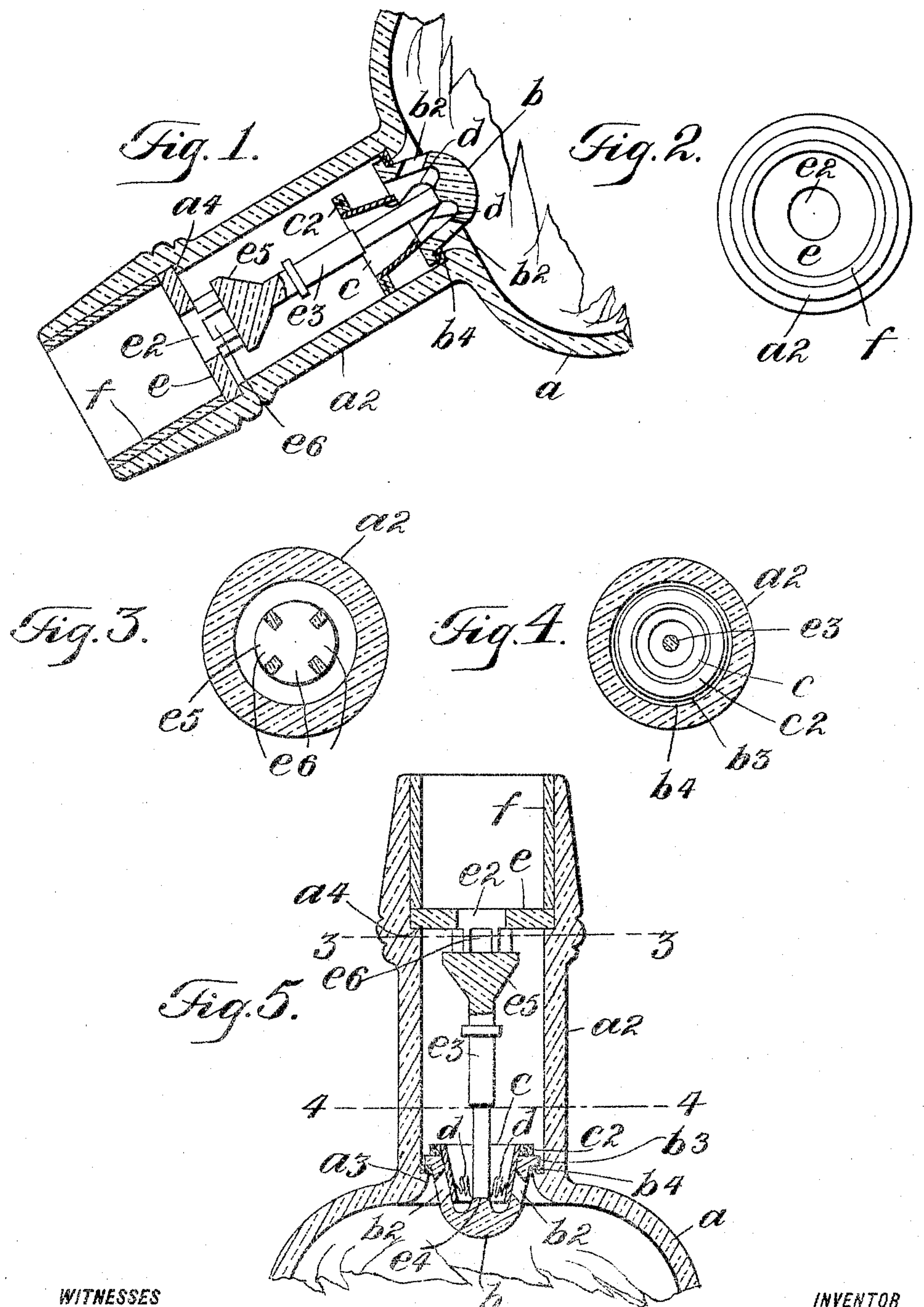


No. 776,678.

