

(No Model.)

E. ANDERSON.  
BOTTLE OR OTHER VESSEL.

No. 580,567.

Patented Apr. 13, 1897.

FIG. 1.

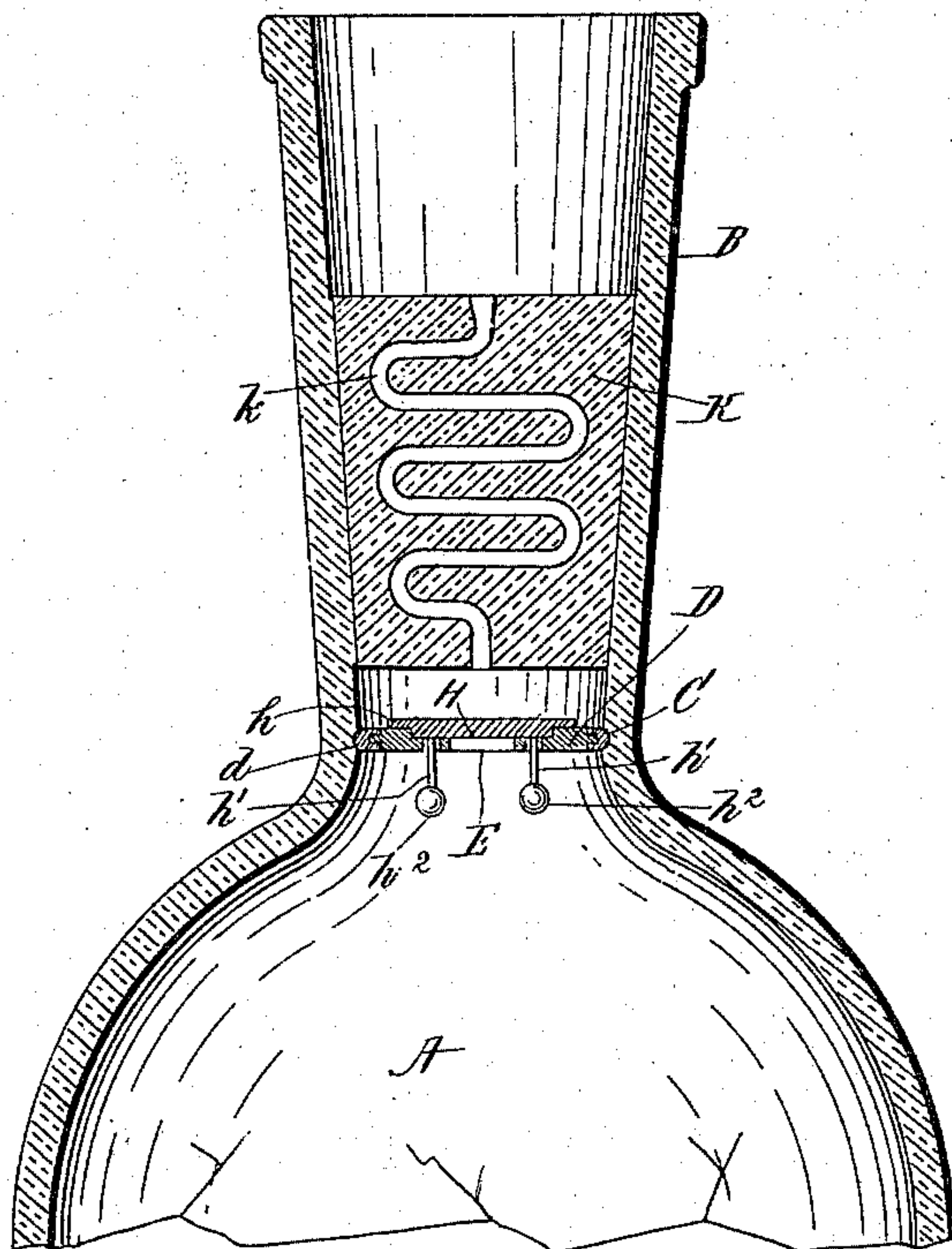


FIG. 2.

