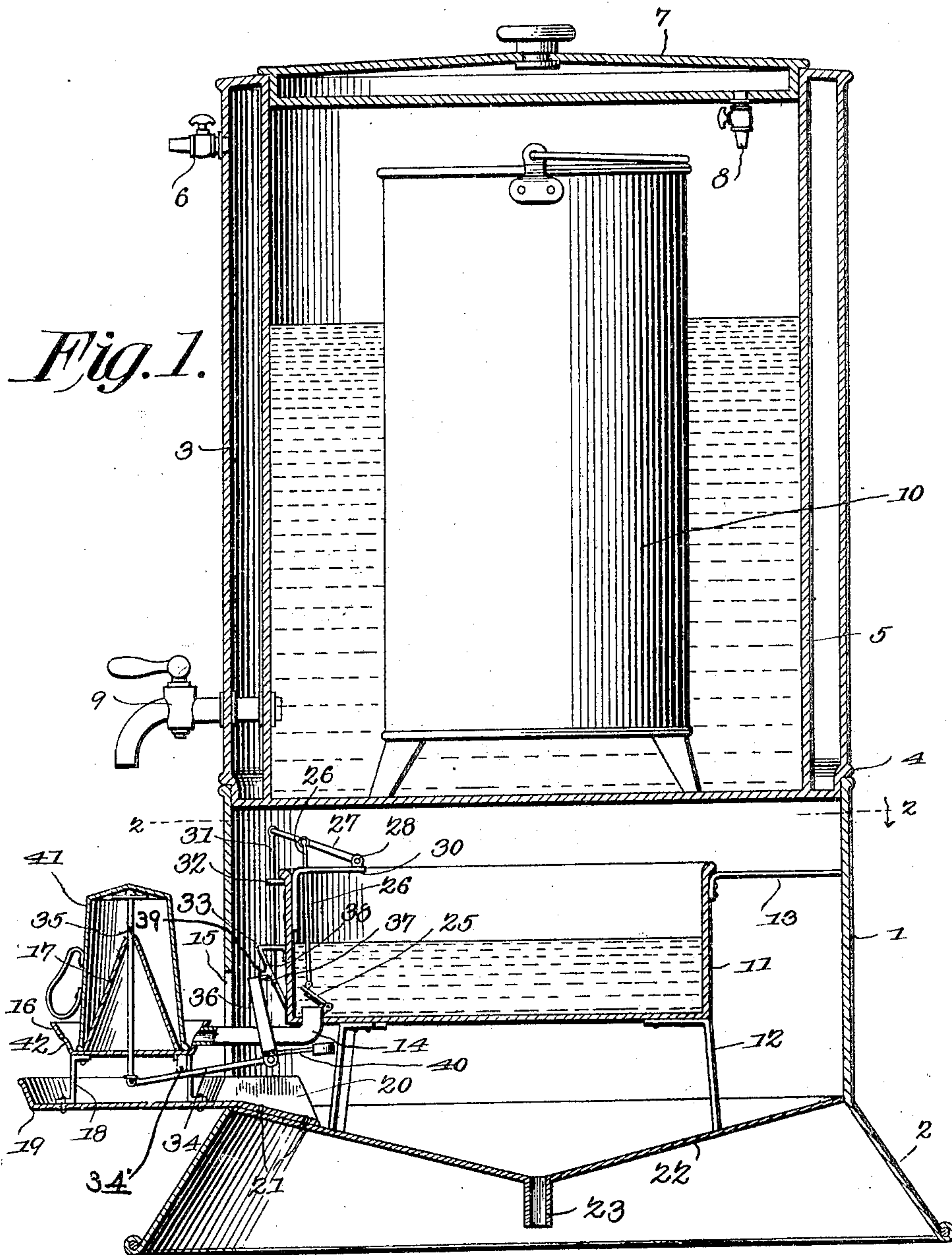


No. 807,468.

PATENTED DEC. 19, 1905.

