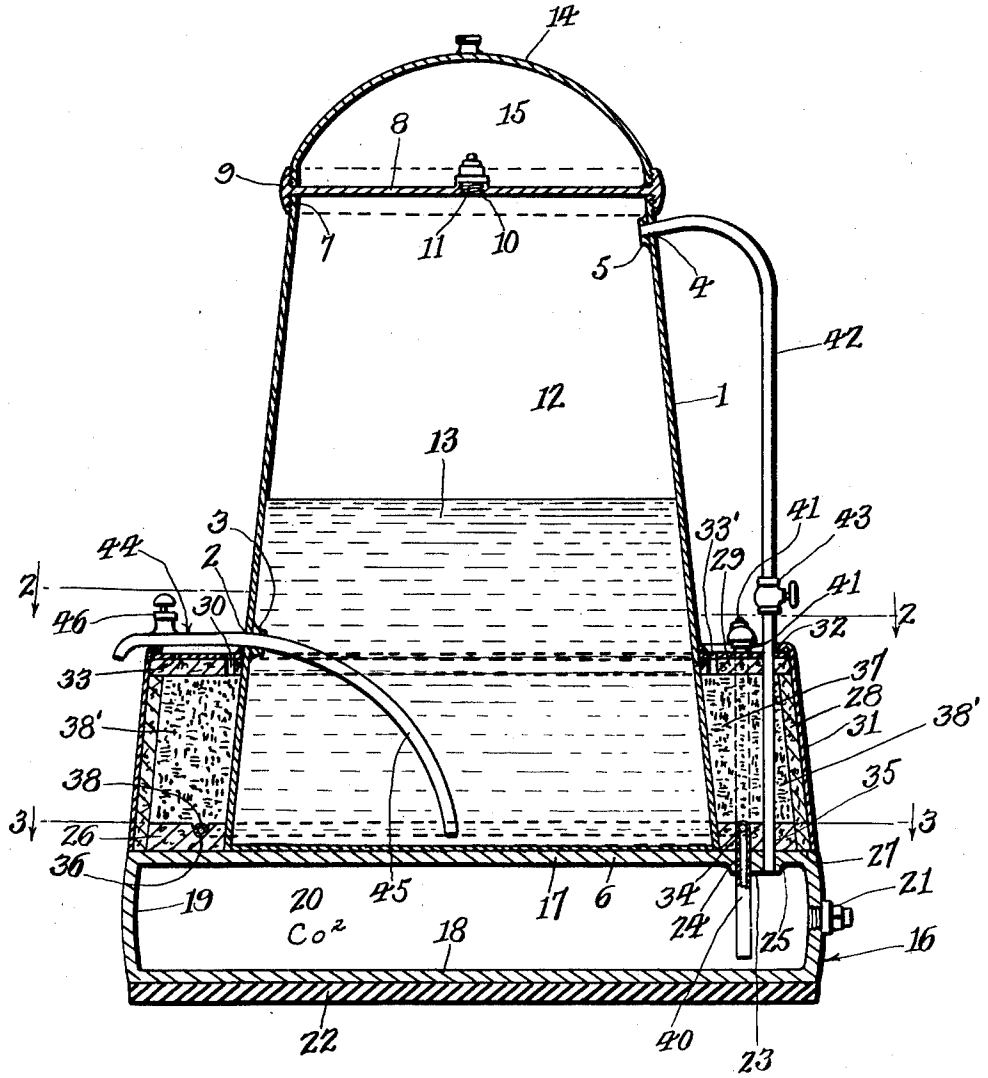
April 10, 1934. J. DOLAN 1,954,728

PORTABLE BEVERAGE CONTAINER

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Fig. 1.



Inventor

John Dolan

By Geo. P. Kimmel

Attorney

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Fig. 2.

