No. 753,566. PATENTED MAR. 1, 1904.

C. A. GEDDES.

SODA WATER APPARATUS.

APPLICATION FILED MAR. 25, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

fig. 2.

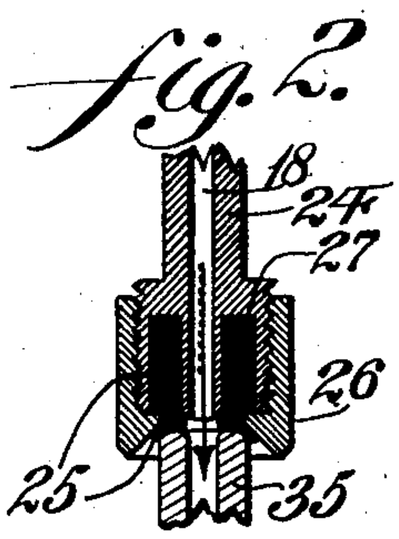

fig. 1.

fig. 3

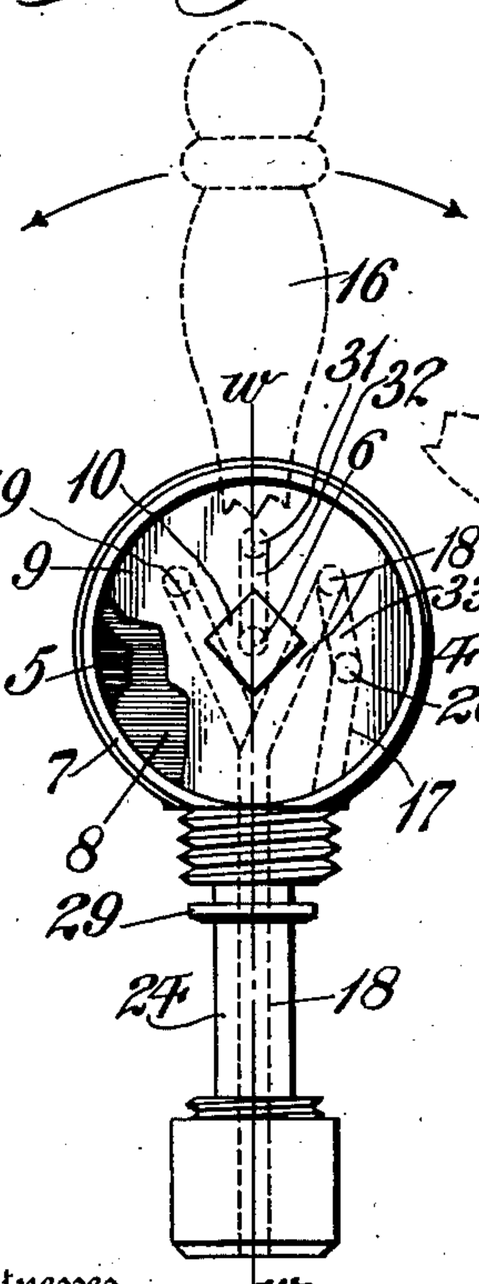

fig. 4.

