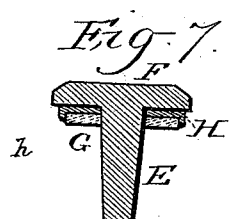
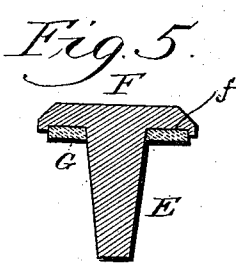
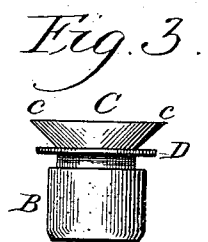
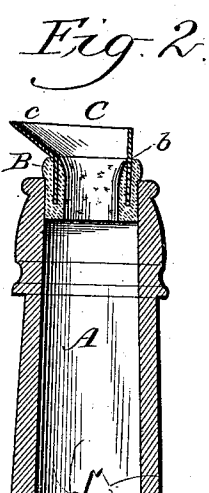
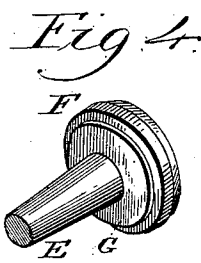
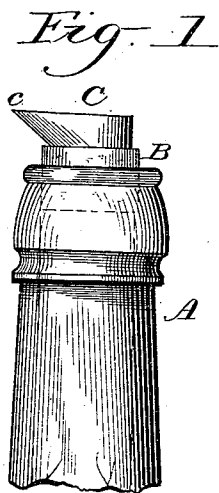


(No Model.)

S. B. OPDYKE.  
NOZZLE FOR BOTTLES.

No. 332,281.

Patented Dec. 15, 1885.



WITNESSES:

*J. W. Reynolds*  
*W. R. Knight*

INVENTOR

*Sam. B. Opdyke*  
BY *W. H. Babcock*

ATTORNEY

# UNITED STATES PATENT OFFICE.

STACY B. OPDYKE, OF NEW HAVEN, CONNECTICUT.

## NOZZLE FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 332,281, dated December 15, 1885.

Application filed October 12, 1885. Serial No. 179,118. (No model.)

*To all whom it may concern:*

Be it known that I, STACY B. OPDYKE, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Nozzles for 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.

This invention has for its object to provide bottles with cheap and convenient nozzles, which will allow the contents of said bottles to be poured out partly or wholly with neatness and without spilling, and which may be easily inserted or removed at will. It is especially applicable to bottles containing table-sauce and other thick liquids which are poured out in small quantities at a time.

It consists, chiefly, in a tube of cork adapted to be inserted in the mouth of a bottle, in combination with a nozzle, of metal or other suitable material, having a cylindrical part which is inserted into a circular slot in said tube and a discharge lip or chute overlapping the mouth of the bottle.

It consists, further, in the combination of such a tube with a nozzle thus inserted, and having an annular flange for resting on the mouth of the bottle.

It consists, finally, in the construction of a supplemental stopper for covering the said nozzle, and in its combination therewith, all substantially as set forth.

In the accompanying drawings, Figure 1 represents an elevation of the neck and mouth of a bottle with my improved nozzle attached thereto. Fig. 2 represents a vertical section through said nozzle and its tube. Fig. 3 represents an elevation of a nozzle and tube embodying my invention, said nozzle being provided with two discharge-lips and a flange. Fig. 4 represents a perspective view, and Fig. 5 a vertical section of a supplemental device used as a stopper for said nozzle. Fig. 6 represents a detail perspective view of the cork tube, and Fig. 7 represents a vertical section of a modification of my supplemental device provided with a flanged metal plate.

A designates the neck of a bottle; B, a tube, of cork, having in its upper end a circular

slot, b. This tube is forced into the mouth of said neck.

C is a nozzle, of metal or other suitable material, the cylindrical lower part of which is forced into the slot b of said tube or otherwise embedded therein. As shown in Figs. 1 and 2, this nozzle is provided, above said tube B, with a single lip or chute, c, overlapping the mouth of the bottle, while the form of nozzle shown in Fig. 3 has two such lips c on opposite sides. Through this lip, or one of these lips, the liquid is poured, as from the mouth of a pitcher. Of course, the use of a nozzle with a projecting lip is not broadly new; but the exceeding cheapness, lightness, and simplicity of my nozzle with the cork tube, into which it is easily forced, give to my device special advantages.

Instead of cork, soft wood, paper, or other equivalent material may be used.

As shown in Fig. 3, I sometimes add, by way of further improvement, an external annular flange, D, attached to the metal of the nozzle below the lip or lips c. This flange is of greater diameter than said tube B, and rests on the mouth of the bottle, forming a neat joint there, and preventing the nozzle from being pushed too far down.

These nozzles are easily inserted in and removed from the bottle; but of course when removed some form of stopper must be substituted to keep out dust and other foreign substances. Instead of this procedure, I may allow the nozzle to remain permanently in position for use, but insert in the tube B, when I desire the interior of the bottle to be protected from such intrusion, the tapering stem E, provided with a cap, F, which is recessed on its under side, at f, to receive a cork washer, G, the said parts E F G constituting a supplemental stopper. Of course, such a stopper may be inserted directly in the mouth of the bottle, the nozzle being removed to admit it; but in that case the stem E would need to be of greater diameter. As shown, this stem is of a size to fit the interior of the tube B, and the cork washer G rests upon and covers the top of said nozzle. This washer is removable, so that it may be replaced when worn. Its softness prevents the edge of the nozzle from being bent or injured.

Instead of using a countersunk stopper, I

may employ an ordinary stopper with smooth inner face and a metal cap or collar, H, having its back fitting against the inner side of the head of the stopper and provided with a flange, *h*, for holding the washer. This washer fills the space within said flange and affords a cushion for the edge of the nozzle on which it rests, the washer being horizontal when the bottle and nozzle are upright.

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

1. The combination of a cork tube adapted to fit the mouth of a bottle with a nozzle having its lower end embedded in the upper end of said tube, substantially as set forth.

2. A nozzle having an external annular flange for resting on the mouth of a bottle and a cylindrical part below said flange, in combination with a tube which is grooved to receive said cylindrical part of the nozzle, said tube fitting within the neck of the bottle, substantially as set forth.

3. The combination of collar B and nozzle C, inserted in the upper end thereof, with stopper E, having a cork washer for resting on the edge of said nozzle, and a stem extending down within said tube, substantially as set forth.

4. The stopper E, provided with a plate, H, having a peripheral flange, *h*, and a cork washer or disk, G, which fills the space within said flange and is adapted to rest on the upper edge of the nozzle, substantially as set forth.

5. A cork tube provided with a slot or groove, *b*, in its upper end, in combination with a nozzle inserted into said groove or slot.

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

STACY B. OPDYKE.

Witnesses:

WM. H. BABCOCK,  
JAS. P. RYON.