

Oct. 8, 1957

A. J. GRAPHIA III, ET AL
PORTABLE LIQUID DISPENSER

2,808,965

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2 Sheets-Sheet 1

Fig. 2

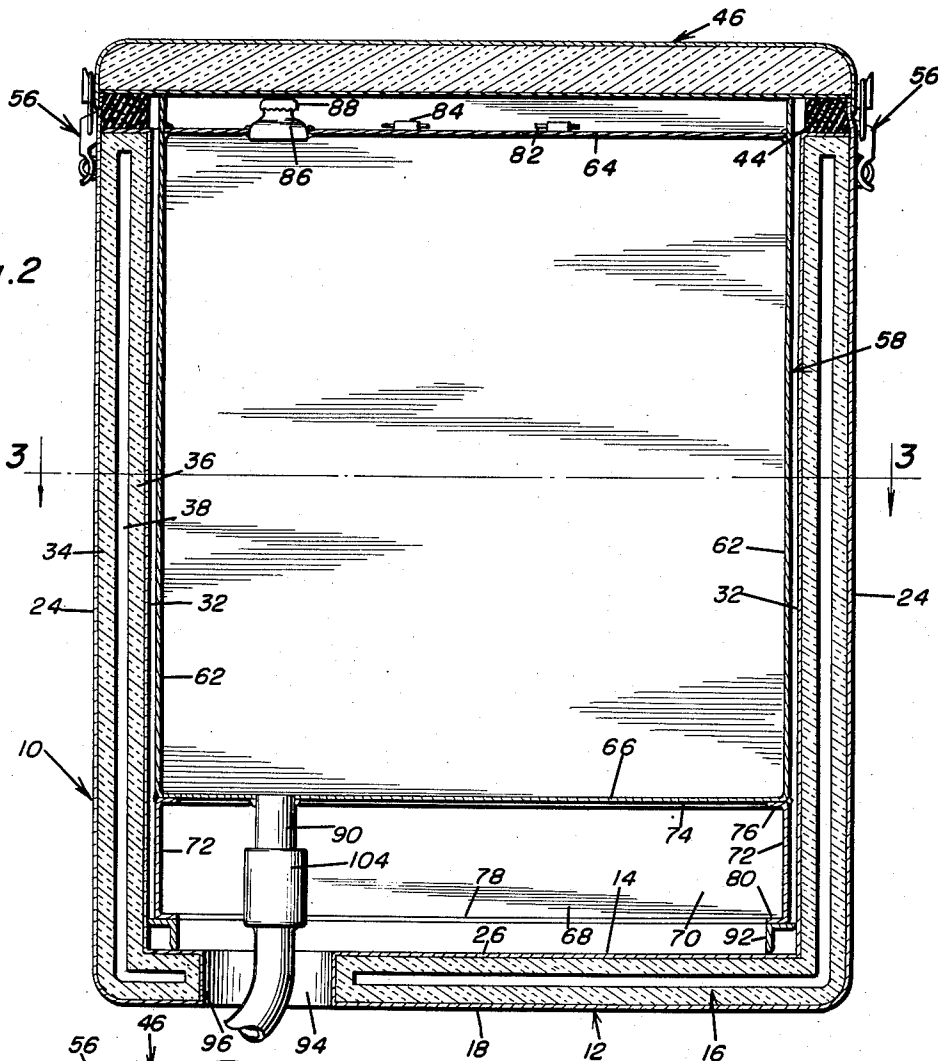
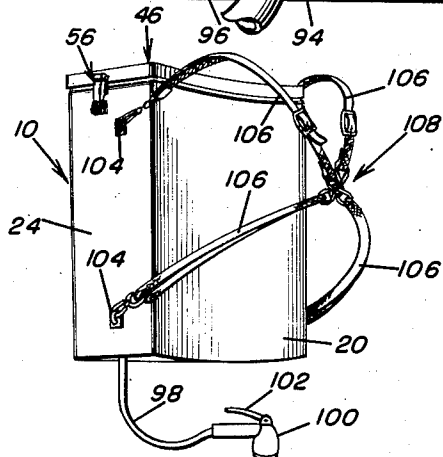