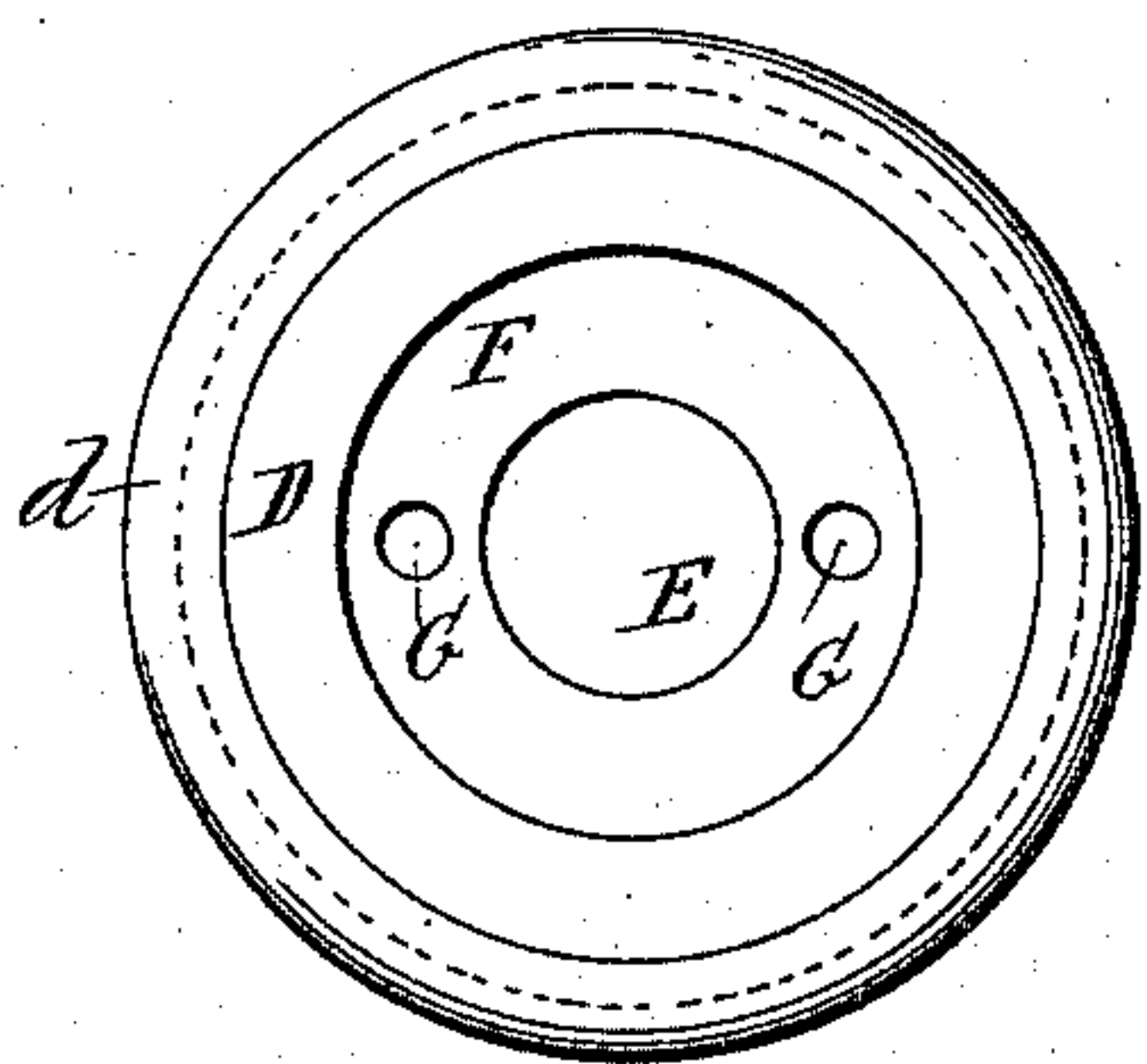


FIG. 3.

