

E. E. ELLMANN.  
LIQUID SOAP RECEPTACLE.  
APPLICATION FILED MAY 19, 1908.

924,047.

Patented June 8, 1909.

3 SHEETS—SHEET 1.

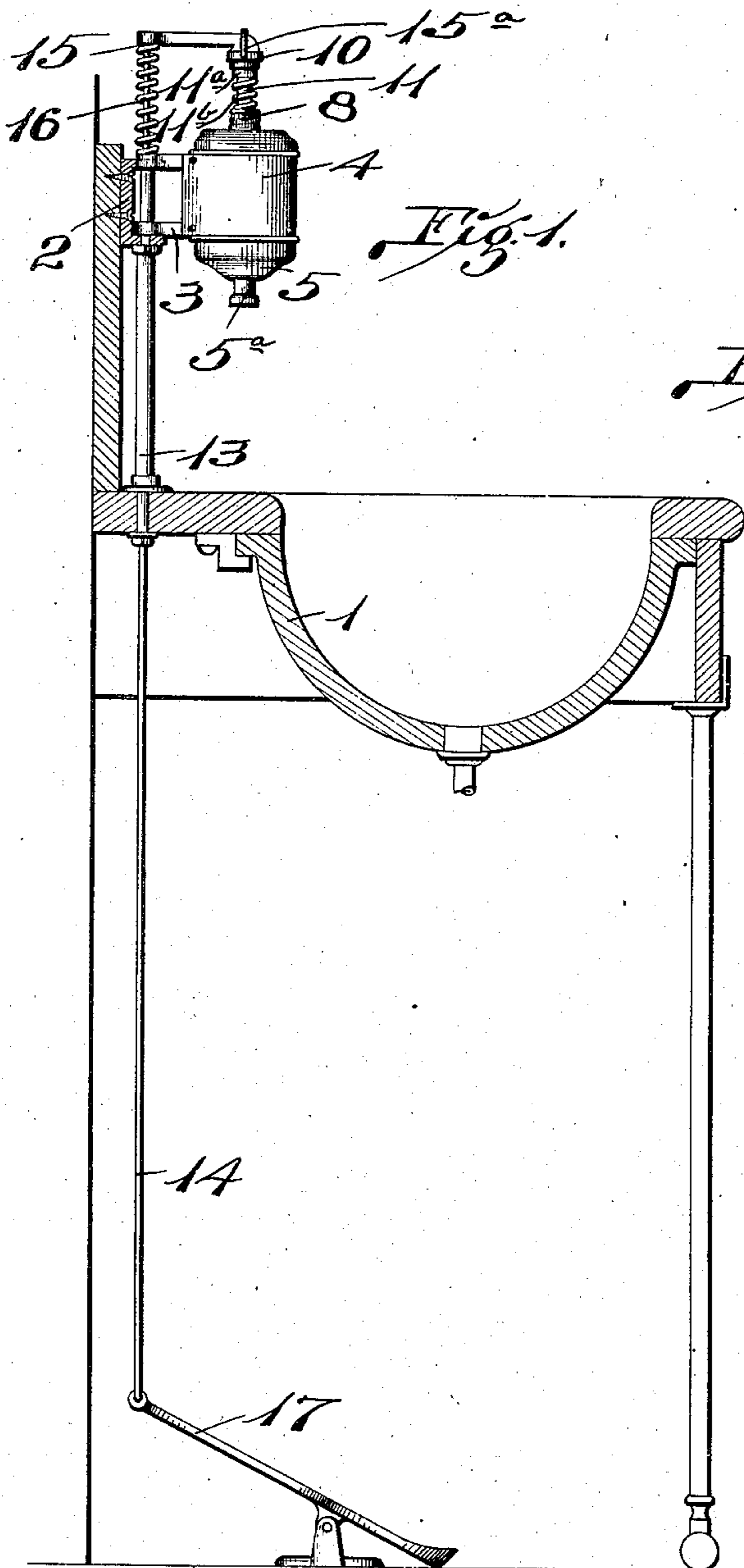
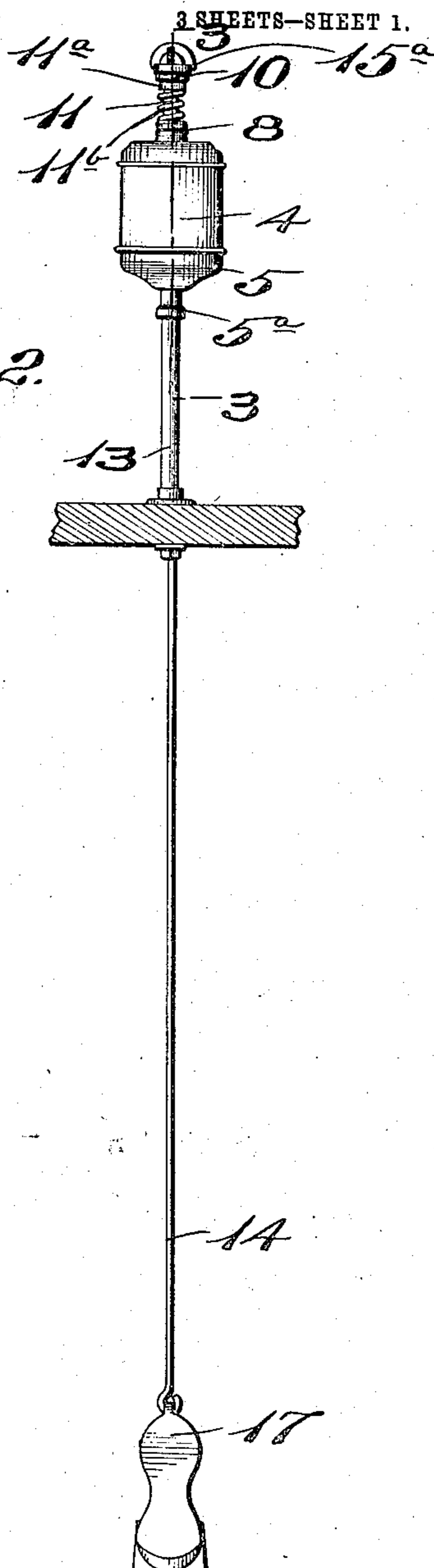


