

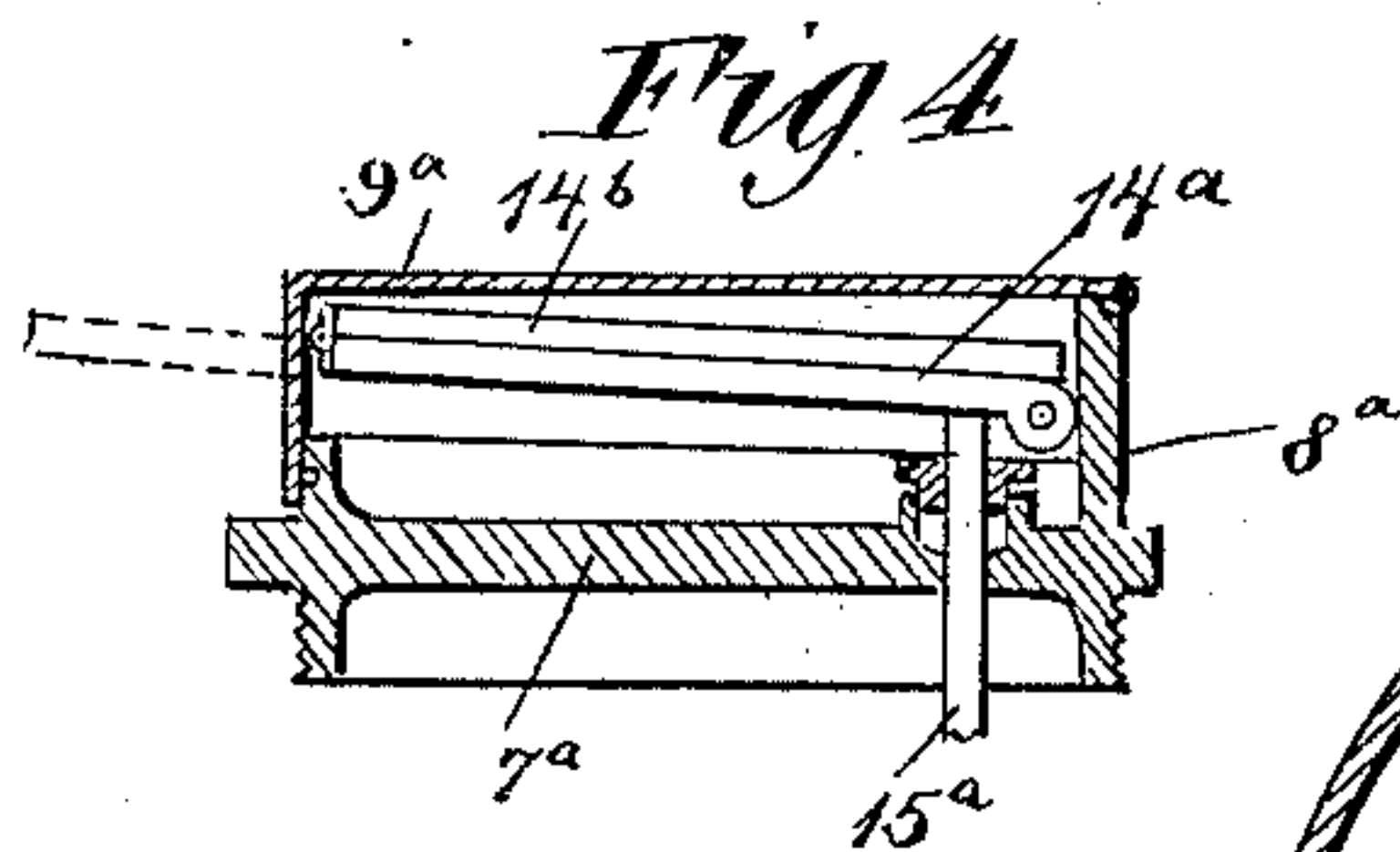
