G. W. BANTA & A. E. WICKS.

BOTTLE OR OTHER LIKE RECEPTACLE FOR CONTAINING LIQUIDS.

APPLICATION FILED AUG. 23, 1909.

963,414. Patented July 5, 1910.

Fig. 1.

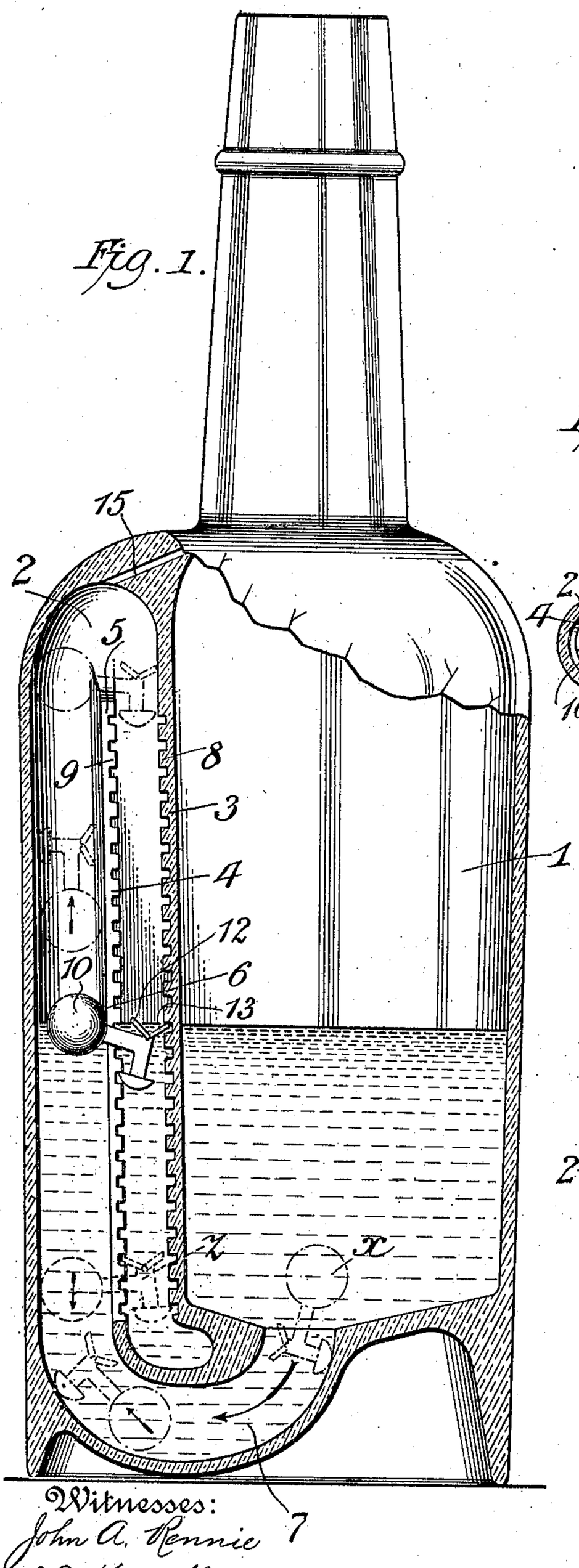


Fig. 3.

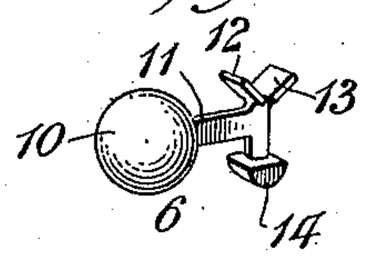


Fig. 2.