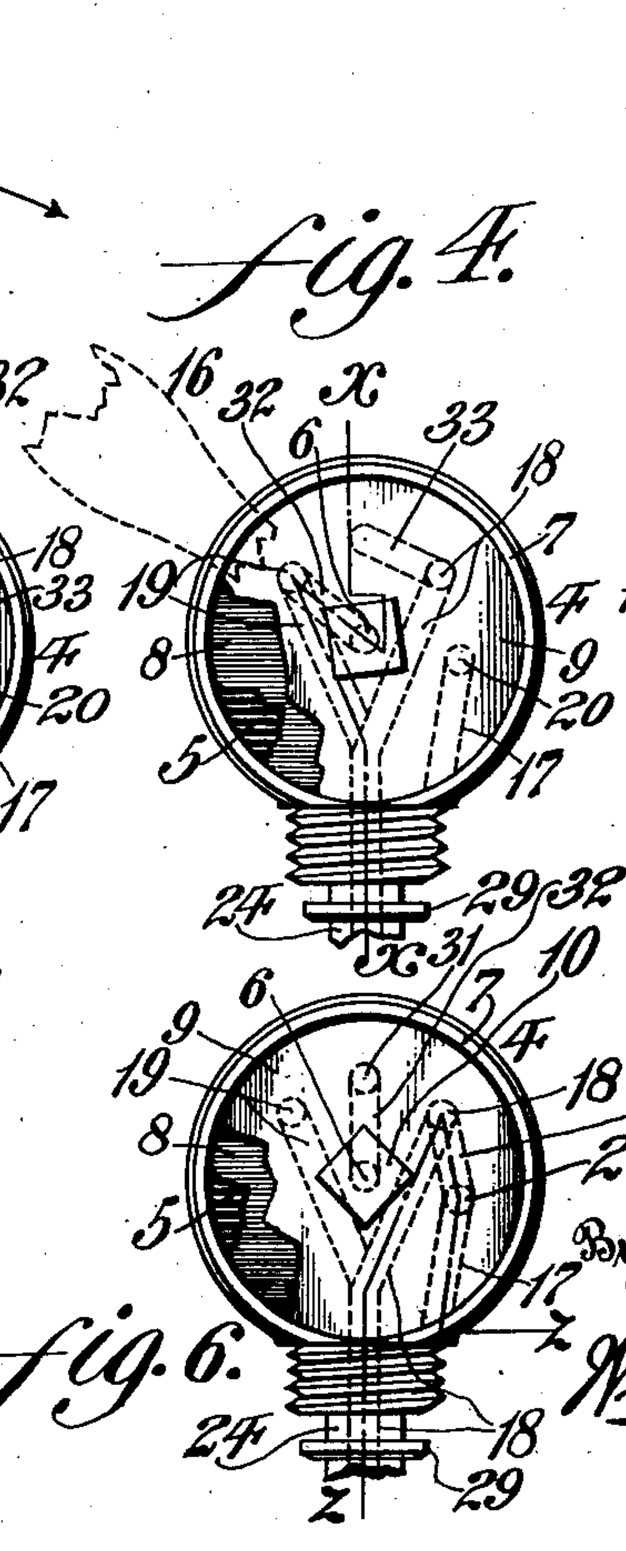

fig. 5.

