

ORWELL H. NEEDHAM.

Improvement in Combined Breast Pumps and Nursing Bottles.

119,044.

Patented Sep. 19, 1871.

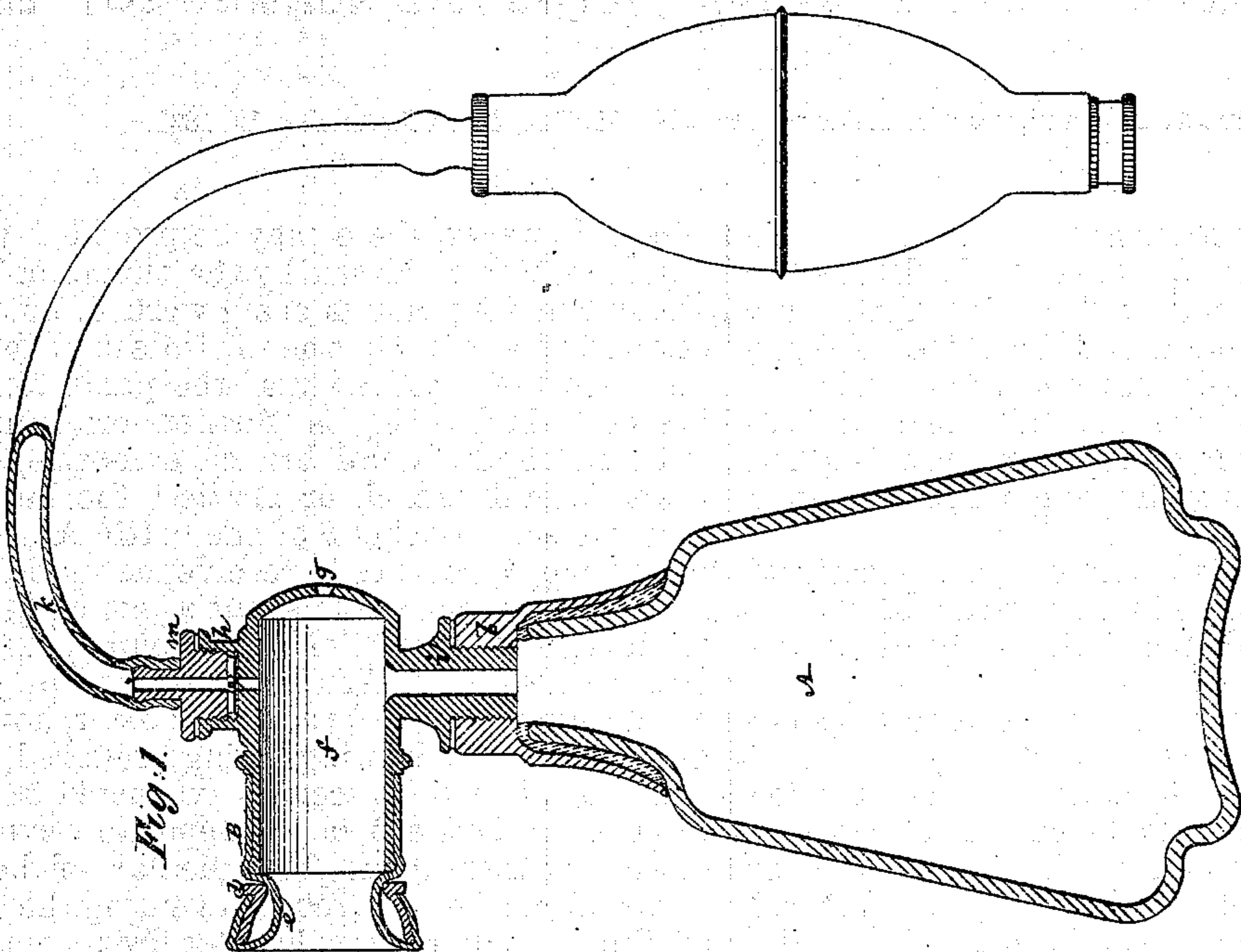


Fig. 1.

