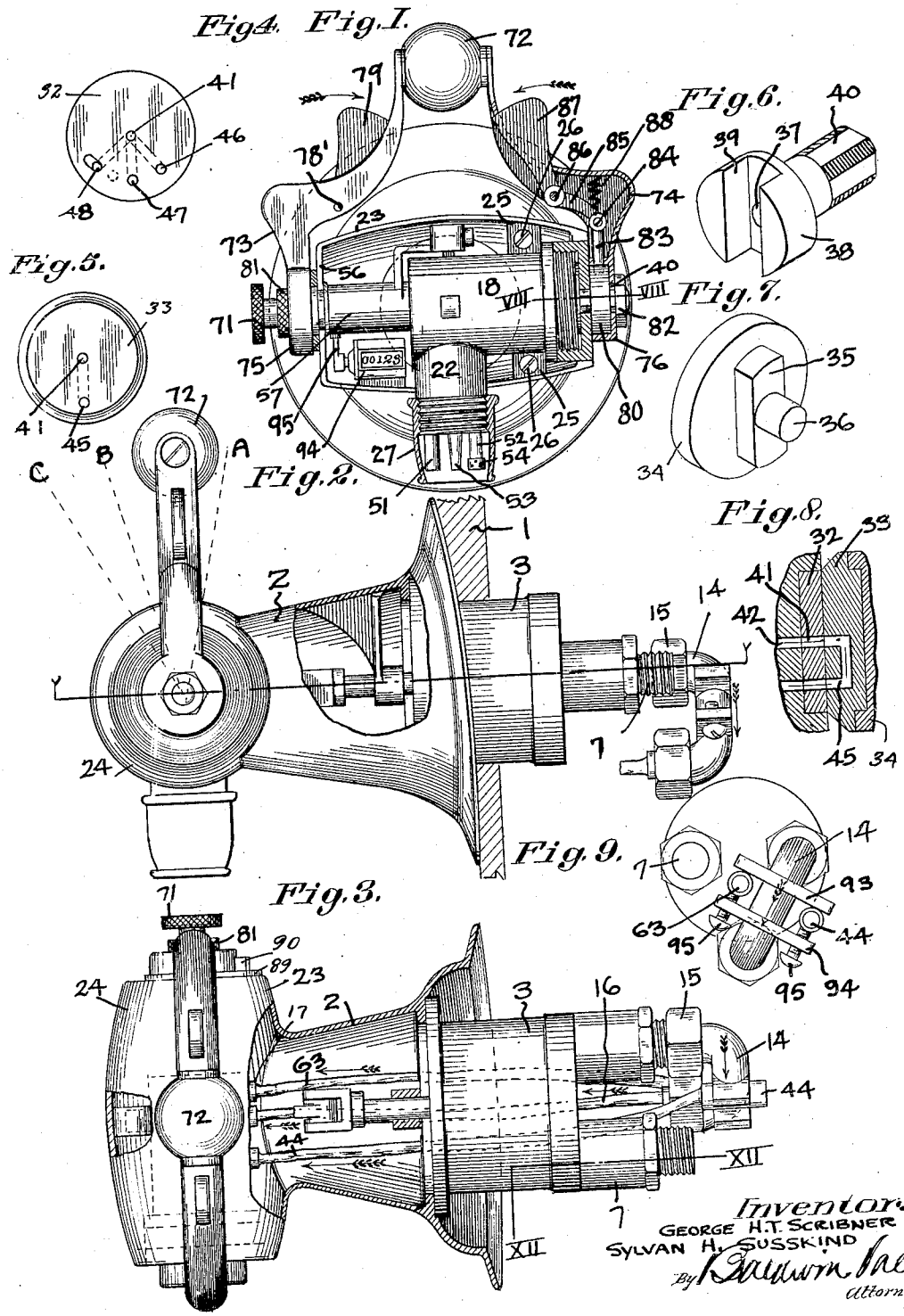
Sept. 4, 1923. 1,466,760

G. H. T. SCRIBNER ET AL

BEVERAGE FAUCET

Filed May 11, 1920 2 Sheets-Sheet 1



Inventors
GEORGE H.T. SCRIBNER
SYLVAN H. SUSSKIND
By Baldwin Hale
Attorney

Sept. 4, 1923. 1,466,760

G. H. T. SCRIBNER ET AL

BEVERAGE FAUCET

Filed May 11, 1920 2 Sheets-Sheet 2

Fig.10.