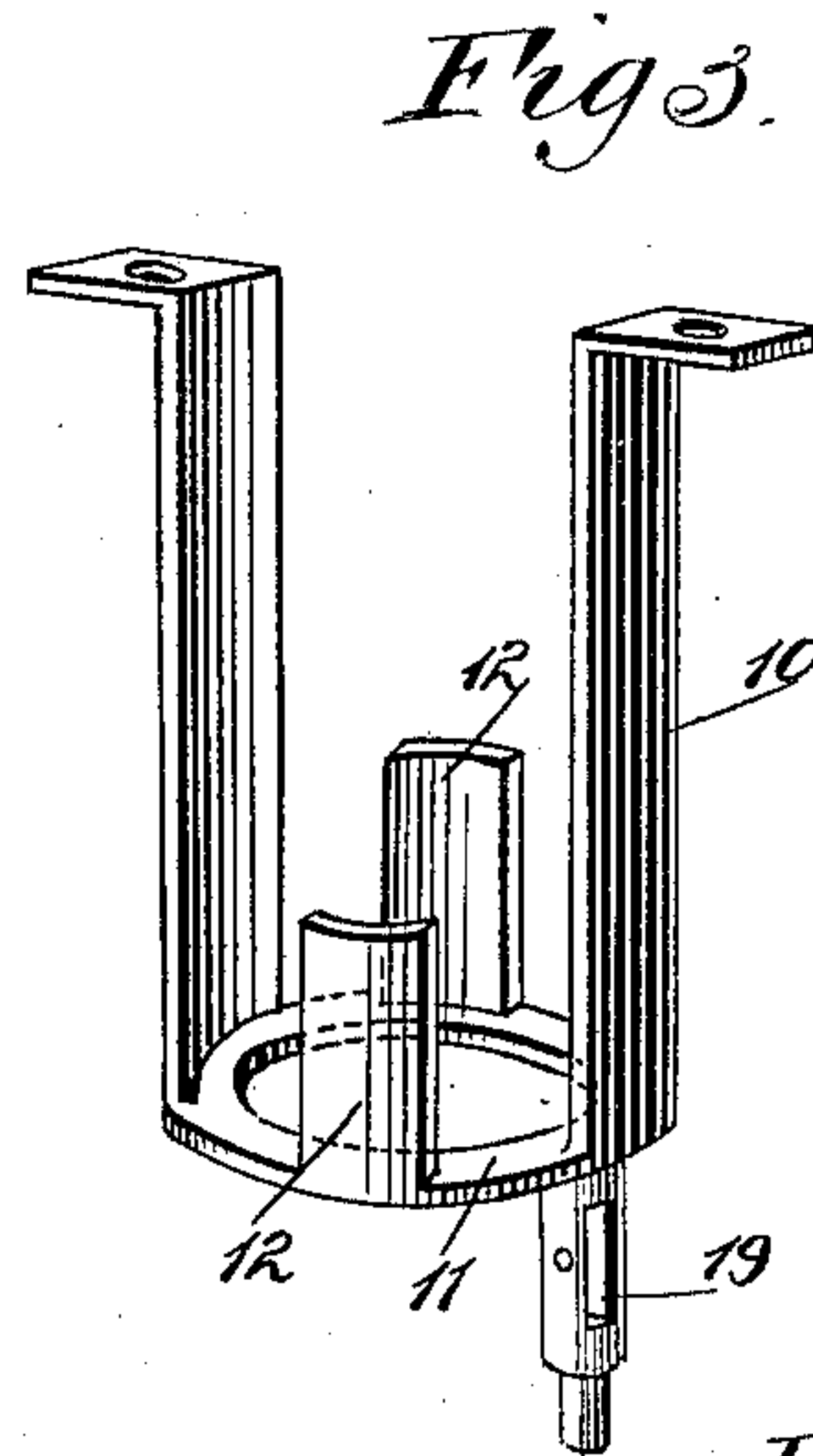
