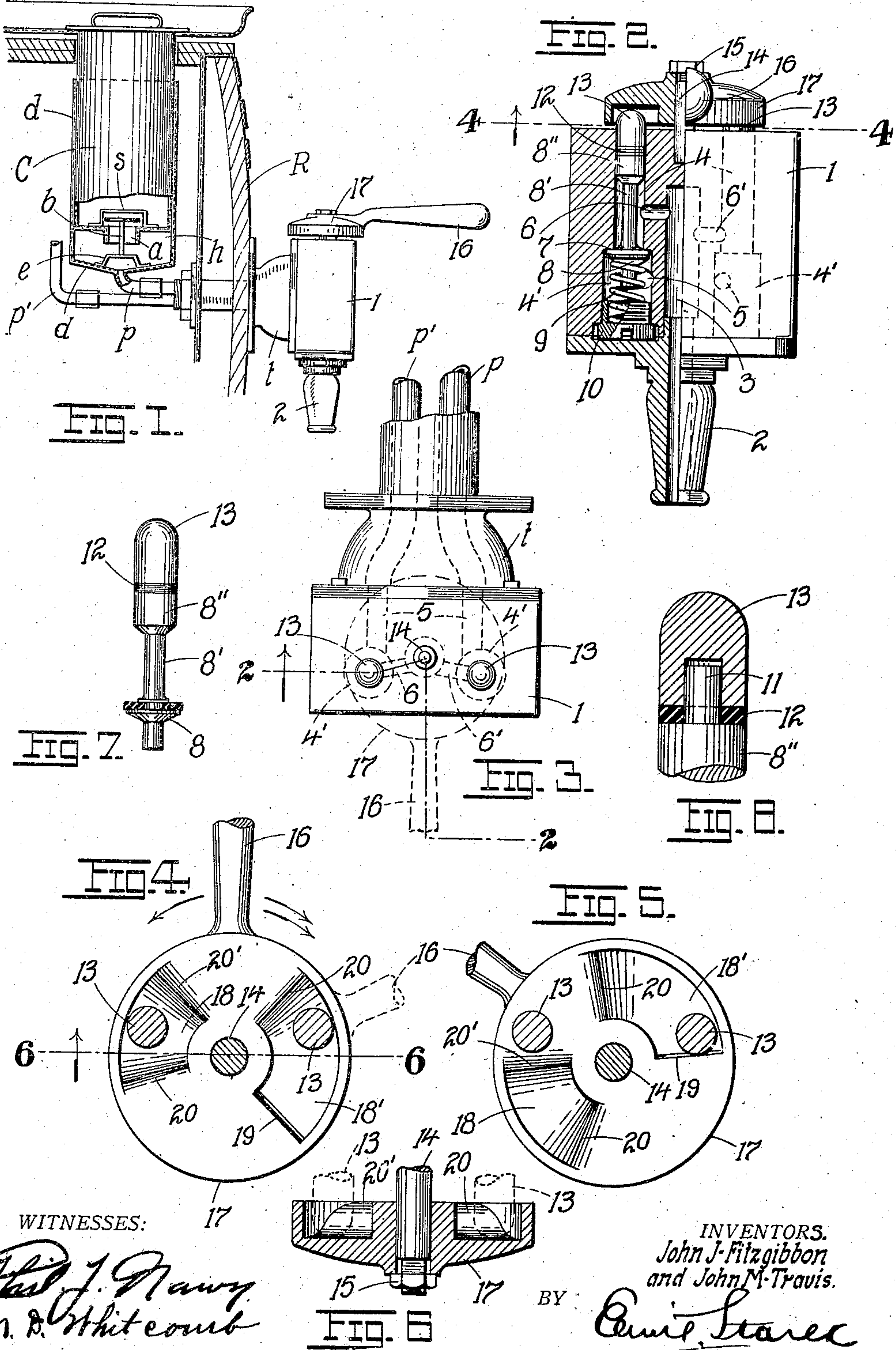


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FAUCET.

APPLICATION FILED OCT. 2, 1907.

911,000.

Patented Jan. 26, 1909.



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# UNITED STATES PATENT OFFICE.

JOHN J. FITZGIBBON AND JOHN M. TRAVIS, OF ST. LOUIS, MISSOURI, ASSIGNORS TO MULTIPLEX FAUCET COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

## FAUCET.

No. 911,000.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Application filed October 2, 1907. Serial No. 395,579.

