaced away from the side wall of the outer cup below the rim level of the outer cup to provide for up and down displacement therebetween of a tubular straw without interference with the edible in the inner cup, whereby the cups and straw may be rapidly assembled for withdrawal of liquid from said zone through said straw and for lifting of the edible exposed in the inner cup.

Further features of the invention include the provision of cups as described, with inner and outer cup side walls which are tapered to provide the interference fit; cups having beaded upper rims that are interengageable to provide the interference fit; cups that have flat or footed bottoms to enable separate filling thereof while the cups stand separately on a flat surface; and cups that are fully stackable and nestable for storage or shipment.

These and other objects and advantages of the invention, as well as the details of illustrative embodiments, will be more fully understood from the following detailed description of the drawings in which:

FIG. 1 is a side elevation, taken in perspective, and showing one embodiment of the package;

FIG. 2 is an exploded perspective of the package;

FIG. 3 is a vertical elevation taken in section to show the location of the tubular straw; and

FIG. 4 is a top plan view of the inner container.

In the drawings the inner and outer cups are designated generally at 10 and 11, with the inner container shaped to hold an edible and to be received downwardly into the outer cup. The cups have stabilizing interference fit limiting such downward reception, and also so that the cups may define a liquid storage zone 12 below the flat bottom 13 of the inner cup. Typically, the cups may have downwardly tapering side walls to provide the interference

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fit for stability, the tapers being substantially equal for mating along the inner cup slant height. Accordingly, the cups may be described as frusto-conical. Further, the cups may have annularly beaded upper rims 14 and 15 of substantially equal diameter, the rims being vertically interengageable when the cups are fully nested, to provide interference fit. Since the inner cup has a flat bottom 13, and a peripheral foot or lower rim 13a, it may be loaded with an edible such as popcorn 16 before nesting into the outer cup, i.e. while the inner cup stands on foot 13a. Alternatively, the inner cup may be loaded while nested into the outer cup, without in any way disturbing or contaminating the beverage contents 20 of the outer cup, for reasons as will now be described. Note also flat bottom 25 and annular rim or foot 25a of the outer cup.

The drawings indicate that the side wall of the inner cup is displaced inwardly, or away from the side wall of the outer cup, at the location 17. Further, substantially the same degree of inward displacement extends throughout the upright and tapered length of the displaced side wall, to provide a re-entrant recess 18 for reception of a hollow beverage straw 19 at the outer side of the inner cup and at the inner side of the outer cup. Thus, the straw may be vertically displaced downwardly into the recess after the cups are nested and filled, and also withdrawn from the recess, without interference with the edible in the inner cup. Also, rocking of the straw cannot dislodge the inner cup 10 in view of the stabilized construction of the package. Further, since the flat bottom wall of the inner cup is not punctured to pass the straw, the contents of the inner cup cannot fall downward into the contents of the outer cup in zone 12. In addition, the construction of the cups is such that they may be rapidly assembled for withdrawal of liquid beverage from zone 12 through the straw, and also for simultaneous hand or spoon lifting of the contents of the inner cup that remain exposed; further, the inner cups may be nested or stacked for storage and shipment, and also outer cups may be nested for shipment.

It will be understood that the sizes of the cups and their tapers, as well as the size of recess 18 may be varied without departing from the scope and spirit of the invention.

We claim:

1. A dispensing package, comprising inner and outer cups, the inner cup shaped to hold an edible and to be received downwardly into the outer cup, the cups having side walls tapered with substantially the same angularity to provide interference fit limiting said downward reception with the cups then defining a liquid storage zone below the bottom of the inner cup, the side wall of the inner cup being locally displaced away from the side wall of the outer cup below the rim level of the outer cup to provide a re-entrant recess, a tubular straw received in said recess and capable of up and down displacement therein without interference with the edible in the inner cup, whereby the cups and straw may be rapidly assembled for withdrawal of liquid from said zone through said straw and for lifting of the edible exposed in the inner cup.

2. The package of claim 1 in which the cups have beaded upper rims that are interengageable to provide interference fit.

3. The package of claim 1 in which the cups have flat bottoms and consist of paper.

4. The package defined in claim 1, wherein the cups each have downwardly projecting lower rims.

5. A dispensing package, comprising inner and outer

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3,323,706

COMBINATION LIQUID AND FOOD PARTICLE CONTAINER

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4 Claims. (Cl. 229-15)

ABSTRACT OF THE DISCLOSURE

A container having a partition about midway of the height thereof forms a lower compartment for a beverage and an upper compartment for a food, such as popcorn or the like, the partition having an opening for receiving a tubular member, such as a straw, for withdrawing the beverage from the lower compartment while the food is still in the upper compartment.

This invention relates to a container for holding a beverage and a food product such as popcorn and dispensing the same therefrom from the same container adapted to be held in one hand.

It has been common practice to sell packages of popcorn and soft drinks in paper containers at various amusement places, but generally they are in separate containers wherein it requires both hands of the user to carry the same. This is particularly unhandy when in a theatre or the like where both hands would be engaged in carrying and supporting the containers and one person then would have difficulty eating the popcorn or the product from the container.

The principal object of the present invention is to provide a combination container for beverage and popcorn wherein they both may be carried by one hand of the user and the liquid dispensed therefrom through a tubular member or straw and the popcorn by the free hand of the user.

Other objects of the present invention are to provide a container having a lower compartment and a partition dividing the lower compartment from an upper compartment and the partition having an opening for a tubular member to be inserted through the upper compartment and through the partition into the lower compartment.

Still further objects of the present invention are to make a container from treated paper such as drinking cups are made of and the wall of the container has an annular groove or concave portion around substantially the middle thereof and a flat paper partition of slightly larger diameter than the diameter of the walls of the container is provided for insertion through the upper compartment of the container so that when it is pressed into the concave annular portion, it will remain therein and support the popcorn or other food product thereabove.

Still further objects of the present invention are: to provide a two-piece container for the purpose hereinabove described wherein the lower container or compartment for the beverage has an offset laterally extending portion and upwardly extending walls thereabove and wherein a second compartment or container is adapted to telescopically fit within the top of the first container and the bottom edge thereof rests on the laterally outwardly extending portion of the lower container and to provide the bottom of the upper compartment with an opening for receiving a tubular member through which the liquid may be drawn from the lower compartment.

A further object of the invention is to provide a container of this character which may be disposable after one use and which is simple and economical to manufacture.

Other objects and advantages of this invention will become apparent from the following description taken in

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connection with the accompanying drawings wherein are set forth by way of illustration and example certain embodiments of this invention.

FIG. 1 is a perspective view of my invention showing the upper compartment having popcorn therein and the tubular member or straw inserted therethrough into the lower compartment.

FIG. 2 is a vertical cross-section taken on line 2-2, FIG. 3.

FIG. 3 is a cross-sectional view particularly illustrating the partition in the container.

FIG. 4 is a perspective view of a modified form of the invention.

FIG. 5 is a vertical cross-sectional view therethrough.

FIG. 6 is a cross-sectional view taken on line 6-6, FIG. 5.

Referring more in detail to the drawings:

The numeral 1 designates a container embodying the features of my invention usually made of paper or another disposable material although it may be made of plastic or any other suitable material. The container is here shown to be in one piece and having walls 2 tapered inwardly from the upper to the lower portion. The container 1 has a bottom 3 and the upper edge portion 4 is turned over forming a rim 5. Substantially midway longitudinally of the container 1, I have provided an annular groove or concave portion 6 in the form of a convex portion 7 on the outside of the wall 2 of the container. A flat partition member 8 is provided for engaging in the concave portion 5 to separate the container into a lower compartment 9 and an upper compartment 10. It will be obvious the partition member 8 should be slightly larger than the inside diameter of the container as indicated at 11 so that it will fit into and be retained by the concave or grooved portion 6. The partition 8 is provided with an opening 12 through which a tubular member 13 such as a straw or the like is engaged and which extends into the compartment 9, as illustrated in FIG. 1 in dotted lines.

When in use, the lower compartment 9 may be filled or partially filled with a liquid or beverage (not shown) and the partition 8 inserted in the container 1 until it comes to rest in the concave or grooved portion 6, as illustrated in FIG. 2. The tubular member 13 is inserted through the compartment 10 and the opening 12 in the partition 8 into the compartment 9. Popcorn or other edible food may then be placed in the compartment 10 around the tubular member 13.

It will be obvious from the foregoing that the container with both the liquid and the popcorn, as indicated at 14, may be transported with one hand and the other hand of the user left free.

FIGS. 4, 5 and 6 illustrate another form of the invention wherein there is provided a container 15 having tapered side walls 16 and a bottom 17, thus forming a compartment 18 for liquid or the like (not shown). The walls 16 of the container are laterally extended outwardly as indicated at 19 forming a shoulder 20 above the compartment 18. The walls 16 are extended upwardly from the shoulder 20 as indicated at 21 and the upper edge 22 turned downwardly forming a rib 23 therearound. A container 24 is provided having tapered walls 25 of slightly less diameter than the diameter of the wall 21 above the shoulder 20 of the upper portion of the lower container and is adapted to telescope therein as indicated at 26 (FIG. 5). The upper container has a bottom 27 provided with an opening near one side thereof as indicated at 28 through which a tubular member or straw 29 may be inserted into the lower compartment 18, thus forming an upper compartment 30 for popcorn or the like 31 or other edible food product. The straw 29 is indicated in dotted lines in FIG. 4.

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When in use, the liquid such as a beverage or the like is poured into the compartment 18, the upper container 30 is then placed within the walls 20 of the upper portion of the lower container and telescopically fitted therein. The tubular member 29 is inserted through the upper compartment and through the opening 28 and the bottom 27 thereof and into the lower compartment 18. The popcorn 31 or other edible food is filled into the upper compartment 30 and is ready for use.

It will be obvious from the foregoing that I have provided an improved container for holding a liquid beverage and edible food product which may be carried in one hand of the user and leaving the other hand free for other purposes. Such a container is much easier for one person to carry at a theatre, ball games or other places of amusement where beverages are sold along with popcorn or other edible food products. The beverage may be sipped from the straw and the one hand free to eat the food product from the upper compartment.

It is contemplated that the paper of the container, and particularly the bottom compartment, will be sufficiently waterproof to contain ice as well as the beverage and maintain the same therein for a sufficient length of time to consume the product.

It is to be understood that while I have illustrated and described certain forms of my invention, it is not to be limited to the specific form or arrangement of parts herein described and shown except insofar as such limitations are included in the claims.

What I claim and desire to secure by Letters Patent is:

1. A combination beverage and particle form confectioner container adapted to be carried in one hand comprising,

- (a) an elongated paper carton having side walls and a closed bottom and an open top, said side walls being tapered from the top toward said bottom and having an annular groove in said walls about midway between said top and bottom,
- (b) a flat partition having an opening near one side thereof engaging in said annular groove and separating said carton into a lower compartment for con-

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taining beverage and an upper compartment for containing said particle from confection, and

(c) an elongated tubular member extending through said upper compartment and said opening in said partition and into said beverage compartment.

2. The combination of claim 1 wherein said partition is removable.

3. A combination beverage and particle form confectioner container adapted to be carried in one hand comprising,

(a) an elongated paper carton having side walls and a closed bottom and an open top forming a bottom compartment for a liquid, said side walls being offset laterally forming an annular shoulder therearound spaced from said open top,

(b) a second elongated paper carton having side walls adapted to telescopically engage in the upper portion of said first carton forming an upper compartment for a particle form confection, said second carton having a bottom provided with an opening therethrough, and

(c) an elongated tubular member extending through said upper compartment and said opening in said bottom thereof and into said beverage compartment.

4. The combination of claim 3 wherein said opening in the bottom of said upper compartment is near one edge thereof.

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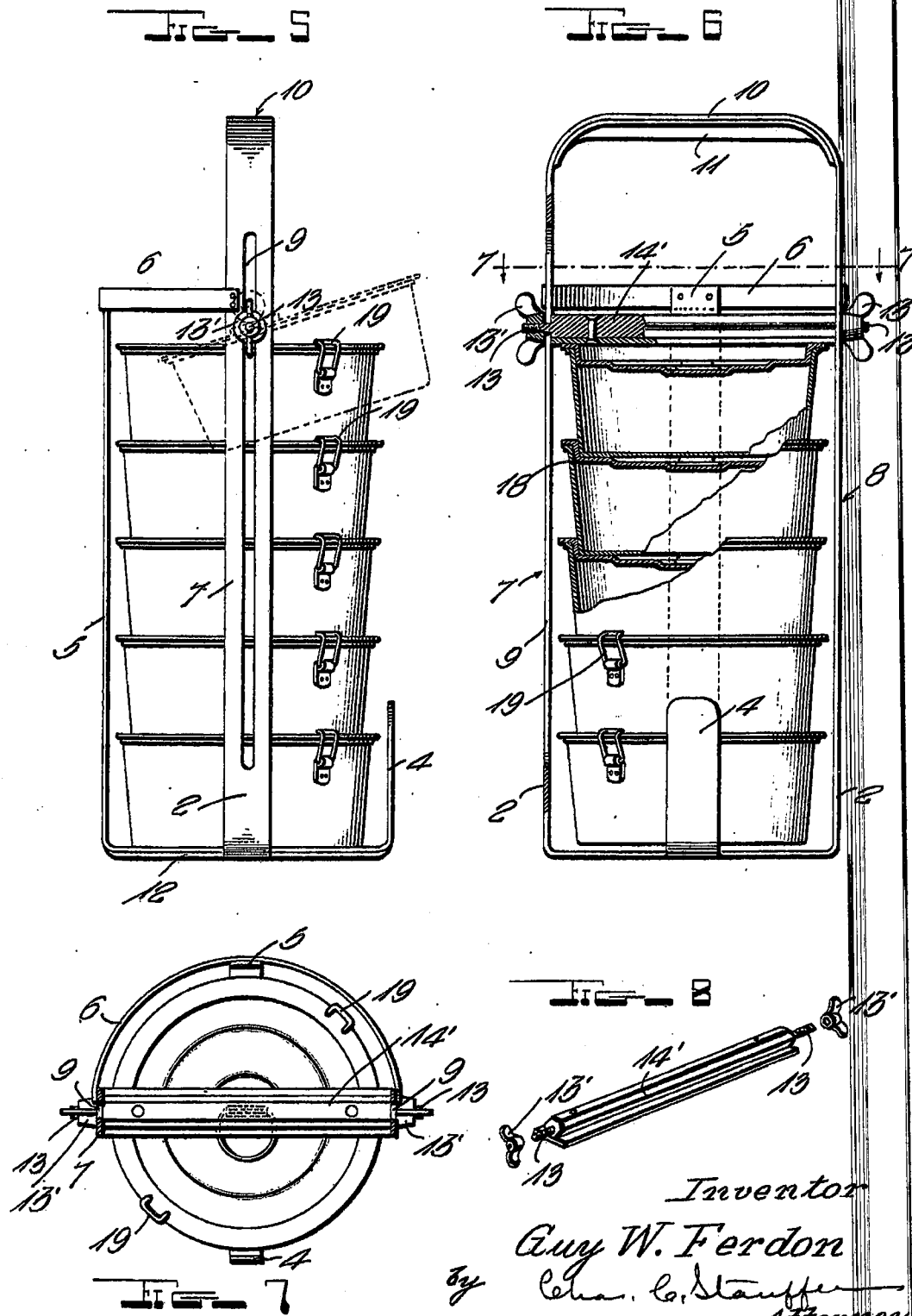
JOSEPH R. LECLAIR, *Primary Examiner*
D. T. MOORHEAD, *Assistant Examiner*.

G. W. FERDON.
 ADJUSTABLE FOOD CARRIER.
 APPLICATION FILED SEPT. 24, 1919.

1,362,933.

Patented Dec. 21, 1920.

2 SHEETS—SHEET 2.



Inventor
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 Attorney

UNITED STATES PATENT OFFICE.

GUY W. FERDON, OF CRESSKILL, NEW JERSEY.

ADJUSTABLE FOOD-CARRIER.

1,362,933.

Specification of Letters Patent.

Patented Dec. 21, 1920.

Application filed September 24, 1919. Serial No. 326,074.

To all whom it may concern:

Be it known that I, GUY W. FERDON, a citizen of the United States, residing at Cresskill, in the county of Bergen, State of New Jersey, have invented certain new and useful Improvements in Adjustable Food-Carriers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it apper-

My invention relates to a device for carrying a series of containers, nested and stacked, said device being provided with means whereby each of the containers may be removed in turn from the top of the stack and the one next to follow be automatically covered up and held in place in the support or rack.

My device may be used for:—

(A) Carrying food from place to place in either a hot or cold condition, either liquid or solid.

(B) Carrying grain or the like for feeding purposes to stock, poultry, etc., a kettle or container being left at different places.

(C) Carrying different ingredients later to be mixed at another place. That is these ingredients are selected and weighed in one place and put or mixed together at another by mixing the contents of the cans at the latter place. This is particularly useful in the case of rapid setting cements.

In the drawing:

Figure 1 is a side view of one form of my device, and Fig. 2 a front view partly in section.

Fig. 3 is a top view looking downward on the line 3—3, and Fig. 4 is a view of my weighted cap or cover.

Fig. 5 is a view of a modification looked at from the side.

Fig. 6 is a view of the same modification partly broken away, looked at from the front.

Fig. 7 is a top view on the line 7—7; and

Fig. 8 is a view of the weight or follower detached or removed from the lid.

In the drawing I provide a rack 1 made of two strips of metal 2, 3, across each other as shown, and provided with arms extending upward. These arms for the piece 3 are numbered 4, 5, and it will be noted that one of these arms extends up but a short distance, that is, less than the height of a single container, while the other extends up

to the top, or nearly the top of a stack of the containers where it is united to an arcuate piece 6. The part 2 is bent at right angles and extends up into arms 7 and 8 united at their upper part to the piece 6, and in each is provided a slot 9; the arms of this piece are extended upward and made to form a handle 10. They may be united at the handle or elsewhere, as by rivets at the bottom. 11 is a filling piece fitting into the handle; 12 is another filling piece fitted in below to give the frame or support a level standing means. The same effect may be obtained in other ways, as by offsetting the upper piece.

Fitted to slide in the slots 9 by means of the extensions 13 is a weight 14 which is in Fig. 4 shown secured to a lid 15 adapted to fit and cover any one of the containers. This lid, with the attached weight or rod constitutes a follower which, when the thumb nuts 13' adapted to screw on extensions 13 are loosened, permits the lid to follow down as the topmost receptacles in succession are removed, and automatically cover the next one below. At the same time by means of the thumb nuts 13' referred to, I may secure this weight and lid at any point desirable. I may secure it above the stack of receptacles or I may clamp it down firmly upon the stack.

Each of the receptacles in Figs. 1 and 2 is provided with a shouldered bottom 16 adapted to fit into the next receptacle below it and support itself by the flange 17, thus sealing the contents of the lower receptacle against access of air and loss of heat, and almost entirely against sloppage or leakage of liquids, while at the same time it is adapted to be covered by the lid.

It will thus be seen that the stack of vessels thus constructed is held against tipping off the carrier. The bottom vessel cannot escape past the arm 4. The top vessel is held by the lid and the projections 14 in the slot so that it too cannot get away, and the whole stack is kept firmly in place. This is accentuated if the nuts 13' are screwed home, after the cover has been pressed down firmly upon the topmost vessel of the stack; usually, however, in carrying the rack and vessels from place to place the weight of the top or cover is sufficient to hold the receptacles in place.

Each receptacle or vessel in turn can be removed by the operator, who simply gives

the topmost one a slightly upward movement to free it from the one below, and then an outward movement to free it from the cover; the weight or weighted top then drops
 5 down into place and closes the next one. The operator thus has his hands free for the work in hand. He can carry the rack with one hand and simply and expeditiously remove the vessels with the other, one by
 10 one. At the same time the cans or pots or vessels are always kept closed, unless the operator chooses to hold or fasten the weighted cover or weighted follower above the stack of cans.

15 In Figs. 5 and 6 I show a slight modification in that I provide each vessel with a cover, and the bottom of each vessel is adapted to fit into the cover of the one below it, as clearly indicated at 18. I also provide clamps 19, each adapted to hold a cover
 20 in place, and instead of the weighted lid I use merely the weight 14' provided with thumb nuts 13', and this weight acts as a follower and follows down the slots 9 as
 25 each vessel in turn is removed and comes to rest upon the top of the vessel next below, thus insuring the firm retention of the stack in place.

I may provide necessary handles 20 for
 30 the larger sized vessels, and I show a rivet 21 by means of which I may fasten the weight to the top, Fig. 3. I also show the arm 4 in Fig. 5 extending higher than the same arm in Fig. 1, and the operation is
 35 obviously the same.

It is obvious that various changes and modifications may be made within the scope of my invention, and I reserve the right to all equivalents of the various features and
 40 elements of my invention as detailed above and as stated in the claims.

In using my device, say in starting to deliver food on the rolling deck of a vessel, or in any other like unsteady place, I start
 45 with the entire rack, say of six vessels, more or less. I reach man A or men A and B whom I want to pass food to, I release the nuts 13' or other fastening means on each side, and then taking hold of the uppermost
 50 vessel I remove it by pulling slightly upward and then outward. This gives me the first mess or feeding. When removing this vessel, the cover above it slides down immediately and automatically by its own
 55 weight or gravity, and reaching the new position covers the next vessel; I can then fasten it or not as I please and go on to the next stop, repeating the operation until
 60 all of the vessels are disposed of. I have one hand free to carry the rack and the other free to remove each food vessel.

In case the vessels have each its own cover, I use the same rack, only I do not fasten my cross rod or weight to the upper
 65 cover. This cross rod or weight 14' drops

by gravity as each vessel is removed. I carry my slots upward in each instance far enough to allow for the upward movement of the cover or of the bar alone without the cover, even when all the vessels are in place
 70 and filled. This permits the easy removal of the topmost vessel. I effect this by slightly slanting the cover or weighted rod as indicated by the dotted lines in Fig. 2.

It is obvious that my device may be used
 75 in a variety of relations and for numerous purposes. It may be used in delivering broth, gruel, or other food or liquid to the various wards of a hospital indoors, to summer cottages about a central kitchen, to
 80 tents near a central camp, to Boy Scouts or Camp Fire Girls near the central cooking tent, to soldiers when at rest *en route* or on march, from a rolling army kitchen, to apartments in a hotel, to class rooms in
 85 a day school, and wherever or whenever food may be carried within a reasonable time from the place where the food or other contents is to be placed in the vessel to the place where it is to be consumed.
 90

As indicated above, however, my device is not intended to be limited for the distribution of food, although it is preëminently adapted for that purpose. It may be carried safely and securely anywhere because
 95 it clamps and secures the various containers safely together. If I desire to heat insulate it I simply make a bag of suitable insulating cloth or provide a receptacle of suitable material for the purpose.
 100

Attention is called to the fact that it may be hung up or suspended by the handle in any proper relation.

It may also be used for the distribution of a meal consisting of various dishes differing in temperature, for instance a meal
 105 consisting of hot soup and hot meat with a cold salad and a cold dessert. This I accomplish by using two covers, both of them sliding in the slot; that is, I place in the
 110 bottom of the rack two vessels, say, one containing a cold salad, the other containing a cold dessert, with or without ice in them. I then place a cover on the top vessel of these two, and above this cover I may place
 115 an asbestos or other heat insulating pad 22, and on this pad and above it, I place the vessels containing the heated components of the meal. I may use this pad without the intermediate cover. The hot vessels are
 120 thus kept separated from the cold vessels for an indefinite period, or at least for a time sufficient to permit the easy distribution and consumption of a meal.

It will thus be seen that I have devised
 125 and invented a structure well adapted to carry food containing vessels for prompt and easy distribution wherever they may be needed. The vessels are not, of course, limited to carry food.
 130

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. In an adjustable food carrier, for a series of containers adapted to form a stack, in combination, a support for said series of food containers permitting their individual sidewise removal, diametrically opposite vertical guiding means on said support, and a follower, guided by said guiding means adapted to rest upon and hold shut the topmost of a stack of containers, and, as each successive topmost one of the stack is removed, to follow down and hold shut the topmost one left.

2. In an adjustable food carrier, for a series of nesting containers adapted to form a stack, in combination, a support for said stack open on one side to permit sidewise removal of said containers, there being a vertical slot in said support, a weighted follower, adapted to be guided in said slot to hold shut the topmost one of a stack of containers by its weight, and means connected with the slot and follower, whereby the follower may be held adjusted at varying heights.

3. In an adjustable food carrier, for a series of nesting containers adapted to form a stack, in combination, a support for said containers open on one side to permit sidewise removal on one side only, guiding means on said support arranged on opposite sides and extending beyond the height of the stack, a weighted follower adapted to any of the containers, and devices on said follower cooperating with said guiding means, said stack and support being arranged to permit the removal of members of the stack, the follower being adapted to hold shut each topmost container in succession, and thereby hold shut all the containers of the series.

4. In an adjustable food carrier, in combination, a series of nesting food containers, a support for the series, said support being arranged to allow access all around to the containers, but open for the removal of vessels only on one side, a pair of diametrically opposite vertical slots in said support, a weighted follower having extensions adapted to enter said slots adapted to hold shut each topmost container of a stack as the individual vessels of the stack are removed, and clamping means on said extensions adapted to hold the follower at any desired height.

5. In an adjustable food carrier, in combination, a series of round interchangeable containers adapted to be stacked one upon

the other and provided with means whereby they may be nested, a support for said stack, said support consisting of two bars crossing each other at the bottom and bent upward to form side braces, one of said side braces being continued upward to an extent not greater than the height of a container, whereby above the first container the support is left open for the ready removal of any top container, a lid adapted to fit any topmost container, said lid being weighted to fall by gravity, and means for guiding said weight so that as each topmost container is removed, the weight will be guided and the cover held by its weight on the container next below.

6. In a food carrier, in combination, a series of nesting round containers adapted to form a stack, a support for said stack having arms extending up from the bottom at two sides and the back, the side arms being continued upward and bent over to form a handle, the rear arm being continued to the height of a complete stack, a semi-circular brace connecting the top of the rear arm and the two side arms, vertical slots in said side arms, a weight and a lid, the lid adapted to close any one of the series, and the weight adapted to hold the lid on, said weight being provided with extensions traversing said slots, and nuts on said extensions whereby the weight may be held at one height or allowed to follow down the stack as the containers are one by one removed.

7. In a food servitor, in combination, a series of containers adapted to form a stack, a frame in which they may be arranged for transportation and for sidewise removal *seriatim*, said containers being interchangeable before stacking, guiding means on opposite sides of said frame, means whereby the frame holds the containers from removal except forward or upward, and a weighted covering means guided on said frame for covering the topmost one of said containers, while they are in the stack.

8. A rack for carrying a series of stacked and nested food containers, said rack having arms extending upward on three sides to the height of the stack, means connecting said arms near the top of the stack, one of said arms at least being provided with guiding means, and a weighted cover, adapted to rest upon and keep shut the topmost one of the stack, whatever the height of the stack and to be guided by said guiding means, to covering position.

In testimony whereof I affix my signature.
GUY W. FERDON.

Aug. 25, 1931.

A. J. ROSE

1,820,497

CARRIER FOR CONTAINERS

Filed April 26, 1930

FIG. 1

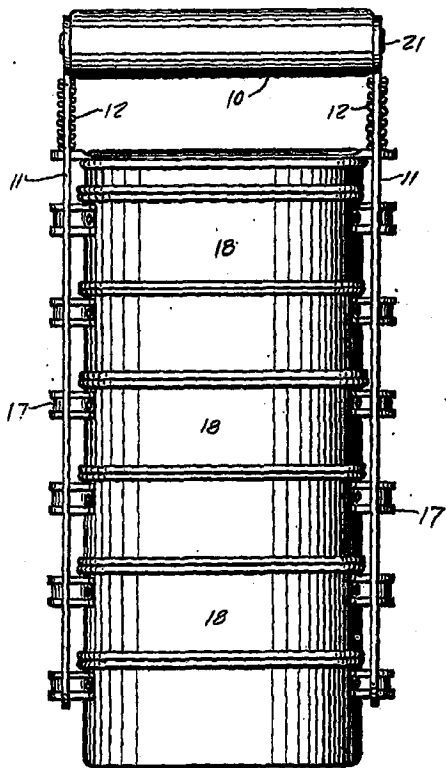


FIG. 2

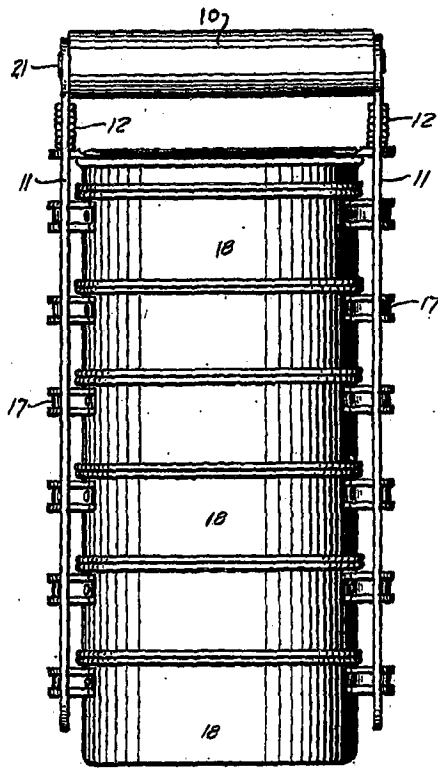


FIG. 3

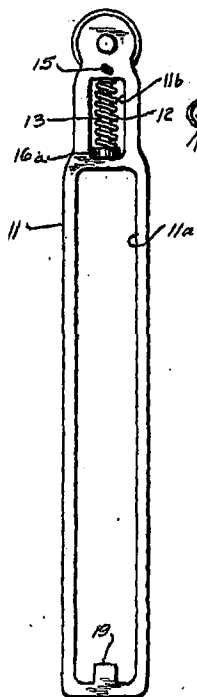


FIG. 4

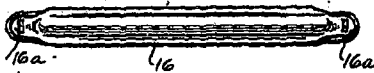


FIG. 5

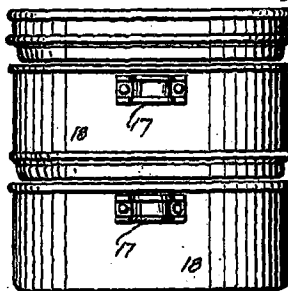
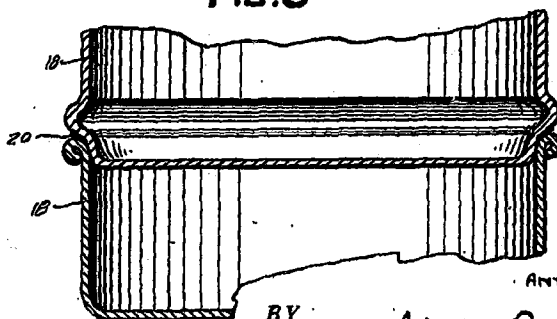


FIG. 6



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CARRIER FOR CONTAINERS

Application filed April 26, 1930. Serial No. 447,524.

This invention relates to carriers for containers, and is especially useful in carrying a stack of pans or food receptacles from one place to another. The receptacles are preferably such that when one is stacked upon another it will form a closure therefor, so that food for example may be kept hot, and by the device illustrated a stack of such receptacles may be locked together to be transported by a single handle adapted to lift and carry them all.

One form of the invention is shown in the accompanying drawings in which Fig. 1 is a side elevation of the device applied to a stack of vessels, in carrying position. Fig. 2 is a similar view with the parts in different position, as when releasing the vessels. Fig. 3 is a side elevation of one of the hangers. Fig. 4 is a plan of a clamping bar extending across the top vessel. Fig. 5 is a side elevation of several of the vessels in separated position. Fig. 6 is a detail in section of two of the stacked vessels.

In the drawings the pans, vessels or containers are indicated at 18, and the intermediate ones will fit at the bottom into those below, as shown in Fig. 6, and a gasket 20 may be applied around the lower bead to seal the joint. Each of these vessels has handles 17 at opposite sides, whereby it may be individually carried, and these handles serve to position the vessels in the hangers forming part of the carrier.

The carrier consists of a pair of thin metal hangers 11 having elongated slots 11a into which the handles 17 are received. These hangers are connected at the top by a handle 10 and pin 21. At the lower end of the slot 11a each hanger has an upstanding lug 19 the function of which is to engage in the handle 17 of the bottom container and so prevent the hangers from slipping out or off the handles.

A cross bar 16 extends between the hangers near the top thereof and its ends work in

slots 11b in the upper part of the hangers. The ends are guided by strips or rods 13 which extend through holes 16a in the ends of the clamping bar. Springs 12 are coiled around these rods and press downwardly on the ends of the clamping bar, and the upper end of the springs may be hooked into the hangers as shown at 15.

It is obvious that when the receptacles are stacked as shown in Fig. 1, and the hangers applied, the receptacles will be held in stacked relation by the pressure of the bar 16 extending across the top vessel. To release the vessels, the handle 10 is pushed down and springs 12 are compressed and the lugs 19 are thereby released from the handles of the bottom vessel, and the hangers can then be sprung out to disengage from the handles 17 and permit the removal of the carrier. The carrier can again be applied to a stack of vessels by a reverse operation. The engagement of the handles 17 in the slots 11a effectively prevent any movement of the containers while they are being transported, and being sealed by each other, liquid may be carried without danger of spilling.

I claim:

1. A carrier for stacked containers having handles at opposite sides, comprising a pair of hangers having slots to receive the handles of the containers, a handle connecting the hangers at the top, and a spring pressed clamping bar extending across the top container and between the hangers.

2. A carrier as in claim 1, each hanger having a lug projecting upwardly at the lower end of the slot, to engage the handle of the bottom container.

3. A carrier as in claim 1, each hanger having a retaining guide for the clamping bar.

4. A carrier as in claim 1, the clamping bar having openings through its ends, and each hanger having a guide rod extending through said openings.

5. The combination with a plurality of 90

June 24, 1924.

J. PUCIATO
FOOD CARRIER

1,499,077

Filed July 23, 1923

2 Sheets-Sheet 2

Fig. 3.

