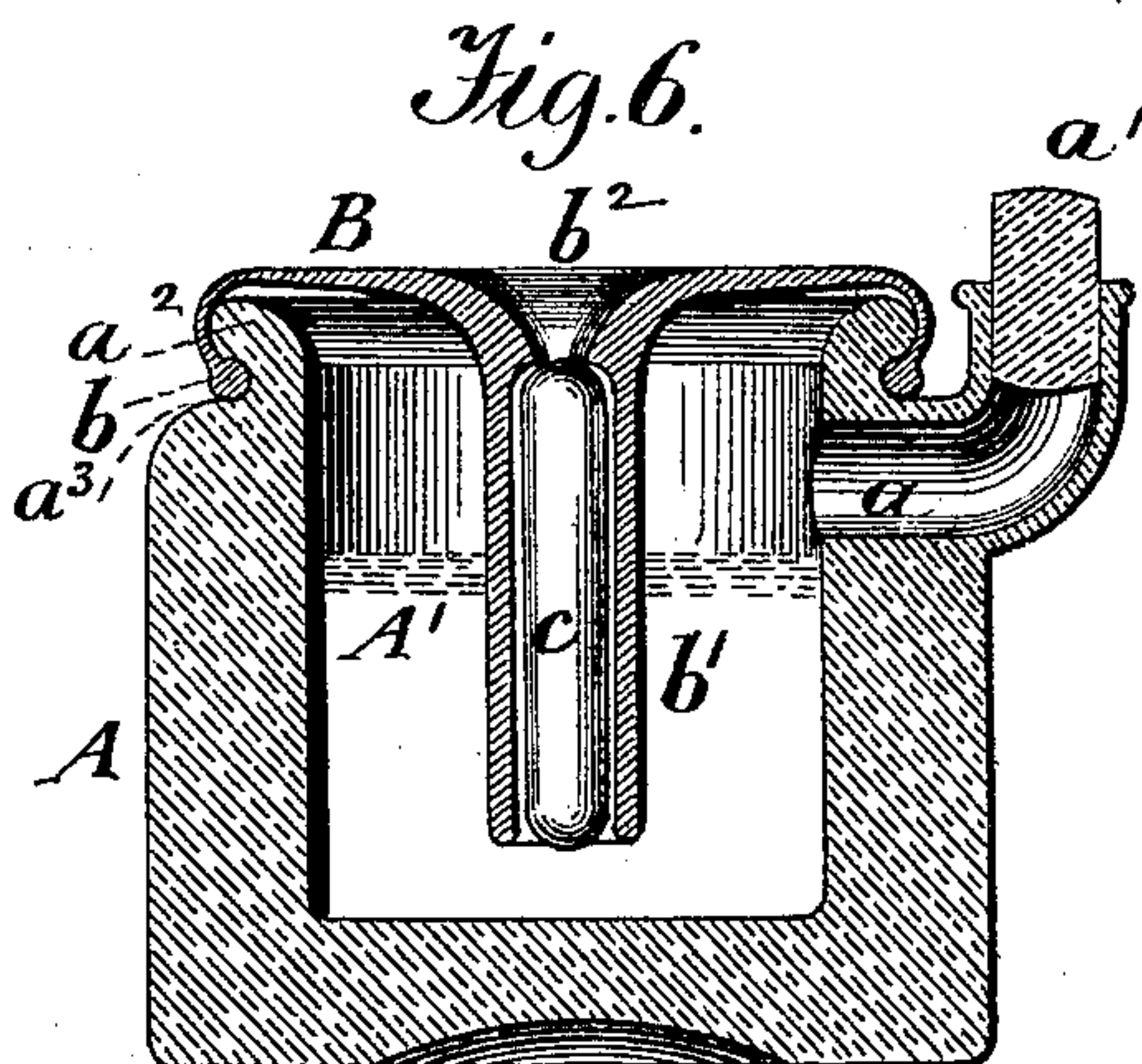