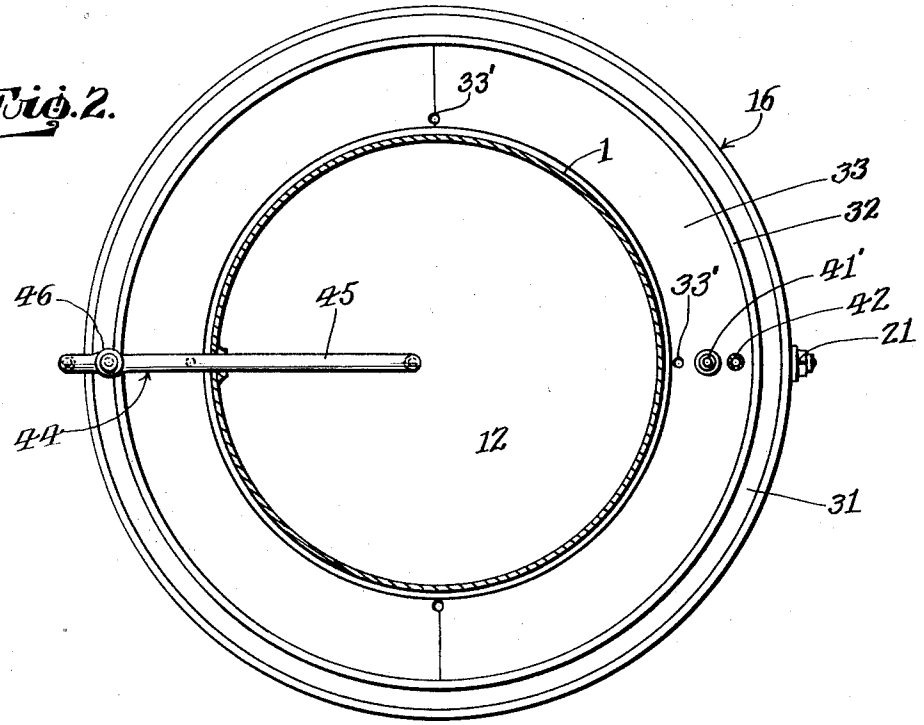
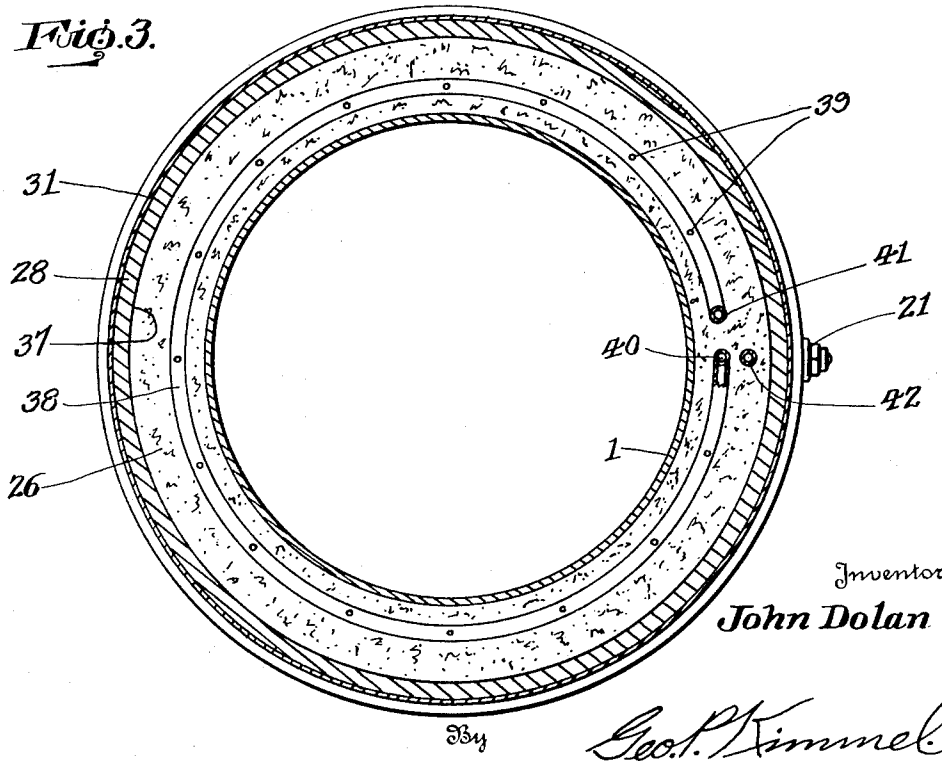


Fig. 3.