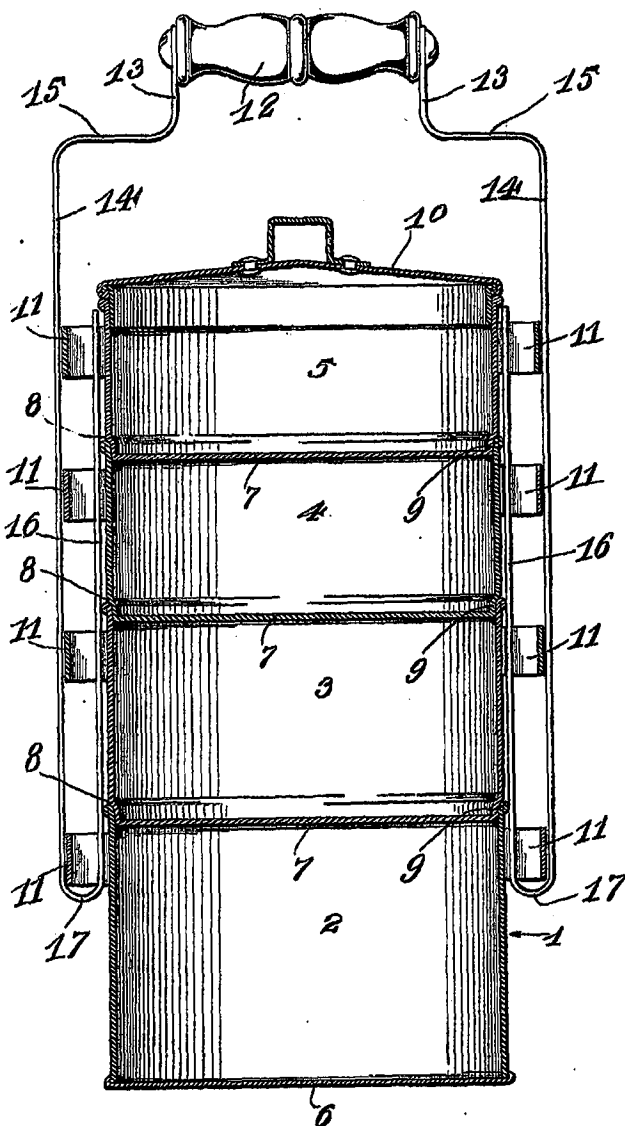
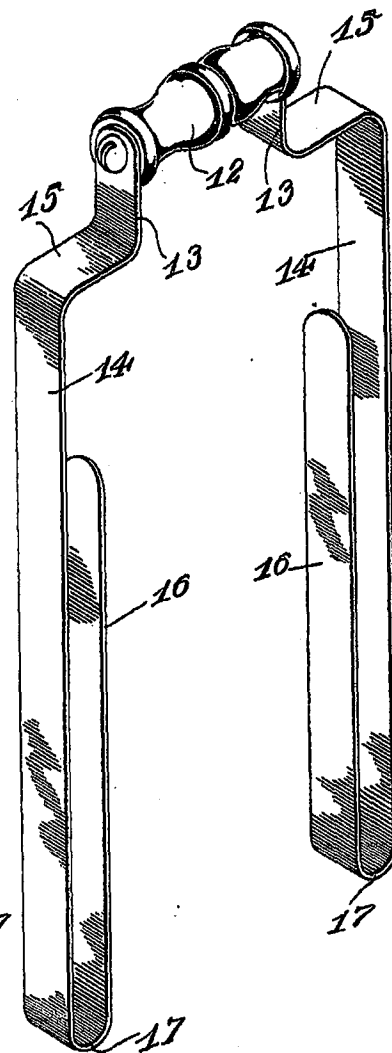


Fig. 4.



Witnesses:

H. K. Mares

George O. Lucas

Inventor

Jozef Puciato

By

Joshua R. Lott

his Attorney

UNITED STATES PATENT OFFICE.

JOZEF PUCIATO, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
JOHN FLOHARSKI, OF PHILADELPHIA, PENNSYLVANIA.

FOOD CARRIER.

Application filed July 23, 1923. Serial No. 653,092.

To all whom it may concern:

Be it known that I, JOZEF PUCIATO, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Food Carriers, of which the following is a specification.

My invention relates to food carriers which are particularly adapted for use in carrying food to work, picnics, camps and the like.

The objects are to provide a food carrier which will include a plurality of superposed receptacles for different foods, and means for carrying the receptacle which will hold knives, forks, spoons and like articles.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is a side elevation of a food carrier constructed in accordance with my invention,

Figure 2 a section on line 2—2 of Figure 1,

Figure 3 a central section through the food carrier shown in Figure 1, certain parts being shown in full, and

Figure 4 a perspective view of the carrying means constructed in accordance with my invention.

Referring to the drawings, 1 indicates a food carrier which consists of superposed receptacles 2, 3, 4 and 5. The receptacle 2 is provided with any suitable plain bottom 6 while the receptacles 3, 4 and 5 are provided with a bottom 7 slightly smaller than the body of the receptacle so that each bottom will fit within the lower adjacent receptacle and provide a shoulder 8 which rests on a beaded edge 9 at the top of the lower adjacent receptacle. The top receptacle 5 is provided with a lid 10 of any suitable type. Rectangular eyes 11 are provided on the opposite sides of each receptacle in the form of strips bent to form a rectangular opening and riveted or otherwise secured to the receptacles. The carrying means is composed of a handle 12 secured to U-shaped strips 13

having one leg 14 long and shaped to provide an outwardly bent part 15. The other leg 16 is short and passes through eyes 11 on the receptacles.

To place food in my improved carrier the upper receptacles are lifted off the lower adjacent receptacles so that the eyes will slide off the short legs 16 of the carrying means. The food is placed in the receptacles and the receptacles replaced one on the other by sliding the eyes 11 over the short legs 16. The eating utensils, such as knives, forks and spoons, are slipped through the eyes so that they will be disposed between the legs. The bottom 17 of the U-shaped strips forms a stop on which the utensils rest, and prevents them from slipping downward out of the eyes.

A food carrier constructed as above described will carry different kinds of foods without mixing or spilling them; will carry the eating utensils and may be cheaply made.

While I have described my invention as taking a particular form, it will be understood that the various parts may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

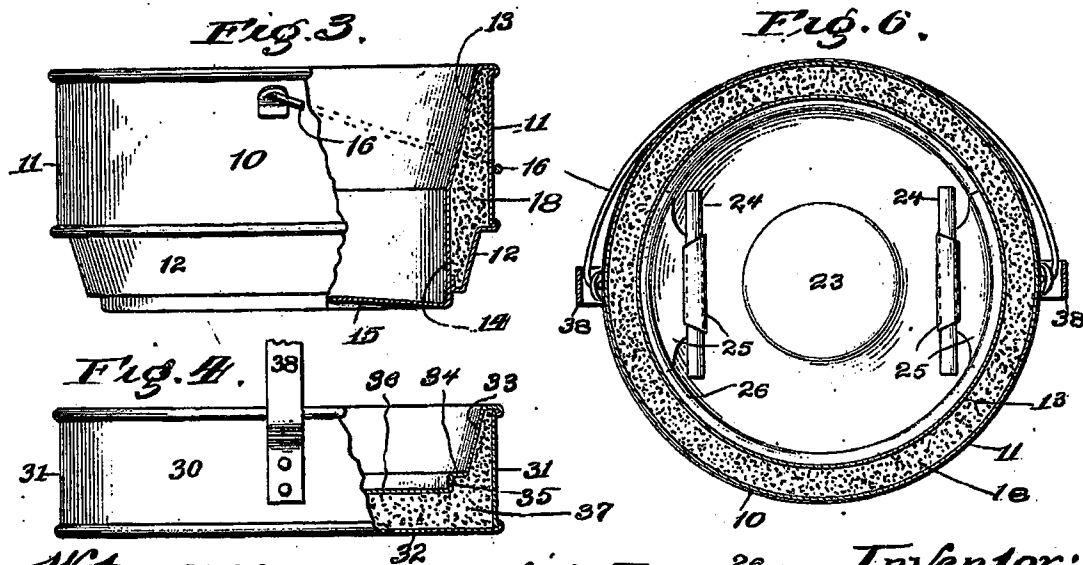
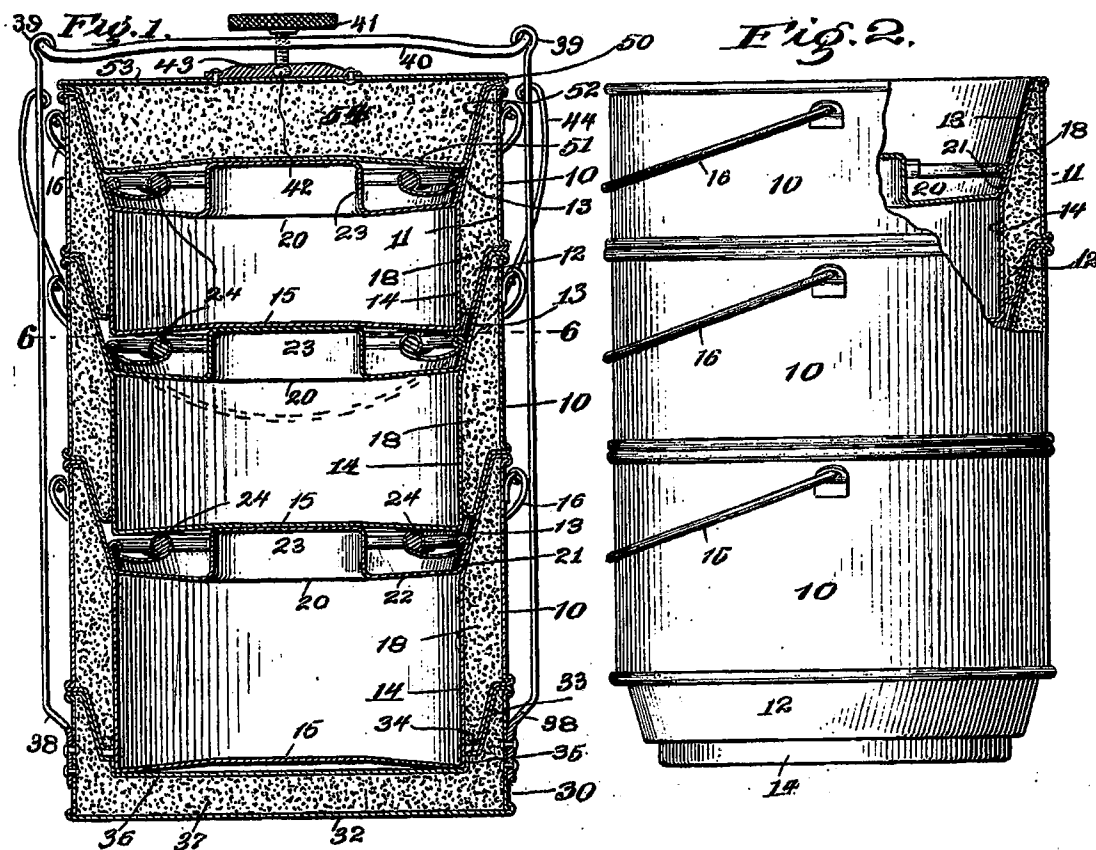
1. A food carrier including superposed receptacles; eyes at opposite sides of the receptacles disposed in vertical alignment; U-shaped strips having one leg passing upwardly through the eyes and disposed to provide a space between it and the outer part of the eyes for receiving eating utensils and the other leg passing upwardly outside the eyes, and a handle secured to the outer legs.

2. A food carrier including receptacles; rectangular eyes at opposite sides of each receptacle disposed in vertical alignment; U-shaped strips having one leg passing upwardly through the eyes and disposed to provide a space between it and the outer part

H. B. SEELY.
COULINARY UTENSIL.
APPLICATION FILED OCT. 15, 1898.

909,238.

Patented Jan. 12, 1909.



Witnesses:
Wm. P. Bond
Louie Russell

Fig. 5.
Inventor:
Herman B. Seely,
by Charles O. Shorvey
his Atty.

UNITED STATES PATENT OFFICE.

HERMAN B. SEELY, OF CHICAGO, ILLINOIS.

CULINARY UTENSIL.

No. 909,938.

Specification of Letters Patent.

Patented Jan. 12, 1909.

Application filed October 15, 1906. Serial No. 335,883.

To all whom it may concern:

Be it known that I, HERMAN B. SEELY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Culinary Utensils, of which the following is a full, clear, and exact description.

My invention relates to certain new and useful improvements in culinary utensils and more particularly to improvements in utensils which are employed for the purpose of insulating the commodity contained therein from the effects of the heat or cold surrounding the same, whereby after said commodity has been boiled, or heated up to a certain degree, or the commodity has been frozen or cooled, the temperature of the commodity may be retained at or near such temperature for a considerable length of time. Many attempts have been made to accomplish this, as, for instance, receptacles filled with hay or other heat non-conducting substances have been used in which the kettles or other utensils are placed and covered up, after the material has been boiled a certain length of time, but this is a cumbersome and inconvenient method, although it has been found practicable so far as the retaining of the heat is concerned.

It is my aim to devise a utensil in which one commodity, or several, if desired, may be boiled, warmed or frozen, after which a top and bottom portion may be applied thereto, thereby converting it into what might be termed a "fireless cooker" that is a receptacle completely surrounded with a non-combustible, non-conductor of heat. This I accomplish by providing a connected non-conductor of heat around the sides of the receptacle, and removable top and bottom heat non conductors on the ends which may be readily applied to or removed from the receptacles.

Another object is to provide a utensil of this character, made up of a number of separate and disjointed compartments which nest one into the other, so that all may be used together, or one used alone for the purpose for which the utensil has been designed, or any one of the receptacles may be used as an ordinary cooking utensil.

To such end my invention consists of certain novel features of construction and arrangement, a description of which will be found in the following specification, and the

essential features of which will be definitely pointed out in the claims.

In the drawings Figure 1 is a vertical diametrical section through a device embodying my invention. Fig. 2 is a side view with the top and bottom removed, a part being broken out to show the interior thereof. Fig. 3 is a side view of one of the receptacles with a portion broken away to show the interior. Fig. 4 is a similar view of the bottom. Fig. 5 is a similar view of one of the receptacle covers, and Fig. 6 is a horizontal section taken on the line 6-6 of Fig. 1.

As shown in the drawings the device contains a plurality of sections or receptacles 10 preferably of different depths, but all having the same general contour and arrangement so that one will nest or fit into the top of the other. Inasmuch as all the receptacles are substantially alike, a description of one will be sufficient.

Referring to Fig. 3 which shows the top-most receptacle, 11 represents a cylindrical wall to which is secured a downwardly converging or tapered portion 12 and an outwardly flaring inner portion 13, the portion 13 terminating in a circular wall 14, which is formed with a bottom 15. The tapered portion 12 of the surrounding wall is also secured to the wall 14 in any suitable manner, and the annular space between the inner and outer walls is filled with a suitable non-combustible, heat non-conducting material 18, such as magnesia, asbestos or the like. A bail 16 is secured to the receptacle which furnishes means by which it may be handled or supported. The receptacle covers 20 are all constructed alike and as shown in Fig. 5, each contains a tapered flange 21 that is adapted to fit snugly against the tapered inner wall 13 of the receptacles. Said flange extends up from the bottom 22 of the cover, and a central dome 23 is preferably formed in the bottom 22 of the cover which dome is engaged by the receptacle above it in nesting the parts, to crowd the cover snugly down upon its seat in the receptacle. Handles 24 are secured to each cover as shown in Figs. 1 and 6 by means of clips 25 that surround the handles and are inserted in a seam 26 which is formed upon the upper end of the flange 21. These handles furnish a convenient means of handling the cover.

The receptacles obviously may be used

separately whenever one is cooking commodities that require about the same amount of cooking, but when it is unnecessary to boil one commodity as long as the other the receptacles can be nested together, as shown in Fig. 2, whereupon a longer time will be consumed to transfer the heat to the upper receptacle than to the lower, so that when the commodity in the lowest receptacle has been boiled a sufficient length of time the commodity in the uppermost receptacle will also have been boiled approximately the proper length of time. The receptacles being surrounded by a non-conductor of heat, are practically protected against the effects of heat and cold on the sides, but it now becomes necessary to completely surround the receptacles with a non-conductor of heat and for this reason I have provided a top and bottom which may be attached to the other parts when the receptacles are removed from the fire. As shown in Fig. 4 the bottom 30 consists preferably of a circular inclosing wall 31 which has a bottom 32 and a tapered inner wall 33 secured thereto. The inner wall is shouldered at 34 to form a horizontal ledge from which projects a downward extension 35 that terminates in a false bottom 36. The space between the walls and bottoms is filled with an insulating material 37 preferably of the same character as that contained between the walls of the receptacles 10.

Two connecting bars 38 are secured to the bottom 30 and extend upward to a point immediately above the uppermost receptacle where they terminate in hooks 39 that are engaged by a cross bar 40 which is threaded upon a clamping screw 41. The clamping screw 41 is provided with a head 42 that is seated in a bearing 43 secured upon the top 50. A bail 44 is secured upon the connecting bars 38 and affords a convenient means for transporting the entire device. The removable top 50 comprises a bottom portion 51, a tapered or flaring inclosing wall 52 and a top portion 53 secured to the inclosing wall 52 in any suitable manner. The cover is filled with a heat non-conductor 54 preferably of the same substance as the filling 18 or 37. The flaring or tapered walls of all of the receptacles, covers, top and bottom, are of the same pitch so that the covers will fit any of the receptacles, and the top will fit any of the receptacles and any of the receptacles will fit in the bottom 30. In other words all of the parts are interchangeable so that the position of either of the receptacles with respect to the other is immaterial.

It is to be understood that inasmuch as all of the receptacles are alike in form, with the exception of their depth, that the top 50 will fit any one of the receptacles, and that the bottom 30 will likewise fit any one of

the receptacles, and consequently, that when any one of them is to be used to the exclusion of the others, then the top and bottom are placed upon said receptacle. It is also obvious that the device may be made and sold with either one or more receptacles as desired, and that in place of several shallow receptacles one large one may be used.

It should be noticed that the lower portions of the flaring sides 12 do not terminate in sharp edges, but the lower ends are rather raised above the lower end for the reason that a thin edge close to the fire would be endangered when subjected to the influence of a high degree of heat.

In the use of my device when all of the receptacles are used, the top and bottom are removed, the receptacles filled with the commodities and set on the fire. As soon as the commodities have been boiled a sufficient length of time they are removed from the fire, the top and bottom attached, thereby completely surrounding the contents with a heat insulator. In clamping the top and bottom in place it should be noticed that all of the receptacles will be crowded together, thereby leaving no space for heat or cold to enter and that the covers for each receptacle will also be crowded down upon its receptacle, further removing the contents from the effects of heat or cold. When the parts are together as shown in Fig. 1 there is a complete heat insulating jacket surrounding the inner wall. This provides a device which can be used for ordinary cooking purposes and which can be converted into what may be called a fireless cooker, by merely adding the top and bottom portions. The commodities when surrounded by the heat insulator will retain their temperature for a considerable period of time so that it is necessary only to cook them for a short time.

I realize that various alterations and modifications of the device are possible, and I do not, therefore, desire to limit myself as specifically pointed out in the appended claims.

I claim as new and desire to secure by Letters Patent:

1. In a device of the class described, the combination of a plurality of nestable receptacles, each of which is provided with a separate jacket upon its side wall, a jacketed top, and a jacketed bottom for the nested receptacles.

2. In a device of the class described, the combination of a plurality of nestable receptacles, each of which is provided with a separate jacket upon its side wall, a removable jacketed top, and a removable jacketed bottom for the nested receptacles, and means for clamping the top and bottom thereto.

3. In a device of the class described, the combination of a plurality of nestable re-

ceptacles, each of which is provided with a separate jacket upon its side wall, a removable jacketed top, and a removable jacketed bottom for the nested receptacles, a pair of
 5 connecting bars secured to the bottom, a cross-bar engaging the upper ends of said connecting bars, and a clamping screw threaded in the cross-bar and engaging said top.

10 4. In a device of the class described, the combination of a vessel, the bottom of which is exposed, a jacket surrounding the side wall of said vessel, a jacketed top section, and a jacketed bottom section removably se-
 15 cured to said vessel.

5 5. In a device of the class described, the combination of a vessel, the bottom of which is exposed, a jacket surrounding the side wall of said vessel, a jacketed top section,
 20 and a jacketed bottom section removably secured to said vessel, and means for clamping the vessel between the top and bottom sections.

25 6. In a device of the class described, the combination of a vessel having an exposed bottom, an open, outwardly flaring, upper end, an outer inclosing wall secured to the upper end of the flaring portion, the lower portion of said inclosing wall terminating
 30 in a downwardly converging portion, and insulating material in the annular space between the vessel and inclosing wall, a heat insulated top fitting in the open flaring
 35 bottom fitting over the converging lower portion of the vessel.

7. In a device of the class described, the combination of a vessel having an exposed
 40 bottom, an open, outwardly flaring, upper end, an outer inclosing wall secured to the upper end of the flaring portion, the lower portion of said inclosing wall terminating in a downwardly converging portion, a heat insulating material in the annular space be-

tween the vessel and inclosing wall, a heat 45 insulated top fitting in the open flaring portion of the vessel, a heat insulated bottom fitting over the converging lower portion of the vessel, and means for clamping the ves-
 50 sel between the top and bottom.

8. In a device of the class described, the combination of a jacketed vessel, having an open flaring upper end and a downwardly converging lower end, a cover fitting upon the open flaring upper end, a removable
 55 jacketed bottom fitted upon the lower converging end, a removable jacketed top fitting in the open flaring end above the cover, and means for clamping the vessel between the top and bottom.
 60

9. In a device of the class described, the combination of a jacketed vessel, having an open flaring upper end and a downwardly converging lower end, a cover fitting upon the open flaring upper end and having an
 65 upwardly extending dome, a jacketed bottom fitting upon the converging lower end of the vessel, and a jacketed top fitting within the open flaring end of the vessel, and bearing against the dome of the cover,
 70 and means for crowding the top down upon the dome of the cover and crowding the side wall of the top upon the flaring upper end of the vessel.

10. In a device of the class described, the combination of a cooking vessel, an outer wall fixed thereto and surrounding the side wall thereof, a non-combustible, heat non-conducting material in the space between the vessel and the surrounding wall, a re-
 75 movable top containing a heat non-conducting material, and a removable bottom containing a heat non-conducting material.
 80

HERMAN B. SEELY.

Witnesses:

WM. P. BOND,
 CHAS. O. SHERVEY.



US005366089A

United States Patent [19]
Parker

[11] **Patent Number:** **5,366,089**
[45] **Date of Patent:** **Nov. 22, 1994**

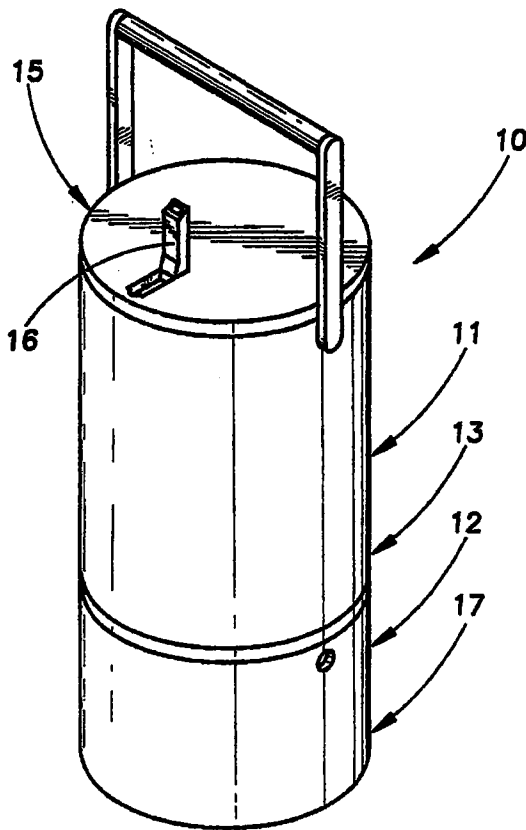
- [54] **SEPARABLE FOOD AND BEVERAGE
CONTAINER COMBINATION**
[76] **Inventor:** Eddy D. Parker, Rte. 2, Box 4B,
Comanche, Tex. 76442
[21] **Appl. No.:** 228,878
[22] **Filed:** Apr. 18, 1994
[51] **Int. Cl.⁵** A45C 11/20
[52] **U.S. Cl.** 206/546; 206/549;
220/529
[58] **Field of Search** 206/541, 542, 545, 546,
206/549, 550, 544

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2491876 4/1982 France 206/546
Primary Examiner—William I. Price
Attorney, Agent, or Firm—Rhodes & Ascolillo

[57] **ABSTRACT**
A separable food and beverage combination has an upper chamber and a lower chamber. The upper chamber is formed by a first circumferential wall and a first bottom wall attached to the first circumferential wall. A first lid is releasably connected to the first circumferential wall and opposes the first bottom wall. The first lid has a hinged spout hingingly movable from a closed position and an open position. The lower chamber is formed by a second circumferential wall and a second bottom wall attached to the second circumferential wall. A lid plate, threadingly connected to the first bottom wall and threadingly connected to the second circumferential wall, opposes the second bottom wall. A bowl is removably placed within the lower chamber. A removable partition forms separable compartments in the bowl. A pair of first and a pair of second handle locking recesses in the first and second circumferential walls, respectively, have a first handle locking groove in a perimeter of each of the first handle locking recesses and second handle locking groove in a perimeter of each of the second handle locking recesses respectively. A removable handle has a pair of locking arms and a locking ring on each of the locking arms. Each of the locking arms and the locking ring thereon are releasably locked into one of the first handle locking recesses or into one of the second handle locking recesses. A second lid is releasably connected to the second circumferential wall only when the lower chamber is used.

18 Claims, 5 Drawing Sheets



SEPARABLE FOOD AND BEVERAGE CONTAINER COMBINATION

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates, in general, to an insulated food and beverage container and, in particular, to a food container and a beverage container that can be fastened together and used as a set or carried separately as individual pieces.

2. Description of the Related Art

Lunch buckets and thermos bottles have accompanied people carrying their lunch to remote location for ages. Difficulties arise in attempting to transport certain hot foods and in keeping a beverage from ruining certain bulk foods if the container storing the beverage leaks and is in close proximity to the other food.

U.S. Pat. No. 3,567,105 to B. E. McFarlin on Mar. 02, 1971 for a Combined Food and Drink Container describes a box with flexible walls and a closable top. The box has a flexible fluid-impervious collapsible pouch attached within. The box will hold a bulk consumable like popcorn and the pouch will hold a beverage to consume with the bulk item.

U.S. Pat. No. 3,613,872 to J. G. Donnelly on Oct. 19, 1971 for a Receptacle Device for Food and Beverage Products or the like shows a lunchbox having a heat-insulating housing with a first container to store hot fluids and a second container suspended above the first to store food. There is an open space above the second container to store utensils.

U.S. Pat. No. 4,050,581 to R. Sedlacek on Sep. 27, 1977 for a Lunch Bucket and Beverage Bottle Combination describes a lunch bucket having a separate compartment for storing a beverage bottle. The door to the bottle compartment provides a friction lock to hold the bottle in place.

U.S. Pat. No. 5,065,867 to H. M. Alfredson on Nov. 19, 1991 for a Hot and Cold Lunch Box for Automobile Travel shows a lunch box that has two compartments. Both compartments are insulated to enable them to maintain their contents at either a hot or cold temperature. The upper section of the lunch box can also be placed over the door handle and lock of an automobile to protect them from ice.

U.S. Pat. No. 5,181,612 to Y. W. Liu on Jan. 26, 1993 for a Compact Collapsible Lunch Box describes a lunch box with a lower section that has collapsible walls. There is beverage container and a thermal gel pack to cool the food and the beverage container.

The above patents attempt to solve these storage and transportation problems but do not offer the convenience and complete separability of the present invention.

SUMMARY OF THE INVENTION

The present invention provides an upper container for hot or cold beverages. The lower container is used for hot or cold bulk food. The containers are preferably cylindrical in shape and may be joined together by threaded connectors when both are to be used or unthreaded from each other when only one container is to be used. It is preferably made (by known methods such as molding) of break-resistant plastic and has insulated walls. The insulation is that commonly used for such devices. The upper container (chamber) has a lid with a spout to allow the beverage to be easily dispensed. The

lower container (chamber) may be used with a removable bowl having a removable partition to segregate different food stuffs. The partition may be removed if desired. The bowl has a lid to seal the food stuffs therein. The lower container is further sealed by a plate which also acts as a lid for the lower chamber when the two containers are fastened together. A knife, fork and spoon may be stored on the plate for the convenience of the user. If only the lower container is to be used, a second lid is utilized and is screwed into the plate to allow the plate and the lower container to be sealed and transported. A removable handle is supplied and can be attached to the upper container if both containers are attached to each other or if only the upper container is to be used. The handle may be removed from the upper container and inserted into the recesses of the lower container when only the lower container is to be used. An O-ring is placed on an arm of the handle and when the arm is pressed into the locking recess, the O-ring snaps into the locking groove. Pulling outward on the handle arm snaps the arm and the O-ring out of the recess.

In one embodiment of the present invention, a separable food and beverage combination is described that has an upper chamber and a lower chamber. The upper chamber is formed by a first circumferential wall and a first bottom wall attached to the first circumferential wall. A first lid is releasably connected to the first circumferential wall and opposes the first bottom wall. There is a lower chamber formed by a second circumferential wall and a second bottom wall attached to the second circumferential wall. A lid plate (a plate that acts as both a lid and a plate) is releasably connected to the first bottom wall and is releasably connected to the second circumferential wall and the lid plate opposes the second bottom wall. A bowl is removably placed within the lower chamber to hold food. A sealing lid is removably attached to the bowl. There is a first handle locking recess in the first circumferential wall. There is a second handle locking recess in the second circumferential wall.

The first handle locking recess may have a first handle locking groove in a perimeter of the first handle locking recess. The second handle locking recess may have a second handle locking groove in a perimeter of the second handle locking recess. There may be removable handle. The removable handle may have a locking arm and a locking ring on the locking arm. The locking arm and the locking ring may be releasably locked into either the first handle locking recess or into the second handle locking recess. The first lid may have a hinged spout hingedly movable from a closed position and an open position hingedly attached to a first lid base of the first lid.

There may be a second lid, releasably connected to the second circumferential wall, that opposes the second bottom wall and is removably connected to the second circumferential wall when only the lower chamber is used. The second lid may have a lid base and a gripping handle attached to an upper surface of the lid base.

The lid plate may have a plate base and an upper surface on the plate base. A plate circumferential wall is attached to a perimeter of the plate base. There may be an inner threaded connector on an inner surface of the plate circumferential wall that may be threadingly connected to the first circumferential wall. An outer

threaded connector, on an outer surface of the plate circumferential wall, may be threadingly connected to the second circumferential wall. There may be a plate partition on the upper surface of the plate base. The bowl may have a removable partition in the bowl forming separable compartments in the bowl.

It is an object of this invention to provide a device for the storage and transportation of food and beverages that has two containers that can be fastened together or utilized singularly.

It is another object of this invention to provide a device for the storage and transportation of food and beverages that supplies a plate and eating utensils.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the Separable Food and Beverage Container Combination showing the upper chamber and the lower chamber releasably attached to each other and showing the spout in the open position and showing the detachable handle releasably attached to the first circumferential wall of the upper chamber.

FIG. 2 is a perspective view of the lower chamber showing the removable handle releasably attached to the second circumferential wall of the lower chamber.

FIGS. 3A and 3B show an exploded perspective view of the Separable Food and Beverage Container Combination with a cut-away section of the first lid to show the threads therein. There is also a cut-away view of the bottom of the upper chamber circumferential wall and a cut-away view of the bottom of the lower chamber circumferential wall to show the first and second bottom wall respectively.

FIG. 4 is an exploded perspective view of the lower chamber showing the second lid being used with the lid plate.

FIG. 5 is a partial cross-section of the circumferential wall of the upper or lower container and a partial view of the handle showing the handle locking arm and locking ring prior to being inserted into handle locking recess and locking groove.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1 through 5, a separable food and beverage combination 10 is shown and described that has an upper chamber 11 and a lower chamber 12. The upper chamber 11 is formed by a first circumferential wall (tubular) 13 and a first bottom wall 14 attached to the first circumferential wall 13. There is a first lid 15, releasably connected to the first circumferential wall 13, that opposes the first bottom wall 14. The first lid 15 has a hinged spout 16 hingedly movable from a closed position (shown in FIG. 3) and an open position (shown in FIG. 1). The spout 16 is hingedly connected to a first lid base of the first lid 15. The lower chamber 12 is formed by a second circumferential wall (tubular) 17 and a second bottom wall 18 attached to the second circumferential wall 17. A lid plate 19, releasably connected (by threads) to the first bottom wall 14 and releasably connected (by threads) to the second circumferential wall 17, opposes the second bottom wall 18.

A bowl 20 is removably placed within the lower chamber 12 and there is a removable partition 21 in the bowl 20 that forms separable compartments in the bowl 20. There is a sealing lid 22 removably attached (usually by press-fit into a recessed lip on the inner perimeter of the bowl 20).

A pair of first handle locking recesses 23 (only one of the first and second pairs are shown but the ones not shown is a mirror image of the ones shown) in the first circumferential wall 13 has a first handle locking groove 24 in a perimeter 25 of each of the first handle locking recesses 23 (see FIG. 3 and 5). There are a pair of second handle locking recesses 23a in the second circumferential wall 17 that have a second handle locking groove 24a in a perimeter 25a of each of the second handle locking recesses 23a (See FIGS. 1 and 5. The reference numbers for all of the locking recesses will be placed in FIG. 5 since the appearance is the same). These second handle locking recesses 23a look just like the first handle locking recesses 23 as shown in FIG. 5. The removable handle 26 has a pair of locking arms 27 and a locking ring 28 such as an O-ring on each of the locking arms 27. Each of the locking arms 27 and the locking ring 28 thereon releasably lock into one of the first handle locking recesses 23 or one of the second handle locking recesses 23a.

A second lid 29 releasably connected to the second circumferential wall 17, opposes the second bottom wall 18 and is removably connected to the second circumferential wall 17 when only the lower chamber 12 is used. The second lid 29 has a lid base 30 and a gripping handle 31 attached to an upper surface 32 of the lid base 31.

The lid plate 19 has a plate base 33 and an upper surface 34 on the plate base 33. There is a plate circumferential wall 35 attached to a perimeter 36 of the plate base. There is an inner threaded connector 37 on an inner surface 38 of the plate circumferential wall 35 that may be threadingly connected to the first circumferential wall 13 when the two chambers 11 and 12 are to be used together or used to threadingly receive the threads 39 of the second lid 29 when the lower chamber 12 is being used by itself. There is an outer threaded connector 40 on an outer surface 41 of the plate circumferential wall 35 that may be threadingly connected (via threads 42) to the second circumferential wall 17. There is a plate partition 43 on the upper surface 34 of the plate base 33 to strengthen the lid plate 19 when it is being used as a lid and to separate portions of food on the lid plate when it is being used as a plate. Eating utensils such as a knife 44, fork 45 and spoon 46 (See FIG. 3) may be placed on the upper surface 34 of the plate base 33 and incorporated as part of the combination 10.

