

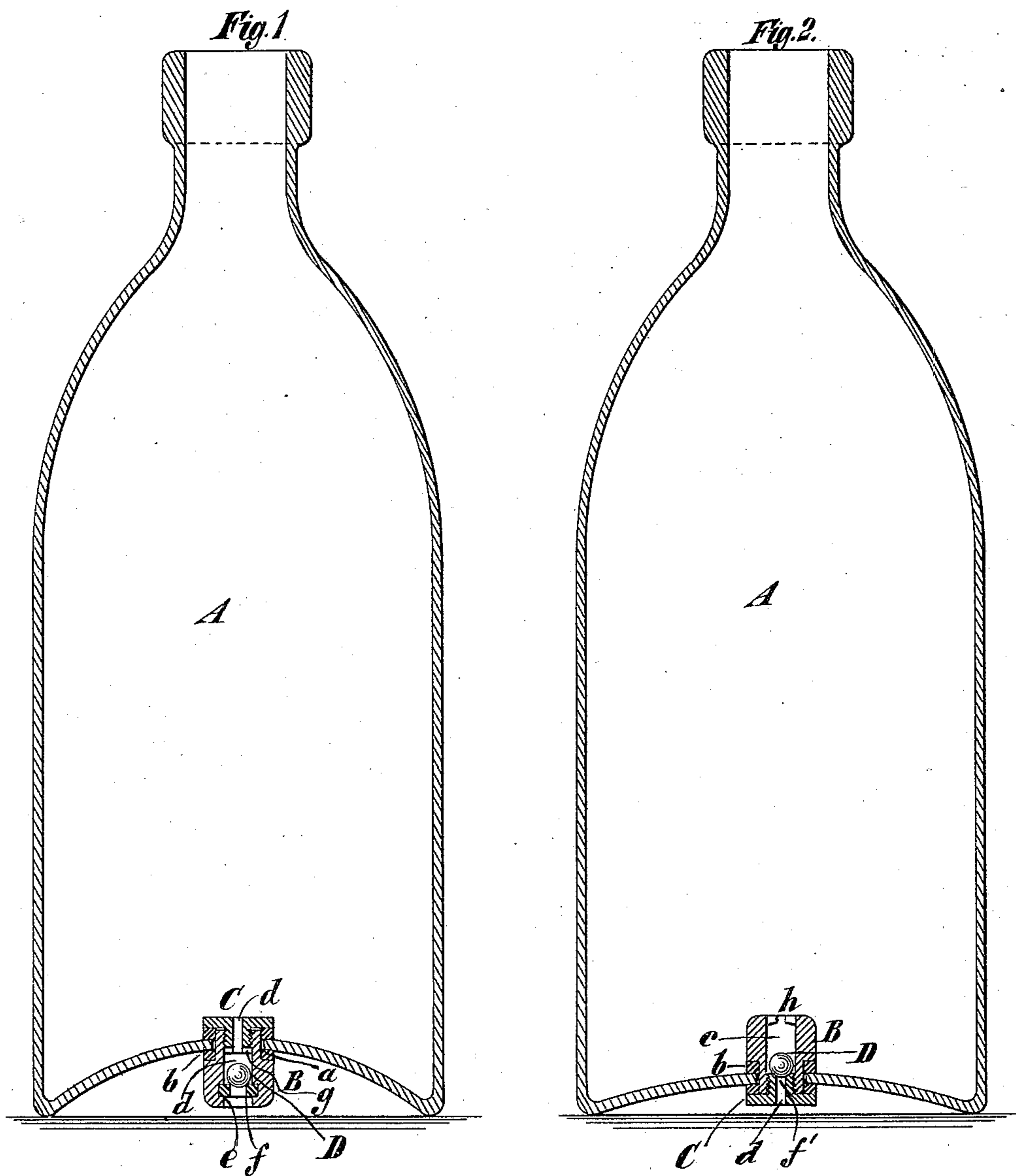
(No Model.)

G. W. CLARK.

BOTTLE.

No. 307,630.

Patented Nov. 4, 1884.



*Witnesses:*  
James R. Bowen.  
Alfred L. Brown.

*Inventor:*  
George W. Clark,  
by his attorney,  
Edwin H. Brown.