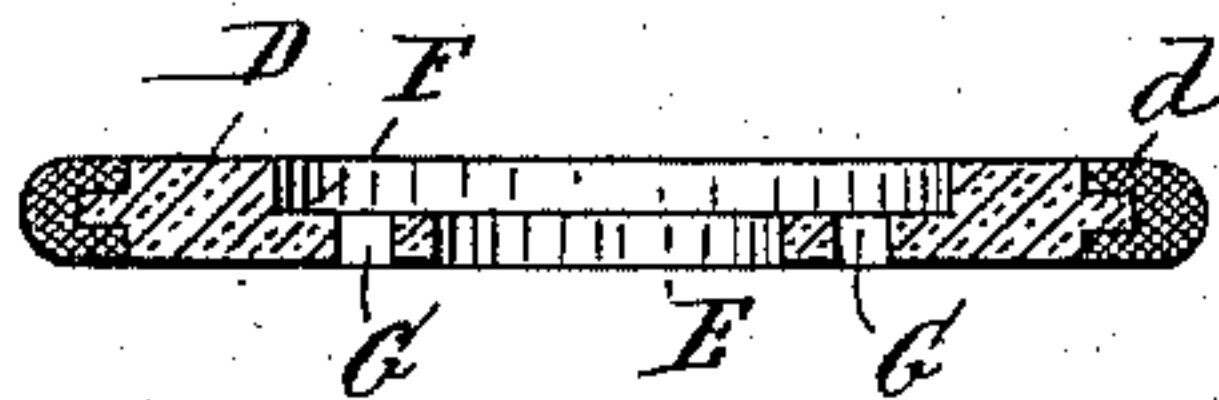
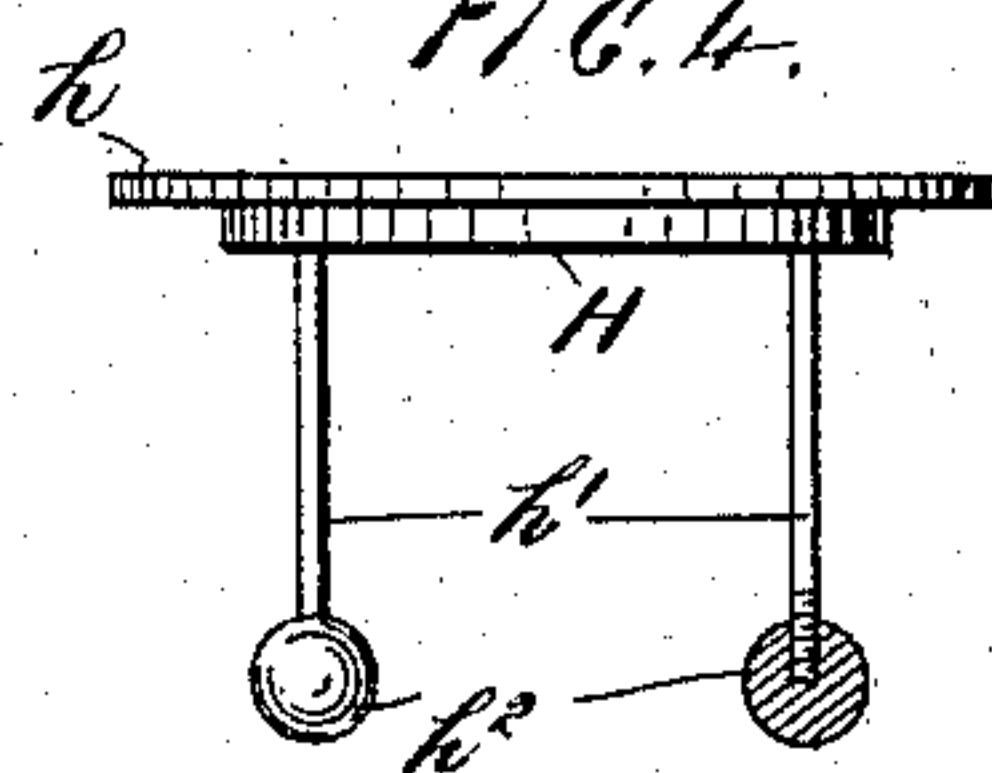


FIG. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ELIS ANDERSON, OF BROOKLYN, NEW YORK.

## BOTTLE OR OTHER VESSEL.

SPECIFICATION forming part of Letters Patent No. 580,567, dated April 13, 1897.

Application filed October 9, 1895. Serial No. 565,099. (No model.)

*To all whom it may concern:*

Be it known that I, ELIS ANDERSON, a citizen of the United States, and a resident of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Bottles or other Vessels, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to bottles, jugs, jars, and similar vessels, and the object thereof is to provide a vessel of this class which having been once filled and emptied of its contents cannot be refilled or reused. This object I accomplish by means of an automatic valve and a non-removable stopper which are secured in the neck of the bottle after it has been filled; and the invention consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings forming part of this application I have shown my invention applied to a bottle, and said invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which--

Figure 1 is a central vertical section of the upper part of a bottle and the neck thereof, showing also my improvement; Fig. 2, a plan view of a partition-plate which I employ; Fig. 3, a transverse section thereof, and Fig. 4 a side view of the valve which I employ in connection with the partition-plate.