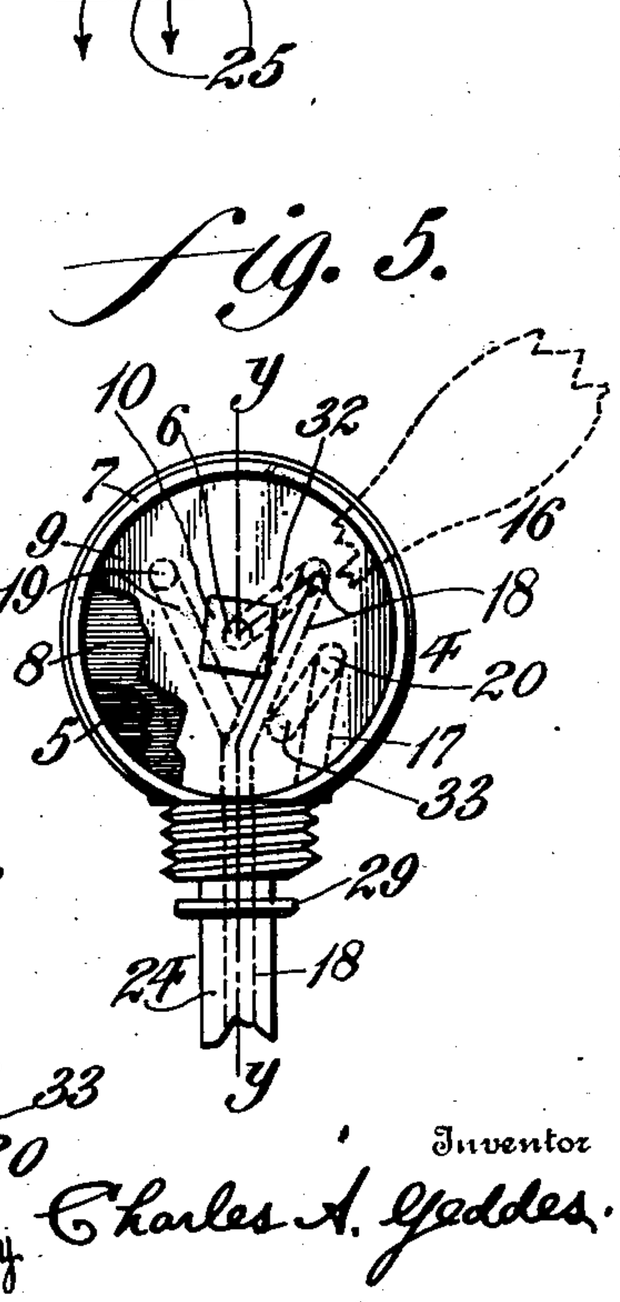

fig. 6.

Witnesses

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SODA WATER APPARATUS.

APPLICATION FILED MAR. 25, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

fig. 7. section on w-w fig. 3.

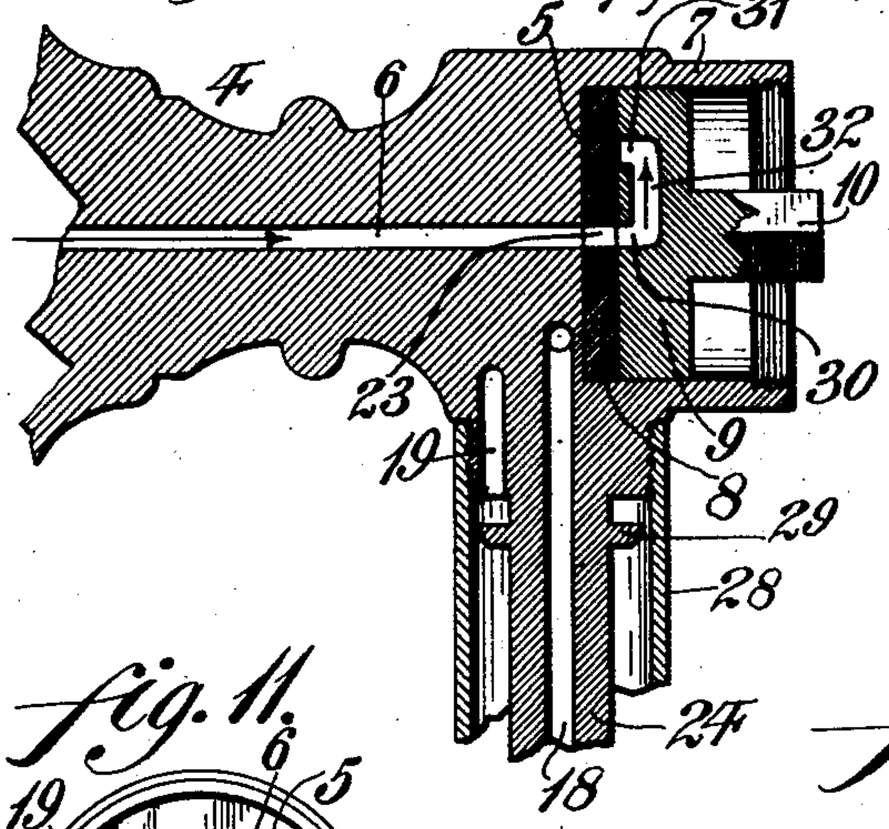

fig. 8. section on x-x fig. 4.

