No. 798,265. PATENTED AUG. 29, 1905.

C. M. CONRADSON.

BOTTLE.

APPLICATION FILED JUNE 16, 1903. RENEWED FEB. 4, 1905.

Fig. 1.

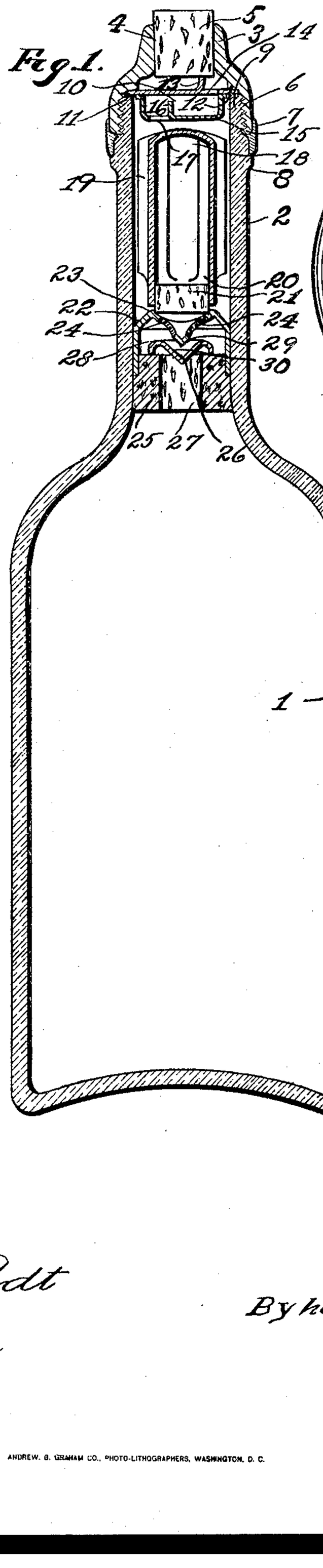


Fig. 2.

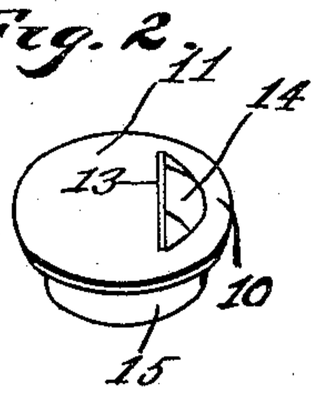


Fig. 3.

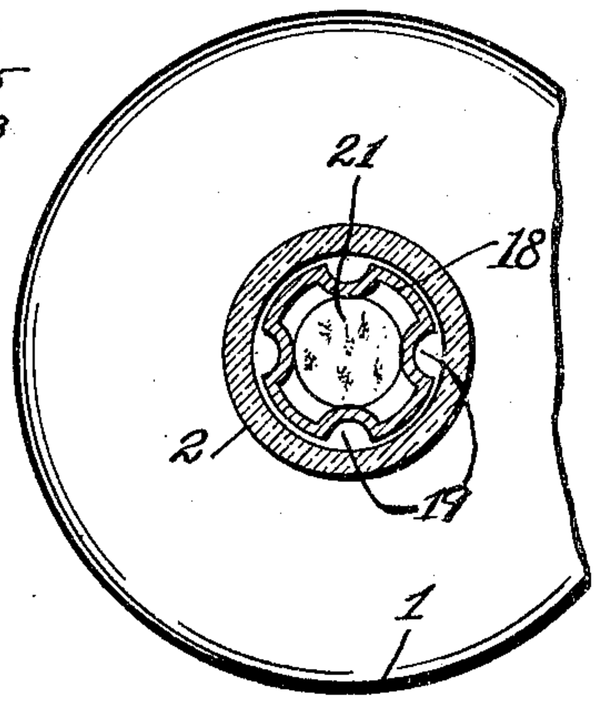


Fig. 4.

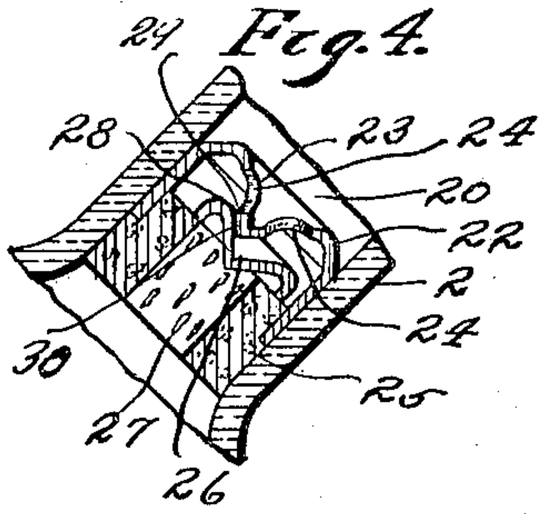


Fig. 5.