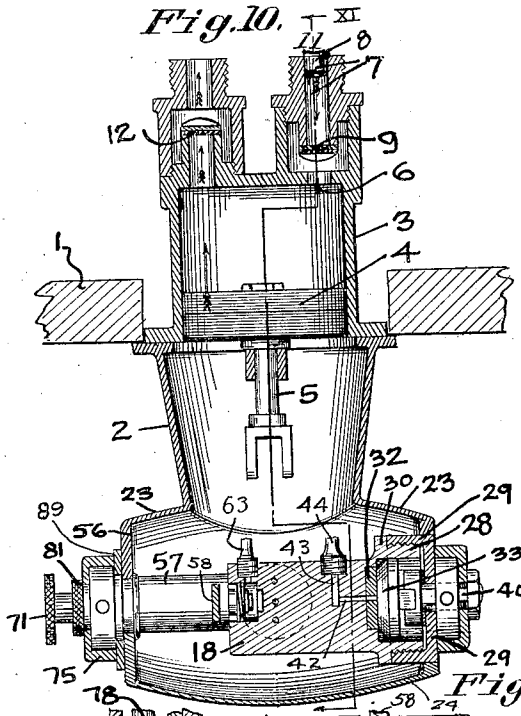


Fig.11

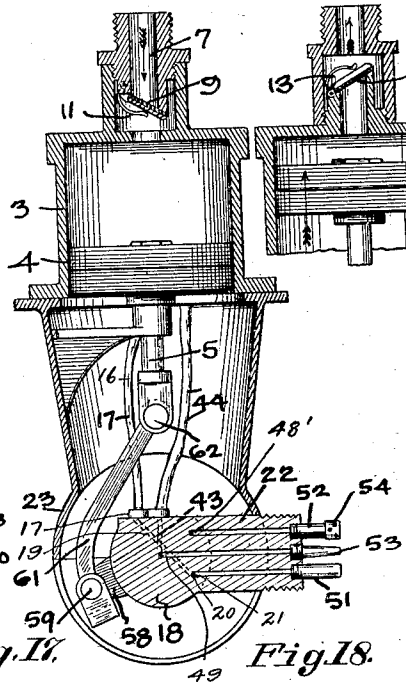


Fig.12.

Fig.13.

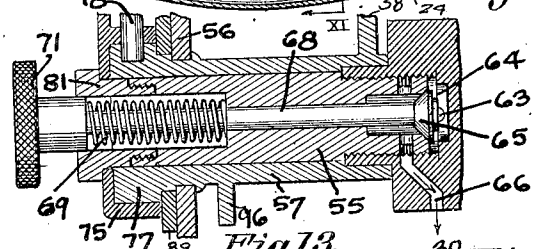


Fig.14.

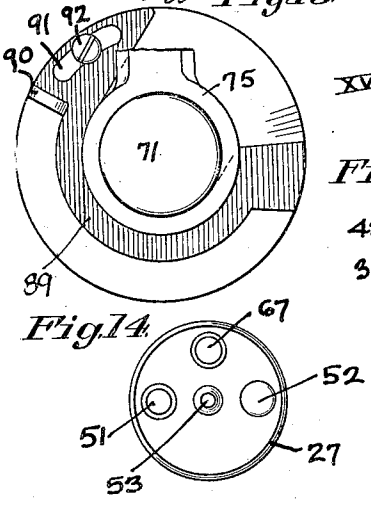


Fig.15.

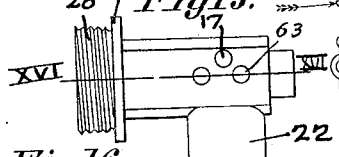


Fig.16.

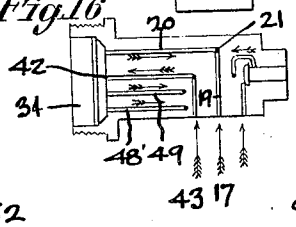


Fig.17.

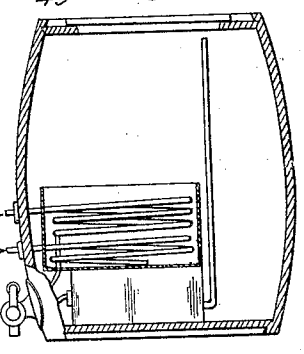


Fig.18.

Inventors
GEORGE H.T. SCRIBNER
SYLVAN H. SUSSKIND
By Baldwin Vale
Attorney.

