No. 834,014. PATENTED OCT. 23, 1906.

M. D. LYKE.

BOTTLE.

APPLICATION FILED JAN. 31, 1906.

Fig. 1.

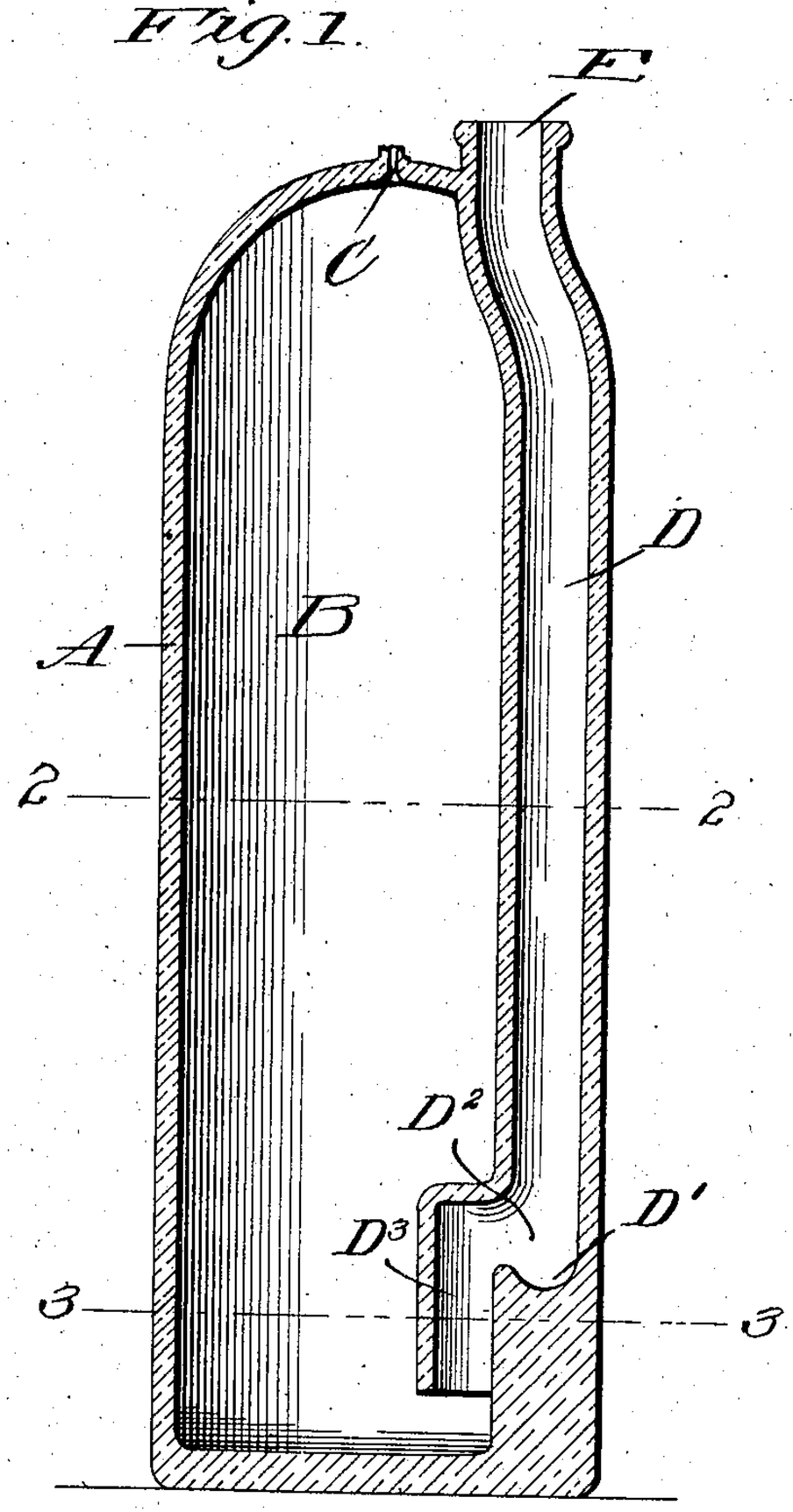



Fig. 4.

