Oct. 26, 1954 C. BRAMMING 2,692,703

FLOATING CLOSURE FOR INSULATED CARAFES

Filed Jan. 8, 1952

Fig. 1

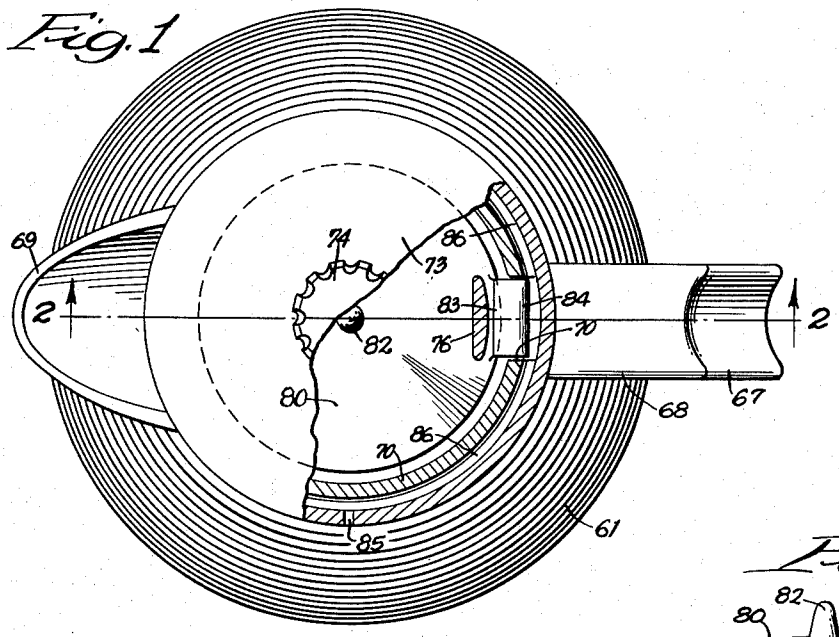


Fig. 4

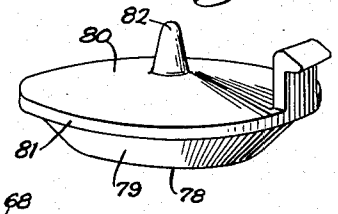


Fig. 2

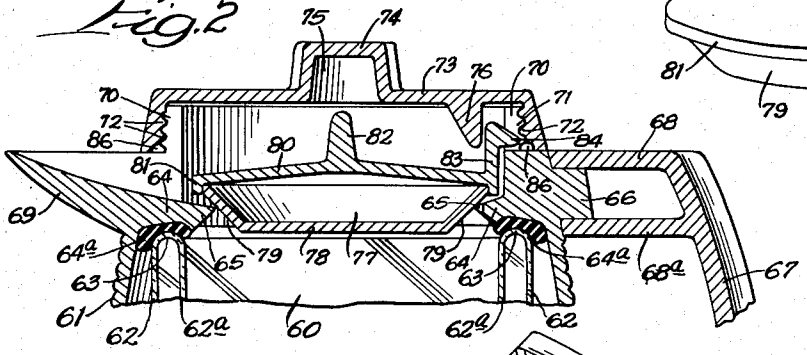
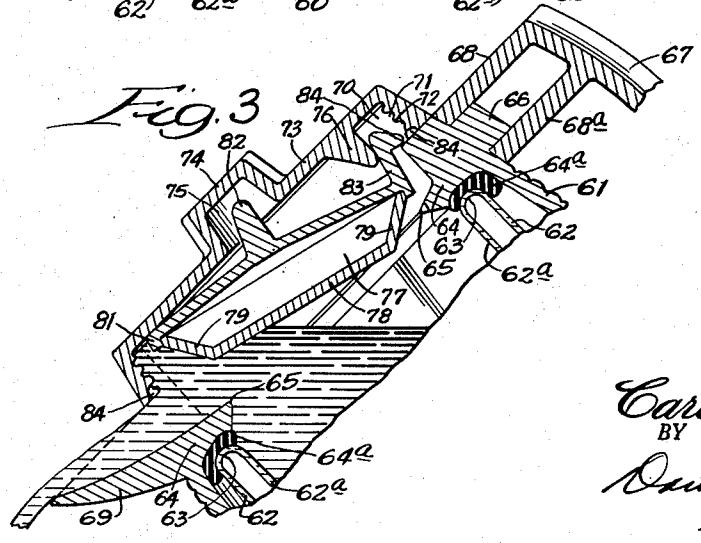


Fig. 3



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FLOATING CLOSURE FOR INSULATED CARAFES

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2 Claims. (Cl. 222—67)

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This invention relates to an improvement in an insulated carafe and more particularly to the provision of a floating closure for insulated carafes.