Patented Sept. 4, 1923. 1,466,760

UNITED STATES PATENT OFFICE.

GEORGE H. T. SCRIBNER AND SYLVAN H. SUSSKIND, OF SAN FRANCISCO, CALIFORNIA, ASSIGNORS TO M. GETZ & CO. INC., OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

BEVERAGE FAUCET.

Application filed May 11, 1920. Serial No. 380,461.

To all whom it may concern:

Be it known that we, GEORGE H. T. SCRIBNER and SYLVAN H. SUSSKIND, citizens of the United States, and residents of the city and county of San Francisco, State of California, have made a new and useful invention—to wit, Improvements in Beverage Faucets; and we hereby declare the following to be a full, clear, concise, and exact description of the same.

This invention relates particularly to the mixing and dispensing of carbonated beverages flavored with syrups.

Among the objects of the invention is to provide a combination and arrangement of parts in a faucet, whereby an accurately predetermined quantity of flavoring syrup may be mixed with a flowing stream of carbonated or other liquid or liquids before liberation from the faucet at atmospheric pressure. A further object is to preserve the sharp "fizzy" quality of such drinks, resulting from the process of blending and thoroughly mixing the constituents of the beverage, by the atomizing effect of delivering the constituents from a single outlet under high pressure, by the expansion due to liberation into atmospheric pressure, other objects and advantages will appear as this description progresses. In the following description "soda water" will be understood to include any and all artificial or naturally charged waters.

The generally accepted practice in this art is to measure a quantity of flavoring syrup into a glass, then inject into the glass, at low velocity, a quantity of carbonated water, then to project at high velocity a further quantity of the same carbonated water intended to stir and mix the contents of the glass into a foaming beverage. It is a fact, however, that that method does not thoroughly mix the syrup and the soda water and before the beverage is consumed the syrup will settle, leaving a too sweet stratum at the bottom of the glass. A further disadvantage of this old method is that the stirring effect, to accomplish even a poor mixing of the contents, liberates the carbonic acid or other gas from the soda water in great volume before the drink can be served, resulting in the beverage becoming "flat" before it is entirely consumed.

By our apparatus the syrup and the soda water are intimately mixed and blended, while the soda water is still under pressure, preventing the liberation of the gas therein. The mixture flowing into the serving glass in a coarse stream is so well mixed that it will not stratify in the glass, therefore requiring but little injection of the fine stream to form the desirable foam or "head" on the beverage, that is thus served to the customer directly from the faucet in the minimum of time, with the flavoring thoroughly distributed in suspension and the gaseous content retained to the maximum extent; thus saving time in dispensing while maintaining the high quality of the beverage. In addition to the above mixture, city water, grape juice, ginger ale or any other liquid may be added to the beverage through the same nozzle, at the same time.

In this specification and the annexed drawings, the invention is illustrated in the form, considered to be the best, but it is to be understood that the invention is not limited to such form, because it may be embodied in other forms; and it is also to be understood that in and by the claims following the description, it is desired to cover the invention in whatsoever form it may be embodied.

In the accompanying two sheets of drawings:

Fig. 1 is a front elevation partially in vertical section illustrating a faucet constructed in accordance with this invention.

Fig. 2 is a similar side view of the same.

Fig. 3 is a similar plan view from above of the same.

Fig. 4 is a detail face view of the valve washer.

Fig. 5 is a similar view of the disc valve.

Fig. 6 is a detail view in perspective of the valve operating coupling mechanism.

Fig. 7 is a similar view of another part of the valve mechanism to be read in conjunction with Fig. 6.

Fig. 8 is a fragmentary detail in cross section through the valve taken on the line VIII, Fig. 1.

Fig. 9 is an end view in detail of the syrup supply.

Fig. 10 is a plan view from above in horizontal section of the faucet.

Fig. 11 is a side view in longitudinal section of the same taken on the line XI—XI of Fig. 10.

Fig. 12 is a fragmentary sectional detail of the rear end of the syrup pump showing the outlet valve.

Fig. 13 is a detail side elevation of the handle mechanism.

Fig. 14 is an end view of the discharge nipple.

Fig. 15 is a detail side elevation of the valve block.

Fig. 16 is a vertical axial section of the same.

Fig. 17 is a fragmentary detail of the water supply valve in vertical axial section.

Fig. 18 is a vertical section through a barrel fountain equipped with this faucet.