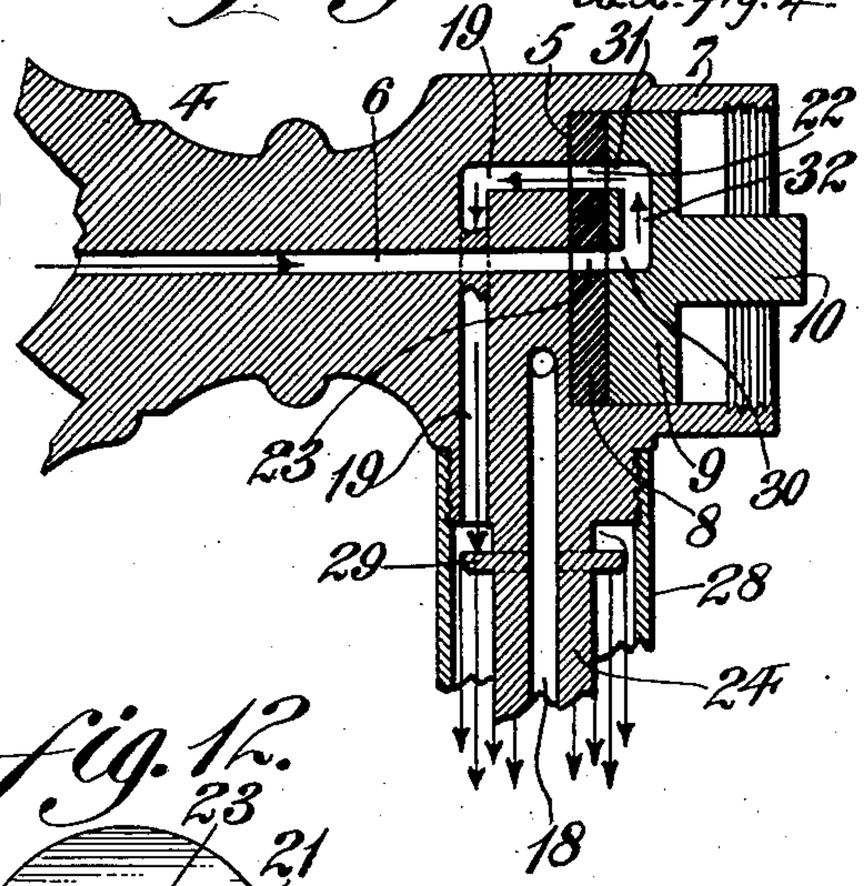

fig. 11.

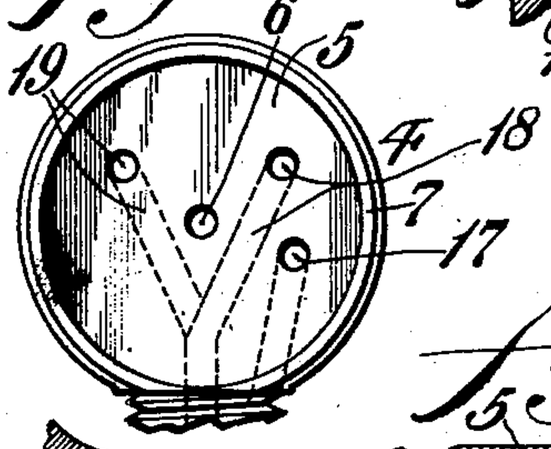

fig. 12.

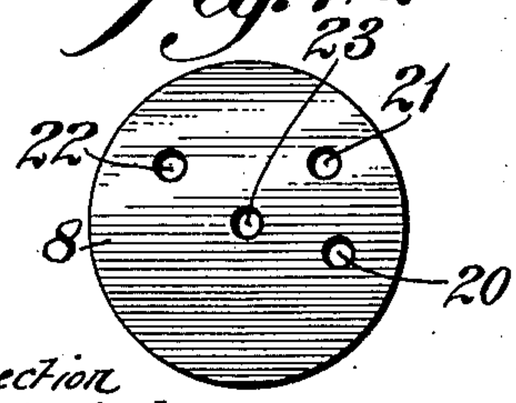

fig. 9. section on y-y fig. 5.

