(No Model.)

I. M. PHELPS, Dec'd.

M. PHELPS, Administratrix.

NON-REFILLABLE BOTTLE.

No. 596,615. Patented Jan. 4, 1898.

fig. 1.

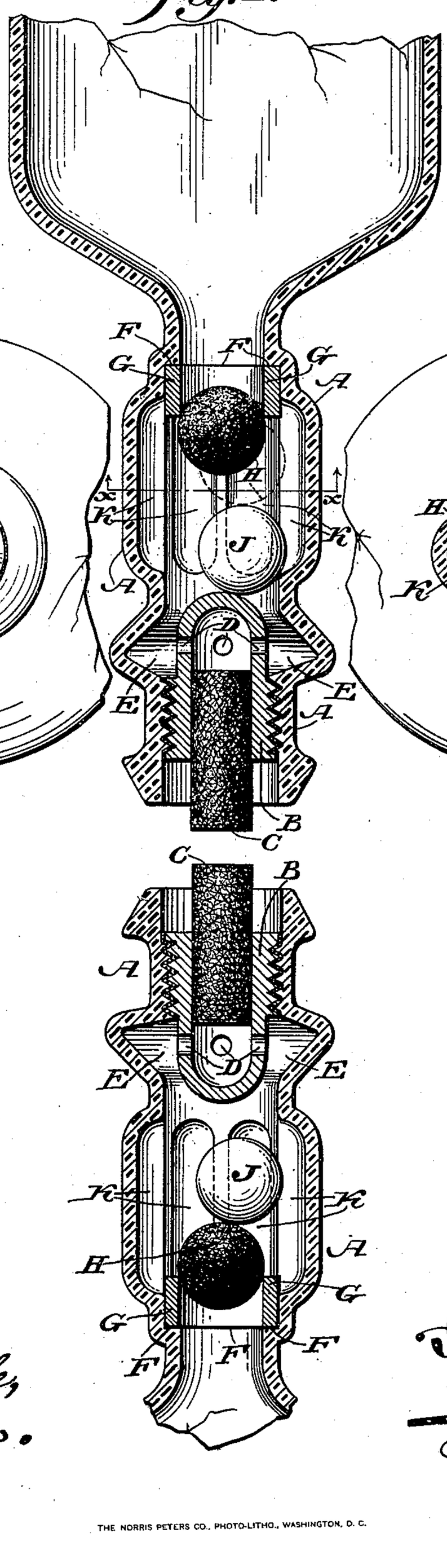

fig. 4.

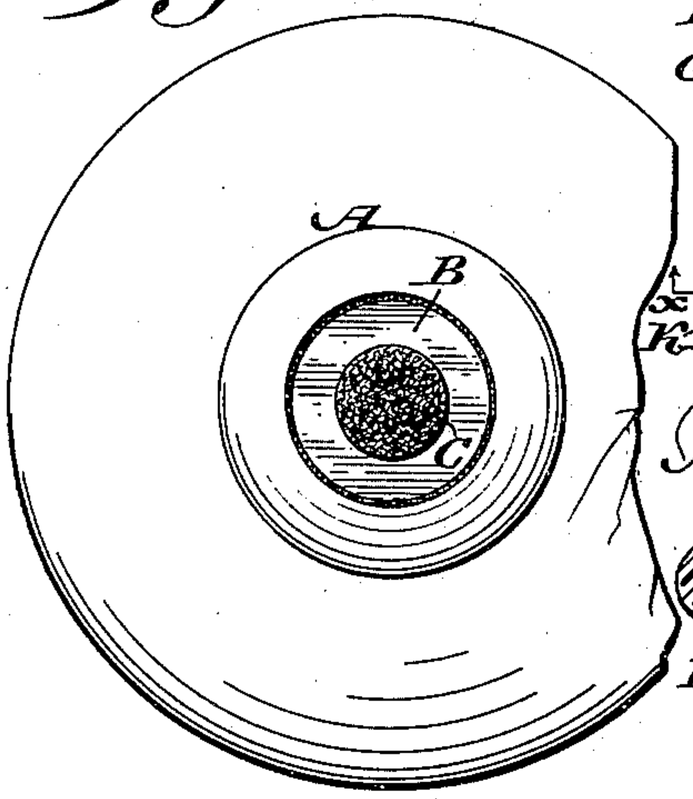

fig. 3.