The foregoing descriptions and drawings of the invention are explanatory and illustrative only, and various changes in shape, sizes and arrangements of parts as well certain details of the illustrated construction may be made within the scope of the appended claims without departing from the true spirit of the invention.

I claim:

1. A separable food and beverage combination comprising:

- (a) an upper chamber formed by a first circumferential wall and a first bottom wall attached to the first circumferential wall;
- (b) a first lid, releasably connected to the first circumferential wall, opposing the first bottom wall;
- (c) a lower chamber formed by a second circumferential wall and a second bottom wall attached to the second circumferential wall;
- (d) a lid plate, releasably connected to the first bottom wall and releasably connected to the second circumferential wall, opposing the second bottom wall;

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- (e) a bowl removably placed within the lower chamber;
- (f) a sealing lid removably attached to the bowl;
- (g) a first handle locking recess in the first circumferential wall; and
- (h) a second handle locking recess in the second circumferential wall.
- 2. A separable food and beverage combination as described in claim 1 wherein the first handle locking recess comprises a first handle locking groove in a perimeter of the first handle locking recess.
- 3. A separable food and beverage combination as described in claim 1 wherein the second handle locking recess comprises a second handle locking groove in a perimeter of the second handle locking recess.
- 4. A separable food and beverage combination as described in claim 1 further comprising a removable handle, the removable handle further comprising:
 - (a) a locking arm; and
 - (b) a locking ring on the locking arm.
- 5. A separable food and beverage combination as described in claim 4 comprising the locking arm and the locking ring releasably locked into the first handle locking recess.
- 6. A separable food and beverage combination as described in claim 4 wherein the locking arm and the locking ring are releasably locked into the second handle locking recess.
- 7. A separable food and beverage combination as described in claim 1 wherein the first lid further comprises a hinged spout hingedly connected to a base of the first lid and hingingly movable from a closed position and an open position.
- 8. A separable food and beverage combination as described in claim 1 further comprising a second lid releasably connected to the second circumferential wall, opposing the second bottom wall and removably connected to the second circumferential wall when only the lower chamber is used.
- 9. A separable food and beverage combination as described in claim 8 wherein second lid comprises:
 - (a) a lid base; and
 - (b) a gripping handle attached to an upper surface of the lid base.
- 10. A separable food and beverage combination as described in claim 1 wherein the lid plate further comprises:
 - (a) a plate base;
 - (b) an upper surface on the plate base;
 - (c) a plate circumferential wall attached to a perimeter of the plate base;
 - (d) an inner threaded connector on an inner surface of the plate circumferential wall threadingly connected to the first circumferential wall;
 - (e) an outer threaded connector on an outer surface of the plate circumferential wall threadingly connected to the second circumferential wall; and
 - (f) a plate partition on the upper surface of the plate base.
- 11. A separable food and beverage combination as described in claim 8 wherein second lid comprises:
 - (a) a lid base; and
 - (b) a gripping handle attached to an upper surface of the lid base.
- 12. A separable food and beverage combination as described in claim 1 wherein the bowl further comprises a removable partition in the bowl forming separable compartments in the bowl.

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- 13. A separable food and beverage combination comprising:
 - (a) an upper chamber formed by a first circumferential wall and a first bottom wall attached to the first circumferential wall;
 - (b) a first lid, releasably connected to the first circumferential wall, opposing the first bottom wall;
 - (c) a lower chamber formed by a second circumferential wall and a second bottom wall attached to the second circumferential wall;
 - (d) a lid plate, releasably connected to the first bottom wall and releasably connected to the second circumferential wall, opposing the second bottom wall;
 - (e) a bowl removably placed within the lower chamber;
 - (f) a removable partition in the bowl forming separable compartments in the bowl;
 - (g) a sealing lid removably attached to the bowl;
 - (h) a pair of first handle locking recesses in the first circumferential wall comprising a first handle locking groove in a perimeter of each of the first handle locking recesses;
 - (i) a pair of second handle locking recesses in the second circumferential wall comprising a second handle locking groove in a perimeter of each of the second handle locking recesses;
 - (j) a removable handle comprising:
 - a pair of locking arms; and
 - a locking ring on each of the locking arms; and
 - (k) each of the locking arms and the locking ring thereon releasably locked into one of the first handle locking recesses.
 - 14. A separable food and beverage combination as described in claim 13 comprising each of the locking arms and the locking ring thereon releasably locked into one of the second handle locking recesses.
 - 15. A separable food and beverage combination as described in claim 13 wherein the first lid further comprises a hinged spout hingedly connected to a base of the first lid and hingingly movable from a closed position and an open position.
 - 16. A separable food and beverage combination as described in claim 13 further comprising a second lid releasably connected to the second circumferential wall, opposing the second bottom wall and removably connected to the second circumferential wall when only the lower chamber is used.
 - 17. A separable food and beverage combination as described in claim 16 wherein the second lid further comprises:
 - (a) a lid base; and
 - (b) a gripping handle attached to an upper surface of the lid base.
 - 18. A separable food and beverage combination as described in claim 13 wherein the lid plate further comprises:
 - (a) a plate base;
 - (b) an upper surface on the plate base;
 - (c) a plate circumferential wall attached to a perimeter of the plate base;
 - (d) an inner threaded connector on an inner surface of the plate circumferential wall threadingly connected to the first circumferential wall;
 - (e) an outer threaded connector on an outer surface of the plate circumferential wall threadingly connected to the second circumferential wall; and
 - (f) a plate partition on the upper surface of the plate base.
- * * * * *

UNITED STATES PATENT OFFICE

2,604,976

COMBINED LIQUID AND FOOD LUNCH
CONTAINER

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Application September 21, 1950, Serial No. 185,923

3 Claims. (Cl. 206-4)

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This invention relates to a paper combined liquid and food container.

It is an object of the present invention to provide a combined liquid and solid food container wherein the liquid container can be filled separately with the liquid and the food container can be filled separately with the food and wherein the parts of the two containers are adapted to interfit with one another and the food container can serve to close the liquid container, the bottom of the food container serving as the cover for the liquid container.

It is another object of the present invention to provide a partitioned container assembly made of paper board materials in which foods, edibles, such as doughnuts, cake or the like, may be packaged in the cover for the liquid container and wherein the cover has a transparent piece through which the foods are displayed and wherein the liquid container can be filled when the food has been selected and which has particular use in public places such as ball parks, race tracks and similar gatherings.

Other objects of the present invention are to provide a combined liquid and solid food container which is of simple construction, inexpensive to manufacture, prevents handling of the food by the vendor, keeps the food clean and free from contamination, reduces spoilage, has a minimum number of parts, is easy to assemble, prevents pilferage of money collected by the vendor as the vendor turns in the money for a certain number of containers, compact and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a perspective view of the combined liquid and food container embodying the features of the present invention.

Fig. 2 is a vertical sectional view of the container taken on line 2-2 of Fig. 1.

Fig. 3 is a collective view of the container with the parts separated from one another and shown in perspective.

Fig. 4 is a perspective view of the food container showing the manner in which it is assembled with the food and with portions broken away to show the construction of the same.

Referring now to the figures, 10 represents a liquid container having a bottom 11 with its outer periphery 12 folded under or down and with the bottom edge of the container folded inwardly and upwardly, as indicated at 13, over the folded down flange of the bottom 11.

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The food container part comprises a cylindrical shell 14 having a peripheral bead 15 to reinforce the same. This shell is assembled with the food in the manner as shown in Fig. 4. The shell is inverted so that its folded in flange 16 serves as a rest for the container while foods, such as a doughnut 17, is placed on a transparent disc 18 that is held in place upon the folded in flange 16. A pull strip 19 is allowed to extend from the edge of the disc 18 and from under the flange 16 in order to remove the disc 18 when access is desired to the doughnut 17.

To support the doughnut when the cylindrical food container is turned up, a bottom plate 21 having a tab 22 is fitted in groove 23 provided on the inner face of the cylindrical member 14 by the bead 15. This bottom 21 is formed of stiff paper and preferably treated for sanitary purposes.

The food container, when inverted, serves as a cover for the liquid container 10, as shown in Figs. 1 and 2. The bottom 21 serves as a closure for the liquid container.

It will be seen that the food can be displayed separately from the liquid and the liquid can be poured and put in the container after the purchase of the food and the food container quickly attached to the liquid container.

It will be apparent that all of the above set forth objects have been accomplished by this arrangement. The food can be kept fresh and clean and easily visible and away from the hands of the vendor or the customer.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

Having thus set forth and disclosed the nature of my invention, what is claimed is:

1. A combined liquid and food container comprising a cylindric bottom container part adapted to receive and contain liquid and open at the top, a separate top food container part comprising an open ended cylindrical shell having an inner diameter equal to the outside diameter of the bottom container part, a transparent member connected to one end of the shell, an inner peripheral groove in said shell intermediate the ends thereof, a bottom cap fitted in the groove, the lower end of said shell fitting over the upper end of the bottom container and being thereby combined therewith.

2. A combined liquid and food container comprising a cylindric bottom container part adapted to receive and contain liquid and open at the

United States Patent [19]
Menendez

[11] **Patent Number:** **4,694,961**
[45] **Date of Patent:** **Sep. 22, 1987**

- [54] **FOOD CARRIER ASSEMBLY**
- [76] **Inventor:** Rita J. Menendez, 126 Montgomery La., Mingo Jct., Ohio 43938
- [21] **Appl. No.:** 776,977
- [22] **Filed:** Sep. 17, 1985
- [51] **Int. Cl.⁴** B65D 21/02; B65D 25/28; B65J 1/34
- [52] **U.S. Cl.** 206/508; D7/19; D7/20; D7/76; 220/23.6; 220/94 R; 220/4 D; 294/144; 294/145; 294/172
- [58] **Field of Search** 206/508; 220/4 D, 23.4, 220/23.6, 23.8, 94 R, 23.2; D7/19, 20, 76; 294/144, 145, 172

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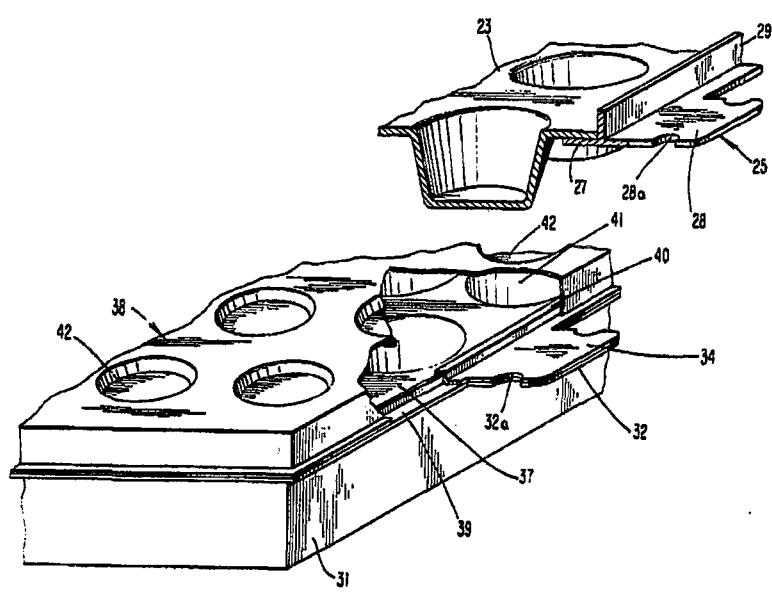
633122 2/1962 Italy 220/23.6
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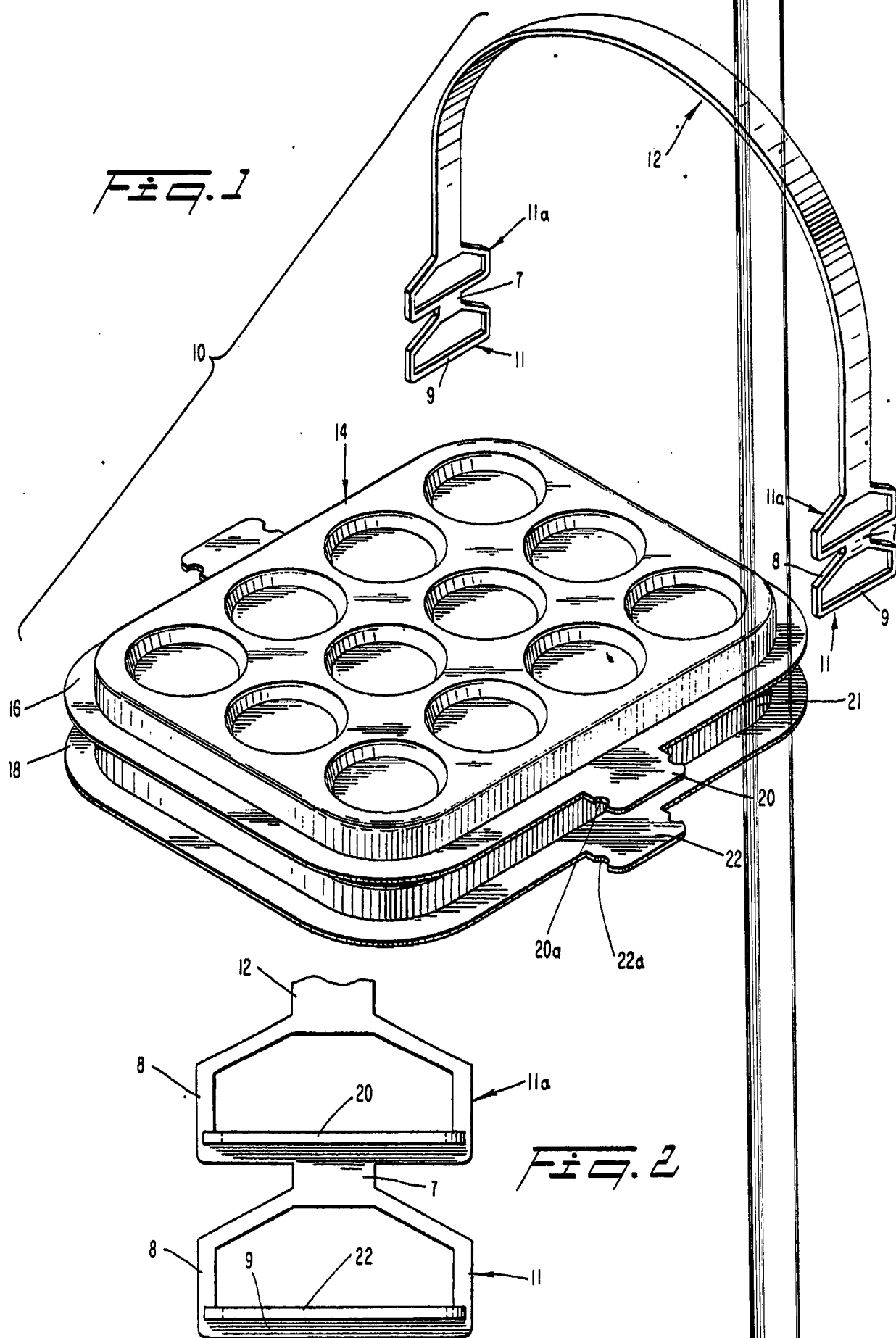
Primary Examiner—George E. Lowrance
Attorney, Agent, or Firm—Neil F. Markva

[57] **ABSTRACT**

The food carrier assembly comprises a container for holding a food product with a structure for grasping the container to support the container while transporting the assembly. A handle mechanism is disposed on the grasping section for carrying the container as a compact carrier assembly for the good product. A specific feature of the invention has the container shaped as a pan to receive a plurality of cupcakes. A lid portion on the container has a structural configuration for stacking a second container on top of the lid portion to provide an upper and lower container. The handle structure includes a hand gripping portion with coupling members located at each end thereof for attaching to the grasping configuration on a plurality of stacked containers.

8 Claims, 8 Drawing Figures





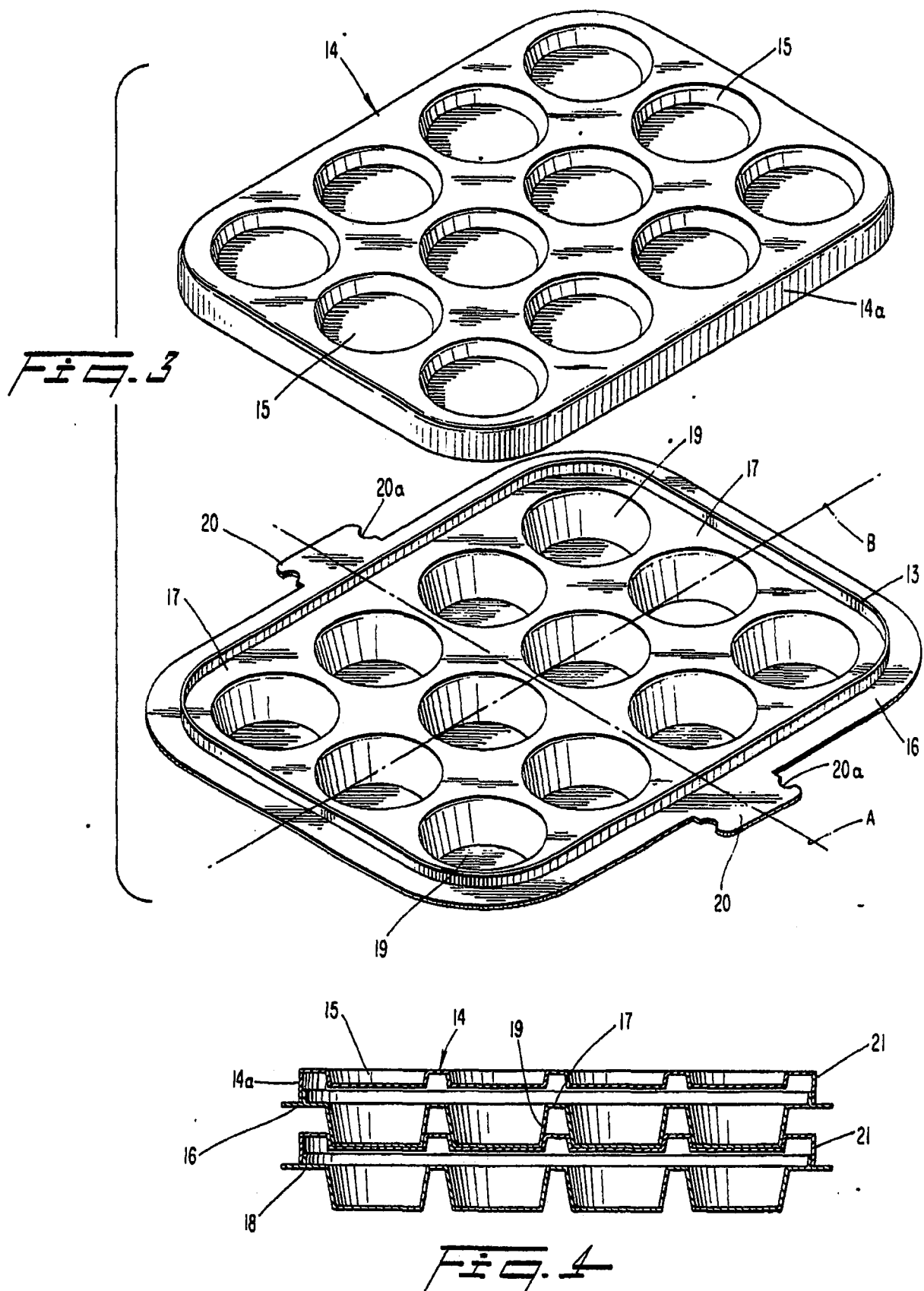


FIG. 5

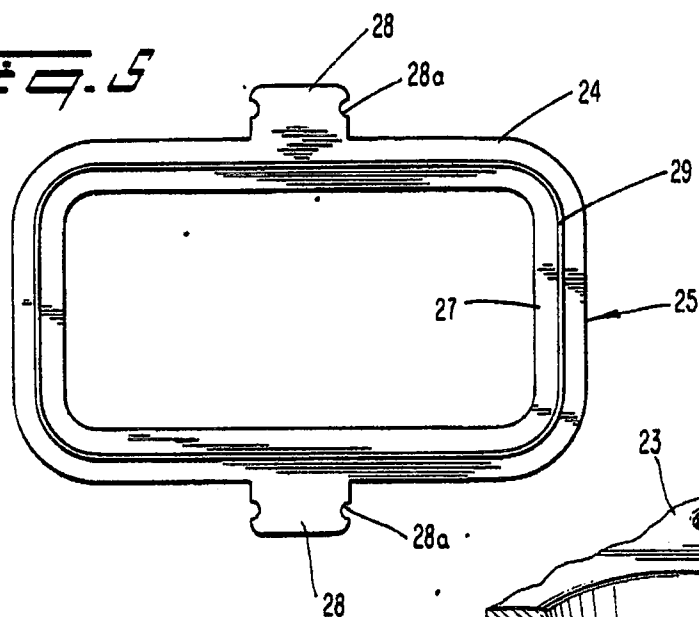


FIG. 6

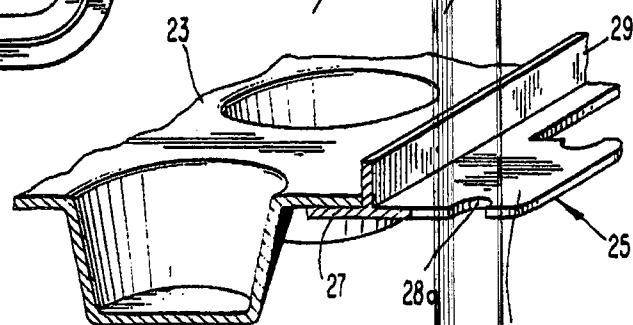


FIG. 7

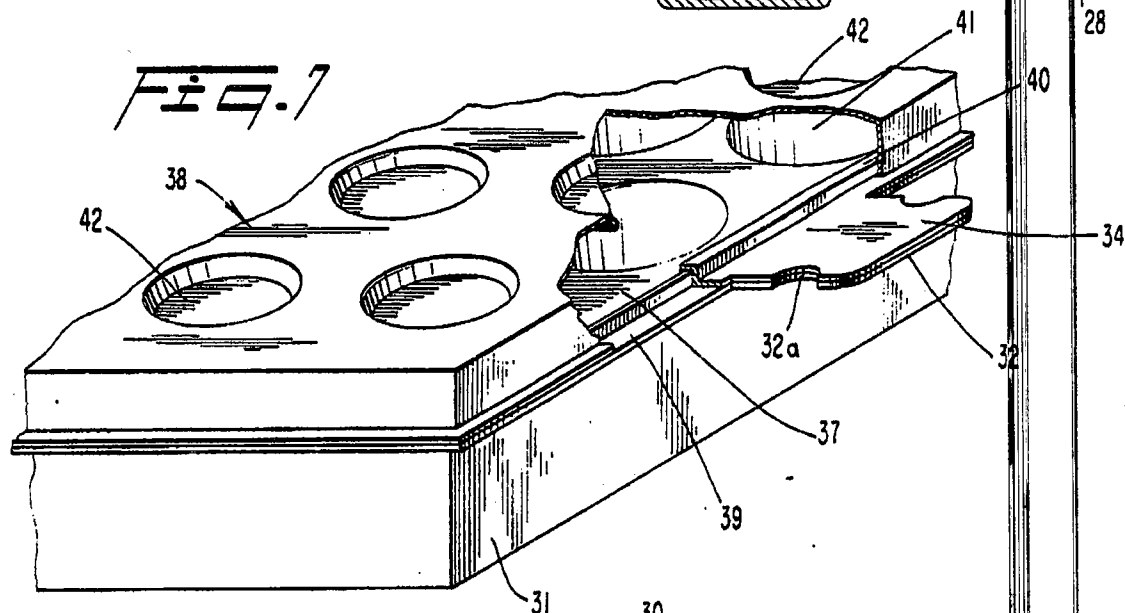
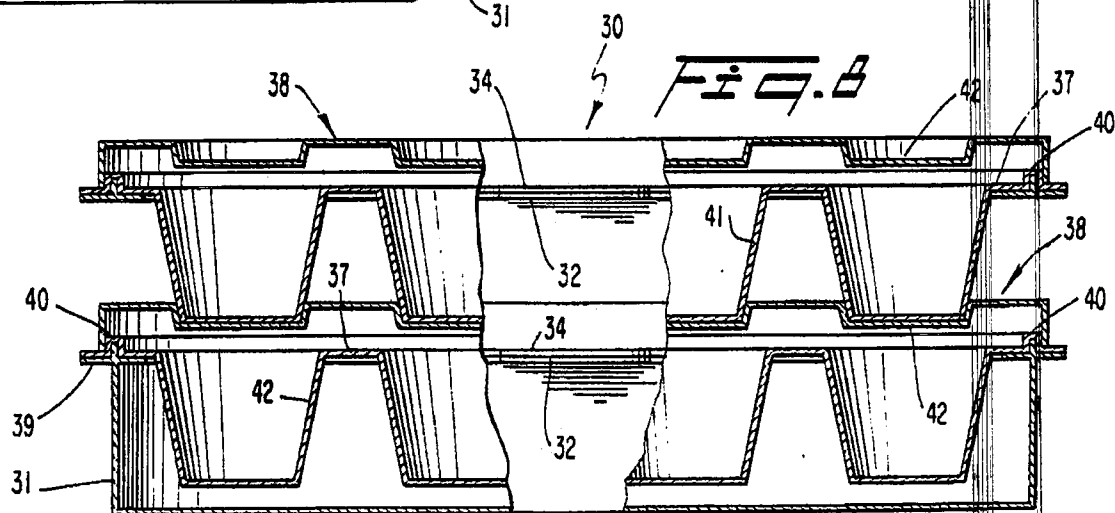


FIG. 8



FOOD CARRIER ASSEMBLY

FIELD OF THE INVENTION

This invention relates to carrier assemblies particularly intended for transporting a plurality of containers holding a food product. More particularly, the invention is directed to a cupcake carrier assembly wherein either one or two dozen cupcakes may be transported from one place to another.

BACKGROUND OF THE INVENTION

There are many different types of food packages wherein there is a plurality of stackable containers. Examples of such food carrier assemblies are shown in the following patents.

1,744,552	3,091,361	3,831,507
2,594,127	3,240,610	3,949,876
2,978,142	3,305,126	4,275,815

The stackable cake pans shown in U.S. Pat. No. 1,744,552 are used to contain cake batter during the baking process. The patentee states that the cake such as cupcakes may be cooled in the baking pan without removal. The particular assembly of cupcake pans is designed to allow circulation of air around the baking pan so that there is a cooling of the baked product. A series of upwardly extending posts located on each pan serve as spacing members so that there is a considerable distance from the edges of each set of pans. There is no provision in this particular assembly for using a handle member for transporting any one or a plurality of these cake pans from one location to another.

The U.S. Pat. No. 2,594,127 discloses stackable ice cube trays having lid portions. However, the patentee discloses no specific association of such stackable members to a handle configuration for transporting a plurality of the containers in an assembly.

The food package shown in U.S. Pat. No. 3,240,610 discloses stackable containers having lid members designed to effectuate the stacking function. The only mechanism for holding a plurality of stacked trays is shown in FIG. 14 with a surrounding band. This is significantly different from the particular type of cupcake carrier assembly disclosed and claimed herein.

The remaining patents cited herein show various forms of stackable container members having lid portions. However, one of the particular references disclose a mechanism by which a handle means is capable of holding and transporting either a single container or a plurality of stacked containers.

PURPOSE OF THE INVENTION

The primary object of this invention is to provide a cupcake carrier assembly wherein either a single dozen or two dozen cupcakes may be transported from one location to another using a very simple structural configuration associated with the cupcake pans.

Another purpose of the invention is to provide a carrier assembly which may be used with a standard baking pan or any food carrying device having a rim with an outer periphery adapted for being supported by a carrier device.

A further object of the invention is to provide a food carrier assembly which may be readily adapted to any type of food product when it is desired to carry that

food product from one location to another location such as from home to school by children.

A further object of the invention is to provide a durable and simple device that may be used by children without the device coming apart during transportation using durable materials and structural configuration for holding the container or plurality of containers in place without disruption of the food product being transported.

A still further object of the invention is to provide a carrier assembly which may be used to transport cupcakes on some occasions and then on other occasions carry other baked products such as cakes or pies due to its adaptability to various types of pans.

SUMMARY OF THE INVENTION

The food carrier assembly of the invention comprises container means for holding a food product with means for grasping the container means to provide support for transporting the assembly. Handle means disposed on the grasping means is used to carry the container means as a compact carrier assembly for the food product.

In a specific embodiment of the carrier assembly, the container is shaped to receive a plurality of individual cupcakes. The grasping means is integrally formed in a one-piece configuration with the container means and includes a gripping portion disposed on a collar portion which extends along the outer rim of the container means. The handle means includes coupling means for detachably connecting to the gripping portion of the grasping means.

A feature of the invention is directed to the configuration of the gripping portion which includes tab means projecting outwardly from the opposing sides of the collar portion with the opposed tab means being in alignment with respect to each other. A single pair of tab means is disposed along a central axis of the container means. Each tab means comprises a single tab member having a breadth extending laterally outwardly from the central axis and in a direction parallel to a second central axis of the container means. The second central axis is perpendicular to the first central axis along which the pair of tab members extends.

A further feature of the invention is directed to the handle means which includes a hand gripping portion and coupling means located at each end of the hand gripping portion for attaching to the grasping means of a plurality of stacked container means. The container means includes a lid portion for covering a bottom portion which contains the food product. The lid or cover portion includes means for stacking a food holding container on top of the cover portion to provide an upper and lower food container in the carrier assembly. The coupling means includes a pair of stirrup means having a structural configuration to provide support under each tab means found on the grasping means. There are at least two stirrup means located at each end of the hand gripping portion to detachably connect to at least two pairs of tab members located on two stacked container means.

A further embodiment of a food carrier assembly according to the invention includes support means for receiving a container for holding a food product. The support means includes tray means having a cover portion which fits over an upstanding edge and covers the tray means. The tray may be used in combination with a baking pan designed to contain cupcakes or any other type of food product. The grasping means and the han-

dle means for the tray means are designed as in the other embodiments.

A further embodiment of a food carrier assembly according to the invention includes a grasping means that is removably disposed around the outer periphery of a container such as a baking pan. The grasping means includes an outer rim having a gripping portion and is detachably mounted on the container. The collar portion of the grasping means includes an underlying rim supporting section and an upstanding ridge section to encompass the outer rim of the container. The gripping portion is shaped as a pair of tab members projecting outwardly from opposing sides of the collar portion in the fashion shown in the other embodiments disclosed herein.

BRIEF DESCRIPTION OF DRAWINGS

Other objects of this invention will appear in the following description and claims, reference being made to the accompanying drawings forming a part of the specification wherein like reference characters designate corresponding parts in the several views.

FIG. 1 is an exploded perspective view of a food carrier assembly made in accordance with this invention;

FIG. 2 is a fragmentary side elevational view showing the assembled carrying handle;

FIG. 3 is an exploded perspective view of a container and lid made in accordance with the invention;

FIG. 4 is a sectional view through a stack of containers as shown in FIG. 3;

FIG. 5 is a top plan view of a support member of a further embodiment made in accordance with this invention;

FIG. 6 is a fragmentary sectional view shown in perspective of the support member of FIG. 5 supporting a baking pan;

FIG. 7 is a fragmentary perspective view of a further embodiment of a food carrier assembly made in accordance with this invention; and

FIG. 8 is a sectional view of the assembly as shown in FIG. 7.

DETAILED DESCRIPTION

A food carrier assembly, generally designated 10, includes two stacked pans having lids 21 and 14 and collars 18 and 16, respectively. Gripping tabs 22 and 20 are on respective bottom and top pans as shown in FIG. 1.

A handle assembly, generally designated 12, has two pairs of stirrup members 11 and 11a located at either end of a hand gripping portion of the handle 12. The bottom stirrups 11 are connected to the top stirrups 11a via a connecting strip 7. The stirrups 11 and 11a are spaced at either end of the hand gripping portion to fit over the gripping tab members 22 and 20, respectively, when the handle 12 is disposed on the assembly 10 as shown in FIG. 2.

Each of the stirrup members 11 and 11a include a pair of vertically disposed members 8 which fit into the indentations 20a and 22a on respective grasping tab members 20 and 22. The bottom support strip 9 is connected at either end to each of the vertical members 8 for each of the stirrups 11 and 11a and provides support across the breadth of the grasping tab members 20 and 22 as shown in FIG. 2.

The upper pan and lid combination as shown in FIG. 1 is shown in an exploded view in FIG. 3. The pan 17

has a pair of tab members 20 extending outwardly from opposing sides of the collar 16. The single pair of tab members are disposed along a central axis A and have a breadth extending outwardly from that central axis in a direction parallel to a second central axis B of pan 17 as shown. The central axis B is perpendicular to the central axis A along which the pair of tab members 20 extends.

In this embodiment, pan 17 is shaped to receive a plurality of cupcakes. The grasping means including collar 16 and tab members 20 are integrally formed in a one-piece configuration with container 17. The lid 14 includes indentations 15 for stacking a second container on top of the lid so that the assembly as shown in FIG. 10 has an upper and lower container. Handle 12 is designed so that the person using the food assembly may use either a single container or both containers depending on whether it is desired to transport either one dozen or two dozen cupcakes.

Pan 17 includes an upstanding ridge 13 over which the downwardly extending skirt 14a fits to position the lid 14 on top of pan 17. A cross sectional view of the stacked pan and lid combinations as shown in FIG. 1 shows the recesses 19 on pan 17 fitting into the upper recesses of the lid 21 disposed on the lower pan of assembly 10.

The embodiment of the invention shown in FIG. 5 and 6 is a rigid support ring 25 used to receive a container for holding a food product. Support ring 25 includes a rim portion having an upstanding edge 29, a collar portion 24, a pair of gripping tab members 28 and an underlying rim supporting section 27. As shown in FIG. 6, the supporting rim section 27 underlies the outer peripheral edge of the cupcake pan 23 as shown. In this embodiment, the ring structure 25 is composed of a material that is rigid enough to support an individual pan 23. Lids such as those shown in the early embodiment fit over the upstanding ridge section 29. The handle 12 fits into the indentations 28a in a fashion similar shown in FIG. 2 of the earlier embodiment. The upstanding ridge section 29 encompasses the outer rim of the container 23 as shown in FIG. 6.

In FIGS. 7 and 8, the food carrier assembly, generally designated 30, includes a tray 31 having an outer collar 39 and an upstanding edge 40. A pair of grasping tab members 32 extends outwardly along a central axis of the tray 31. The cupcake pan 37 having recesses 41 for receiving dough includes a pair of outwardly extending grasping tab members 34 which register over the outwardly extending tab members 32 of tray 31 as shown. The indentations 32a and 34a serve the same purpose as those on the earlier embodiment for receiving the vertically disposed members 8 of handle 12.