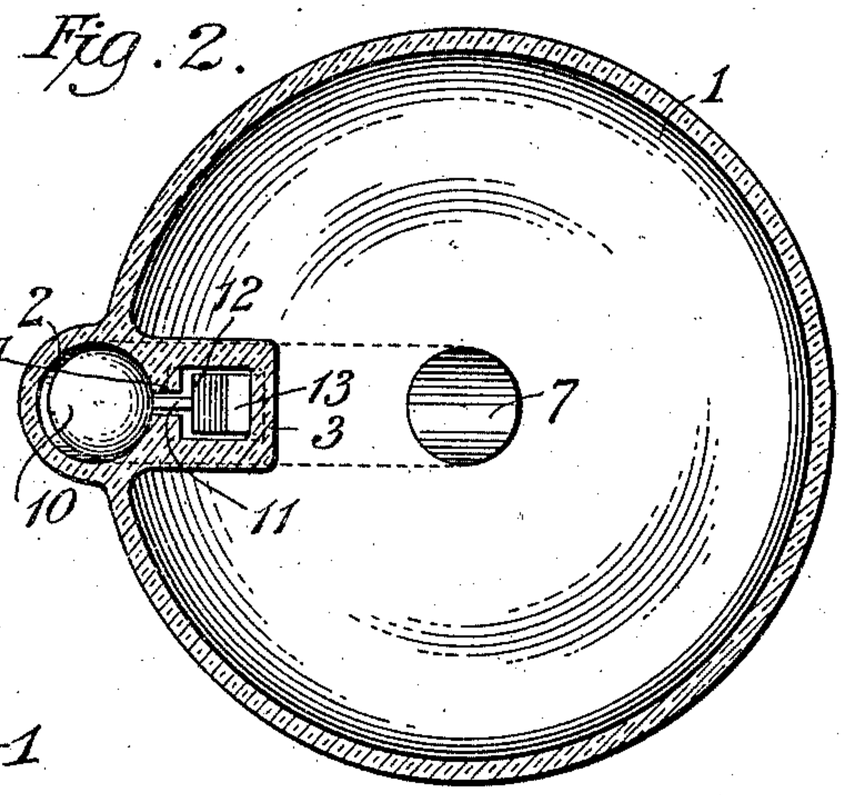
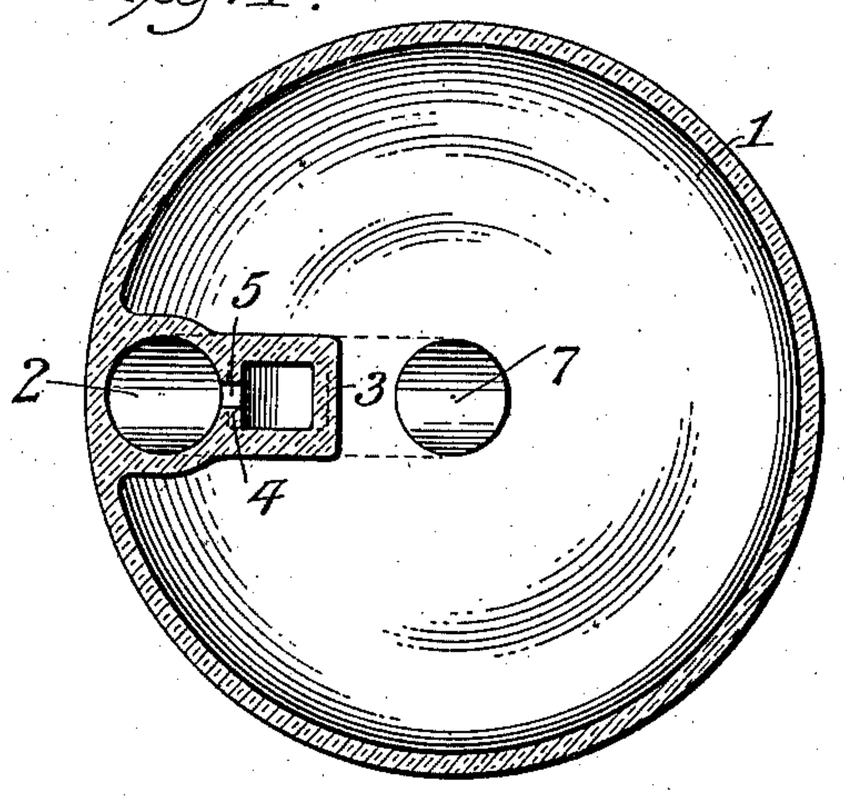


Fig. 4.