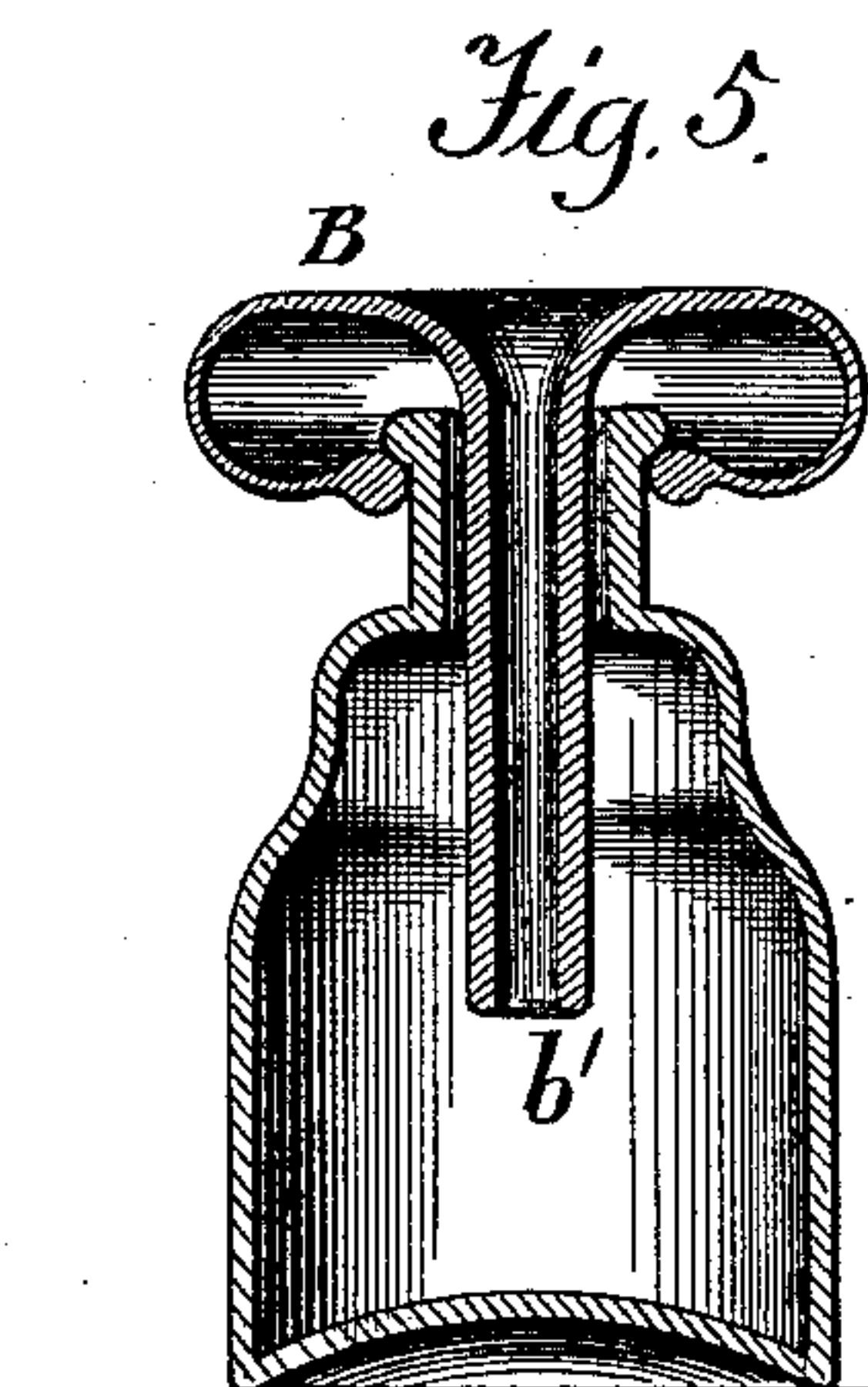