In this embodiment, the pan 37 is shaped along its edge to fit over the upstanding ridge 40 of tray 31. A lid 28 having shallow recesses 42 is disposed over the outer edge of pan 37. Lid 38 includes a pair of tab members 36 extending out of opposing sides of the lid 38 and registered with the tab members 32 and 34. Thus, the entire assembly of tray 31, pan 37, and lid 38 may be carried using handle 12 of the embodiment as shown in FIG. 1.

It is possible with the embodiments of FIGS. 5 and 6, and 7 and 8 to carry other types of containers for food products. It is also conceivable that the container 17 having recesses 19 as shown in FIG. 3 may be shaped to receive other types of food products such as pies and cakes. The outer rim structure may either be integrally formed with the container or designed to have a grasp-

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ing ring or tray means which is removably disposed
around the outer periphery of the pan being used for the
food product.
The food carrier assemblies as shown herein are de-
signed to stack at least two containers one on top of the
other. In such an instance, there must be at least two
stirrup means located at each end of a hand gripping
portion on the handle 12. The stirrup means detachably
connect to at least two pairs of tab members located on
the two stacked container means.

While the food carrier assembly has been shown and
described in detail, it is obvious that this invention is not
to be considered as limited to the exact form disclosed,
and that changes in detail and construction may be
made therein within the scope of the invention without
departing from the spirit thereof.

Having thus set forth and disclosed the nature of this
invention, what is claimed is:

- 1. A food carrier assembly comprising:
 - (a) a baking pan shaped to receive a plurality of cup-
cakes and having an outer rim and a lid portion,
 - (b) a supporting ring member having an underlying
rim supporting section below the outer rim to only
provide support for transporting the baking pan,
and
 - (c) handle means disposed on the supporting ring
member for carrying the baking pan as a compact
carrier assembly,
 - (d) the supporting ring member being removably
disposed around the outer rim and including a grip-
ping portion, and
 - (e) the handle means includes a hand gripping portion
and coupling means for detachably connecting to
said gripping portion on the supporting ring mem-
ber,
 - (f) the gripping portion includes tab means projecting
outwardly from opposing sides of the supporting
ring member with the opposed tab means being in
alignment with respect to each other.
- 2. A carrier assembly as defined in claim 1 wherein
there is a plurality of cupcake pans including a first
cupcake pan having a lid portion with means for
stacking a second cupcake pan on top of the lid

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- portion of the first cupcake pan to provide an
upper and lower cupcake pan.
- 3. A carrier assembly as defined in claim 1 wherein
the supporting ring member includes an upstanding
ridge section to encompass the outer rim of the
cupcake pan.
- 4. A carrier assembly as defined in claim 1 wherein
there is a single pair of tab means disposed along a
central axis of the baking pan.
- 5. A carrier assembly as defined in claim 4 wherein
each tab means comprises a single tab member having
a breadth extending laterally outwardly from said
central axis of the baking pan,
the second central axis being perpendicular to said
central axis along which the pair of tab members
extends.
- 6. A carrier assembly as defined in claim 1 wherein
the supporting ring member includes tab means pro-
jecting outwardly from opposing sides thereof with
the opposed tab means being in alignment with
respect to each other,
the coupling means includes means for detachably
connecting to the tab means on the opposed sides
of the cupcake baking pan.
- 7. A carrier assembly as defined in claim 6 wherein
the tab means includes a pair of tab members extend-
ing outwardly from opposing sides of the cupcake
baking pan, and
the coupling means includes a pair of stirrup means
having a structural configuration to provide sup-
port under each of the tab members.
- 8. A carrier assembly as defined in claim 7 wherein
there is a plurality of cupcake baking pans including
a first cupcake baking pan having a lid portion with
means for stacking a second cupcake baking pan on
top of the lid portion of the first cupcake baking
pan to provide an upper and lower cupcake baking
pan, and
there are at least two stirrup means located at each
end of the hand gripping portion to detachably
connect to at least two parts of tab members lo-
cated on the two stacked cupcake baking pans.

* * * * *

United States Patent [19]
Picozza

[11] **Patent Number:** 4,505,506
[45] **Date of Patent:** Mar. 19, 1985

[54] **ADJUSTABLE CARRIER FOR CONTAINERS**

[75] **Inventor: Augusto A. Picozza, Johnston, R.I.**

[73] **Assignee: Dart Industries Inc., Northbrook, Ill.**

[21] **Appl. No.: 493,477**

[22] **Filed: May 11, 1983**

[51] **Int. Cl.³ B65D 61/00**

[52] **U.S. Cl. 294/161; 206/503**

[58] **Field of Search 294/161, 168, 170;**
206/503, 203, 820; 211/128, 129; 220/4 A, 4 D,
72; D8/394

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Primary Examiner—James B. Marbert
Attorney, Agent, or Firm—A. Lewis Worthem, Jr.

[57] ABSTRACT

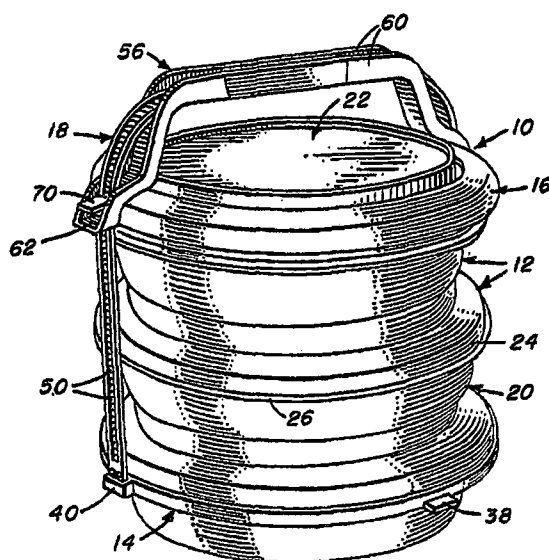
An adjustable carrier for multiple stacked containers, the carrier including a lower collar positionable peripherally about and lockably engagable with the lowermost container, an upper collar engagable about the uppermost container in cover retaining relationship therewith, and multiple straps engaged between the collars. Each strap is snap-locked to the lower collar and projects vertically into an adjustable ratchet and pawl engagement with the upper collar. The upper collar incorporates an integral handle which receives any excess length of the straps therein.

15 Claims, 8 Drawing Figures

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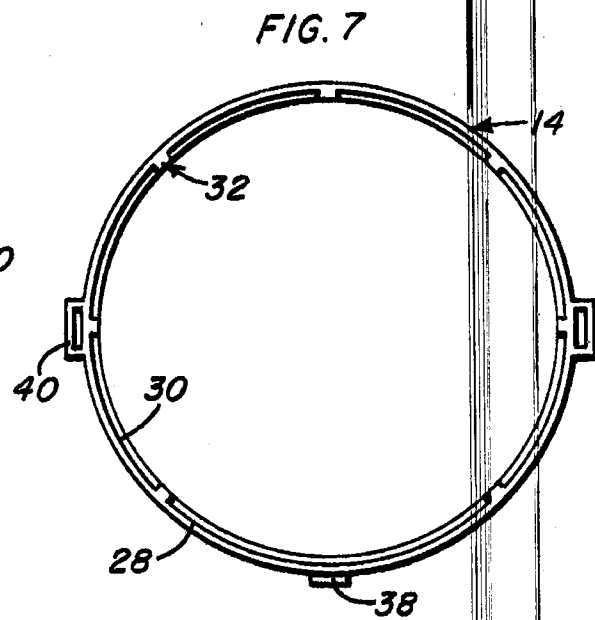
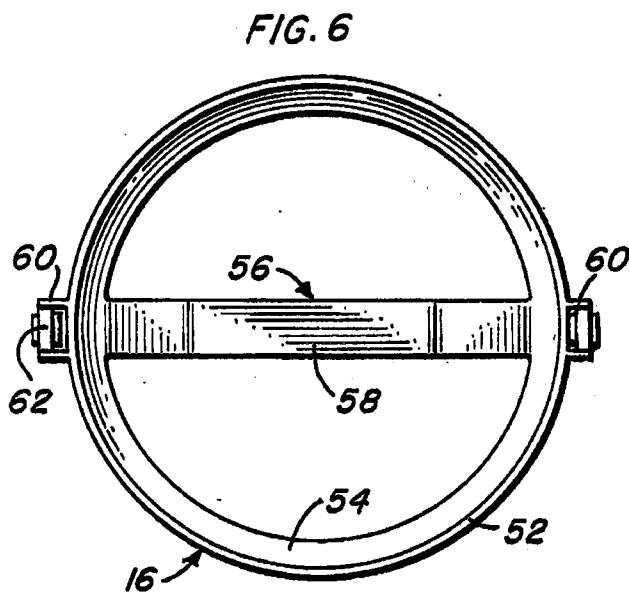
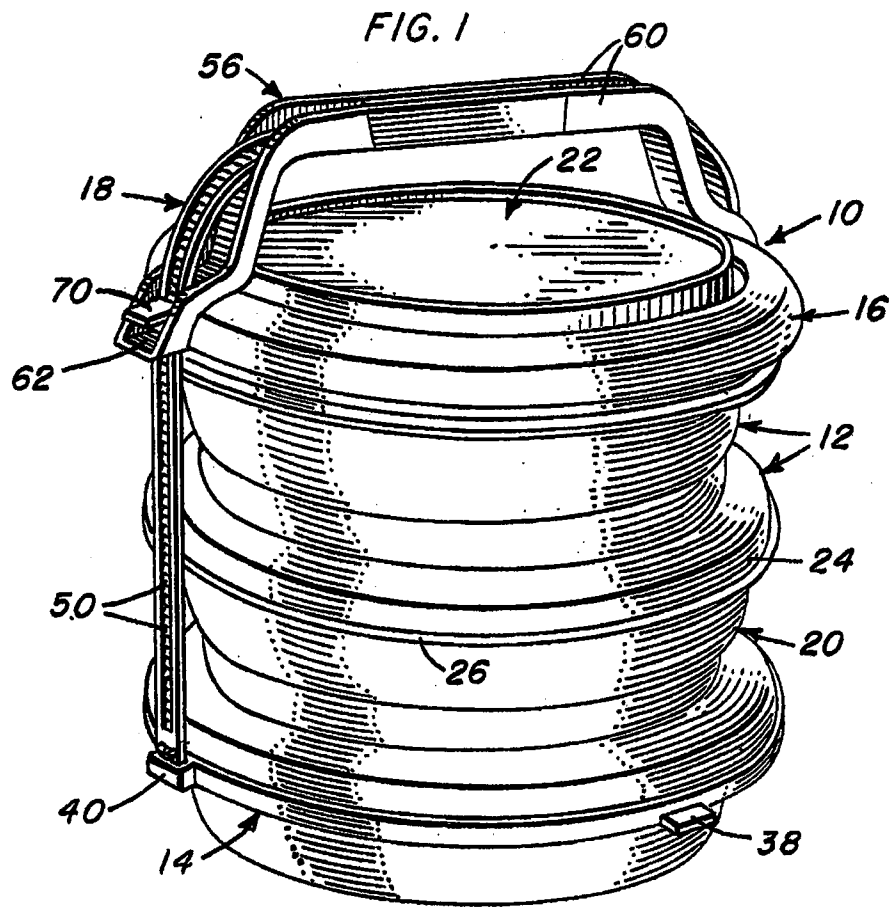


FIG. 3

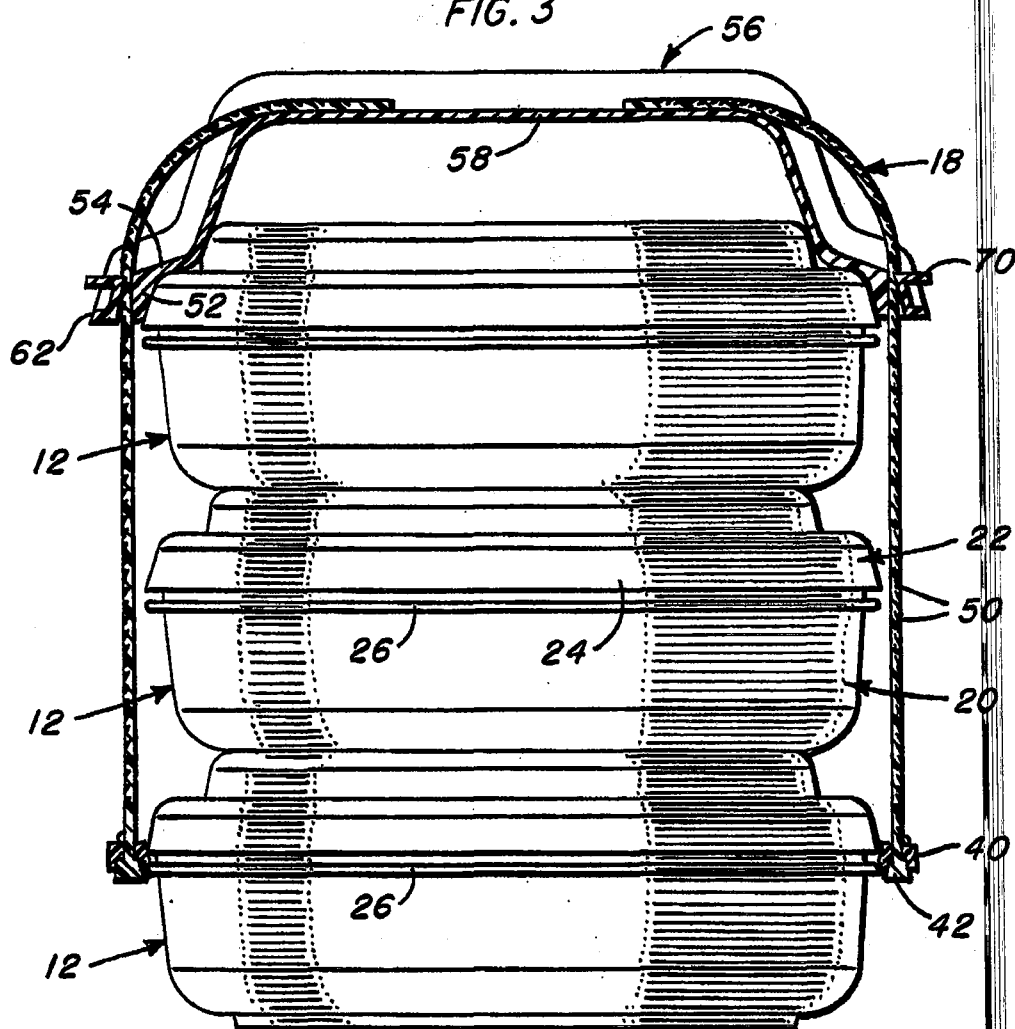


FIG. 4

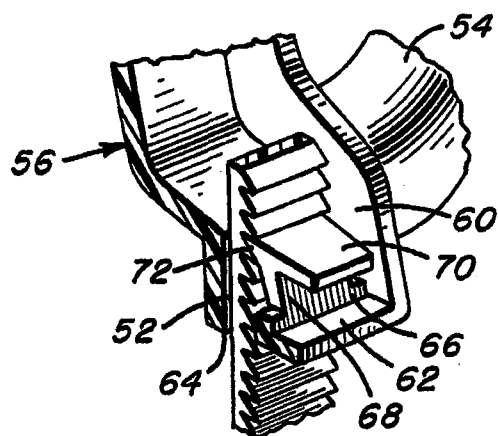
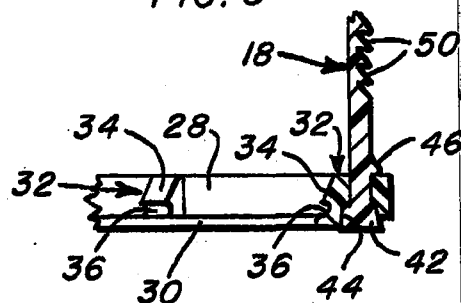


FIG. 5



ADJUSTABLE CARRIER FOR CONTAINERS

BACKGROUND OF THE INVENTION

Carriers for multiple stacked containers, to accommodate either a fixed number of containers or a variable number of containers, are well known as evidenced by the following patents:

A. A. Foos, U.S. Pat. No. 294,217, Feb. 26, 1884

C. H. Stone, U.S. Pat. No. 1,065,633, June 24, 1913

H. E. Hodgson, U.S. Pat. No. 1,490,973, Apr. 22, 1924

J. Puciatto, U.S. Pat. No. 1,499,077 June 24, 1924.

The carriers illustrated in these patents are adapted, in each instance, to cooperate with specific containers, or containers specifically modified to accommodate the carrier. It will also be noted that the containers in these patents function as an assembly wherein only the upper container is provided with a cover, the respective containers therebelow each covering the subjacent container.

A further form of carrier will be noted in Shaw, U.S. Pat. No. 1,852,195, issued Apr. 5, 1932. In this patent adjustment of an overlying top member relative to an underlying base member is effected along rigid ratchet bars through a tooth and pawl system.

The prior art also contains many teachings of flexible bundling straps incorporating multiple ratchet teeth along the body thereof which selectively interlock with a pawl integral with one end of the body, note Geisinger, U.S. Pat. No. Des. 204,545, issued Apr. 26, 1966.

SUMMARY OF THE INVENTION

The invention herein is directed to a carrier which is particularly adapted for the accommodation of multiple stacked closed containers. The carrier is formed of four molded plastic components including lower and upper collars adapted to engage about the lower and upper containers, and a pair of opposed ratchet straps extending between the lower and upper collars and selectively locked thereto.

The lower or base collar engages upwardly about the body of a lowermost container, while the upper or top collar engages downwardly about the top or cover portion of an uppermost container. The carrier is particularly adapted for use in conjunction with containers incorporating an integral peripheral outwardly directed handling flange toward the upper end thereof and immediately below the container cover. As such, the lower collar incorporates an inwardly directed peripheral lip upon which the container flange sits. Coupled with this lip is a plurality of peripherally spaced inwardly directed lugs on the lower collar immediately above the lip. Each of these lugs includes a downwardly and inwardly tapered face terminating in an undercut or recess adapted to receive and retain the container flange on the lip.

The lower collar additionally includes a pair of diametrically opposed outwardly projecting apertured ears. The ratchet straps are upwardly engaged through these ears, with the lower end of each strap, through an enlargement thereon, engaging beneath the corresponding ear.

The upper portion of each strap is introduced through a corresponding aperture or passage on the upper collar, the length of each strap engaged through the respective upper apertures being dependent upon the number of stacked containers to be accommodated. An integral pawl, associated with each upper collar

aperture, engages the associated strap in a manner requiring positive manual manipulation for release. Any number of containers, within the working length of the straps, may be received within the carrier.

The handle, molded integrally with the upper collar, diametrically spans the collar and defines a central hand grip portion. The handle is of an upwardly directed channel configuration and has the opposed ends thereof aligned with the strap latching means through which the upper portions of the straps are received. The individual straps, in turn, are flexible, enabling an inward arcing into the channel configured handle of any portion of the strap projecting vertically beyond the associated latch mechanism.

Other aspects and features of the invention will become apparent in the details of construction and manner of use of the carrier as more fully hereinafter described and claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the carrier of the instant invention mounting three circular containers;

FIG. 2 is an exploded perspective view of the carrier and a typical container;

FIG. 3 is a cross-sectional view of the carrier with received containers illustrated in elevation;

FIG. 4 is a perspective detail of the strap latching means;

FIG. 5 is cross-sectional detail through the lower collar and a strap end engaged therewith;

FIG. 6 is bottom plan view of the upper collar and handle unit;

FIG. 7 is a top plan view of the lower collar; and

FIG. 8 is a top plan view of a further embodiment of the carrier particularly adapted for the accommodation of rectangular containers.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more specifically to the drawings, the carrier 10, illustrated in FIG. 1 in locked engagement with the containers 12, is formed of four components or units, a lower or base collar 14, an upper collar 16, and two ratchet straps 18. This carrier 10 is particularly adapted to receive, and provide a carrying means for, one or more containers 12 of a circular configuration which include a container body 20, an overlying lid or cover 22 with a depending peripheral edge portion 24, and a peripheral outwardly directed handling flange 26 integrally formed with the container body 20 and positioned in slightly spaced relation immediately below the cover 22. The bottom of the container body 20, as well as the top of the container cover 22 are so configured as to allow for a convenient stacking thereof. The number of containers 12 which can be accommodated in the carrier 10 is governed by the length of the ratchet straps 18.

The lower or base collar 14 includes an annular vertical wall 28 with an integral inwardly directed lip 30 peripherally about the lower edge thereof. The wall 28 and lip 30 are of a size and configuration to engage upwardly about the body 20 of the lowermost container 12 and position the lip 30 in underlying supporting relationship to the container flange 26.

It is desired that the lower collar 14 be releasably locked to the container flange 26 to assist in the mounting of the carrier 10, as well as in the stabilization of the mounted containers. Accordingly, a plurality of locking

lugs 32 are integrally formed with the collar wall 28 and lip 30 at peripherally spaced points about the lower collar 14. Each lug 32 projects inwardly from the inner face of the wall 28 and includes an inwardly and downwardly tapered inner face 34 terminating above the lip 30 in an undercut portion or recess 36 into which the container flange 26 can be snaplocked. As will be best noted in FIG. 5, the recess 36 is defined immediately above the lip 30 whereby the flange 26, when snapped into position, is retained in seated engagement directly on the lip 30.

The inherent resiliency of the lower collar 14, as well as possibly that of container flange 26, enables the desired snap-locking of the collar in position about the container. In order to facilitate the manual disengagement of the lower collar 14 from a received container 12, a single laterally outward directed pressure tab 38 is integrally formed with the collar wall 28. With this tab, one need merely exert downward pressure thereon for a downward shifting of the adjoining portion of the lower collar 14 relative to the received container 12. Such pressure will cause a degree of flexure within the lower collar and a release of the container flange from the lug recesses 36.

The lower collar 14 is completed by a pair of opposed apertured ears 40 integrally formed with the collar wall 28 and projecting laterally or radially outward therefrom on a diametric line preferably 90° from the tab 38. These ears 40 receive the ratchet straps 18 vertically therethrough. Each ratchet strap 18, noting FIG. 2 and detailed FIG. 5, includes an enlarged head or block 42 on the lower end thereof which engages within an enlarged downwardly opening socket constituting the lower end of the corresponding ear aperture. If desired, the strap head 42 can have slightly tapered upper surfaces for facilitating entry into the socket 44 and providing for a positive wedging of the head 42 therein. The portion of each aperture above the socket 44 is of a size to closely receive the strap 18 therethrough while precluding passage of the enlarged head 42. A releasable locking of each strap 18 within the corresponding aperture is further effected by the provision of two small integrally formed projections or lugs 46 upwardly spaced from the enlarged head 42 a distance so as to engage with the upper surface of the corresponding mounting ear 40 upon an intimate seating of the head 42 within the socket 44. The inherent flexible nature of the materials utilized allow for the degree of flexure needed to engage the lugs 46.

The straps 18, upward from the headed lower end thereof and terminating short of the upper leading end portion 48, are provided with an outwardly directed rack-like configuration consisting of a plurality of downwardly and outwardly directed ratchet teeth 50 for adjustable locked engagement with the upper collar 16 as shall be described presently.

The upper collar 16, of the same annular size as the lower collar 14, is specifically adapted to engage over the cover of the upper container for a positive retention thereof and the application of a container securing compressive force. This upper collar 16 includes an annular generally vertical outer wall 52 and a top wall 54 integrally formed therewith and projecting inwardly therefrom peripherally thereabout. As noted particularly in FIGS. 3 and 4, the walls 52 and 54 of the collar 16 may incline slightly to more readily conform to the container cover 22 along both the depending peripheral skirt 24

thereof and a generally horizontal portion of the cover immediately thereabove.

The upper collar 16 also includes a carrying handle 56 integrally formed therewith. The handle 56 extends diametrically across the upper collar 16 with the opposed end portions thereof overlying and conforming to the top and side walls 52 and 54. The handle 56 is of an outwardly directed channel configuration, defined by an inner panel 58 constituting a continuation of the top wall 54, and a pair of vertical panels or side flanges 60 projecting in parallel spaced relation from the opposite edges of the panel 58. As will be appreciated from the drawings, the handle 56, at the opposed end portions thereof, rises quite abruptly from the upper collar 16 to a central elongated section which allows for an accommodation of the cover of the uppermost container 12 and provides a freely accessible hand grip.

Noting FIGS. 2, 3, and in particular the detailed showing in FIG. 4, the opposed ends of the vertical panels 60, at each end of the handle 56, are interconnected by a laterally directed bottom panel or end piece 62. This end piece has an inner edge spaced outwardly from the adjacent wall 52 to define a vertical passage or slot 64 through which the upper portion of a strap 18 is introduced. Rising vertically from the inner edge of the cross piece 62 is a vertical panel 66 having a lower portion coextensive with the end panel 62 and similarly integrally formed with the opposed side flanges 60 of the handle 56. The upper portion of the panel 66 is of a reduced width, as at 68, with this portion 68 integrally mounting an overlying horizontally directed finger actuatable latch tab 70. This panel-like latch tab 70 is of equal width with the panel portion 68 immediately therebelow and includes, projecting inwardly of the panel 66, an integrally formed pawl defining portion 72. The outer portion of the latch tab 70 projects in overlying spaced relation to the corresponding end panel 62. In this manner, the latch mechanism can be conveniently manipulated, for the selective retraction of the pawl 72, by downwardly manual pressure on the tab 70. The inherent resiliency of the material will, upon a release of manual pressure, automatically return the pawl 72 into cooperative latching or locking engagement with the ratchet strap 18, more particularly with a ratchet tooth 50 thereof.

As will be appreciated, the ratchet straps 18 are positioned to have the ratchet teeth 50 thereon outwardly directed and thus readily engagable with the inwardly directed pawls 72 of the two latch mechanisms, one to either end of the handle construction 56. In those instances wherein the full operative length of the ratchet straps 18 is not required, the upper portions of the straps 18, as will be best noted in FIGS. 1 and 3, may be arced or deflected into the channel-shaped handle 56. The upper portions of the straps 18 will thus be contained within the handle by the snugly fitting flanges 60. As best seen in FIG. 8, containment of the straps is effected also by a central handle portion 80 in which the flanges 60 are slightly inwardly leaning.

From the foregoing, it is to be appreciated that a unique adjustable carrier has been defined. This carrier utilizes four components, each formed of an appropriate synthetic resinous material, which interlock about a stack of containers in a manner so as to confine the containers for the handling or carrying thereof as a single unit. The carrier, particularly in light of the container gripping features of the lower collar thereof, is specifically adapted for the accommodation of contain-

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ers incorporating a peripheral handling rim or flange at an intermediate point along the height of the container.

While the carrier, in the detailed principal embodiment thereof, utilizes annular collars and particularly adapts to annular containers, it is to be appreciated, noting FIG. 8 in particular, the collars can assume other configurations, for example rectangular, in those instances wherein containers of such other configurations are involved. Such containers would preferably incorporate a peripheral handling flange, with the rectangular carrier 74, other than for the rectangular configuration of the lower and upper collars thereof, incorporating all of the features of the carrier 10, and similarly interlocking and interengaging with the received containers.

The foregoing is considered illustrative of the principals of the invention and, in conjunction with the following claims, is considered to encompass additional embodiments and modifications as may occur to those skilled in the art.

I claim:

1. A carrier for containers, said carrier comprising a lower collar, an upper collar, and flexible, elongated strap means therebetween having closely spaced ratchet teeth formed along the length thereof, said strap means having upper and lower ends, strap retaining means on said lower collar for receiving and retaining the lower end of said strap means, strap retaining means on said upper collar having means for engaging and locking to the ratchet teeth of said strap means, and lock means on said lower collar for releasably locking said lower collar to a container receivable therein.

2. The carrier of claim 1 wherein said upper collar includes a generally vertical peripheral wall with an upper wall projecting inwardly therefrom peripherally thereabout, said walls defining an inner surface engageable with and about the upper portion of a container received therein.

3. The carrier of claim 2 wherein said lower collar includes inner and outer peripheral sides and upper and lower edges, the inner side of said lower collar including an inwardly directed lip peripherally thereabout adjacent the lower edge thereof for supportive engagement with a received container.

4. The carrier of claim 3 wherein said lock means comprises lug means projecting inwardly from said inner side of the lower collar above the inwardly directed lip, and recess means defined immediately below said lug means and between said lug means and said lip for a snap-locking of a peripheral portion of a received container therein.

5. The carrier of claim 4 wherein said lug means comprises a plurality of individual lugs spaced peripherally about said lower collar.

6. The carrier of claim 5 including a tab integral with said lower collar and projecting outward from the outer side thereof for selective manual engagement for release of the lower collar from a received container.

7. The carrier of claim 6 wherein the strap retaining means on the lower collar comprises diametrically opposed outwardly projecting ears, each defining a vertical aperture therethrough, said strap means comprising a pair of vertically elongated straps, each upwardly receivable through one of the ear apertures, each strap including an enlarged head on the lower end thereof, said head being larger than the associated ear aperture and incapable of passage upward therethrough.

8. A carrier for containers, said carrier comprising:

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a lower collar including inner and outer peripheral sides and upper and lower edges, the inner side of said lower collar including an inwardly directed lip peripherally thereabout adjacent the lower edge thereof for supportive engagement with a received container;

an upper collar including a generally vertical peripheral wall with an upper wall projecting inwardly therefrom, peripherally thereabout, said walls defining an inner surface engageable with and about the upper portion of a container received therein;

a pair of vertically elongated straps between said lower collar and said upper collar, each strap having upper and lower ends, and an enlarged head on the lower end;

strap retaining means on said lower collar for receiving and retaining the lower end of the straps comprising diametrically opposed outwardly projecting ears, each defining a vertical aperture therethrough, said straps being each upwardly receivable through one of the ear apertures, said head being larger than the associated ear aperture and incapable of passage upward therethrough;

strap retaining means on said upper collar for engaging and locking to said strap means;

lock means on said lower collar for releasably locking said lower collar to a container receivable therein comprising a plurality of individual lugs spaced peripherally about said lower collar and projecting inwardly from said inner side of the lower collar above the inwardly directed lip, and recess means defined immediately below said lug and between said lug means and said lip for a snap-locking of a peripheral portion of a received container therein;

a tab integral with said lower collar and projecting outward from the outer side thereof for selective manual engagement for release of the lower collar from a received container.

9. The carrier of claim 8 wherein each of said straps includes ratchet teeth defined along the length thereof, the strap retaining means on the upper collar comprising means defining a vertical passage for each strap, and a pawl on the upper collar directed inwardly relative to each passage for engagement with selected ratchet teeth of the strap received therethrough.

10. The carrier of claim 9 including a handle spanning the upper collar between said strap accommodating passages, said handle including an outwardly directed recess along the length thereof for selective reception of the upper portions of the straps therein.

11. The carrier of claim 10 wherein the handle recess is defined by laterally spaced generally vertical flanges, said flanges extending transversely across the upper collar to each side of each of the strap retaining means on the upper collar.

12. The carrier of claim 8 including integral projections on each of said straps in spaced relation above the enlarged head for engagement with the upper surface of the corresponding ear for cooperation with the enlarged head in releasably fixing the strap end to the ear.

13. A carrier for containers, said carrier comprising:

a lower collar;

an upper collar having a generally vertical peripheral wall with an upper wall projecting inwardly therefrom peripherally thereabout said walls defining an inner surface engageable with and about the upper portion of a container received therein;

April 29, 1952

J. H. TABERER
SECTIONAL CONTAINER

2,595,113

Filed Jan. 20, 1948

2 SHEETS—SHEET 2

Fig. 4.

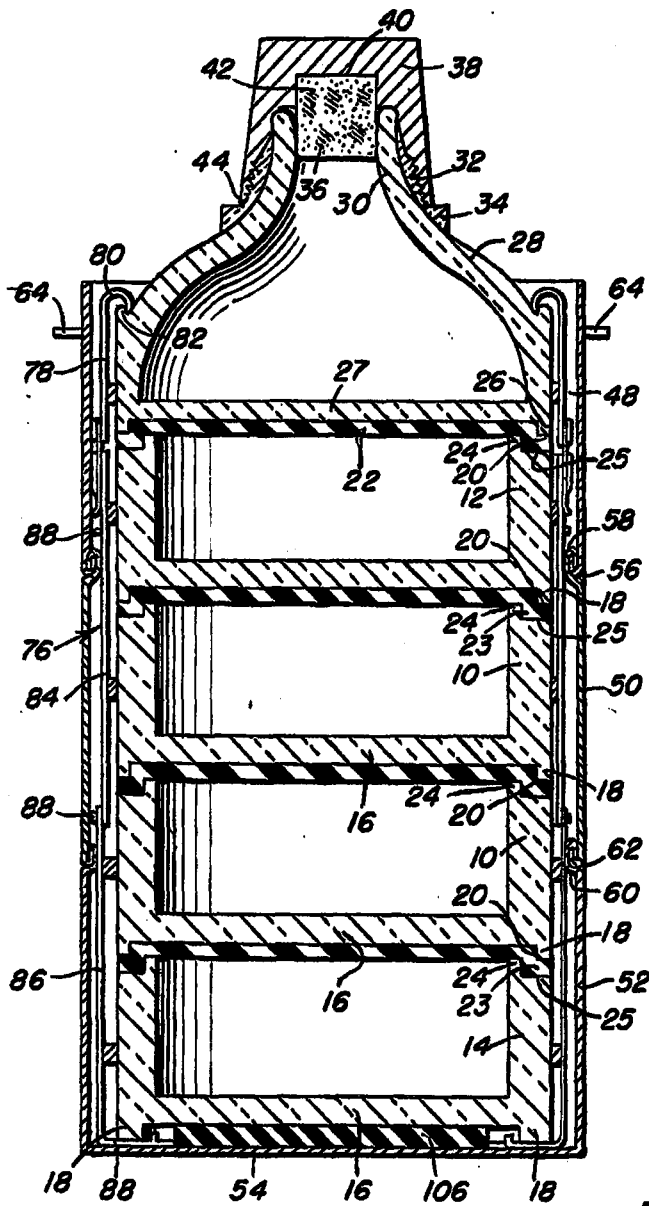


Fig. 5.

