R. A. VAN CLEAVE.

NURSING BOTTLE.

APPLICATION FILED AUG. 30, 1909.

979,607.

Patented Dec. 27, 1910.

Fig. 1.

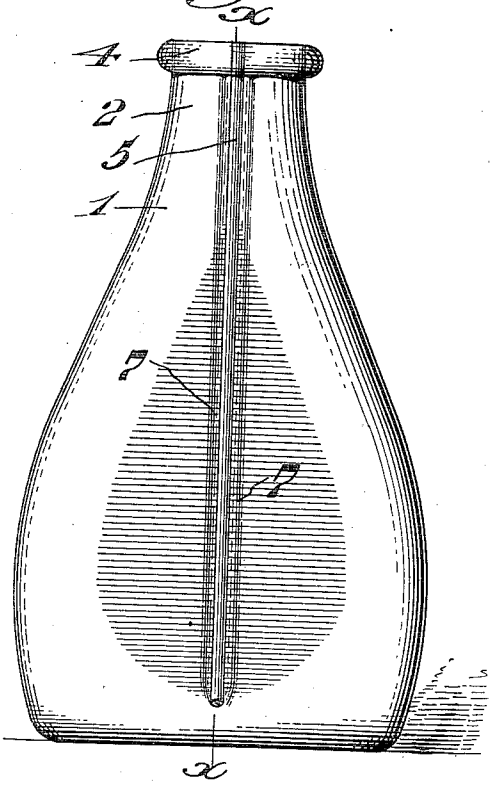

Fig. 2.

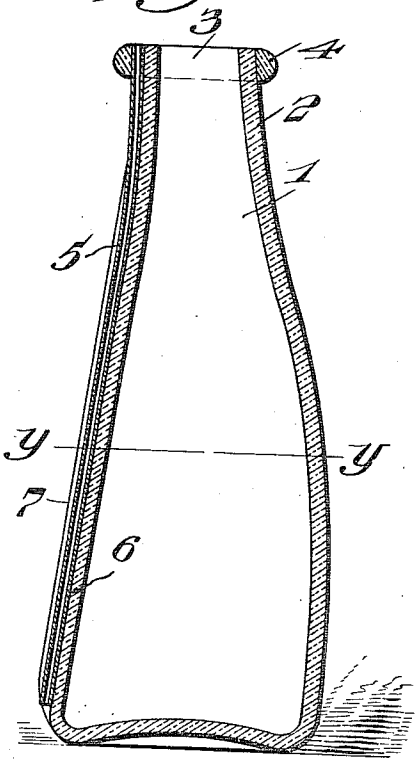

Fig. 5.

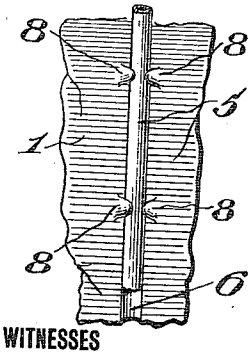

Fig. 3.

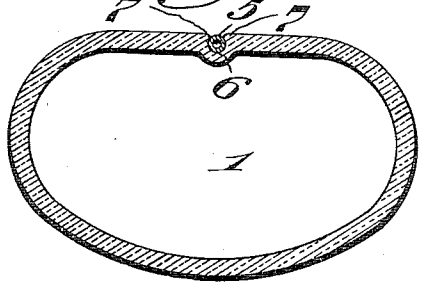

Fig. 4.

WITNESSES

H. L. Dietrich

L. Douville.

INVENTOR

Robert A. Van Cleave

BY Wiederhein & Fairbank

ATTORNEYS

UNITED STATES PATENT OFFICE.

ROBERT A. VAN CLEAVE, OF PHILADELPHIA, PENNSYLVANIA.

NURSING-BOTTLE.

979,607. Specification of Letters Patent. Patented Dec. 27, 1910.

Application filed August 30, 1909. Serial No. 515,161.

