

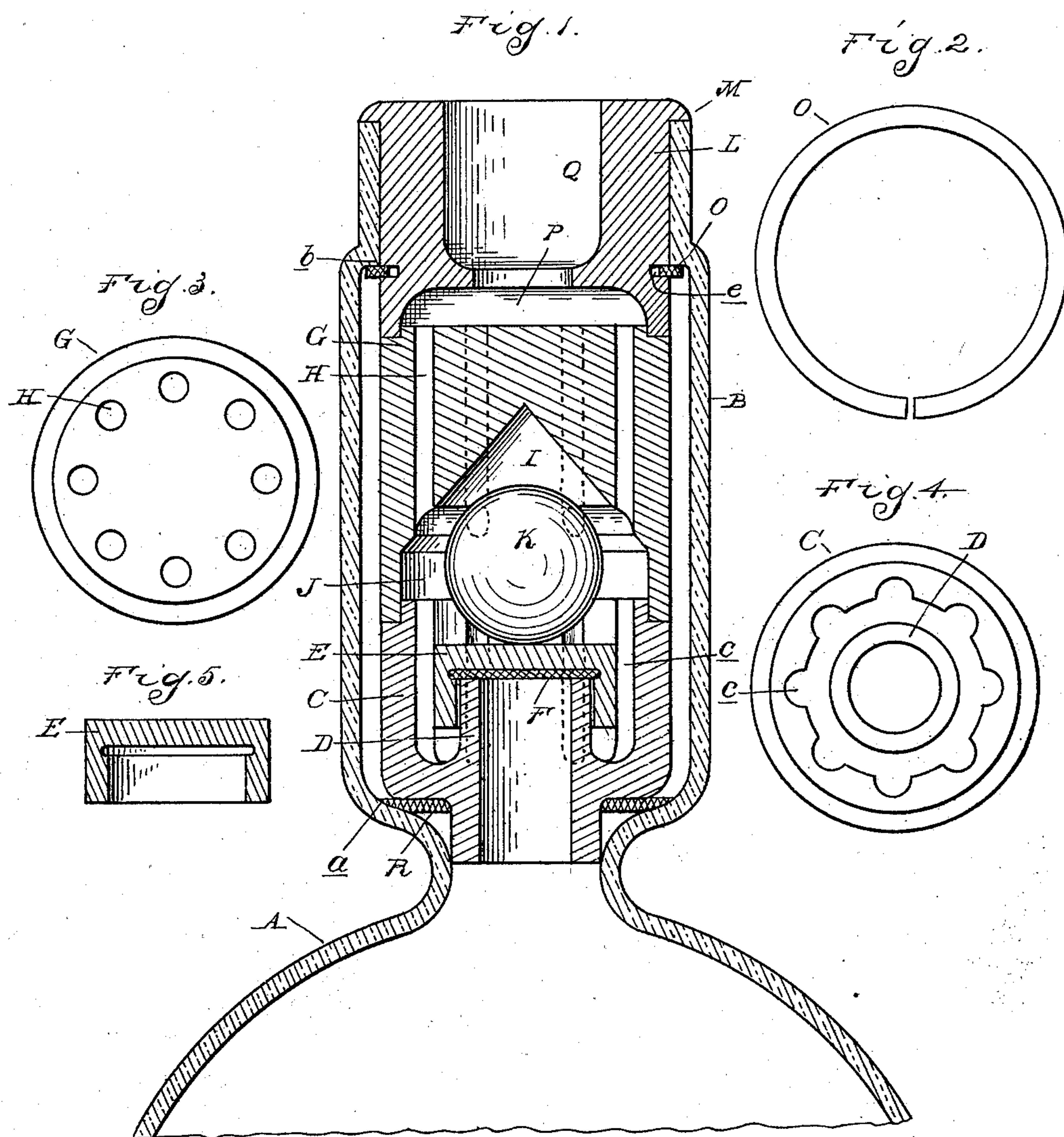
No. 750,258.

PATENTED JAN. 26, 1904.

C. CLARK.
BOTTLE.

APPLICATION FILED JUNE 13, 1903.

NO MODEL.



Inventor
Clement Clark

By *James Whittemore*
att'y.

Witnesses

Geo. H. Graves
 Jas. P. Barry

UNITED STATES PATENT OFFICE.

CLEMENT CLARK, OF SANDUSKY, OHIO.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 750,258, dated January 26, 1904.

Application filed June 13, 1903. Serial No. 161,263. (No model.)

To all whom it may concern:

Be it known that I, CLEMENT CLARK, a citizen of the United States, residing at Sandusky, in the county of Erie and State of Ohio, have
5 invented certain new and useful Improvements in Bottles, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention has particular reference to
10 what is generally termed "non-refillable" bottles; and it consists in the novel and simple construction of a bottle of this character and in the peculiar arrangement and combination of the various parts thereof, as will be fully
15 hereinafter set forth, and pointed out in the claims.