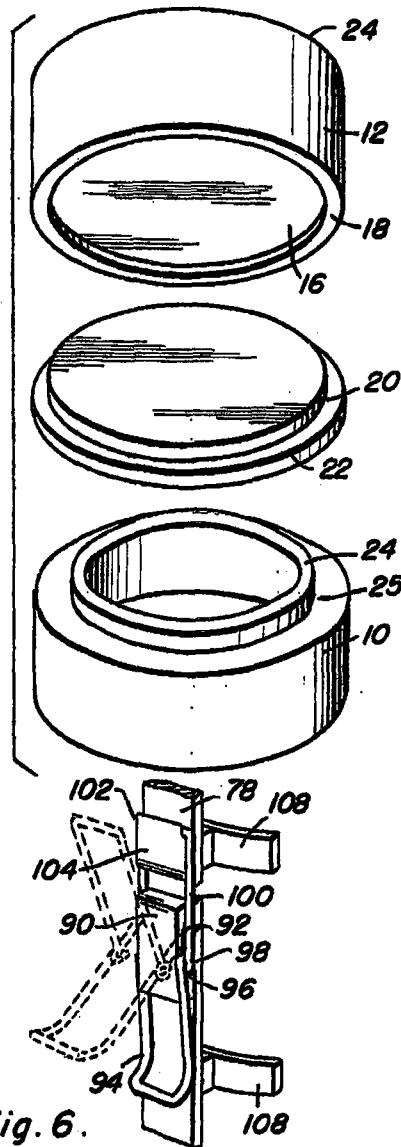
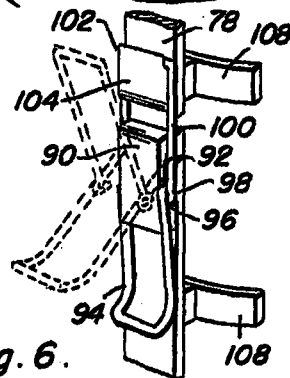


Fig. 6.



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UNITED STATES PATENT OFFICE

2,595,113

SECTIONAL CONTAINER

John H. Taberer, Burlington, N. J.

Application January 20, 1948, Serial No. 3,309

3 Claims. (Cl. 220-4)

1

This invention relates to new and useful improvements in containers for edibles and the primary object of the present invention is to provide a container including a plurality of food holding receptacles and embodying novel and improved means for adjustably retaining said receptacles in a stacked position so that one or more of the receptacles may be removed for reducing the overall length of the assembled container.

Another important object of the present invention is to provide a sectional container including a group of dish-like food receptacles and novel and improved means for sealing said receptacles in stacked position one above the other to retain food placed in the same in a fresh condition for long periods of time.

A further object of the present invention is to provide a sectional container including a sectional housing having a plurality of separable sections facilitating the removal of a selected section or sections for reducing the length of the container.

A still further aim of the present invention is to provide a sectional container for edibles that is small and compact in structure, simple and practical in construction, strong and reliable in use, neat and attractive in appearance, relatively inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the sectional container constructed in accordance with the present invention;

Figure 2 is a similar view of Figure 1, and showing the housing, closure and carrying handle removed therefrom;

Figure 3 is a perspective view of the liquid chamber used in conjunction with the present invention, and showing the closure cup and stopper removed therefrom;

Figure 4 is a longitudinal vertical sectional view taken substantially through the center of Figure 2;

Figure 5 is a group perspective of a pair of food receptacles and a sealing disk that is disposed between the same;

Figure 6 is a fragmentary perspective view of the latching means employed for retaining the

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section holding straps in a fixed position; and, Figure 7 is a fragmentary perspective view of one of the section holding straps used in conjunction with the present invention.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention, the numeral 10 represents a plurality of annular dish-like receptacles or sections, preferably of durable glass construction. For the purpose of description, one of the receptacles will be referred to as an upper section and will be indicated by the numeral 12 and a further of the receptacles will be referred to as a lower section which is indicated by the numeral 14. Projecting outwardly from the lower walls 16 of each of the dish-like sections, is an annular rib or flanged portion 18 that frictionally engages an annular recess or seat 20 provided in the upper face of a sealing disk 22. One of these sealing disks 22 is frictionally positioned on the upper reduced annular edge 24 of the dish-like sections 10. Integrally formed with the lower face of the disks 22 are annular sealing rings 23 that frictionally engage annular notches or recesses 25 provided in the upper edges of the dish-like sections 10 adjacent the edges 24.

Frictionally engaging the annular recess in the sealing disk that is supported on the upper edge 24 of the upper section 12, is an annular ring 26 integrally formed with the flat lower wall 27 of a hollow substantially frusto-conical liquid chamber 28 having a discharge mouth 30. Fixedly secured to the outer periphery of the mouth 30, is an externally threaded sleeve 32 having an inner, enlarged annular flanged portion 34. In order to close the mouth 30, there is provided a stopper 36 of cork or any other suitable resilient material. Receivably engaging the sleeve 32, is an internally threaded closure cap 38 having a central, annular recessed portion 40 that frictionally engages one end 42 of the stopper 36 that extends outwardly from the mouth 30. When this closure cap 38 is properly applied on the sleeve 32, the innermost extremity 44 of the said cap 38 will frictionally engage the flanged portion 34 of the sleeve to prevent foreign matter from entering between the sleeve 32 and cap 38.

The numeral 46 represents the housing used in conjunction with the present invention generally, including an upper sleeve-like section 48, an intermediate sleeve-like section 50, and a lower sleeve-like section 52 that is closed at its lower end by an integral closure plate 54.

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Turned inwardly from the lower edge of the upper sleeve-like section 48, is a plurality of circumferentially spaced arcuate channels 56 that slidably engage circumferentially spaced arcuate channels 58, offset at the upper edge of the intermediate sleeve-like section 50 so that the outer periphery of the upper sleeve-like section 48 will be coplanar or flush with the outer periphery of the intermediate sleeve-like section 50. Offset at the upper edge of the lower sleeve-like section 52 are circumferentially spaced arcuate channels 60 that slidably engage circumferentially spaced inwardly turned arcuate channels 62 at the lower edge of the intermediate section 50 so that the lower sleeve-like section 52 will be coplanar with sections 48 and 50.

Projecting outwardly from diametrically opposite sides of the upper section 48 is a pair of locking pins or lugs 64 that lockably engage arcuate slots or bayonet slots 66 in the annular wall 68 of a closure cup 70 which may be employed for receiving liquid poured from the chamber 28. Pivotally and removably engaging the lugs 64 are the eye ends 72 of a U shaped carrying handle 74.

The numeral 76 represents the sectional strap used in conjunction with the present invention generally, comprising an upper arm 78 having a hook 80 at one end that frictionally engages an annular rib 82 about the outer periphery of the chamber 28, an intermediate arm 84, and a lower arm 86 having an angulated lower end 88 that engages the annular rib 18 projecting outwardly from the lower wall of the lower dish-like section 14. Projecting outwardly from the intermediate arm 84, is a plurality of lugs 88 that selectively engage a suitable lug engaging recess provided in the upper end of the lower arm 86. Fixed on the upper end of the intermediate arm 84, is a pivot block 90 that pivotally supports the intumed ends 92 of a U shaped actuating lever 94 having loops 96 adjacent its intumed ends 92 that pivotally engage the intumed ends 98 of a U shaped latch element 100 that lockably engages a lip 102 at one edge that is provided at one end of a rigid plate 104 fixed on the lower end of the upper arm 78.

It should be noted, that a cushion disk 106 of suitable resilient material is fixed to the inner face of the closure plate 54 to frictionally engage the lower wall of the lower section 14 to space the annular rib 18 from the closure plate 54. Also, arcuate straps 108 fixedly spaced relative to the arms 78, 84 and 86 frictionally embrace the sections 10 and chamber 28 to provide a space between the housing and sections 10 and chamber 28.

In practical use of the device, a group of straps 76 are employed for retaining the sections 10 in a fixed stacked position one on the other. Obviously, one or more of the sections 10 and the sections 50 may be removed from the present container for reducing the overall length of the same and without disturbing the efficiency of the same for retaining food or liquid in a cool or hot condition.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding

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of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A container comprising a plurality of dish-like sections stacked one above the other and including an upper section having an upstanding peripheral rib on its outer surface and a lower section having a peripheral rib on its undersurface, a pair of elongated members retaining said sections in assembled position, said members having upper terminal hooks overlying and engaging said rib on said upper section and lower terminal hooks engaging under the rib on said lower section, said members including a pair of straps, and means releasably joining said straps.

2. The combination of claim 1 and arcuate straps fixed to said members and embracing said sections.

3. In a container, upper and lower dish-like sections, each of said sections including a flat bottom wall and a peripheral wall rising from said bottom wall, the upper edge of the peripheral wall of said lower section having a continuous recess therein, a continuous rib depending from the bottom wall of the upper section, and a resilient sealing disk interposed between said section and having a continuous rib on its lower face, the rib on said disk being received in the recesses in the peripheral wall of said lower section, and the upper face of said disk having a continuous groove receiving the rib depending from the bottom wall of said upper section.

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CONTAINER SYSTEM FOR CARRYING AND SUPPLYING FOOD AND WATER FOR PETS

This invention relates generally to containers and specifically to a container system for carrying and supplying food and water for pets. When travelling, a substantial percentage of the public takes along the family pets, show dogs or cats, or other species that need fresh food and fresh cool water.

Even when away from home for a part of a day pets should have fresh water available, and preferably food if needed, in a convenient, sanitary, safe and economical manner.

An object of this invention is to provide an interconnectable container array particularly suited for the purpose of refreshing pets at intervals on trips and similar occasions.

In the prior art a number of disclosures of interconnectable containers have been made in U.S. Patents:

U.S. Pat. No. 2,097,186 to D. M. Hinnekamp, 10-26-27, discloses separately covered cylindrical lower insulated container detachably affixed to cylindrical upper container which has a bail type handle.

U.S. Pat. No. 2,287,312 to T. G. A. Kader, 6-23-52, discloses plural cylindrical nested containers, each with a separate cover, and a bail type handle;

U.S. Pat. No. 2,604,976 to F. A. Sarf, 7-29-52, discloses a cylindrical lower container for liquid, with separate top, and a cylindrical sleeve-like upper portion for food, with separate cover, and a bail type handle;

U.S. Pat. No. 3,806,699 to R. T. Hanning, 4-23-74, discloses a liquid-tight lower container or base detachably mounting above it in series two other containers, with cover and holding strap;

U.S. Pat. No. 3,489,267 to P. L. Carpenter 1-13-70 discloses a vertically nested series of containers with bail type handles; FIG. 4 indicates the bottom container as suited for holding liquid.

However, it is believed that no available container array can provide all the advantages of the present invention in accordance with the objects and advantages of this invention.

Further objects are to provide a system as described which is designed:

- to be completely self-contained if desired;
- to transport pet food and water easily and sanitarily with double-seal throughout;
- to provide at least nine modes of use with the four elements making up the invention in various combinations;

- to provide three completely closed compartments when all units are assembled together with a provision for ice in the middle compartment to cool selectively the upper and lower compartments;

- to provide a total of five feeding and/or storage pans to select from, and three substantially different heights for feeding pets, using selected ones of the four elements;

- to provide for sanitary closure of all feeding pans after use, with self draining features for three pans;

- to provide feeding pans of two different depths;

- to provide a convenient flange grip for selected elements easing the problem of separating the frictionally held elements;

- to provide for assuring tight assembly together by one push downward on top of the assembly; and

to provide a system which is convenient to use and to clean, which is durable, inexpensive, and attractive in appearance.

In brief summary given for cursive description only and not as limitation, the invention includes as an improvement a series of containers vertically sealable in combinations and in full assembly forming several compartments and including top element in the form of a feeding pan downwardly oriented, upper elements in the form of an open top container closable by the top element and with a downwardly oriented feeding pan on the bottom, intermediate element of two feeding pans back to back, and a lower element in the form of an open top container connectable by means of the intermediate element to the upper element.

The above and other objects and advantages of the invention will become more readily apparent on examination of the following description, including the drawings, in which like reference numerals designate like parts.

FIG. 1 is a side elevational view of the invention in full assembly showing top elements, upper element, intermediate element and lower element;

FIG. 2 is an end elevational view at right angles thereto;

FIG. 3 is an elevational view in section of the lower element and intermediate element of the invention in assembly;

FIG. 4 is a side elevational exploded view in section of the elements of the invention;

FIG. 5 is an end elevational exploded view thereof;

FIG. 6 is a perspective view of the invention in full assembly; and

FIG. 7 is a cross sectional view typical of the upper and lower elements.

FIGS. 1 and 2 show the invention in full assembly, as comprising top element 20A, upper element 20B, intermediate element 20C, lower element 20D. Bail handle 22 conventionally attaches to the upper element at swivels 24 on a centerline of the upper element.

All the elements are preferably generally laterally coextensive except for all-around protrusive planar flange 26 on the top element 20A and similar flange 28 on the intermediate element 20C, which flanges act both as bumpers to help protect the sides of the elements from chafing on obstacles, to aid carrying and to provide hand grips for separating the elements, which are frictionally held together by sealing inter-fitting rim structure.

FIG. 3 shows in section a detail typifying the sealing together of elements. Here intermediate element 20C sealing means closes the lower element 20D. For this, the intermediate elements is in the form of identical or symmetrically invertible back-to-back pans 30 and 32, one facing up and one facing down, with respective inner rims 34, 36 which frame the respective pans all around. The flange structure 28 is preferably horizontally planar and extends between the rims as a pan bottom for both pans. Outer rims 38, 40 on the respective pans form with the inner rims 30, 32 respective uniform continuous slots 42, 44, around the perimeter; each is proportioned to receive a tightly engaging upward rim 46 around the open top of the lower element sealing it closed by a double seal.

The lower element rim 46 is preferably recessed inwardly in the wall 48 to leave respective steps 50, 52 around the outer perimeter and the inner perimeter of

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the lower element on which abut the respective rims of the pans.

Typically a tough dense plastic such as solid polystyrene sheet forms the intermediate element flange and inner rim structures and the engaging means rim 46 on the lower element, and hermetically sheathes the lower element unitary side and lowermost portion or bottom insulation 54, which may be polystyrene foam. The outer rims of the intermediate element may be of the same insulative foam.

FIGS. 4 and 5 show respective exploded views of the entire assembly; top element 20A, upper element 20B, intermediate element 20C, lower element 20D, and bail handle 55.

The top element flange 26 extends fully across in the same manner as the intermediate element flange, and forms the bottom of a pan 56 preferably identical with either of the pans 30, 32 of the intermediate element.

The upper element is preferably the same in structure as the lower element except that it has in addition a downward means 58 for engaging the sealing means like the upward one 46, and the swivels for the handle.

Preferably all sealing means and means for engaging the sealing means are identical in shape, size and fit so that the double rim and single rims fitting between them form a double seal interchangeably throughout. It will be evident that double rims can be exchanged for single rims throughout without departing from the spirit of the invention although some advantages would be different, as in cost and convenience of manufacture.

FIG. 6 shows a perspective view indicating that the elements may have rectangular plan shape with rounded corners 60.

FIG. 7 shows that the interior portions of the containers may be characterized throughout by easy to clean rounded corners.

Inspection of the Figures will indicate the versatility of the invention.

An animal can be fed (1) from the pan of the top element 20A inverted, (2) from the upper element 20B upright, (3) from the pan formed by the upper element 20B inverted (4) (5) from both the pans of the intermediate element 20C (get one pan dirty, flip it over and supply a fresh pan) and (6) from the lower element 20D. The pans offer less capacity preferably than the relatively deeper upper and lower elements.

Further, to help prevent fighting of animals of different sizes while being fed, the pans can be of different heights: alone or in connected assembly from the lowest (top element 20A inverted and set on ground), through the next lowest (intermediate element 20C set on ground), and the next (intermediate element 20C fitted on lower element 20D), and the highest (intermediate element 20C fitted on upper element 20B). In this last combination, the upper element 20B can be turned upside down and drained while simultaneously serving as a support locking to and elevating the intermediate element 20C.

Food or water can be carried in transit in any of three containers: upper element 20B, between upper element

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and intermediate element 20C, and in bottom or lower element 20D.

Ice can be carried in the middle container formed by the space between the upper element 20B and the intermediate element 20C, to keep both upper element and lower element spaces cool when carrying solid food in the upper element, if more chilling is desired in the upper element 20B, coupled with more retention of cooled air in it, it can be inverted and sealed to the intermediate element 20C which can carry the ice. Similarly the lower element 20D can carry ice in this configuration, or of course, food or water.

Two sealed containers can be carried separately if desired, by combining the top element 20A with either the upper or lower element and the intermediate element with the other.

This invention is not to be construed as limited to the particular forms disclosed herein, since these are to be regarded as illustrative rather than restrictive. It is, therefore, to be understood that the invention may be practiced within the scope of the claims otherwise than as specifically described.

What is claimed and desired to be protected by United States Letters Patent is:

1. In a system of container elements vertically nestable in interconnection for providing covered storage and transport of animal food and drink the system including an upper element, a lower element, an intermediate element between the upper and lower elements, first and second means on the intermediate element for sealing together the upper and lower elements, and the upper and lower elements having means for engaging the sealing means, the improvement comprising: said sealing means comprising respectively relatively shallow identical feeding pans back-to-back in the intermediate element structure, the upper and lower elements comprising respectively relatively deeper containers open at the top, the open top of the upper element also having means for engaging the sealing means, a top element, third means for sealing on the top element, the third means for sealing comprising the top element having a horizontal portion with a relatively shallow feeding pan which is downwardly oriented therein and proportioned for engagement with all said means for engaging the sealing means, all said elements being generally co-extensive laterally, the top element and the intermediate element having respective planar flanges protruding all around beyond the perimeter thereof for protection and for gripping, all said elements having in plan view a rectangular shape with rounded corners, the means for sealing and the means for engaging having respective rim structures forming continuous double seal, said rim structures including double rim structure on said means for sealing and single rim structure on said means for engaging, proportioned for tightly fitting between said double rim structure, all said elements having foam insulation completely therearound, the upper and lower elements having foam insulation in the lower most portions thereof and material encasing substantially all said foam structure except at the means for sealing, and a bail type handle for supporting all said elements when carried in assembly.

* * * * *

PORTABLE MODULAR FOOD CONTAINER

BACKGROUND OF THE INVENTION

The present invention relates to containers for conserving and carrying domestic food.

The types and models of food containers are varied in their design and materials of manufacture. The present invention is directed toward the general construction of said containers by which individual portions of foodstuff may be carried without mixing them and may also be contained in such a manner that spillage is avoided.

The majority of the food containers are basically composed of a series of containers disposed one over the other. The containers are held in position by rods through which holding flanges of the containers pass, so that when in position the whole assembly may be easily carried. However, the transportation of the already known types of multiple food containers is not a safe one, because the assembled unit is liable to easily disassemble during transportation causing the contents to spill. Likewise, the temperatures of the contents normally reaches that of the surroundings because the assembly lacks insulating means such as the insulating chamber of the present invention.

In the present invention, the temperature of the contents, which are generally foodstuffs, is held at a preselected value. This is achieved by the fact that the various units are sealed when they are assembled, which is possible because, in addition to the sealing of the individual units of the assembly, an insulating air chamber is provided in their walls.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an improved modular food container by which it is possible to carry small portions of any type of food in a safe condition avoiding spillage, while at the same time keeping the food under thermal conditions whereby it is possible to preserve the basic food characteristics whether they are dry or moist or whether they are in a solid or liquid state.

Another object of the present invention is to provide an improved modular food container in which it is possible to seal the containers by manual operation which facilitates the foodstuff transportation.

Another object of the present invention is to provide an improved modular food container, by which the conservation of constant temperature lets the consistency and characteristics of the food be better conserved.

A further object of the present invention is to provide an improved modular food container which, because of its integrated construction as well as of the pivotal character of its handles, can be stored without occupying excessive space and can be converted easily for transportation since it is manually transported most of the time.

The present invention relates to improvements in modular food containers basically comprising a series of containers. Each container is formed as a unit having an inner storage body and an exterior body. The interior and exterior bodies of each unit are integrated into a single piece such that an empty space is left therebetween which forms an air chamber whereby the temperature within the inner body is maintained substantially constant.

The above-mentioned air chamber may optionally be filled with an insulating material. In the upper part of each container unit there is a flange that extends peripherally around the container and which folds inwardly to form four separate inner grooves which are evenly distributed. The bottom of the container is sealed with a laminar flat element having a peripheral shape the same as that of the container. The lower part of the laminar flat element contains four uniformly distributed radially protruding tongues of a length similar to the depth of the grooves formed by the folded portions of the upper flange of the container. Thus, the tongues on the lower part of one container may be fit into the grooves of the upper part of a lower container.

The above described combination of tongues and grooves permits the assembly of the whole container by placing the various units one above the other and holding them in place by engaging the tongues of the upper unit with the grooves of a lower unit. As many or as few units as may be convenient or desired may be connected in this manner. Moreover, there is a flat element or cover that is placed over the container unit occupying the top position. The cover contains four tongues that are equally located around the cover bottom part, and which are capable of being inserted into the grooves of the top container unit.

Both, in the containers, as well as in the cover, there are vertically disposed alternating protruding flat areas which shape the body or external face thereof so that it is possible to grab the container manually in order to easily assemble or disassemble the multiple unit modular food container.

In addition, in the upper portion of the container cover there are rotatable holders which, when they rotate 90°, become concealed in a predisposed channel groove in the uppermost cover whereby the space required for storing the food container is reduced.

On the other hand, when the food container is going to be carried, the holders are rotated 90° in the opposite direction from one another so that they attain a vertical position whereby the whole unit is easily transported.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be described in terms of a particular preferred embodiment in reference to the accompanying drawings.

FIG. 1 is a perspective view of the present invention;

FIG. 2 is an exploded isometric view of one of the units of the container of the invention showing the inner and the outermost upper cover;

FIG. 3 shows a plan view of the uppermost cover of the invention; and

FIG. 4 shows an elevational view of one of the lower units of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to the figures, FIG. 1 shows an embodiment of the food container of the invention 16 that is formed by two modular container units 6 and an upper external cover 14. Each container unit 6 and upper cover 14 has an outer face 5 shaped by protrusions 17 and flat areas 10 which facilitate manual grasping of the unit with the purpose of separating or disassembling its different components. Also, in the cover 14, there are handles 13 that are pivotally rotatable and that can be moved to a storage position in a groove 18 for protection and for reducing the storage space for the

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container. In other words, these handles can be rotated to an upright position for carrying the whole assembled unit, or can be laid into groove 18 for storage.

Each container unit 6 is composed of an inner body 15 (see FIGS. 1 and 2), and an outer body 5. A peripheral shoulder or upper crown 19 separates the inner body 15 and outer body 5 respectively, thereby forming an insulating thermal chamber 20, which is particularly important since it maintains the contents of inner body 15 at a substantially constant temperature which is generally the original temperature at which the contents were before they were placed inside the container. For this purpose also, the insulating chamber 20 may be either evacuated, or else, it may receive insulating materials such as polyurethane or some other kind of plastic foam such as, for example, styrene foam or other materials having similar properties. The upper crown 19 is connected to a flange 11 which bends in at four positions to form four grooves 8 in which the tongues 9 of another container unit 6 can engage. Indeed, in order to assemble the two modular containers of the embodiment shown, the upper module 6 is placed over the other lower module 6 in such a manner that tongues 9 of module 6 are placed approximately halfway between grooves 8, whereupon the two modules are rotated in opposite directions with respect to one another so that tongues 9 are inserted in the grooves 8. In the same manner module 6 and upper cover 14 are coupled. In order to achieve a better sealing between each container 6 or between container 6 and the cover 14, an inner substantially flat cover 7 covering the top of inner body 15 of the container is laid flat on the peripheral shoulder or upper crown 19. As observed in FIG. 2, the annular flange 7a of the flat cover 7 will lie on shoulder 19 while rim 7b of the cover 7 will fit snugly to seal the top of body 15 which is covered by laminar section 7c.

Inner cover 7 is pressed down by the element that is placed immediately above it whether it is a modular container unit 6 or the upper cover 14, thereby ensuring that the contents of the body 15, which is generally food, is substantially conserved at the temperature at which it was when deposited.

Finally, FIG. 2 shows the external configuration of modular unit 6 of the food container 16, which is shaped to facilitate handling during assembling and disassembling operations. The shape consists of protrusions 17 and flat sections 10.

Also, a reduction in the space required for storage is achieved by the present invention since food container 16 has arch shaped handles 13, which rotate pivotally 90° for storage within channel groove 18. In this manner, the whole container can be stored as shown in FIGS. 3 and 4, wherein handles 13 do not occupy any space above the top of the stored container.

It is considered to be manifest, however, that many modifications and variations to the disclosed invention may be made without departing from the spirit and scope thereof.

I claim:

1. Multiple modular food container assembly comprising:

a plurality of individual container units, each of said individual container units comprising: a cylindrical wall forming an inner body; an outer body concentrically separated from said inner body, said outer body comprising an outer wall with alternating spaced flat portions and outwardly protruding portions to facilitate grasping; a shoulder bending

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outwardly from said inner body and sealingly joining said outer body; an annular flange formed by a portion of said outer wall extending upwardly from said shoulder, said annular flange having an upper edge folding inwardly from said outwardly protruding portions to form flange grooves defined by said inwardly folded upper edge and said outwardly protruding portions; a flat element enclosing the bottom of said unit, said flat element having alternating tongues, each of which has a rectangular periphery so shaped that it fits one of said flange grooves whereby tongues of one container unit can be inserted in flange grooves of another container unit when assembling the container units; and a substantially flat inner cover element removably covering said inner body; and

an external cover having a top with a channel groove and a bottom sealing element with peripheral alternating tongues, and a pair of pivotally attached handles connected for movement between an upright position and a storage position in said channel groove, said external cover having alternating flat portions and outwardly protruding portions which align with said flat portions and outwardly protruding portions of said container when said food container is assembled.

2. The multiple container assembly according to claim 1, wherein the separation between the cylindrical wall forming the inner body and the outer body 5 comprises an insulating chamber.

3. The container assembly according to claim 2, wherein said insulating chamber is under vacuum.

4. The container assembly according to claim 2, wherein said chamber is filled with foamed insulating material.

5. The multiple container assembly according to claim 1, wherein the inner cover element comprises an annular flange, a flat circular section, and a rim connecting said annular flange to said circular section.

6. The multiple container assembly according to claim 5, wherein said inner cover element is disposed over said inner body, said annular flange resting on said shoulder and said rim having an exterior surface snugly fitting an upper circular surface of said cylindrical wall.

7. The multiple container assembly according to claim 1, wherein the shoulder of a lower unit is wide enough to receive the tongues of an upper unit in an area between the flange grooves of the lower unit such that assembly of a lower and an upper unit can be carried out by first placing the upper unit so that its tongues rest on the shoulder of the lower unit but between the flange grooves of the lower unit and rotating the upper and lower units in opposite directions with respect to each other whereby the tongues of the upper unit become lodged within the flange grooves of the lower unit.

8. The multiple container assembly according to claim 1, wherein the shoulder of an upper unit is wide enough to receive the tongues of said external cover in an area between the flange grooves of said upper unit such that assembly can be carried out by resting the tongues of said external cover on the shoulder of said upper unit between the flange grooves of said upper unit and rotating the external cover and upper unit opposite to one another whereby the tongues of the external cover become lodged inside the flange grooves of the upper unit.

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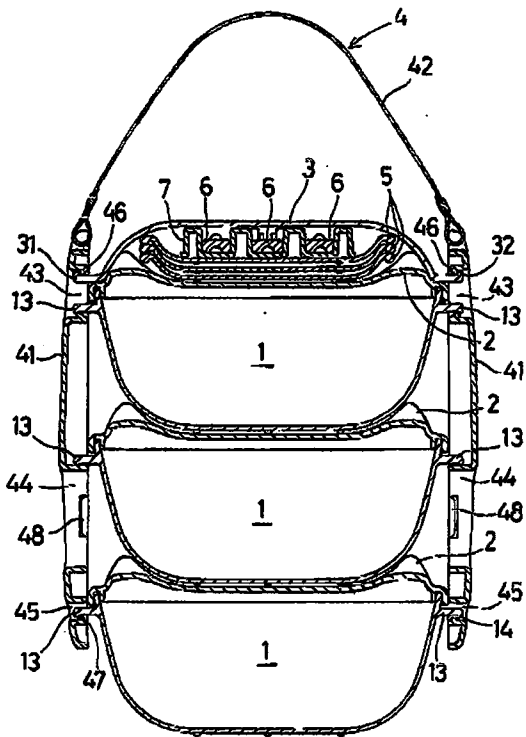
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(54) 【発明の名称】 積み重ね携行容器

(57) 【要約】
【課題】 収容物がなくなって嵌合状態にしたときに、従来よりも平面視の投影面積が小さくなって携行しやすくなる積み重ね容器を提供することを目的とする。
【解決手段】 同一形態とした容器本体 1 と、容器本体 1 に嵌合する蓋体 2 を組み合わせてなり、各容器本体 1 及び各蓋体 2 は嵌合可能形状をなしていると共に、蓋体 2 上に上位の容器本体 1 の底部を嵌合可能とし、容器本体 1 の対向面外側に係止片 13 を突出形成し、且つ前記容器本体 1 の係止片 13 に対応する係止片 31 を外側に突出形成した上蓋 3 を最上位に嵌合させ、2 個 1 組とした保持体 41 に積み重ね時係止窓 44 と、嵌合時係止窓 43, 45 を略直交する方向に形成し、係止窓 43, 44, 45 を積み重ね状態及び嵌合状態の前記容器本体 1、蓋体 2 及び上蓋 3 の組み合わせ体に離脱可能に係止させると共に保持体 41 間を連結体 42 により接続した積み重ね携行容器とした。



【特許請求の範囲】

【請求項1】 同一形態とした複数個の容器本体(1)と、容器本体(1)に嵌合する複数個の蓋体(2)を組み合わせてなり、各容器本体(1)及び各蓋体(2)は嵌合可能形状をなしていると共に、蓋体(2)上に上位の容器本体(1)の底部を嵌合可能とし、容器本体(1)の対向面外側に係止片(13)を突出形成し、且つ前記容器本体(1)の係止片(13)に対応する係止片(31)を外側に突出形成した上蓋(3)を最上位に嵌合させ、2個1組とした保持体(41)に容器本体(1)、蓋体(2)及び上蓋(3)を積み重ねた際に係止片(13,31)を係止させる積み重ね時係止窓(44)と、容器本体(1)、蓋体(2)及び上蓋(3)を嵌合させた際に係止片(13,31)を係止させる嵌合時係止窓(43,45)を略直交する方向に形成し、係止窓(43,44,45)を積み重ね状態及び嵌合状態の前記容器本体(1)、蓋体(2)及び上蓋(3)の組み合わせ体の係止片(13,31)に離脱可能に係止させると共に保持体(41)間を連結体(42)により接続したことを特徴とする積み重ね携行容器。

【請求項2】 積み重ね時係止窓(44)に係合爪(46,47)を形成すると共に、嵌合時係止窓(43,45)に係合爪(48,48)を形成したことを特徴とする請求項1記載の積み重ね携行容器。

【請求項3】 蓋体(2)の上面に浅い窪み(23)を形成し、前記窪み(23)に嵌合する補助皿(5)を上蓋(3)との間に入れて組み合わせていることを特徴とする請求項1又は2記載の積み重ね携行容器。

【請求項4】 フォーク(6)の柄を挿入する複数条の保持溝(71)を形成をしたフォーク保持体(7)とフォーク(6)を蓋体(2)と上蓋(3)との間に入れて組み合わせていることを特徴とする請求項1, 2又は3記載の積み重ね携行容器。

【発明の詳細な説明】

【0001】

【産業上の利用分野】この発明は、収容物がないときには嵩低くして携行できるようにした積み重ね携行容器であって、弁当箱としてだけでなく、小物入れとしても使用できるものである。

【0002】

【従来の技術】収容物がないときには嵩低くできるようにした積み重ね携行容器は、特開平9-140433号や特開平9-121923号のように従来からあった。

【0003】しかし、これらの容器は、入子のようにして下容器の中に上容器を入れて嵩低くできるようにしたものであり、携行状態における平面視の投影面積が変わらなかった。そのため、これら従来の容器は、積み重ね状態から嵌合状態にすると、嵩低くはなるが携行にはさほど便利にならないという問題点があった。

【0004】

【発明が解決しようとする課題】この発明は、上記従来の問題点を解決するためになされたもので、収容物がなくなつて嵌合状態にしたときに、従来よりも平面視の投影面積が小さくなつて携行しやすくなる積み重ね容器を提供することを目的とするものである。

【0005】

【課題を解決するための手段】そのため、この発明では、同一形態とした複数個の容器本体1と、容器本体1に嵌合する複数個の蓋体2を組み合わせてなり、各容器本体1及び各蓋体2は嵌合可能形状をなしていると共に、蓋体2上に上位の容器本体1の底部を嵌合可能とし、容器本体1の対向面外側に係止片13を突出形成し、且つ前記容器本体1の係止片13に対応する係止片31を外側に突出形成した上蓋3を最上位に嵌合させ、2個1組とした保持体41に容器本体1、蓋体2及び上蓋3を積み重ねた際に係止片13,31を係止させる積み重ね時係止窓44と、容器本体1、蓋体2及び上蓋3を嵌合させた際に係止片13,31を係止させる嵌合時係止窓43,45を略直交する方向に形成し、係止窓43,44,45を積み重ね状態及び嵌合状態の前記容器本体1、蓋体2及び上蓋3の組み合わせ体の係止片13,31に離脱可能に係止させると共に保持体41間を連結体42により接続した積み重ね携行容器とした。

【0006】前記積み重ね時係止窓44に係合爪48,48を形成すると共に、嵌合時係止窓43,45に係合爪46,47を形成することが好ましい。このようにすれば、係止片13,31と係止窓43,44,45の係合が確実になる。

【0007】さらに、蓋体2の上面に浅い窪み23を形成し、前記窪み23に嵌合する補助皿5を上蓋3との間に入れて組み合わせることが好ましい。この補助皿5は、弁当箱として使用したときには取り皿として使用でき、弁当を食べるときにすぐに取り出して使用できる。

【0008】またさらに、フォーク6の柄を挿入する複数条の保持溝71を形成をしたフォーク保持体7とフォーク6を蓋体2と上蓋3との間に入れて組み合わせることが好ましい。このようにすれば、弁当箱として使用したときには、フォーク6を別に収納する必要がなくなるだけでなく、弁当を食べるときにすぐに取り出して使用できる。

【0009】

【発明の実施の形態】以下、この発明の積み重ね容器の実施の形態について図1～図9に基づき説明する。

【0010】図1は、この発明の積み重ね容器の積み重ね状態を示す斜視図であり、図2は積み重ね状態における中央断面図である。

【0011】図示の通り、この発明の積み重ね容器は、同一形態とした3つの容器本体1と、同一形態とした3つの蓋体2を組み合わせ、さらに最上位の蓋体2に上蓋3を嵌合させ、これらを止め具4で離脱可能に係止したものである。