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UNITED STATES PATENT OFFICE.

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BOTTLE OR OTHER LIKE RECEPTACLE FOR CONTAINING LIQUIDS.

963,414. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed August 23, 1909. Serial No. 514,214.

To all whom it may concern:

Be it known that we, GEORGE W. BANTA and ALBERT E. WICKS, citizens of the United States, residing, respectively, at Jersey City, in the county of Hudson and State of New Jersey, and Hudson Heights, in the county of Bergen and State of New Jersey, have invented a certain new and useful Improvement in Bottles or other Like Receptacles for Containing Liquids, of which the following is a specification.

Our invention relates to bottles and other like receptacles for containing liquids, and more particularly to that class commonly known as "non-refillable", an object being to provide means in connection with a bottle or other receptacle for giving indication when the contents have been wholly or partially emptied or again wholly or partially refilled, thereby preventing a fraudulent use of the same after having been primarily filled by the original producer.

In carrying out our invention we employ, what may properly be termed, an indicator located adjacent the receptacle and so positioned as to be at all times visible to an observer; said indicator moving as the liquid is discharged from the receptacle, means being also provided for thereafter locking and holding the indicator on a level or approximate level with the original contents as the same is partially or wholly discharged.

Our invention may be said to comprise a receptacle for containing liquids having in combination a visible indicator adapted to normally rest upon the top of the liquids and movable as the liquid is discharged from the receptacle, and means for locking said indicator as the contents are gradually or wholly emptied.

Our invention further comprises certain novel features of construction and arrangement of parts to be hereinafter fully set forth and pointed out in the appended claims.

In the accompanying drawing forming part of this specification Figure 1 represents a vertical sectional elevation of our invention, the same being shown in connection with an ordinary bottle. In this view the bottle is shown as about half emptied and the indicator locked on a level or approximate level with the contents. Fig. 2 is a transverse section thereof taken on a line above the liquid and indicator. Fig. 3 is a perspective view of the indicator, and Fig. 4, is a transverse section similar to Fig. 2, of a slightly modified form of our invention.

Similar reference characters designate corresponding parts in all the figures of the drawing.

In said drawing, 1, designates the receptacle which in this instance is an ordinary bottle, having produced therein an elongated chamber 2, divided from the body portion of the bottle by a wall 3, and within which is located a wall 4, the latter extending upwardly and to a point near the extremity of the chamber 2, where it is provided with an open slot 5, for the reception of an indicating device 6, to be hereinafter described. The lower end of the slotted wall 4, merges into the body portion of the bottle in such manner as to form a curved passage 7, which communicates with the interior of the receptacle as shown.

Preferably the chamber 2 is cylindrical in form and protrudes beyond the face of the bottle, as shown in Fig. 2, although it may be just as advantageously confined within the interior of the bottle, as shown in Fig. 4, and the wall 3 and contiguous side walls 3 are preferably made flat so as to form a square or rectangular passage or chamber adjacent to and parallel with the chamber 2, the slot 5 effecting a communication between the chambers. The inner or opposing sides of the walls 3 and 4, are each provided with detents 8 and 9 respectively, which are here shown as comprising a series of teeth which extend along their entire length and are adapted to be engaged by the indicator as the level of the liquid lowers in the bottle, and to effectively prevent its rise above the level of the liquid.