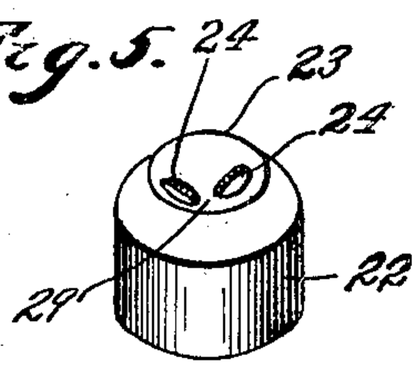
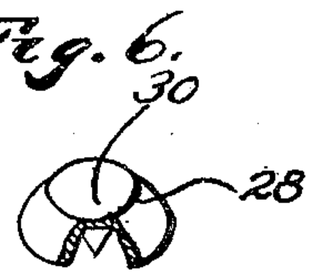


Fig. 6.



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UNITED STATES PATENT OFFICE.

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BOTTLE.

No. 798,265. Specification of Letters Patent. Patented Aug. 29, 1905.

Application filed June 16, 1903. Renewed February 4, 1905. Serial No. 244,211.

To all whom it may concern:

Be it known that I, CONRAD M. CONRADSON, a citizen of the United States, residing in Warren, in the county of Warren and State of Pennsylvania, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

This invention relates to non-refillable bottles; and its object is to provide an article of this kind which is simple, compact, effective, and inexpensive to manufacture.

My invention consists in certain features of construction, combinations of devices, and arrangements of parts, which will be hereinafter set forth, and particularly pointed out in the concluding claims.

In the drawings forming part of this specification, Figure 1 is a sectional elevation of a bottle made in accordance with my invention. Fig. 2 is a perspective view of a baffler used in the upper part of the bottle-neck to prevent access to parts therebelow. Fig. 3 is a sectional plan taken across the neck of the bottle. Fig. 4 is a detail illustrating the manner in which a valve is sealed by a lateral movement thereof. Fig. 5 is a perspective view of a thimble used as a closure at the lower part of the neck. Fig. 6 is a perspective view, partly broken away, of a liftable valve used for closing an opening formed in a closure at the lower part of the neck of the bottle, said valve being shown sealed at Fig. 4.

In the several views like signs denote like parts.

The body of the bottle is designated as 1, and the neck as 2. Upon the top of the latter is provided a cap 3, having a decanting-opening 4, closed by a stopper 5, said cap being preferably screwed at 6 upon the bottle-neck, and a seal 7, preferably annular and formed of wax, being employed between the lower portion of the cap and a bead 8, formed around the bottle-neck. Below said cap is a baffler 10, consisting, preferably, of a top disk 11, which is confined between a shoulder 12, formed upon said cap, and the brim 9 of the bottle-mouth, said disk being provided with a lip 13, which when punched or turned up forms an opening 14 in the disk. To the under side of the disk is attached a cup 15, having an upturned lip 16, forming an opening 17. Said openings 14 and 17 are out of register, and the lip 16 in the cup occupies a position between the cup-opening 17 and the disk-opening 14, so that it is impracticable to insert an implement through the upper opening 14 to pass the lip 16 and through the lower opening 17. Below said baffler is a float consisting, preferably, of a hollow glass body 18, fitting loosely within the neck and having its sides fluted, as at 19, to permit decanting of liquid from the bottle. The lower end of the float is provided with a mouth 20, which is closed by a stopper 21. Below said float is placed a closure-thimble 22, preferably of sheet metal, the top of said thimble being formed with a conical depression 23, having one or more decanting-perforations 24. The conical depression or opening 23 is closed by the stopper 21 in the float 18 both normally and also when the bottle is inverted and liquid is caused to enter the mouth of the bottle. Below said closure 22 is an independent closure in the form of a plug 25, the upper portion of which is inclosed at 26 by the lower portion of the thimble 22. In said plug 25 is a central opening 27, which is closed by a liftable valve 28, said valve being of such dimensions as to be capable of lateral play without uncovering said opening 27, which it normally closes. The apex 29 of the conically-depressed portion 23 of the thimble 22 projects downwardly within a conical depression 30 in said valve and operates to lock or seal said valve upon the opening 27 when the valve is moved laterally, as seen at Fig. 4.

It will be seen that upon filling the bottle the cap 3, which may be of white-metal, may be screwed to position and sealed at 7, the condition of the seal thereafter showing whether or not the cap has been removed for refilling the bottle. In decanting the bottle is inverted, and the weight of the liquid presses the valve 28 away from the plug 25, the liquid passing through the openings 24 in the closure 22 and through the flutes 19 in the float, through the openings 17 and 14 in the baffler, and out of the opening 4 in the cap, the air entering the bottle through the same course. If after the bottle is empty an attempt be made to refill the same when it is standing upright, the heavy valve 28 effectually closes the opening 27 in the lower closure 25 against the ingress of liquid. If, however, the bottle be inverted and an attempt then be made to force liquid thereinto, the float 18 will be raised by the liquid, so that the stopper 21 therein effectually closes the conical depres-

sion or opening 23 in the thimble 22, thereby barring the introduction of the liquid into the body of the bottle. If the bottle be laid upon its side, the valve 28 moves laterally as far as is permitted by the projection 29, which enters the depression 30 of the valve, said projection serving to seal the valve 28 upon the opening 27, as seen at Fig. 4, thereby preventing inflow of liquid. Thus it will be seen that in certain positions of the bottle refilling is prevented by the valve 28 and at all other positions it is prevented by the float 18.