Fig. 2.



ATTEST.

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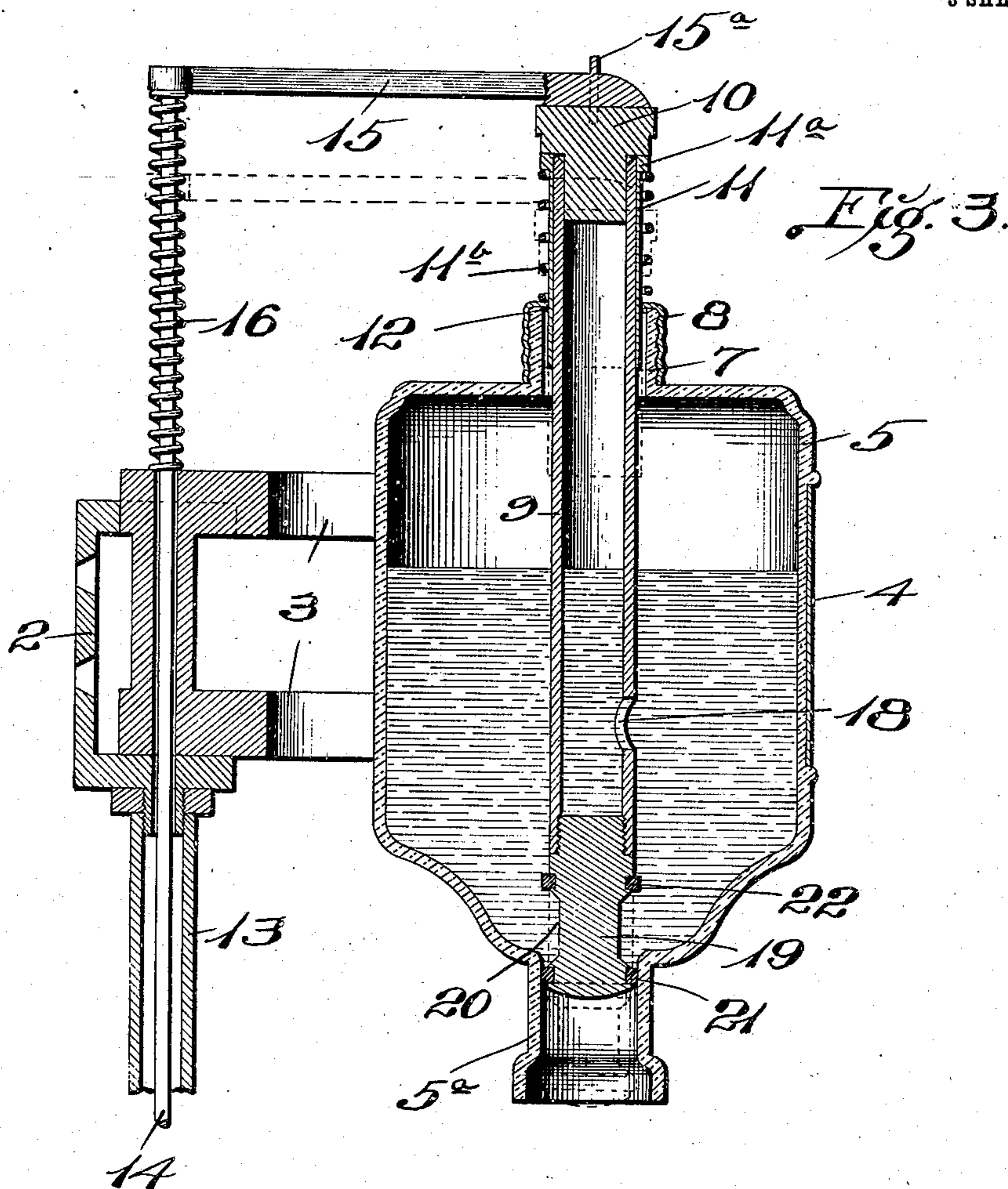
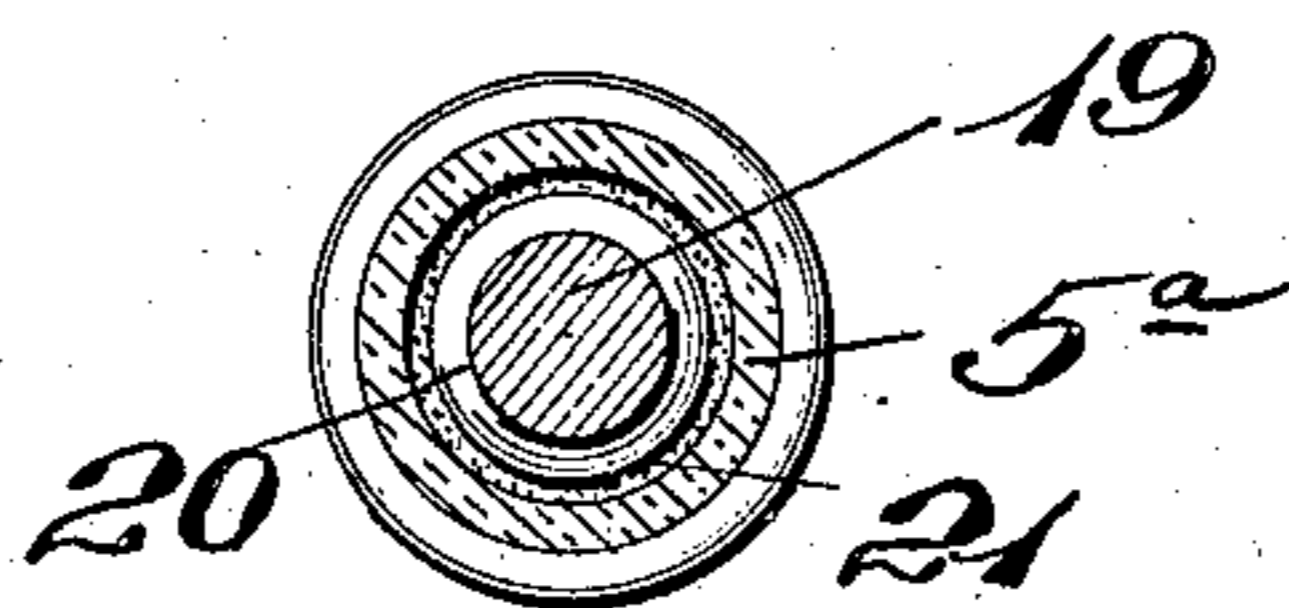


Fig. 4.



