Sept. 18, 1951 J. G. GIULIANO 2,568,444

BEVERAGE FAUCET

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Fig. 1

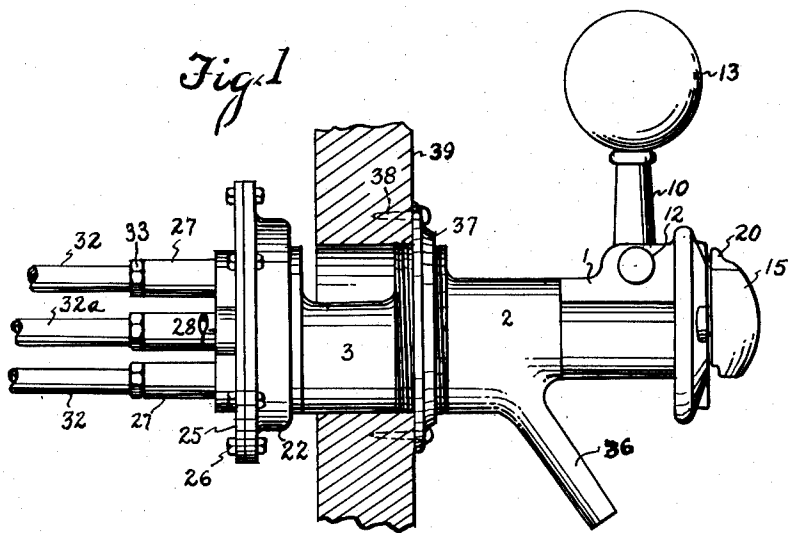
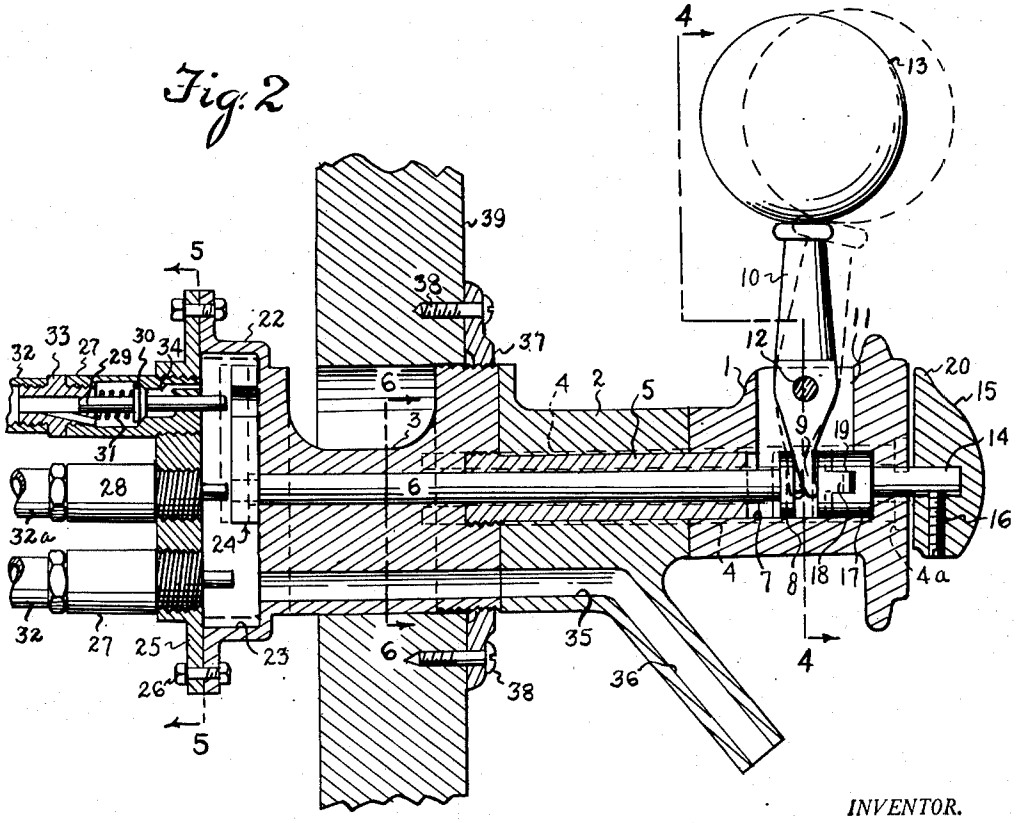