F. S. HUNTER.
SANITARY DRINKING APPARATUS.
APPLICATION FILED DEC. 3, 1904.

2 SHEETS—SHEET 1.



Freeman S. Hunter;
Inventor

Witnesses
E. J. Stewart
H. A. Shepard

by *C. A. Snow & Co.*
Attorneys

No. 807,468.

PATENTED DEC. 19, 1905.

F. S. HUNTER.
SANITARY DRINKING APPARATUS.
APPLICATION FILED DEC. 3, 1904.

2 SHEETS—SHEET 2.

Fig. 2.

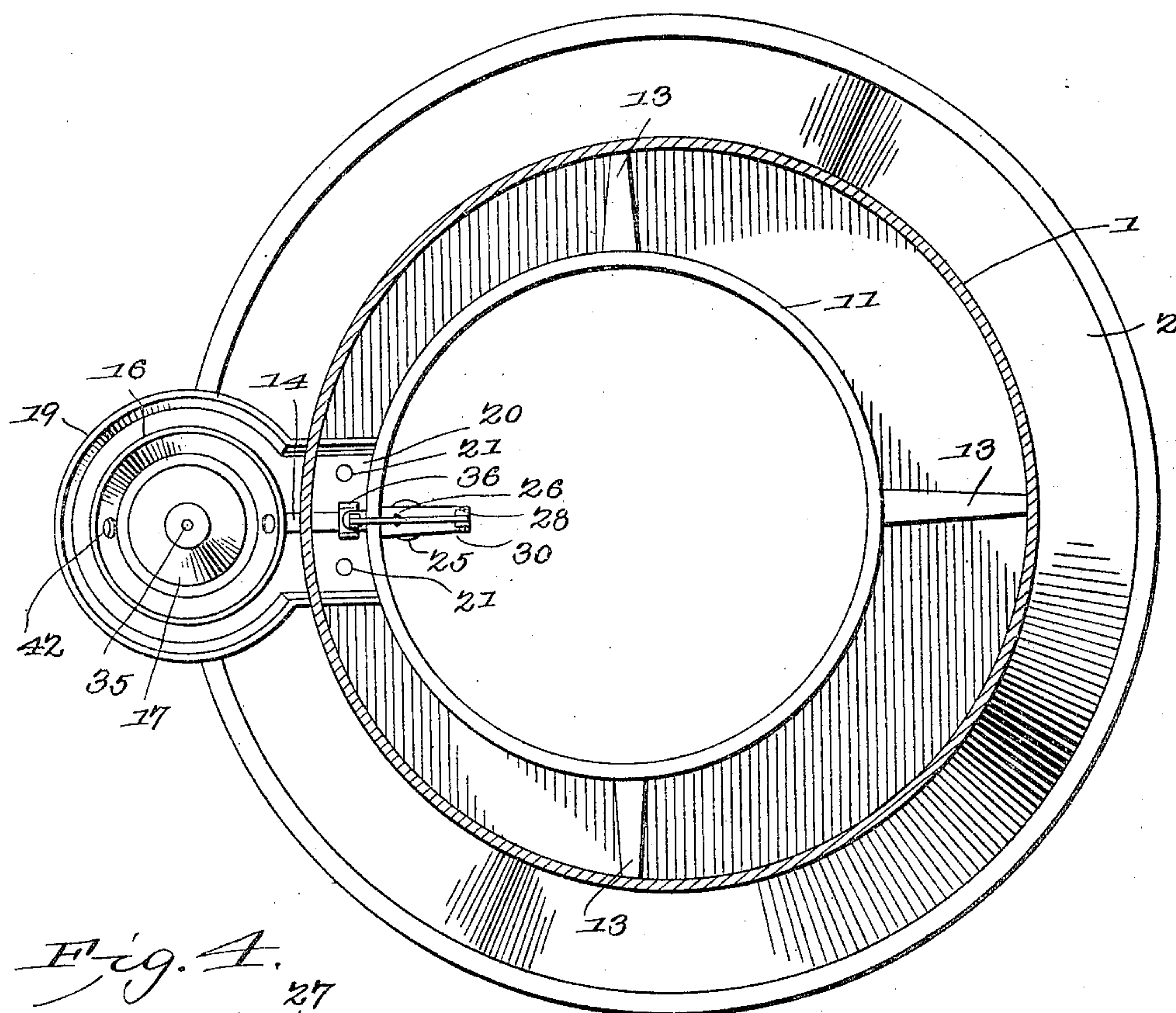


Fig. 4.

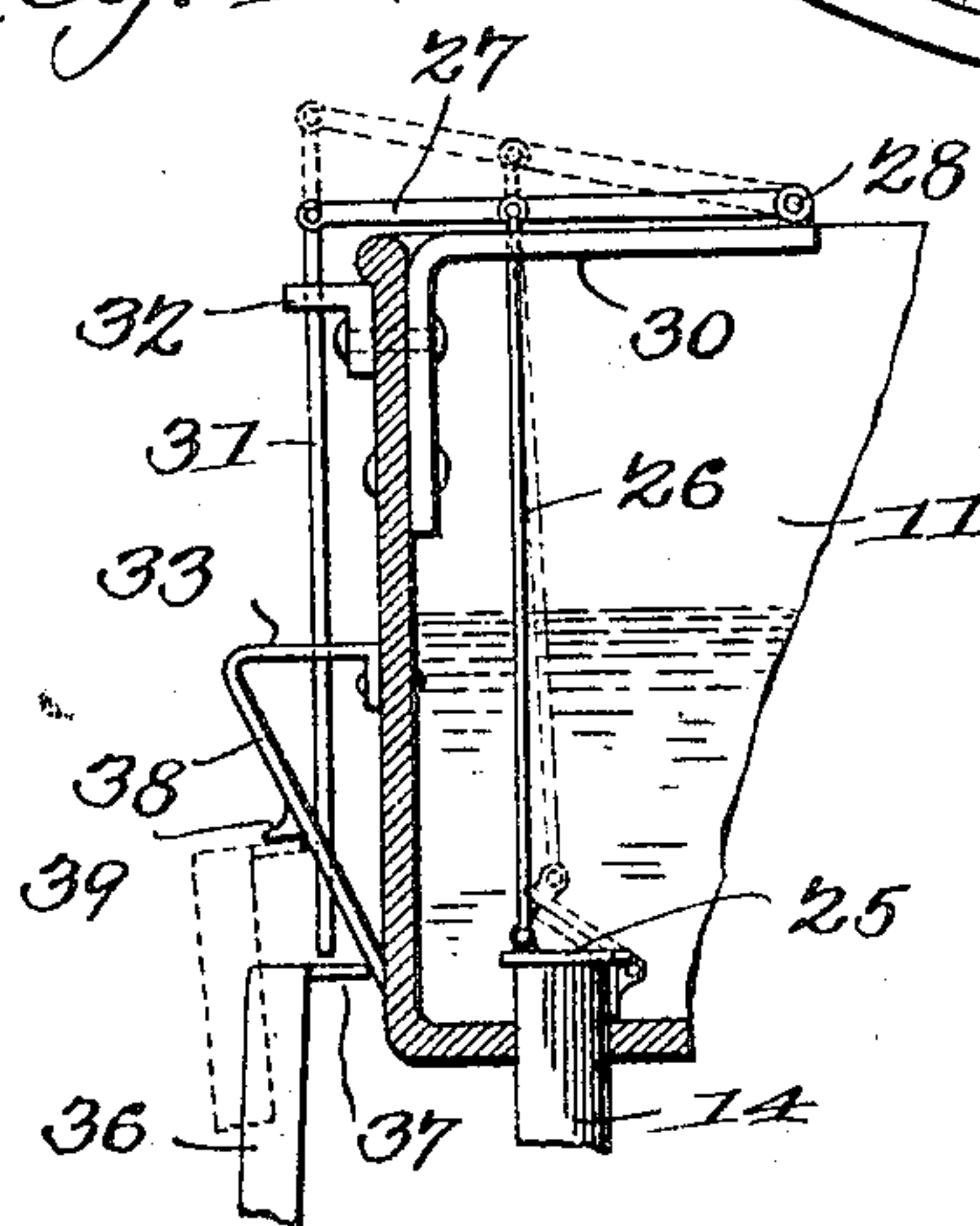
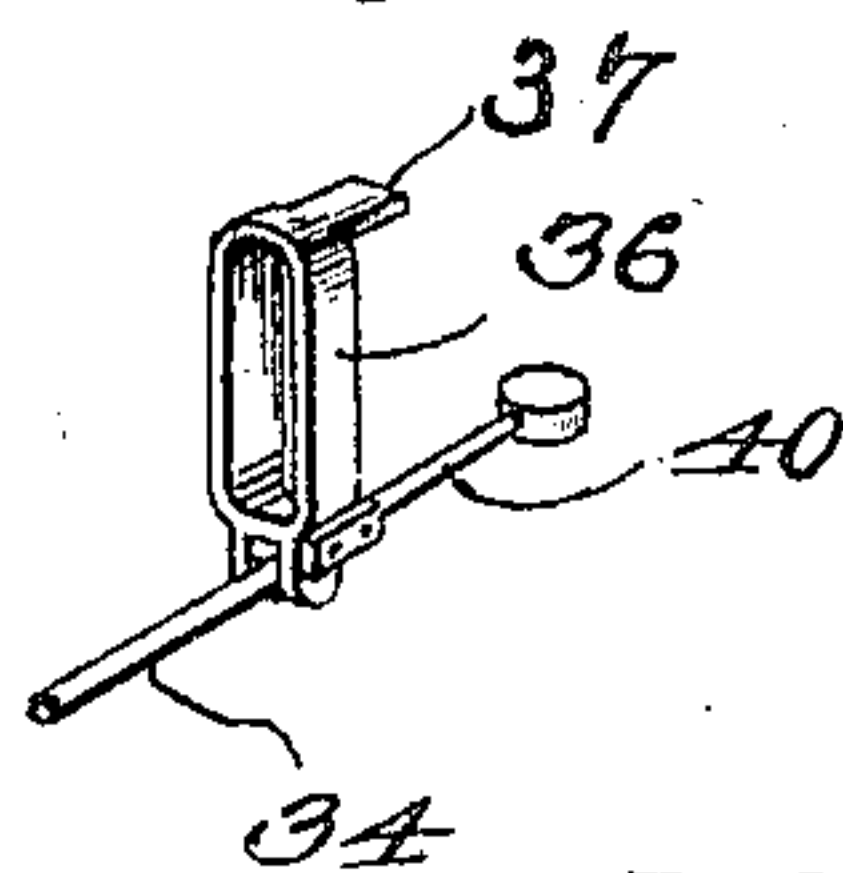


