

T. J. HOLMES.
Bottle-Stopper.

No. 160,325.

Patented March 2, 1875.

Fig. 1.

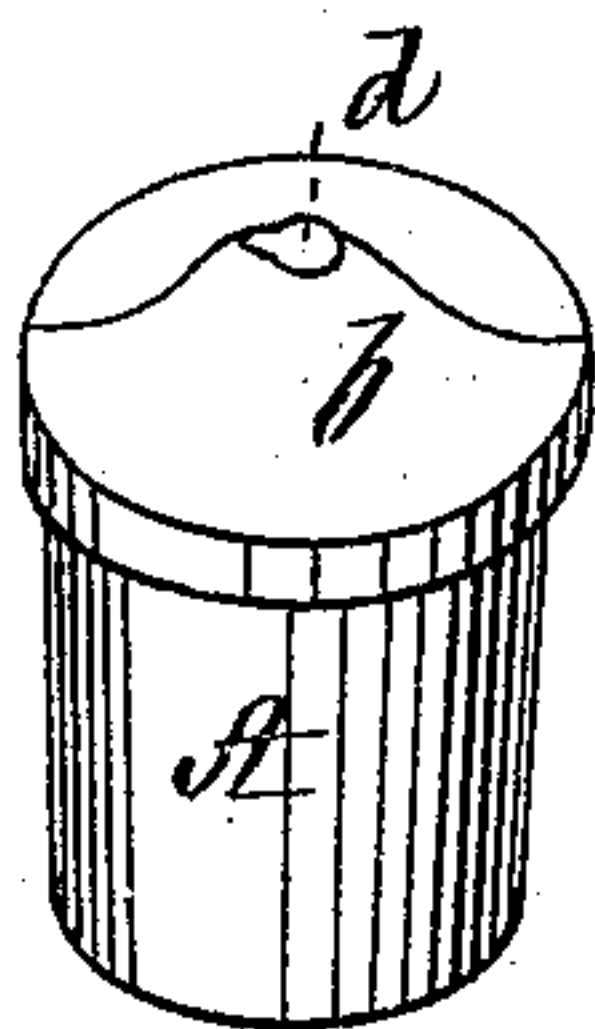


Fig. 2.