Fig. 2



INVENTOR.
JOSEPH G. GIULIANO
BY
J. G. Murray
ATTORNEY

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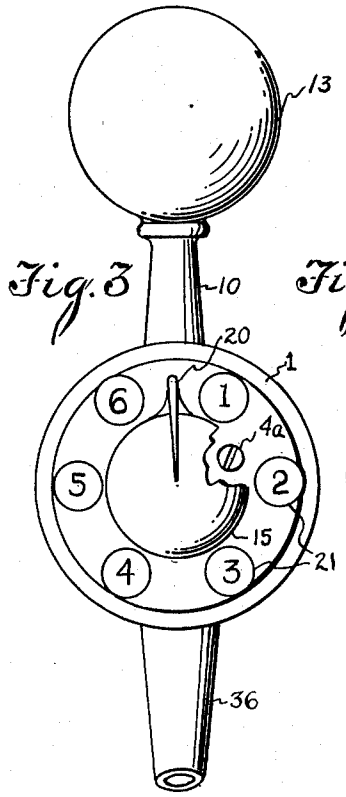


Fig. 3

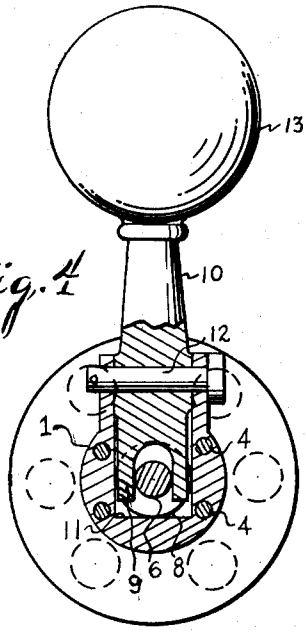


Fig. 4

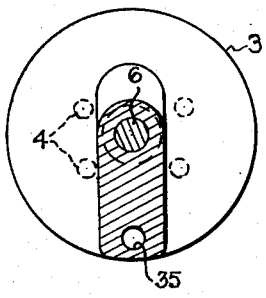


Fig. 6

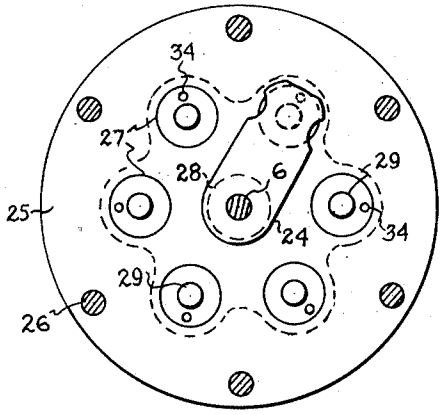


Fig. 5

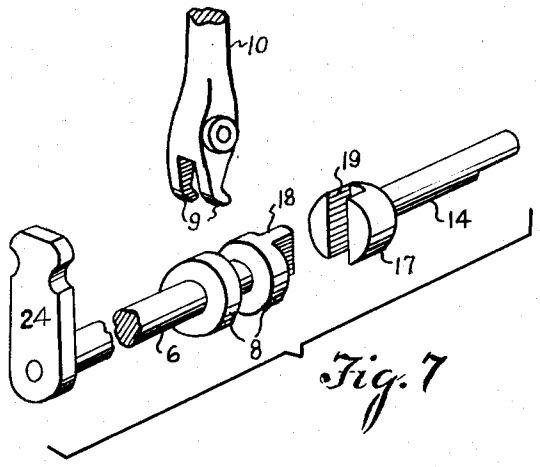


Fig. 7

INVENTOR.
JOSEPH G. GIULIANO
BY

J. S. Murray
ATTORNEY

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BEVERAGE FAUCET

Joseph G. Giuliano, Detroit, Mich.

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10 Claims. (Cl. 277—60)

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This invention relates to faucets and more particularly beverage faucets.

An object of the invention is to adapt a faucet to selectively discharge any of several beverages, thus greatly facilitating service of mixed drinks and largely reducing the equipment required for dispensing a variety of beverages.

Another object is to provide a faucet in which preselection of a beverage may be effected without inducing actual flow, so that for several consecutive servings of the same beverage, one setting of the selector suffices.

Another object is to provide a faucet adapted to effect a mixture of carbonated water with a beverage in a suitable proportion.

Another object is to provide a faucet suited for selectively serving several beverages, and providing for a rinsing out of its flow passages preliminary to resetting the selector.

These and various other objects are attained by the construction hereinafter described and illustrated in the accompanying drawings, wherein:

Fig. 1 is a side elevational view of my improved faucet as mounted for use.

Fig. 2 is a longitudinal vertical sectional view of the same.

Fig. 3 is a front view of the faucet.