In the drawings illustrating my invention, Figure 1 is a vertical central section through the neck of a bottle, showing an embodiment
20 of my invention. Fig. 2 is a view in plan of the locking-ring. Fig. 3 is a top plan view of the guide member. Fig. 4 is a top plan view of the inner bushing, and Fig. 5 is a detached sectional view of the valve.

25 A represents a bottle of any approved construction, and B the bottle-neck restricted at its lower end at the connection with the bottle, forming the annular supporting-flange *a*. At its upper end the neck is contracted for a
30 distance below its top, forming, the inner annular flange *b*.

Fitted within the bottle-neck adjacent to the body is a cup-shaped bushing C, carrying a central tubular stem D, extending within the
35 bushing as indicated and downwardly below the bushing into the restricted portion of the neck. In the cylindrical wall of the bushing is formed a series of vertical circumferentially-arranged grooves or ports *c*. The upwardly-
40 projecting portion of the tubular stem constitutes a raised annular valve-seat. Mounted upon this seat is an inverted-cup-shaped valve E, the top portion being adapted to rest upon the valve-seat and the depending skirt or
45 flange inclosing a portion of the stem and spaced a distance therefrom. Preferably a washer F is interposed between the top of the valve and the valve-seat. Mounted upon the bushing described is a guide member or plug
50 G, having a series of circumferentially-ar-

ranged vertical ports H formed therein, which are adapted to register with the ports *c* and the conical chamber I, located immediately above the valve. This plug, as shown, is cut away at its lower portion, leaving a space J
55 between the lower bushing and the conical chamber described.

K represents a rolling member, preferably a sphere, arranged intermediate the block and the bushing in the space J and adapted to nor-
60 mally rest upon the top of the valve E.

Fitted within the upper and reduced portion of the neck is a bushing L, having an annular lip M, adapted to engage the upper edge
65 of the bottle-neck. This bushing is held against outward movement by means of the locking-ring O, preferably a split ring, arranged within an annular recess *e*, formed in the bushing and engaging, when the bushing
70 is in place, the shoulder *b*. The lower part of the bushing L is cut away in the manner as indicated at P, so that communication will be established between the ports H of the guide-
75 block and the central opening Q.

As a matter of preference a gasket R is in-
75 terposed between the lower cup-shaped bushing and the reduced or contracted portion of the bottle-neck, so that there will be absolutely no discharge of the bottle contents ex-
80 cept through the tubular stem.

In the operation of pouring, the bottle being tilted into the desired position, the ball moves away from the valve into the conical chamber I, the valve moves away from its seat,
85 and the contents entering the tubular stem pass from the latter between the stem and valve into the ports *c* and eventually discharge through the ports H and opening Q. Upon the tipping of the bottle into any position other
90 than its pouring position the inclined walls of the chamber I cause the ball to move in the direction of the valve and into contact therewith, causing the valve to engage its seat, and thus prevent the refilling of the bottle.

Preferably, though not necessarily, the valve
95 and the bushing in which it travels are so proportioned that the valve-skirting will bear against the inner cylindrical wall of the bushing and in this manner be guided in its travel to and away from the valve-seat.
100

What I claim as my invention is—

1. In a non-refillable bottle, the combination
with a bottle-neck, of a cup-shaped bushing fit-
ting therein in adjacence to the bottle-body, and
5 carrying a central tubular stem, an inverted-
cup-shaped valve mounted upon and inclosing
the upper portion of the stem, a guide-block
above the bushing having one or more verti-
cal ports registering with the outlets from the
10 bushing, and a conical chamber formed there-
in, a freely-moving ball arranged between the
guide-block and valve adapted to be guided
by the walls of the chamber to the valve when
the bottle is in a position other than the pour-
15 ing position, and a second bushing fixed at the
mouth of the bottle and coupled to the upper
portion of the guide-block, said last-mentioned
bushing having a portion overhanging the ver-
tical ports in said guide-block and also having
20 a final outlet-opening for the bottle contents.

2. In a non-refillable bottle, the combination
with a bottle-neck, of a bushing fitting therein
in adjacence to the bottle-body and carrying a

tubular stem, said bushing having outlets, an
inverted flanged valve mounted upon and clos- 25
ing the upper portion of the stem, a guide-
block above the bushing having one or more
vertical ports registering with the outlets from
the bushing and a chamber formed therein, a
freely-moving ball arranged between the 30
guide-block and valve, adapted to rest upon
the valve when the bottle is in a position other
than the pouring position, and a second bush-
ing fixed at the mouth of the bottle and cou-
pled to the upper portion of the guide-block, 35
said last-mentioned bushing having a portion
overhanging the vertical ports in said guide-
block and also having a final outlet-opening
for the bottle contents.

In testimony whereof I affix my signature 40
in presence of two witnesses.

CLEMENT CLARK.

Witnesses:

WM. TILL,

THOMAS MCKISSIC.