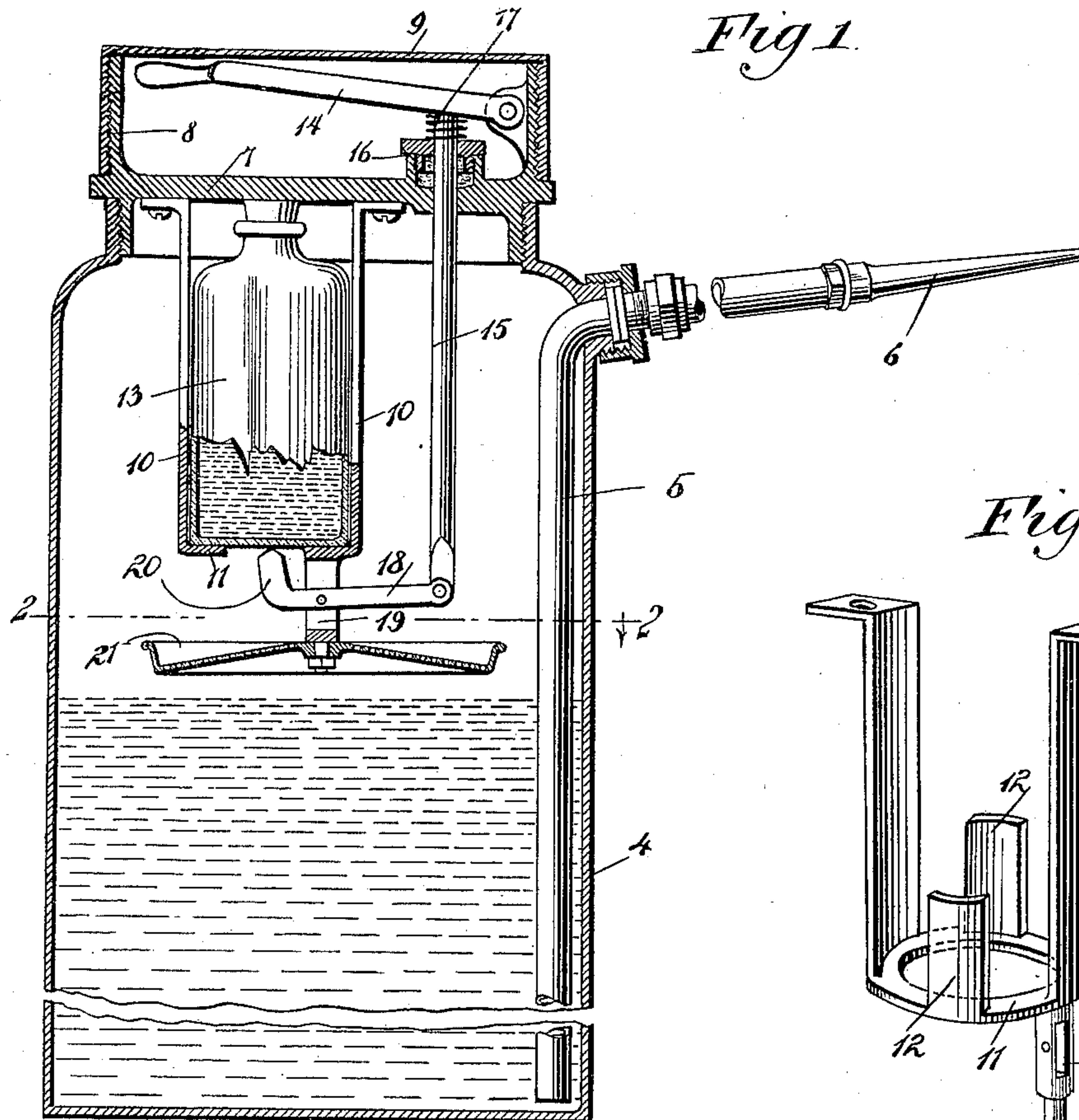
No. 610,830.