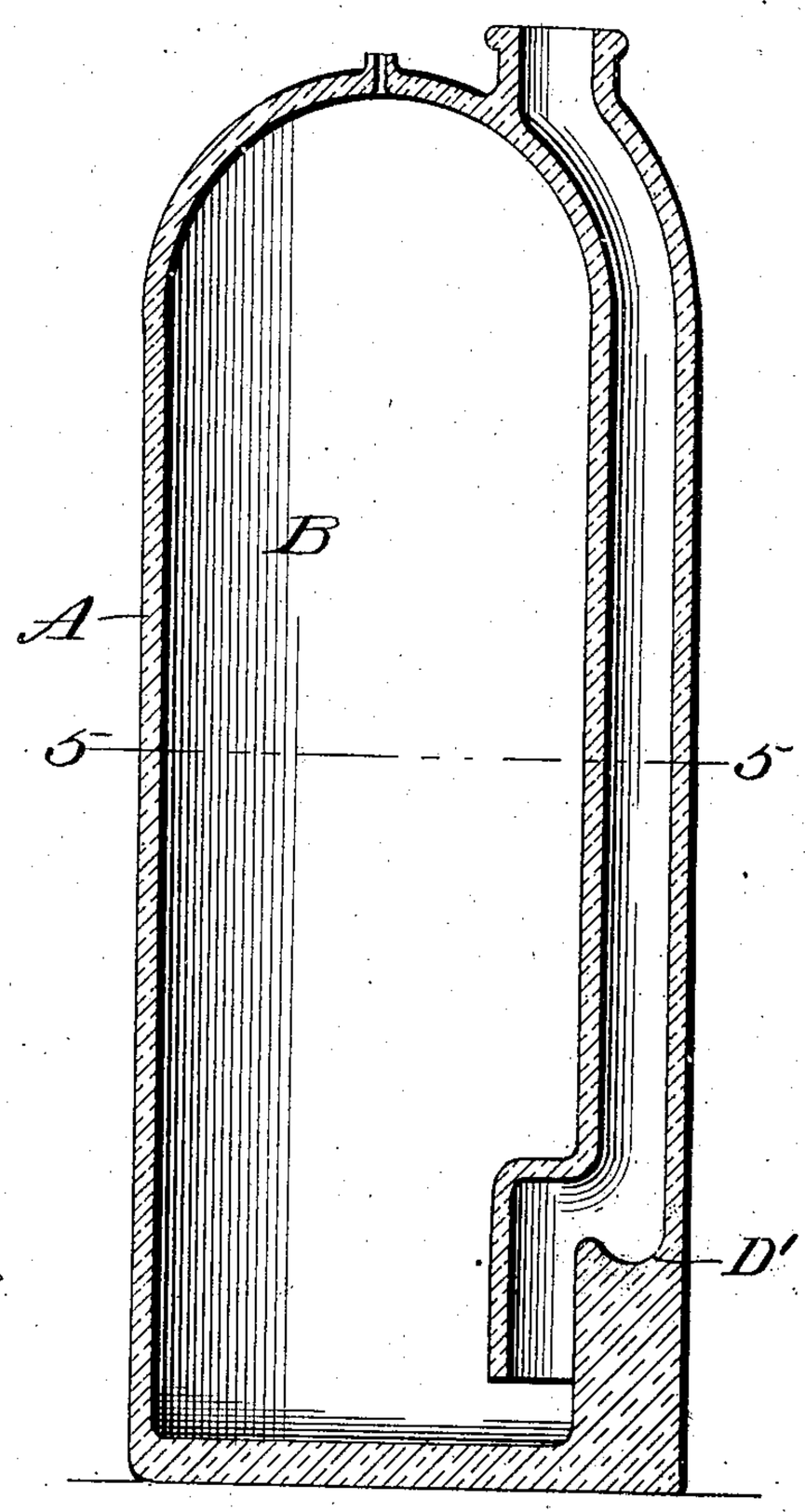



Fig. 2.

