Sept. 4, 1962 P. W. ATKINS ET AL 3,052,368

COMPARTMENTED FOOD CONTAINER

Filed June 29, 1960

Fig. 1

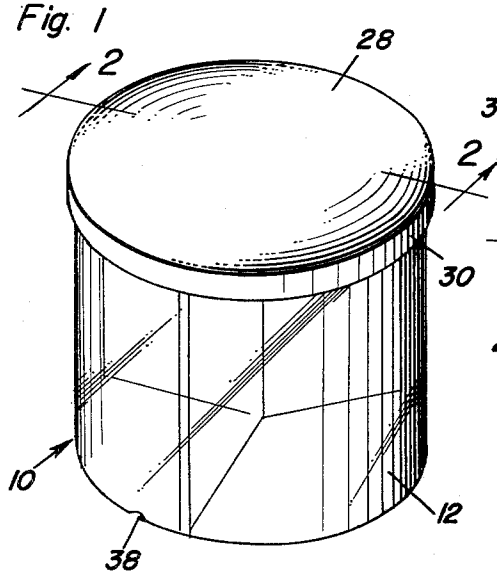


Fig. 2

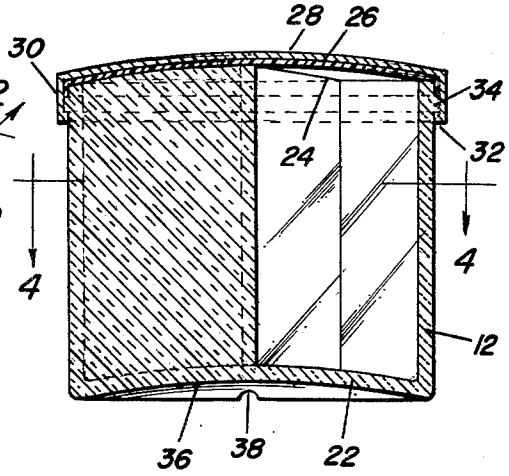


Fig. 3

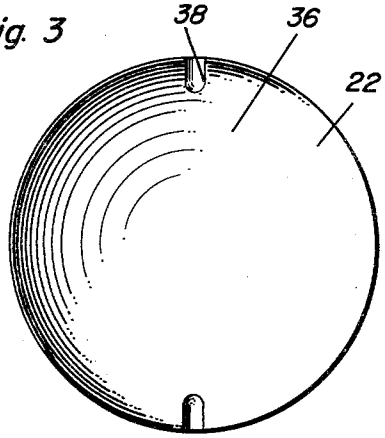
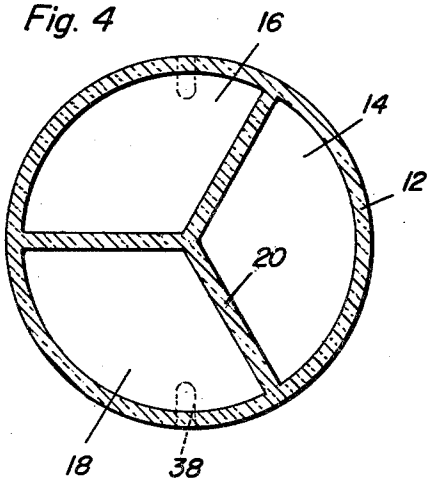


Fig. 4



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COMPARTMENTED FOOD CONTAINER

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9 Claims. (Cl. 215—6)

The present invention generally relates to an improved and novel container construction and more particularly to a compartmented container including a plurality of separate compartments for receiving different commodities or the like.

The present invention is illustrated in conjunction with a glass container such as those normally employed for strained baby food. Generally, a small child will consume portions of a number of different products thus leaving a part of the container after each feeding. Such glass containers are usually then stored in the refrigerator or the like for subsequent use. However, the unused portions of the product quite often become spoiled or otherwise unfit for use due to the fact that the seal has been broken on the entire container. Usually, the housewife will be left with a residual group of containers in the ice box which are normally thrown away since there is no way of knowing how long the opened containers have been there in unsealed condition. Therefore, it is the primary object of the present invention to provide a compartmented container which may be constructed of glass and which may be employed for packaging strained baby food. The compartmenting enables a plurality of baby foods to be disposed in the same container for facilitating the use of such foods. The upper end of the container is closed by a closure cap having a liner or seal on the inner surface thereof which closure cap forms a closure for the entire container and also a closure for each compartment defined by the partitions.

