July 24, 1934. L. J. BEHR 1,967,280

CONTAINER FOR ICE CREAM REFRIGERATION CABINETS

Filed June 15, 1933 2 Sheets-Sheet 1

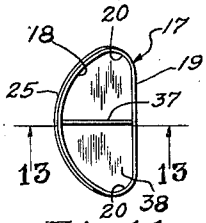


Fig. 14

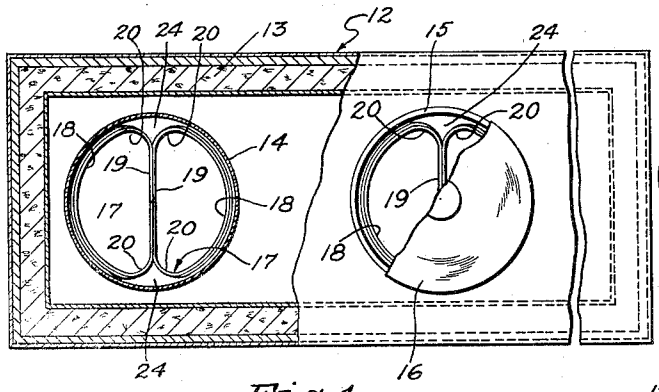


Fig. 1

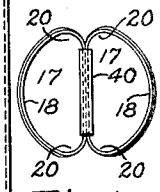


Fig. 16

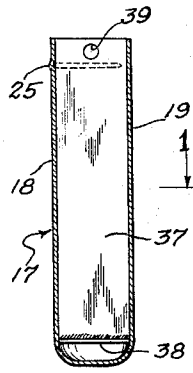


Fig. 13

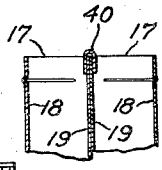


Fig. 17

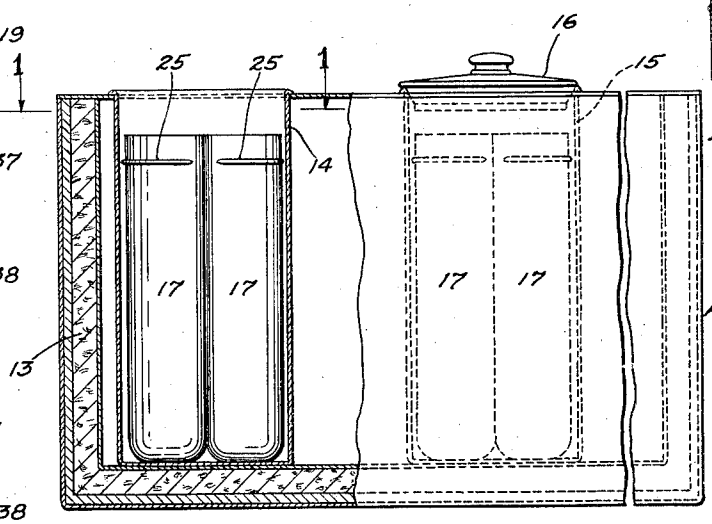


Fig. 2

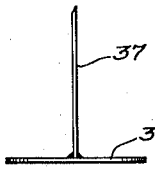


Fig. 15

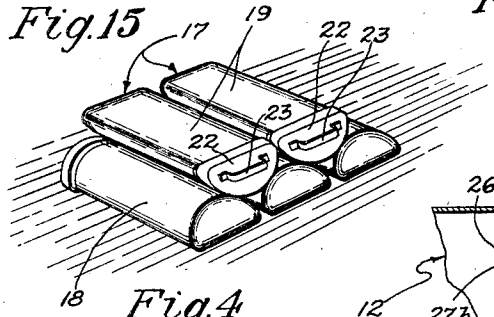


Fig. 4

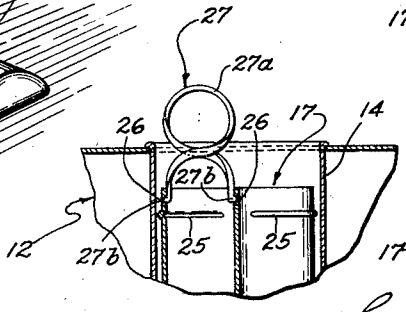


Fig. 3

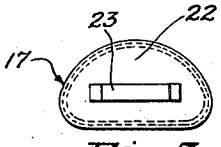


Fig. 5

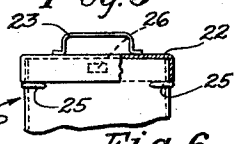


Fig. 6