Fig. 3.



Witnesses
E. J. Stewart
H. J. Shepard

Freeman S. Hunter
Inventor
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

FREEMAN S. HUNTER, OF BEDFORD, INDIANA.

SANITARY DRINKING APPARATUS.

No. 807,468.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed December 3, 1904. Serial No. 235,402.

To all whom it may concern:

Be it known that I, FREEMAN S. HUNTER, a citizen of the United States, residing at Bedford, in the county of Lawrence and State of Indiana, have invented a new and useful Sanitary Drinking Apparatus, of which the following is a specification.

This invention relates to disinfecting apparatus, and while capable of general application is particularly designed for disinfecting the drinking-cups of drinking-fountains. In this connection it is proposed to effect the disinfecting of the cup by placing the same upon a holder preparatory to drawing water in the cup from the water-tank of the fountain. I prefer a liquid disinfectant and carry the same in a suitable receptacle contained within the fountain entirely independent of the drinking-water.

It is furthermore designed to arrange the cup-holder so as to prevent the support of a cup therein bottom downward, and thereby to compel the placing of the cup mouth downward in order that the liquid disinfectant may be applied directly to the mouth or rim of the cup, which is the only part thereof that requires disinfecting.

Another object of the invention is to effect the supply of disinfectant to the holder only when the latter is occupied by a cup and to automatically cut off the supply when the cup is removed from the holder, thereby to avoid waste of the disinfectant when not required for application to a cup.

Another object of the invention is to carry off the disinfectant from the holder after it has been applied to a cup.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a drinking-fountain equipped with the present disinfecting apparatus. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of a portion of the disinfecting apparatus. Fig. 4 is an enlarged

detail sectional elevation of a portion of the mechanism for tripping the valve of the disinfectant-tank.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The drinking-fountain to which the present apparatus is applied comprises a hollow base 1, preferably cylindrical in shape, which is open at its top and closed at its bottom and provided with a flared peripheral flange 2 at the bottom thereof to maintain the closed bottom of the base at a suitable distance above the support upon which the device rests. Upon the base is the water-tank 3, which is slightly reduced at its lower end, so as to fit within the open top of the base and to produce an external annular flange 4 to rest upon the top of the base, and thereby support the tank. This tank is provided with an inner shell 5, which is spaced from the outer shell of the tank and is provided with a valve-coupling 6, whereby the air may be exhausted from between the two shells, thereby to avoid the use of a non-conducting packing between the shells. A hollow cover 7 is provided for the top of the tank, and this cover has a valve-coupling 8, whereby the air may be exhausted from the interior of the cover. A suitable faucet or stop-cock 9 pierces the two shells near the bottom of the water-tank, so as to be in communication with the interior thereof. The drinking-water is contained within the tank 3 and is drawn off through the faucet 9. Instead of having the ice come in direct contact with the drinking-water it is preferred to employ an ice-receptacle 10, which contains the ice and maintains the same out of contact with the drinking-water, while at the same time the latter is effectually cooled.

Within the hollow base 1 there is a pan or receptacle 11, supported upon suitable legs 12 and maintained in a rigid condition by means of spacing-arms 13, carried by the tank and engaging the walls of the base. This pan or receptacle is designed to contain a liquid disinfectant, which is carried off therefrom by an outlet-spout 14, which pierces the bottom of the receptacle and passes laterally outward through an opening 15 in the front of the base below and in substantially vertical alinement with the faucet 9. The outer end of the outlet-spout 14 is in communication with a dished cup-sup-

port 16, having a conical projection 17 rising from the bottom thereof to a suitable distance above the top of the support. Suitable legs 18 depend from the bottom of the support and rest within a drip-pan 19, having a laterally-extended spout portion 20, which is projected into the opening 15 in the base 1 and is secured to the bottom of the latter by suitable fastenings 21. It will here be noted
 10 that the bottom 22 of the base 1 is dished and at its lowermost point is provided with a discharge-spout 23, to which it is proposed to connect a pipe for carrying off the disinfectant which has been used upon the drinking-cup.