Patented Sept. 13, 1898.

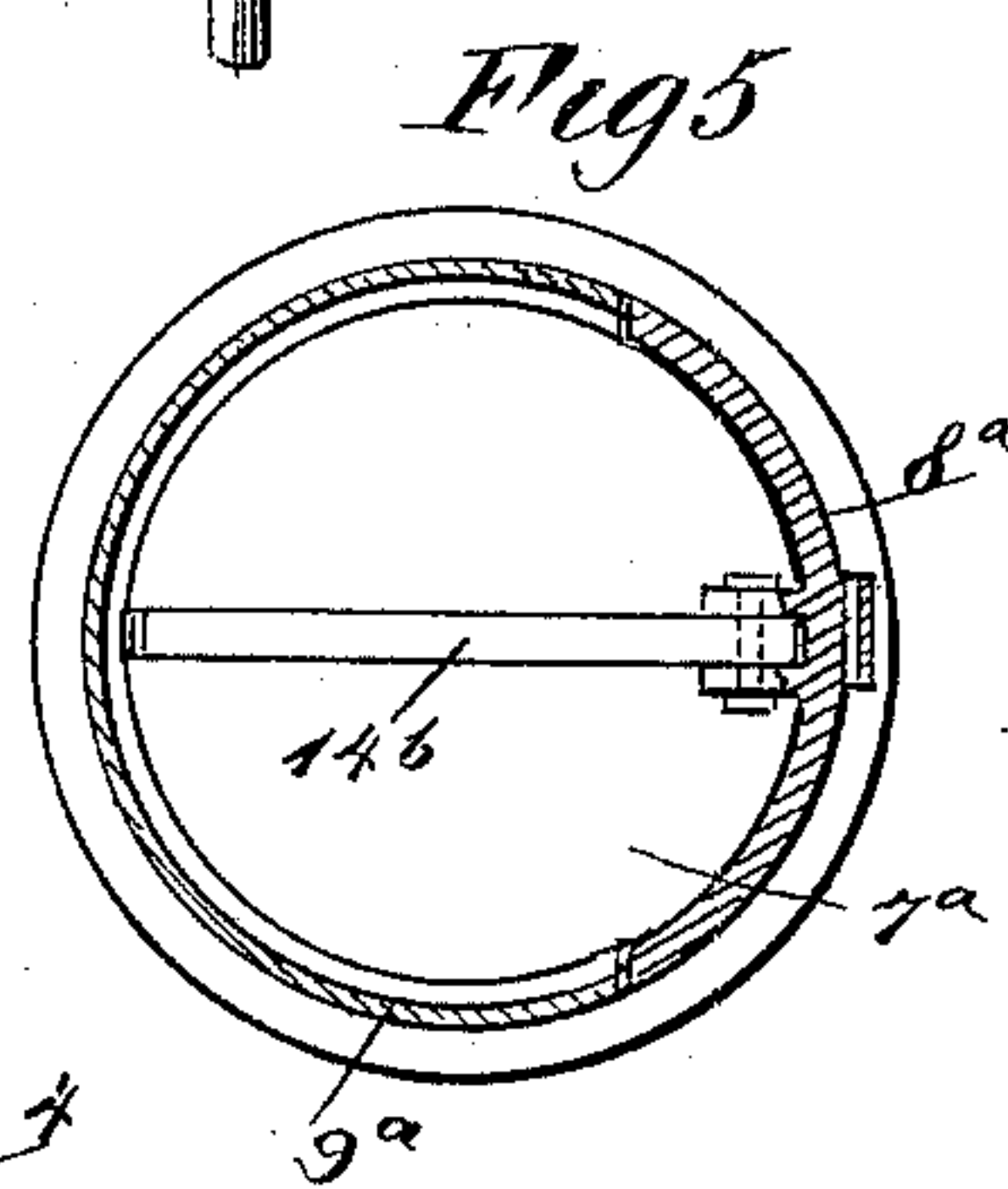