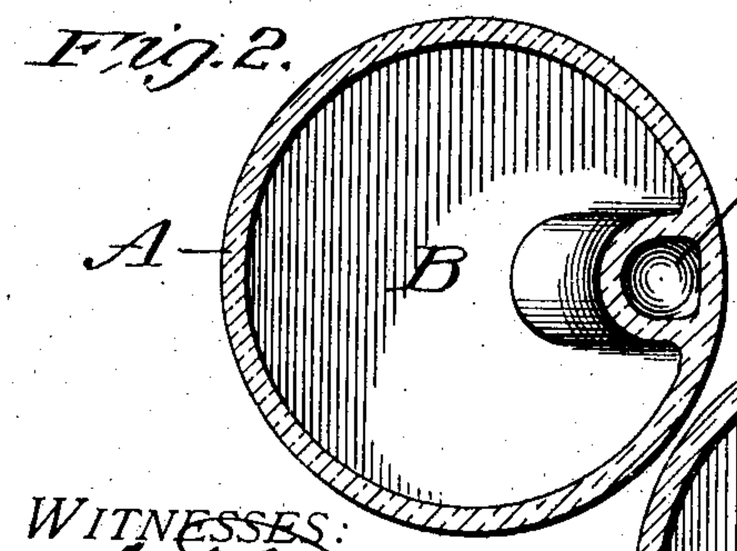



Fig. 3.

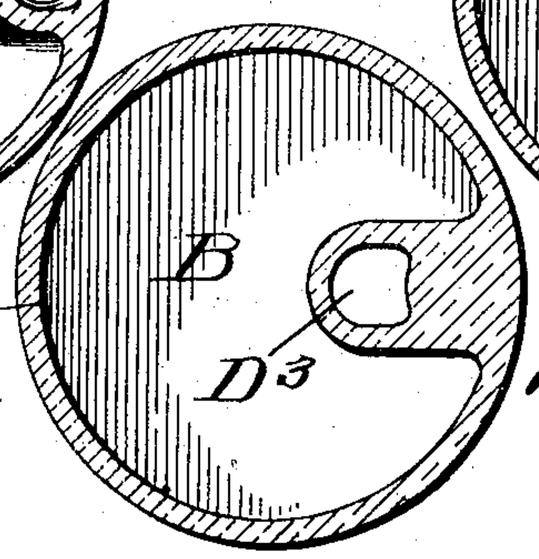
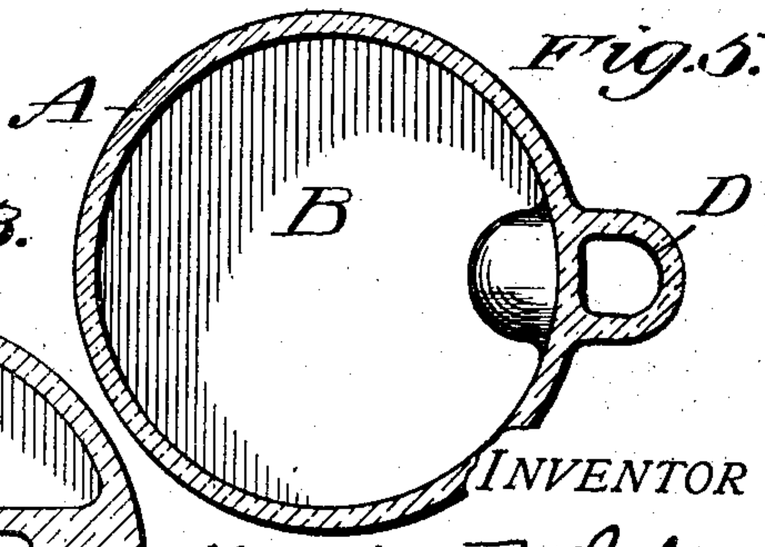



Fig. 5.

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# UNITED STATES PATENT OFFICE.

MARTIN D. LYKE, OF EVERGREEN, PENNSYLVANIA.

## BOTTLE.

No. 834,014. Specification of Letters Patent. Patented Oct. 23, 1906.

Application filed January 31, 1906. Serial No. 298,817.

*To all whom it may concern:*

Be it known that I, MARTIN D. LYKE, a citizen of the United States, residing at Evergreen, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in bottles; and the object in view is to produce a device of this character in which the bottle is provided with an inlet-passage which leads from the upper end of the bottle to and communicating with the lower end, while the bottle proper is provided with a suitable vent.