*To all whom it may concern:*

Be it known that we, JOHN J. FITZGIBBON and JOHN M. TRAVIS, citizens of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Faucets, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention has relation to improvements in faucets for carbonated beverages; and it consists in the novel details of construction more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a section of a refrigerator showing our invention applied thereto; Fig. 2 is a combined vertical elevation, and section on the line 2—2 of Fig. 3; Fig. 3 is a top plan view with operating lever shown dotted in central position; Fig. 4 is a horizontal section on line 4—4 of Fig. 2, looking up; Fig. 5 is a similar view showing the operating lever swung to proper position for depressing but one of the valves; Fig. 6 is a cross section on the line 6—6 of Fig. 4, looking in the direction of the straight arrow; Fig. 7 is a detached elevational view of the valve; and Fig. 8 is an enlarged sectional detail showing the cap-piece of the valve and the packing ring beneath the cap-piece.

The present invention is an improvement on the faucet shown and described in United States Letters Patent No. 831,049 issued to us under date of Sept. 18, 1906. In that case, (as in the present one) provision was made to control the different valves by an operating lever; and while in the patented faucet a movement of the lever in a vertical plane was necessary to actuate the carbonated-water-controlling valve only, as against a movement in a horizontal plane to actuate the syrup-controlling and carbonated-water-controlling valves conjointly, in the present improvement a movement in a distinct plane for singling out the water-controlling valve is not necessary. This is a distinct improvement as it relieves the device from complications not desirable in practice.

In the present invention the operating lever is always oscillated in a single plane (preferably horizontal), being swung in one direction to actuate the syrup and water valves jointly, and in an opposite direction (but in the same plane) to actuate the water

valve only. Thus a distinct object is herein attained in that it dispenses with the necessity of singling out the water valve and of imparting a vertical movement to the operating lever.

A further object of our invention is to insure a uniform supply of syrup for each glass of beverage dispensed.

In detail the invention may be described as follows:

Referring to the drawings, R, represents a section of a refrigerating tank in which is placed the syrup can C discharging preferably from the bottom through a spout *a* controlled by a valve *b*, the latter resting, when the can C has been placed in its receptacle *d*, upon a bridge-piece *e* spanning the opening of the syrup-supply pipe *p* leading from the receptacle to the body or casting 1 of the faucet. The valve is limited in its movement in the opposite direction by a strap *s* which arrests the valve when the can is righted in the act of filling (the can being withdrawn from the receptacle *d* and turned right side up when being filled). The can when filled and turned upside down, allows the valve *b* to seat itself to prevent escape of the syrup, the valve being unseated sufficiently to allow for the necessary flow of the syrup, by contact with the bridge-piece *e*. This feature however is old and common in many arts, an example of which may be mentioned the well-known student-lamp. It is however referred to herein to illustrate how provision is made for a constant and uniform quantity of syrup to be delivered to the faucet. This quantity is represented by the contents of the chamber *h* formed between the bottom of the receptacle *d* and the adjacent end wall of the can, the contents being utilized for each drink dispensed. Entering the casting 1 through the rear wall thereof is the carbonated-water-supply pipe *p'*, shown broken off in Fig. 1, the pipes passing through a shield or fitting *t* as they enter the casting, the same as in the patented construction referred to.

The faucet proper comprises a body portion or casting 1, provided with a bottom delivery spout or nozzle 2, the latter communicating with a central passage or mixing chamber 3 extending upward to within a suitable distance from the plane of the upper wall of the casting. Disposed on each side of the central chamber 3 is a passage 4 form-



ing the reduced extension of a bottom chamber 4'. From the rear of each chamber 4' leads a passage 5, the one on one side of the casting communicating with the syrup-supply pipe *p*, and that on the other communicating with the carbonated-water supply pipe *p'*. The passages 4 communicate with the central chamber 3 through the short passages 6, 6' respectively, the passage 6' intended for the syrup being below and out of alinement with passage 6 to prevent the water which is under pressure from passing into said passage 6'. Against the annular shoulder 7 formed between the chamber 4' and passage 4 is normally seated the valve 8, being held to its seat by the spring 9 whose lower end rests in the socket of the screw plug 10 confined between the body of the casting 1 and the bottom plate with which the nozzle 2 is cast. These features however are well understood and form no part of the present invention. The stem 8' of each valve passes through the passage 4, the stem being made sufficiently small in cross-section to afford ample room for the free flow of the liquid around it. The stem terminates in a head 8'' provided with a central stem 11 over which is slipped a compressible packing ring 12, a cap-piece 13 being passed over the stem and bearing against the packing ring for a purpose presently to appear. It may be stated in passing that one valve 8 controls the admission of the syrup into the central chamber 3, whereas the other valve controls the flow of the carbonated water to the same chamber, the syrup and water being either admitted to said chamber simultaneously to secure the proper "soda water" mixture, or the syrup may be cut off, and only the water admitted and served as desired.