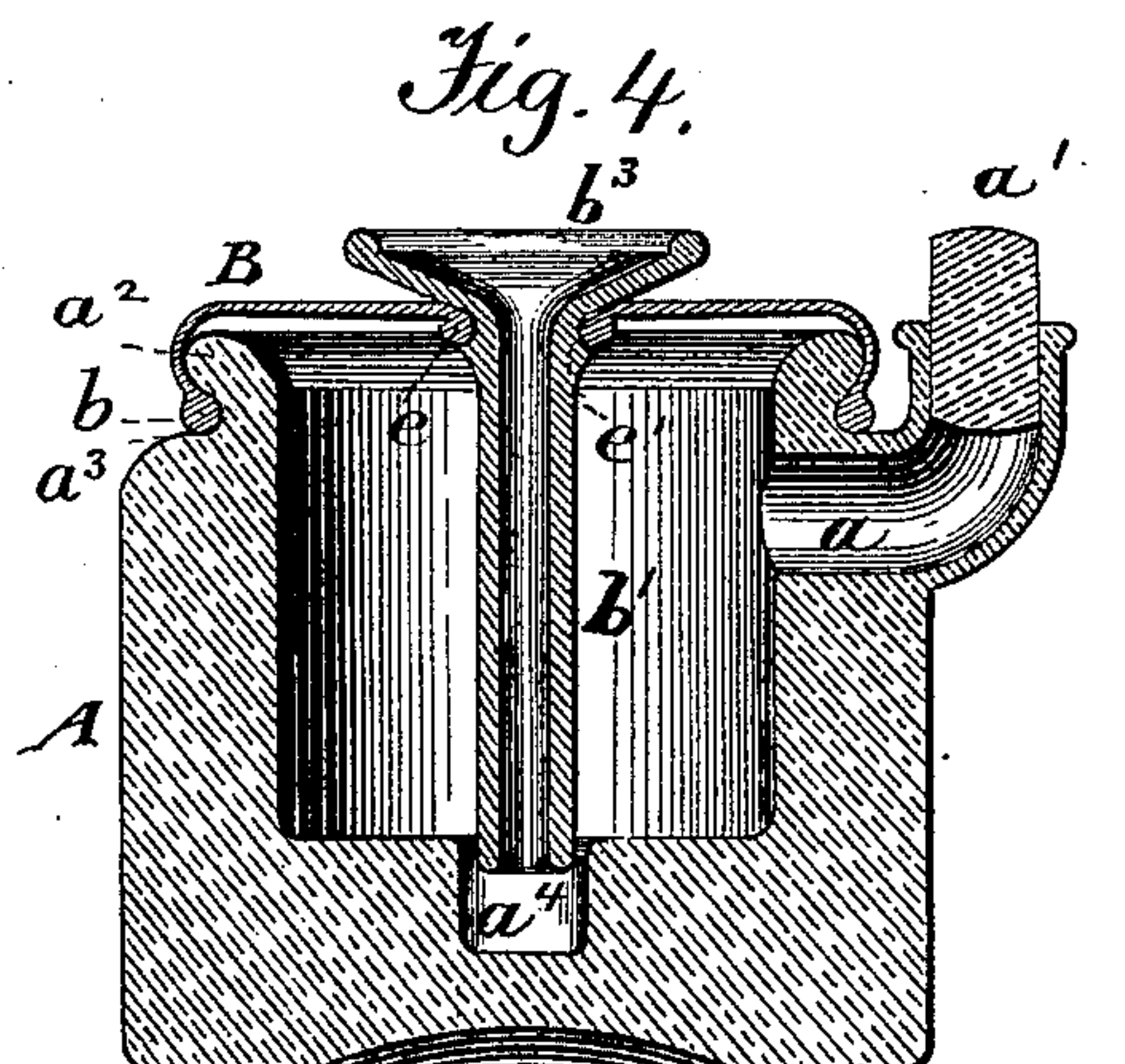
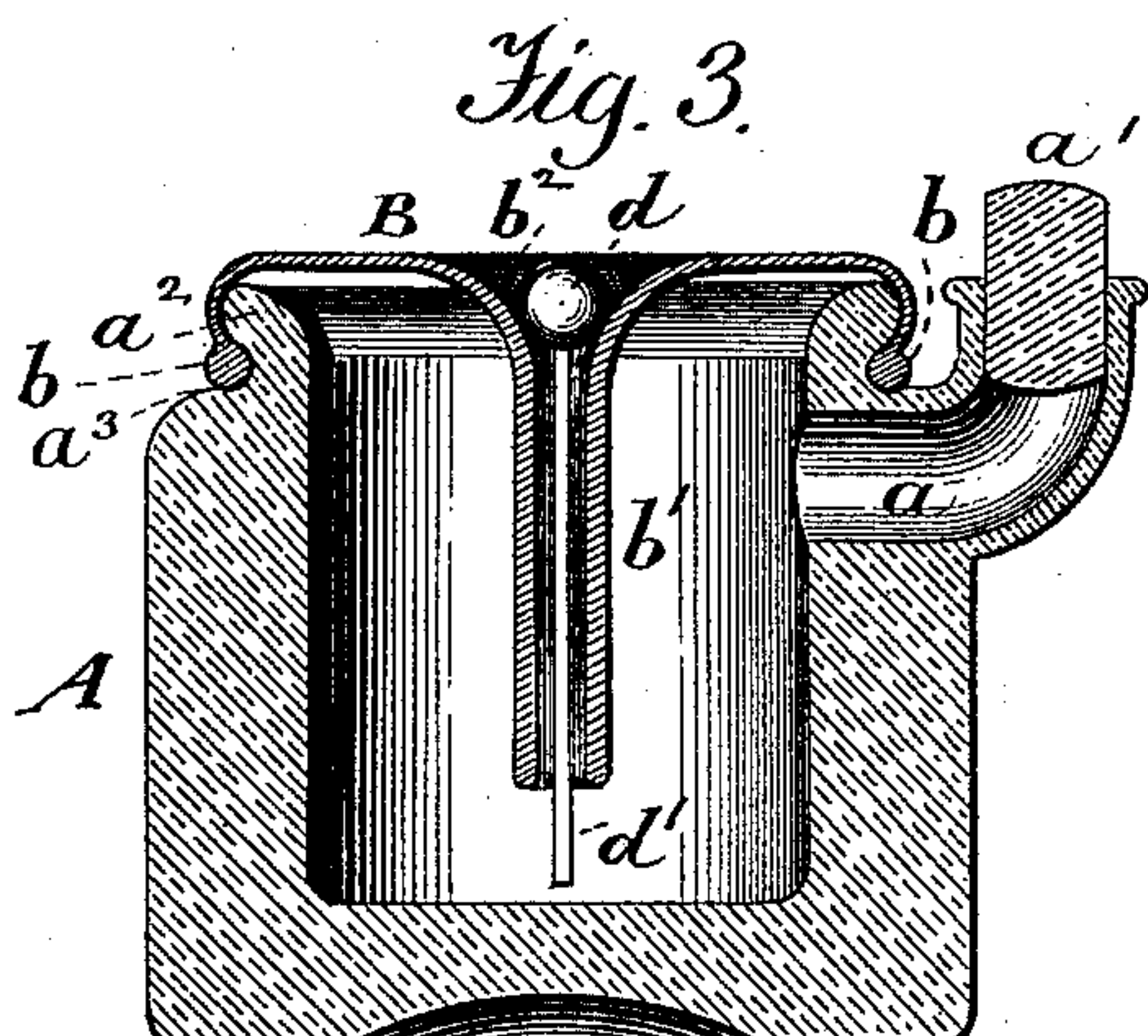
