

M. S. VALENTINE.

BOTTLE-NECK.

No. 173,089.

Patented Feb. 1, 1876.

FIG. 1.

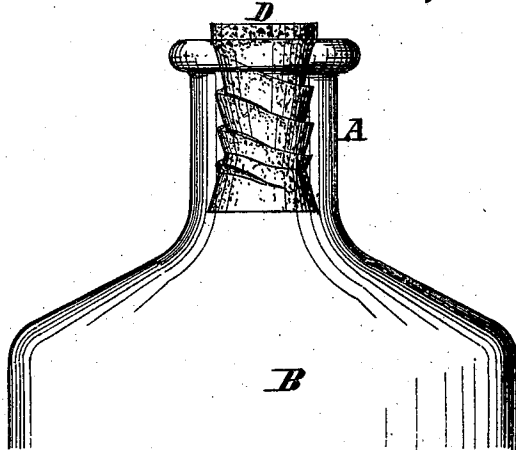
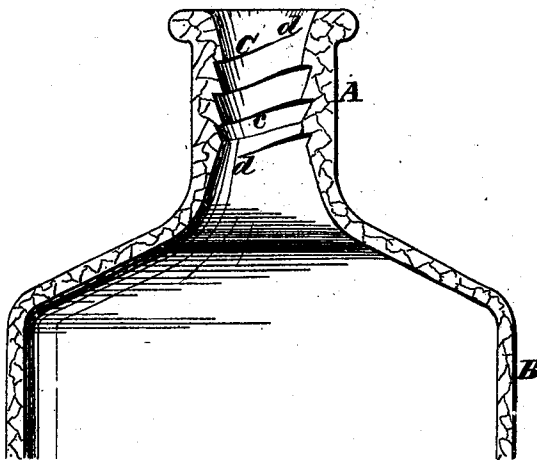


FIG. 2.



WITNESSES

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INVENTOR

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MANN S. VALENTINE, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN BOTTLE-NECKS.

Specification forming part of Letters Patent No. **173,089**, dated February 1, 1876; application filed October 2, 1875.

To all whom it may concern:

Be it known that I, MANN S. VALENTINE, of Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Improvement in Bottle-Necks, of which the following is a specification:

My invention consists in constructing a bottle-neck with a left-hand screw-thread on its interior, the threads of the screw being abrupt on the under sides, of greatest depth at the central part, where the neck is smallest in internal diameter, and of gradually-decreasing depth from the center to the upper and lower ends. The said threads gradually die out above and below where the bottle-neck flares upward and downward.

In the accompanying drawing, Figure 1 is an elevation of the upper part of the bottle made according to my invention, with the cork in position. Fig. 2 is a vertical section without the cork.

A represents the bottle-neck, and B a part of the body thereof. To adapt the neck to receive and firmly hold the cork, it is constructed on its interior with a convex surface, imparting to it a diameter smaller at the center than at the parts above and below, and with a series of threads, C, formed below, with abrupt or undercut faces *c*, and with greater depth at the center than above and below, the said threads dying out at *d d*, where the interior of the neck flares upward and downward. Corks D are inserted in bottles of this peculiar construction by a rotary movement by means of my improved corking-machine.

In order that the corks may be readily drawn by a rotary motion imparted by a common cork-screw, I prefer to construct the neck with a left-hand screw-thread, as shown.

The upward flare of the interior of the neck

facilitates the entrance of the cork, while the downward flare causes the cork to expand at its lower end below the screw, so as to form an effective air-tight closure.

I am aware that bottle-necks have before been made with internal screw-threads having abrupt lower faces. This, therefore, I do not broadly claim.

The peculiar construction of my internally-threaded neck possesses the following advantages: The threads or grooves, being deepest in the center, and gradually dying out before reaching the upper and lower extremities of the neck, take a full and effective hold on the central part of the cork without impairing the air-tight fit of its ends. The downwardly-converging and grooveless upper part of the neck affords an easy entrance to the cork, and causes it to be gradually compressed within the screw-threads—an effect which is further promoted by the easy and gradual convergence of the backs of the screw-threads. The downwardly expanding of the neck below the screw permits the expansion of the lower end of the cork against a smooth surface, so as to form a perfectly air-tight closure.

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

A bottle-neck constructed, as herein described, with an internal screw, the threads of which are of greatest depth at about the mid-height, and with grooveless surfaces expanding upward and downward from the upper and lower terminations of the screw, as herein shown and described.

MANN S. VALENTINE.

Witnesses:

JOHN H. HATCHER,
JAS. C. JOPLIN,
H. C. BURNETT.