15 For controlling the supply of liquid disinfectant to the discharge-spout 14 the inner end of the latter is provided with a valve 25, from which rises a valve-rod 26, pivotally connected at its upper end to an intermediate portion of a vertically-swinging lever 27, which is fulcrumed at 28 upon the inner end of an angle-bracket 30, carried by the inner side of the disinfectant-pan 11. The lever 27 projects across the rim of the pan 11
 25 and is provided with a pendent rod 31, working in suitable guides 32 and 33, carried by the exterior of the pan 11. Below the discharge-spout 14 there is a vertically-swinging lever 34, fulcrumed intermediate of its ends, as at 34', upon the bottom of the cup-support 16, its outer end being pivotally connected to an upright endwise-movable trip-rod 35, which pierces the top of the conical projection 17, the opposite end of the
 35 lever being pivotally connected to a slotted lifting-arm 36, which straddles the discharge-spout 14 and is provided upon its upper end with a lateral projection 37. This projection 37 normally lies below the lower end of
 40 the rod 31, and in the upward path of the projection 37 is an upwardly and outwardly inclined cam or guide member 38, connected at its lower end to the pan or receptacle 11 and at its upper end to the outer end of the
 45 bracket 33. A stop-shoulder 39 is carried by the cam or inclined guide 38 in the path of the projection 37 to limit the upward movement of the lifting-arm 36. A weighted arm 40 is carried by the lifting-arm 36 and tends
 50 to swing the lifting-arm upon its pivotal connection with the lever 34 toward the pan 11.

Prior to taking a drink the cup 41, which may or may not be connected to the fountain by a chain, is inverted and placed
 55 mouth downward in the cup-holder 16, whereby the bottom of the cup engages the upper end of the trip-rod 35 and depresses the same, thereby rocking the lever 34, and consequently elevating the lifting-arm 36, the
 60 projection 37 of which engages the lower end of the rod 31 and elevates the latter and opens the valve 25 through the medium of the lever 27 and the connecting-rod 26. During the upward movement of the lifting-arm 36
 65 the projection 37 travels against the inclined

guide 38, whereby the projection 37 is eventually shifted past, and thereby tripped from the rod 31, whereupon the valve 25 gravitates to its closed position. The upward movement of the lifting-arm 36 is stopped when the projection 37 contacts with the stop-shoulder 39
 70 and remains in its elevated position so long as the cup 41 remains upon the cup-holder. When the cup is removed from the holder, the excessive weight of the lifting-arm and the
 75 weighted arm 40 will reverse the movement of the lever 34, thereby elevating the rod 35 and depressing the lifting-arm 36, which is maintained in frictional engagement with the guide 38 by the weighted arm 40. It
 80 will now be understood that when the valve 25 is open the liquid disinfectant passes out through the passage 14 and into the cup-holder 16 and around the mouth or rim of the cup, thereby effectually disinfecting the rim
 85 of the cup. After the liquid disinfectant encircles the rim of the cup it passes out through the opening 42 in the cup-holder 16 and escapes into the drip-pan 19, from which it passes outwardly through the spout 20
 90 into the dished bottom of the base 1 and thence out through the outlet 23 and is carried off to any remote point by means of suitable piping. (Not shown.) It will here be explained that the liquid disinfectant is
 95 supplied to the cup-holder only so long as the valve 25 is open, and the open period of the valve is determined by the length of time it takes the lifting-arm 36 to pass upwardly and disengage the rod 31, as the valve auto-
 100 matically gravitates to a closed position as soon as the projection 37 trips from the rod 31. This is an important feature of the present device in that it prevents an excessive supply of the liquid disinfectant and prevents
 105 overflowing of the cup-holder 16.

It will here be explained that the purpose of the conical projection 17, rising from the bottom of the cup-holder, is to prevent the cup from being placed in the holder bottom
 110 downward, whereby the cup must of necessity be placed mouth downward upon the holder, thereby insuring the effective disinfecting of the rim or mouth thereof, which renders the present drinking-fountain sanitary
 115 so far as the drinking-cup is concerned.

By locating the disinfectant-pan 11 and the greater portion of the valve-actuating means within the hollow base of the drinking-fountain these parts are effectually
 120 housed, while at the same time access may be conveniently had thereto by removing the water-tank 3 from the base.