Fig. 1

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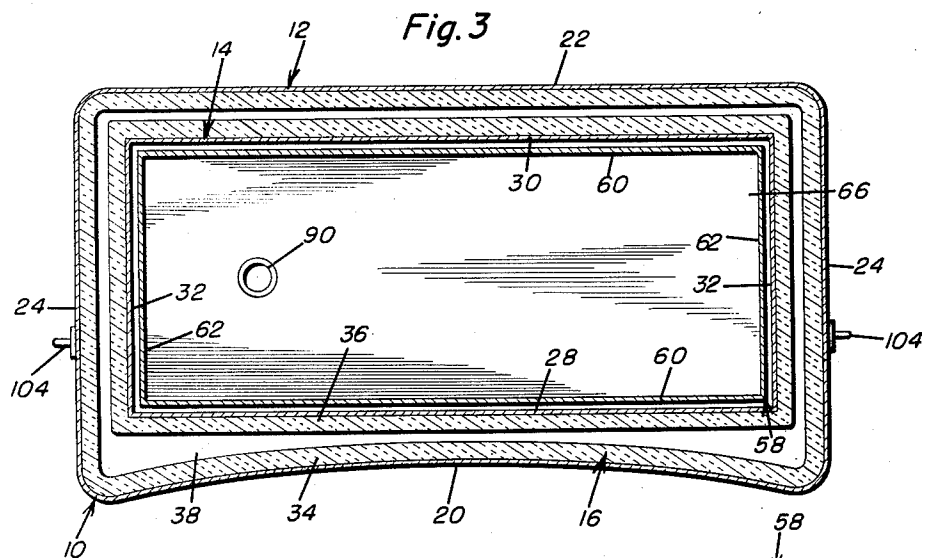
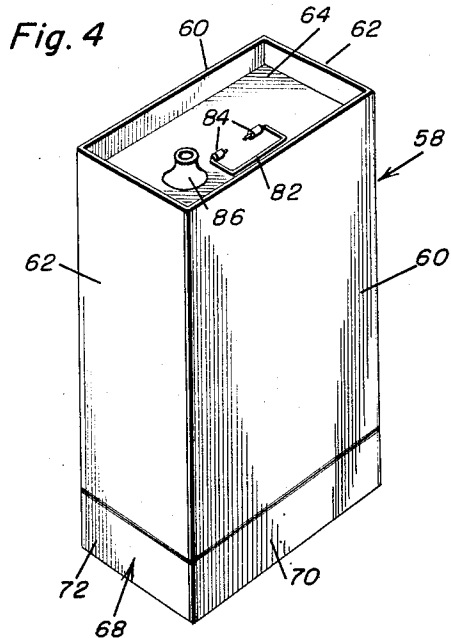
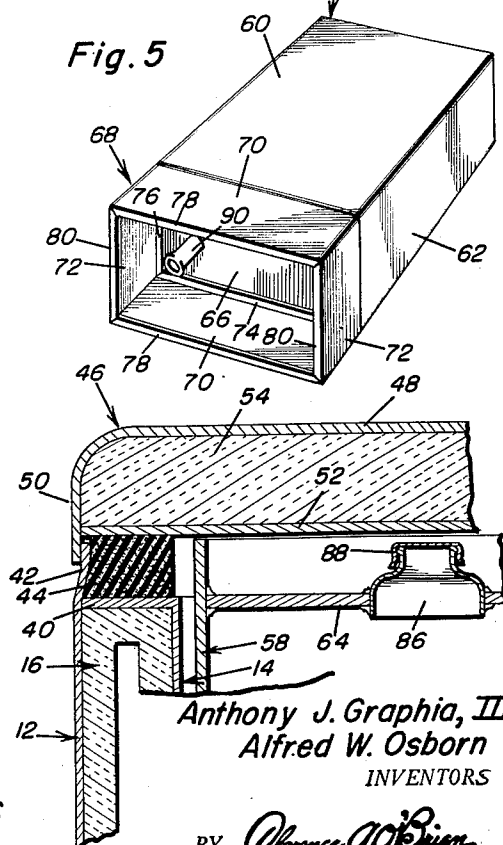


Fig. 6

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PORTABLE LIQUID DISPENSER

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1 Claim. (Cl. 222—175)

This invention relates in general to dispensing apparatuses and more particularly to a portable liquid dispenser.