Fig. 4 is a cross sectional view taken on the line 4—4 of Fig. 2.

Fig. 5 is a cross section taken on 5—5 of Fig. 2.

Fig. 6 is a cross section taken on 6—6 of Fig. 2.

Fig. 7 is a perspective view of the aligned stems of the faucet and a lever for reciprocating one thereof.

In these views, the reference characters 1, 2 and 3 designate respectively a front, an intermediate, and a rear casting, jointly forming the faucet casing and rigidly interconnected by four elongated screws 4, having threaded rear ends set into the casting 3 and heads 4a recessed in the front face of the casting 1. Integral with or otherwise rigidly connected to the casting 3 is a tube 5 forwardly projecting axially of the faucet and snugly fitting in the castings 2 and 1 to accurately maintain their proper alignment. Slidably and rotatably fitted in the casting 3 and tube 5 is a primary stem 6 whose front end portion projects beyond said tube and into a cylindrical chamber 7 centrally formed in the casting 1, said stem having an enlarged annularly grooved head 8 within said chamber. Straddling said head within the groove thereof is the forked lower end 9 of a lever 10 for reciprocating said stem. Said lever is accommodated within a slot 11 of the casting 1 and pivoted on the casting by

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a pin 12 transverse to the faucet. A ball 13 or other suitable handle surmounts said lever.

Aligned with the stem 6 forwardly thereof is a relatively short rotative stem 14 having an actuating knob 15 fixed thereon by a set screw 16 close to the front face of the casting 1 and having on its rear end an enlarged head 17 abutting the front wall of the chamber 7. Thus the knob 15 and head 17 jointly restrain the stem 14 from any material reciprocation. The heads 8 and 17 are normally closely adjoining and are interconnected for rotation in unison by fitting a tongue 18 on one thereof freely within a diametrical slot 19 of the other (see Fig. 7). A pointer 20 radially projecting from the knob 15 provides for indexing the knob with respect to a circular series of numbers or other differential indicia 21 on the front face of the casting 1. As illustrated, these numbers are carried by plugs pressed rigidly into sockets in the supporting casting.

The casting 3 has an enlarged rear portion 22 formed with a circular chamber 23 receiving an arm 24 fixed on the rear end of the stem 6 and a cover 25 for such chamber is secured in place by bolts and nuts 26. Rigidly mounted in the cover 25, coaxially therewith is a circular series of tubular, rearwardly projecting valves 27, equiangularly spaced and equal in number to the index points 21 at the front of the faucet, and a like valve 28 is carried by the cover at its axis, said valves being preferably screwed into the cover. Centrally slidable in each valve is a stem 29 rigidly carrying a valve member 30 urged forwardly to its seat by a coiled spring 31, an unseating device for said member being formed by a forward portion of the stem projecting into the chamber 23 sufficiently to just clear the rotary path of the arm 24 when the latter is in its normal position against the front wall of said chamber. This position of the arm is maintained by the lever 10, when upright and is further normally maintained by the stem 29 of the central valve 28. To the rear end of each valve 27 and 28 a beverage pipe 32 is connected by a coupling 33, and a pipe 32a is similarly connected to the valve 28, said couplings forming abutments for the rear ends of the springs 31. Each valve is formed with a restricted beverage passage 34 serving as an inlet to the faucet and controlled by the corresponding valve member and discharging into the chamber 23. Opening from the chamber 23 at its bottom is a beverage outlet 35 leading through the castings 3 and 2 to a spout 36 formed as an integral downward extension of the casting 2.

The described faucet may be supported in any

desired manner, there being illustrated a supporting collar 37 screwed on the front end of the casting 3 and attached by screws 38 or the like to a wall 39 apertured to receive the faucet.

In use of the described faucet, the pipes 32 are connected to supply sources for different beverages, and the pipe 32a to a source of carbonated water. To draw off any one of the available beverages, it is necessary merely to index the knob 15 with the number 21 corresponding to such beverage and then pull the lever 10 forward to its discharge position shown in dash lines in Fig. 2. Rotation of the knob registers the arm 24 with the stem 29 of the valve controlling the desired beverage, since the stem 6 carrying the arm is interlocked with that carrying the knob by the tongue 18 and groove 19. Forward actuation of the lever 10 shifts the stem 6 and arm 24 rearwardly to retract the stem 29 wherewith the arm has previously been registered. It is to be noted in this connection that the tongue 18 extends sufficiently into the groove 19 to avoid escape from such groove in the retracted position of the stem 6. When the arm 24 is rearwardly shifted to open one of the valves 27, it also opens the central valve 28 since the stem of the latter is constantly registered with the pivotal end of the arm, and consequently the discharge of any beverage into the chamber 23 is accompanied by a discharge of carbonated water. Thus the faucet serves for carbonating beverages as well as selecting them and regulating their discharge. It is evident that the arm 24 functions as a control element for the several valve members.

