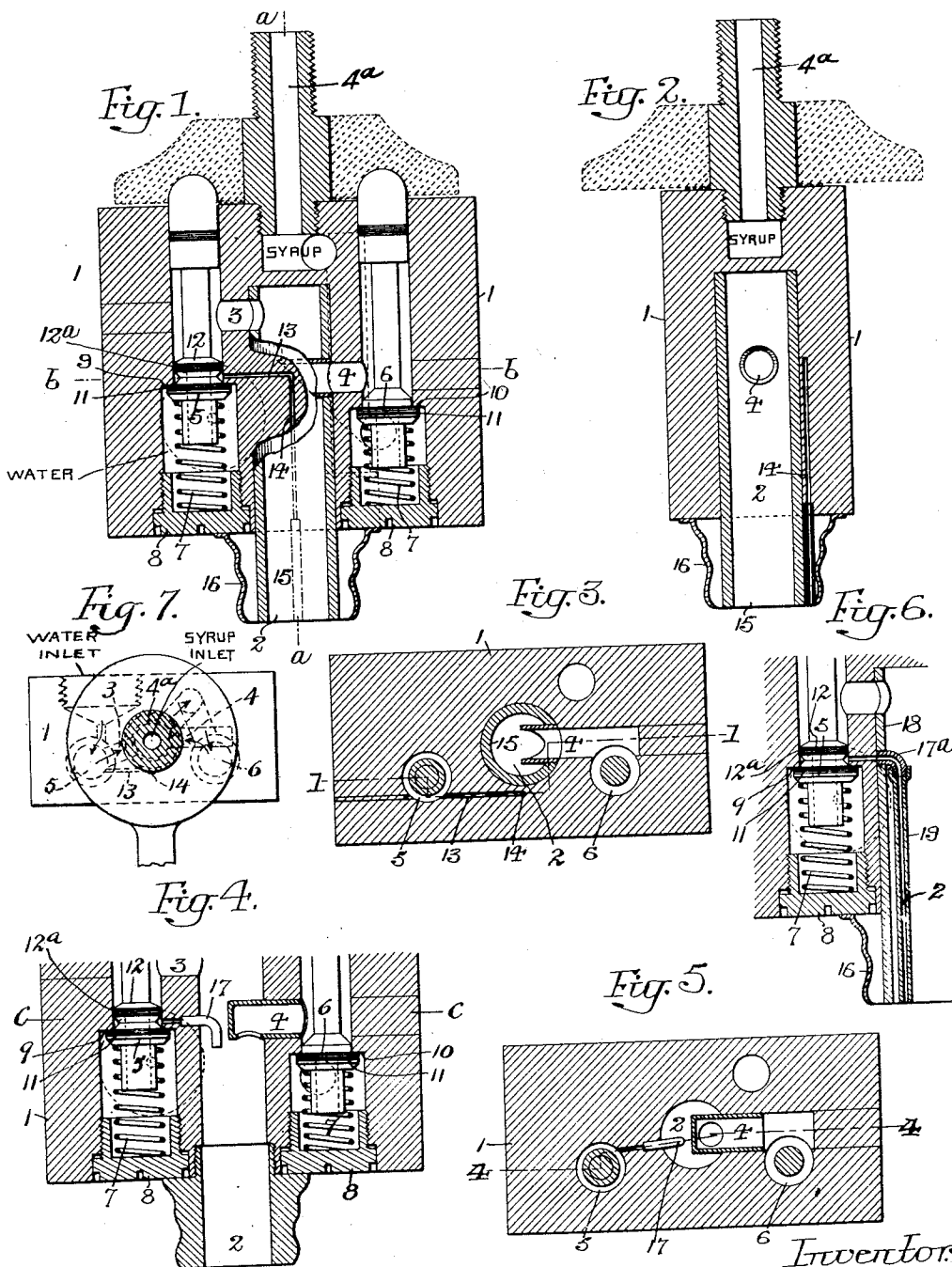


F. W. CALVERT.
FAUCET.
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UNITED STATES PATENT OFFICE.

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FAUCET.

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To all whom it may concern:

Be it known that I, FRANK W. CALVERT, a citizen of the United States, and a resident of Narberth, Montgomery county, Pennsylvania, have invented certain Improvements in Faucets, of which the following is a specification.

My invention relates to liquid dispensing apparatus, more particularly structures designed to deliver soda water, root-beer and other beverages; and the object of my invention is to combine with a faucet of the Travis and Fitzgibbon type, such as disclosed in Patents Nos. 757,869; 831,049, and 850,916, certain improvements which will permit the draft of a fine stream of carbonated water entirely independent of the main supply thereof and of the supply of syrup.

My invention is fully shown in the accompanying drawings, in which:

Figure 1, is a sectional elevation of a faucet structure of the general character of that shown in my application for patent filed August 10, 1908, Serial No. 447,904, showing one embodiment of the improvements forming the subject of my present invention, such section being taken on the line 1—1, Fig. 3; Fig. 2, is a sectional elevation at a right angle to Fig. 1, taken on the line a—a; Fig. 3, is a sectional plan view, taken on the line b—b, Fig. 1; Fig. 4, is a sectional view of a part of a faucet structure, showing another embodiment of my invention, taken on the line 4—4, Fig. 5; Fig. 5, is a sectional plan view, taken on the line c—c, Fig. 4; Fig. 6, illustrates a further modification embodying my invention, and Fig. 7, is a plan view showing the liquid inlets and valve operating means.

1 represents a shell or casing of a faucet structure, which, as in the apparatus referred to, is composed of a solid metal block having the necessary ports and passages drilled or bored therein, with valves disposed in proper place and held in by any suitable means.