It has been found that the average attendant in ball parks, stadiums, and the like, can carry only a limited number of soft drinks in bottles. This is primarily due to the fact that the bottles themselves occupy more than the space of the liquid carried by the bottles and the weight of the bottles generally is equal to if not in excess of that of the liquid. Attempts have been made to provide portable dispensers for use in large stadiums and the like. However, these dispensers generally include the insulated housings having a container carrier thereby, the container being refillable with cold liquids. However, such containers are normally filled under generally unsanitary conditions and are not suitable for carbonated beverages.

It is therefore the primary object of this invention to provide an improved portable liquid dispenser which may be utilized for the dispensing of carbonated liquids in ball parks, stadiums, and the like, and which is completely sanitary.

Another object of this invention is to provide an improved portable liquid dispenser which includes a liquid container of such a configuration whereby a plurality of the containers may be stored in a minimum of space whereby the containers may be easily shipped and refrigerated.

Another object of this invention is to provide an improved container for liquids intended to be utilized as a part of a portable liquid dispenser, the container including a filler and a dispensing pipe, the container being so constructed whereby the filler and dispensing pipe are protected against damage.

A further object of this invention is to provide an improved portable liquid dispenser which includes a liquid container having a discharge pipe provided with an automatically closed valve, the dispenser also including a dispensing tube which is selectively connectable to the discharge pipe and being of such a nature whereby the valve in the discharge pipe is automatically open in response to the connection of the dispensing tube thereto.

A still further object of this invention is to provide an improved method of cooling and dispensing carbonated liquids under the same sanitary conditions normally found in the distribution of bottled carbonated liquids.

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 drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front perspective view of the portable liquid dispenser which is the subject of this invention and shows the general outline of an insulated housing thereof and the means for carrying the insulated housing on one's back;

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Figure 2 is an enlarged vertical sectional view taken through the liquid dispenser of Figure 1 and shows the general construction of both the insulated housing and a liquid container carried thereby, on a portion of a dispensing tube of the portable liquid dispenser being illustrated;

Figure 3 is an enlarged transverse horizontal sectional view taken substantially upon the plane indicated by the section line 3—3 of Figure 2 and shows the general relationship of the liquid container with respect to the insulated housing;

Figure 4 is an enlarged perspective view of the container carried by the insulated housing;

Figure 5 is an enlarged rotated bottom perspective view of the container of Figure 4; and

Figure 6 is an enlarged fragmentary sectional view, showing the manner in which a cover for the insulated housing is removably secured and sealed in relation therewith.

Referring now to the drawings in detail, it will be seen that there is illustrated the portable liquid dispenser which is the subject of this invention. The portable liquid dispenser includes an insulated housing which is referred to in general by the reference numeral 10. The insulated housing 10 is generally rectangular in outline and includes an outer casing which is referred to in general by the reference numeral 12 and an inner casing which is referred to in general by the reference numeral 14. Disposed between the inner and outer casings 14 and 12, respectively, is insulation 16.

It will be noted that the outer casing 12 includes a bottom wall 18 which has extending upwardly therefrom a front wall 20, a rear wall 22 and end walls 24. The rear wall 22 and the end walls 24 are flat whereas the front wall 20 is rearwardly bowed to conform to the general configuration of a bearer's back.

The inner casing 14 also includes a bottom wall 26, a front wall 28, a rear wall 30 and end walls 32. The end walls 32 and the rear wall 30 are in spaced parallel relation with respect to their respective walls of the outer casing 12. However, the front wall 28 is disposed in rectangular relation with respect to the end walls 32 and in parallel relation with respect to the rear wall 30. It will thus be seen that the thickness of the front wall portion of the housing 10 decreases the walls at each center, as is best illustrated in Figure 3. Also as best illustrated in Figure 3 is the relationship of the insulation 16 which includes an outer portion 34 and an inner portion 36, the portions conforming to the general outline of their respective casings 12 and 14 and being separated by an air space 38.