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CONTAINER FOR ICE CREAM REFRIGERATION CABINETS

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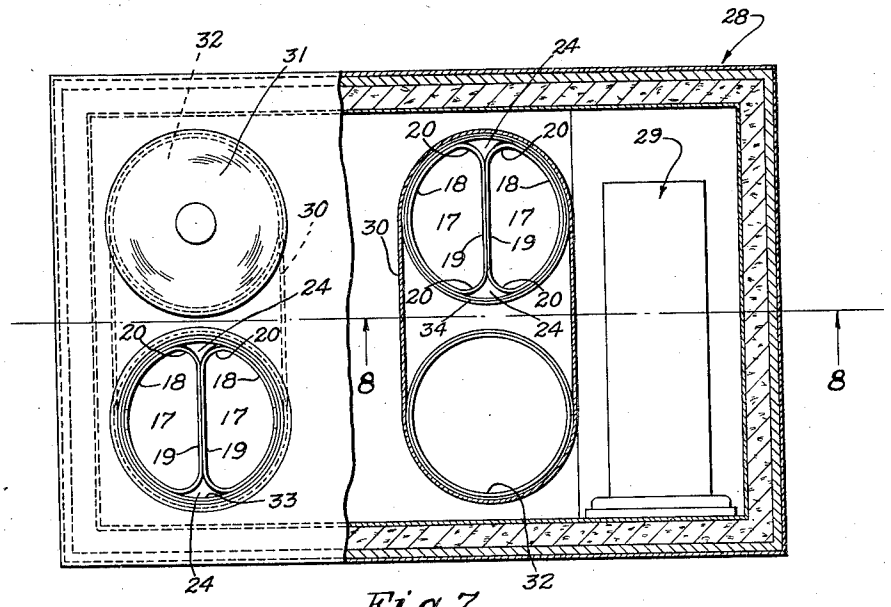


Fig. 7

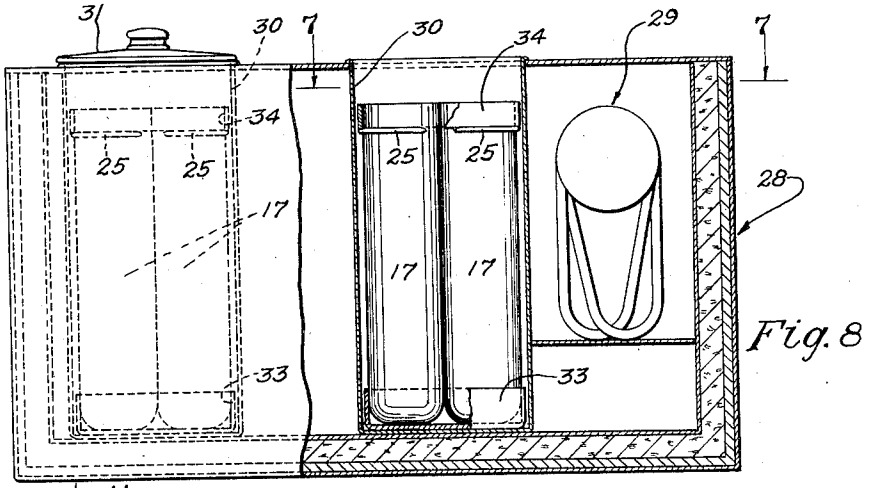


Fig. 8

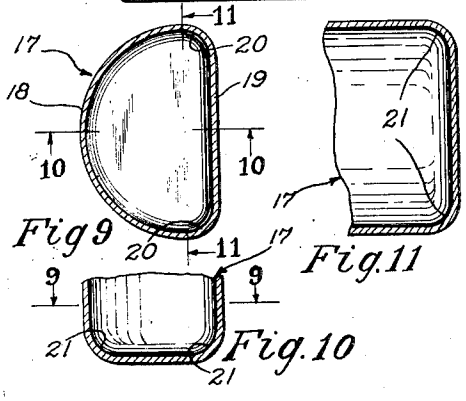


Fig 9

Fig. 10

Fig. 11

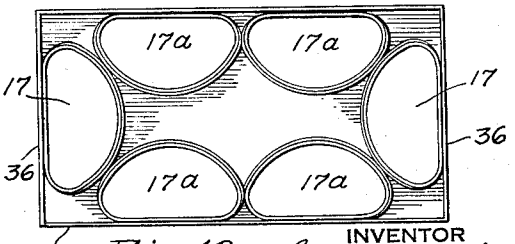


Fig. 12

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CONTAINER FOR ICE CREAM REFRIGERATION CABINETS

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Application June 15, 1933, Serial No. 675,920

2 Claims. (Cl. 220—17)

This invention relates to new and useful improvements in containers for ice cream refrigerators or cabinets.