2 represents a common delivery passage preferably disposed in the center of the block, and 3 and 4 are passages for the flow of water and syrup, respectively, to said common delivery passage; the passages 3 and 4 being controlled by valves 5 and 6. The syrup enters the faucet structure through an inlet tube 4^a. These valves are held to their seats by springs 7, confined to

the block by caps 8 threaded into said block, and the passages receiving said valves are shouldered at 9 and 10 for engagement with washers 11 carried by the valve stems, to insure against leakage.

In the improvements forming the subject of my present invention, I provide the stem of the valve 5 with a collar 12, or a seat for a washer 12^a just above the shoulder 9, and provide an additional passage 13 within the wall of the shell, which is disposed just above the seat for the main washer, and designed as an outlet for a fine stream of carbonated water to be delivered to the common delivery passage 2 and thence to the glass. As shown in Figs. 1, 2 and 3, the passage 13 communicates with vertical passage 14, which latter passage, however, instead of communicating directly with the nozzle outlet in line with the common delivery passage 2 of the block, passes to one side of the same independently of said nozzle, finding its exit through a tubular extension 15, inclosed by a sleeve 16 surrounding the end of the delivery nozzle.

The stem of the valve 5 may be controlled by a handle having suitable cams which act upon the upper rounded surface of said stem and open the valve at proper intervals to discharge under the normal conditions a combined supply of carbonated water and syrup, as the case may be. To discharge the fine stream via the passages 13, 14, &c., the stem of said valve 5 is moved a very slight distance, just far enough for the outlet of the carbonated water past the washer engaging the shoulder 10. The collar 12 or washer 12^a carried by the valve stem prevents the carbonated water flowing to the passage 3.

In Figs. 4, 5 and 6, I have shown modified constructions permitting delivery of a fine stream of carbonated water. In Figs. 4 and 5, an elbow 17 is shown secured to the wall of the common delivery outlet within the block. In Fig. 6, an elbow 17^a is shown carried by the shell or sleeve 18, with an elongated tube 19 connected to said elbow. The block is bored to form the several ports and passages and when complete, the holes in the outer shell are filled up.

Heretofore there has been some difficulty in securing a free flow through the central delivery passage of the faucet owing to the fact that the nozzle proper was threaded into

the same. This construction left a shoulder within the block which tended to break the stream. To overcome this, I may provide the block or casing of the faucet with the tubular sleeve 18 which serves as a combined common delivery passage and nozzle and is without obstruction throughout its length, excepting the guard adjacent the syrup passage. Such pipe forms a better passage for the flow of liquid than has been hitherto provided. Instead of this arrangement, the bore of the block may be slightly less than that of the nozzle, as clearly indicated in Fig. 4. The important feature of my invention, however, is the means for effecting the discharge of a fine stream. To operate the faucet to accomplish this result, a handle which may control the valves, may be moved to one side or the other, up or down, or in any other direction, as the case may be, depending upon the character of such handle, only far enough to depress the valve stem a slight distance, whereupon the carbonated water will find its outlet to said passage and enter the glass through any of the passages shown in the drawings.

I claim:

1. In a faucet, a shell or casing having a delivery passage, a chamber in direct communication with the source of liquid under pressure, a conduit connecting said chamber and delivery passage and an auxiliary duct for the outlet of liquid under pressure leading from said conduit, in combination with a movable stem and a plurality of valves carried by said stem in fixed relation thereto for controlling the outlet of liquid under pressure, said auxiliary duct being opened to the liquid supply upon slight initial movement of said stem.

2. In a faucet, a shell or casing having a delivery passage, a chamber in direct communication with a source of liquid under pressure, a conduit connecting said chamber and delivery passage and an auxiliary duct for the outlet of liquid under pressure leading from said conduit, in combination with a movable stem, a plurality of valves carried by said stem in fixed relation thereto for controlling the outlet of the liquid under pressure and means for operating said stem, said auxiliary duct being so disposed as to be uncovered for the outlet of liquid upon slight initial movement of said stem.

3. In a faucet, a block having a delivery passage, a conduit communicating therewith for the outlet of liquid under pressure, a chamber in communication with the source

of liquid supply from which said conduit leads, in combination with a movable stem, a pair of valves carried by said stem in fixed relation thereto and controlling the outlet of liquid under pressure, means for imparting movement of varying degree to said valves, said block having a supplemental passage for the outlet of a fine stream of the liquid under pressure leading from said chamber, and said supplemental passage being uncovered for the outlet of liquid upon slight initial movement of said valve stem.

4. The combination, in a faucet, of a block having a delivery passage, a chamber receiving the liquid under pressure, a conduit affording communication between the chamber and delivery passage, and a supplemental passage for the outlet of a fine stream of liquid under pressure, a movable stem, a pair of valves fixed thereto, one of said valves being disposed in the conduit and the other in the chamber receiving the liquid under pressure, and means for moving said valve stem, partial movement of the latter uncovering the supplemental passage and full movement affording communication between the chamber and conduit.

5. A faucet comprising a body portion chambered for the passage of water from a suitable source of supply and having a discharge opening, suitable fine and coarse stream water-passage-ways spaced apart and connecting said supply source with the discharge opening, a movable valve-piece provided with a terminal valve or formation for releasing the water from the supply source to the fine stream passage-way with a definite range of movement of the valve-piece, and with a second formation or valve spaced a fixed distance from the first valve and moving conjointly therewith for releasing the water from the supply source to the coarse-stream passage-way with a further range of movement of the valve-piece in the same direction, a seat on the faucet body for the terminal valve, the water being adapted to flow through the coarse-stream-passage-way upon a movement of the second valve past the valve-seat aforesaid.

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

FRANK W. CALVERT.

Witnesses:

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