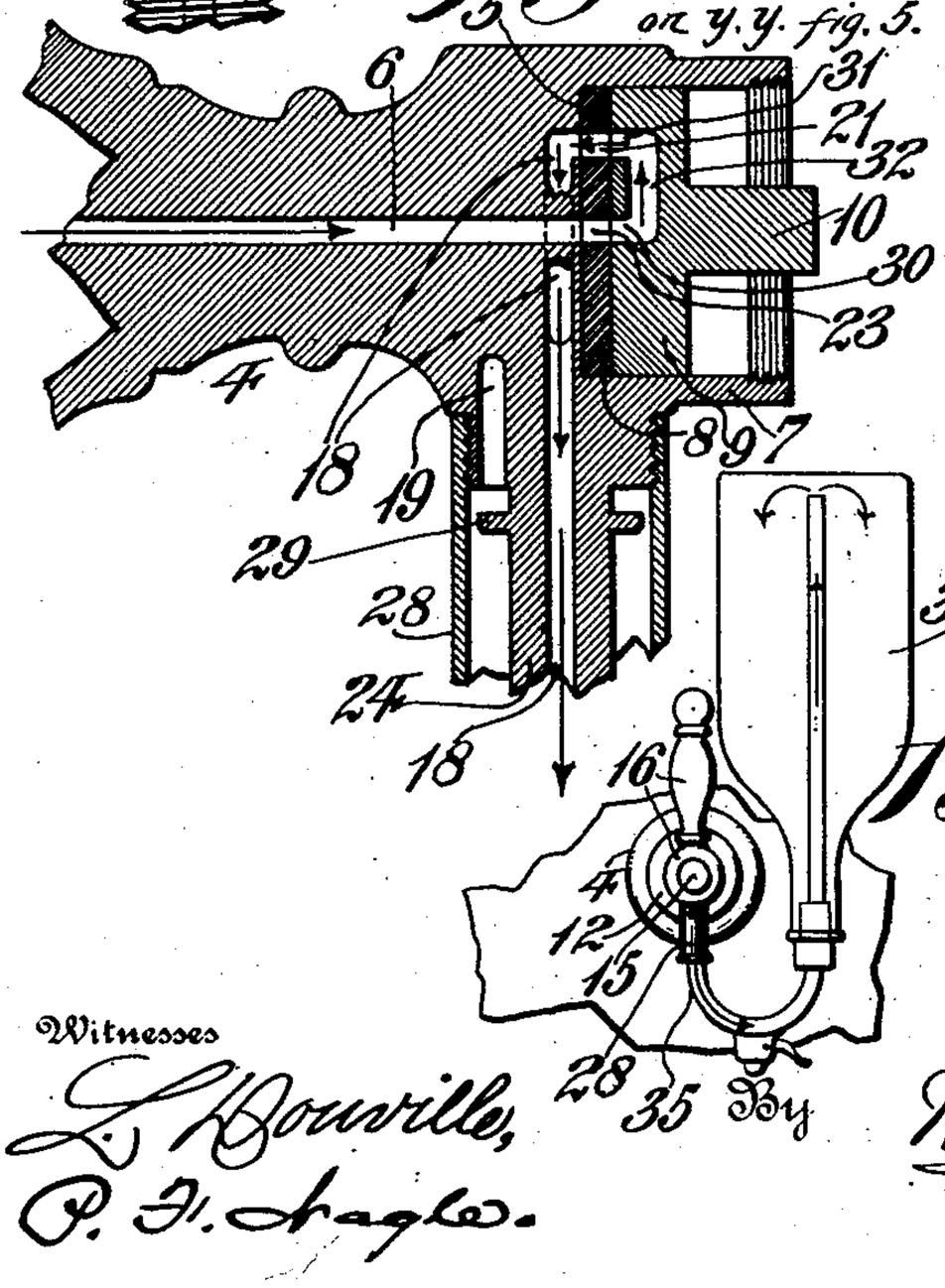

fig. 10. section on z-z fig. 6.