An object of the invention is to provide a container which is of such construction that a cabinet may contain or accommodate more containers, and accordingly more varieties of ice cream, than there are holes or compartments in the cabinet or refrigerator.

Another object is to provide a container which is so shaped that two containers may be positioned in a single hole of a refrigerator cabinet, the shape of the containers providing for the circulation of air about the containers in the hole and providing room for the usual scoop so that all ice cream may be removed from the containers, there being no sharp interior corners.

Other objects and advantages will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawings wherein a satisfactory embodiment of the invention is shown. However, it will be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims.

In the drawings:

Fig. 1 is a plan view, parts being broken away as along the line 1—1 of Fig. 2, showing the invention as applied to a two hole cabinet;

Fig. 2 is a partial side elevational view and partial longitudinal section of Fig. 1;

Fig. 3 is a detail sectional view illustrating the manner in which one of the improved containers may be removed from a refrigerator;

Fig. 4 is a perspective view illustrating the manner in which the containers may be stacked, as in a truck;

Fig. 5 is a top plan view of one of the containers, with its cover in place;

Fig. 6 is an elevational view of the upper portion of the container of Fig. 5, a part of the cover being broken away;

Fig. 7 is a plan view, parts being broken away as along the line 7—7 of Fig. 8, and showing the invention as applied to a four hole cabinet using a double hole arrangement;

Fig. 8 is a view partly in side elevation and partly in section, as along the line 8—8 of Fig. 7;

Fig. 9 is a detail sectional view through one of the containers, the view being taken as along the line 9—9 of Fig. 10;

Fig. 10 is a detail sectional view along the line 10—10 of Fig. 9;

Fig. 11 is a detail sectional view along the line 11—11 of Fig. 9;

Fig. 12 is a plan view showing an alternate arrangement which may be used for this container in a rectangular compartment in a cabinet;

Fig. 13 is a vertical section through a container showing an insert partition which may be used;

Fig. 14 is a top plan view thereof;

Fig. 15 is a side elevation of the lower portion of this partition;

Fig. 16 is a top plan view showing an arrangement for holding two cans while filling them; and

Fig. 17 is a detail section substantially on line 17—17 of Fig. 16.

Referring in detail to the drawings, and at first particularly to Figs. 1 through 6, and Figs. 9 through 11, at 12 is shown an ice cream refrigerator or cabinet of any preferred construction, such as used at soda fountains and ice cream counters, and including the usual insulated walls 13. The cabinet may contain any suitable or desired refrigerating unit (not shown), usually placed at one end of the cabinet, and the cabinet includes a pair of spaced cylindrical members 14 and 15 providing compartments, or as they are known in the trade "holes", for the reception of containers of ice cream. These containers are usually cylindrical cans and they are of a size so that when they are placed in the compartments or holes there is a space left between them and the walls of the compartments 14 and 15 for circulation of air so the capacity of the cans is limited, and to protect the ice cream in the containers the cabinet is provided with covers 16, one for each hole, which may be easily removed to give access to the ice cream.

With the arrangements at present in use, wherein the ice cream containers are cylindrical the kinds or varieties of ice cream which may be kept in a cabinet or refrigerator is limited strictly by the number of holes or compartments in the cabinet. This is due to the fact that the containers now in use are cylindrical and but one container may be positioned in each hole of the cabinet. Also, it is common practice to store bricks of ice cream, ice cream pies, and plates or the like in one hole of a cabinet so that the capacity of the cabinet is limited as to the varieties of ice cream which may be kept. At the present time should a store keeper have a two hole cabinet and desire to dispense three or more varieties of ice cream in bulk then the two hole cabinet must

be removed and a cabinet having three or more holes installed.

