July 15, 1930. A. DANCIGER 1,770,480

BEVERAGE CONTAINER

Filed Oct. 10, 1928

Fig. 1.

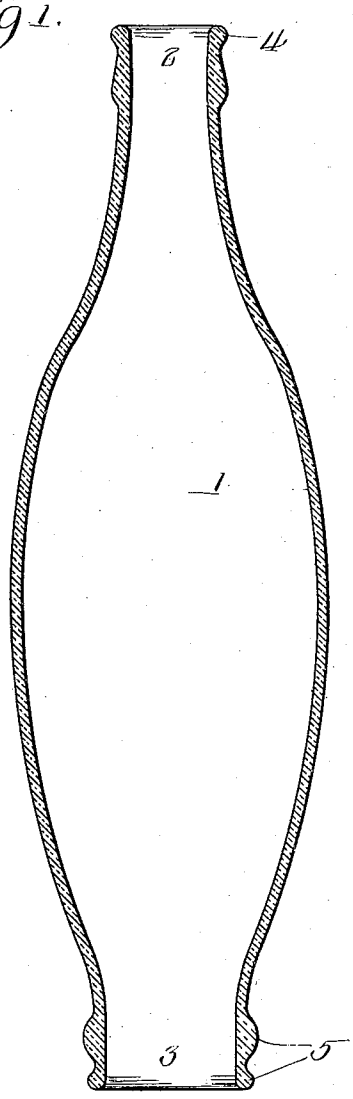
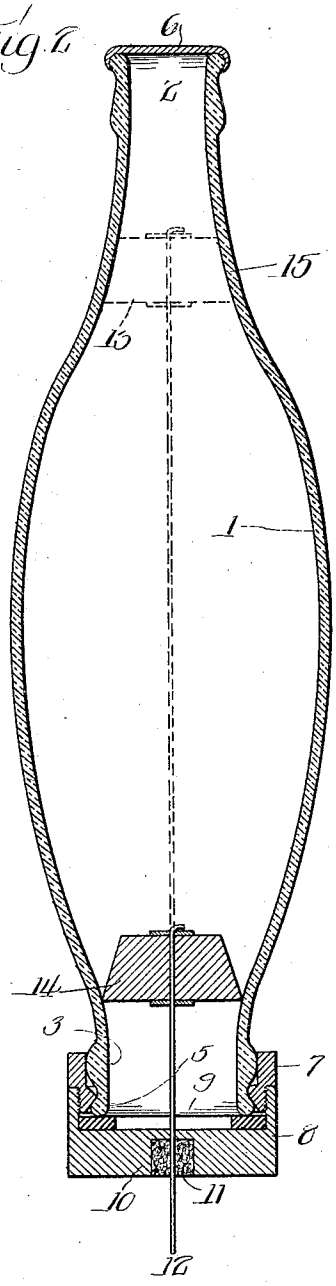


Fig. 2.



Witness
H. Kinggard

Inventor:
Abraham Danciger,
by Wilkinson, Huxley, Byron & Knight
attys.

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UNITED STATES PATENT OFFICE

ABRAHAM DANCIGER, OF TULSA, OKLAHOMA

BEVERAGE CONTAINER

Application filed October 10, 1928. Serial No. 311,514.

This invention relates in general to liquid containing and sediment removing devices, and in particular to that type of such devices functioning through internal valvular means.

Such devices have a wide application in the arts. The particular embodiment of my invention disclosed in this application is a container for beverages provided with gas retaining and sediment trapping and removing means.

Many beverages, especially those made in the home, contain much insoluble and colloidal matter which settles out, or is precipitated, upon standing for a certain time. The longer this period of standing, the more completely are these solid matters precipitated until finally the beverage becomes crystal clear. But when the stopper is removed and the contents poured, this precipitated sediment becomes agitated and mixes with the contents, thus rendering the beverage undesirable and in some cases unfit for use.

While siphoning and filtering may be resorted to for separating the sediment from beverages that are non-gaseous in their final state, such methods are impractical with those of the carbonated type, due to the desirability of retaining the carbon dioxide gas pressure.

The objects of this present invention are to provide a mechanism for trapping the sediment formed during the manufacture of the beverage so that it can be removed or allowed to remain so trapped without contaminating the contents, to preserve the normal gas content of carbonated beverages, and to permit free pouring of the beverage.

In order that the invention may be fully understood, the preferred embodiment thereof will now be described in detail, reference being had to the accompanying drawings.

Figure 1 represents a vertical section through the container body member, while—

Figure 2 represents a vertical section through the assembled device.

