(No Model.)

E. L. TEVIS.

BOTTLE DESIGNED TO PREVENT REFILLING.

No. 482,329. Patented Sept. 6, 1892.

FIG. 2.

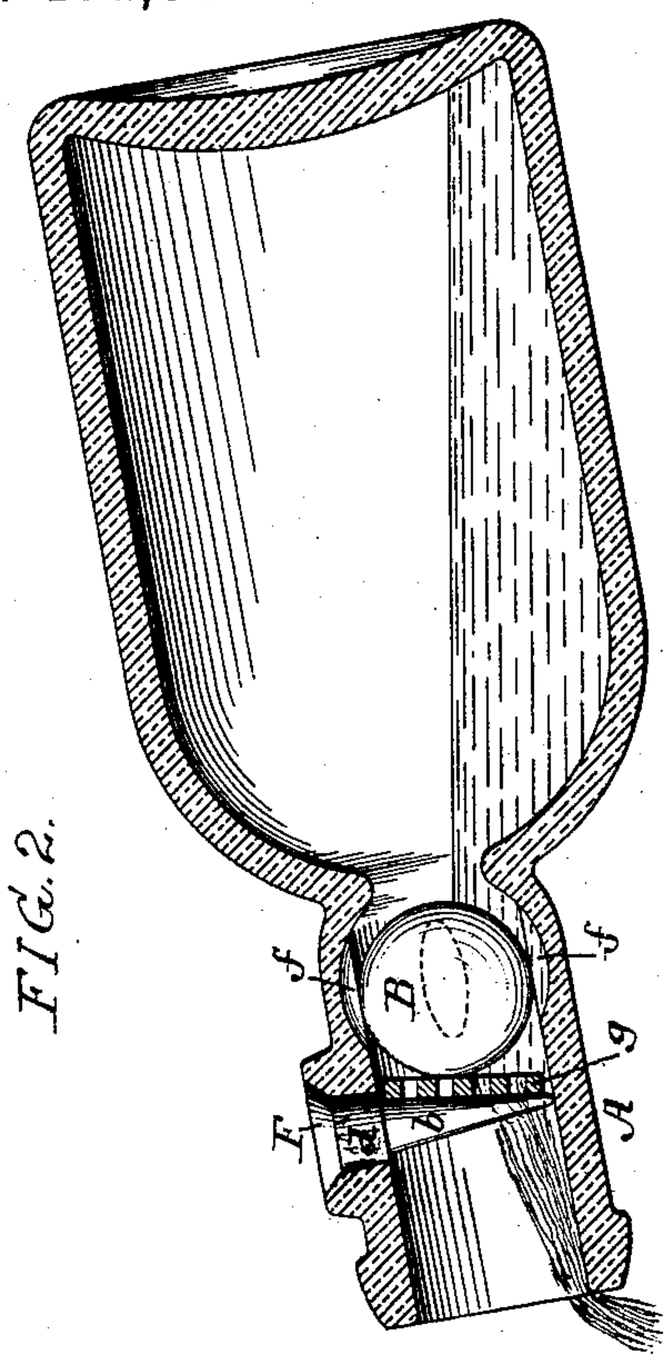


FIG. 3.

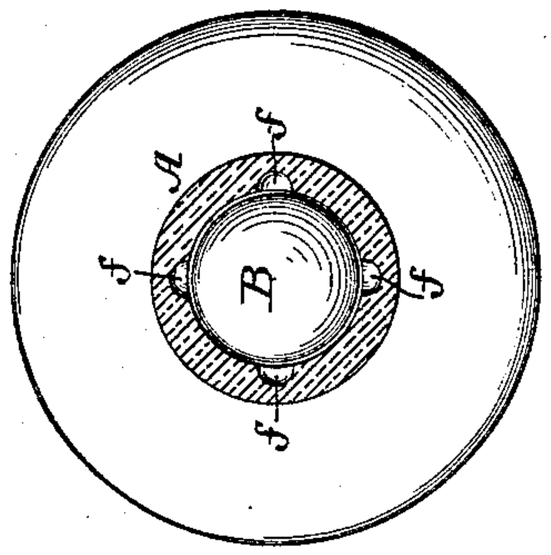


FIG. 1.