Referring now to Figures 2 and 6 in particular, it will be seen that the vertically extending walls of the inner casing 14 terminate short of the upper edges of the vertically extending walls of the outer casing 12. It will be further noted that the upper edges of the vertical walls of the inner casing 14 are outwardly directed as at 40 and terminate in an abutment with the inner surface of the outer casing 12. It will also be noted that the extreme upper edge portions of the vertical walls of the outer casing 12 are inwardly offset as at 42. Overlying and rigidly secured to the upper surface of the upturned portions of the vertical walls of the inner casing 14 is a resilient sealing strip 44 which projects upwardly above the upper edges of the vertical walls of the outer casing 26.

Removably secured to the top of the housing 10 is a cover which is referred to in general by the reference numeral 46. The cover 46 has the same general configuration as the cross section of the housing 10 and includes a top wall 48 and depending flanges 50. Recessed upwardly within the confines of the flanges 50 is a lower

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wall 52 which is in spaced parallel relation with respect to the top wall 48. Disposed between the walls 48 and 52 is suitable insulation 54.

It will be noted that the upper edge portions of the vertical walls of the outer casing 12 telescope within the confines of the flanges 50 of the cover 46 when the cover 46 is in position on the insulated housing 10. Further, it will be seen that the bottom wall 52 compressively engages the sealing strip 44 to retain the interior of the housing 10 in sealed relation. The cover 46 is retained in position by a suitable latch means 56 carried by the adjacent portions of the insulated housing 10 and the cover 46, as is best illustrated in Figures 1 and 2.

The portable liquid dispenser also includes a liquid container which is referred to in general by the reference numeral 58. The liquid container 58 is generally rectangular in outline and includes a pair of spaced parallel side walls 60 which are connected at their ends to end walls 62. The container 58 also includes a top wall 64 which is recessed below the upper edges of the side and end walls. The lower edges of the side and end walls are connected together by a bottom wall 66.

Secured to the bottom wall 66 is a downwardly projecting extension which is referred to in general by the reference numeral 68. The extension 68 is of the same cross section as the container 58 and includes a pair of side walls 70 which are connected together at their ends by end walls 72. The walls 70 and 72 terminate at their upper edges in inturned flanges 74 and 76 respectively, and at their lower edges in inturned flanges 78 and 80, respectively. It will be noted that the side walls 70 and the end walls 72 form extensions of the side walls 60 and the end wall 62 respectively.

Carried by the top wall 64 of the container 58 is a handle 82 which is pivotally connected to the top wall by a pair of loops 84 carried by the top wall 64. It will be seen that the handle 82 may be pivoted to a substantially flat position.

Also carried by the top wall 62 is a filler neck 86. The filler neck 86 may be of the same configuration as the filler neck portion of conventional beer cans or other carbonated beverage containers. The filler neck 86 is closed by a removable bottle cap 88. It is to be understood that the filler neck 86 communicates with the interior of the container 58.

Carried by the bottom wall 74 of the container 58 is a discharge pipe 90. The discharge pipe 90 is preferably in the form of one-half of a snap fitting normally utilized with pressurized lines, the snap fitting being of the type including a valve which is normally closed but which is open during the joining of the two halves of the fitting.

It will be noted that the filler neck 86 and the bottle cap 88 thereof are disposed within the confines of the walls 60 and 62 and that the discharge pipe 90 is disposed within the confines of the walls 70 and 72 whereby the filler neck 86 and the discharge pipe 90 are protected from accidental injury.

Referring now to Figure 2 in particular, it will be seen that carried by the bottom wall 26 of the inner casing 14 is a rectangular frame 92 which is formed of angle members. The rectangular frame 92 forms a suitable seat for the container 58, the flanges 78 and 80 resting upon the frame 92.

The bottom wall of the housing 10 is provided with an enlarged opening 94 therethrough. The opening 94 is lined with the discharge pipe 90 of the container 58. The opening 94 is bounded by a depending annular flange portion 96 of the inner casing 14.