The indicator comprises a float member 10 from which projects a shank 11 adapted to enter between the walls of the slot 5, when the receptacle is being filled originally and the liquid has reached its highest level; and to move downwardly between said walls as the contents are gradually or wholly emptied. The outer extremity of the shank 11 is provided with two oppositely disposed extensions 12 and 13 which are preferably projected upwardly therefrom at an angle so that they will engage either one or the other of the toothed walls 3 and 4 thereby preventing the indicator from rising in the chamber 2.

Immediately below the extensions 12 and

13 and forming part of the shank 11, is a weight 14, which sinks in the liquid and serves to maintain the indicator in a vertical position shown at X in Fig. 1, so that as the receptacle is being primarily filled the float will enter the curved passage 7, and pass upwardly as the receptacle continues to fill, maintaining this position until such time as it enters the chamber 2 and the liquid reaches beyond the upper extremity of the wall 4. The preponderance in weight of the weight 14 will then cause the indicator to turn so that its shank will aline with and enter the slot 5 with the weight 14, assuming a depending position as indicated at Y, Fig. 1. In this position it will be seen that the extensions 12 and 13 incline upwardly, and as they are spaced apart to snugly fit between the toothed walls 3 and 4, it will be apparent that as the liquid is emptied the indicator may freely fall, but when the receptacle is placed in the upright position one or the other of the extensions will engage the teeth in one or the other of the walls 3 or 4 and so prevent an upward movement of the indicator. Thus the indicator is always held locked at a level, or approximately at a level, with the liquid and whether it is in the position shown in full lines, or that shown in dotted lines and indicated by 2, the refilling or partial refilling of the receptacle is at once detectable by any observer.

The float member 10 being buoyant and lighter than the combined weight of the shank 11, extensions 12 and 13 and weight 14, it will readily be seen that the latter will inclined downwardly in such manner as to bring the extension 13, into positive engagement with the teeth in the wall 3, while the receptacle is in an upright position, and should it be canted or otherwise manipulated so as to release the extension 13, the opposite extension 12, will immediately engage the teeth in the wall 4, thereby preventing an upward movement of the indicator and also guarding against the complete removal of the indicator after its initial lodgment therein at the time of primarily filling the receptacle.

15, designates an air passage leading from the chamber 2 to the inside of the neck of the bottle through which air that might otherwise be compressed within the chamber 2, will pass.

While we have illustrated our invention in connection with a bottle, it will be obvious that it may be just as advantageously used in connection with demijohns, flasks, barrels, tanks, or in fact any stationary or movable receptacle wherein liquid is stored, the essential feature of our invention being a visible indicator operable through the discharge of the liquid to indicate the refilling or partial refilling of any receptacle to which our invention may be applied.

An indicator 6, is first inserted before the filling process begins, and as the liquid continues to fill the receptacle, the indicator will assume the several positions shown in dotted lines, Fig. 1, which, as previously described, will turn at the highest point in the chamber 2, so as to bring its shank 11, into alinement with the slot 5, in the wall 4, wherein it falls as the liquid is discharged.

Having thus described our invention what we claim and desire to secure by Letters Patent is:

1. A receptacle for containing liquids, having in combination a chamber leading from and communicating with the interior of the receptacle and having detents on one side thereof, a slotted wall arranged within said chamber and having detents on one side thereof, an indicator comprising a float at one end and a weight at the other end and being connected together by a shank adapted to enter said slot and move downwardly as the liquid is discharged, and means on the weighted end of the indicator for engagement with the detents on the walls, whereby the indicator is locked against upward movement and held at an approximate level with the liquid.

2. A receptacle for containing liquids having in combination a chamber leading from and communicating with the interior of the receptacle and having teeth on one side thereof, an open slotted wall arranged within said chamber and having corresponding teeth on one side thereof, an indicator comprising a float member and weighted extension adapted to move between the toothed walls in the chamber and inclined extensions adapted for engagement with the teeth on one or the other of the walls, whereby the indicator is locked against upward movement and held at an approximate level with the liquid.

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