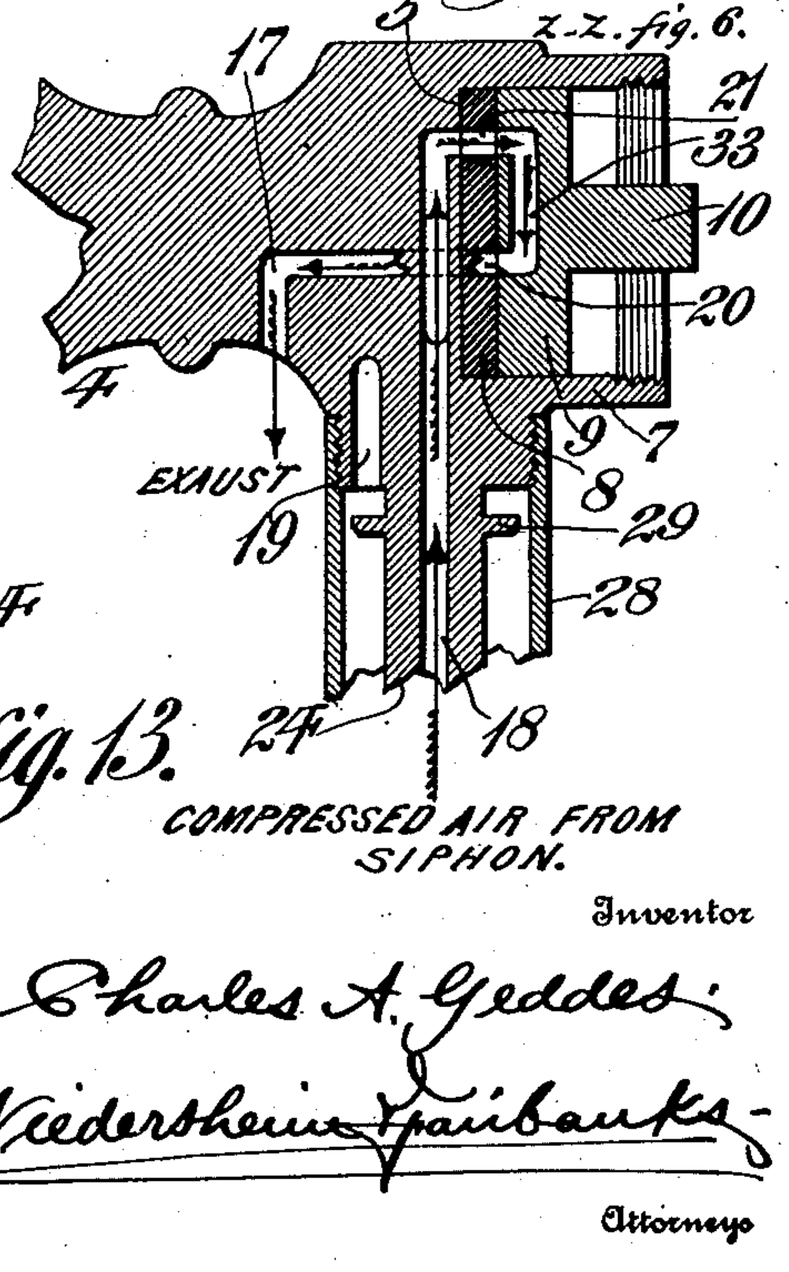

fig. 13.

Witnesses

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No. 753,566. Patented March 1, 1904.