In detail the construction illustrated in the drawings, includes a suitable fountain 1 into which the neck 2 of the faucet is attached. The syrup pump 3 consists of a cylinder attached to an open end of the neck 2. This cylinder is finished to receive the piston 4, having a piston rod 5 extending forward coaxially with the neck 2. The head of the cylinder 3 is provided with the inlet 6 connecting with the by-pass 7 that is connected with the syrup conduit 8 leading to a reservoir, not shown. The check valve 9 is interposed in the inlet 6 to prevent the syrup being forced back into the reservoir by the return stroke of the pump, this valve 9 opens on the suction stroke only. The valve 9 is held normally closed by the spring 11. The outlet from the pump 3 is closed by the check valve 12 seated by the spring 13. The elbow 14 is attached by the couplings 15 to the outlet of the syrup pump and is connected with the syrup conduit 16 that connects with the port 17 in the stationary block or plug 18. This block or plug 18 is preferably of block tin, having the various passages drilled thereinto as will hereinafter be more fully described. The port 17 leads to the passage 19 drilled transversely into the block 18 to meet the longitudinal passage 20. The passages 19 and 20 meet the vertical passage 21 drilled upward through the nozzle 22. The passages 19, 20 and 21 form a Y with the stem 21 at right angles to the passage 20. The Y hereinafter referred to will be understood to include the three passages 19, 20 and 21.

The neck 2 supports the transverse head or casing 23, the cover 24 of which is removably attached, to permit access to the valve mechanism within. Referring to Fig. 1, the block or plug 18 is secured within the casing by the lugs 25—25 by the screws 26—26 screwed into the casing. The neck 22 protrudes through the bottom of the head and is threaded to receive the nipple 27. The end of the block 18 is threaded as at 28 to receive the cap 29 that bears against the shoulder 30. The end of the block is centrally bored to receive the washer 32 preferably of leather, rubber compound or other semi-resilient substance suitable for the purpose, see Fig. 8. The metal distributing disc 33 bears against the plane of the washer 32. The distributing disc 33 is set within the cup 34 having the transverse lug 35 and the trunnion 36 thereon, the latter projecting into the central hole 37 in the coupling 38 that is transversely grooved as at 39 to receive the lug 35. The shaft 40 of the coupling projects through the central hole in the cap 29. The discs 32 and 33 co-operate to form a face valve. The disc 32 is provided with the central opening 41 bored into the axis of the block 18 to coincide with the passage 42, drilled thereinto to meet the transverse passage 43, that is connected with the conduit 44 leading to the source of soda water supply. The disc 33 is provided with a return passage in co-axial alignment with the passage 41 having the outlet 45 that is adapted to be swung into registry with the ports 46, 47 and 48 through the washer 32 and arranged in concentric relation to the axial opening 41. The port 48 is adapted to communicate with the passage 20 during the discharge stroke of the syrup pump. For this reason the port 48 is elongated in proportion to the stroke of the pump. The distributing passage 45 is adapted to be brought into registry with the ports 46, 47 and 48 in the washer that are registered with the passages 48′, 49 and 20 drilled into the block 18, whereby the soda water admitted through the axial supply passage 43 may be distributed, at the will of the operator, through the nozzles 52, 53 and 51; 51 being a combination of soda and syrup, 52 being a coarse flushing stream of soda; 53 being a jet for high velocity of soda water. To break up the force of the flush stream I provide the end of the nozzle 52 with a perforated cap 54.

The end of the block 18 has the extension 55 screwed thereinto and extending through the end 56 of the head 23. The sleeve 57 is oscillatable upon the stem extension 55 and in the end 56 of the head 23. This sleeve is provided with the crank arm 58, pivoted at 59 to the link 61, that is pivoted at 62 to the end of the piston rod 5 of the syrup pump. City water is led into the block 18 through the supply pipe 63 into the chamber 64, controlled by the valve 65 controlling the outlet passage 66 that leads to the nozzle 67 within the nipple 27. The valve 65 is controlled by the stem 68 seated by the expansion of the spring 69, contained within the stem 55 and expanding against the finger pressure knob 71.