【0012】さらに詳しく説明すると、容器本体1は、図3に示すように、上方が開放された容器形状をなし、上部外周面に鋸状の当たり11を形成しており、他の容器本体1を嵌合させた際に他の容器本体1の上端縁12が当たり11の下側に当接するようになっている。そして、容器本体1どうしを嵌合させたときに、容器本体1どうしが密着して外れなくなることがないように、容器本体1の内壁と他の容器本体1の外壁との間に僅かに隙間が生ずるようになっている。さらに、容器本体1の対向面の外側には係止片13を水平方向に突出形成している。さらに、前記係止片13の下側面先端には、図2の断面図に示すように僅かに突出する突条14を形成している。

【0013】蓋体2は、軟質の合成樹脂で形成されており、図4に示すように、下側面の周囲には容器本体1を密閉嵌合可能なように溝21を形成している。さらに、蓋体2の一端には舌片22が突出形成されており、そこに指を掛けて蓋体2を開けやすくしている。またさらに、蓋体2の上面には浅い窪み23が形成されており、蓋体2の上に容器本体1の底部を嵌合可能になっている。蓋体2の上面両側中央に形成された窪み24は、前記蓋体2の上面の窪み23に補助皿5を載置したときに、補助皿5を取りやすくするためのものである。

【0014】上蓋3は、透明の合成樹脂で形成されており、図5に示すように、蓋体2の上に嵌合するキャップ形状になっており、さらに、上蓋3の対向面の外側には、容器本体1の係止片13に対応する係止片31を水平方向外側に突出形成している。またさらに、前記係止片31の上側面先端には、突条32を形成している。

【0015】止め具4は、2個1組とした保持体41と、前記保持体41を接続する平織りベルトからなる連結体42で構成されており、保持体41には3つの係止窓43, 44, 45が形成されている。上側の係止窓43と下側の係止窓45は、積み重ね状態において係止片13, 31を離脱可能に係止させる積み重ね時係止窓となっており、上側の係止窓43の上辺には、前記上蓋3の係止片31の突条32と係合する係合爪46を下向きに設けている。さらに、下側の係止窓45の下辺には、前記容器本体1の係止片13の突条14と係合する係合爪47を上向きに設けている。中央の係止窓44は、嵌合状態において係止片13, 31を離脱可能に係止させる嵌合時係止窓となっており、係止窓44の左右辺の対向位置には、上蓋3の係止片31の突条32及び最下位の容器本体1の係止片13の突条14と係合する係合爪48, 48を設けている。

【0016】補助皿5は、最上位の蓋体2と上蓋3との間に形成された隙間に入れて組み合わせられるようになっており、この実施例では3枚の補助皿5が組み合わせられている。

【0017】さらに、補助皿5の上には、フォーク6の柄を挿入する保持溝71を3条形成したフォーク保持体7（図6参照）を載置しており、それぞれの保持溝71にフ

ォーク6を挿入し、組み合わせられている。

【0018】以上の構成からなる積み重ね携行容器は、積み重ね状態において、保持体41の上側の係止窓43に上蓋3の係止片31を掛け、さらに下側の係止窓45に最下位の容器本体1の係止片13を掛けると、3つの容器が止め具4で離脱可能に係止された状態になる。

【0019】そして、この状態において、止め具4の連結体42を持てば、バスケットのように手にさげて運ぶことができる。

【0020】容器本体1内に収納したものが無くなった場合は、図7の斜視図及び図8の中央断面図に示すように、容器本体1, 1, 1どうしを重ねて嵌合させ、さらにその上に蓋体2, 2, 2どうしを重ねて嵌合させて載せ、さらにその上に上蓋3を載せて嵌合させ、止め具4で係止すれば、嵌合状態になり、嵩低くして携行できるようになる。

【0021】このとき、保持体41の中央の係止窓44の上端に、上蓋3の係止片31を掛け、さらに係止窓44の下端に最下位の容器本体1の係止片13を掛けた状態になる。さらに、止め具4は前記積み重ね状態のときに対して90°回転した状態になる。

【0022】そのため、止め具4の連結体42を持てば、嵌合状態の組み合わせ体を立てた状態で持つようになり、平面視の投影面積が減るので、手にさげたときに持ちやすくなる。さらに、保持体41を90°回転させることにより、保持体41が嵌合状態にしたときの組み合わせ体の側部に添うようになるので、外観も良くなる。

【0023】以上が実施例の説明であり、同一形態とした容器を3つ重ねて組み合わせた例を示したが、図9に示すように、2つ重ねたものとして実施することができる。このとき、止め具4の保持体49は、重ねたときの高さが異なるため前記実施例の保持体41と異なる部品となるが、保持体41以外は全て共通に使用できるので、新規に発生する金型費用が少なくすむという効果がある。

【0024】

【発明の効果】以上のように、この発明では、嵌合状態で携行するときに、単に嵌合状態にしたときよりもさらに平面視の投影面積が減少するため、従来のものより携行しやすく使いやすいものになる。

【0025】前記嵌合時係止窓43, 45に係合爪46, 47を形成すると共に、積み重ね時係止窓44に係合爪48, 48を形成すれば、係止片13, 31と係止窓43, 44, 45の係合が確実になるので、さらに携行しやすく使いやすいものになる。

【0026】またさらに、蓋体2上に浅い窪み23を形成し、前記窪み23に嵌合する補助皿5を上蓋3との間に入れて組み合わせれば、弁当箱として使用したときには、すぐに補助皿5を取り出して使用できるので、使いやすいものになる。

【0027】またさらに、フォーク6の柄を挿入する複

数条の保持溝71を形成をしたフォーク保持体7とフォーク6を蓋体2と上蓋3との間に入れて組み合わせれば、フォーク6を別に収納する必要がなくなるだけでなく、弁当を食べるときにすぐに取り出して使用できるので、使いやすいものになる。

【図面の簡単な説明】

【図1】この発明の積み重ね容器の積み重ね状態を示す斜視図である。

【図2】この発明の積み重ね容器の積み重ね状態における中央断面図である。

【図3】この発明に使用されている容器本体の斜視図である。

【図4】この発明に使用されている蓋体の斜視図である。

【図5】この発明に使用されている上蓋の斜視図である。

【図6】この発明に使用されているフォーク保持体の斜視図である。

【図7】この発明の積み重ね容器を嵌合状態にして携行するときの状態を示す斜視図である。

【図8】この発明の積み重ね容器の嵌合状態における中

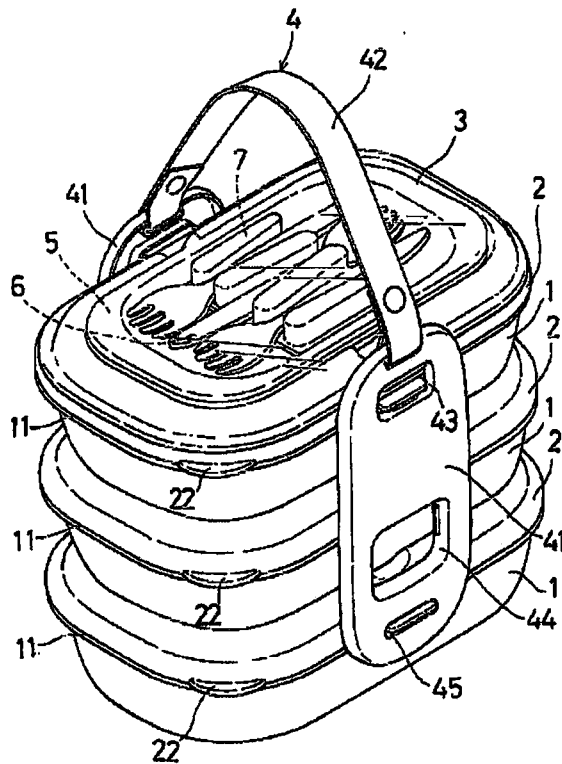
央断面図である。

【図9】容器本体及び蓋体の数を変更して実施した場合の積み重ね状態を示す斜視図である。

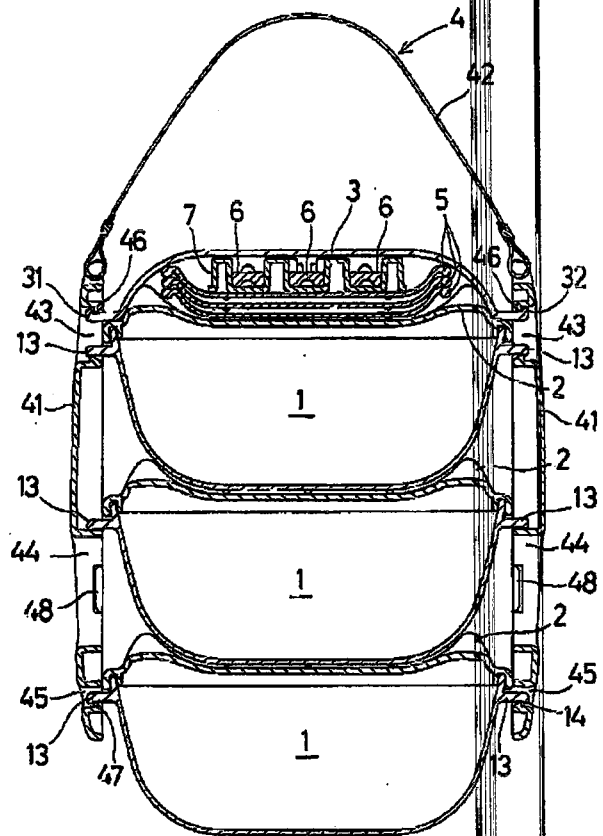
【符号の説明】

- 1 容器本体
- 2 蓋体
- 3 上蓋
- 4 止め具
- 5 補助皿
- 6 フォーク
- 7 フォーク保持体
- 11 当たり
- 12 上端縁
- 13 係止片
- 23 窪み
- 31 係止片
- 41 保持体
- 42 連結体
- 43,44,45 係止窓
- 46,47,48 係合爪
- 71 保持溝

【図1】



【図2】



且該底座(10)頂面(11)往上垂直突設有一突起部(12)，該突起部(12)外周壁設有一螺紋(13)，而該底座(10)並由該突起部(12)之頂面向下凹設一容置空間(14)，用以當作盛裝菜餚之容器，或者裝設筷子、湯匙等餐具之器皿。

- 5 該二盒體(20)(30)各自概呈一圓柱狀，並同為塑膠一體成形射出元件，且該二盒體(20)(30)自頂面(21)(31)分別往上垂直突設有一第一嵌合部(22)(32)，各該第一嵌合部(22)(32)外周壁上並環設有一螺紋(23)(33)，其次，各該盒體(20)(30)自其第一嵌合部(22)(32)之頂面向下凹設有一容室
- 10 (24)(34)，且各該容室(24)(34)開放端上以螺設之方式結合有一蓋體(60)(70)，如此一來，該二盒體(20)(30)可將飯菜分開盛裝，並為能獨立使用者。再者，該二盒體(20)(30)底面分別凹設有一第二嵌合部(25)(35)，各該第二嵌合部(25)(35)之周壁環設有一螺紋(26)(36)，俾，使得該二盒體(20)(30)
- 15 除可互以其第一嵌合部(22)(32)以及其第二嵌合部(25)(35)上下鎖接外，更可以其第二嵌合部(25)(35)與該底座(10)之突起部(12)鎖接，進而封閉該底座(10)之容置空間(14)。

- 該飲水壺(40)包含有一瓶體(41)以及一瓶蓋(42)。其中，該瓶體(41)概為一下大上下之中空錐體狀，其內呈中空
- 20 形成一腔室(411)，用以盛裝高湯或飲品，且該瓶體(41)頂端具有一套合部(412)，該套合部(412)概呈階狀，其具有已設有外螺紋之一大徑段(413)以及一自該大徑段(413)向上延伸之小徑段(414)，自該套合部(412)中心並具有一上下貫穿之出水口(415)與該腔室(411)相通；其次，該瓶體(41)底端

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凹設有一銜接部(416)與該二盒體(20)(30)之第一嵌合部(22)(32)凹凸契合，該銜接部(416)沿其周壁設有一螺紋(417)，使得該瓶體(41)可以其銜接部(416)與任一盒體(20)(30)之第一嵌合部(22)(32)鎖接；除此之外，該瓶體(41)

5 體側設有一把手(418)，以供使用者握取，且為讓使用者攜帶更加方便，於該把手(418)兩旁並凸設有二凸耳(419)，用與一攜繩(43)兩端接設，藉此，使用者即可以肩背或是斜背之方式攜帶該便當盒。而該瓶蓋(42)則是以螺合之方式鎖設於該瓶體(41)之小徑段(413)上，而封閉該出水口(415)。

10 該水杯(50)體側設有一握把(51)，在靠近其杯口(52)之內周壁上設有一螺紋(53)，是以，其可以上下倒置之方式蓋設在該飲水壺(40)上，並以該螺紋(52)與該瓶體(41)之大徑段(413)螺合，藉此，除方便使用者喝取瓶體(41)內之湯水外，更有美觀之效果。

15 綜上所陳，本創作之組合式便當盒與前述之習用技術相較，本創作至少具有以下之優點：

1.方便使用者攜帶高湯或是飲品，且可避免使用者取用時液體重心不穩，容易傾倒之問題，故，相當方便。

2.較前述習用依靠提攜件之連結方式而言，更具有便利性，且元件更少、結合方式更為便捷。

20

3.使用者可依狀況自行組設盒體數量，增加或酌減攜帶的飯菜量，俾，顯得更人性化，同時，盒體以及飲水壺都可拆開單獨使用，更是符合經濟效益。

组合式保温饭盒

技术领域

[0001] 本实用新型涉及一种保温饭盒，尤其是涉及一种组合式保温饭盒。

背景技术

[0002] 市面上的保温饭盒大都采用如下结构：即由双层壁内抽真空或双层壁内填保温绝热材料构成的筒体状容器盒体及与盒体可密闭盖合的盒盖组成，并在盒体和盒盖结合处卡挂有菜盘、汤盘或者其组合。该结构能盛装一饭一菜、一饭一汤或者一饭一菜一汤，且具有较好的保温效果，能满足外出一族或者上班一族带餐就餐的需要，但其仍存在如下局限性：饭、菜、汤易因倾斜或倾倒而渗漏；无法根据就餐者的饭量的定制送餐的份量，即饭、菜、汤的组合及其份量无法定制，送餐灵活性较差；盒盖易因负压而难以打开。

发明内容

[0003] 为克服现有保温饭盒的上述局限性，本实用新型的目的是提供一种组合式保温饭盒，其能灵活定制送餐时饭、菜、汤的组合及其份量且便于携带和使用。

[0004] 为实现上述目的，本实用新型采用如下技术方案：即一种组合式保温饭盒，包括有筒体状容器外盒体，与外盒体可密闭盖合的外盒盖，所述外盒体和外盒盖均采用双层壁内抽真空或双层壁内填保温绝热材料结构，其特征在于：其还包括有可置于外盒体内部的成套内盒，所述外盒体和外盒盖藉由锁扣勾扣密闭盖合。

[0005] 所述成套内盒由两个或两个以上的独立内盒组成，为使本实用新型取得较佳的效果，所述成套内盒由两个或两个以上独立内盒叠加而成且叠加后的高度刚好同外盒体与外盒盖密闭盖合而成的内部空间高度相一致。

[0006] 所述独立内盒由内盒体和内盒盖密闭盖合而成。

[0007] 所述锁扣由勾舌、勾扣板体构成，勾舌和勾扣板体成对出现，其中勾舌固定在外盒盖一侧，勾扣板体枢接在外盒体上端并可对勾舌反扳勾扣固定使外盒体与外盒盖密闭盖合。

[0008] 所述外盒盖内侧与外盒体盖合处设有密封垫圈。

[0009] 采用上述技术方案后与现有技术相比，具有如下优点：(1)、能够灵活定制送餐时饭、菜、汤的组合及其份量。本实用新型设有由两个或两个以上独立内盒组成的成套内盒，独立内盒的个数和容量可自由组合，因此，根据就餐者的实际需要，选择不同的独立内盒组合，就能灵活定制送餐时饭、菜、汤的组合及其份量。如要盛装一饭一菜或者一饭一汤，则可选择由两个独立内盒组成的套装，如果要盛装饭多菜少的套餐，则可选择一大一小两个独立内盒组成的套装；如果要盛装一饭一菜一汤甚至更多组合的套餐，则可选择由三个或者更多个独立内盒组成的套装；(2)、携带方便。由于采用独立内盒盛装饭、菜、汤，且每个独立内盒能密闭盖合，因此即使饭盒携带过程中倾斜或者倾倒，都不致饭、菜、汤互相渗漏或者向外泄漏，携带方便；(3)、便于使用。本实用新型外盒体和外盒盖均采用双层壁内抽真空或双层壁内填保温绝热材料结构且藉由锁扣密闭盖合，既具有较好的保温效果，又能避免因

饭盒内部产生负压而难以打开的情况。

附图说明

[0010] 图 1 是本实用新型一实施方式的结构示意图。

[0011] 图 2 是本实用新型另一实施方式的结构示意图。

具体实施方式

[0012] 下面结合附图和实施方式对本实用新型作进一步说明。

[0013] 图 1 是设有两个独立内盒的组合式保温饭盒,其包括有筒体状容器外箱体 90,与外箱体可密闭盖合的外盒盖 10,所述外箱体和外盒盖均采用双层壁内抽真空或双层壁内填保温绝热材料结构,其特征在于:其还包括有可置于外箱体 90 内部的成套内盒 40、50,所述外箱体 90 和外盒盖 10 藉由锁扣 30 勾扣密闭盖合。

[0014] 所述成套内盒由两个独立内盒 40、50 组成,独立内盒 40 和独立内盒 50 叠加后的高度刚好同外箱体 90 与外盒盖 10 密闭盖合而成的内部空间高度相一致。

[0015] 独立内盒 40 由内箱体 42 和内盒盖 41 密闭盖合而成;独立内盒 50 由内箱体 52 和内盒盖 51 密闭盖合而成。

[0016] 锁扣 30 由勾舌 31、勾扣板体 32 构成,勾舌 31 和勾扣板体 32 成对出现,其中勾舌 31 固定在外盒盖 10 一侧,勾扣板体 32 枢接在外箱体 90 上端并可对勾舌 31 反扳勾扣固定使外箱体 90 与外盒盖 10 密闭盖合。外盒盖 10 内侧与外箱体 90 盖合处设有一密封垫圈 20。

[0017] 图 2 是设有三个独立内盒的组合式保温饭盒,其中成套内盒由三个独立内盒 60、70、80 组成,独立内盒 60、70、80 叠加后的高度刚好同外箱体 90 与外盒盖 10 密闭盖合而成的内部空间高度相一致。独立内盒 60 由内箱体 62 和内盒盖 61 密闭盖合而成;独立内盒 70 由内箱体 72 和内盒盖 71 密闭盖合而成;独立内盒 80 由内箱体 82 和内盒盖 81 密闭盖合而成。

[0018] 上述仅是公开了本实用新型的具体实施例,作为本实用新型的其它实施方式,如外箱体和外盒盖藉由锁扣勾扣密闭盖合的具体方式,可以是外箱体和外盒盖的对称位置上各安装一锁扣勾扣密闭盖合,也可以是外箱体和外盒盖一侧采用绞接方式,其对称侧安装一锁扣勾扣密闭盖合,等等。总之,只要采用了本实用新型的技术方案,都属于本实用新型的保护范围。

れら物質の容器は同一の場所に保管されることが多い。異なる物質が個別の容器に収納されていると、消費者はこれら容器の保管場所を必要以上に大きくしなければならず、したがってスペースを有効に利用することができない。しかも、塩とこしょうのような食品物質は互いに関連して組み合わせ使用されるにもかかわらず、それぞれ個別の容器に収納してあるため、これら容器がしばしば互いに離れた場所に置き忘れられることが多い。この場合、ユーザーがいちいちいずれかを探さなければならず、不便である。このような不便をなくすために、最近では、異なる物質をそれぞれ同一の形状の容器に収納して、これら容器を重ねた状態で同一場所に保管することが提案されている。この方法は前述の不便さを解決するとともにスペースの有効利用を図る点において利点がある。

しかしながら、互いに関連する食品物質の容器が個別に取り扱われる構造となっている以上、たとえば店頭で塩とこしょうを陳列するときは、個々の容器をいちいち人手によって配列しなければ

ための複数の収納部12, 14からなる。収納部12, 14はガラスまたはプラスチック材料等の公知の適当な材料から作られる。これら収納部12, 14はそれぞれの開口部12a, 14aが互いに反対方向に向くように一体成形により結合される。収納部12, 14は容器10の中心軸に対して対称的な形状を有し、さらに共通の底部13を有する。開口部12a, 14aの外周にはそれぞれネジ部が形成され、これらネジ部を介して密閉用キャップ16, 18が開口部12a, 14aに着脱可能に取り付けられる。収納部12内の食品物質を定量供給する小孔24aを有する定量手段24が、キャップ16の内側において、開口部12aの先端に着脱可能に取り付けられる。同様に、収納部14の食品物質を定量供給するための小孔26aを有する定量手段26を、キャップ18a内側において、開口部14aの先端に着脱可能に取り付ける。定量手段24, 26の小孔の数と形状は収納部12, 14に収納される食品物質の種類に応じて適当に選択して良い。キャップ16,

ならず、したがって作業時間が長くなるか、あるいは余分の人員を必要とし、ひいては資源のムダ使いとなっている。この場合、かりに、塩の容器とこしょうの容器とが結合していれば、少なくともこれら容器にかかる物流管理上の労力と人件費を半減させることができる。これに付随して、物流管理の大幅な合理化を図ることができ、さらには前述した消費者の不便およびスペースの問題をいっきに解決することが可能である。

そこで本発明は、生産者の既存設備を大幅に変更させないで、かつ消費者のこれまでの習慣を全く変えることなく、生産者に対しては物流の合理化を達成させ、消費者に対しては従来の不便とスペースの問題を解決できるようにした新規な複合容器を提供することを目的とする。

以下、本発明につき図面を参照しながら詳細に説明する。

第1図において、本発明の望ましい実施例による複合容器10は、複数のパウダー状もしくは粒状食品物質、たとえば、塩とこしょうを収納する

18と開口部12a, 14a間にはシール用パッキン20, 21が設けられ、これによって収納部12, 14が密閉される。この構造において、二つの異なる粒状物質、たとえば塩とこしょうとをそれぞれ収納部12, 14に収納し、互いに対称な形状を有するキャップ16, 18によって密閉する。この場合、片側のキャップは底部または支持部として作用する。

本発明の他の実施例による複合容器10'を第2図に示し、この図において第1図に示した部材と類似の部材は同一符号にシングル・プライム(′)をつけて示す。この実施例では収納部12', 14'がそれぞれ独立したビン容器からなる。独立のビン容器12', 14'の底部12'b, 14'aにはそれぞれネジ部が形成される。底部12'b, 14'bには接続リング30が係合され、これによってビン容器12', 14'は着脱可能に結合される。第2図において、容器12', 14'およびキャップ16, 18はそれぞれ対称的な形状となっているため、大量生産ならびに組立てが容易である。そ

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CANTEEN WITH SOLID FOOD
COMPARTMENT

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to a canteen, more particularly to a canteen with a compartment for receiving solid food therein.

2. Description of the Related Art

Snacks and refreshments are usually brought along when camping. Refreshments, such as water and other liquids, are stored in a canteen, while snacks, such as candies and the like, are placed in a separate bag or container.

SUMMARY OF THE INVENTION

The object of the present invention is to provide a canteen with a compartment for receiving solid food therein.

Accordingly, the canteen of the present invention comprises: a canteen body which confines a compartment for storing refreshments therein; a food container which includes a container body that is mounted to a base of the canteen body and that confines a compartment for storing solid food therein, and a base plate that is mounted on an open bottom of the container body and that is formed with an access hole to access the compartment of the container body; and a cover plate which is mounted movably to the container so as to cover selectively the access hole.

The cover plate is disposed below the base plate and is mounted rotatably to the base plate. The cover plate is formed with opening which is to be aligned selectively with the access hole.

Preferably, the container body is mounted removably to the base of the canteen body.

BRIEF DESCRIPTION OF THE DRAWINGS

Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiments with reference to the accompanying drawings, of which:

FIG. 1 is an exploded view of the first preferred embodiment of a canteen according to the present invention;

FIG. 2 is a bottom view illustrating a cover plate of the first preferred embodiment when in a closed position;

FIG. 3 is a fragmentary sectional view of the first preferred embodiment which illustrates the cover plate when in the closed position;

FIG. 4 is a bottom view illustrating the cover plate of the first preferred embodiment when in an open position;

FIG. 5 is a fragmentary sectional view of the first preferred embodiment which illustrates the cover plate when in the open position; and

FIG. 6 is a fragmentary, partly sectional view of the second preferred embodiment of a canteen according to the present invention.

DETAILED DESCRIPTION OF THE
PREFERRED EMBODIMENTS

Referring to FIG. 1, the first preferred embodiment of a canteen according to the present invention is shown to comprise a canteen body 1, a food container 2 and a cover plate 3.

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The canteen body 1 includes a cylindrical vessel 11 which confines a compartment 12 for storing refreshments, such as water or other liquids, therein. A cap 13 is mounted removably on an open top of the cylindrical vessel 11 to close the compartment 12. The cylindrical vessel 11 is provided with a strap 14 to facilitate carrying of the canteen body 1. Finally, the cylindrical vessel 11 has a base that is formed with an externally threaded connecting portion 111.

The food container 2 includes a container body 21 and a base plate 22. The container body 21 is configured as a seat for the cylindrical vessel 11 of the canteen body 1 and has an annular surrounding wall 213. The surrounding wall 213 has a distal top section formed with an internally threaded connecting portion 211 which is capable of mating removably with the connecting portion 111 of the cylindrical vessel 11, a top plate 212 disposed below the distal top section, and a flaring bottom section 214. The container body 21 confines a compartment 216 which is accessible through an open bottom 215 defined by the bottom section 214. The base plate 22 includes a circular plate body 221 aligned with the open bottom 215. The plate body 221 is formed with a central positioning hole 222 and an eccentric fan-shaped access hole 223. Preferably, the size of the access hole 223 should not be larger than one-half of the cover plate 3. The plate body 221 is further formed with an upwardly projecting peripheral rim 224 which is capable of engaging the flaring bottom section 214 of the container body 21, and a downwardly projecting support ring 225. The support ring 225 is formed with a pair of diametrically opposite notches 226, as shown in FIG. 2.

The cover plate 3 serves to cover selectively the access hole 223. The cover plate 3 is disposed below the base plate 22 and is confined rotatably by the support ring 225. The cover plate 3 includes a circular plate body 31 which is provided with an upwardly projecting central positioning pin 311 that is extendible through the positioning hole 222 in the base plate 22. The plate body 31 is further formed with an eccentric fan-shaped opening 312 which is to be aligned selectively with the access hole 223 and which is slightly smaller than the latter, and a downwardly projecting handle 313.

Assembly of the first preferred embodiment is performed as follows: Referring to FIGS. 2 and 3, the cover plate 3 is disposed below the base plate 22, and the positioning pin 311 is extended through the positioning hole 222. The tip of the positioning pin 311 is melted to expand its size and mount rotatably and non-removably the cover plate 3 to the base plate 22 in the support ring 225. The peripheral rim 224 of the base plate 22 engages the flaring bottom section 214 of the container body 21 to mount the base plate 22 to the container body 21. The connecting portion 211 of the container body 21 engages threadedly the connecting portion 111 of the cylindrical vessel 11 to mount removably the food container 2 to the canteen body 1.

In use, the compartment 12 of the canteen body 1 stores refreshments, such as water or other liquids, therein. The base plate 22 is detached from the container body 21 when storing solid food, such as gum, candies, nuts, chocolates and the like, in the compartment 216 of the food container 2. The base plate 22 is replaced on the container body 21 when the compartment 216 is filled. Thus, the canteen of this invention facilitates bringing of both refreshments and snacks due to the provision of an additional compartment for receiving solid food therein.

Initially, the opening 312 in the cover plate 3 is misaligned with the access hole 223 in the food container 2.

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CANTEEN WITH SOLID FOOD COMPARTMENT

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The object of the present invention is to provide a canteen with a compartment for receiving solid food therein.

Accordingly, the canteen of the present invention comprises: a canteen body which confines a compartment for storing refreshments therein; a food container which includes a container body that is mounted to a base of the canteen body and that confines a compartment for storing solid food therein, and a base plate that is mounted on an open bottom of the container body and that is formed with an access hole to access the compartment of the container body; and a cover plate which is mounted movably to the container so as to cover selectively the access hole.

The cover plate is disposed below the base plate and is mounted rotatably to the base plate. The cover plate is formed with opening which is to be aligned selectively with the access hole.

Preferably, the container body is mounted removably to the base of the canteen body.

BRIEF DESCRIPTION OF THE DRAWINGS

Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiments with reference to the accompanying drawings, of which:

FIG. 1 is an exploded view of the first preferred embodiment of a canteen according to the present invention;

FIG. 2 is a bottom view illustrating a cover plate of the first preferred embodiment when in a closed position;

FIG. 3 is a fragmentary sectional view of the first preferred embodiment which illustrates the cover plate when in the closed position;

FIG. 4 is a bottom view illustrating the cover plate of the first preferred embodiment when in an open position;

FIG. 5 is a fragmentary sectional view of the first preferred embodiment which illustrates the cover plate when in the open position; and

FIG. 6 is a fragmentary, partly sectional view of the second preferred embodiment of a canteen according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, the first preferred embodiment of a canteen according to the present invention is shown to comprise a canteen body 1, a food container 2 and a cover plate 3.

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The canteen body 1 includes a cylindrical vessel 11 which confines a compartment 12 for storing refreshments, such as water or other liquids, therein. A cap 13 is mounted removably on an open top of the cylindrical vessel 11 to close the compartment 12. The cylindrical vessel 11 is provided with a strap 14 to facilitate carrying of the canteen body 1. Finally, the cylindrical vessel 11 has a base that is formed with an externally threaded connecting portion 111.

The food container 2 includes a container body 21 and a base plate 22. The container body 21 is configured as a seat for the cylindrical vessel 11 of the canteen body 1 and has an annular surrounding wall 213. The surrounding wall 213 has a distal top section formed with an internally threaded connecting portion 211 which is capable of mating removably with the connecting portion 111 of the cylindrical vessel 11, a top plate 212 disposed below the distal top section, and a flaring bottom section 214. The container body 21 confines a compartment 216 which is accessible through an open bottom 215 defined by the bottom section 214. The base plate 22 includes a circular plate body 221 aligned with the open bottom 215. The plate body 221 is formed with a central positioning hole 222 and an eccentric fan-shaped access hole 223. Preferably, the size of the access hole 223 should not be larger than one-half of the cover plate 3. The plate body 221 is further formed with an upwardly projecting peripheral rim 224 which is capable of engaging the flaring bottom section 214 of the container body 21, and a downwardly projecting support ring 225. The support ring 225 is formed with a pair of diametrically opposite notches 226, as shown in FIG. 2.

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Assembly of the first preferred embodiment is performed as follows: Referring to FIGS. 2 and 3, the cover plate 3 is disposed below the base plate 22, and the positioning pin 311 is extended through the positioning hole 222. The tip of the positioning pin 311 is melted to expand its size and mount rotatably and non-removably the cover plate 3 to the base plate 22 in the support ring 225. The peripheral rim 224 of the base plate 22 engages the flaring bottom section 214 of the container body 21 to mount the base plate 22 to the container body 21. The connecting portion 211 of the container body 21 engages threadedly the connecting portion 111 of the cylindrical vessel 11 to mount removably the food container 2 to the canteen body 1.

In use, the compartment 12 of the canteen body 1 stores refreshments, such as water or other liquids, therein. The base plate 22 is detached from the container body 21 when storing solid food, such as gum, candies, nuts, chocolates and the like, in the compartment 216 of the food container 2. The base plate 22 is replaced on the container body 21 when the compartment 216 is filled. Thus, the canteen of this invention facilitates bringing of both refreshments and snacks due to the provision of an additional compartment for receiving solid food therein.

Initially, the opening 312 in the cover plate 3 is misaligned with the access hole 223 in the food container 2.

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3,369,691
STACKED FOOD CONTAINERS
Tohchung Wei, 169 E. Broadway,
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Filed Dec. 15, 1966, Ser. No. 602,040
10 Claims. (Cl. 220-4)

ABSTRACT OF THE DISCLOSURE

This disclosure describes an assembly of stacked cylindrical containers, with a flat insulated cover or stopper for each container. The stoppers of the containers serve to hold the containers together and also are used to carry the containers.

This invention relates to the art of food containers and more particularly concerns containers having means for stacking and holding containers together and for sealing each container.

The invention is an improvement over the container assemblies described in my prior Patents 3,273,739 and 3,281,006. In my prior patents I have disclosed assemblies of containers in which a single cover is provided on top of a group of interconnected containers. When the containers are separated from each other, only one container has a cover and the others are uncovered. This is undesirable. The present invention provides a construction wherein each container of a stack thereof has its own cover. The cover is detachably engaged with its container and is provided with a flush handle bar so that the container can be carried by grasping the handle bar. Furthermore the cover of one container can serve to engage another container so that two containers are held together in axial alignment. The cover of the uppermost container has an exposed handle bar so that the stack of containers can be carried as a unit by grasping the exposed handle bar. Two or more containers can be similarly connected and carried together.

It is therefore a principal object to provide a container assembly in which two or more cylindrical containers are held together in axial alignment by individual covers of the several containers.

A further object is to provide a container assembly as described, wherein each cover is cylindrical and has a handle bar flush or coplanar with the top of the cover.

Still another object is to provide a container assembly as described, wherein each cover is provided with radially extending pins which engage in bayonet slots of adjacent containers.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIGURE 1 is an oblique side and top view of a stack of containers embodying the invention.

FIG. 2 is a top plan view of the stack of containers.

FIG. 3 is a vertical sectional view taken on line 3-3 of FIG. 2.

FIG. 4 is a horizontal cross sectional view taken on line 4-4 of FIG. 3.

FIG. 5 is an exploded perspective view of parts of the stack of containers.

FIG. 6 and FIG. 7 are top and bottom plan views taken on lines 6-6 and 7-7 respectively of FIG. 5, and

FIG. 8 is a fragmentary perspective view of a container in an inverted position.

