

W. KENNISH.
Breast-Pump.

No. 219,738.

Patented Sept. 16, 1879.

Fig. 1.

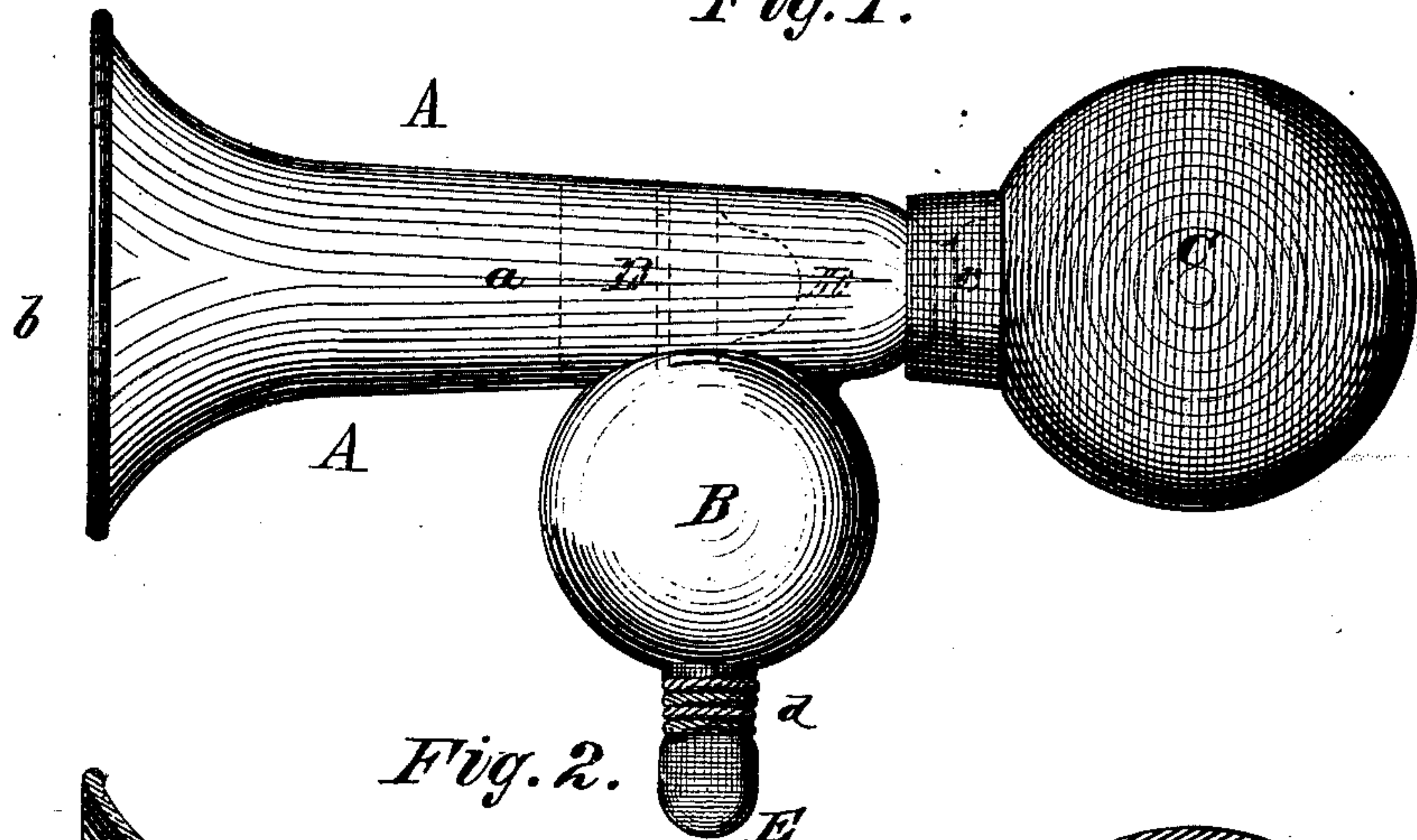


Fig. 2.

