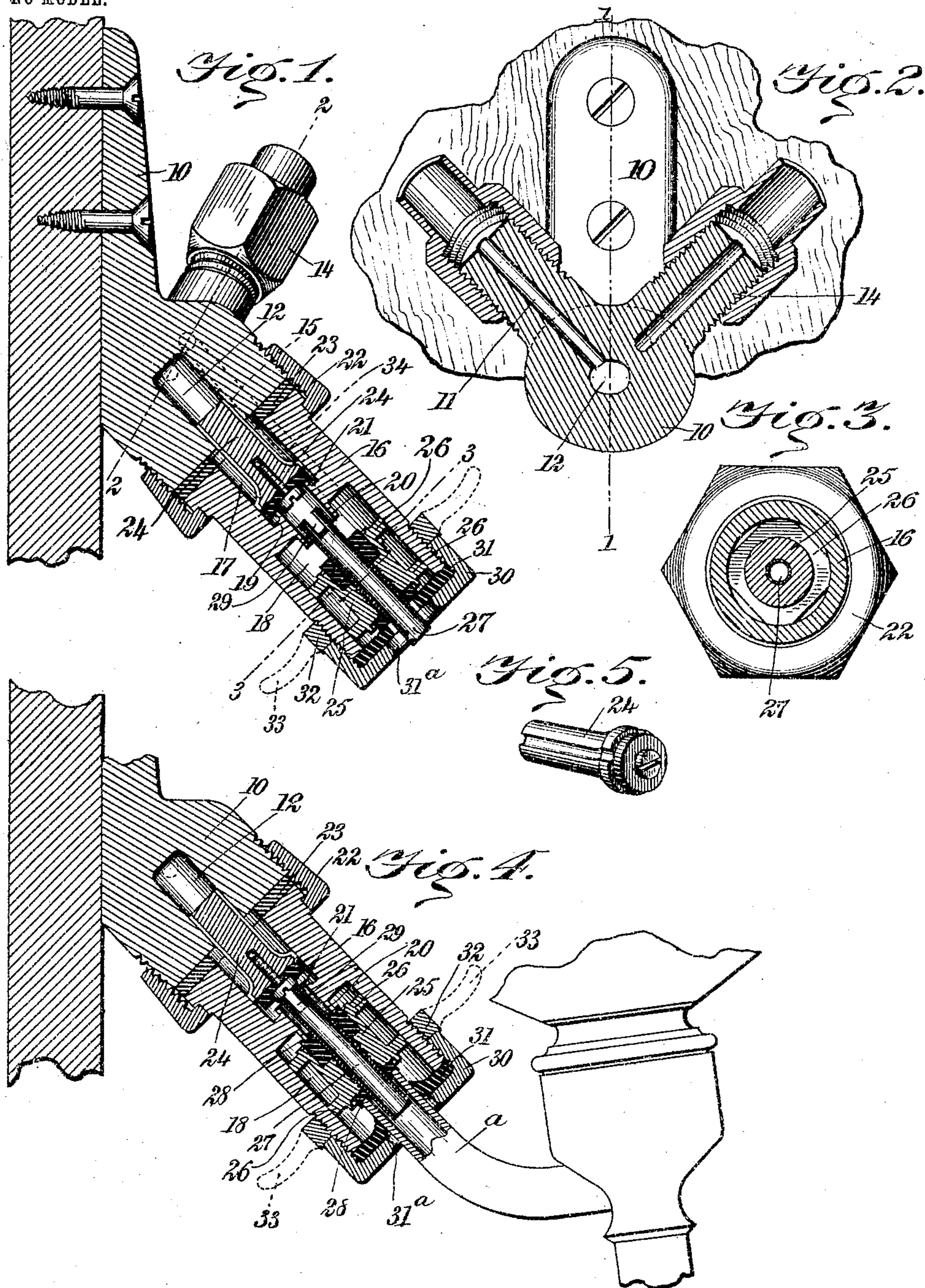


No. 774,792.

PATENTED NOV. 15, 1904.

L. P. SETZLER.
SIPHON FILLING APPARATUS.
APPLICATION FILED SEPT. 8, 1903.

NO MODEL.