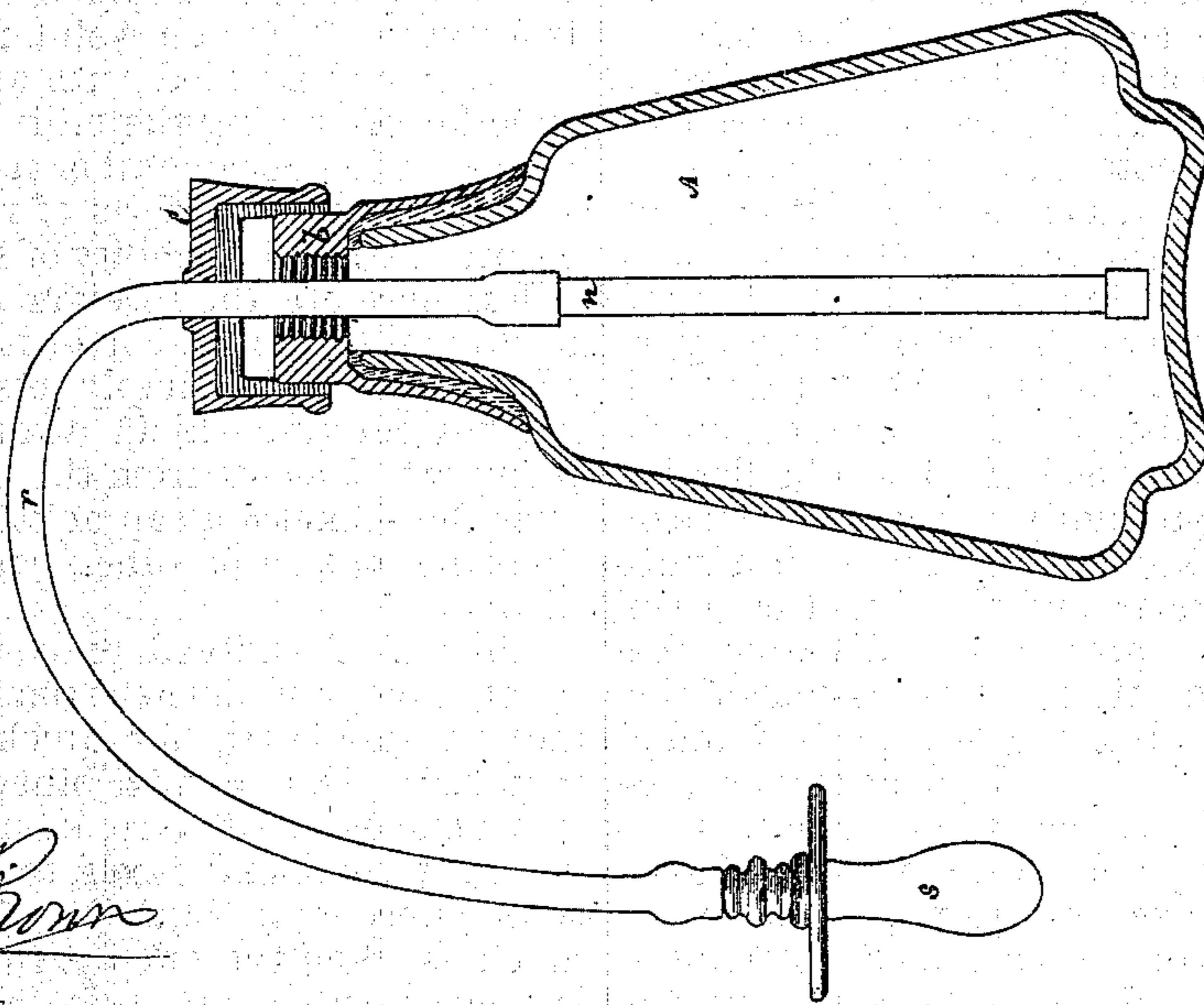


Fig. 2.

Witnesses:  
*Henry J. Brown*  
*Fried Haynes*

*O. H. Needham*

# UNITED STATES PATENT OFFICE.

ORWELL H. NEEDHAM, OF NEW YORK, N. Y.

## IMPROVEMENT IN COMBINED BREAST-PUMPS AND NURSING-BOTTLES.

Specification forming part of Letters Patent No. 119,044, dated September 19, 1871.