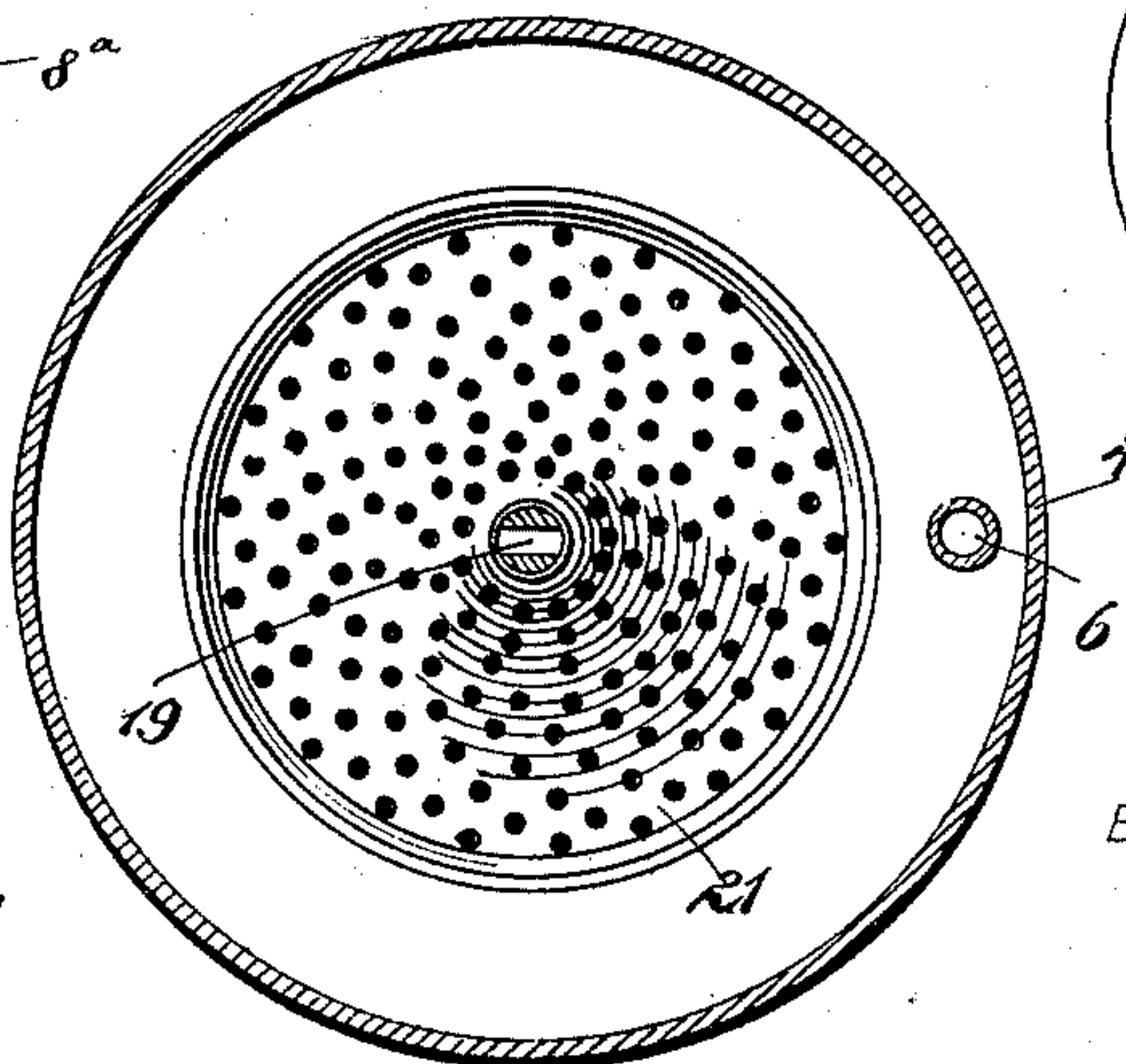
A. M. RING.  
FIRE EXTINGUISHER.