WITNESSES:

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LOUIS PHILIP SETZLER, OF KANSAS CITY, MISSOURI.

SIPHON-FILLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 774,792, dated November 15, 1904.

Application filed September 8, 1903. Serial No. 172,294. (No model.)

To all whom it may concern:

Be it known that I, LOUIS PHILIP SETZLER, a citizen of the United States, and a resident of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Siphon-Filling Apparatus, of which the following is a full, clear, and exact description.

This invention relates to an improvement over the construction shown in my patent on siphon-filling apparatus, No. 725,494, dated April 14, 1903; and the object of the present invention is to simplify and strengthen the parts of the device, and yet to secure the same advantageous results as are attained by the prior construction referred to.

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

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 views.

Figure 1 is a sectional view of the device on the line 1 1 of Fig. 2. Fig. 2 is a sectional elevation thereof on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a section similar to that of Fig. 1, the parts being shown in Fig. 4 in the position which they assume when the siphon is being filled; and Fig. 5 is a detail of one of the valves.

The device is constructed with a suitable body 10 in the form of a bracket adapted to be fastened to a support. A connection 11 leads to a chamber 12 in the body of the device. This connection 11 is adapted to lead the carbonated liquid from the source of supply. A second connection, 14, leads from the duct 15 in the body and is adapted to carry off the "sniff" and excess gases, as will be hereinafter fully described.

16 indicates the barrel of the device, which has formed therein two chambers 17 and 18, divided by a centrally-orificed partition 19, having bosses 20 and 21 projected, respectively, into the chambers 18 and 17. The elements 10 and 16 may be connected by any suitable means—for example, by a collar 22 and a packing-gasket 23, which latter insures

hermeticity. Within the chamber 17 of the barrel 16 is arranged a check-valve 24, the grooved stem of which fits within the cavity 12 of the body 10, thus guiding the valve in its movement toward and from the boss 21, but at the same time allowing free passage of the liquid between the stem and the walls of the cavity 12. The boss 21, coacting with a suitable gasket on the valve 24, forms the valve-seat, and this valve when seated acts to prevent the passage of fluid from the chamber 17 to the chamber 18.

In the cavity 18 a slide 25 is arranged to move longitudinally of the barrel 16. Said slide has at each end flanges 26, which engage the inner walls of the cavity 18 to guide the slide, but which are at certain points cut away or out of contact with said walls at 26^a, so as to permit a free movement of the fluid past the slide and its flanges. The slide is provided with a tube 27, which passes longitudinally through it and projects beyond its respective ends, and at each end of the slide a gasket 28, of rubber or the like, is arranged, these gaskets surrounding the tube 27. The inner end of the tube 27 is notched, as indicated at 29, so that when said tube is engaged with the outer end of the valve 24, as shown in Fig. 4, the inner end of the tube will not be closed by said valve. It will also be observed that when the slide 25 is in the position shown in Fig. 4 the inner gasket 28 is in engagement with the boss 20, thus sealing communication between the chambers 17 and 18. When the siphon-nozzle *a* is withdrawn, this gasket 28 acts as a spring to start the outward movement of the slide 25. The outer end of the chamber 18 is closed by a cap 30, and a gasket 31, held between the parts 16 and 30, effects hermetic connection. Said cap 30 is formed with a central orifice 31^a to receive the nozzle (indicated at *a*) of the siphon, and the gasket 31 acts also to tightly engage the sides of the nozzle to prevent leakage between the walls of the orifice 31^a and the nozzle. The cap 30 may be held securely in position by a lock-ring 32, and this ring is preferably provided with finger-holds projecting therefrom, as indicated by the broken lines in Figs. 1 and 4, such finger-holds serving not only to facilitate the manipu-

lation of the ring 32, but also to facilitate engaging the nozzle of the siphon with the filling apparatus, as will be understood. The barrel 16 is formed with a longitudinally-extending duct 34, which passes from the chamber 18 inward to the free end of the barrel and is in communication with the duct 15, so that these ducts 15 and 34 form a continuous passage from the chamber 18 to the chamber 14.