Of utmost importance in the present invention is the construction of a glass container being compartmented and a closure cap therefor is of conventional construction in that it does not require any special positioning or assembly procedure with the container, the top, lid or cap being of the conventional screw threaded type, ammerseal or twist-on interlocking flange or prong type. Containers of compartmented construction for receiving various commodities or products are generally known. However, such devices previously known have required a special type cap or closure that would not lend itself to mass production thus requiring a relatively high cost in production so that previous devices have not been economical or practical. Such prior containers have generally required a "one of a kind" closure that either employed a special type liner for sealing or some other type of sealing compound together with a locating arrangement between the closure cap and the container which required an alignment procedure between the cap and the container to ensure placement of the closure cap in the necessary single position which ensured proper sealing of the individual compartments. The necessity of orientating the closure cap and the container in a single rotational position, such arrangements have not been mass produced in view of the mechanical difficulties in orientating the containers and closure cap in proper position. Also, previous devices have required that the cap or closure be processed or crimped after it was in place on the container to form the seal around the outer upper rim of the container. Such procedures are not only expensive but are not economically adaptable to mass production methods.

In distinction to those devices previously known, the present invention employs a conventional closure cap with a conventional sealing liner therein which may be positioned onto the container in any relative position thus

enabling the container and closure cap to be assembled by employing mass production machinery. Further, the closure cap of the present invention may be replaced on the container at any time for resealing the compartments. Briefly, the compartmented container has a curved upper edge surface, illustrated as being convexed with the rim surface also lying in the same curved plane thereby receiving a container cap which has not been curved as much or which may be straight thus tensioning the cap against the upper edge of the compartments and the rim for effectively sealing the compartments and the rim.

The bottom of the container is provided with a curved surface, illustrated as being concave, for stacking engagement and alignment of a plurality of stacked containers thus retaining the glass containers more readily in stacked condition without as much danger of tumbling. Another feature of the invention resides in the provision of grooves or recesses extending radially of the side edges of the bottom of the container for enabling circulation of the water under the container when the container is being heated in water such as when baby food is being heated in the container thereby enabling better circulation of hot water over the entire surface area of the container and eliminating any possibility of a hot spot being formed on the bottom of the container which may burn or scorch the food therein.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the container of the present invention with a closure cap disposed thereon;

FIGURE 2 is a transverse, sectional view taken substantially upon a plane passing along section line 2—2 of FIGURE 1 illustrating the details of construction of the container and closure cap illustrating the relationship therebetween;

FIGURE 3 is a bottom plan view of the container illustrating the curvature thereof and the water circulating grooves; and

FIGURE 4 is a transverse, sectional view taken substantially upon a plane passing along section line 4—4 of FIGURE 2 illustrating further structural details of the container.

Referring now specifically to the drawing, the numeral 10 generally designates the container in the form of a glass receptacle which may be constructed of any other suitable material and, the device as illustrated is that type of container normally employed for packaging baby food. The container 10 includes a cylindrical peripheral wall 12 defining a cylindrical interior divided into a plurality of compartments 14, 16 and 18 by radially extending partitions 20 all of which are integral with each other at the center thereof and integral wtih the peripheral wall 12 at the outer ends thereof. The lower end of the wall 12 and the partitions 20 are provided with a bottom member 22 integral with the wall 12 and the partitions 20. The container is capable of being formed in the usual manner of the formation of such containers such as by molding or the like.

The top edge of the partitions 20 are convex as designated by the numeral 24 and this convex curvature is also formed on the top edge of the wall 12 whereby the top edge or rim formed by the top edge of the wall 12 is a continuation of the convex surface formed by the top edges of the partitions 20. This provides a smooth and continuous convex surface for engagement by a sealing liner 26 carried by the closure cap 28.