To all whom it may concern:

Be it known that I, ROBERT A. VAN CLEAVE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Nursing-Bottle, of which the following is a specification.

My invention relates to the class of nursing bottles of the type having a passage or duct leading from the exterior of the bottle to the interior thereof to supply the bottle and applied nipple with air to allow of the ready withdrawal of the milk or fluid, to render suction more easy for the child and prevent collapsion of said nipple. In such bottles, it has been found difficult or impossible to construct the air passages or tubes owing to the fact that the heat necessarily employed in forming the same injures the same and thus closes or clogs the bore thereof.

The present invention consists in applying to a nursing bottle a tube individually separate from the bottle, and employing some of the material of the bottle at the side thereof, and in the mouth portion for firmly securing the latter in position.

For the purpose of explaining the invention, the accompanying drawing illustrates a satisfactory reduction of the same to practice, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a side elevation of a nursing bottle embodying my invention. Fig. 2 represents a longitudinal section thereof on line *x*—*x*, Fig. 1. Fig. 3 represents a transverse section on line *y*—*y*, Fig. 2. Fig. 4 represents a perspective view of a portion of the air passage or duct removed from the bottle. Fig. 5 represents a face view of a portion of a modification.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawing:—1 designates a nursing bottle, the same having a neck 2, mouth 3 and bead 4, as usual in such cases, but as to the form of the bottle, I do not limit myself.

On a side of the body of the bottle is the tube 5, which is open from end to end and primarily individually separate from said body, it being seated in a groove 6 in said side and engaged by the walls thereof, whereby it is firmly held in position, one end of said tube communicating with the atmosphere, and the other end passing through the wall of the mouth 3 and terminating at said mouth so as to communicate with the interior of a nipple and consequently the bottle when said nipple is applied to the bottle. The bead 4 removes the terminal of the tube at the mouth portion of the bottle from contact with the hand while strengthening said portion, which otherwise is pierced for the passage therethrough of the adjacent portion of the tube and allowing also the bottle to be carried by said bead without liability of fracturing the portion of the tube in the latter, the bead also affording more room for the occupation of the portion of the tube therein. The walls of the groove 6 form lips 7 which when in molten or soft condition are turned or worked over the tube so as to embrace the same and so rigidly connect it with the bottle, while the tube is guarded from contact and consequent fracture.

In Fig. 5, I show the bottle having the short lips 8 at intervals, the same being employed in lieu of the lips 7, which are long or continuous, without however, materially producing different results.

As a method of securing the tube to the bottle, I place a suitable tube within a mold of the shape of the bottle desired and blow the bottle, when some of the molten glass flows around the tube and embeds or partially embeds the same in the groove 6, created in the bottle in the formation of the latter at the place of occupation of the inserted tube. In all cases, the tube has its bore preserved intact from end to end and so is not closed or clogged, as is the case where a passage is molded on the body, the same being affected and injured by the heat required in blowing the bottle with such passage in position and so is practically destroyed and rendered worthless, which defect is remedied by the use of a tube individually separate and distinct from the body and employing the material of the latter as the means for securing the tube in position. This leaves the tube intact throughout without having its bore reduced or destroyed, and a wire or other suitable implement may be

passed or drawn through the same so as to thoroughly clean the bore.

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

1. A nursing bottle, and a separate tube open at both ends and secured by being partly embedded and fused in the outside of the body of the bottle and wholly embedded and fused in and through the bead at the bottle mouth.

2. A nursing bottle, and a separate tube open at both ends and secured by being partly embedded and fused in and longitudinally to the outside of the bottle body and wholly embedded and fused in and through the bead at the bottle neck.

3. A nursing bottle provided with a bead at its mouth and an air conveying passage entirely upon the exterior of the bottle and comprising a tube formed separate from the bottle proper and extending from a point near the bottom of the bottle to and through said bead, said tube being embedded and fused in the body of the bottle and bead.

ROBERT A. VAN CLEAVE.

Witnesses:
JOHN A. WIEDERSHEIM,
HARRY C. DALTON.