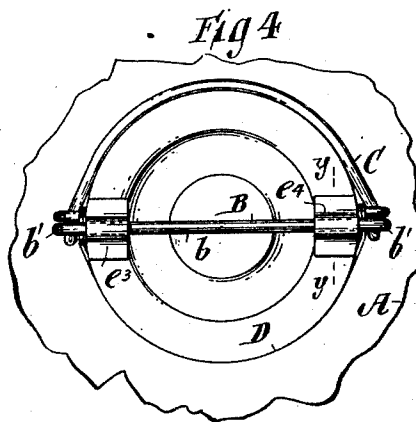
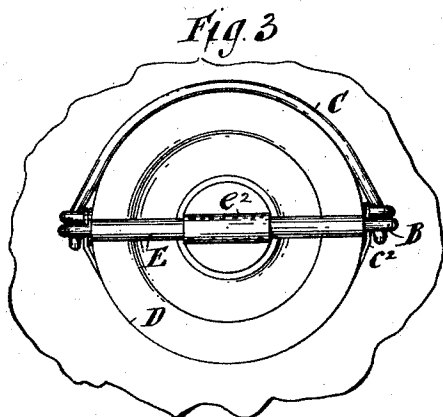
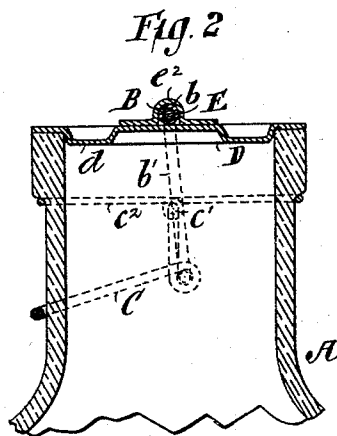
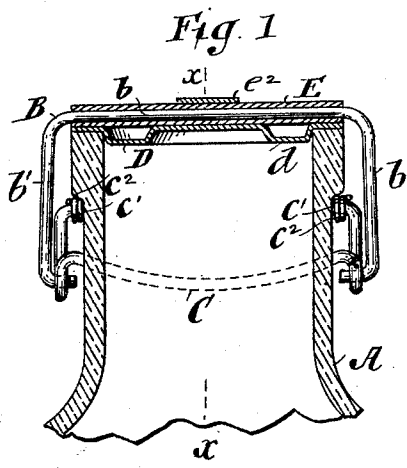


(No Model.)

B. F. SANBORN.
BOTTLE STOPPER.

No. 485,139.

Patented Oct. 25, 1892.



Witnesses
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BENJAMIN F. SANBORN, OF FLATLANDS, ASSIGNOR TO ABRAM V. WHITEMAN,
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BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 485,139, dated October 25, 1892.

Application filed December 30, 1891. Serial No. 416,526. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. SANBORN, of Flatlands, county of Kings, and State of New York, have invented a new and useful
5 Improvement in Bottle-Stoppers, of which the following is a specification.

This invention relates more particularly to that class of stoppers for bottles or jars in which the stopper is connected to a bail hav-
10 ing its ends pivotally connected to a lever, which is supported in eyes formed in a wire fastened to the neck of the bottle.

In the accompanying drawings, Figure 1 is a central vertical section of a stopper constructed according to my invention, and also showing in section the neck portion of a bot-
15 tle. Fig. 2 is a vertical cross-section of the same, taken at the plane of the line $x x$, Fig. 1. Fig. 3 is a top view of the bottle and stopper. Fig. 4 is a similar view illustrating a modification; and Fig. 5 is a vertical section
20 taken at $y y$, Fig. 4, showing certain parts.

A designates the neck of a bottle or jar of ordinary construction.

25 B is a bail containing a straight portion b and downwardly-extending portions b' , whose ends are pivotally connected to a lever C. This lever is supported in the eyes c' , formed in the wire c^2 , which is secured to the neck A
30 of the bottle in the usual manner.

D is a stopper made of thin metal, having an annular depression d to fit within the mouth of the bottle.

E is a tube of suitable material and construction, in which the straight portion b of the bail is loosely mounted. The ends of this
35 tube are in close proximity to the downwardly-extending portions b' of the bail, whereby sliding of the stopper on the latter is prevented, while the stopper is free to rotate about
40 the axis thereof. It will be observed that the extremities of the tube E bear directly upon that portion of the stopper D which fits over the edge of the mouth of the vessel or bottle, thereby more securely holding the stopper in
45 place. This tube is soldered or otherwise secured to the stopper. As here shown, the tube is composed of metal bent into circular form and secured to the stopper by means of a

metal strip e^2 , inclosing the tube and soldered 50 thereto, and also to the central portion of the stopper. If desired, this tube, instead of being in one continuous piece, may be in two short portions, respectively secured to the stopper at opposite sides thereof in order to
55 embrace the extremities of the straight portion of the bail.

In the modification shown in Figs. 4 and 5 the tube E is shown as in two short portions $e^3 e^4$, each having lateral extensions integral 60 therewith to form flanges, by which it may be secured to the stopper by solder or other suitable means.

By this improvement I provide a simple and inexpensive stopper, capable of being 55 easily cleaned, and having no confined cavities for dirt to settle in and impair the efficiency thereof. Besides, the bail is stiffened by means of the tubular support inclosing it and the stopper is secured on the straight por-
70 tion of the bail in such a manner that the former cannot pass the corners or shoulders of the latter, thereby preventing the accidental or intentional separation of the stopper and bail.

75 Having now described my improvement, what I claim as new, and desire to secure by Letters Patent, is—

The combination of a neck-wire, an eccentric lever pivoted thereto, a stopper proper, 80 the outer portion of which covers the mouth of the bottle and having a depressed portion surrounding the inner portion of the mouth and a central raised portion flush with the outer portions, a tube secured to the stopper, 85 whose length corresponds with the diameter of said stopper and whose ends rest on the outer portion of the said stopper, a cap-piece fastened to the top of the stopper and encircling the tube and holding said tube in posi-
90 tion, and a bail having a straight portion extending through the said tube, bent downwardly, and pivotally connected to the eccentric lever, as shown and described.

BENJAMIN F. SANBORN.

Witnesses:

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