The manner of controlling the valves for the purposes indicated is as follows: Pivoted about a stud 14 projecting from the body 1, and held in place by a nut 15, is an operating lever 16 which oscillates in a horizontal plane, the lever terminating in an enlarged circular head 17. In this respect it does not differ from the patented construction referred to. On the under side of the head 17 are formed two pockets 18, 18' one end of the larger pocket 18' terminating in an abrupt wall 19 which determines the limit of the throw of the lever in one direction (Fig. 5). At the opposite end of the pocket 18' is a cam formation 20, a similar formation 20' being located at the outer end of the pocket 18. At the inner end of the pocket 18 is a cam formation 20'. By oscillating the lever from its normal or central position (Fig. 4) in the direction shown by the double arrows in said figure, the formation 20, 20' will simultaneously ride over the cap-pieces 13 of the valves and simultaneously depress both valves sufficiently to allow for the discharge of water and syrup and at the same time

compress the packing rings and thereby effect a tight joint. By however oscillating the lever in the opposite direction shown by the single arrow in Fig. 4, only the cam 20' (at the end of the shorter pocket 18) will engage its corresponding cap-piece, (which is the cap-piece of the water-controlling valve) and depress the water-valve only (Fig. 5), the cap-piece of the syrup-valve occupying by this time a position against the abrupt wall 19, (Fig. 5). So that with an oscillation of the lever in one direction we depress both valves, and with an oscillation in the opposite direction we depress but one valve, and that the water-controlling valve. This is done where the customer desires soda without syrup.

Having described our invention what we claim is—

1. A faucet comprising a body portion chambered for the passage of syrup and water from suitable sources of supply, and having a discharge opening, valves for controlling the flow of the liquids to said discharge opening, an operating member, and formations on said member for actuating the respective valves conjointly by a movement of said member in one direction, and one of the valves only by a movement in a reverse direction, substantially as set forth.

2. A faucet comprising a body portion chambered for the passage of syrup and water from suitable sources of supply, a discharge nozzle, valves for controlling the flow of the liquids to the discharge nozzle, an operating member, and formations on said member for actuating the respective valves conjointly by a movement of said member in one direction in a given plane, and one of the valves only by a movement in an opposite direction in the same plane, substantially as set forth.

3. A faucet comprising a body portion chambered for the passage of syrup and water from suitable sources of supply, and having a discharge opening, valves for controlling the flow of the liquids to said opening, and a pivoted operating lever having formations positioned to actuate the respective valves conjointly by an oscillation of the lever in one direction in a given plane, and one of the valves only by an oscillation in an opposite direction in the same plane, substantially as set forth.

4. A faucet comprising a body portion chambered for the passage of syrup and water from suitable sources of supply and having a discharge opening, valves for controlling the flow of the liquids to said opening, an operating lever pivoted in proximity to the valves and oscillating in a given plane relatively to the direction of movement of the valves, and suitable formations on the lever positioned for engaging and actuating both the syrup-controlling and, carbonated



water-controlling valves for an oscillation of the lever in one direction in the plane of its movement, and the carbonated-water controlling valve only, for an oscillation in the opposite direction in the same plane, substantially as set forth.

5 5. A faucet comprising a body portion chambered for the passage of suitable liquids, and having a discharge opening, reciprocating valves mounted in the body, terminal cap-pieces carried by the valves and normally exposed beyond the body portion of the faucet, means for engaging said cap-pieces and forcing the valves to open positions to permit of the discharge of the liquids, packing rings carried by the valves and compressed by the cap-pieces while the latter are in contact with said engaging means, whereby the packing rings are driven into  
15 forcible contact with the walls of the passages in which the valves operate, and a tight joint is thereby assured, substantially as set forth.

25 6. In a faucet having a suitable passage, a reciprocating valve mounted in said passage, a packing ring resting on the valve, a mov-

able cap-piece engaging the ring, and means for forcing the cap-piece against the ring for a movement of the valve in one direction, substantially as set forth.

30 7. A faucet comprising a body portion chambered for the passage of syrup and water, a measuring chamber located outside the faucet for supplying a predetermined quantity of syrup to the faucet for a given discharge of the mixed liquids, and a movable operating member on the faucet, and devices  
35 actuated by said operating member for either commingling the syrup and water during the flow of the syrup toward the discharge spout of the faucet, or permitting the discharge of the water only according to the direction of movement imparted to the operating member, substantially as set forth.

40 In testimony whereof we affix our signatures, in presence of two witnesses.

JOHN J. FITZGIBBON.  
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Witnesses:

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