# UNITED STATES PATENT OFFICE.

GEORGE W. CLARK, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF  
TO MICHAEL H. HAGERTY, OF SAME PLACE.

## BOTTLE.

SPECIFICATION forming part of Letters Patent No. 307,630, dated November 4, 1884.

Application filed April 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. CLARK, of Brooklyn, in Kings county, and State of New York, have invented a certain new and useful  
5 Improvement in Bottles, of which the following is a specification.

My improvement relates to that kind of a stoppered bottle which, when opened by removing the cork or stoppering device and  
10 then inverted, will discharge its contents directly from its so-opened end, in contradistinction to a stoppered bottle, the contents of which must first pass through a siphon-tube or the like.

15 The improvement consists in a stoppered bottle having in its bottom a vent-aperture and a valve therefor, as hereinafter more particularly recited and claimed.

In the accompanying drawings, Figure 1 is  
20 a central vertical section of a bottle embodying the improvement, and Fig. 2 is a similar section of a bottle embodying a modification of the improvement.

Similar letters of reference designate corresponding parts in both figures.

In Fig. 1, A designates a bottle, of glass or other suitable material, having its bottom  
30 swelled or extended up into the interior, and provided with a central hole or aperture, *a*.

35 B C designate a vent consisting of a body-piece, B, and securing-piece, C, applied to the hole or aperture *a* of the bottle. The body-piece B may be externally of cylindrical or other suitable form, and has a neck which fits snugly into the hole or aperture *a* of the bottle, and a shoulder below the neck extending under the portion of the bottle adjacent to the said hole or aperture. The securing device C has a hub which enters the neck of the  
40 body-piece B, and a flange which extends over that portion of the inner side of the bottom that is adjacent to the hole or aperture *a*. The hub of the securing-piece is externally screw-threaded, and the neck of the body-piece  
45 is internally screw-threaded for the purpose of securing the parts together and to the bottle. A washer, *b*, of india-rubber or other suitable material, is interposed between the shoulder of the body-piece and the bottle, and  
50 a similar washer may be interposed between

the flange of the securing-piece and the bottle. The body-piece has a passage, *c*, extending longitudinally through it, and the securing-piece has a longitudinal passage, *d*, in line therewith, but made preferably of smaller size.

In the lower part of the interior of the body-piece is a circumferential groove, *e*, in which is inserted a ring of india-rubber or analogous material, *f*. This ring *f* forms a seat for a valve, D, which consists of a ball of  
60 metal, india-rubber, or other suitable material. The valve may be inserted through the lower end of the body-piece, and the ring *f* may be subsequently fitted into place. In the lower end of the securing-piece are a number  
65 of radial grooves, *g*.

When the bottle is filled and corked or otherwise closed, the pressure within it keeps the valve D down upon the seat *f*, and hence the vent is maintained closed; but when the  
70 bottle is opened and liquid is poured out, the reduction of pressure enables the valve to fall from the seat onto the end of the securing-piece. Owing to the grooves in the end of the securing-piece, the valve does not close  
75 the passage through it; hence air can enter the bottle so as to facilitate pouring out the liquid.

In Fig. 2 the bottle A has a differently-shaped bottom; hence the body-piece of the  
80 vent is extended into the bottle and the securing-piece is applied to the exterior. The seat *f'* for the valve is on the end of the securing-piece, and the ring *f* is omitted from the body-piece, the latter having prongs *h* extending over its passage to prevent the valve  
85 from dropping out.

By my improvement the pouring of liquids under pressure from bottles is greatly facilitated, and I am enabled to pour them out much  
90 more quietly than when the air has to enter at the same place whence the liquid flows.

I do not wish to limit myself to arranging the vent in the bottom, as it may be arranged in other positions below the mouth.

I am aware that a stoppered bottle having in its bottom a vent-aperture controlled by an automatically-operating valve is old, and the same does not, broadly, constitute a part of  
95 my invention.

I am also aware that a stoppered bottle having in its bottom a vent-aperture controlled by an automatically-closing valve, and means exterior to the bottle for operating the  
5 valve, is old, and the same does not, broadly, constitute a part of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with a bottle, of a vent consisting of the body-piece B, provided with 10 a valve-seat, securing-piece C, and valve D, substantially as specified.

GEORGE W. CLARK.

Witnesses:

T. J. KEANE,  
JAMES R. BOWEN.