S. A. DARRACH.
Nursing-Bottle.

No. 220,351. Patented Oct. 7, 1879.

Fig. 1.

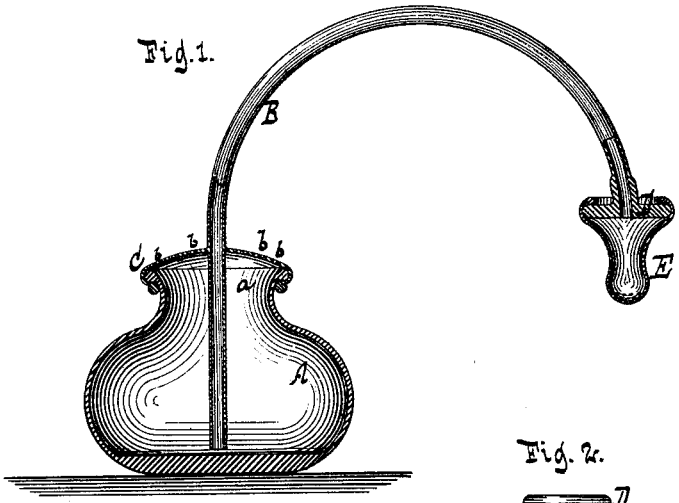


Fig. 2.

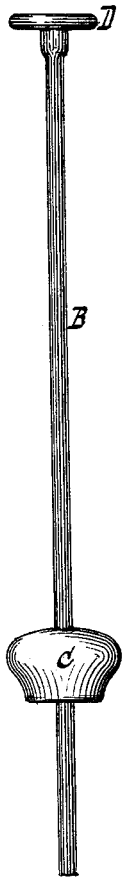
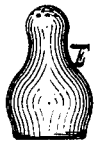


Fig. 3.



Witnesses.
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by
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UNITED STATES PATENT OFFICE.

SAMUEL A. DARRACH, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN NURSING-BOTTLES.

Specification forming part of Letters Patent No. **220,351**, dated October 7, 1879; application filed March 6, 1879.

To all whom it may concern:

Be it known that I, SAMUEL A. DARRACH, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Nursing-Bottles, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical central section. Fig. 2 is a sectional side view of the tube detached. Fig. 3 is a vertical section of the nipple detached.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a nursing-bottle, of a flexible suction pipe, and of a cap adapted to be stretched over the mouth of said bottle and to form a flexible diaphragm, and small perforations (one or more) in said diaphragm, to admit air into the bottle as the contents thereof diminish, all of which will be fully hereinafter described.

In the drawings, the letter A designates a bottle, which is made of glass or any other material which is suitable for the purpose, and of such a shape that its inner surface presents no sharp corners, so that it can be readily kept clean.

The bottom of my bottle is made of greater thickness than the body, so that it has a tendency to retain the bottle in an upright position.

The mouth *a* of my bottle is made of such a width that it admits at least two fingers of the hand of a grown person, and that every portion of the interior surface of the bottle can be readily reached for the purpose of cleaning.

B represents the suction-pipe, which is made, by preference, of vulcanized india-rubber and in one piece, with an elastic cap, C, of such a form and size that it can be stretched over the mouth of the bottle, as shown in Fig. 1 of the drawings. When thus applied to the bottle the top of said cap forms an elastic diaphragm, which is provided with one or more small perforations, *b*, so that when the bottle is used and its contents gradually diminish the external air can pass into the bottle, and the formation of a partial vacuum in the same is prevented. At the same time the perforations *b* are so small that they do not allow the escape of any liquid from the interior of the bottle, even if the same should be accidentally upset.

By connecting the cap C directly to the suction-pipe B, no space is left for the impurities to lodge in, and the cap is of such a form that it can be readily turned inside out for the purpose of cleaning.

On the outer end of the suction-pipe B is formed a guard-plate, D, which is preferably made of hard rubber, but molded and vulcanized together with the pipe. This guard-plate serves to retain the nipple E, which is made in the form shown in Fig. 3, so that it can be stretched over the guard-plate, (see Fig. 1,) and that the same when detached from said guard-plate can be readily turned inside out for the purpose of cleaning. By these means a nursing-bottle is obtained all the parts of which can be readily kept clean and sweet.

I am aware that nursing-bottles have heretofore been constructed with flexible suction-pipes and with caps adapted to be stretched over the mouth of a bottle; but such caps have usually been made in the form of long cones and attached to the pipes by means of sleeves of ivory or other material, so that spaces are formed in which a deposit is formed from the milk or other liquid used in the bottles, and it becomes exceedingly difficult to keep the parts clean and sweet. Furthermore, the nipple is usually secured to a tip of ivory, which is fastened to the outer end of the suction-pipe, and the guard-plate, which is also made of ivory, is stripped over the nipple, so that the entire device becomes expensive, complicated, and very difficult to clean.

In my nursing-bottle the nipple can be readily removed, turned inside out and cleaned, and the suction-pipe itself presents no corners or spaces which cannot be readily reached and

washed out, and my bottle is of such a form that its interior can be cleaned without difficulty.

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

The combination, with a nursing-bottle, of a flexible suction-pipe, and of a cap adapted to be stretched over the mouth of said bottle and to form a flexible diaphragm, and of small perforations (one or more) in said diaphragm, to admit air into the bottle as the contents thereof diminish, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 5th day of March, 1879.

S. A. DARRACH. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.