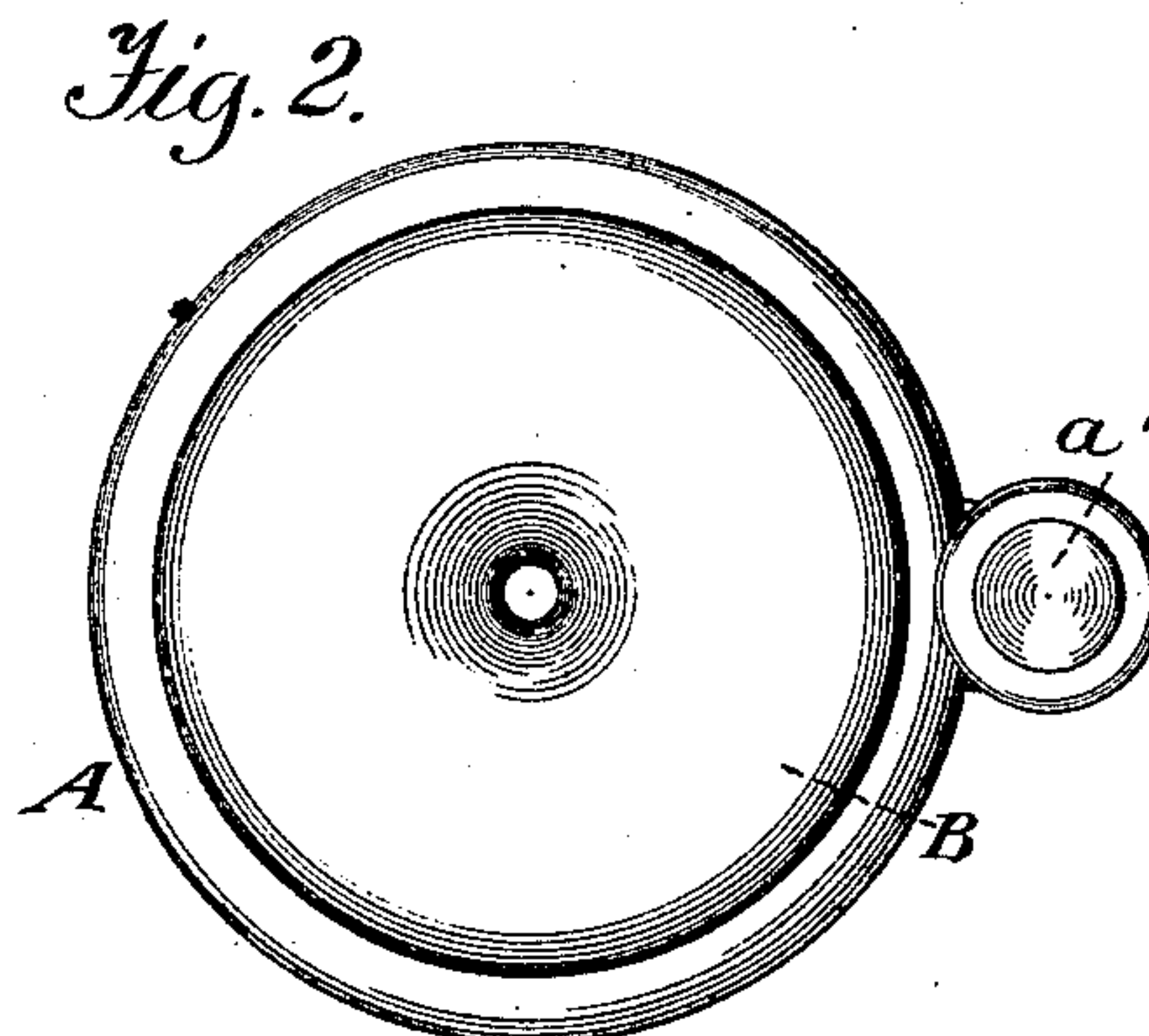