The closure cap 28 is of sheet metal construction and may be formed by a suitable stamping process or the like

and includes a depending peripheral flange 30 having edges 32 inturned under a peripheral rib or projection 34 formed on the peripheral wall 12 of the container. This is a conventional crimping operation employed in lids of this nature and it is pointed out that the means for securing the cap or lid to the container may vary and any conventional retaining means may be employed such as screw threads, interrupted threads, interlocking prongs or projections and the like.

The bottom 22 is provided with a concave lower surface 36 generally conforming to the curvature of the top edge of the container so that the convexity of the upper surface of the lid or cap 28 will be received within the concavity 36 of the bottom 22 for facilitating the stacking of the containers one upon another. The engaging curved surfaces will tend to centralize the containers in relation to each other and at the same time will retain the containers in stacked relation.

The edges of the bottom 22 which form the outer limits of the concave area 36 have a pair of radial recesses or grooves 38 formed therein which communicate the exterior surface of the peripheral wall 12 with the concave surface area 36 for circulation of water therethrough. This is especially useful when the container is used for baby foods and the baby food is placed in a relatively small pan of water for heating. This will assure that water will be disposed between the concave bottom surface 36 and the pan so that the pan will not overheat the bottom 22 which may cause scorching of the foods.

While the device has been illustrated and described as a glass container for baby food, it is pointed out that the device may be constructed of any suitable material and may be employed for any suitable purpose. The normally flat container lid is preferably constructed of sheet metal or the like while the sealing liner may be of any suitable material such as a paper material or the like.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A compartmented container assembly comprising an open top container, a plurality of partitions in said container dividing the container into a plurality of compartments, the upper edge of the rim of the container and the upper edges of the partitions forming continuous surface areas, a detachable lid engaged with the container and sealingly engaging the top edges of the container and partitions, said detachable lid having a smooth inner surface and so shaped in contrast to said continuous surface that engagement of the lid creates a spring bias toward said top edges of the partitions for sealingly engaging the upper edges of the partitions and the upper edges of the rim of the container.

2. The structure as defined in claim 1, wherein said container is of cylindrical glass construction, said partitions extending radially from the center of the container, said container and partitions being of one piece construction.

3. The structure as defined in claim 1, wherein the top edges of the partitions are convexly curved with the top edge of the container forming a continuation of the convexly curved edges of the partitions, said detachable lid being constructed of resilient material and deformed convexly thereby biasing the lid towards the upper end of the container and partitions.

4. The structure as defined in claim 3, wherein said container is provided with a bottom having a concave lower surface for nesting engagement with similar stacked containers for aligning the containers and maintaining the containers in aligned condition.

5. The structure as defined in claim 4 wherein the outer portion of the concave area of the bottom is provided with a plurality of radial grooves extending therethrough for permitting circulation of water under the container.

6. A container comprising a cylindrical peripheral wall, a plurality of radial partitions, and a bottom, said wall, partitions and bottom being of one piece glass construction, the upper edges of the partition being arcuately curved, and the upper edge of the wall being inclined to form a continuation of the curved surface defined by the upper edges of the partitions.

7. The container as defined in claim 6 wherein said wall is provided with means adjacent the upper end thereof for detachably engaging a closure cap for retaining the cap against the top edges of the partitions and the top edge of the wall.

8. The container as defined in claim 7 wherein the curved surface defined by the partitions and the wall is convex in nature.

9. A compartmented container assembly comprising a cylindrical peripheral wall, a plurality of partitions, a bottom and a normally flat closure cap, said wall, partitions and bottom being of one-piece construction, the upper edges of the partitions being arcuately curved, and the upper edge of the wall being inclined to form a continuation of the curved surface defined by the upper edges of the partitions, said curved surface being convex in nature, said wall provided with engaging means adjacent the upper end thereof for detachably engaging said closure cap, said closure cap constructed of resilient material whereby upon engagement of the closure cap with said engaging means the cap will be spring biased toward the partitions and upper edge of wall for sealingly engaging said upper edges of the partitions and said upper edge of the wall.

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