The combination handle has the convenient knob 72, from which the side extensions 73 and 74 extend symmetrically downward

to their respective hubs 75 and 76. The hub 75 encloses the annular enlargement 77 on the end of the sleeve 57, that is provided with a transverse detent or hole to receive the latch 78, see Fig. 13, guided in the hub 75 that is fulcrumed on the pin 78′ in the handle 73. The upper end of the lever flares outwardly to form the grip 79, adjacent to the knob 72, adapted to be depressed by the thumb of the operator inward to lift the latch 78 out of engagement with the head 77. The collar 80 engages the stub 40 of the soda valve coupling and is enclosed within the hub 76. The hubs 75 and 76 are held in position respectively by the bushing 81 threaded in the stem 55, and by the nut 82 threaded on the end of the stub 40. The collar 80 is provided with a lateral hole or recess to receive the plunger 83 guided in the hub 76 and pivoted at 84 to the end of the bell crank lever 85, fulcrumed at 86 and having the grip 87 exposed beyond the handle 74. This plunger 83 is held normally seated in the collar 80 by the expansion of the spring 88; a similar construction being repeated in the handle 73 with respect to the plunger 78. The end 56 of the head 23 is provided with a gauge 89, interposed between the hub 75 and the end 56 and having the lateral lug 90 thereon extending into the path of the handle 73. For the purpose of adjusting the radial position of this lug 90, the gauge 89 is provided with the slot 91 engaging the set screw 92, threaded in the end 56 by which the stroke of the handle 73 may be regulated to measure the quantity of syrup ejected by the pump 3. The conduits 44 and 63 being of block tin tubing of easily bendable nature, I provide the two clamping bars 93 and 94 on the return elbows 14, having the screws 95 threaded therein and adapted to be screwed against the conduits 44 and 63, to hold them from rotation while they are being coupled to their respective sources of supply of carbonated water and city water.

This invention operates substantially as follows: When the operator pulls the handle 72 forward, it rotates the sleeve 57, causing a forward movement of the crank 58, that in turn pulls the piston 4 of the syrup pump 3 forward sucking syrup from the syrup supply into the pump 3 past the check valve 9. The handle 72 is then forced back, see Fig. 2, to the dotted line A, limited by the position of the lug 90. This forces the piston 4 backward forcing the syrup out of the pump 3 past the check valve 12 through the passage 19, see Fig. 16, and through the passage 21 to the nozzle 51. Simultaneously with the stroke of the pump the distributing disc 33 takes a supply of carbonating water under pressure through the passages 42, 41 and 45, and port 46 to passage 20, and brings the soda water to the outlet through the passage 21 to the nozzle 51 simultaneously with the syrup discharged therethrough, causing the syrup and the carbonated water to mix before the beverage is discharged through the nozzle 51 into the drinking glass for serving. Immediately the handle 73 contacts with the lug 90 the handle is reversed and moved forward to the neutral position Fig. 2, then the grip 79 is pressed releasing the latch 78 as the handle 72 is moved forward to the second dotted line "B," which connects the port 41 through the distributing washer 32 with the port 47 in washer 32 and with the passage 48 connecting with the flush nozzle 54, permitting carbonated water to flow into the serving glass to the desired extent. The handle 72 is then moved forward to the first dotted line "C" which permits the carbonated water under pressure to pass through the passage 48 connecting with the jet nozzle 53, which projects a jet of carbonated water into the serving glass at high velocity, serving to thoroughly mix the contents and to create thereon the necessary foam or "head." The forward movement of the handle 72 to neutral, Fig. 2, has moved the pump piston forward filling the pump 3 with syrup ready for a second serving as described. When the handle 72 is moved back to the perpendicular position, illustrated in Fig. 2, all of the various passages through the soda control valve are closed and the pump 3 being charged with syrup ready for succeeding operations as described.

If it is desired to add a little more syrup to the glass of beverage already drawn, the finger grip 87 is pressed releasing the plunger 83 from the soda valve control 80, permitting the pump 3 to be operated to any desired extent for the purpose of ejecting syrup. Contrawise if it is desired to draw the carbonated water through either of the nozzles 53 or 54 the finger grip 79 is pressed inward releasing the plunger 78 from engagement with the sleeve 57 disconnecting the syrup pump and permitting free manipulation of the carbonated water valve to the extent desired.

If it is desired to draw a glass of city water or to dilute the contents of a glass of beverage, pressure on the exposed finger press head 71 opens the water valve 65, permitting water to flow through the nozzle 67. It is obvious that ginger ale or any other form of beverage may be served through this water valve instead of water. While this faucet was designed primarily for the blending and mixing of root-beer syrup with carbonated water, it is obvious that any form of syrup may be thus served and blended in combination with the carbonated water and diluted with city water or any other syrup or beverage under con-

trol of the valve 65, all serving into the same glass through the nipple 27 exposed beneath the transverse head 23. The handle 72 is intended to be formed of onyx porcelain or any ornamental material and all exposed parts of the faucet silver plated or otherwise treated to give a highly ornamental appearance. In construction and operation this faucet was designed primarily for saving the time of the operator, in serving beverages of the nature described, with even more thought of serving such beverages with the maximum quality of blending and flavoring, with the retention of all, that may be of the carbonated effect.