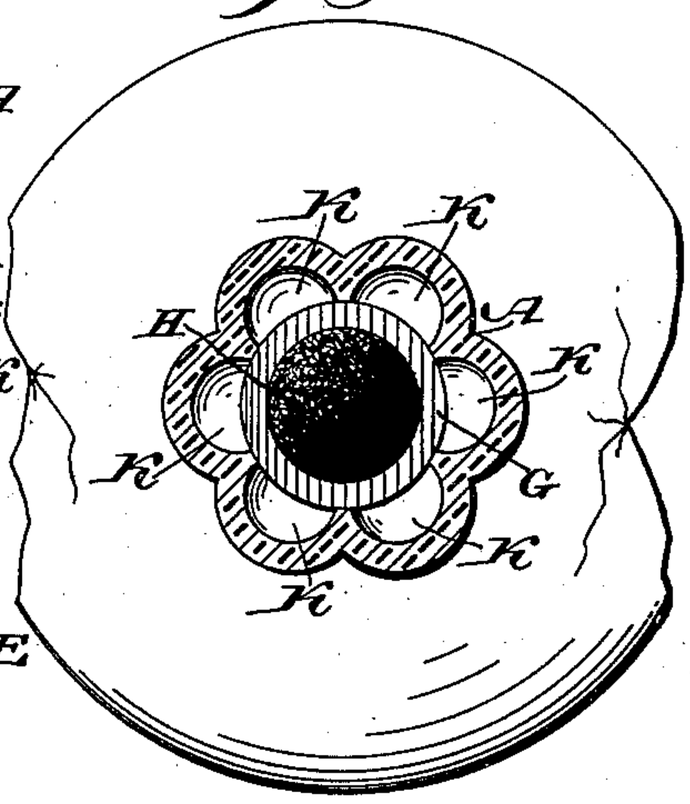

fig. 2.

WITNESSES

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IRA M. PHELPS, OF PHILADELPHIA, PENNSYLVANIA; MIMA PHELPS, ADMINISTRATRIX OF SAID IRA M. PHELPS, DECEASED, ASSIGNOR OF ONE-HALF TO JOHN A. GILL, OF SAME PLACE.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 596,615, dated January 4, 1898.

Application filed January 6, 1897. Serial No. 618,107. (No model.)

To all whom it may concern:

Be it known that I, IRA M. PHELPS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Non-Refillable Bottles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of means for preventing the refilling of a bottle, the same embodying a buoyant valve, a loaded or heavy valve superimposed thereon, an elastic seat for said buoyant valve, and a thimble which is adapted to receive a cork or stopper and provided with discharge-ports, said seat forming a guard to prevent access from the side to the valve thereon, the several parts being located within the neck of a bottle, their construction and operation being more fully set forth.

Figures 1 and 2 represent vertical sections of a non-refilling bottle embodying my invention. Fig. 3 represents a transverse section on line *x x*, Fig. 1. Fig. 4 represents a top view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the neck of a bottle, and B designates an inverted thimble which is screwed into the same near the mouth thereof and secured thereto by cement or other suitable material, serving to prevent its removal. The upper end of said thimble is adapted to receive the cork or stopper C, and the lower end is provided with ports D for discharging the contents of the bottle when said stopper is extracted or removed. On the interior of the neck is a circumferential channel E, the same circumscribing the ports D, whereby the latter are properly or sufficiently uncovered as to be in communication with the bottle at said ports. Within the neck, at the base thereof, is a horizontal shoulder F, on which is seated the vertical ring or band G, of rubber, forming a seat for the ball-valve H, above which latter is seated the weight J, both valve and weight being, as is evident, within the neck of the bottle between said seat G and the bottom of the thimble B, imposed one on the other.

The valve H is formed of buoyant material, so as to be capable of floating in the liquid or fluid within the neck of the bottle. The weight J serves to hold the valve H on its seat, and thus close the neck of the bottle from below.

In the inner side of the neck are the vertical grooves or channels K, on the walls of which the valve and weight may roll when the bottle is canted without closing said channels, so that some of the liquid or fluid may flow through said channels when properly pouring out or dispensing.

