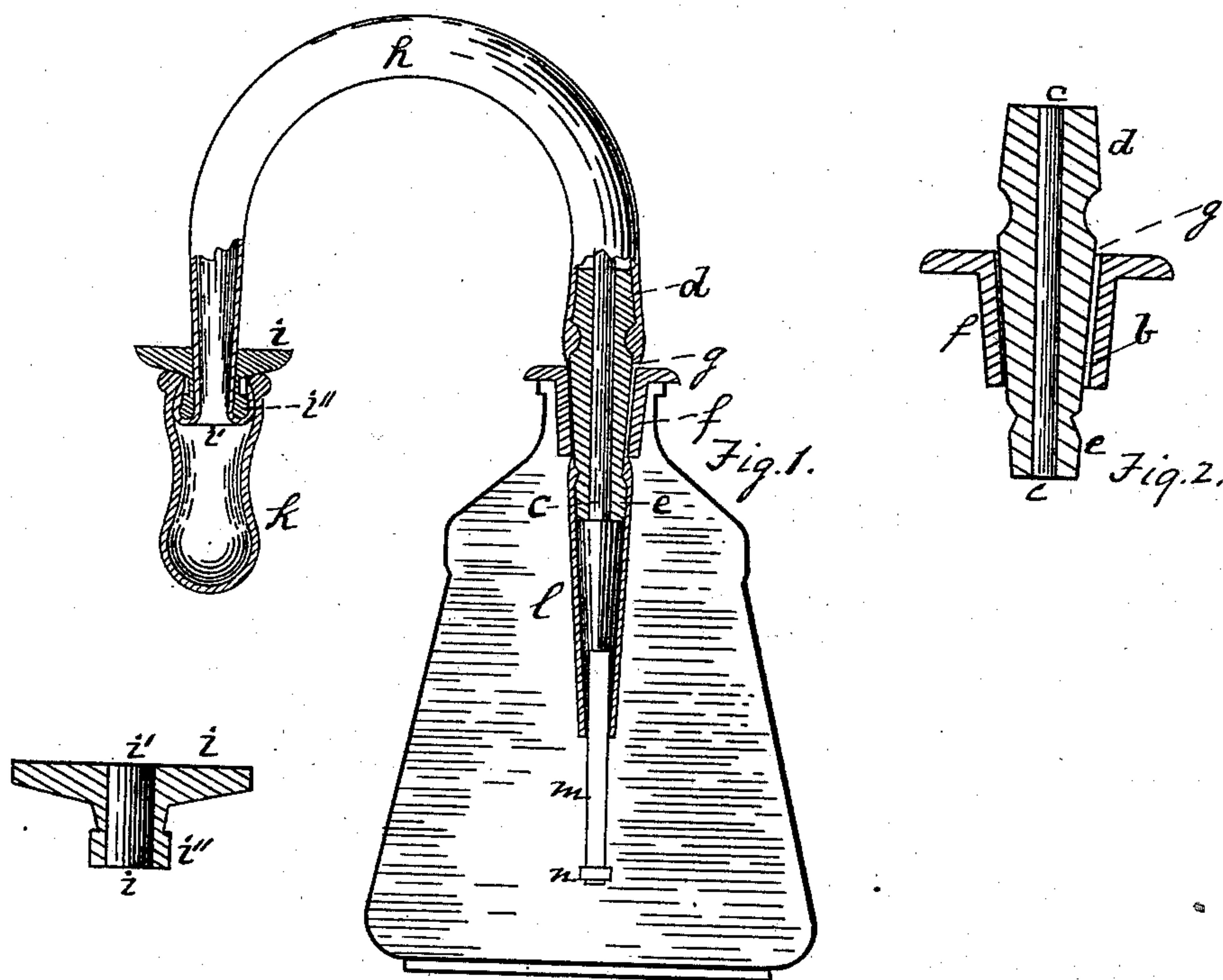


M. A. MICHALES & J. M. BALD.
Nursing-Bottle.

No. 222,070.