This application is a continuation in part of my application entitled "An Improved Insulated Carafe" filed in the United States Patent Office on October 6, 1951, Serial Number 250,163, now abandoned.

Heretofore in the manufacture of carafes or insulated jugs it has been the practice to close the pouring end of the carafe by a hinged lid which is bothersome, awkward to manipulate and requires some digital skill when pouring. My invention eliminates these difficulties and provides a floating closure which seats and unseats itself when the carafe is being used for its intended purpose without any action on the part of the user. My invention is characterized by simplicity of structural components and ease in manufacture and assembly. Furthermore, my invention has the advantage of being a more sanitary insulated carafe because no part of the floating closure is exposed to the outside elements.

The carafe disclosed in my original application Serial No. 250,163 has been found to be a workable and acceptable carafe. However, when contents of the carafe disclosed in my original application are being poured, gurgling sounds are heard which are caused by the unequal air pressure and the distribution of air in the carafe. I have, therefore, changed the specific structure of my floating closure, while retaining the principle of my invention, to eliminate these undesirable sounds.

It is therefore a general object of my invention to provide a floating closure which seats and unseats itself without further action by the user.

Another object of this invention is the provision of a more sanitary carafe without increasing the cost of the manufacture and assembly of the carafe.

Still another object of my invention is the provision of an insulated carafe having a floating closure which permits a free and easy flow of the contents of the carafe when contents are being poured therefrom.

These and other objects may best be understood by reference to the following description describing a preferred form of the embodiment of my invention, together with the accompanying drawings wherein:

Figure 1 is a top plan view of a carafe embodying my invention with a portion thereof cut away;

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Figure 2 is a cross-sectional view taken on line 2—2 of Figure 1 showing the floating closure;

Figure 3 is a cross-sectional view like Figure 2 but showing how my floating closure operates when the contents of the carafe are being removed; and

Figure 4 is a perspective view of the preferred form of my floating closure.

Referring to Figure 2 of the drawings, the numeral 60 generally indicates a wide mouth vacuum container nestled in and surrounded by a protective jacket indicated as 61. The vacuum container 60 is comprised of an outer wall 62 and an inner wall 62*a* which are permanently sealed together at their upper ends to form a lip 63. Air is evacuated from between the walls 62 and 62*a* in the usual manner (not shown) and the inner face of the outer wall 62 and the outer face of the inner wall 62*a* are generally coated with a reflective material to help reduce thermal transfer.

The protective jacket 61 may be formed of metal or plastic materials and is comprised of a substantially cylindrical wall which surrounds and protects the container 60. The jacket 61 just above the lip 63 of the container 60 forms an inwardly extending flange 64 which terminates in a sharp edge 65 which forms a seat and seal for the floating closure described later. Resilient annular gaskets 64*a* are interposed between the flange 64 of the protective jacket 61 and the lip 63 of the insulated container 60 to protect and prevent any damage which might otherwise occur to the container.

In the back of the protective jacket 61 a projection or lug 66 is formed to which a handle 67 having spaced arms 68 and 68*a* may be attached as by cement. The front of the carafe is provided with a spout 69 to direct the flow of the contents from out of the carafe.

The uppermost part of the jacket 61 terminates in an annular wall having screw threads 71 which mate with screw threads 72 of a removable cap 73. The cap 73 has a knurled knob 74 at its uppermost part to provide a good gripping surface when the cap 73 is removed or screwed onto the carafe. The knob 74 of the cap 73 houses a recess 75 which acts as a guide as will be explained subsequently. The cap 73 is also provided on its bottom side with a downwardly extending lug 76 at the back of the carafe when the cap 73 is secured properly to the protective jacket 61. The purpose of the lug 76 is to retain a portion of the floating closure described hereinafter.

The floating closure generally indicated as 77

is comprised of a bottom wall 78 having a frustoconical wall 79 extending outwardly and upwardly therefrom. A cap 80 having an annular downturned edge 81 encompasses the edges of the wall 79 to form a bouyant seal. An upwardly extended dimple 82 (Fig. 4) is formed in the center of the cap 80 of the closure 77. Thus, as Figures 2 and 3 show, a hollow floating closure 77 is formed which will float nicely on the top of any liquids which may be placed into the carafe when the contents of the carafe are being poured as shown in Figure 3.