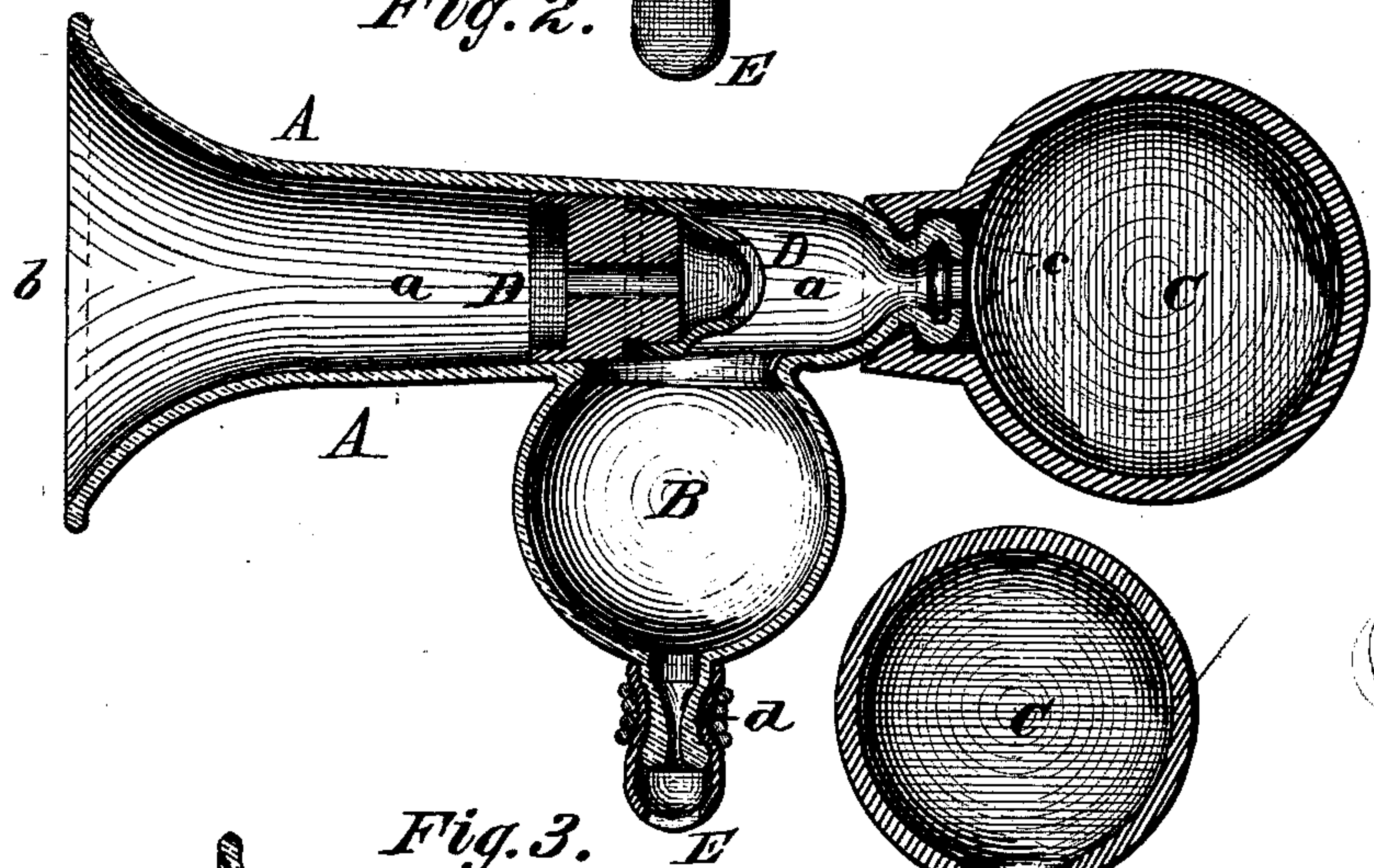
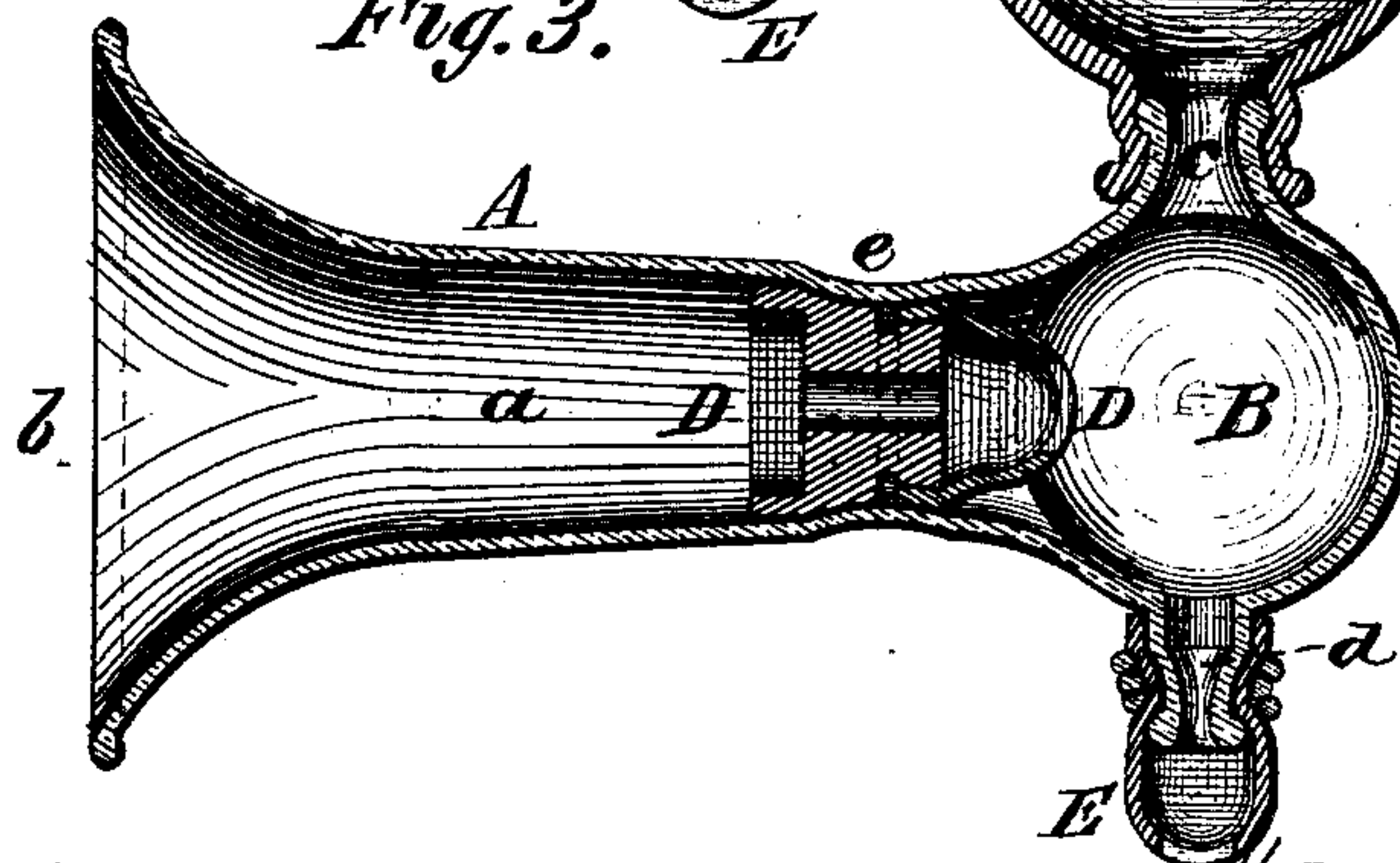