UNITED STATES PATENT OFFICE.

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SODA-WATER APPARATUS.

SPECIFICATION forming part of Letters Patent No. 753,566, dated March 1, 1904.

Application filed March 25, 1903. Serial No. 149,445. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. GEDDES, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Dispensing Apparatus, of which the following is a specification.

My invention has reference to improvements in dispensing apparatus adapted more particularly for dispensing charged liquids, such as carbonated water, although it is understood that it can be used for other purposes.

The invention further consists in the details of construction and combination of parts hereinafter fully described and specifically claimed.

Figure 1 represents a central longitudinal section of a dispensing-faucet constructed in accordance with my invention. Fig. 2 represents a fragmentary view in central section of the nozzle of the faucet with the nozzle of the siphon applied thereto. Figs. 3, 4, 5, and 6 represent front elevations of the faucet with the operating-handles removed and showing the valve in different positions. Fig. 7 represents a section taken on the line *w w*, Fig. 3. Fig. 8 represents a section taken on the line *x x* of Fig. 4. Fig. 9 represents a section taken on the line *y y* of Fig. 5. Fig. 10 represents a section taken on the line *z z* of Fig. 6. Fig. 11 represents a front elevation of the faucet with the handle, valve, and packing-washer removed. Fig. 12 represents a plan of the packing-washer. Fig. 13 represents an elevation of the faucet and the siphon as it is applied to the same when being filled.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the tubular shank of the faucet, which is screw-threaded and provided with a nut 2, by means of which it is secured in place, the shoulder 3 being provided at the front end of said shank. The main body portion 4 of the faucet is provided at its forward end with a flat circular valve-seat 5 concentric with the forward end of the supply-passage 6 of the faucet, said valve-seat being surrounded by a forwardly-projecting annular flange 7 concentric therewith. The valve-seat 5 is covered by a packing-washer 8, upon which rests the rotatable cylindrical valve 9, fitting within the flange 7 and provided with a boss 10, adapted to be engaged by the stem 11, rotatable within the cap 12, the latter screwing into the outer end of the flange 7. The inner end of the stem 11 is provided with a head 13, resting against the inner end of the cap 12, and extending through said stem is an adjusting-screw 14, the inner end of which engages the outer end of the boss 10, while the outer end is provided with a finger-piece 15 for adjusting the same. A handle 16 is fastened to the outer end of the stem 11.

Leading from the valve-seat are three outlet-passages—namely, an exhaust-passage 17, a jet-passage 18, and a diffusing-passage 19—the ports of these passages at the valve-seat being arranged the same distance from the central port at the end of the supply-passage 6.

The packing-washer 8, which covers the valve-seat 5, is provided with the ports 20, 21, 22, and 23, registering with the ports of the ends of said passages 17, 18, 19, and 6, it being understood that said packing-washer 8 is stationary. The exhaust-passage is shown in dotted lines in Figs. 1, 3, 4, 5, 6, and 11 and in full lines in Fig. 10, the outer end of said exhaust-passage 17 communicating with the atmosphere through the body portion 4.

The jet-passage 18 passes through the body portion and centrally through the nozzle 24, depending therefrom, as shown in Fig. 9, the lower end of the nozzle, as best shown in Figs. 1 and 2, being provided with the gasket or washer 25, that is held in place by a screw-threaded collar 26 upon said nozzle, said gasket being situated within a groove 27 in the lower end of the nozzle.

Surrounding the nozzle 24 is an outer nozzle that is formed by a tube 28, conveniently screw-threaded to an enlargement at the upper end of the nozzle 24, the lower end of said outer nozzle 28 extending below the inner nozzle 24, as shown in Fig. 1. The diffusing-passage 19 passes through the body of the faucet, and its outer end terminates at the upper end

of the annular space between said nozzles, a baffle-plate 29 extending outwardly from the inner nozzle just below the outer end of the passage 19 and serving to break up and diffuse the stream projected from this passage.