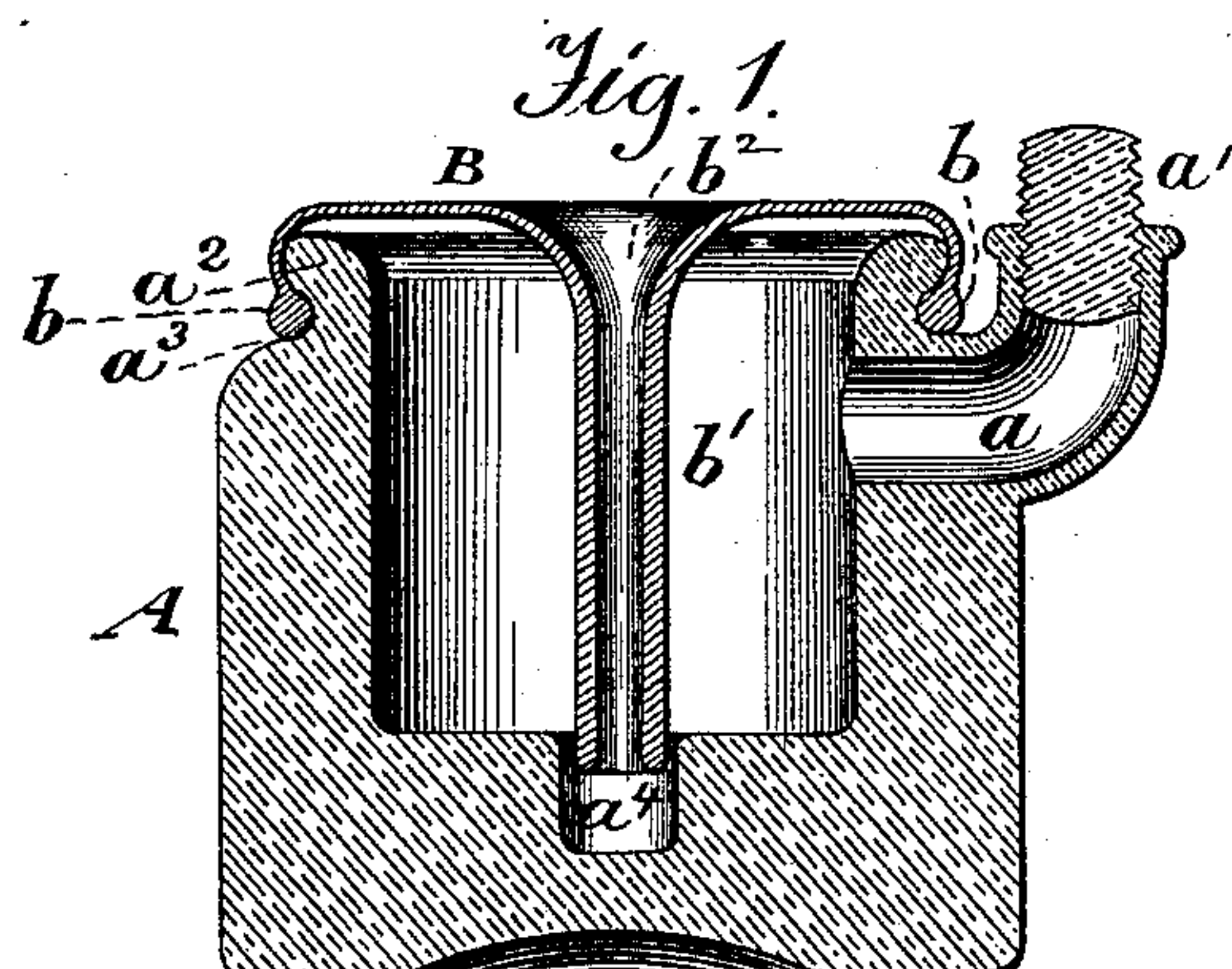