*To all whom it may concern:*

Be it known that I, ORWELL H. NEEDHAM, of the city, county, and State of New York, have invented a new and useful Combined Breast-Pump and Nursing-Bottle; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a vertical partly-sectional view of a breast-pump in illustration of my improvement, and Fig. 2 a similar view of a nursing-bottle.

Similar letters of reference indicate corresponding parts in both figures.

My invention consists in a novel construction of a milking shield-attachment to a bottle or milk-receptacle, whereby, when applied to or made to form part of a breast-pump, an easy and natural action on the breast is obtained, and the milk is prevented from passing through the valve or valves into the operating portions of the pump, and the breast-pump, as a whole, is made readily convertible into a nursing or feed-bottle.

Referring to the accompanying drawing, A represents a bottle or milk-receptacle designed to stand vertically with its mouth uppermost, and incased or protected by a screw-socket, *b*. B is a milking-shield attachment, constructed of a nipple-piece or shield proper, which is made up of a rigid or stiff ring, *d*, of metal or other suitable material, united by a flexible lining, *e*, which may be of thin India rubber, to a metal or other suitable tube, *f*. This connection is such that the receiving-end of said tube lies in, more or less, close proximity to the inner face of the ring or band *d*, so that not only is air admitted at various points around the shield between the tube and ring to press externally upon the lining to produce a lateral compression of the latter on the nipple, but the two parts *d* and *f* are free to be rocked or moved about transversely and otherwise independently of one another, to prevent any unsteady hold of the pump or movement of the female from giving pain or interfering with the action of the pump. Said connection of the parts *d* and *f* may be made by the lining *e* being stretched over the outer end of the ring *d* and adjacent outer end or portion of the tube *f*. The tube *f* is closed at its back end,

where, however, there may be provided an air-hole, *g*, which is closed by the thumb or otherwise when the pump is being worked, but is uncovered to admit air when it is desired to effect and ease the withdrawal of the pump from the breast. Said tube *f* is, furthermore, provided with an upper lateral branch or nozzle, *h*, and lower lateral branch or nozzle *i*, the latter fitting the screw-socket *b* of the bottle A, and the upper one, *h*, serving to receive the suction-tube *k* and its valvular attachment *m*, which pertains to the operating portion of the pump, that may either be of a flexible bulb, bellows, or piston construction, a bulb form of exhaustor, however, as shown in the drawing, being preferred.

The air, it will be seen, is exhausted from the receiver or bottle A in an opposite vertical direction, or thereabout, from the flow of the milk into said receiver, thereby preventing the valves of the air-pump or exhaustor from becoming clogged by the passage of milk through them into the exhaustor, and which first impairs the action of the valves and subsequently ruins the whole apparatus. This liability to derangement is a common one in a well-known globular form of receiver provided with an upwardly-curved tube for conveying the milk from the nipple by reason of the accidental or ignorant inversion of said receiver. The form of receiver here adopted prevents all possibility of such an occurrence.

Furthermore, the receiver A being in the form of a nursing or feed-bottle it is readily converted to such use by simply unscrewing or detaching the milking-shield attachment B with its pump attachments from the bottle A, and fitting over the socket *b* a cap or stopper, C, carrying a dip-tube, *n*, suction-tube *r*, and attached mouth-piece *s*.

Thus am I enabled to combine in a simple, practicable, and efficient manner a breast-pump and nursing-bottle for quick and ready use, as required. This convertibility or combination of two articles, as it were, in one instrument will not only commend itself to the public on the score of economy, but also of convenience, inasmuch as when the one article is used the other is a necessity, generally speaking.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination, with the nursing or feed

bottle A, of a milking-shield attachment, B, provided with an upper nozzle, *h*, and a lower nozzle, *i*, both at right angles to the line of direction of the shield attachment for coupling to a milk-receptacle a device for exhausting the air, substantially as and for the purposes herein set forth.

2. The milking-shield attachment B, construct-

ed of a nipple-ring or band, *d*, a tube, *f*, a connecting yielding lining, *e*, and the upper and lower lateral nozzles *h i*, which are claimed above, essentially as described.

ORWELL H. NEEDHAM.

Witnesses:

HENRY T. BROWN,

FRED. HAYNES.