The operation is as follows: The bottle is filled and the cork inserted, thus closing the former. When it is desired to remove the contents of the bottle, the cork is extracted and the bottle canted or overturned, when the valve and weight move outwardly or forwardly, thus uncovering the seat G and permitting the liquid or fluid to flow through the channels K and the unoccupied portion of the neck of the bottle, and so enter the thimble through the ports D, it then being discharged at the open end of the thimble. Should an attempt be made to fill the bottle in a canted or inverted position of the same, the liquid that may enter the neck will float the valve H and force it to its seat on the ring G, thus closing the valve. (See Figs. 1 and 3.) Should the attempt be made when the bottle is in normal or upright position, the valve H remains on its seat, held or loaded down by the weight J, and thus the liquid cannot float the former and open it. When the bottle is properly canted, the thimble acts as a stop for limiting the forward motion of the ball J without liability of the latter closing the ports D.

The parts will be made of material other than metal, so as to avoid the taste of the same being imparted to the liquor or liquid and prevent corrosion.

Should an implement be inserted into the thimble and directed into one of the ports, the horizontal direction of the latter will deflect said implement outwardly, so as to strike the wall of the channel E, the same being inclined, its tendency being to turn the point of the implement upwardly, thus preventing the latter from descending and reaching the valve H.

Should the base of the thimble be bored

through for the insertion of an implement, the latter will be deflected sidewise by the weight J and directed into either of the channels K, and should it pass downwardly and reach the lower end of said channel it will be prevented from engagement with the valve H, owing to the guard afforded by the projecting portion of the band G. The elastic band G is adapted to clasp the float-valve H in either of the positions shown. When the ball J is on said valve, as in Fig. 2, the latter is forced down sufficiently into the band G, so that should fluid be inserted into the neck of the bottle it will not be able to float said valve from its seat on said band. Should the bottle be shaken in order to throw up the valve, the latter will be reliably retained on its seat, owing to the clasping action of the band G and the weight J, superimposed on said valve.

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

1. A device for preventing the refilling of a bottle, consisting of a valve-seat, a float-valve, a gravitating weight on said valve, and a thimble at or near the mouth adapted to receive a stopper at top and communicate below with the interior of the bottle, said seat being formed of a band of elastic material adapted to clasp said valve.

2. A thimble adapted to be fixed within the neck of a bottle and receive a stopper, a discharge-port in said thimble below said stopper, a channel in said neck around said port communicating with said port and neck, a float-valve in said neck below said thimble, a seat for said valve, a weight superimposed on said valve, and recesses in the neck in the portion occupied by said valve and weight, said seat being formed of a band of elastic material adapted to clasp said valve.

3. In a non-refilling device for a bottle, a valve, a weight for the latter, a valve-seat and a stop in the neck of the bottle, said valve being located between said stop and seat and said neck having vertical recesses in the portion in which said valve and weight have their play, said seat consisting of a band of elastic material which is adapted to clasp said valve and being supported on a shoulder about the base of said recesses and projecting above the same.

4. In a non-refilling device for a bottle, a cork-receiving thimble adapted to be fixed in the neck of the bottle, a laterally-deflected port in said thimble, and an upwardly-deflecting channel in said neck around said port, in combination with a float-valve, a weight thereon, a seat for said valve, and recesses in the neck portion occupied by said valve and seat, said valve-seat consisting of a band of elastic material located about the base of said recess and projecting partly above the same and adapted to clasp said valve.

5. A floating valve and a gravitating weight superimposed thereon, a seat for said valve, and a thimble for limiting the outward motion of said weight, said thimble being adapted to receive the stopper of the bottle, and said valve-seat being formed of a band of elastic material adapted to clasp said valve.

6. A non-refillable bottle having an inverted thimble fixed in the neck thereof with ports in its side above the closed bottom thereof, a channel in the neck with inclined walls circumscribing said ports, a float-valve, a weight and valve-seat in the neck, and vertical passages in the neck between said thimble and seat and around the valve-chamber, said valve-seat being formed of elastic material adapted to clasp said float-valve.

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Witnesses:
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