PATENTED DEC. 6, 1904.

H. PARKER.
NON-REFILLABLE BOTTLE.
APPLICATION FILED APR. 6, 1904.

NO MODEL.



WITNESSES

A. B. Mattingly
F. A. Stewart

INVENTOR

Henry Parker

BY

Edgar Tate & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

HENRY PARKER, OF BROOKLYN, NEW YORK.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 776,678, dated December 6, 1904.

Application filed April 6, 1904. Serial No. 201,792. (No model.)

To all whom it may concern:

Be it known that I, HENRY PARKER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to bottles, jugs, jars, and similar vessels; and the object thereof is to provide a vessel of this class with a neck attachment so constructed that when the vessel has been once filled and the attachment applied the vessel may be emptied of its contents, but cannot be refilled or reused.

In the drawings forming part of this specification I have shown my improvement applied to an ordinary bottle; and the invention is fully disclosed in the following specification, of which said drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a longitudinal sectional view of a bottle and a part of the bottle, the neck being provided with my improved neck attachment and the parts being shown in a tilted position; Fig. 2, a plan view of the neck; Fig. 3, a section on the line 3 3 of Fig. 5; Fig. 4, a section on the line 4 4 of Fig. 5; and Fig. 5, a view similar to Fig. 1, but showing the bottle and the neck thereof in an upright position.

In the drawings forming part of this specification I have shown at *a* a part of an ordinary bottle provided with a neck *a*², at the bottom of which is an inwardly-directed annular shoulder *a*³, and the neck of the bottle is also provided at a predetermined distance above the annular shoulder *a*³ in the form of construction shown with a supplemental annular and inwardly-directed shoulder *a*⁴.

Within the bottom portion of the neck of the bottle is placed a cup-shaped valve-seat *b*, having side ports or passages *b*², two of which are shown, and the valve-seat *b* is provided with a flange or rim *b*³, which rests on the annular shoulder *a*³ and between which and said

annular shoulder is preferably placed a gasket *b*⁴, composed of cork or other suitable material. Resting in and supported by the valve-seat *b* is an inverted hollow and conical valve *c*, having a flange or rim *c*², of cork or other suitable material, which is secured thereto, and said valve and the valve-seat *b* are preferably composed of glass; but the gasket *b*⁴ and the flange or rim *c*² of the valve are preferably composed of cork or other similar material, so as to provide a close fit between the flange of the valve-seat and the annular shoulder *a*³ and between the top of the valve and the flange or rim *b*³ of the valve-seat; but the gasket *b*⁴ and the flange or rim *b*³ may also be composed of glass, if desired, and the flange or rim *c*² of the valve may be formed integrally with said valve, if desired. The valve *c* is also preferably connected with valve-seat by means of silk cords or similar devices *d*, so as to limit the movement of the valve, and placed in the top portion of the neck *a*² of the bottle and resting on the annular shoulder *a*⁴ is a disk *e*, having a central port or passage *e*², and with the bottom of which is connected a depending rod or member *e*³, which when the parts of the attachment are in position within the neck *a*² of the bottle bears on the central portion of the valve-seat *b*, as shown at *e*⁴, and said rod or member *e*³ is preferably made smaller at its lower end than at the upper end thereof, so as to permit of the free operation of the valve *c*, and the upper end of said rod or member is provided with an enlarged head *e*⁵, between which and the port or passage *e*² are supplemental ports or passages *e*⁶, and said disk *e* is held in position by a sleeve *f*, secured in the top portion of the neck *a*² in any desired manner.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof. The bottle *a* is first filled with the desired contents, after which the gasket *b*⁴ is inserted into the neck *a*². The valve *c* and the valve-seat *b* are then connected and the valve-seat, with the valve therein, is dropped into the neck and the flange or rim *b*³ thereof rests on the gas-