To this end and to such others as the invention may pertain the same consists in the peculiar construction of the bottle and in the combination, arrangement, and adaptation of parts, all as will be more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a central vertical section of a bottle constructed in accordance with my invention. Fig. 2 is a cross-section upon line 2 2 of Fig. 1. Fig. 3 is a cross-section upon line 3 3 of Fig. 1. Fig. 4 is a central vertical section of a slightly-modified form of the bottle, and Fig. 5 is a cross-section upon line 5 5 of Fig. 4.

Reference now being had to the details of the drawings by letter, A designates the bottle, which consists of the body portion B, having at its upper end an air vent or opening C, adapted when the bottle has been filled to be permanently closed or sealed by the use of molten glass or other substance adapted to effect a permanent closure.

D is a passage-way which at its upper end is provided with a suitable opening or neck E, the said passage extending downward, preferably along one of the sides of the bottle, to a point near the bottom or lower end thereof, where the lower end of the vertical portion of the said passage is provided with a concave bottom $D'$, from which lower end of said vertical portion of the passage communication is had through a horizontal opening $D^2$ into a vertically and downwardly extending passage $D^3$, through the open lower end of which passage $D^3$ communication is had with the interior of the bottle at a point near the bottom thereof, as shown in the accompanying drawings.

In Figs. 4 and 5 of the drawings I have illustrated a slight modification in the construction of the bottle, in which modification I have shown the passage-way D as constructed upon the outside of the bottle instead of inclosing the same within the body portion of the bottle, as illustrated in Fig. 1. In use when it is designed to fill the bottle the vent C is left open, and the liquid is poured through the neck E and passage D into the bottle. It will be noted that the liquid in entering the bottle passes downward through the passage D, entering the main chamber of the bottle at a point adjacent to the bottom of the bottle. When the bottle has been filled, the vent C is permanently closed in any suitable manner, but preferably by molten glass, which cannot be tampered with or removed without breaking or injuring the bottle. The vent being thus closed, the neck E is closed by cork or other stopper adapted to the purpose. When it is designed to remove the contents of the bottle, the cork is removed from the neck E, and the contents of the bottle can be readily poured out through the passage D. The contents of the bottle having been removed, it will be found impossible to refill the bottle by reason of the fact that the air-vent C being permanently closed and the main chamber of the bottle being thus filled with air an effort to refill the bottle will result merely in filling the tube or passage D. The liquid passing into the main chamber of the bottle through the lower end of the said passage-way will rise to a point upon the level of the extreme lower end of the passage, and by reason of being trapped within the main chamber of the bottle the liquid will not rise above this level. Should an effort be made to remove the air thus trapped within the chamber of the bottle by inserting a pipe of rubber or other material into the body of the bottle through the open passage D, it will be noted that in forcing the tube downward through the passage the end of the tube will come into

contact with the concaved seat D, provided near its lower end, and will thus be prevented from continuing in its course downward into the bottle.

While I have in this application shown and described a specific form of bottle, it will be at once evident that the shape of the bottle and the relative position of the tube or passage-way D may be varied without departing from the spirit of my invention, which contemplates, broadly, the combination with a bottle having means whereby the same may be hermetically sealed on a passage-way leading from the upper to the lower end of the bottle and communicating with the inner chamber thereof at a point adjacent to its lower end, and it will be noted at once that the specific shape of the tube or passage-way used in connection with the bottle must of necessity be made to conform to the form of bottle in connection with which it is used.

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

1. A bottle, having a main chamber, with an air-duct adapted to be permanently closed and having an inlet-passage, leading from the upper end of the bottle and communicating, at its lower end, with the interior thereof at a point near the bottom of the bottle, the said inlet-passage being curved or provided with an angle at a point near its lower end, substantially as described and for the purpose specified.

2. The herein-described bottle, having a main chamber provided with an air-duct, as described, and a passage-way leading from the upper end of the bottle downward and communicating with the interior of the bottle at a point adjacent to the bottom thereof, the said passage-way being provided with an acute angle at a point near its lower end and provided, at the said angle, with a concaved shoulder D′, substantially as described and for the purpose specified.

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

MARTIN D. LYKE.

Witnesses:
A. L. HOUGH,
FRANKLIN H. HOUGH.