ATTEST.

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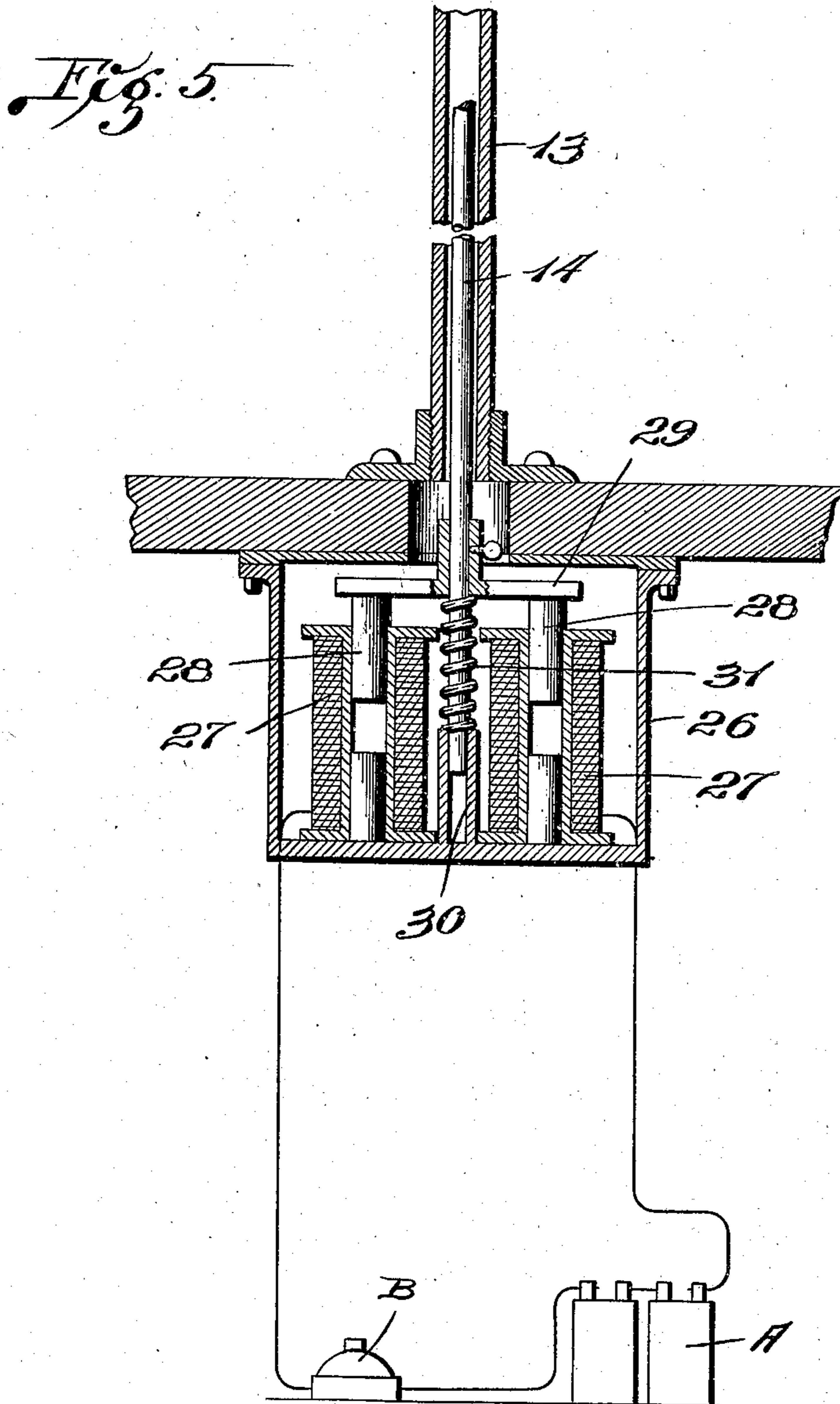
BY *Nigdon Longan* ATTYS.