In the use of the invention the pressure communicated to the chamber 12 from the connection 11 causes the valve 24 to be normally seated, and communication between the chambers 17 and 18 is thereby closed. Upon the insertion of the siphon-nozzle into the orifice 31^a said nozzle engages the outer gasket 28 and pushes the slide 21 into the position shown in Fig. 4, whereupon the notched inner end 29 of the tube 27 strikes the valve 24 and throws the same into the open position. (Shown in Fig. 4.) The liquid is then free to pass from the chambers 12 and 17 into and through the tube 27 into the nozzle *a*. The inner gasket 28, engaged with the boss 20, prevents leakage into the chamber 18, and the outer gasket 28, engaged with the nozzle *a*, prevents leakage past the end of the nozzle. When the siphon has been filled, the nozzle should be partly withdrawn, thus allowing the valve 24 to return to its seat and disengaging the inner gasket from the boss 20. The sniff may then pass from the nozzle *a* through the tube 27 and into the chamber 18, at the inner side of the slide 25, and thence outward through the ducts 34 and 15 to the connection 14, which may lead to any desired point. The excess gases from the siphon-nozzle may also escape in this manner, and, further, should any of them leak past the end of the nozzle *a*, such gases will pass by the flanges 26 and escape through the ducts 34 and 15, as before described. After a pause on the part of the operator sufficient to allow this escape of the excess liquid and gas the siphon may be completely withdrawn from the filling apparatus, and the operation will then be complete.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the intent of my claims.

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

1. A siphon-filling apparatus, comprising a barrel having two chambers therein, one of which is in communication with the source of liquid-supply, a duct leading outward from the other chamber, a valve mounted in the first chamber and controlling communication between the two, and a slide provided with flanges having portions cut away and engaging the outer walls of the second chamber and having a tubular passage through it, said slide serving to actuate the valve.

2. A siphon-filling apparatus, comprising a barrel having two chambers therein, one of which is in communication with the source of liquid-supply, a duct leading outward from the other chamber, a valve mounted in the first chamber and controlling communication between the two, and a slide provided with flanges having portions cut away and engaging the outer walls of the second chamber and having a tubular passage through it, said slide serving to actuate the valve, the slide also permitting the movement of fluid past the side thereof.

3. A siphon-filling apparatus, comprising a body provided with a passage terminating in an escape connection, a barrel mounted thereon having a passage opening into the body-passage and also having two chambers, one of said chambers being connected with the source of supply and the other communicating with the escape connection through the barrel and body passages, and valve mechanism within the chambers.

4. A siphon-filling apparatus, comprising a barrel having two chambers therein, one of which is in communication with the source of liquid-supply, a valve mounted in the first chamber and controlling communication between the two, and a slide provided with flanges having cut-away portions and engaging the inner walls of the second chamber, said slide having a tubular passage through it, said slide serving to actuate the valve.

5. A siphon-filling apparatus, comprising a barrel having two chambers therein, one of which is in communication with the source of liquid-supply, a grooved valve mounted in the first chamber and controlling communication between the two, and a slide provided with flanges having cut-away portions and engaging the inner walls of the second chamber, said slide having a tubular passage through it, said slide serving to actuate the valve.

6. A siphon-filling apparatus, comprising a barrel having two communicating chambers therein, one of said chambers being in communication with a source of liquid-supply, a valve located in said chamber and controlling said communication, and a slide located in the other chamber and adapted to operate the valve, said slide being capable upon moving into valve-operating position, of closing communication between the two chambers, and the slide having a passage through it, the barrel having a duct forming a by-pass leading from the second-named or slide-containing passage, and the slide permitting the movement of fluid through the second passage past the slide.

7. A siphon-filling apparatus, comprising a barrel having two passages therein, the passages being in communication with each other, one of said passages being in communication with the source of liquid-supply, a valve mounted in said passage and normally closing

the communication between the two passages,
a slide mounted in the other passage, and a
tube extending through and projecting from
the slide and adapted to operate the valve,
5 said valve being capable upon moving into
valve-operating position, of closing commu-
nication between the two passages, the barrel
having a duct forming a by-pass leading from
the second-named or slide-containing passage,

and the slide permitting the movement of fluid 10
through the second passage past the slide.

In testimony whereof I have signed my name
to this specification in the presence of two sub-
scribing witnesses.

LOUIS PHILIP SETZLER.

Witnesses:

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