Obviously such a faucet greatly reduces the necessary amount of equipment for a soda fountain or bar and largely reduces the space required for an installation dispensing numerous beverages.

It is a desirable feature of the construction that in event of two or more consecutive orders for the same beverage, service may be given without repeated indexing of the knob 15. It is also highly desirable that the chamber 23 and passage therefrom to the spout may be rinsed out between withdrawals of any two different beverages by establishing a momentary flow of carbonated water alone. It is to be noted in this connection that any adjustment of the knob 15 such as to locate its pointer substantially midway between two of the dial numbers 21, will adapt the arm 24 to be retracted between two of the outer stems 29, such retraction therefore being effective only on the stem of the central valve 28, controlling carbonated water.

A faucet as described will greatly facilitate the serving of mixed drinks, permitting desired quantities of each ingredient to be drawn from the same faucet, the necessary indexing being very quickly accomplished.

What I claim is:

1. A faucet comprising a casing having front and rear ends and having a liquid flow chamber in its rear end with an outlet therefrom and a substantially circular set of inlets thereto, a plurality of valves respectively controlling the respective inlets and each having a stem forwardly projecting into said flow chamber, a primary stem rotatively and reciprocably mounted in said casing and forwardly extending from said chamber, a control element fixed on the primary stem within said chamber forwardly of said valve stems, rotatable by the primary stem for selective registration with said valve stems, and reciprocable by the primary stem to actuate a registering valve stem and open the corresponding valve, an actuator mounted in front of said casing rotative about the extended axis of the primary stem, means for applying the rotation of said actuator to such stem, and a handle connected to said stem rearwardly of said actuator for effecting reciprocation of such stem independently of said actuator, said handle remaining static while said actuator is rotated.

2. A faucet as set forth in claim 1, said outlet forwardly extending from said chamber.

3. A faucet comprising a casing formed with a chamber having a fluid outlet and further having a plurality of fluid inlets disposed in a substantially arcuate series, valve members respectively controlling the respective inlets, a control element for said valve members pivoted at an axis about which said arcuate series of inlets is substantially centered, and reciprocable along said axis, means including an actuator for rotating said control element about said axis to register such element selectively with any of said valve members, means including an actuator for shifting said control element along said axis to unseat any valve member with which said element is registered, and a mixing valve member registered with said control element in all rotative positions of such element and opened by actuation of such element along its axis, in any of said positions, the valve members forming said arcuate series being adequately spaced to afford a reciprocation of said control element between said members, whereby the mixing flow valve member may be actuated independently of the other valve members, each of said actuators being static while the other is being actuated.

4. A faucet comprising a casing having a plurality of fluid inlets angularly spaced with reference to a certain axis, and having a fluid outlet communicating with the several inlets, valve members respectively controlling the respective inlets, means yieldably seating the valve members, a stem reciprocable and rotatable in the casing approximately at said axis, a control element substantially fixed on the stem and rotatable by the stem in a path selectively registering said element with the several valve members, and reciprocable by the stem to take effect on any of said valve members with which said element has been rotatively registered, an actuator for rotating said stem, an actuator for reciprocating the stem, and means operatively connecting the actuators to the stem, affording one thereof independence of the other.

5. A faucet as set forth in claim 4, the last-mentioned means affording each of said actuators independence of the other.

6. A faucet as set forth in claim 4, said casing forming a chamber operatively receiving said control element, the valve members comprising stems projecting into such chamber for actuation by the control element.

7. A faucet as set forth in claim 4, said casing having a chamber operatively receiving said control element and such chamber establishing communication between said inlets and outlet.

8. In a faucet as set forth in claim 4, a second stem aligned and rotative in substantial unison with the reciprocable and rotary stem, means operatively connecting the first-mentioned actuator to the second stem, and means restraining the second stem from reciprocation.

9. In a faucet as set forth in claim 4, a pointer carried by the first-mentioned actuator, and a dial fixed as regards rotation of such actuator

and coacting with the pointer to index the selective rotary positions of said control element.

10. In a faucet as set forth in claim 4, said casing forming a chamber operatively receiving said control element, and comprising a cover for such chamber detachable from the casing, valves carried exteriorly of the chamber by said cover, and respectively incorporating the respective valve members.

JOSEPH G. GIULIANO.

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