Fig. 3.



Witnesses:

P. Dieterich
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UNITED STATES PATENT OFFICE.

WILLIAM KENNISH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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IMPROVEMENT IN BREAST-PUMPS.

Specification forming part of Letters Patent No. **219,738**, dated September 16, 1879; application filed June 7, 1879.

To all whom it may concern:

Be it known that I, WILLIAM KENNISH, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Breast-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved breast-pump; and it consists in the combination and arrangement of parts, as will be hereinafter more fully set forth.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a side elevation. Fig. 2 is a central vertical section; and Fig. 3 is a modification.

A represents the body of the pump, made of glass or other suitable material. The body consists of the hollow cylinder *a*, with bell-mouth *b* at one end and a neck, *c*, at the other, and a globe, B, having a neck, *d*.

In the cylinder *a*, above the globe, is placed a valve, D, and upon the neck *d* is placed a valve, E. A rubber bulb, C, is sprung over the neck *c*, which retains its position by its elasticity.

The valve E is a small bulb sprung over the neck *d*, and preferably made of rubber. The inlet valve D is also made preferably of rubber, and is of slightly larger diameter than the interior of the cylinder *a*. This valve terminates in a semi-sphere, and, like valve E, is slit at its apex.

The device may be constructed as shown in Fig. 3, the globe B, having the two necks *c* and *d*, and the arrangement of the valves, and the general operation of the device being the same. The cylinder may also be contracted

slightly, as shown at *e*, to enable the valve D to be held more firmly in position.

In operating the pump, the bell-mouth is placed over the gland, and the bulb C compressed by the hand. This expels the air inclosed in the bulb and the globe B through the valve E, which yields easily to pressure from the inside. The bulb is then allowed to expand to its normal shape, which draws the air inclosed by the cylinder through the valve D, which, like the valve E, opens to pressure from the inside, but will close from an outward pressure, and prevent the return of the fluid. The air inclosed by the pump having been expelled, the continued compression and expansion of the bulb will draw milk from the gland and expel it through the valve E.

By this arrangement it will be seen that among its many advantages the device possesses one long needed—to wit, in the old construction of these pumps they had to be removed from the gland as soon as full in order to let out the milk, while in this device no such inconvenience is necessitated, but the operation can be continued as long as desired.

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

In a breast-pump provided with a bell-mouthed cylinder, *a*, the valve D, arranged therein for the passage of milk through its ports or openings into the milk-receiving bulb B, and the said bulb B, provided with an outwardly-opening valve, E, through which either air or milk can be forced out, as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM KENNISH.

Witnesses:

H. W. SOUDERS,
L. B. EVANS.