(Application filed Jan. 21, 1898.)

(No Model.)



*Fig 2.*



WITNESSES:  
*Paul J. Hoot*  
*Case W. Hoot*

INVENTOR  
*A. M. Ring*  
BY *Mumford*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ALLAN MOTT RING, OF ARLINGTON HEIGHTS, MASSACHUSETTS.

## FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 610,830, dated September 13, 1898.

Application filed January 21, 1898. Serial No. 667,442. (No model.)

*To all whom it may concern:*

Be it known that I, ALLAN MOTT RING, of Arlington Heights, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Fire-Extinguisher, of which the following is a full, clear, and exact description.

This invention is a fire-extinguisher of that class in which a tank or reservoir is provided with a body of soda-water and also with a frangible vessel containing sulfuric acid, so that upon the fracture of the vessel the sulfuric acid is commingled with the soda-water or bicarbonate of soda to form a gas for the extinguishment of the fire.

This specification is the disclosure of two forms of my invention, while the claims define the actual scope of the invention.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section of the invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of a detail to be hereinafter described. Fig. 4 is a vertical section of a modification, and Fig. 5 is a horizontal section of a modification.

The tank 4 may be of any desired construction and is provided with a discharge-pipe 5, having a nozzle 6, all of which is known in the art. The tank 4 is provided with a screw-closure 7, having a circular wall 8, covered by a screw-cap 9. Secured to the lower side of the closure 7 and projecting into the tank 4 is a yoke 10, the bottom portion of which is in the form of an annulus 11 and provided with two upwardly-extending lugs 12, which in conjunction with the other portions of the yoke 10 hold the glass bottle 13, the cork of which bears against the cover 7 and the bottom of which rests on the annulus 11. The tank 4 contains the bicarbonate of soda and the bottle 13 contains the sulfuric acid.

Fulcrumed against the inner side of the wall 8 is a hand-lever 14, which is connected with a vertically-reciprocal rod 15, extending through a packing-gland 16 in the cover 7. If desired, a spring 17 may be provided to hold the lever 14 in raised position. The lower end of the rod 15 is connected to a lever 18, which is fulcrumed in a slotted arm

19, projecting downward from the annulus 11. The lever 18 has at its free end a hammer-like device 20, adapted to bear against the bottom of the bottle 13. The lower end of the arm 19 carries a pan 21, adapted to lie normally just above the surface of the bicarbonate of soda in the tank 4. The bottom of the pan 21 is perforated, as shown.

When it is desired to use the invention, the screw-cap 9 is removed and the lever 14 pressed downward, whereupon the rod 15 is also pressed downward and the hammer 20 of the lever 18 is driven forcibly against the bottom of the bottle 13 and said bottle is fractured. This causes the sulfuric acid in the bottle to fall upon the pan 21, which retards the precipitation of the sulfuric acid and causes it to be sprayed upon the bicarbonate of soda. This generates the gas, as will be understood, and the fire-extinguisher is then in operation.

In the form of the invention shown in Figs. 4 and 5 the rod 15<sup>a</sup> is actuated by a lever formed of two hinged sections 14<sup>a</sup> and 14<sup>b</sup>. These sections may fold double, as shown by full lines in Fig. 4, or they may be extended to the position shown by dotted lines in such figure. The cap 7<sup>a</sup> has instead of an annular wall a lug 8<sup>a</sup>, to which a cover 9<sup>a</sup> is hinged. This cover may be readily swung from off the cap 7<sup>a</sup> to expose the lever for operating the rod 15<sup>a</sup>. The advantage of this construction is that the cover 9<sup>a</sup> may be very quickly displaced and the operating-lever being extensible may be easily operated. The modification is adapted particularly for small devices.

If desired, the operating-lever may be dispensed with and the rod 15 operated by pushing it downward manually.

The pan 21 not only serves to spray the sulfuric acid, but also collects the fragments of the bottle 13, and, being removable, permits these fragments to be readily withdrawn without decanting the tank.

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

1. The combination of a tank, a cover for the tank, a yoke projecting downward from the cover into the tank, a frangible vessel held by the yoke, a lever fulcrumed on the yoke and having a hammer-like formation

capable of engaging and fracturing the vessel, a rod extending vertically and connected with the lever to move the same, and a lever supported on the cover and connected with  
5 the rod.

2. The combination of a tank, a cover for the tank, the cover having vertically-extending walls, a cap covering the walls, a lever fulcrumed on said walls and inclosed thereby,  
10 a rod extending through the cover and connected with the lever, a yoke depending from the cover and projecting into the tank, and a lever supported by the yoke and capable of fracturing a vessel held by the yoke.

3. The combination of a tank, a cover for 15 the tank, a yoke depending from the cover and projecting into the tank, the yoke having an arm, a lever fulcrumed in the arm and capable of fracturing a frangible vessel held by the yoke, a rod connected to the lever and 20 extending vertically through the cover, and a lever mounted on the cover and connected with the rod.

ALLAN MOTT RING.

Witnesses:

FRANK Y. WELLINGTON,  
JAMES S. TRACEY.