In order that liquids carried by the container 58 may be conveniently dispensed therefrom, the portable liquid dispenser includes a dispensing tube 98 which is provided at its end remote from the container 58 with a dispensing valve 100. The dispensing valve 100 includes a hand-operated valve arm 102 which is spring urged to a closed

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position so that the liquid carried by the container 58 is dispensed only when the valve arm 102 is depressed.

The end of the dispensing tube 98 remote from the dispensing valve 100 is provided with a fitting 103, which is in the form of the other half of the fitting of which the discharge pipe 90 is a part. As stated above, the fitting is of a conventional type utilized on pressure lines which is automatically closed when the two halves of the fitting are separated, but which communicates the two halves of the fitting when the halves are connected together. Inasmuch as the fitting is conventional it is not believed necessary to more specifically describe the features thereof including its valve construction.

In order that the insulated housing 10 may be conveniently transported on one's back, the end walls 24 of the outer casing are provided with eyes 104 which are vertically spaced. Connected to the eyes 104 are straps 106 which form a harness which is referred to in general by the reference numeral 108.

It is the intention of this invention for the containers 58 to be returned to a bottling plant when empty. When the containers 58 are returned to the bottling plant, they are thoroughly cleaned in the same manner as conventional soft drink bottles and the like, prior to filling. Then, inasmuch as the filler neck 86 is of a conventional type, the containers 58 may be conveniently filled on an assembly line normally utilized for filling other types of liquid containers. Due to the rectangular configuration of the container 58, it will be seen that a plurality of such containers may be conveniently shipped in a relatively large container without the loss of space. Further, it will be seen that once the containers 58 have arrived at their destination, such as a ball park, stadium, etc., the containers 58 may be conveniently stored. When it is desired to serve the liquid carried by the containers 58, they may be placed under refrigeration with a minimum of space again being taken up due to the size and configuration of the containers 58.

After the liquid in these containers 58 has been suitably chilled, one of the containers 58 may be placed in an insulated housing 10. The attendant selling the liquid may then distribute the liquid to his customers. After the container 58 has been emptied, the attendant returns to the place where the containers 58 are stored under refrigeration and the empty container 58 is removed from the insulated housing 10 and a filled container 58 is substituted in its place. This is accomplished by merely removing the cover 46 and disengaging the fitting 103 from the discharge pipe 90.

Due to the particular configuration of the container 58, and since very little weight is lost either in the container 58 or in the insulated housing 10, it will be seen that an attendant may carry many times the quantity of liquids normally carried in bottle containers. Further, there is no longer the problem of collecting the bottles after a game, or the like.

It will be seen from the foregoing description of the method of cooling and dispensing a liquid through the use of the portable liquid dispenser, which is the subject of this invention, that at all times the highest sanitary conditions are maintained. Further, it will be seen that due to the configuration of the various components of the portable liquid dispenser, a larger amount of liquid may be handled with the same equipment previously utilized.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, 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 shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claim.

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What is claimed as new is as follows:

A portable liquid dispenser comprising an insulated housing, a replaceable liquid container removably carried by said housing, said insulated housing including an outer rigid shell and an inner casing, the inner casing being generally rectangular in cross-section and being spaced from said outer shell, said outer shell having a curved portion fitting the back of a person carrying the portable liquid dispenser, insulation disposed intermediate said outer shell and said inner casing, said housing including 10 a fixed bottom wall and a removable top wall, a support within said casing above said bottom wall, said liquid container being seated on said support, said liquid container having a bottom wall, side walls and a top wall, said side walls extending upwardly above said top wall, a 15 filler carried by said top wall within the area defined by said side walls, a carrying handle carried by said top wall within the area defined by said side walls, said bottom wall having a discharge pipe projecting downwardly therefrom in the space between said liquid container bottom wall and said housing bottom wall, an opening

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in said housing bottom wall, a dispensing tube connected to said discharge pipe and extending downwardly through said opening, an automatic shut-off valve disposed between said discharge pipe and said dispensing tube, and a dispensing valve carried by said dispensing tube remote from said discharge pipe.

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