Referring to the drawing, there is shown a stack 10 of containers 12a, 12b and 12c. The containers have identical construction. Each container has a cylindrical outer wall

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14 and a narrow annular radially inwardly extending ledge 16. A cylindrical flange 18 extends axially upwardly from the inner edge of the ledge 16. In the flange are three bayonet slots 20. Each slot has an axially extending vertical portion 21 extending downwardly from the upper edge 22 of the flange; see FIG. 5. A short slot portion 23 extends circumferentially and horizontally from the lower end of slot portion 21. The three slots are spaced apart about 120° equally circumferentially of the container. Three other bayonet slots 25 are formed at the bottom of the container. Each slot has vertical portion 26 extending axially of the container upwardly from the bottom edge 28. A short slot portion 30 extends circumferentially and horizontally from the upper end of slot portion 26. The straight vertical slot portions 26 of slots 25 are all aligned with the straight vertical slot portions 21 of slots 20. Each container has a closed circular bottom 32 spaced from the bottom edge of the container to define a chamber 33; see FIGS. 3 and 8.

Each container is provided with a cover 50, 50a, 50b. The covers are all identical in construction. Each cover has cylindrical outer wall 52 closed at the bottom by a circular wall 54. At the top the cover is closed by a wall which has a flat annular portion 56 and an inner circular portion 58 connected by a cylindrical inner wall portion 60. A recess 62 is thus defined by wall portions 58 and 60. The recess is open at the top. A flat handle bar 65 extends diametrically across the recess and is connected at opposite ends by welding or otherwise to diametrically opposite points of wall portion 56. The stiff bar 65 serves as a handle for lifting, carrying and manipulating the cover. The upper wall portion 56 extends radially outward beyond wall 52 to define a radial flange 56'. Flange 56' is equal in outer diameter with the upper edge 22 of flange 18 of each container in which the cover is seated. A resilient gasket or gasket ring 70 can be interposed between the flange 56' and edge 22. A cavity 72 is defined between the walls of the cover. This cavity is filled with a suitable thermal insulation packing 75.

Three pins 78 extend radially outward from 54. The pins are spaced equally about 120° apart so that they fit readily into the bayonet slots 20 and 25. It will be noted that the short horizontal slot portions 23 and 30 all extend in the same direction away from the straight vertical slot portions 21 and 26, i.e. clockwise as viewed in FIGS. 1 and 5. By the arrangement described, any cover can be inserted axially into the open top of any container with flange 56' abutting the upper edge 22 of container flange 18. Gasket 70 will be interposed between the flanges 18, 56'. Thus the container will be sealed. When the cover is inserted into the container the pins 78 will line up with slot portions 21 and the cover will be pushed down axially. Then on reaching the bottom ends of the slot portions 21 the cover will be turned clockwise with respect to container to lock the cover in the container.

Pins 78 will extend outwardly of flange 18. Any other container can then be mounted on top of the covered container by lining up slot portions 26 with the pins 78 and then fitting the other container on the covered container. When the other container is pushed down until the upper ends of slot portions 26 are at the pins, the other container can be turned clockwise with respect to the lower container to lock the two containers together as the pins enter the short portions 30 of slots 25. Disengagement of covers and containers is accomplished by reverse movements.

It will be apparent that a stack of containers can be carried by grasping the exposed handle bar of the upper container. Two or more containers can be similarly joined together. Each container has its own cover. A heater 100 of any type such as one having canned fuel can be in-

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serted into chamber 35 as shown by dotted lines in FIG. 3. The containers can be disengaged and each container in turn can be placed on top of the heater. Slots 25 in the container admits air to chamber 35 to sustain combustion in this chamber.

The flush flat construction of handle bar 65 permits it to lay close to or against the bottom 32 of the upper container. By this construction the flange 18 and cover 50a or 50b of each lower container fit snugly into the chamber 35 of the upper container 50a or 50 as shown in FIG. 3. This results in a compact arrangement. The resilient gaskets 70 serve to seal the upper ends of the containers. They also cooperate with the cover in maintaining a tight frictional fit in the bayonet slots 20 so that the cover cannot accidentally work loose. If desired additional gaskets or gasket rings 110 can be interposed between the bottom edges 28 of the upper containers and the ledges 16 of the lower containers. These gasket rings will help to maintain engagement of the upper containers with the pins 78 of the cover of the lower containers. Also rings 110 will cooperate with rings 70 to effect a complete seal of the top of each lower container.

As many containers as desired can be connected together. No cover can be inadvertently omitted from any lower container since then it will not be possible to connect the upper container thereto. This is an important safety feature of the invention. The covers serve the multiple purposes of sealing the containers connecting the containers, and acting as carrying or support means. The containers can be made of metal, plastic, paper, composition material or any suitable sheet material.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

What is claimed is:

1. A container assembly comprising a cylindrical container having a first cylindrical wall, said cylindrical wall having a narrow radially inwardly extending annular ledge formed near one end thereof, said cylindrical wall having an axially extending cylindrical flange extending upwardly from the inner edge of said ledge, said flange having first engagement means for engaging a cover; and a cover for said container, said cover having a cylindrical outer second wall snugly fitting into said flange in axial alignment therewith, said cover having a top wall formed with a flat annular, outer section, a circular inner section, and a cylindrical axially extending section connecting the annular end circular sections to define a recess open at the top, a flat handle bar coplanar with said flat section of the top wall and connected at opposite ends to spaced points thereof to serve as a carrying handle and to facilitate inserting the cover into the container and removing the cover from the container, and second engagement means on the cover detachably engaged with the first engagement means of the container and engageable with other engagement means of another cylindrical container while said other container seats on said ledge.

2. A container assembly as recited in claim 1, wherein said first engagement means is a plurality of bayonet slots spaced apart circumferentially of the first container, and the second engagement means on the cover is a plurality of radially extending pins engageable in said slots respectively and extending axially out of the slots for engaging the other containers.

3. A container assembly as recited in claim 2, wherein the top wall of the cover extends radially outwardly of said second cylindrical wall to define an annular flange overlaying the outer free end of said cylindrical flange, and a resilient gasket interposed between the annular flange and the free end of the cylindrical flange to seal the cover to the first container and to keep the pins frictionally engaged with the bayonet slots.

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4. A container assembly as recited in claim 1, further comprising third further engagement means at the other end of said first cylindrical wall for detachably engaging with another cover of a third container.

5. A container assembly as recited in claim 1, further comprising a second cylindrical container having a third cylindrical wall axially aligned; with the first cylindrical wall and having one end seated on said ledge, and third engagement means at the one end of said third wall detachably engaged with said second engagement means so that the first and second containers are disengageably held together by said cover.

6. A container assembly as recited in claim 5, wherein the first and third engagement means are two sets of registering bayonet slots spaced apart circumferentially of the first and third cylindrical walls respectively, and the second engagement means on the cover is a plurality of radially pins spaced apart circumferentially to said second cylindrical wall and engaged in the registering bayonet slots of the first and second containers.

7. A container assembly as recited in claim 6, wherein the top wall of the cover extends radially outwardly of said second cylindrical wall to define an annular flange overlaying the outer free end of said cylindrical flange, and a resilient gasket interposed between the annular flange and the free end of the cylindrical flange to seal the cover to the first container and to keep the pins frictionally engaged in the bayonet slots in the first cylindrical wall.

8. A container assembly as recited in claim 7, further comprising another resilient gasket interposed between the one end of said third cylindrical wall and said ledge to keep the bayonet slots frictionally engaged in the bayonet slots in the third cylindrical wall.

9. A container assembly as recited in claim 1, wherein said cover has a bottom wall spaced from said top wall and secured to said second cylindrical wall to define a chamber therewith, and a packing of thermal insulation material in said chamber to insulate the cover.

10. A container assembly as recited in claim 5, wherein said third cylindrical wall has a narrow radially inwardly extending other annular ledge for seating one end of a third cylindrical container thereon, said third cylindrical wall having another cylindrical flange extending axially upwardly from said other ledge for receiving another cylindrical cover, fourth engagement means on said other flange; and a second cover for said second container, said second cover having a cylindrical outer fourth wall snugly fitted in said other flange, said second cover having another top wall formed with another flat annular outer section and another circular inner section, and another cylindrically extending section connecting the other annular and circular sections to define another recess open at the top, another flat handle bar coplanar with the other flat section of the other top wall and connected at opposite ends to spaced points thereof to serve as a carrying handle for both the first and second containers, and fifth engagement means on the second cover engaged with the fourth engagement means of the second container and engageable with a further cylindrical container while said further container seats on said other ledge.

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Theron E. Condon, *Primary Examiner*.

G. E. Lowrance, *Assistant Examiner*.



US00D350460S

United States Patent [19]
Picozza et al.

[11] **Patent Number:** Des. 350,460
[45] **Date of Patent:** ** Sep. 13, 1994

[54] **STACKING LUNCH BOX**
[75] **Inventors:** Augusto A. Picozza, Orlando, Fla.;
Takeshi Fukuda, Osaka, Japan
[73] **Assignee:** Dart Industries Inc., Deerfield, Ill.
[**] **Term:** 14 Years
[21] **Appl. No.:** 6,507
[22] **Filed:** Mar. 31, 1993
[52] **U.S. Cl.** D7/629
[58] **Field of Search** D7/601, 602, 614-615,
D7/354, 500, 538-549; 206/223, 541; 220/4.26,
4.27, 4.01, 4.28, 4.32, 380, 675, 505

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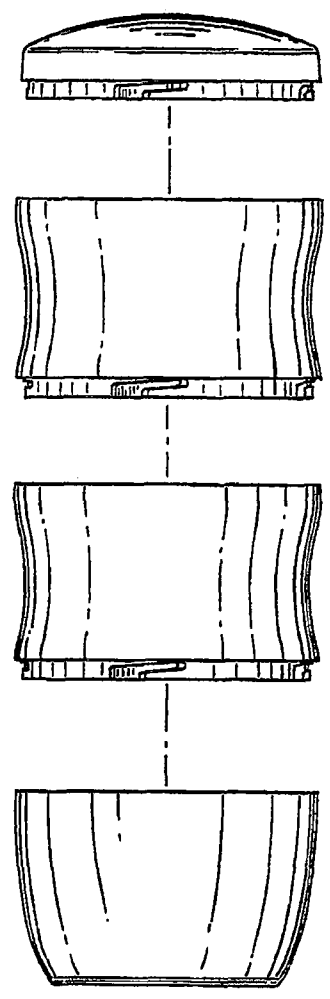
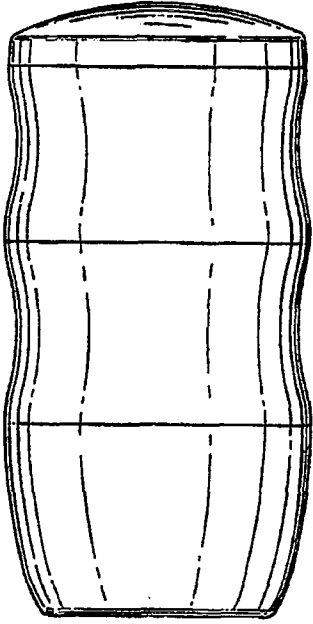
Primary Examiner—Terry A. Wallace
Attorney, Agent, or Firm—John A. Doninger

[57] **CLAIM**
The ornamental design for a stacking lunch box, as shown and described.

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DESCRIPTION

FIG. 1 is a top and side perspective view of a stacking lunch box, showing our new design;
FIG. 2 is a top plan view thereof;
FIG. 3 is a bottom plan view thereof;
FIG. 4 is a typical side elevational view thereof;
FIG. 5 is an exploded elevational view thereof; and,
FIG. 6 is an enlarged cross-sectional view thereof on line 6—6 in FIG. 2.



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d/1

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCION DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogada
Dra. DONELIA ADARME JAIMES.

ASUNTO	Radicación	09- 118995
	Trámite	003
	Evento	001
	Actuación	519
	Oficio	
	Folios	69

03925

Patente de Invención	☐	Patente de Modelo de Utilidad	☒
Vía Nacional	☒		
Vía PCT (fase nacional)	☐	Cap. I	☐
		Cap. II	☐

No. Sol. Internacional _____
Fecha de Presentación Internal. _____

Como resultado del examen de fondo, realizado con fundamento en el artículo 45 y en concordancia con el artículo 85 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados

Descripción:	Folios 20 a 24	23/10/2009
Reivindicaciones:	Folios 25 a 26	23/10/2009
Dibujos:	Folios 21 a 25	23/10/2009

2. Objeto de la invención

Título de la invención: "EMPAQUE DOS NIVELES PARA CAFÉ MAS DOS DONAS". (Folio 1).

El problema técnico planteado en esta solicitud consiste en permitir transportar de manera fácil y ágil en un solo conjunto, una bebida (café) y un alimento (donas) con sus respectivos aditivos y accesorios (un vaso, dos bolsitas de azúcar, un mezclador y servilletas) para su respectivo consumo.

Para resolver este problema técnico, la solicitud en estudio proporciona un empaque apilable que tiene dos niveles, en un nivel se aloja un vaso de una bebida (café) y en el otro nivel se aloja un alimento (dos donas). El empaque esta conformado de dos niveles dispuestos en forma vertical apilables, el primer nivel o empaque base esta dispuesto o configurado para alojar un alimento, en este caso la cantidad de dos donas, asimismo tiene un segundo nivel o empaque superior el cual esta dispuesto para alojar un vaso de café y sus respectivos aditivos y accesorios (dos bolsitas de azúcar, un mezclador y servilletas), este

empaques de dos niveles además cuenta con una correa plástica que se inserta en los costados laterales del primer nivel o empaque base, con el fin de sujetar todo el contenedor o empaque de manera segura y ergonómica para el usuario.

El objeto de la solicitud se relaciona con la clasificación internacional CIP: B65D21/00, B65D61/00, B65D21/028, B65D21/032, B65DB35/50, A47G19/22, A45C11/20, B65D6/00.

3. De la solicitud de Patente

Título

Se observa que en el petitorio, expone el título "*Empaque dos niveles para café mas dos donas*", se evidencia que según como esta expuesto el título no es el más adecuado y no es claro, debido a que este título no define de manera clara la esencia y la materia que se desea proteger en la solicitud en estudio.

Se le sugiere al solicitante que redacte nuevamente el título colocándolo de la siguiente manera "*Empaque dual apilable para transportar un vaso de café y dos donas*".

Reivindicaciones (artículo 30 D 486, Art 22 PCT).

En el capítulo reivindicatorio se evidencia que las reivindicaciones No.1 a No.3 que componen el capítulo reivindicatorio, presentan varias falencias en común e igualmente presentan otras falencias, tal y como se evidencia a continuación, así:

- En las reivindicaciones No.1 a No.3, se evidencia que se encuentran mal formuladas y mal planteadas, debido que no se muestra claramente como interactúan entre si todas las características técnicas esenciales constructivas tangibles que conforman todo el empaque dual apilable para transportar un vaso de café y dos donas que hacen que esta invención se diferencie frente al estado de la técnica.
- En las reivindicaciones No.1 a No.3, se evidencia que se encuentran mal formuladas y mal planteadas, debido a que solamente se desea proteger los elementos o componentes que conforman todo el empaque dual apilable para transportar un vaso de café y dos donas por aparte o por separado, colocando cada elemento o componente junto con sus características en cada reivindicación independiente (ver folios 25 y 26), como por ejemplo, en la reivindicación No.1 solo se ilustra la característica llamada "*correa plana de sujeción*" y sus características técnicas, igualmente sucede para la reivindicación No.2 con la característica llamada "*tapa/contenedor*" y con la reivindicación No.3 con la característica llamada "*base*".
- En las reivindicaciones No.1 a No.3, se evidencia que se encuentra mal formulados y mal planteados sus preámbulos, debido estos preámbulos no coinciden con el título de la invención.
- En las reivindicaciones No.1 a No.3, se evidencia que no se describen con un orden lógico y secuencial todas las características técnicas esenciales y/o particulares constructivas tangibles que conforman todo el "*Empaque dual apilable para transportar un vaso de café y dos donas*", asimismo tampoco se describen con un orden lógico y secuencial como estas características

técnicas se acoplan e interactúan entre si para formar dicho empaque dual apilable para transportar un vaso de café y dos donas.

- En la reivindicación No.1, se expone el termino o característica llamada *"troquelado o corte"*, se evidencia que dicho termino o característica no es claro, no es entendible y no se sabe a cual elemento o componente se esta refiriendo en concreto.
- En la reivindicación No.1, se expone el término *"...con una función específica..."*, se evidencia que dicho termino no es claro, debido a que dicho termino tal y como esta redactado no es una característica técnica esencial constructiva tangible que conforme el *"Empaque dual apilable para transportar un vaso de café y dos donas"*, además se evidencia que este termino hace alusión a un funcionamiento u operación de lo que hace la correa plana de sujeción.
- En la reivindicación No.1, se expone el termino *"...por estar en la parte media de la correa y con forma de rectángulo redondeado como aplicación ergonómica al producto"*, se evidencia que este término tal y como está redactado no es claro, debido a que lo que se ilustra es una ventaja o resultado a obtener de un troquelado o corte que tiene la correa plana de sujeción.
- En la reivindicación No.1, se expone los términos *"...troquelado o corte caracterizado por estar en forma de U"*, *"...troquelado o corte caracterizado por tener forma triangular ubicado en los extremos de la correa"*, se evidencia que dichos términos no son claros, se encuentran mal planteados y mal formulados, debido a que dentro de la misma reivindicación independiente No.1 se desean proteger por aparte las características particulares de cada uno de los troquelados o cortes que tiene la correa plana de sujeción, evidenciándose que no se muestra de manera clara y concreta como interactúan entre si todas las características técnicas esenciales que componen todo el empaque dual apilable para transportar un vaso de café y dos donas.
- En la reivindicación No.2, se expone los términos *"...cavidad caracterizada por ser cónica y cuya función es contener vasos junto con otros elementos y exhibición de producto conformada de la siguiente manera..."*, *"...ranura que se caracteriza por estar en solo dos costados de la tapa según reivindicación 6 y ensambla uno de los troquelados de la correa..."*, *"...cavidad caracterizada por ser semicilíndrica y cuya función es alojar un pitillo..."* y *"...contorno de alto relieve que se caracteriza por estar en la zona inferior de la tapa para un posterior ensamble"*, se evidencia que estos términos tal y como están redactados no son claros, están mal planteados y mal formulados, debido a que lo que se ilustra son funcionamientos, operaciones y ventajas o resultados a obtener de una cavidad, una ranura y unos troquelados o cortes y un contorno de alto relieve que tiene una tapa/contenedor.
- En la reivindicación No.2, se expone el término *"...ranura que se caracteriza por estar en solo dos costados de la tapa según reivindicación 6 y ensambla uno de los troquelados de la correa..."*, se evidencia que este termino no es claro y no es coherente, debido a que primeramente hace referencia a una reivindicación No.6 que no existe en el capítulo reivindicatorio (ver folios 25 y

26), asimismo hace referencia a una interacción entre características que se encuentran contenidas en una reivindicación que no existe.

- En la reivindicación No.2, se expone el término *"...cavidad caracterizada por su forma semiovalada y cónica cuya función es alojar sobre de endulzante..."*, se evidencia que dicho término no es claro, se encuentran mal planteado y mal formulado, debido a que dentro de la misma reivindicación independiente No.2 se desean proteger por aparte las características particulares de cada cavidad que tiene la tapa/contenedor, evidenciándose que no se muestra de manera clara y concreta como interactúan entre si todas las características técnicas esenciales que componen todo el empaque dual apilable para transportar un vaso de café y dos donas.
- En la reivindicación No.2 y No.3, se expone los términos *"...por ser un cono truncado piramidal en material plástico..."* y *"...Base caracterizada por esta elaborada en material plástico..."*, se evidencia que dichos términos no son claros, debido a que los materiales en que están en que esta hechos o fabricados los componentes, piezas o elementos que conforman todo el *"Empaque dual apilable para transportar un vaso de café y dos donas"*, no son características técnicas esenciales tangibles estructurales constructivas, e igualmente no se puede caracterizar por el solo hecho de utilizar o usar dicho material que tiene una propiedad en que esta fabricado los componentes, piezas o elementos del empaque dual apilable, haciendo que dicho material en que esta hecho dichos componentes, piezas o elementos sean el que haga u origine que el empaque dual apilable sea diferente frente al estado de la técnica, el solicitante debe tener muy presente esta recomendación, al momento de formular nuevamente su reivindicación independiente y sus reivindicaciones dependientes.
- En la reivindicación No.3, se expone los términos *"...cavidad doble caracterizada por tener un alto relieve lineal en medio como elemento de separación para el producto..."* y *"...Ranurado caracterizado por estar en la parte superior de la base cuenta con un contorno en bajo relieve que permite el ensamble de la tapa a la base y permitir ajuste de los dos"*, se evidencia que estos términos tal y como están redactados no son claros, están mal planteados y mal formulados, debido a que lo que se ilustra son funcionamientos, operaciones y ventajas o resultados a obtener de una cavidad doble y un ranurado que tiene una base.
- En la reivindicación No.3, se expone el término *"...troquelado o corte caracterizado porque su forma triangular ubicado en dos de los lados de la base en le cual se introduce el troquelado en forma de flecha de la correa..."*, se evidencia que dicho término no es claro, se encuentran mal planteado y mal formulado, debido a que dentro de la misma reivindicación independiente No.3 se desea proteger por aparte las características particulares de un troquelado o corte que tiene la base, evidenciándose que no se muestra de manera clara y concreta como interactúan entre si todas las características técnicas esenciales que componen todo el empaque dual apilable para transportar un vaso de café y dos donas.

- En los siguientes grupos de reivindicaciones, se evidencia que ilustran elementos, características, componentes o términos, que no son claros, no se definen de manera específica y concreta a que elementos se están refiriendo y/o cuales elementos pertenecen, así:

- No.1. "Troquelados o cortes".
- No.1. "Correa plana de sujeción".
- No.1 y 3. "Troquelado o corte".
- No.1. "Parte media de la correa".
- No.1. "Forma de rectángulo redondeado".
- No.1 y 3. "Correa".
- No.1. "Forma traingular".
- No.1. "Extremos".
- No.2. "Tapa/contenedor".
- No.2. "Cono truncado piramidal".
- No.2. "Tres tipos de cavidad en su interior".
- No.2. "Controno".
- No.2. "Alto relieve".
- No.2. "Zona inferior".
- No.2. "Cavidad".
- No.2. "Contorno en alto relieve".
- No.2. "Vasos".
- No.2. "Otros elementos".
- No.2. "Exhibición de producto".
- No.2. "Ranura".
- No.2. "Zona inferior de la tapa".
- No.2. "Dos costados de tapa".
- No.2. "Uno de los troquelados de la correa".
- No.2. "Semicilíndrica".
- No.2. "Pitillo".
- No.2. "Forma semiovalada y cónica".
- No.2. "Sobre de endulzante".
- No.3. "Base".
- No.3. "Forma cuadrada".
- No.3. "Cavidad semicircular central".
- No.3. "Cavidad doble".
- No.3. "Alto relieve lineal en medio".
- No.3. "Elementos de separación".
- No.3. "Troquelado o corte".
- No.3. "Por su forma triangular ubicado en dos de los lados de la base".
- No.3. "Troquelado en forma de flecha de la correa".
- No.3. "Ranurado".
- No.3. "Parte superior de la base".
- No.3. "Contorno en bajo relieve".
- No.3. "Tapa a la base".
- No.3. "De los dos".

Se le sugiere al solicitante que aclare de manera específica y concreta a que elementos, características, componentes o términos, se esta refiriendo, y además coloque al frente de la característica o del elemento, el número de referencia guardando correspondencia con el capítulo descriptivo, las graficas o dibujos y dicho capítulo reivindicatorio, con el objetivo de comprender mejor

la invención al momento de hacer el análisis y distinguir los elementos de dicha invención.

Se le sugiere al solicitante presentar una nueva y única reivindicación independiente No.1, colocando de manera correcta su preámbulo que coincida con el título de la invención asimismo conteniendo los elementos conocidos en el estado de la técnica y en la **parte caracterizadora** presentar los elementos y/o características técnicas esenciales tangibles estructurales novedosas que lo hacen diferente del estado de la técnica, es decir el solicitante debe presentar aquellos elementos y/o características técnicas esenciales tangibles estructurales novedosas contenidas en una reivindicación independiente junto con sus características técnicas particulares tangibles estructurales contenidas en reivindicaciones dependientes, donde dichos elementos y/o características técnicas esenciales tangibles estructurales novedosas y sus características técnicas particulares tangibles estructurales que conforman todo el *"Empaque dual apilable para transportar un vaso de café y dos donas"*, hagan que este empaque dual apilable para transportar un vaso de café y dos donas se diferencie de los demás empaques duales apilables para transportar un vaso de café y dos donas que se encuentran contenidos en el estado de la técnica. Se le recuerda presentar estos elementos y/o características técnicas esenciales tangibles novedosas describiéndolas de manera clara, ordenada y secuencial y como interactúan entre si.

Se le sugiere al solicitante que presente una nueva y única reivindicación independiente No.1, colocando correctamente todos los nombres de las características o elementos que conforman todo el empaque dual apilable para transportar un vaso de café y dos donas guardando correspondencia con los nombres de las características o elementos junto con respectivos números de referencia que se encuentran contenidos en la descripción.

Se le sugiere al solicitante que presente una nueva y única reivindicación independiente No.1, colocando de manera correcta su preámbulo como por ejemplo *"No.1 Empaque dual apilable para transportar un vaso de café y dos donas....., caracterizado porque....."*.

Se le sugiere al solicitante que presente una nueva y única reivindicación independiente No.1, eliminando los términos *"...con una función específica..."*, *"...por estar en la parte media de la correa y con forma de rectángulo redondeado como aplicación ergonómica al producto"*, *"...troquelado o corte caracterizado por estar en forma de U"* y *"...troquelado o corte caracterizado por tener forma triangular ubicado en los extremos de la correa"*.

Se le sugiere al solicitante que presente una nueva y única reivindicación independiente No.1, aclarando el termino *"troquelado o corte"* debido a que dicho termino es ambiguo, no es claro y no es entendible.

Se le sugiere al solicitante que presente unas nuevas reivindicaciones dependientes, colocando de manera correcta su preámbulo como por ejemplo *"No.2 Empaque dual apilable para transportar un vaso de café y dos donas según la reivindicación No.1....., caracterizado porque....."* o por ejemplo *"No.3 Empaque dual apilable para transportar un vaso de café y dos donas según la reivindicaciones No.1 y No.2....., caracterizado porque....."*.

Se le sugiere al solicitante que presente unas nuevas reivindicaciones dependientes, colocando las características técnicas particulares tangibles constructivas y como interactúan entre si, la cual conforma el empaque dual apilable para transportar un vaso de café y dos donas. Se le recuerda presentar estos elementos y/o características técnicas particulares tangibles constructivas describiéndolas de manera clara, ordenada y secuencial y como interactúan entre si.

Se le sugiere al solicitante que presente una nueva reivindicación No.2, eliminando los términos "...cavidad caracterizada por ser cónica y cuya función es contener vasos junto con otros elementos y exhibición de producto conformada de la siguiente manera...", "...ranura que se caracteriza por estar en solo dos costados de la tapa según reivindicación 6 y ensambla uno de los troquelados de la correa...", "...cavidad caracterizada por ser semicilíndrica y cuya función es alojar un pitillo...", "...contorno de alto relieve que se caracteriza por estar en la zona inferior de la tapa para un posterior ensamble" y "...cavidad caracterizada por su forma semiovalada y cónica cuya función es alojar sobre de endulzante..."

Se le sugiere al solicitante que presente una nueva reivindicación No.3, eliminando los términos "...cavidad doble caracterizada por tener un alto relieve lineal en medio como elemento de separación para el producto...", "...Ranurado caracterizado por estar en la parte superior de la base cuenta con un contorno en bajo relieve que permite el ensamble de la tapa a la base y permitir ajuste de los dos" y "...troquelado o corte caracterizado porque su forma triangular ubicado en dos de los lados de la base en la cual se introduce el troquelado en forma de flecha de la correa..."

Se le recuerda al solicitante que una característica técnica esencial o particular es una entidad física de tipo estructural constructiva tangible relativa a aspectos técnicos que definen la invención, estas características técnicas esenciales o particulares definen la solución al problema técnico objetivo que intenta resolver la invención, e igualmente hacen que pudiesen ser diferentes frente al estado de la técnica, estas características técnicas esenciales o particulares componen un producto como por ejemplo un aparato, una maquina, un mecanismo, un sistema, una herramienta, u otro objeto.

Se le recuerda al solicitante que al presentar una nueva reivindicación independiente, las características técnicas esenciales que conforman la invención que se encuentran contenidas en esta reivindicación No.1, deben estar contenidas, soportadas y deben guardar correspondencia con la descripción de la invención.

Se le recuerda al solicitante que al presentar unas nuevas reivindicaciones dependientes, las características técnicas particulares que conforman la invención que se encuentran contenidas en estas reivindicaciones, deben estar contenidas, soportadas y deben guardar correspondencia con la descripción de la invención.

Se le recuerda al solicitante que los procedimientos y los métodos junto con sus etapas no serán objeto para una patente de modelo de utilidad según como lo establece el art 82 de la decisión 486 de la Comunidad Andina.

Se le recuerda al solicitante que la inclusión de términos relativos a aspectos no técnicos, como por ejemplo las ventajas, usos, utilizaciones o funcionamientos, no son características patentables que se puedan proteger, debido a que los resultados o fines al alcanzar por la invención o por el hecho de describir para que sirve o para que se utiliza, o como funciona el producto o aparato, no son características técnicas esenciales o particulares que componen una invención.

Se le recuerda al solicitante que las propiedades de un material y el mismo material en que esta hecho o fabricados los componentes, piezas o elementos que conforman todo el "*Empaque dual apilable para transportar un vaso de café y dos donas*", no son características técnicas esenciales tangibles estructurales constructivas, e igualmente no se puede caracterizar por el solo hecho de utilizar o usar dicho material que tiene una propiedad en que esta fabricado los componentes, piezas o elementos del empaque dual apilable, haciendo que dicho material en que esta hecho dichos componentes, piezas o elementos sean el que haga u origine que el empaque dual apilable sea diferente frente al estado de la técnica, el solicitante debe tener muy presente esta recomendación, al momento de formular nuevamente su reivindicación independiente y sus reivindicaciones dependientes.

Se le sugiere al señor solicitante observar el anexo No.1, donde se expone un ejemplo ilustrativo de la redacción de las reivindicaciones y también se dan algunas **recomendaciones**, de carácter informativo, para la presentación del capítulo reivindicatorio de la solicitud en estudio.

Descripción (*artículo 28 D 486*).

- El capítulo descriptivo se evidencia que presenta las siguientes falencias, así :
 - Se observa en este capítulo descriptivo, que en el punto llamado descripción detallada de la invención (ver folios 21, 22, 23 y 24), se evidencia que se encuentra mal formulado y mal planteado, debido a que se esta describiendo detalladamente los elementos o características esenciales y/o particulares que conforman todo el empaque dual apilable para transportar un vaso de café y dos donas por aparte o por separado, es decir en este punto se describe por aparte el elemento "*correa plana de sujeción*" y sus características técnicas, asimismo sucede para la característica llamada "*tapa/contenedor*" y la característica llamada "*base*", observándose que no se esta mostrando de manera clara y concreta en este punto como interactúan entre si todas las características técnicas esenciales que componen todo el empaque dual apilable para transportar un vaso de café y dos donas. Se evidencia además que no hay una descripción ordenada, lógica y secuencial de todos los componentes o características que se encuentran contenidos en este punto.
 - Se observa en este capítulo descriptivo, que en el punto llamado breve descripción de las figuras (ver folios 21), se evidencia que se encuentra mal formulado y mal planteado, debido a que tal y como esta presentado no el mas adecuado, debido a que solamente se limita a mostrar figuras o dibujos y no hay una descripción en texto que describa realmente lo que se esta mostrando dichas figuras o dibujos, asimismo se evidencia que esta combinando dibujos o figuras con el texto de la descripción, la cual esta condición no es permitido. La descripción de las figuras o dibujos se hace a manera de descripción en texto y no grafico, no debe haber combinación de figuras o dibujos con el texto. (Se le sugiere ver el anexo No.2).
 - Se observa en este capítulo descriptivo, que a través de todo este capitulo se expone el termino "*troquelado*", se evidencia que este termino no es el mas adecuado para indicar o llamar una característica debido a que hace alusión a un proceso o método de fabricación, en donde dicho proceso o método junto con sus pasos o etapas no se

protegen por patente de modelo de utilidad. Se le recuerda al solicitante que los procedimientos y los métodos junto con sus etapas no serán objeto para una patente de modelo de utilidad según como lo establece el art 82 de la decisión 486 de la Comunidad Andina.

- Se observa en este capítulo descriptivo, que se encuentra mal presentado, debido a que se esta combinando todo el texto que compone todo el cuerpo del capitulo descriptivo con todas las figuras o dibujos que se presentaron y que ilustran la invención gráficamente, esta combinación entre texto y figuras no es el adecuado para un capitulo descriptivo de un modelo de utilidad.
- Se observa en este capítulo descriptivo, que según como esta planteado y formulado solamente se limita a describir por aparte las características técnicas que componen cada elemento o componente que conforma el empaque dual apilable como por ejemplo la correa de sujeción, la tapa contenedora y la base contenedora, pero no muestra en dicho capitulo descriptivo como se acoplan y como interactúan entre si todas las características técnicas de todos los componentes o piezas que conforman todo el empaque dual apilable para transportar un vaso de café y dos donas, asimismo se evidencia que a pesar de que se muestra como funciona el empaque dual apilable se limita a explicar reiteradamente para que sirve y para que funciona, en donde se explico anteriormente no esta mostrando como interactúan entre si todas las características técnicas del empaque dual apilable.
- Se observa en este capítulo descriptivo, que todos los números de referencia de los elementos o características que conforman el *"Empaque dual apilable para transportar un vaso de café y dos donas"*, no se encuentran dentro de un paréntesis.
- Se observa en las figuras o dibujos, que según como están presentadas no tienen un orden lógico y secuencial en su presentación, debido a que se encuentran repartidas y mezcladas por todo el texto del capitulo descriptivo.
- Se observan unas figuras o dibujos auxiliares con letras de referencia S, F, L de los folios 23 y 24, se evidencia que estas figuras o dibujos no se describen, ni se nombran, ni se hace referencia en el capitulo descriptivo, es decir están colocadas simplemente y no se están explicando a que elementos o piezas pertenece y como interactúan dichas graficas o dibujos dentro del texto que compone el capitulo descriptivo.
- Se observan unas figuras o dibujos de ensamble y desensamble del empaque dual apilable en el folio 25, se evidencia que estas figuras o dibujos no tienen un hilo conductor dentro de las mismas figuras o dibujos, ni tampoco tiene un orden secuencial dentro de todas las figuras o dibujos que fueron presentadas, asimismo se evidencia que estas figuras o dibujos no muestran y no ilustran los números de referencia que se encuentran asignados a cada característica o elemento según el capitulo descriptivo.
- Se observa en este capítulo descriptivo, que el orden de sus puntos que la componen se encuentra desorganizados. El orden de los puntos

que componen un capítulo descriptivo es la siguiente: título de la invención, objeto de la invención (sector tecnológico), estado de la técnica (antecedentes de la invención), descripción de la invención (problema técnico, solución planteada, ventaja técnica), descripción detallada de las figuras o dibujos, descripción detallada de la invención, y figuras o dibujos. (Ver anexo 2).