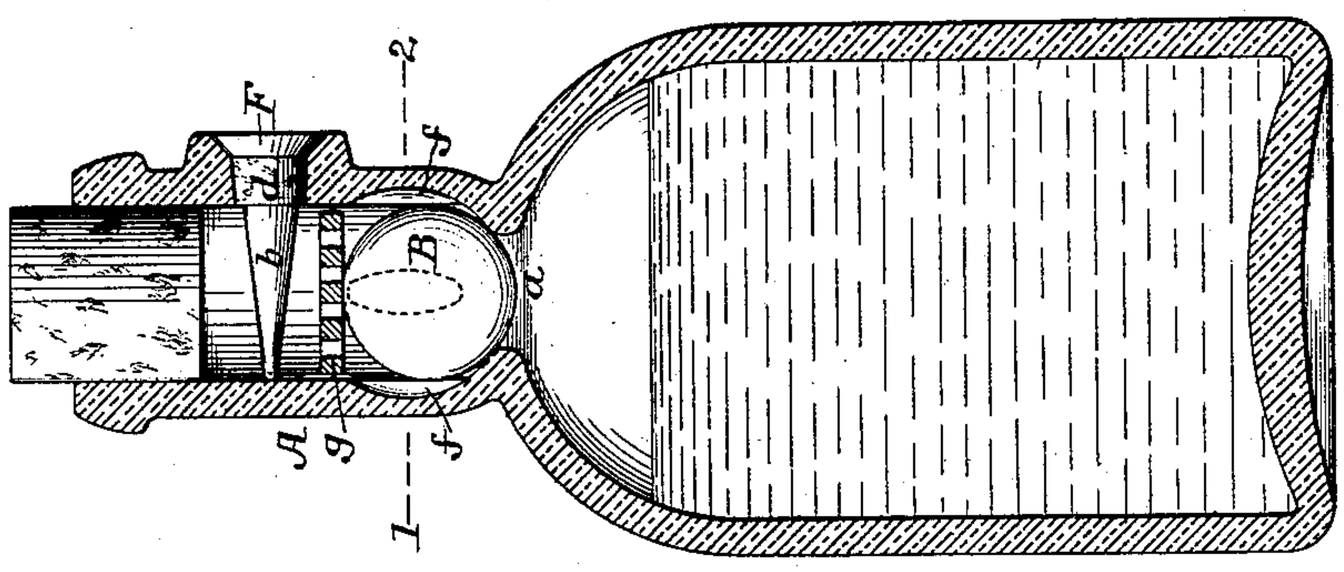
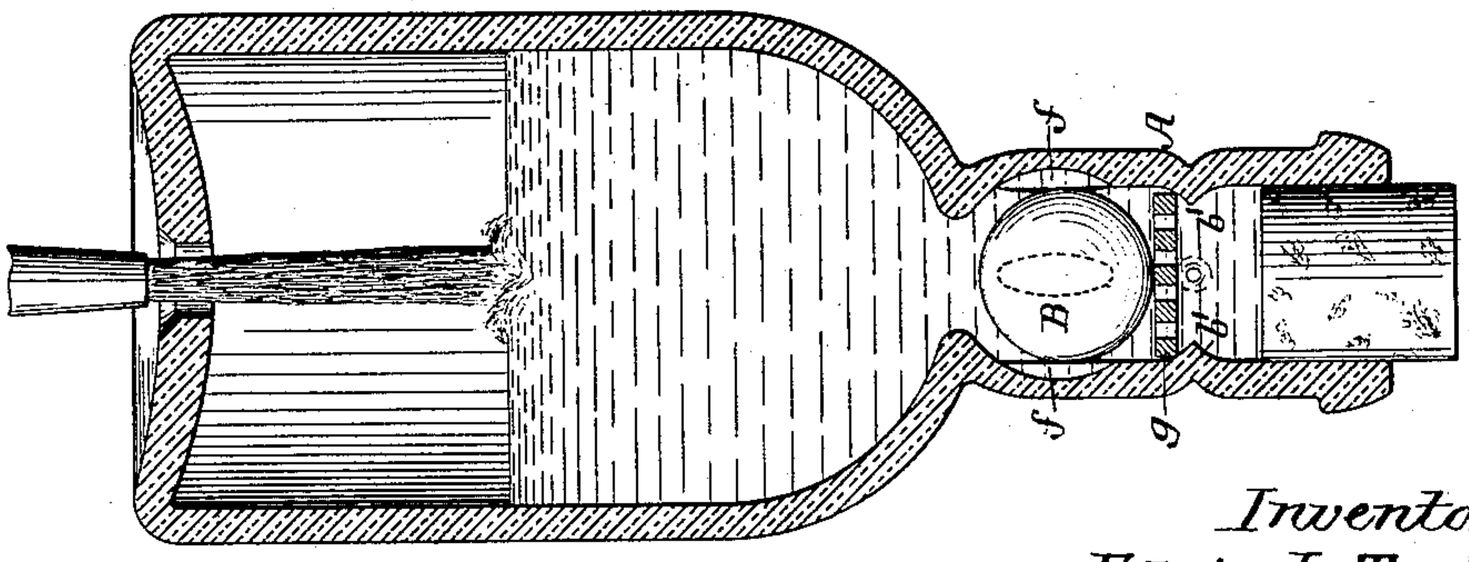


FIG. 4.