(No Model.)

W. H. BERRY.  
INKSTAND.

No. 452,252.

Patented May 12, 1891.



WITNESSES:

A. Ruppert,  
E. Cruse.

INVENTOR:

William H. Berry,  
BY *W. J. Howard*,  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

WILLIAM H. BERRY, OF EDDYSTONE, ASSIGNOR OF ONE-HALF TO EDWIN K. NELSON, OF CHESTER, PENNSYLVANIA.

## INKSTAND.

SPECIFICATION forming part of Letters Patent No. 452,252, dated May 12, 1891.

Application filed January 25, 1890. Serial No. 338,083. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BERRY, of Eddystone, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Inkstands or Vessels of Analogous Nature, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention is designed to hold a body of ink or other liquid in such a manner that it can be fed upward in small quantities as it may be needed for use, whereby the greater body of liquid may be retained in a fresh and clean condition and not liable to spill if the vessel be overturned.

In the accompanying drawings, Figure 1 is a sectional elevation. Fig. 2 is a plan. Figs. 3, 5, and 6 show different forms of the cover and tube. Fig. 4 shows a construction not herein claimed, specially designed for acids used by chemists.

Similar letters of reference indicate similar parts in the respective figures.

Referring more particularly to Figs. 1, 2, and 3, A is a vessel of glass or similar material, open at the top and provided with a lateral filling-aperture  $a$ , having a vertically-movable plug  $a'$ , a special function of which will be hereinafter explained. The upper edge of the vessel A is reduced in diameter and provided with a bead  $a^2$  and recess  $a^3$ , a sort of ogee construction being the result. This formation of the upper edge of the vessel A may, however, be modified.

In Fig. 1 (and also in Fig. 4, hereinafter to be more fully described) the bottom of the vessel A is provided with a small well  $a^4$ , not, however, employed in Fig. 3.

B is a flexible cover, formed of rubber, thin metal, or other substance sufficiently elastic, sprung over the bead  $a^2$  and retained within the recess  $a^3$ , the outer edge of the flexible cover B being provided with a stiffening-bead  $b$ . The cover B is at its center developed into a tube  $b'$ , reaching to a point near the bottom of the vessel A, and, as shown in Figs. 1 and 4, reaching slightly within the well  $a^4$ . The plug  $a'$ , fitting in the filling-aperture  $a$ , is intended to be moved by sliding or screwing vertically therein.