Inventor
John Dolan

By Geo. P. Kimmel
Attorney

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PORTABLE BEVERAGE CONTAINER

John Dolan, Fords, N. J.

Application June 2, 1933, Serial No. 674,097

8 Claims. (Cl. 225—18)

This invention relates to a portable beverage container of the dispensing type, and has for one of its objects the provision, at a minimum cost of means as hereinafter referred to for dispensing therefrom, when desired, draughts of a cooled carbonated beverage of uniform characteristics at homes, picnic grounds, lodge halls, club houses, etc.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a container of the type referred to which is comparatively simple in its construction and arrangement, strong, durable, compact, sanitary, thoroughly efficient in its use, and comparatively inexpensive to manufacture.

To the above ends essentially, and to others which may hereinafter appear, the invention consists of such parts and such combination of parts which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a vertical sectional view of the container.

Figure 2 is a section on line 2—2 Figure 1.

Figure 3 is a section on line 3—3 Figure 1.

The container includes a frusto-conoidal shaped shell 1 of sheet metal of the desired gauge provided between its transverse median and its bottom with an opening 2 and a boss 3. The latter is arranged on the inner face of the shell and surrounds opening 2. The shell 1 in proximity to its upper end is provided with an opening 4 and a boss 5. The latter is arranged on the inner face of the shell and surrounds opening 4. The opening 2 is arranged at the front and the opening 4 at the back of shell 1. A bottom plate 6 of sheet metal is arranged within and is secured to shell 1 for closing the lower end of the latter. The shell 1 at its upper end is formed with a group of threads 9 on its outer periphery. The upper end of shell 1 is closed by a metallic plate 8 which seats upon the top edge thereof. The plate 8 merges into an interiorly threaded band 9 which extends above and depends therefrom. The lower portion of band 9 engages with the threads 7 for detachably securing plate 8 in closure position with respect to the upper end of shell 1. The plate 8 at its axis is formed with an opening 10 into which extends a gas release valve 11 threadedly engaging with the plate for connecting the latter and valve together. The shell 1 in connection with plates 6 and 8 provides a chamber 12 for the beverage 13.

Mounted upon plate 8 and detachably connected to band 9 is a dome-shaped memer 14 which coacts with plate 8 to provide a compartment 15 for storing any articles desired, such as pretzels, biscuits, or crackers. The member 14 also acts to prevent access to valve 11 unless member 14 is disconnected from band 9.

Arranged below and of greater diameter than the lower end of shell 1 is an annular hollow casting 16 formed of a flat top 17, a flat bottom 18 and a body part 19 of any suitable height. The casting 16 provides a carbon dioxide chamber 20 and is secured at its top to shell 1 and plate 6. The shell 1 is disposed concentrically with respect to the top 17 of casting 16. The body part 19 as connected therewith a carbon dioxide inlet valve 21. The bottom 18 has secured to its lower face a pad 22. The top 17 in proximity to body part 19 has its lower face formed with a boss 23. Extending through the top 17 and boss 23 is a pair of spaced vertical openings 24, 25.

Positioned upon the top 17 of casting 18 and surrounding and snugly engaging the lower portion of shell 1 is an annulus 26 of insulation preferably cork. The annulus 26 has its outer edge positioned inwardly with respect to the marginal portion 27 of the upper face of top 17. Seated upon the marginal portion 27 and abutting against the outer edge of annulus 26 is a tapered upstanding shell 28 of insulation of materially less height than shell 1. Mounted on the top edge of shell 28 and flush with the outer face of the latter is a flat annulus 29 of insulation which has its inner edge surround and snugly engage shell 1. The annulus 29 is formed with ports 30. Surrounding the shell 28, the outer end of annulus 29, seated upon the upper face of the latter and surrounding and snugly engaging shell 1 is an annular member 31 formed at its top with an inwardly extending annular flange 32 overlapping a flat annular circular plate 33 formed of two sections anchored to shell 1. The plate 33 seats in annulus 29 provided with openings 33' registering with the ports 30. The member 31 seats above marginal portion 27, is secured to casting 16 and is of metallic material. The annulus 26 is formed with spaced openings 34, 35 which register with the openings 24, 25 respectively. The upper face of annulus 26 is provided with an annular groove 36 with which communicates the upper end of opening 34.