Referring to the figures, 1 represents a vertical sectional view of the container body made of any suitable material. This container is provided with the openings 2 and 3 positioned at opposite ends. The upper edge of the bottle is provided with the lip 4, while the lower end is formed with the ridges 5, so as to permit the use of attachments hereinafter described.

The upper lipped port 2 is of such size and finish as will permit the use of metal caps or seals, cork or composition lined, such as are in common use for the purpose of making a gas tight seal for bottle beverages.

The lower opening is of larger diameter so as to afford passage for a plunger like member for the trapping or sealing off of the sedimentary material.

It is to be noted that the walls of the constrictive portions are made to such an angle as to allow the least adherence of the sediment as it is being precipitated through the force of gravity. For efficient removal of sediment, it is absolutely essential that there be no obstructive flanges, washers, etc., which will offer a resting place for the fine particles of solid matter as it is precipitated from the liquid.

6 is a standard crimped metal seal or capping member while 7 represents a split base ring of metal or composition threaded to receive and engage with the closure cap 8. When this cap is screwed down the inner beveled surface of base ring 7 is drawn in tight contact with the lower ridge 5 and pressure is placed upon the sealing gasket 9 thus insuring a liquid and gas tight joint, removable and replaceable at will. 10 is a recess formed in the closure cap 8 for reception of the packing gland 11. The closing cap, packing gland and gasket are drilled on center to permit the passage of the valve stem 12, but sufficient pressure is exerting on this valve stem by the aforementioned packing gland as to insure gas tightness. The valve stem 12 is fitted at its upper end with a soft rubber valve 13.

The operation of the device is as follows:

A metal cap 6 is first crimped over the bottle lip as is done in everyday practice. With the cap end down, the bottle is filled with the beverage through the opposite end. The split base ring 7 is placed over the base neck. The valve 13 and its attendant stem 12 are inserted and the gasket 9 and closure cap 8 are applied and the cap screwed home.

The bottle is now hermetically sealed. Valve 13 is withdrawn to occupy position 14 as indicated by the full line position and the bottle remains positioned with cap 6 downward.

As chemical action proceeds the sedimentary materials are precipitated and collect on cap 6 and in the constricted neck of the bottle. When such chemical action is completed, valve 13 is forced down by means of a compressive thrust on the valve stem and comes in contact with the tapered bottled section as indicated at 15 in the dotted line position. Due to the soft and resilient nature of the valve it conforms itself to the constricted contour, thus forming an effective seal.

The metal sealing cap may now be removed, the sediment washed out and a new cap placed on the bottle or should it be desirable to use the beverage at this time, the bottle may be reinverted, the valve withdrawn from its closing position and the beverage poured.

It should be noted that during the operation of washing out the sediment the sealing effect of the valve 13 on the bottle wall at point 15 is greatly aided by the internal gas pressure, which in many of the home manufactured beverages often exceeds sixty pounds per square inch.

It is to be understood that the valve 13 is introduced into the container or bottle through the largest end opening 3, by forcing it therethrough, that is to say, by compressing or slightly deforming the valve member so that it will pass through the opening. The valve is preferably of resilient or deformable material whereby its insertion can be effected and resume its natural shape after it is located within the bottle.

This description of my invention as applied to beverage containers is given for purposes of illustration, but no undue limitation should be deduced therefrom and the appended claims should be constructed as broadly as permissible in view of the prior art.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a liquid containing, sediment removing and gas retaining device of the character described, the combination of an elongated container body member having two open ends, a threaded split retainer ring positioned near one end of the body member, a pierced threaded closure member engaging said ring, a compressible seating gasket positioned between the retainer ring and lower flared edge of the container opening, a packing gland in the closure cap, a valve stem passing through said gland and cap, a valve member mounted on said stem, and a crimped metal sealing cap closing the other opening of said container.

2. In a bottle assembly and sediment removing device, a closure means consisting of a threaded base ring, a threaded closure cap, a gasket positioned between said cap and the base of the body member, a rod passing through the cap and a packing gland surrounding this rod to prevent the escape of contained gas.

3. A container of the character described having open ends, a crimped cap on one end and a removable closure for the other end, a valve stem extending through said removable closure having means for cooperation with the interior of said container for forming a sediment collecting chamber within the crimped cap end of said container.

4. A bottle having a neck portion and a bead for receiving a crimped closing cap, a removable bottom for said bottle having a valve stem therethrough and a valve means on said stem disposed within said bottle for cooperation with the interior of the neck portion thereof.

Signed at Tulsa, Oklahoma, this 21st day of July, 1928.

ABRAHAM DANCIGER.