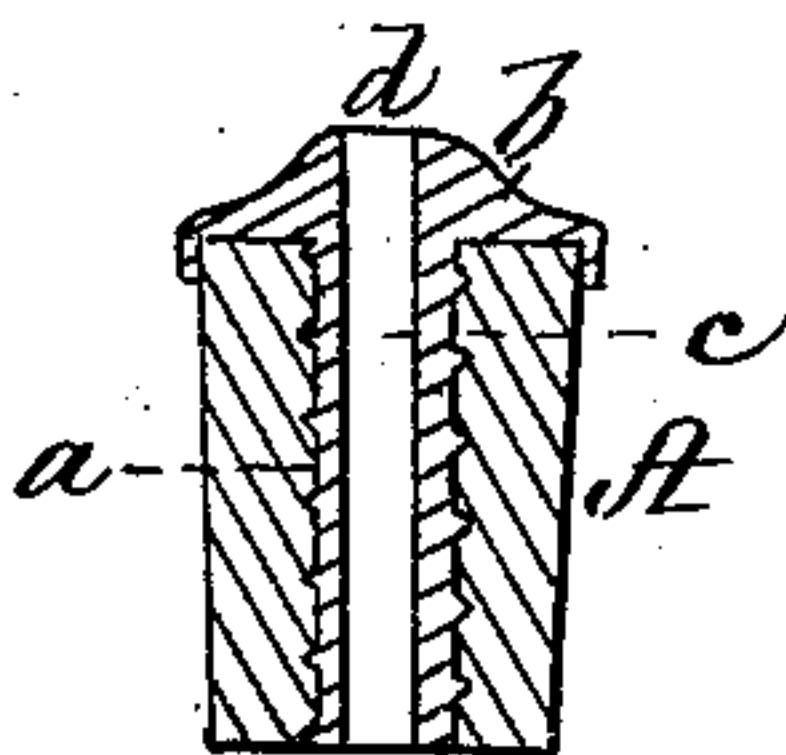
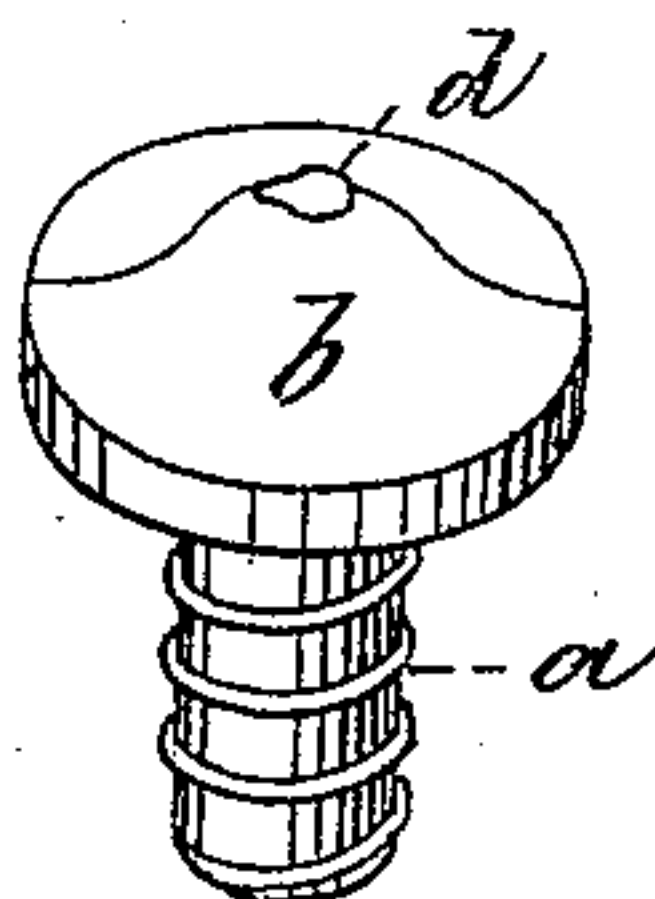


Fig. 3.



Witnesses,
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UNITED STATES PATENT OFFICE.

THOMAS J. HOLMES, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BOTTLE-STOPPERS.

Specification forming part of Letters Patent No. **160,325**, dated March 2, 1875; application filed January 6, 1875.

To all whom it may concern:

Be it known that I, THOMAS J. HOLMES, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a perspective view of my improved bottle-stopper. Fig. 2 is a vertical section through the same. Fig. 3 is a perspective view of the cap with its screw-shank.

My present invention consists in a cap provided with a vent-opening, in combination with a hollow screw-shank and stopper, for use in connection with atomizing-tubes, the stopper, when worn out, being readily removed from the screw-shank and replaced by a new one.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents the cork or rubber stopper of the bottle, provided with a central hole passing vertically through it for the passage of a screw-shank, *a*, projecting down from the under side of a circular metal-

lic cap, *b*, by which construction the stopper is kept in place up in contact therewith, and all liability of its being accidentally separated therefrom is avoided, the stopper, when unfit for further use, being readily unscrewed, and a new one substituted therefor. The interior of the shank is provided with a vertical passage, *c*, which communicates and is in line with a similar opening, *d*, through the cap, the passage and opening, when the stopper is to be used in atomizers, being each of such form as to allow of the entrance of the atomizing-tube, and at the same time afford room for the passage of the air between the outside of the tube and the inside of the screw-shank to furnish the necessary vent. (See Figs. 1, 2, and 3.)

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

The cap *b*, with its vent-opening, in combination with the hollow screw-shank *a* and stopper A, substantially as and for the purpose described.

Witness my hand this 30th day of December, 1874.

THOS. J. HOLMES.

In presence of—

N. W. STEARNS,
W. J. CAMBRIDGE.