The annulus 26, shell 28, annulus 29 and a portion of shell 1 provides a crystal chamber 37 and which is filled by a body of wood shavings 38'.

Seated in groove 36 is a gas pressure line 38 formed in its top with spaced openings 39. Ex-

tending downwardly from line 38 through openings 34, 35 is a branch 40 of line 38 which opens into chamber 20. Extending upwardly from line 38 and through chamber 37 and above flange 32 is a branch 41 of line 38 having its outer end provided with an outlet valve 41'.

Opening at its lower end into chamber 20 and at its upper end into chamber 12 is a gas pressure feed line 42, the latter extending from opening 4 down through chamber 37 and through openings 34, 35. The line 42 above flange 32 is provided with a controlling valve 43.

The opening 2 is arranged above and in close proximity to flange 32 and extending through opening 2 is a beverage delivery pipe 44 formed of a curved portion 45 which depends into chamber 12 to a point in close proximity to plate 6. The outer end of pipe 44 merges into beverage discharge controlling means 46 of any suitable form.

The container will function to dispense draught or pasteurized beverage at home, picnic grounds, club houses, lodge halls, etc., at a minimum cost and will have all the qualifications combined. It is so arranged as to draw off the quantity needed, while the remaining part of the beverage is kept intact, by pressure, from the chamber 20. The beverage can be used at intervals or whenever needed. The metal walls of the container will be built and tested to stand high pressure. The beverage in the container being constantly kept cool and the pressure of the carbon dioxide assures a uniform dispensed product at all times regardless as to whether the container is used at home or out in the open sun. The carbon dioxide or commonly called carbonic acid gas chamber 20 at the base of the container is so arranged that the desired amount of foam will appear on the beverage. This may be done by adjusting the valve 43 which is located on the feed line 42. If the reverse condition is desired, it may be had by adjusting the release valve 11 at the top of the beverage chamber. The beverage is drawn from the bottom of the chamber 12 where it is constantly kept cooled. These containers may vary in size as desired.

The carbon dioxide in the chamber 20 being under pressure and of a sufficient quantity to take care of the pressure line 38 to the crystal or cooling chamber 37 and to the beverage chamber 12. The crystal or cooling chamber, outside walls and top, are of light gauge metal. The inside of the wall is first painted with aluminum—bronze. The line 42 has a shut off valve 43—only to be closed when beverage chamber 12 is empty or when carbon dioxide is being charged to the chamber 20. The line 38 is formed with very fine jet holes 39 so as to allow the gases under pressure to escape, thus coming in contact with the wood shavings and forming divided crystals. The wood shavings serve as a baffle for the gases and to break up or separate the cooling crystals. As an extreme cooling would freeze the beverage in the container, it would also injure the claret and render it cloudy. The gas release ports 30 are at the top of the crystal chamber 37. While the container is in use, the crystal chamber 37 will function automatically as the crystals evaporate and make space.

The line 38 will function and continue to do so until the crystals form so as to shut off the small jet holes 39. The line 38 is insulated to prevent the crystals from forming on it.

The container may be used for root beer, birch beer, lager beer, bock beer, porter, ale and any beverage that requires the use of carbon dioxide.

What I claim is:—

1. A dispensing container for beverages comprising a beverage chamber, a carbonic acid gas storage chamber arranged below the beverage chamber, an insulated cooling chamber upon the gas chamber and surrounding the lower portion of the beverage chamber, a gas pressure line within the cooling chamber and having branches, one opening into the gas chamber and the other extended from the cooling chamber and provided with an outlet valve, said line being formed with jet openings communicating with said cooling chamber, a body of shavings within the cooling chamber and above said line, said cooling chamber being formed with gas outlets at its top, a valve controlled gas pressure feed line leading from said gas chamber to the upper portion of the beverage chamber and extending through the cooling chamber, and a controllable dispensing line extended from within the lower portion of the beverage chamber.