The removal of one cabinet and the installation of another involves considerable expense, and the larger cabinets are much more expensive than the smaller and in addition take considerable more floor space. Also, there is a greater running expense in connection with the larger cabinets this being particularly due to the consumption of greater quantities of electric current. The present invention provides means whereby without increasing the size of the cabinet or refrigerator and without the expense incident to the removal and installation of a new cabinet, and the expense incident to the operation of a larger cabinet a much greater number of varieties or kinds of ice cream may be kept.

According to the invention ice cream containers 17 are provided each including a rounded side 18 and a flat side 19. The interior surfaces of containers 17 at the longitudinal edges of the flat sides are rounded as at 20 the radius of the curve 20 being such that the usual ice cream scoop may get into this restricted space so as to remove all ice cream therefrom. Further, the interior surfaces of the containers are rounded at the juncture of the side and bottom walls as shown at 21 this radius being such as to accommodate a scoop. With this arrangement there are no sharp interior corners and all of the contents may easily be removed from the containers.

The containers 17 are of such size that two of the containers may be disposed in a single hole or compartment of a cabinet when the containers are arranged with their flat sides in opposed or contracting relation. This is clearly shown in Figs. 1 and 2. These containers can furthermore be of such a size that their curved sides are more closely adjacent the sides of the compartment than are the usual cylindrical cans because this new container provides spaces 24 for the necessary circulation of air. Since two ice cream containers may be located in the same hole of a cabinet it will be appreciated that a store owner may put in twice the varieties of ice cream without increasing the size of his cabinet. Some varieties of cream sell faster than others and with a fast selling variety the usual large cylindrical cans may be stored or kept each in a single compartment while the slower selling varieties may be stored two kinds to a compartment or hole, the improved flat sided containers of the present invention being used for that purpose.

For example, if a store keeper has a two hole refrigerator cabinet and is selling vanilla and chocolate ice cream, the chances are that he will sell more of the vanilla flavor than of the chocolate flavor. He may sell a five gallon can of vanilla ice cream every day while a five gallon can of chocolate ice cream may last him two or three days. Should he desire to carry another flavor he must at present install a larger refrigerator cabinet. According to the present invention he would continue to take from the manufacturer or distributor the usual five gallon can of vanilla ice cream and he could then take a flat sided can of chocolate and a flat sided container of some other flavor and store the two flat sided cans in one hole or compartment whereby he would be carrying three varieties of ice cream without increasing the size of his cabinet.

It will be understood that the flat sided containers 17 need not all be of the same capacity. They might each be of 2½ gallon capacity or some of them might be of three gallon capacity while others are of a size to receive only two gallons of ice cream. From this it will be seen that the improved containers might be made up in a variety of sizes so that a store keeper would stock ice cream of the various flavors in substantially the proportions in which the various flavors sell. Covers or tops 22 are provided for the improved containers and while such covers may be of any type they are here shown as slip covers equipped with handles 23 whereby they may be easily applied and removed it being understood that while a container is in the cabinet or refrigerator the cover or top 22 of said container is removed.

When the usual cylindrical containers are employed it is necessary to leave a space about them for the circulation of air. That is, the cylindrical containers are of such diameter that their outer walls are spaced from the inner surfaces of the cylindrical members or elements 14 defining the various holes or compartments of a cabinet. The flat sided containers 17 of the present invention may have their rounded or curved walls of such radius as to substantially contact with the inner surfaces of the members 14. This is due to the fact that when the flat sides of such containers are in engagement the rounded edges adjacent said flat sides are in spaced relation leaving spaces 24 through which air may circulate. Therefore, through the use of the containers of the present invention the gallon capacity of a hole or compartment of a refrigerator is not reduced and may even be increased.

Transversely extending ribs or beads 25 are provided on the rounded sides of the containers adjacent their upper ends and these ribs may serve to prevent engagement of the rounded sides of the containers with the inner surfaces of the elements or members 14 leaving a slight space for the circulation of air. Also, these ribs may serve as a means to limit the movement of the covers 22 onto the containers as shown in Fig. 6. In its upper end portion each container in its opposite walls is provided with openings 26 for the insertion of the ends of any suitable tool 27 to be used for lifting the containers out of the holes or compartments of the refrigerator, this tool comprising opposite arms connected by a spring portion 27*a* and the arms having at their free ends lugs 27*b* to enter the holes in the container. By pressing the arms toward each other the lugs may be removed from the openings and the tool removed.