Supposing the vessel A to be partially filled with ink and it is desired to use a small quantity of it for writing purposes, the user will slightly depress the flexible cover B, whereupon the compression of air within the vessel will force a small quantity of liquid upward through the tube  $b'$  to the funnel-shaped space  $b^2$  at the upper end of said tube. The pressure of air within the vessel, and consequently the feeding upward of the ink, may be nicely regulated by adjusting the plug  $a'$  within the filling-aperture.

In Fig. 3 substantially the same construction is shown, except that the tube  $b'$  does not extend to the bottom of the vessel A, which is not provided with a well  $a^4$ . In other respects the vessel and tube are the same as in Fig. 1. A ball or globe  $d$ , of metal or glass, is secured to one end of a rod  $d'$ , which rod is passed through the tube  $b'$  nearly to the bottom of the vessel A, thus allowing the ball to close the funnel-space  $b^2$  of the tube  $b'$  when the cover B is in its normal position.

In Fig. 4 is shown a device in all respects the same as that of Figs. 1 and 2, except that the tube  $b'$  is formed of glass and has an upper funnel-shaped mouth  $b^3$ , said glass tube being secured to the flexible cover B, the central part of which is perforated and beaded to allow of a tight connection between it and said glass tube. The inner edge of the central perforation of the flexible cover B is beaded at  $e$ , so as to rest within an annular depression  $e'$ , formed in the tube  $b'$ . The device shown in Fig. 4 is specially designed to hold acids for chemical purposes.

Fig. 5 shows a modification adapted for use with ordinary or small-necked bottles, such a construction being especially useful to draftsmen employing india-ink. The bottle, of ordinary construction, is clamped by a rubber or flexible cover B, having a tube  $b'$  formed as a part of it, the cover being enlarged in diameter as compared with the diameter of the neck, around which it fits. In such an arrangement the elasticity of the cover adapts it to the necks of bottles of various sizes.

In the construction shown in Figs. 1, 2, 3, and 4 an important consideration is the fact that the flat top of the cover surrounding the depression or funnel-shaped space  $b^2$  in the



center causes said space to be enlarged as the cover is depressed, thus enabling all the ink raised to be held without there being danger of overflowing, as would be the case were the funnel-shaped space of a fixed size.

Another feature common to all the constructions and modifications shown is the returned edge of the cover, whereby a large area of cover is permissible, while the cover is adapted to fit a bottle having a small neck.

In Fig. 6 the tube  $b'$  is enlarged immediately below the funnel-space  $b^2$  to admit loosely a float  $c$ , of glass or other material, which closes the space. The ink is kept up in the tube  $b'$  by pressure maintained by means of the plug  $a$ , say to the point  $A'$ . The point of the pen depresses the float  $c$ , and, the ink having been raised, the float offers no serious resistance to the returning fluid and acts as a valve to close the opening. One advantage of this construction is that the ink cannot rise if pressure should be accidentally applied to the cover, as by a dusting-brush or otherwise, and also that evaporation is entirely arrested.

My invention may be applied to any ordinary inkstand or bottle having a suitable neck.

Having described my invention, I claim—

1. The combination, with a vessel having a beaded and recessed or ogee neck, of a flexible elastic cover having a central tube homogeneous therewith, whereby a close joint may

be effected between said vessel and cover, substantially as set forth.

2. A vessel having a beaded and recessed neck, combined with a flexible elastic cover having a central tube homogeneous therewith and returned edge adapted to fit said neck, as shown, whereby a cover of large area may be applied to the neck of a bottle of small size, substantially as set forth.

3. A vessel having a neck substantially as described, combined with a flexible elastic cover having a tube homogeneous therewith connected centrally thereto, said cover having a flat top surrounding the mouth of the tube, whereby as the cover is depressed, as described, the mouth of the tube will be enlarged, as set forth.

4. An inkstand or vessel having a filling-aperture and a movable plug fitted thereto, combined with a flexible elastic cover adapted to fit the neck of the vessel and having a central tube homogeneous therewith extending approximately to the bottom of said vessel, substantially as set forth.

In testimony whereof I hereunto set my hand and seal.

WM. H. BERRY. [L. S.]

Witnesses:

W. P. HOOD,

WM. S. NEIMS.