- Se observa en este capítulo descriptivo que no se esta describiendo con un orden lógico y secuencial todas las características técnicas elementos o piezas constructivas tangibles estructurales que conforman todo el "*Empaque dual apilable para transportar un vaso de café y dos donas*", asimismo tampoco se describen con un orden lógico y secuencial como estas características técnicas, elementos o piezas se acoplan e interactúan entre si para formar dicho empaque dual apilable para transportar un vaso de café y dos donas.
- Se observa en este capítulo descriptivo que no se esta mostrando de manera clara y concreta como interactúan o como se acoplan entre si todas las características técnicas, elementos o piezas constructivas tangibles que conforman toda el empaque dual apilable para transportar un vaso de café y dos donas.
- Se observa en este capítulo descriptivo que hay características técnicas que no tienen asignado su respectivo número de referencia que ayuden a referenciar e identificar de manera clara y concreta estas mismas características tanto en el mismo capítulo descriptivo como en las figuras o dibujos.
- En este capítulo descriptivo, se evidencia que ilustran elementos, características, componentes o términos, que no son claros, no se definen de manera específica y concreta a que elementos se están refiriendo y/o cuales elementos pertenecen, así:
 - "Elemento".
 - "Piezas".
 - "Correa plástica".
 - "Desarrollo plano".
 - "Desarrollo curvo".
 - "Elemento de sujeción".
 - "Parte curva".
 - "Elemento de fijación a tapa".
 - "a base".
 - "Troquelado o corte rectangular con redondeos".
 - "Troquelado o corte en forma de U".
 - "Pestaña de ensamble".
 - "Tapa".
 - "Troquelado o corte apuntado".
 - "Base".
 - "Tapa plástica transparente".
 - "Cavidad cónica".
 - "Cavidad cilíndrica alargada".
 - "1 vaso".
 - "Servilletas".
 - "1 pitillo".

- "Mezclador".
- "Troquelado o corte lineal".
- "Dos costados de la tapa".
- "Tapa".
- "Pestaña del troquelado o corte".
- "Correa plástica".
- "Cavidad adecuada".
- "Bolsas de azúcar".
- "Cilindros en alto relieve".
- "Vaso".
- "Contorno ranurado".
- "En alto o bajo relieve".
- "Parte inferior de la tapa".
- "Contorno ranurado superior".
- "Base".
- "Base contenedora plástica".
- "2 donas".
- "Elemento soporte".
- "Troquelados o cortes de corre plástica".
- "Todo el conjunto".
- "Separador de cavidades".
- "Dona".
- "Cavidad".
- "Contorno ranurado".
- "Parte superior de la pieza".
- "Tapa".
- "Contorno ranurado de la tapa".
- "Dos piezas".
- "Cavidades en formas semicirculares".
- "Donas".
- "Troquelado o corte triangular".
- "Área plana solo dos costados de la base".
- "Publicidad de producto".
- "Escalón".
- "Zona de la pieza".
- "Correa plástica".

Se le sugiere al solicitante que aclare de manera específica y concreta a que elementos, características, componentes o términos, se esta refiriendo, y además coloque al frente de la característica o del elemento, el número de referencia guardando correspondencia con el capítulo descriptivo, las gráficas o dibujos y dicho capítulo reivindicatorio, con el objetivo de comprender mejor la invención al momento de hacer el análisis y distinguir los elementos de dicha invención

Se le recuerda al solicitante que al presentar nuevamente el capítulo descriptivo se debe presentar con una presentación, ordenada, secuencial y estructurada conteniendo todos los puntos que hacen parte de una descripción para una patente de modelo de utilidad, primeramente colocar todos los puntos del capítulo descriptivo, seguidamente colocar el capítulo reivindicatorio en folios independientes con respecto a los folios donde esta contenida la descripción y después las figuras o dibujos. Se le recuerda que

las figuras o dibujos se presentan en folios aparte, asimismo se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, formulando y planteando de manera clara y correcta los puntos llamados descripción de las figuras o dibujos y descripción detallada de la invención, es necesario que el solicitante vea el ejemplo del anexo No.2. Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, colocando y asignando los respectivos números de referencia a las características técnicas mostrándolos seguidamente de la característica técnica y a través de todo el capítulo descriptivo donde dicha característica se describa o se enuncie, asimismo dicho número de referencia debe guardar correspondencia con dicho capítulo descriptivo, las gráficas o dibujos y el capítulo reivindicatorio, con el objetivo de comprender mejor la invención al momento de hacer el análisis y distinguir los elementos de dicha invención. Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, colocando todos los números de referencia que tienen asignados cada característica entre paréntesis, como por ejemplo "...correa plástica (1)...", "...tapa plástica (5)...", etc. Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, eliminando el término "troquelado". Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, colocando todos los números de referencia que se muestran identificando cada una de las características en este capítulo descriptivo, también se deben ilustrar en las figuras o dibujos identificando dicha característica. Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, colocando en orden sus puntos que lo conforman así: título de la invención, objeto de la invención (sector tecnológico), estado de la técnica (antecedentes de la invención), descripción de la invención (problema técnico, solución planteada, ventaja técnica), descripción detallada de las figuras o dibujos, descripción detallada de la invención, y figuras o dibujos. (Ver anexo 2). Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, mostrando de manera clara y coherente como interactúan entre sí todas las características técnicas esenciales como particulares tangibles constructivas estructurales que conforman o componen todo el "Empaque dual apilable para transportar un vaso de café y dos donas". Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

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Se le sugiere al solicitante que presente un nuevo capítulo descriptivo, colocando y soportando de manera clara todas las características técnicas esenciales como particulares tangibles constructivas que conforman todo el *"Empaque dual apilable para transportar un vaso de café y dos donas"*, junto con sus configuraciones o disposiciones a través de todo el capítulo descriptivo. Se le recuerda al solicitante que al presentar el capítulo descriptivo no puede ampliar la materia de la invención.

Se le sugiere al solicitante presentar unas figuras o dibujos, ilustrando los respectivos números de referencia de todas las características técnicas que conforman el *"tambor rotatorio para limpieza en seco de caña de azúcar troceada"* y también de aquellas características técnicas que no tienen un número de referencia, estos números de referencia se deben mostrar en la figura o dibujo señalando e identificando la característica que se esta mostrando en dicha figura o dibujo conectándolo con una flecha o segmento recto. Se le recuerda al solicitante que al presentar las figuras o dibujos no puede ampliar la materia de la invención.

Se le sugiere al solicitante presentar unas figuras o dibujos, con un hilo conductor, con un orden lógico y secuencial en su presentación, asimismo describir, nombrar, hacer referencia y explicar a que elementos o piezas pertenece y como interactúan dichas graficas o dibujos dentro todo el capitulo descriptivo. Se le recuerda al solicitante que al presentar las figuras o dibujos no puede ampliar la materia de la invención.

Se le sugiere al señor solicitante observar detenidamente el anexo No.2, donde se expone un ejemplo ilustrativo de la redacción de un capítulo descriptivo con sus gráficas y/o dibujos y también se dan algunas **recomendaciones**, de carácter informativo, basados en el artículo 28 de la Decisión 486, sobre la información que debe incluir la descripción.

4. Determinación del Estado de la Técnica

El Estado de la Técnica se determinó con base a la fecha de presentación es del 23 de Octubre del 2009, se encontraron los siguientes documentos que hacen parte del estado de la técnica:

Nº	Documento	Título	Fecha de Publicación
D1	US3288344	DOUBLE CONTAINER DISPESING PACKAGE	29/11/1966
D2	US3323706	COMBINATION LIQUID AND FOOD PARTICLE CONTAINER	06/16/1967
D3	US1632933	ADJUSTABLE FOOD CARRIER	21/12/1920
D4	US1820497	CARRIER FOR CONTAINERS	25/08/1931
D5	US1499077	FOOD CARRIER	24/06/1924
D6	US909238	CULINARY UTENSIL	12/01/1909
D7	US5366089	SEPARABLE FOOD AND BEVERAGE CONTIANER COMBINATION	22/11/1994
D8	US2604976	COMBINED LIQUID AND FOOD LUNCH CONTAINER	29/07/1952
D9	US4694961	FOOD CARRIER ASSEMBLY	22/09/1987
D10	US4505506	ADJUSTABLE CARRIER FOR	19/03/1985

		CONTAINERS	
D11	US2595113	SECTIONAL CONTAINER	29/04/1952
D12	US4326640	CONTAINER SYSTEM FOR CARRYING AND SUPPLYING FOOD AND WATER FOR PETS	27/04/1982
D13	US4474303	PORTABLE MODULAR FOOD CONTAINER	02/10/1984
D14	JP11127934	STACKED CARRYING CONTAINERS	18/05/1999
D15	TWM277328U	COMBINED LUNCH BOX	11/10/2005
D16	CN201995805	COMBINED THERMAL INSULATION LUNCH BOX	05/10/2011
D17	JP54114386	COMBINED CONTAINER	06/09/1979
D18	US535889	CATEEN WITH SOLID FOOD COMPARTMENT	16/07/1996
D19	US3369691	STACKED FOOD CONTAINERS	20/02/1968
D20	US350460	STACKING LUNCH BOX	13/09/1994

Como se observa en la anterior tabla, se ilustran los documentos que se encuentran dentro del estado de la técnica, en donde los documentos que se encontraron fueron **D1** US3288344, **D2** US3323706, **D3** US1632933, **D4** US1820497, **D5** US1499077, **D6** US909238, **D7** US5366089, **D8** US2604976, **D9** US4694961, **D10** US4505506, **D11** US2595113, **D12** US4326640, **D13** US4474303, **D14** JP11127934, **D15** TWM277328U, **D16** CN201995805, **D17** JP54114386, **D18** US535889, **D19** US3369691 y **D20** US350460 (Ver folios 31 a 90) con respecto a la solicitud en estudio, estos documentos se relacionan y se anexan dentro del concepto técnico, como información que se encuentra contenida dentro estado de la técnica correspondiente al mismo campo técnico de la solicitud en estudio, asimismo estos documentos también se relacionan y se anexan dentro del concepto técnico debido a que según como esta reivindicada la solicitud en estudio donde se encuentran las características técnicas esenciales constructivas tangibles que componen o conforman el "*Empaque dual apilable para transportar un vaso de café y dos donas*" contenidas en la reivindicación independiente No.1 y sus otras respectivas características técnicas esenciales constructivas tangibles contenidas en sus reivindicaciones No.2 y No.3 hacen que esta invención se diferencie frente al estado de la técnica.

Se le recuerda al solicitante de manera muy importante que debe superar todas las falencias evidenciadas en el punto No.3 de este concepto técnico, tanto en el capítulo reivindicatorio como en el capítulo descriptivo.

Con base a lo anterior y consultadas las bases de datos y los archivos con que la entidad se encontró que antes del 23 de Octubre del 2009, fecha de presentación de la solicitud en estudio, no se encontraron documentos relevantes en el estado de la técnica que afecten la patentabilidad de la presente solicitud.

ANEXO 1

A continuación se dan algunas recomendaciones, de carácter informativo, para la presentación del capítulo reivindicatorio de la solicitud en estudio.

Se le sugiere al solicitante presentar una clausula principal que defina de manera clara y precisa lo que desea proteger con clausulas seguidas que particularicen o amplíen el objeto a proteger, se recomienda tener en cuenta las siguientes observaciones y recomendaciones así:

- Las reivindicaciones son las características técnicas esenciales de una invención, para las cuales se reclama la protección legal mediante la solicitud de patente o modelo de utilidad. En el caso de una patente concedida, las reivindicaciones aprobadas determinan el alcance de la protección legal otorgada.
- Las reivindicaciones deben:
 - a) Definir el objeto cuya protección solicita.
 - b) Ser claras y concisas, y
 - c) Sustentarse enteramente en la descripción.
- La esencia o razón de ser de una reivindicación consiste en definir la invención, **indicando sus características técnicas**, dándole el alcance de protección. Las reivindicaciones deberán **delimitar claramente la invención respecto al estado de la técnica o tecnología anterior**, de modo que se observe en forma concisa lo nuevo que se esta aportando a la tecnología y todo aquello que lo hace diferente de lo ya existente.
- En la redacción de las reivindicaciones se aconseja iniciar con la reivindicación menos limitativa, es decir más amplia, que contenga el menor número de características técnicas posibles pero si de suficientes para cumplir con el **requisito de novedad**, e incluir, una a una, dichas características limitativas en las reivindicaciones posteriores, que en cualquier caso serán dependientes de la primera.

El grado de importancia de las características técnicas de la invención a lo efectos de redacción de las reivindicaciones deberá determinarse en función del estado de la técnica mas próximo a la invención. De esta forma, podrá determinarse que características deberán incluirse necesariamente en la reivindicación principal y cuales podrán formar parte de las reivindicaciones dependientes.

- Cada reivindicación consta de un preámbulo y una parte caracterizadora. El preámbulo normalmente coincide con el título de la invención, y sirve de introducción informativa sobre el objeto que va hacer protegido. Contiene la información técnica conocida en el estado de la técnica del objeto que se pretende proteger. La parte caracterizadora, que suele seguir al preámbulo precedida por la frase **"caracterizado por"**, recoge las características técnicas que van hacer protegidas y que constituyen la novedad frente al objeto conocido del estado de la técnica.

- Las reivindicaciones pueden ser independientes o dependientes. Las reivindicaciones independientes deben contener todas las características esenciales que definen la invención, mientras que las reivindicaciones dependientes definen realizaciones particulares de la invención. En su redacción, las reivindicaciones dependientes hacen referencia en el preámbulo de la reivindicación principal de la cual dependen y definen en su parte caracterizadora, las características técnicas particulares que se desean proteger.
- En la redacción y estructura de las reivindicaciones se debe:
- Evitar inconsistencias entre la descripción y las reivindicaciones.
- Evitar en la medida de lo posible caracteres funcionales, es decir, la definición de un producto por la funcionalidad del mismo.
- Evitar incluir en las reivindicaciones referencias a los dibujos o figuras de la descripción técnica.
- Exponer las **“características técnicas de la invención”**. Esto significa que no deben contener declaraciones refiriéndose, por ejemplo, a las ventajas comerciales u otras consideraciones no técnicas.

En caso que una solicitud incluya dibujos, las características técnicas mencionadas en las reivindicaciones podrán ir seguidas de signos de referencia, relativos a las partes correspondientes de esas características en los dibujos, si facilitan la comprensión de las reivindicaciones. Los signos de referencia se colocaran entre paréntesis.

Ejemplos de redacción de las reivindicaciones para una solicitud de patente:

Ejemplo 1

REIVINDICACIONES

1. Sacacorchos, que estando especialmente concebido para tapones de madera, provistos de un cuello de inserción ajustada en el cuello de la botella o elemento de que se trate, y de una cabeza que en situación de cierre resulta exterior a dicha botella, Caracterizado porque incorpora un cuerpo determinante de un casquillo cilíndrico, de diámetro interno igual o ligeramente superior al de la cabeza del tapón, casquillo del que emerge lateral y radialmente un brazo de apreciable longitud, y que en oposición al mismo incorpora un orificio roscado para acoplamiento con carácter amovible de un segundo brazo, dotado a su vez de un extremo roscado en correspondencia, que actúa como tornillo prisionero sobre la superficie lateral de la cabeza del tapón, bloqueando a la misma el sacacorchos en su conjunto, que resulta finalmente accionable a través de los dos brazos coaxiales y contrapuestos.

2. Sacacorchos, según reivindicación 1ª, caracterizado porque el cuerpo o casquillo central incorpora en una de sus embocaduras una pequeña estrangulación actuante como tope limitación de penetración del tapón en el sacacorchos.

4. Sacacorchos, según reivindicaciones anteriores, caracterizado porque el segundo brazo, físicamente independiente del cuerpo o casquillo central y dotado del extremo roscado, incorpora en su otro extremo una expansión transversal de cualquier configuración, que facilita el movimiento giratorio de tal brazo, necesario para el desplazamiento axial del mismo a través de las roscas complementarias.

5. Sacacorchos, según reivindicación 1ª, caracterizado porque el brazo de apreciable longitud emerge axialmente del cuerpo determinante del casquillo cilíndrico, y se remata por su extremidad libre en una expansión transversal a modo de "T", en funciones de asidero, mientras que el tornillo prisionero está asociado a una palomilla para accionamiento manual del mismo.

Preámbulo:
Características
generales del invento

Parte caracterizadora:
elementos técnicos
específicos

Reivindicaciones
dependientes: concreta
elementos técnicos de
las reivindicaciones de
las que depende.

Ejemplo 2

REIVINDICACIONES

1. Maquina frigorifica de absorción con un condensador, evaporador, un absorbedor a través del cual se puede conducir una mezcla de refrigerante y de agente de absorción en el circuito, en la que al menos un colector solar (1) está conectado para la calefacción hasta por encima del punto de ebullición del refrigerante para la expulsión del refrigerante así como un acumulador de refrigerante (4) conectado en el condensador (3) del circuito, y en el colector de refrigerante (4) es recibido refrigerante líquido impulsado con una presión elevada y en el absorbedor (7) están conectados un acumulador (6) de agente de absorción y un colector para disolvente de absorción puro (8), caracterizada porque en el colector de refrigerante (4) está presente una regulación hidrostática que dosifica el refrigerante y que actúa en función del nivel de llenado, en colaboración con un capilar dispuesto entre el acumulador de refrigerante (4) y el condensador, y se puede realizar una dosificación de agentes de absorción por medio de una pantalla o a través del nivel de llenado en el acumulador (6) de agente de absorción.

2. Maquina frigorifica de absorción de acuerdo con la reivindicación 1, caracterizada porque delante del condensador (3) está conectado un separador de vapor (2).

3. Maquina frigorifica de absorción de acuerdo con al menos una de las reivindicaciones 1 a 2, caracterizada porque el condensador (3), el evaporador (5) y/o el absorbedor (7) están configurados como tubo nervado refrigerado por aire.

Preámbulo: características generales de la maquina.

Parte caracterizadora: elementos técnicos específicos

reivindicaciones dependientes: concreta elementos técnicos de las reivindicaciones de las que dependen.

Ejemplo 3

TIPO DE REIVINDICACIONES

Reivindicaciones de Procedimientos, Aparatos, Instrumentos, dispositivos, artefactos, instalaciones, mecanismos, sistemas, artículos, máquinas, composiciones químicas, mezcla de compuestos químicos, productos químicos, farmaceuticos, alimentarios, etc.

EJEMPLO 1. Reivindicación de un artículo

1. Tapa pitillo para recipientes que contienen líquidos para su consumo por absorción caracterizada por un ensamble de una mono-unidad que comprende:

- una tapa base acoplable a la boca del recipiente contenedor de líquido,
- un conducto que aloja un pitillo o tubo de absorción hacia el interior del recipiente,
- una porción de ducto pitillo con un tello y una rejilla de base líquido,
- una sobre tapa que cubre el ducto pitillo deslizándose sobre el mismo en un corto trayecto ascendente y descendente- un pitillo extremo de succión de líquido
- una cúpula de protección que cubre tanto el extremo del pitillo saliente como la sobre tapa, acoplándose a través de un cierre de seguridad sobre la tapa base.

Tomado de la solicitud de patente No. CO 02-5022 (WOG634283) "TAPA PITILLO PARA RECIPIENTES"

Preámbulo: indica el objeto de la invención

Parte caracterizadora: indica las partes nuevas de la tapa pitillo

Ejemplo 2. Reivindicación de una máquina

1. Maquina frigorifica de absorción con un condensador, evaporador, un absorbedor a través del cual se puede conducir una mezcla de refrigerante y de agente de absorción en el circuito, en la que al menos un colector solar (1) está conectado para la calefacción hasta por encima del punto de ebullición del refrigerante para la expulsión del refrigerante así como un acumulador de refrigerante (4) conectado en el condensador(3) del circuito, y en el colector de refrigerante(4) es recibido refrigerante líquido impulsado con una presión elevada y en el absorbedor (7) están conectados un acumulador (6) de agente de absorción y un colector para disolvente de absorción puro (8), caracterizada porque en el colector de refrigerante (4) está presente una regulación hidrostática que dosifica el refrigerante y que actúa en función del nivel de llenado, en colaboración con un capilar dispuesto entre el acumulador de refrigerante (4) y el condensador, y se puede realizar una dosificación de agentes de absorción promedio de una pantalla o a través del nivel de llenado en el acumulador (6) de agente de absorción.

Tomado de la solicitud de patente No. ES 2 162 788 (WVO 9711322) "MAQUINA FRIGORIFICA POR ABSORCION Y SU PROCEDIMIENTO DE FUNCIONAMIENTO"

Preámbulo: indica el objeto de la invención y las características generales de la maquina

Parte caracterizadora: indica las partes o elementos nuevos de la maquina

Los recuadros de los ejemplos son solo de carácter informativo y no se deben incluir en la redacción de la solicitud. Es necesario tener en cuenta los aspectos formales y de redacción que debe cumplir para la presentación de la solicitud.

ANEXO 2

A continuación se dan algunas **recomendaciones**, de carácter informativo, basados en el artículo 28 de la Decisión 486, sobre la información que debe incluir la descripción:

Sector Tecnológico

Se trata de una mera indicación del sector de la técnica al que se refiere o al cual se aplica la invención. Es aconsejable hablar de un primer sector según el área de la técnica (por ejemplo, hablar del sector químico, farmacéutico, metalmecánico, etc.) y de un segundo sector según la aplicación de la invención (dispositivo electrónico para..., estructura modular para..., etc.).

Estado de la Técnica

Se refiere a la tecnología anterior conocida por el solicitante que fuese útil para la comprensión y el examen de la invención. Este apartado debe ayudar al examinador a la comprensión de nuestra invención. Por esa razón debemos describir todo aquello que conocemos, los procedimientos o técnicas utilizadas hasta la fecha, los productos que hay en el mercado para..., los dispositivos que se utilizan en..., etc.

Cuando se hace alguna referencia a publicación o patente se deberá dar todos los datos para ser localizada. Autor, revista, fecha e incluso, pagina o líneas, para el caso de publicaciones; preferiblemente los datos de publicación de la patente, número, fecha de publicación y titular de la patente, para el caso de patentes.

Descripción de la Invención

Debe estar redactada de forma sencilla y completa, con el fin que una persona experto en la materia pueda comprenderla y reproducirla.

Para asegurar la novedad de la invención se debe empezar con hacer una sencilla y comprensible redacción del problema técnico planteado. Después describir la solución del problema, exponiendo las diferencias y eventuales ventajas con respecto a la tecnología anterior. Seguido de este preámbulo debemos caracterizar y concretar las novedades en que se base nuestra invención.

Generalmente, para ello, se emplean dos secciones. En la primera, "Breve descripción de la invención", se debe redactar de forma general y resumida el contenido de la invención, haciendo hincapié en la característica técnica más importante y novedosa de la misma. En la segunda, "Descripción detallada de la invención", volveremos a insistir en el objeto de nuestra invención, ahora aportando más datos, generales y específicos, que permitan reproducir la invención a un experto en la materia. En el caso de definición de parámetros o características utilizaremos siempre márgenes de valores o expresiones como "al menos de...", "más de...", "preferentemente de...", "tales como...", etc.

d) Explicación detallada de los dibujos o gráficas

Las figuras o dibujos deben permitir una mejor comprensión del problema

planteado y su solución; por lo tanto, las figuras o dibujos deben ser descritos en forma completa para que cumplan su función.

Si se incluyen dibujos o gráficas, se debe describir inicialmente en forma breve dentro de la descripción tal como: "Figura 1 muestra una vista lateral de la maquina empacadora; Figura 2 vista parcial de la máquina de la figura 1"; y a continuación realizar una descripción detallada haciendo referencia a los dibujos, el nombre del elemento debe estar seguido del número de referencia por ejemplo "la maquina de empaquetar 10 comprende dos rodillos accionados por un motor 11 para soportar y hacer girar el rollo 13".

La descripción y los dibujos deben ser consistentes los unos con los otros al referirse a los signos, símbolos o números de referencia.

En este aparato figuran las leyendas o explicaciones adicionales que requieren los dibujos que van a formar parte de la patente. Se trata de una explicación detallada, ya que no se permiten la inclusión de ningún texto en las figuras, solo se admiten palabras dentro de las figuras que sean esenciales para la comprensión de los dibujos, como por ejemplo, "vapor", "agua", "abierto" "corte según AB" o similares.

e) Dibujos o gráficas

Los dibujos, planos, figuras y representaciones gráficas tienen como finalidad contribuir a una mejor comprensión y divulgación de la invención. Los dibujos deben estar explicados en la descripción. Tienen que ser esquemáticos, libre de detalles inútiles, de leyendas y palabras, poniendo en evidencia lo esencial, o sea las características de la invención, por lo tanto deberán tener ciertas características así:

- Deben tener relación directa con la descripción;
- Deben permitir visualizar las formas de ejecución descritas;
- **La relación entre la descripción y los dibujos se debe hacer por medio de signos de referencia que se encuentren en ambos elementos y guarden una correspondencia;**
- Si dentro de la descripción han sido mencionados algunas figuras, necesariamente deben estar incluidas;
- No deben considerarse figuras o dibujos que no hayan sido descritos;
- Deben ser enumerados individualmente y consecutivamente.

En caso que una solicitud incluya dibujos, las características técnicas mencionadas en las reivindicaciones podrán ir seguidas de signos de referencia, relativos a las partes correspondientes de esas características en los dibujos, si facilitan la comprensión de las reivindicaciones. Los signos de referencia se colocaran entre paréntesis.

➡ **Se recomienda al solicitante asesorarse muy bien de cómo redactar y presentar la solicitud (capítulo descriptivo y dibujos), teniendo en cuenta las observaciones del presente concepto técnico, de modo que cumpla con lo establecido en los artículos 28 y 30 D 486.**

➡ Como guía para la redacción puede consultar la página web de la SIC http://www.sic.gov.co/propiedad/Nuevas_Creaciones/Patentes/Como/Redactar.php, o solicitar una orientación en la superintendencia de industria y comercio.

Ejemplo de redacción de la descripción para una solicitud de patente:

Sacacorchos.	Comenzar con el título de la invención	
Objeto de la invención	sector tecnológico al que se refiere o al que se aplica la invención	
La presente invención se refiere a un sacacorchos, concretamente a un sacacorchos que ha sido especialmente concebido para la apertura de botellas provistas de un tapón de madera, tapón para el que, por su propia naturaleza, son inoperantes los sacacorchos convencionales utilizados con los clásicos tapones de corcho.		
Estado de la técnica	Todo lo que el solicitante conoce sobre los antecedentes de la invención	
El propio solicitante es titular del modelo de utilidad con número de solicitud U 200300291, consistente en un tapón de madera, destinado a mantener el cierre estanco de un recipiente preferentemente tipo botella, como los utilizados en el envasado de vinos u otros productos, en sustitución del clásico tapón de corcho. De forma más concreta el citado tapón de madera, cuenta con una cabeza exterior, destinada a quedar fuera de la botella, y con un cuerpo afectado por un orificio axial ciego y por una pluralidad de profundas acanaladuras perimetrales que facilitan la absorción de ligeras deformaciones producidas por el efecto del crecimiento de la madera al humedecerse. El perfecto ajuste inicial entre el cuello del tapón y el de la botella y la posterior dilatación de dicho tapón por efecto de la humedad, hace que la unión entre estos elementos sea muy sólida, de manera que a pesar de la existencia de la cabeza exterior del tapón, que permite un accionamiento manual y directo sobre el mismo, las maniobras de extracción del tapón resulten extremadamente dificultosas. Por la propia naturaleza del tapón, es decir por ser éste de madera, imposibilita la utilización de los sacacorchos convencionales, todos los cuales están concebidos para penetrar de una u otra manera en el seno del material constitutivo del tapón.		
Descripción de la invención	Problema técnico y solución planteada	Ventaja técnica que aporta la invención
El sacacorchos que la invención propone ha sido específicamente concebido para permitir una fácil extracción de estos tapones de madera. Para ello y de forma más concreta dicho sacacorchos se materializa en un cuerpo que configura un casquillo cilíndrico, dimensionalmente adecuado a la cabeza del tapón, preferentemente con una de sus embocaduras ligeramente estrangulada para constituir un tope limitador de penetración del casquillo en la cabeza del tapón, y con una cota axial igual o inferior a la de dicha cabeza, emergiendo radialmente de dicho cuerpo un brazo de apreciable longitud, mientras que en oposición diametral a dicho brazo y coaxialmente con el mismo incorpora un orificio prolongado exteriormente en un pequeño cuello interiormente roscado, en el que juega el extremo roscado de un segundo brazo, coaxial con el primero y rematado por su otro extremo en una expansión transversal en funciones de asidero, para suministrar al segundo brazo un movimiento giratorio. De acuerdo con esta estructuración y en situación de retracción para el segundo brazo, en el que éste deja totalmente libre el interior del cuerpo o casquillo, dicho cuerpo resulta fácilmente acoplable a la cabeza del tapón, para seguidamente actuar en sentido giratorio sobre el asidero del segundo brazo provocando el desplazamiento axial del mismo, con penetración en el seno del cuerpo o casquete, incidiendo lateralmente obre dicha cabeza, es decir actuando a modo de un tornillo prisionero, que fija rigidamente el sacacorchos en su conjunto al tapón, y que permite una fácil extracción de este último suministrándole un movimiento combinado de giro y tracción axial mediante accionamiento de los dedos de la mano simultáneamente sobre ambos brazos del sacacorchos.		
Descripción de los dibujos	Explicación detallada de los dibujos	
Para complementar la descripción que se está realizando y con objeto de ayudar a una mejor comprensión de las características del invento, de acuerdo con un ejemplo preferente de realización práctica del mismo, se acompaña como parte integrante de dicha descripción, un juego de dibujos en donde con carácter ilustrativo y no limitativo, se ha representado lo siguiente: La figura 1.- Muestra, según una vista en perspectiva, un sacacorchos realizado de acuerdo con el objeto de la presente invención. La figura 2.- Muestra un detalle en planta y en sección longitudinal del sacacorchos de la figura anterior. La figura 3.- Muestra una vista en alzado lateral y también en sección del mismo sacacorchos, ahora en situación de uso, es decir acoplado a un tapón de madera. La figura 4.- Muestra, finalmente, una representación esquemática en perspectiva de una variante de realización práctica para el sacacorchos.		

A la vista de las figuras reseñadas, en especial de las figuras 1 a 3, puede observarse como el sacacorchos que la invención propone está constituido a partir de un cuerpo central (1), que configura un casquillo cilíndrico de diámetro interno ligeramente superior a diámetro externo de la cabeza (2) del tapón de madera al que se destina, y con una de sus embocaduras provista de una ligera estrangulación (3) en funciones de tope limitador de penetración para la cabeza (2) del tapón, tal como se desprende de la observación de la figura 3.

El cuerpo (1) incorpora exteriormente, como prolongación lateral y monopieza del mismo, un brazo (4) de apreciable longitud, mientras que oposición diametral a dicho brazo cuenta con un orificio (5), coaxial con el brazo (4) y prolongado exteriormente en un pequeño cuello (6) dotado interiormente de una rosca (7) que o bien afecta también al orificio (5) o bien dicho orificio presenta un diámetro ligeramente mayor que el del cuello (6).

A través de la rosca (7) del cuello (6) el sacacorchos recibe a un segundo brazo (8) provisto en uno de sus extremos de un tramo (9) roscado en correspondencia con el cuello (6) y rematado por su otro extremo en una expansión transversal (10) en funciones de asidero, así como de abridor de chapas, que en el ejemplo de realización práctica elegido adopta una configuración anular plana, pero que puede adoptar cualquier otra configuración, acorde con cualquier línea de diseño, sin que ello afecte en absoluto a la esencia de la invención.

De acuerdo con la estructuración descrita y como ya se ha dicho con anterioridad, cuando el extremo roscado (9) del segundo brazo (8) deja libre el interior del cuerpo (1), éste es fácilmente acoplable a la cabeza (2) del tapón, tal como muestra la figura 3, y tras dicho acoplamiento basta con suministrar a la expansión extrema (10) un movimiento giratorio que provoca un cierto desplazamiento axial del eje (8), a través de la rosca (7), con la consecuente penetración del mismo en el interior del cuerpo o casquillo (1) y con la consecuente presión radial sobre la cabeza (2) del tapón, que queda así inmovilizada al sacacorchos, y en condiciones de efectuar la extracción del tapón, traccionando simultáneamente con la mano sobre ambos brazos (4) y (8), preferentemente con un movimiento combinado de basculación lateral para dichos brazos.

De acuerdo con la variante de realización mostrada en la figura 4, el cuerpo (1) puede incorporar su brazo (4') como prolongación axial del mismo, en lugar de adoptar una disposición radial como en el caso anterior, estando este brazo (4') reforzado en su zona de unión al cuerpo (1) mediante una expansión tronco-cónica (11) y rematándose por su extremidad libre en una expansión transversal (12), a modo de "T" y en funciones de asidero.

A continuación se presenta un ejemplo de los dibujos para una solicitud de patente:

EJEMPLO DE LAS FIGURAS O DIBUJOS

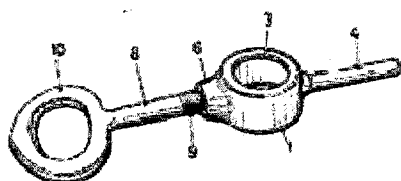


FIG. 1

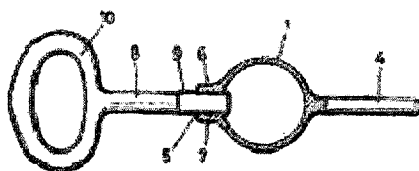


FIG. 2

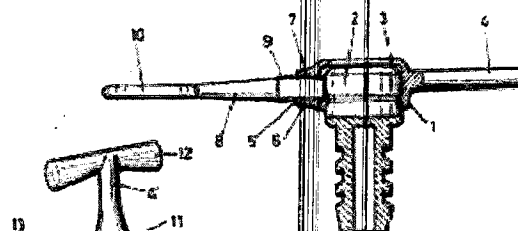


FIG. 3

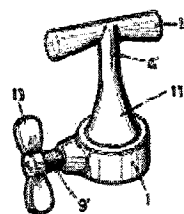


FIG. 4