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3 SHEETS—SHEET 3.



ATTEST.

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# UNITED STATES PATENT OFFICE.

ERNEST E. ELLMANN, OF ST. LOUIS, MISSOURI.

## LIQUID-SOAP RECEPTACLE.

No. 924,047.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed May 19, 1908. Serial No. 433,743.

*To all whom it may concern:*

Be it known that I, ERNEST E. ELLMANN, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Liquid-Soap Receptacles, of which the following is a specification, containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a liquid soap receptacle, which is particularly intended for use immediately adjacent stationary wash basins of lavatories, and which receptacle conveniently holds a supply of liquid soap, a portion of which is automatically fed through a valve in the bottom of the receptacle upon the actuation of mechanism attached to the receptacle and to said valve.

The principal object of my invention is to so construct a simple, inexpensive liquid soap receptacle, which can be conveniently located immediately above a wash bowl, and which is operated by the pressure of the foot, thus overcoming the necessity of bringing the hands in contact with any portion of the receptacle when obtaining a supply of soap.

A further object of my invention is to provide a liquid soap receptacle with a valve which will deliver a predetermined amount of liquid soap at each actuation, thereby overcoming any wasteful discharge of the soap at the time the valve is actuated.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a vertical section taken through a stationary wash bowl, and showing my improved soap receptacle in position for use above the bowl; Fig. 2 is a front elevation of the receptacle; Fig. 3 is an enlarged vertical section taken on the line 3—3 of Fig. 2; Fig. 4 is a horizontal section taken through the discharge end of the receptacle, and showing the valve in horizontal section; and Fig. 5 is a vertical section of a modified form of the apparatus utilized for actuating the discharge valve of the receptacle.

Referring by characters to the accompanying drawings:—1 designates the wash bowl and arranged adjacent thereto and preferably against the wall, immediately to the rear of the bowl, is a bracket 2, to which is fixed

a forwardly projecting bracket 3; and secured to the forward portion of said bracket 3 are the ends of a metal loop or band 4, which encircles a vertically disposed cylindrical receptacle 5, preferably of glass, provided at its lower end with an outlet spout 5<sup>a</sup>; and formed integral with the upper end of said receptacle is an exteriorly threaded projection 7, on which is located a metal cap 8, and arranged to slide through this cap is a tube 9.

Detachably seated in the upper end of the tube 9 is a plug 10; and fixed on the upper portion of said tube 9 is a sleeve 11, provided at its upper end with a collar 11<sup>a</sup>; and located on this sleeve and interposed between the cap 8 and the collar 11<sup>a</sup>, is an expansive coil spring 11<sup>b</sup>.

Arranged on the under side of the top of the cap 8, and within the tubular projection 7, is a reinforcing ring 12, which stiffens the cap at the point where the lower end of the spring 11<sup>b</sup> bears.

Fixed to the bottom of the bracket 2, and extending downward through the slab on which the bowl is positioned, is a tube 13; and operating therethrough and through the bracket 3, is a rod 14, the upper end of which carries a horizontally disposed arm 15, the outer end of which bears on the top of the plug 10; and carried by the outer end of said arm are depending ears 15<sup>a</sup>, which engage the upper portion of the plug 10.

Located upon the upper portion of the rod 14 and interposed between the arm 15 and the bracket 3 is an expansive coil spring 16, which normally maintains the rod 14 and parts carried thereby in an elevated position.

Pivotally connected to the lower end of the rod 14 is a pedal 17, which is arranged on the floor, immediately beneath the bowl 1.

Formed in the lower portion of the tube 9 is an opening 18, and detachably fixed in the lower end of the tube is a valve plug 19, in the periphery of which is formed an annular groove 20. Seated in the lower portion of this plug, below the groove 20, is a gasket or packing ring 21, of rubber, or analogous material, which snugly fits the internal diameter of the spout 5<sup>a</sup> on the lower end of the receptacle 5; and seated in the upper portion of the plug, above the groove 20, is a second gasket or packing ring 22, adapted to fit snugly in the spout 5<sup>a</sup>.