In the practice of my invention I provide a bottle A, having a neck B, the walls of which are preferably inclined inwardly and downwardly, as clearly shown in Fig. 1, and formed within the inner walls of the neck, preferably near the bottom thereof, is an annular groove C. Secured within said annular groove C is a partition-plate D, which is annular in form and provided around its periphery with an annular ring *d*, of rubber or similar material, and said partition-plate D is provided with a central opening E, and formed around said opening E, in the upper part of the plate, is an annular enlargement or recess F, and formed in a portion of the partition-plate D below said annular enlargement or recess F are vertical openings G. I

also employ an automatic valve comprising a circular plate H, which is adapted to fit within the annular enlargement or recess F in the plate D, said valve H being provided on its upper surface with an annular flange or rim *h* and on its lower surface with two depending rods *h'*, to the lower end of each of which is secured a weight or ball *h*<sup>2</sup>.

Secured within the neck of the bottle above the partition-plate and valve is a stopper or plug K, which is preferably composed of glass, but which may be composed of any desired material, and said stopper or plug is provided with a tortuous or winding passage *k*, which opens at the top, and preferably at or about the center of the plug or stopper, and also preferably at or about the center of the bottom thereof.

The plate D and the valve H, together with the rods *h'* and the weights or balls *h* connected therewith, may be made of any desired material, and if made of metal they should be made of such metal as will not corrode or be injuriously affected by fluids or acids.

It will be understood that the bottle must be first filled before the plate D, with the attached valve, and also the plug or stopper K, are applied, and the bottle A having been thus filled with the desired contents the plate D, with the valve H, connected therewith, is forced into position, as shown in Fig. 1, after which the plug or stopper K is secured in place in any desired manner, and the neck or nozzle of the bottle may then be closed by the usual cork or stopper.

When it is desired to empty the bottle, it is only necessary to remove the cork or stopper and invert or tilt the bottle, when the contents thereof will flow out around the valve H, said valve being forced from its seat by the action of gravity and the pressure of the fluids within the bottle, and said fluids will flow through the winding or tortuous passage *k* in the plug or stopper K, as will be readily understood, and this operation may be continued or repeated until the bottle is entirely empty.

If an attempt be made to refill the bottle by pouring liquids into the neck thereof, the valve H will be at once resealed and no liquids can enter the bottle, and this operation



of the valve will be the same in any position in which the bottle can be held in an attempt to pour liquids thereinto. I may also preferably make the valve H of cork or similar material, in which event it will serve as a flat valve and prevent the forcing of liquids into the bottle.

It will be understood that the rods *h'* serve to control and guide the movement of the valve, and the construction and arrangement of the various parts are such that said valve will not rest upon the lower end of the plug or stopper K when the valve is inverted.

My invention is not limited to the exact form, construction, and arrangement of the various parts shown and described, and I therefore reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

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

1. A bottle having a neck with inwardly and downwardly inclined walls, and provided with an annular groove near its lower end, a disk adapted to be sprung into said groove and having a central opening with a recess on its upper wall, a valve adapted to be seated in said recess and having a flanged rim seated on the top of said disk and provided with weighted rods working in openings in said disk, and a stopper inserted in said neck above said disk and having a tortuous pas-

sage therethrough, said parts being combined substantially as described.

2. The combination with a bottle having a neck with inwardly and downwardly inclined walls, and near its enlargement into the body of the bottle provided with an annular groove; and adapted to fit within said groove a disk having upon its periphery a rubber ring and said disk provided with a central aperture with an annular enlargement upon the upper surface encircling said aperture, and two smaller apertures diametrically opposite each other also through said disk, and above said disk another and smaller disk adapted to fit into and constitute a valve within the enlargement encircling the larger aperture, and said smaller disk provided with two depending rods adapted to pass through said smaller apertures in the larger disk and weighted upon their lower ends; and above the valve so formed and described a stopper provided with a tortuous aperture with the ends of same in vertical alinement and said stopper adapted to fit within and be sealed to the neck of the bottle substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 5th day of October, 1895.

ELIS ANDERSON.

Witnesses:

CHAS. S. ANDERSON,  
CARL ANDERSON.