Referring now to Figs. 7 and 8 the refrigerator or cabinet of these figures is generally designated 28 and is of greater size and capacity than the refrigerator or cabinet 12 of Fig. 22. The cabinet 28 contains any suitable refrigerating unit shown diagrammatically and generally designated 29, and the cabinet is provided with a pair of double holes or compartments defined by the elements 30. Covers 31 corresponding with the covers 16 previously referred to are provided.

As disclosed in Figs. 7 and 8 each of the double holes receives one of the usual cylindrical ice cream containers 32 and two of the flat sided containers 17, or four of the flat sided containers may be inserted in each compartment. These containers 17 are arranged in pairs and to prevent relative movement of these containers while ice cream is being scooped from them, their lower end portions are received in shallow pans or rings 33 while their upper end portions are held in the proper relative relation as by bands 34. Thus it will be seen that the containers are held

in place while ice cream is being dug or scooped from them and means for accomplishing this also maintains the containers in such position that their curved walls are held in spaced relation to the members or elements 30 defining the holes or cabinets.

From Figs. 7 and 8 it will be apparent that through the means of the present invention a four hole cabinet is adapted to contain as many as eight varieties of ice cream. However, this will not usually occur since as pointed out above some varieties or flavors sell much more slowly than others and in addition it is customary to use one hole or compartment for the storage of brick ice cream and small articles and the like.

It will now be understood that according to the present invention two ice cream containers may be stored in the same hole of a cabinet where heretofore it has been possible to store only one container. Further, it will be noted that the containers are so shaped as to provide for the circulation of air through the spaces 24 and permits of increasing the number of varieties of ice cream stored without increasing the size or operating costs of the cabinet or refrigerator. Additionally, it is to be noted particularly by reference to Fig. 4 that the improved containers may be conveniently stacked for storage or transportation. In stacking the containers they are disposed horizontally the first layer resting on their flat sides and the next layer being arranged in staggered relation to the first layer and with the curved sides of the second layer against the curved sides of the first layer. The usual cylindrical containers must be stored upright or in vertical position since otherwise they roll.

In Fig. 12 is shown how in a single rectangular cabinet compartment at least six of these flat sided containers may be stored. The rectangular compartment is indicated at 35 and it is to be understood such a compartment may be used in a cabinet 28 the same as the curved end compartments 30. With this compartment a container 17 may be placed at either end with its flat wall adjacent the end walls 36 of the compartment and then two additional containers may be placed at each side with their flat sides adjacent the side walls of the compartment as indicated at 17*a*, making six in all of my new containers in such a compartment.

As stated above, one, two or more compartments are used for storing brick ice cream and five and ten cent sellers, such as Eskimo Pies, Cake Rolls, Popsickles, Cups, Snappy Packages, Frost Sticks, etc. For such five and ten cent sellers I have shown in Figs. 13 to 15 an upright partition 37 secured as by welding or soldering to a transverse plate 38 at its lower end. The plate 38 is of substantially the same size and shape as the inside space of the container so that it can be inserted into it as shown in Figs. 13 and 14. The upright partition 37 then divides this space into two separate spaces for the articles noted. The partition may have an opening 39 at its upper end so the applicant may insert his finger and pull the device with the lower wall upwardly and thus raise the articles so they are easily accessible. When filling the ice cream cans in the ice cream plant the rings 34 and the holder 40 (Figs. 16 and 17) can be used to hold the cans together which provides filling in the same manner as a single round can. The holder 40 is of spring sheet metal and when forced down over the adjacent top edges of the flat sides they hold the cans together and keep the ice cream from getting between the cans. This can may be manufactured in steel, tin, paper or other suitable material.

Having thus set forth the nature of my invention, what I claim is:

1. A container for ice cream refrigerator cabinets, the same comprising a can having a flat side whereby two such cans may be placed in a single hole of a refrigerator cabinet with their flat sides in engagement, said can rounded on its inner side along the edges of its flat side, and said rounded portions of a sufficient radius to receive an ice cream scoop.

2. A container for ice cream to be placed in a refrigerator cabinet comprising a rounded side wall and a flat side wall connected with the rounded side wall by curved longitudinal edges, a plate of substantially the size and shape as a cross section of the interior of said container, a partition secured to said plate and extending upwardly therefrom and extending between the flat side wall and the curved side wall to divide the container into separate compartments, and means at the top of the partition whereby it may be raised.

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