At the rear of the closure 77 and extending up from the outer annular edge 81 of the cap 80 is a tongue 83 having an outwardly extending shoulder 84. When the carafe is in operative position the tongue 83 fits between the lug 76 of the removable cap 73 and the side wall of the cap 73 and between a cut out portion of the wall 70 of the protective jacket 61 as shown in Figure 1. The shoulder 84 of the tongue 83 retains the tongue between these elements and also acts as a pivot when the buoyant closure is floated when the contents of the carafe are being poured.

Two small orifices 85 which extend into a circular channel 86 partially cut out from the wall 70 of the jacket 61 and the wall of the removable cap 73 permits air communication to equalize air pressures between the atmosphere and the inside of the carafe when the carafe is being poured. It is to be noted that the channel 86 finds an opening into the interior of the carafe through the cut out portion of the wall 70 of the protective jacket 61 where the tongue 83 of the floating closure 77 is inserted. It has been found that these air orifices 85 eliminate gurgling noises which might otherwise be present and also provides a free and easy flow of the contents from the carafe.

The carafe is operated in the following manner. The cap 73 is removed from the jacket 61. The floating closure 77 is then also removed from off the edge 65 of the flange 64 of the jacket 61. The container 60 is then filled with the desired contents and the closure is then seated upon the edge 65 of the flange 64 of the jacket 61. The cap 73 is then threaded back onto the jacket 61. When a portion of the contents of the carafe is desired the handle 67 is grasped and the carafe appropriately tilted. The contents will force the buoyant closure 77 out so that the closure 77 will float on top of the contents while the contents are being evacuated through the spout 69 as shown in Figure 3. During pouring the recess 75 of the cap 73 receives the dimple 82 of the closure 77.

After the desired amount of the contents are removed, the carafe is then placed upright on its bottom. The closure 77 then resumes its seated position by means of gravity. The tongue 83 and shoulder 84 help insure that the closure 77 seats properly upon the edge 65 of the flange 64 as described.

Thus it is seen that the user of the carafe merely has to tilt the carafe to obtain access to its contents and no other digital manipulation is required as do carafes not employing my invention. Furthermore, since the closure 77 is completely encased within the jacket 61 and the cap 73 and is not exposed to external elements, a more sanitary carafe is obviously had.

While I have shown and described preferred forms of my invention it will, of course, be understood that it is not limited thereto and that by the appended claims it is intended to cover all modifications and alternative constructions as fall within the true spirit and scope of my invention.

I claim:

1. In an insulated carafe, the combination comprising a container having a wide mouth formed with an upwardly facing generally circular seat, a thin buoyant generally disk-shaped closure having a downwardly facing beveled edge portion for resting on said seat to close said container, said closure having a specific gravity less than unity so as to float upwardly off said seat when liquid is poured from said container through said mouth, a pouring spout formed on said container above said seat, a cap receiving portion extending upwardly on said container above said seat, a cap removably receivable on said cap receiving portion for confining said closure, a slot formed in said cap receiving portion of said container opposite said pouring spout, an upwardly projecting hooked arm loosely received in said slot to guide said closure for swinging movement off and on said seat, a downwardly projecting lug on said cap adjacent said slot for loosely retaining said hooked arm therein, an upwardly projecting centrally disposed stem on said closure, and guiding means on said cap having a downwardly opening centrally disposed recess for loosely receiving said stem and maintaining said closure generally centered in said container during movement off and on said seat.

2. In an insulated carafe, the combination comprising a container having a wide mouth formed with an upwardly facing generally circular seat, a thin buoyant generally disk-shaped closure having a downwardly facing beveled edge portion for resting on said seat to close said container, said closure having a specific gravity less than unity so as to float upwardly off said seat when liquid is poured from said container through said mouth, a pouring spout formed on said container above said seat, a cap receiving portion extending upwardly on said container above said seat, a cap removably receivable on said cap receiving portion for confining said closure, a slot formed in said cap receiving portion of said container opposite said pouring spout, an upwardly projecting hooked arm loosely received in said slot to guide said closure for swinging movement off and on said seat, and a downwardly projecting lug on said cap adjacent said slot for loosely retaining said hooked arm therein.

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