When a soap receptacle of my improved construction is in use, the expansive coil

spring 16 maintains the rod 14 and parts carried thereby in an elevated position, and the expansive coil spring 11<sup>b</sup> maintains the tube 9 elevated, with the plug 10 bearing against the under side of the arm 15; and, when in this position, the lower gasket 21 fits snugly in the upper end of the spout 5<sup>a</sup> and prevents the discharge of liquid soap therethrough.

To operate the device to permit the discharge of a certain amount of liquid soap, the operator depresses the rear portion of the pedal 17; and by so doing, pulls the rod 14 downward, and in turn moving the tube 9 downward, which action moves the gasket 21 downward through the spout 5<sup>a</sup>, into a position below the discharge end thereof, and simultaneously moving the gasket 22 into the upper portion of the discharge spout. The liquid soap trapped in the annular groove 20, between the gaskets 21 and 22, is carried downward through the spout until the gasket 21 passes below the discharge end of said spout, and said liquid soap discharges into the hand which is held immediately beneath said spout. When the parts are returned to their normal positions, due to the expansive action of the coil springs 16 and 11<sup>b</sup>, the gasket 21 passes to the upper end of the spout 5<sup>a</sup> to prevent any leakage or discharge of any soap through said spout.

To fill the receptacle 5 with liquid soap, the plug 10 is engaged and moved downward against the resistance offered by the spring 11<sup>b</sup>, thus moving the tube downward a short distance; and by such movement, the plug 10 is disengaged from the depending ears 15<sup>a</sup>, and the arm 15 is now swung to one side or the other; after which the plug 10 is removed from the upper end of the tube 9, and the liquid soap or the like is now delivered into the tube 9, and passes from thence through the opening 18 to the interior of the receptacle 5.

In Fig. 5 I have illustrated electrically operated means for actuating the rod 14 and valve carrying tube, 9. This arrangement comprises a housing 26 fixed to the under side of the slab which carries the wash bowl, and in which is positioned a pair of magnet coils 27 which are in circuit with batteries A, or other suitable source of electricity, and there being a switch or circuit closer B conveniently located in said circuit. Arranged to move through the upper ends of the coils 27 are armatures 28 which are connected by a transverse bar 29 carried by the rod 14, and the lower end of said rod bears in a tubular guide 30 arranged between the coils 27; and interposed between said tubular guide

and the under side of the bar 29 is an expansive coil spring 31. Where this form of the device is employed, the circuit in which the coils are located is normally open and the coil spring 31 maintains the armatures 28 elevated. When the circuit is closed by actuating the switch or circuit closer B, the coils 27 are energized, and as a result the armatures 28 are drawn downward, thus imparting downward movement to the rod 14 and parts carried thereby. As soon as the circuit is broken, the coil spring 31 elevates the cross bar 29, rod 14, and armatures 28.

A soap receptacle of my improved construction is simple and inexpensive, occupies a convenient position adjacent the wash bowl, and when actuated, discharges a predetermined amount of liquid soap; and the operation incident to the discharge of the soap is brought about without the use of the hands, and, for this reason, the device is sanitary to a high degree; and, therefore, especially applicable for use in hospitals and the like.

I claim:—

1. A device of the class described, comprising a liquid soap receptacle, a discharge spout therefor, a tube operating in the receptacle, a discharge valve carried by the lower end of the tube and operating in the spout, a sleeve on the upper end of the tube, a collar integral with the upper end of the sleeve, an expansive coil spring arranged on the sleeve and bearing against the collar, a plug removably positioned in the upper end of the tube, and spring actuated means normally bearing on the plug.

2. A device of the class described, comprising a liquid soap receptacle, a discharge spout therefor, a tube operating in the receptacle, a discharge valve carried by the lower end of the tube and operating in the spout, a sleeve on the upper end of the tube, a collar integral with the upper end of the sleeve, an expansive coil spring arranged on the sleeve and bearing against the collar, a plug removably positioned in the upper end of the tube, spring actuated means normally bearing on the plug, and pedally operated means for moving the tube and parts carried thereby downward through the liquid soap receptacle.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

ERNEST E. ELLMANN.

Witnesses:

M. P. SMITH,  
E. L. WALLACE.