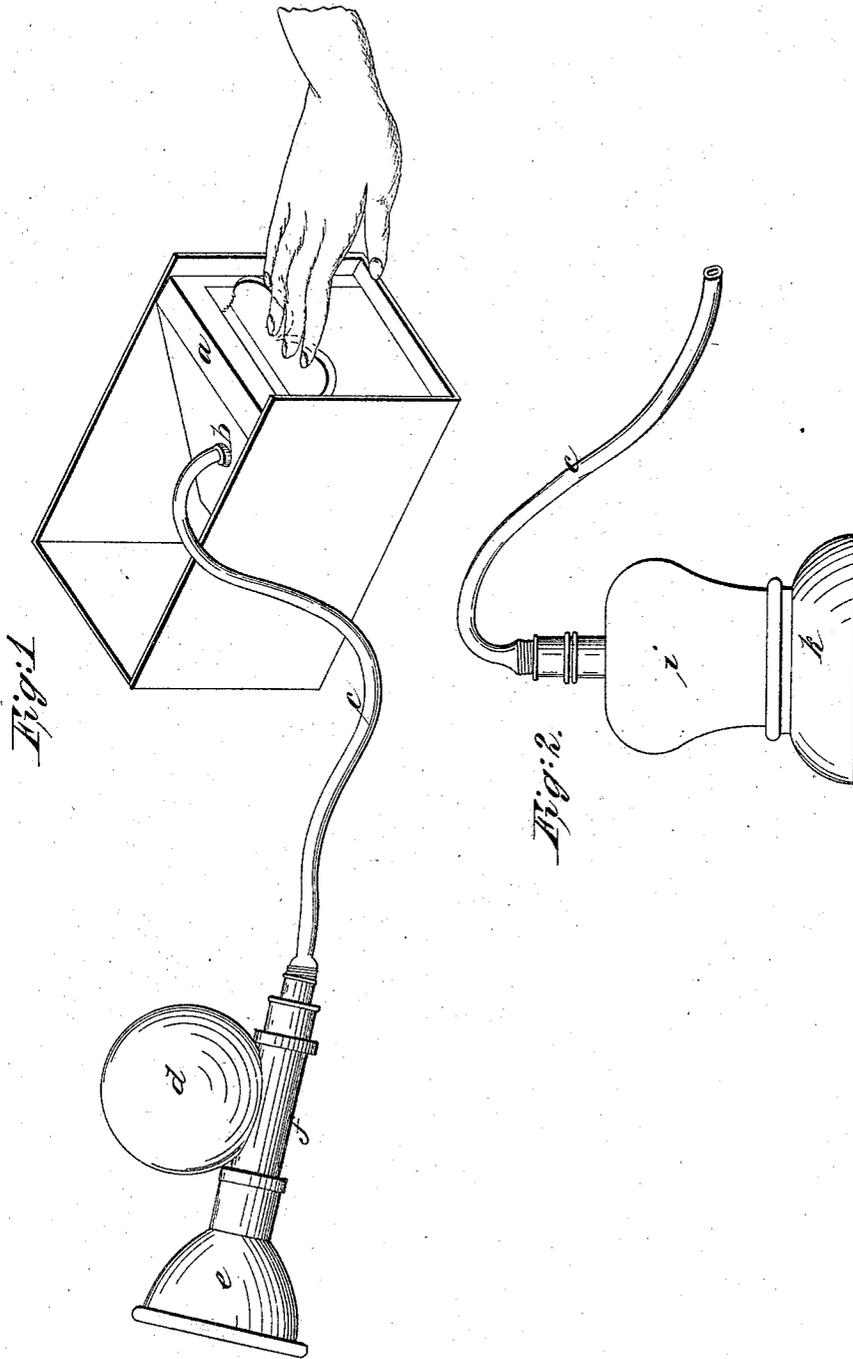


O. H. Needham.

Breast Pump.

No 11,135.

Patented June 20, 1854.



# UNITED STATES PATENT OFFICE.

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

## BREAST-PUMP.

Specification of Letters Patent No. 11,135, dated June 20, 1854.

*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 certain new and useful Improvements in Breast-Pumps, Cupping Apparatus, and the Shields Therefor; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification, in which—

Figure 1, is a general view of the apparatus fitted for a breast pump. Fig. 2, is the cupping glass and shield.

This invention is for the purpose of so connecting the pump bellows with the nipple shield or cupping shield as that any motion of the bellows from the exertion of pumping will not be communicated to the shield by means of a flexible tube, by which also the pumping apparatus can be placed in any convenient position without regard to the position of the patient, and also in the flexible shields, fitting any inequalities of surface and applying themselves to the parts conveniently.

The construction is as follows: A bellows or other convenient formed air pump is made as shown at (a), fitted into a box, which may be also made to pack the other parts of the instrument into when not in use. From the induction valve at (b) a flexible tube (c) projects, connecting the bellows pump with the shield. To the end of the flexible tube (c) there is attached a glass reservoir and short pipe, the reservoir (d) being in shape and purpose like a breast pipe of ordinary construction. The flexible tube is fastened to one end of the short pipe and the shield to the other. This shield (e) is clearly shown in the drawing. It is an india rubber cup made to fit over the nipple and is yielding, so as to fit and collapse upon it and the parts adjacent. There is a small hole at (f) in the glass pipe, which is to be stopped with the finger when in operation and opened to let the shield be removed when desired. The apparatus thus constituted is easy in its operation, especially where there is inflamma-

tion or tenderness of the parts, a consideration of the greatest importance, and producing results not attainable by any other combination.

The flexible shield has the following advantages: First, those of softness and elasticity, by which a great degree of pain and irritation caused by the use of glass is obviated in cases of sore nipples or inflamed parts; secondly, the india rubber shield will not act as a ligature on the lacteal vessels in breast pumping, which is likely to occur with a glass shield, and lastly by properly managing the pump and supplying air to the glass through the vent hole (f) in the tube the effect and sensation produced upon the nipple and breast are exactly similar to those produced by a sucking child, the shield collapsing down upon the nipple like the pressure of the child's tongue and other parts of the mouth.

For cupping the glass (i) shown at Fig. 2 is attached to the flexible tube (c) in place of the nipple shield. To this glass the india rubber shield (k) is attached, as shown in Fig. 2. This being elastic can be applied without binding the capillary vessels, which difficulty is likely to occur with the naked glass when operating over a bone and great pressure is used.

Having thus fully described my improved apparatus for a breast pump and cupping purposes, what I claim therein as new and for which I desire to secure Letters Patent is—

The combination of an air pump operating substantially as above described with a nipple shield or cupping shield made of flexible material substantially in the manner and for the purposes set forth by means of a flexible tube, so that the motion of the working of the pump will not be felt upon the parts operated upon, so that the patient can operate it herself and regulate the action in a manner never before effected.

O. H. NEEDHAM.

Witnesses:

THOS. E. WARREN,  
L. D. GOODWIN.