Witnesses:
Hamilton D. Turner
Alex. Parkoff

Inventor:
Edwin L. Tevis
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

EDWIN L. TEVIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOSHUA TEVIS, OF SAME PLACE.

BOTTLE DESIGNED TO PREVENT REFILLING.

SPECIFICATION forming part of Letters Patent No. 482,329, dated September 6, 1892.

Application filed March 28, 1892. Serial No. 426,732. (No model.)

To all whom it may concern:

Be it known that I, EDWIN L. TEVIS, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Bottles Designed to Prevent Refilling, of which the following is a specification.

The object of my invention is to provide a bottle with means which while not interfering with the proper filling of the bottle or the proper discharge of its contents will practically prevent the refilling of the bottle after its original contents or part of the same have been so discharged.

This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of a filled bottle constructed in accordance with my invention. Fig. 2 is a view illustrating how the contents of the bottle are discharged. Fig. 3 is a transverse section on the line 1 2, Fig. 1; and Fig. 4 is a sectional view illustrating certain features of my invention in connection with a modified form of bottle.

A represents the bottle-neck, which is contracted at the lower end so as to form the seat *a* for a ball-valve B, which is introduced into the neck of the bottle after the filling of the same and rests upon the seat *a*. The bottle is also provided with a secondary opening, which, in the case of the bottle shown in Figs. 1 and 2, is located in one side of the neck. When the filling of the bottle has been completed and the valve B has been inserted, the opening in the side of the bottle-neck is closed by a plug F, the outer face of which is flush with the surface of the bottle-neck, so that access to the plug for the purpose of removing the same is difficult if not impossible. From the plug F a finger *b* projects inward across the bottle-neck and serves to prevent removal of the valve B.

The plug F may, if desired, be sealed in the opening in the bottle-neck, or it may have a ring *d*, of cork or other available material, for making a tight joint, the plug itself being, by preference, of glass or other non-corrodible material.

In the sides of the bottle-neck, above the valve-seat *a*, are formed grooves or channels *f*, of which there may be any desired number, four being shown in the present instance, and between the valve B and the finger *b* is also, by preference, introduced a perforated plate or disk *g*, which may, as shown in the drawings, be in the form of a disk with a number of small perforations therein, or it may be in the form of a ring with a single central perforation of larger diameter.

When the bottle is tilted, as shown in Fig. 2, the valve B will leave the seat *a* and thus permit the escape of the liquid contents of the bottle through the passages or grooves *f*, the valve being of the same diameter as the interior of the bottle-neck, the liquid then passing through the perforations in the plate *g* and escaping from the mouth of the bottle; but as soon as the bottle is inclined in the opposite direction—that is to say, with the neck above a horizontal line—the valve B will roll into its seat and effectually prevent the inflow of any liquid.

The perforated plate or disk *g* prevents the insertion of the nose of a filling implement through either of the grooves *f*, so that even the slow and laborious filling of the bottle by such means is effectually prevented.

In Fig. 4 I have shown an instance of a bottle which can be filled from the bottom and in which the valve B and plate *g* can be introduced into the neck when the bottle is being made so as to remain permanently therein, the retainer in this case consisting of lugs *b'*, which project inward into the neck of the bottle so as to overlap the disk *g*, it being understood that the opening in the bottom of the bottle is closed by a non-removable plug after the filling of the bottle has been completed.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A bottle having a neck with a detachable stopper, a valve-seat in said neck, a valve adapted to said seat and serving to close the bottle against inflow, and a second opening provided with a non-removable plug or stopper having a finger projecting across the neck of the bottle above the valve, substantially as specified.

2. A bottle having a neck with detachable stopper, a valve-seat in said neck, a valve

adapted to said seat and fitting snugly to the neck of the bottle so as to close the same against inflow, narrow grooves or passages in the neck above the valve-seat and alongside of the valve, an obstruction to prevent the removal of the valve from the bottle, and a second opening having a non-removable plug or stopper, substantially as specified.

3. A bottle having a neck with detachable stopper, a valve-seat in said neck, a valve adapted thereto and serving to close the bottle against inflow, a second opening provided with a non-removable plug or stopper having a finger projecting across the neck of the bottle, and a perforated plate interposed between the valve and said finger, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN L. TEVIS.

Witnesses:
WILLIAM D. CONNER,
HARRY SMITH.