2. A dispensing container for beverages comprising a structure providing a gas chamber, a beverage chamber and a cooling chamber surrounding the beverage chamber, a controllable dispensing line opening into the beverage chamber, ported means arranged within the cooling chamber and opening into the gas chamber to provide a refrigerant within the cooling chamber, said means having an outlet valve, and a controllable gas pressure conducting line leading from the gas chamber to the beverage chamber.

3. A dispensing container for beverages comprising a structure providing a gas chamber, a beverage chamber and a cooling chamber surrounding the beverage chamber, a controllable dispensing line opening into the beverage chamber, ported means arranged within the cooling chamber and opening into the gas chamber to provide a refrigerant within the cooling chamber, said means having an outlet valve, a controllable gas pressure conducting line leading from the gas chamber to the beverage chamber, said cooling chamber being formed at its top with gas outlets, and said beverage chamber being formed at its top with a release valve.

4. A dispensing container for beverages comprising a structure providing a gas chamber, a beverage chamber and a cooling chamber surrounding the beverage chamber, a controllable dispensing line opening into the beverage chamber, ported means arranged within the cooling chamber and opening into the gas chamber to provide a refrigerant within the cooling chamber, said means having an outlet valve, a controllable gas pressure conducting line leading from the gas chamber to the beverage chamber, a body of shavings within the cooling chamber above said ported means, and said cooling chamber being formed at its top with gas outlets.

5. A dispensing container for beverages comprising a hollow casting providing a gas chamber having an intake valve, a hollow structure mounted on said casting and providing a vertically disposed beverage chamber, means mounted on the casting and surrounding the lower portion of said structure and providing an insulated cooling chamber, a pipe within and seated upon the bottom of the cooling chamber, said pipe being ported at its top and formed with a pair of branches, one opening into the gas chamber and the other extending into the atmosphere and valved on its outer end a controllable gas pressure supply pipe leading from the gas chamber,

passing through the cooling chamber and opening into the upper portion of the beverage chamber, a body of shavings within the cooling chamber and arranged over the ported top of said pipe, and a controllable dispensing line leading from the lower portion of the beverage chamber.

6. A dispensing container for beverages comprising a hollow casting providing a gas chamber having an intake valve, a hollow structure mounted on said casting and providing a vertically disposed beverage chamber, means mounted on the casting and surrounding the lower portion of said structure and providing an insulated cooling chamber, a pipe within and seated upon the bottom of the cooling chamber, said pipe being ported at its top and formed with a pair of branches, one opening into the gas chamber and the other extending into the atmosphere and valved on its outer end, a controllable gas pressure supply pipe leading from the gas chamber, passing through the cooling chamber and opening into the upper portion of the beverage chamber, a body of shavings within the cooling chamber and arranged over the ported top of said pipe, a controllable dispensing line leading from the lower portion of the beverage chamber, and said cooling chamber being formed with gas outlets at its top.

7. A dispensing container for beverages comprising a structure forming a beverage chamber, a cooling chamber for the latter and a gas chamber arranged below said other chambers, means arranged within the cooling chamber and opening into the gas chamber to provide for producing a refrigerant within the cooling chamber, controllable means opening into the gas chamber and beverage chamber for conducting a carbonating medium under pressure from the gas chamber for the beverage, and a controllable dispensing pipe for the beverage.

8. A dispensing container for beverages comprising a structure forming a beverage chamber, a cooling chamber for the latter and a gas chamber arranged below said other chambers, means arranged within the cooling chamber and opening into the gas chamber to provide for producing a refrigerant within the cooling chamber, controllable means opening into the gas chamber and beverage chamber for conducting a carbonating medium under pressure from the gas chamber for the beverage, a controllable dispensing pipe for the beverage, and means within the cooling chamber for breaking up the refrigerant.

JOHN DOLAN.