Variations may be resorted to within the scope of my invention, and portions of my improvements may be used without others.

Having thus described my invention, I claim—

1. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a decanting-opening, a baffler below said cap, a closure below said baffler and having an opening, a float between said baffler and said opening for closing the latter, a plug below said closure, said plug having an opening, a liftable valve normally closing the opening in said plug, and means for preventing the lateral movement of said valve from uncovering the plug-opening and for causing the laterally-displaced valve to press against its seat, to thereby enable said valve to temporarily seal said opening.

2. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a stopper-hole, a baffler below said cap, a plug beneath said baffler and having an opening, a liftable valve for said opening, said valve being of such dimensions as to be capable of lateral play without uncovering said opening, means for causing the laterally-displaced valve to press against its seat to thereby become sealed upon said opening by a lateral movement, an independent closure also beneath said baffler and also having an opening, and a float for closing the last-mentioned opening.

3. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a stopper-hole, a baffler below said cap, a plug beneath said baffler and having an opening, a liftable valve for said opening, said valve being of such dimensions as to be capable of lateral play without uncovering said opening, means for causing the laterally-displaced valve to press against its seat to thereby become sealed upon said opening by a lateral movement, an independent closure between said baffler and said plug, said independent closure also having an opening, and a float placed between said baffler and the last-mentioned closure and having means for closing the opening in the latter.

4. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a stopper-hole, a baffler below said cap, a plug beneath said baffler and having an opening, a liftable valve for said opening, said valve being of such dimensions as to be capable of lateral play without uncovering said opening, means for causing the laterally-displaced valve to press against its seat to thereby become sealed upon said opening by a lateral movement, an independent closure between said baffler and said plug, said independent closure also having an opening, and a float placed between said baffler and the last-mentioned closure; said float consisting of a hollow glass body fitting loosely within the neck and having fluted sides, and having a stopper fitted in its lower end, said stopper being adapted to close the opening in the last-mentioned closure.

5. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a stopper-hole, a baffler below said cap, a plug beneath said baffler and having an opening, a liftable valve for said opening, said valve being of such dimensions as to be capable of lateral play without uncovering said opening, means for causing the laterally-displaced valve to press against its seat to thereby become sealed upon said opening by a lateral movement, an independent closure also beneath said baffler and also having an opening, and a float for closing the last-mentioned opening; said baffler consisting of a disk which is confined between said cap and the brim of said neck and is provided with an upturned lip forming an opening therein, and a cup attached to the lower side of said disk and having in its bottom portion an upturned lip forming an opening therein; said lip-openings being out of register, and the lip in the cup occupying a position between the cup-opening and the disk-opening.

6. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a stopper-hole, a baffler below said cap, a plug at the lower portion of the neck and having a central opening, a liftable valve seated upon said plug, said valve being of such dimensions as to be capable of lateral play without uncovering said opening, a conical depression in said valve, a closure above said valve and having a depressed portion which projects within said conical depression, so as to seal said valve by a lateral movement of the latter, an opening in the last-mentioned closure, and a float for closing said opening.

7. In combination, a bottle having a neck, a cap sealed upon the top of the neck and having a stopper-hole, a baffler below said cap, a plug at the lower portion of the neck and having a central opening, a liftable valve seated upon said plug, said valve being of such dimensions as to be capable of lateral play without uncovering said opening, a conical depression in said valve, a closure above said valve and consisting of a thimble, the sides whereof inclose the upper portion of said plug, and the top portion whereof is formed

with a conical depression having a perforation, the apex of said conical depression projecting downwardly within the conical depression in said valve, and operating to lock said valve to its seat when the valve is moved laterally, and a float above said thimble for sealing the same.

8. In combination, a bottle having a neck, a cap sealed upon the neck and having a decanting-hole, a baffler below said cap, a closure below said baffler, said closure having a decanting-opening, a float in position to close said opening, an independent plug below said closure, said independent plug being provided with an opening, a liftable valve for said independent plug, and means for causing the laterally-displaced valve to press against its seat to thereby seal said opening in the plug.

9. The combination of a bottle having a neck, a cap sealed upon the top of the neck, a stopper in said cap, and the following instrumentalities in the neck of the bottle, namely: a baffler, a float below said baffler and incompletely filling the neck, a closure having an opening which is closed by the lower end of said float, a liftable valve below said closure, a plug below said valve filling the neck of the bottle and having an opening which is normally closed by said valve; the latter having in its upper side a conical depression; and a fixed valve-locking device projecting within said conical depression in position to permit limited upward and lateral play of said valve, and to engage said conical depression to seal the valve when the latter is displaced laterally.

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