Having fully described the invention, what is claimed is—
 125

1. A disinfecting apparatus comprising a support for the member to be disinfected, a disinfectant-receptacle, a passage leading from the receptacle to the support, a valve for the passage, a lever fulcrumed upon the
 130

receptacle, a rod connecting the lever and the valve, a push-rod hung from the lever, another lever fulcrumed intermediate of its ends beneath the support, a lifting-arm carried by said lever and adapted to engage the push-rod, and a trip-rod connected to the last-mentioned lever and piercing the bottom of the support into position for engagement by a member being placed upon the support.

2. A disinfecting apparatus comprising a support for the member to be disinfected, a disinfectant-receptacle, a passage leading from the receptacle to the support, a valve for the inner end of the passage, a bracket extending into the receptacle, a lever fulcrumed upon the bracket and projected externally of the receptacle, a rod connecting the lever and the valve, guides upon the exterior of the receptacle, a push-rod hung from the lever and working in the guides, a second lever fulcrumed intermediate of its ends upon the bottom of the support, a lifting-arm carried by said lever and adapted to engage the push-rod, and a trip-rod connected to the second-mentioned lever and rising through the bottom of the support.

3. A disinfecting apparatus comprising a cup-holder, a disinfectant-receptacle, a passage communicating from the receptacle to the cup-holder, a normally closed valve for the passage, and means controlled by the placing of a cup upon the cup-holder to open the valve, said means including mechanism to permit the closing of the valve after a predetermined period.

4. A disinfecting apparatus comprising a cup-holder, a disinfectant-receptacle, a passage communicating between the receptacle and the cup-holder, a normally closed valve for the passage, and trip mechanism extending from the cup-holder to the valve for opening the latter when the cup is placed upon the cup-holder, said mechanism including means to permit closing of the valve after a predetermined period.

5. A disinfecting apparatus comprising a cup-support, a disinfectant-receptacle, a passage communicating from the receptacle to the cup-support, a normally closed valve for the passage, a lever, a trip device connected to the lever and lying in the path of a cup to be placed upon the support, a lifting-arm pivotally connected to the lever, an endwise-movable rod connected to the valve and in the path of the lifting-arm, and means to automatically shift the lifting-arm upon its pivotal support during its upward movement to

disengage the same from the endwise-movable rod and permit the closing of the valve.

6. A disinfecting apparatus comprising a cup-support, a disinfectant-tank having a passage communicating with the support, a valve for the passage, a lever, a trip-rod connected to the lever and disposed in the path of a cup to be placed upon the support, a lifting-arm pivotally supported upon the lever, an endwise-movable rod connected to the valve and lying in the path of the lifting-arm, and a cam-guide located in the path of said arm to shift the same upon its pivotal support and disengage the lifting-arm from the rod.

7. A disinfecting apparatus comprising a cup-holder, a disinfectant-receptacle, a passage leading from the receptacle to the holder, a normally closed valve at the inner end of the passage, an endwise-movable trip-rod piercing the bottom of the holder, an intermediately-fulcrumed lever connected to the trip-rod, an upstanding lifting-arm pivotally supported upon the lever, a lever fulcrumed upon the disinfectant-tank, a rod connecting said lever and the valve, a trip-rod depending from the lever with its lower end in the upper path of the lifting-arm, and an upwardly and outwardly inclined guide carried by the tank in the path of the upper end of the lifting-arm to shift the latter upon its pivotal support and disengage the same from the trip-rod to permit gravitation of the valve to its closed position.

8. A disinfecting apparatus comprising a support for the member to be disinfected, a disinfectant-receptacle, a passage forming a source of communication between the receptacle and the support, a valve for normally closing the passage, a lever fulcrumed intermediate of its ends beneath the support, a trip-rod between the lever and the valve for opening the latter, a trip piercing the holder and connected to the lever with its opposite end in the path of a member which is being placed upon the support, a weighted lifting-arm carried by the lever and adapted to engage the trip-rod, and an inclined guide member secured to the receptacle and adapted to engage the lifting-arm to thereby permit the valve to return to closed position.

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

FREEMAN S. HUNTER.

Witnesses:

J. W. TRAINOR,
H. G. WITHERS.