The valve 9 is provided with a central port 30, that is always in communication with the port 23 and the supply-passage 6. This port 30 communicates with a port 31, situated the same distance therefrom as the distance between the port 23 and the ports 20, 21, and 22 of the packing-washer, so as to establish communication between the supply-passage 6 and the jet-passage 18 or diffusing-passage 19 through the passage 32. Another passage 33 is formed in said valve, the ports of which are situated to communicate with the ports 20 and 21 of the exhaust and jet passages.

The operation is as follows: The parts are shown in their normal positions in Figs. 1, 3, 6, and 7, wherein the outer port 31 of the passage 32 is closed, so as to cut off the outlet from the supply-passage 6. To illustrate the manner in which my device can be used, I will suppose, for instance, that it is used in drawing a glass of soda-water. To do this, the handle 16 is first thrown to the position shown in Figs. 4 and 8, which places the outer port 31 of the passage 32 of the valve 9 in communication with the diffusing-passage 19, leading to the outer nozzle 28. Then the liquid will pass, as shown by the arrows in Fig. 8, and being broken up by the baffle-plate 29 passes from the outer nozzle, as shown. Then to secure a jet to make bead or foam upon the glass the handle 16 is thrown to the position shown in Figs. 5 and 9, which causes the liquid to pass, as shown by the arrows in Fig. 9, so that the liquid is projected into the glass in the form of a jet.

My device is capable, moreover, and can be advantageously employed as a siphon-filler, and when so employed the inner nozzle or jet is used, the siphon 34 being applied as shown in Fig. 13. When being used in this manner, after the nozzle 35 of the siphon is applied to the nozzle 24 of the faucet the handle 16 is turned to the position shown in Figs. 5 and 9. The carbonated liquid from the reservoir then passes into the siphon, and as the latter fills the air therein is compressed, and owing to this compression the siphon cannot be filled to the desired extent. When, however, the pressure in the reservoir and within the siphon equalize, the handle can be thrown to the position shown in Figs. 6 and 10, which places the jet-passage in communication with the exhaust-passage, and thus allows the compressed air within the siphon to escape without removing the siphon, and then by restoring the communication between the jet-passage and the supply-passage the siphon can be further filled, it being obvious that the valve can be manipulated to secure the correct filling.

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

1. In a dispensing apparatus, a supply-passage, a plurality of outlet-passages communicating with nozzles and an outlet-passage communicating with an exhaust-opening, and a rotatable valve adapted to establish communication between said supply-passage and said nozzle-passages and between one of said nozzle-passages and said exhaust-passage.

2. In a dispensing apparatus, a supply-passage, a plurality of outlet-passages, an outer and an inner nozzle communicating with said outlet-passages, an exhaust-passage and a valve adapted to independently establish communication between said supply-passage and said nozzle-passages and between one of said nozzle-passages and said exhaust-passage.

3. In a dispensing apparatus, a body portion having a valve-seat, a supply-passage leading thereto, a plurality of passages leading therefrom and communicating with nozzles, a passage also leading therefrom and communicating with an exhaust, and a valve upon said seat having a plurality of passages adapted to establish communication between said supply-passage and said nozzle-passages, and between one of said nozzle-passages and said exhaust.

4. In a dispensing apparatus, a body portion having a valve-seat, a supply-passage leading thereto, concentric nozzles connected with said body, an exhaust-aperture in said body, passages leading from said valve-seat to each of said nozzles and said exhaust and a valve on said seat adapted to alternatively connect said supply-passage with either of said nozzle-passages and said exhaust-passage with one of said nozzle-passages.

5. In a dispensing apparatus, a body portion having a valve-seat, a longitudinal supply-passage leading to said seat, a plurality of lateral exit-ports, passages leading from said exit-ports to said seat and a rotary valve having passages adapted to alternatively connect two of said exit-ports to said supply-passage and one of said exit-ports to a third.

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