ket b^4 . The disk e is then placed in position and the lower end of the rod e^3 bears on the central bottom portion of the valve-seat and holds said valve-seat in position, after which the sleeve f is secured in the top of the neck of the bottle, as shown in Figs. 1 and 2, and the neck of the bottle may then be securely closed by an ordinary cork or plug inserted into the sleeve f . When it is desired to empty the bottle or discharge a portion of its contents, the cork or plug is removed and the bottle is inverted or tilted, as shown in Fig. 1. In this operation the valve c leaves its seat, as is also shown in said figure, and the contents of the bottle are free to flow out through the ports or passages b^2 and through the ports or passages e^2 and e^6 , and this operation may be continued or repeated until the bottle is entirely emptied. If an attempt be made to refill the bottle by pouring liquids thereinto, the valve c will at once drop into the seat b and no liquids can enter the bottle, and this operation of said valve will be the same in any position in which the bottle can be held in an attempt to pour liquids thereinto. The valve c may also be made to serve as a float, and in this event will prevent liquids from being forced into the bottle by holding the bottle in an upright position and applying a pump or other device for forcing liquids thereinto.

My invention is not limited to the cords d for connecting the valve c with the valve-seat b and limiting the movement of said valve, and any suitable means may be provided for limiting the movement of the valve c when it drops out of the seat b , as hereinbefore described.

The object of the disk e having the central port or passage e^2 and the enlarged head e^5 of the rod or member e^3 , between which and said disk are supplemental ports or passages e^6 , is to prevent the insertion of a tool or instrument in an attempt to interfere with the operation of the valve c or, in other words, to form a guard or guards to protect said valve.

As hereinbefore stated, the valve c may be made to serve as a float in order to prevent liquids from being placed into the bottle, and the flange or rim c^2 thereof if made of cork will serve for this purpose, and said flange or rim may be made of any desired dimension in order to accomplish this result, and additional cork may be applied to the top of said valve for this purpose, if desired.

My improved neck attachment for vessels of the class specified is simple in construction and operation and comparatively inexpensive and is perfectly adapted to accomplish the result for which it is intended, and changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A bottle or similar vessel having a neck provided with an annular inwardly-directed shoulder, a cup-shaped valve-seat adapted to rest on said shoulder and provided with side ports or passages, an inverted hollow conical valve placed in said valve-seat and movable longitudinally of the neck of the bottle and adapted to close said ports or passages, a disk secured in the neck of the bottle above the said annular shoulder and provided with a port or passage and a central depending member the lower end of which is adapted to rest in and on the central bottom portion of the valve-seat and means for limiting the movement of said valve, substantially as shown and described.

2. A vessel provided with a neck in the bottom portion of which is a valve-seat support, a cup-shaped valve-seat resting on said support and provided with side ports or passages, a hollow valve adapted to fit in said valve-seat and to close said ports or passages and movable longitudinally of the neck of the vessel, means for holding the valve-seat in position, devices for limiting the movement of said valve, and guards in the neck portion of the bottle above said valve-seat to prevent interference with said valve, substantially as shown and described.

3. A bottle or similar vessel provided with a neck within the bottom portion of which is a valve-seat support, a hollow or cup-shaped valve-seat placed on said support and provided with side ports or passages, a hollow or conical valve placed in said valve-seat and adapted to close said ports or passages, flexible devices connecting the said valve with said valve-seat to limit the movement of said valve, means for holding the valve-seat in position and valve-guards placed in said neck above said valve, substantially as shown and described.

4. A vessel provided with a neck in the bottom portion of which is a valve-seat support, a cup-shaped valve-seat resting on said support and provided with side ports or passages, a hollow valve adapted to fit in said valve-seat and to close said ports or passages and movable longitudinally of the neck of the vessel, means for holding the valve-seat in position, and guards in the neck portion of the bottle above said valve-seat to prevent interference with said valve, 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 April, 1903.

HENRY PARKER.

Witnesses:

C. E. MULREANY,
F. A. STEWART.