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WITNESSES
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UNITED STATES PATENT OFFICE.

MOSES A. MICHALES AND JOHN M. BALD, OF ALLEGHENY, PENNSYLVANIA;
SAID MICHALES ASSIGNOR TO JOHN THOMPSON, OF SAME PLACE.

IMPROVEMENT IN NURSING-BOTTLES.

Specification forming part of Letters Patent No. **222,070**, dated November 25, 1879; application filed July 21, 1879.

To all whom it may concern:

Be it known that we, MOSES A. MICHALES and JOHN M. BALD, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Nursing Pipe and Bottle; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view, partly in section, of our improved nursing-bottle. Fig. 2 is a section view of the stopper.

Like letters of reference indicate like parts in each.

Our invention consists of certain improvements in nursing bottles and tubes, which may be briefly stated to be, first, in the combination of a grooved stopper and two tapered pipes connected thereto, whereby all the requisite tubes can be readily turned for cleaning; and, secondly, in passing the end of the tapered tube through the central bore of the mouth-piece, folding it over the button of the mouth-piece, and snapping the nipple over the fold of the tube, whereby the parts are more effectually secured together.

Prior to our invention nursery-bottles having tubes and nursing breast-tubes have been open to the very serious objection of soon becoming sour and foul, and as, by reason of their construction, they could not be perfectly cleaned, there was practically no remedy for the evil.

The object of our invention is the production of a bottle or nursing-tube which can be thoroughly washed after each use, and kept sweet and clean without trouble, and this end is accomplished by the construction we have just named.

In addition to its advantages above recited is that whereas formerly the tubes were thrown away in a short time on account of their confirmed foulness, in our improved construction they can be used until worn out.

We will now describe the construction and use of our invention.

The bottle is of an ordinary form. In it is a tapered stopper, *b*, made of glass, wood, or other suitable material, having a hole, *c*, running longitudinally through it, a bead or button, *d*, on its upper end, a second one, *e*, on its lower end, a rubber or cork gasket, *f*, around it, and an air passage or groove, *g*, in its side.

The tapering form enables it to be used in bottles of various sizes.

The air-passage *g* admits air as the contents of the bottle are being withdrawn, and prevents the formation of a vacuum therein.

The rubber tube *h*, instead of being made of uniform size and bore, as heretofore, is tapering, for the purpose of permitting it to be turned inside out. It is attached to the bottle by snapping its larger end over the button *d*, and to the mouth-piece or shield *i* by drawing it through the center opening, *i'*, and then turning it backward over the button *i''*, to the neck of which it will cling tightly.

The nipple *k* is put on over the button *i* and tube *h*, as shown in the drawings.

The inner tube, *l*, is of the same shape as the tube *h*, but smaller. It is secured to the stopper *b* by snapping its larger end over the button *e*, and is provided with the usual glass tube, *m*, which has a rubber guard, *n*, at its lower end.

All of the parts are easily detached from the others, and the rigid pieces have no inaccessible parts, and so can be washed thoroughly clean.

When the tubes are damp they are very easily turned.

The tapering tube may be used for a breast-nursing tube, in which case, however, it would be attached to the nipple plate or shield in the usual way.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of a grooved stopper and two tapered pipes connected thereto, whereby all the needed tubes can be turned more readily for cleaning, substantially as specified.

2. The combination, with a mouth-piece provided with a central bore and button, of a tapering draft-tube, its small end extending through the bore of the mouth-piece, and folded or turned back over the button thereof, and a nipple inclosing the fold of the draft-tube and the button of the mouth-piece, substantially as and for the purpose specified.

In testimony whereof we, the said MOSES A. MICHALES and JOHN M. BALD, have hereunto set our hands.

MOSES A. MICHALES.
JOHN M. BALD.

Witnesses:

JAMES H. PORTE,
T. B. KERR.