For the convenience of the proprietor the number of strokes of the syrup pump may be registered by the counting mechanism 94, Fig. 1, having the trip 95 interposed in the path of rotation of the sleeve 55, having the trip 96 thereon.

Having thus described this invention, what we claim and desire to secure by Letters Patent is:

1. A dispensing faucet comprising a casing; a plug in said casing having an extension thereon; a nozzle on said plug; a conduit in said plug discharging into said nozzle; a soda water valve discharging into said conduit; a sleeve on said extension; a syrup pump discharging into said conduit; means on said sleeve for actuating said pump; and handles on said sleeve and said soda water valve.

2. A dispensing faucet including a casing; a plug in said casing; plural nozzles on said plug; plural conduits in said plug connecting with said nozzles; a soda water valve discharging into one of said plug conduits: a plain water valve discharging into one of said conduits; a tubular extension on said plug; operating means extending through said extension to said water valve; a sleeve surrounding said extension; a syrup pump discharging into one of said plug conduits; means on said sleeve for actuating said pump; and handles on said sleeve and said soda water valve arranged in proximity for operation of the pump and valve independently, or in unison.

3. A faucet comprising a partially rotatable valve; pump operating means coaxial with said valve; a single handle pivoted coaxially with said pump operating means and valve; and means whereby said pump and said valve may be operated independently or in unison by said handle.

4. A dispensing faucet including a nozzle casing having plural discharge ports therein; a plug, having a plurality of passages therein, connected to said nozzle casing, said passages being connected with the discharge ports in said nozzle casing; independent fluid conduits connected to each of the passages in the plug; a pump adapted to discharge fluid in to one of said conduits; and a handle for operating said pump and controlling the fluid supply passing through said conduits to permit fluid to be discharged through a plurality of said nozzles in unison, or independently.

5. A faucet including a discharge nozzle; a plug connected with said nozzle and having a plurality of fluid passages therein; a valve arranged between said plug passages and nozzle; independent fluid conduits connecting with each of the plug passages; a fluid pump adapted to discharge into one of said conduits; a handle on said valve adapted to actuate said pump and valve and to discharge fluid from one of said plug passages intermixed with the fluid from said valve prior to discharge through said nozzle.

6. A faucet including a plurality of discharge nozzles; a plug connected with said faucet and having a plurality of fluid passages therein communicating with said discharge nozzles; fluid conduits connected with each of the plug passages; a fluid pump adapted to discharge into one of said conduits; a handle on said plug adapted to actuate said pump and discharge fluid from one of said plug passages, intermixed with the fluid from another of said plug passages, prior to discharge through a single nozzle; and means for manually operating said handle independent of said pump to discharge fluid through other discharge nozzles.

7. A dispensing faucet including a plurality of discharge nozzles; a plug connected with said faucet, having soda water, and syrup passages therein; a valve adapted to communicate the respective soda passages with said discharge nozzles; a source of soda water supply connected to the soda water passage in said plug; a syrup pump adapted to discharge syrup into the syrup passage in said plug; a handle pivotally mounted on said plug; and means for manually operating said handle to actuate said valve and syrup pump to permit the discharge of soda water and syrup in unison or syrup alone, from one of said discharge nozzles, or soda water, independently, from said other discharge nozzles.

8. A dispensing faucet including a plurality of discharge nozzles; a plug connected with said faucet, having soda water, and syrup passages therein; a valve adapted to communicate the respective soda passages with said discharge nozzles; a source of soda water supply connected to the soda water passage in said plug; a syrup pump adapted to discharge syrup into the syrup passage in said plug; a handle pivotally mounted on said plug; and means for manually operating said handle to actuate said valve and syrup pump to permit the discharge of soda water and syrup in unison from separate

discharge nozzles; a plain water supply in said plug connected to a discharge nozzle; and a spring seated valve arranged in said plain water conduit between said plug and nozzle.

9. A dispensing faucet including a plurality of discharge nozzles; a plug connected with said faucet, having soda water, and syrup passages therein; a valve adapted to communicate the respective soda passages with said discharge nozzles; a source of soda water supply connected to the soda water passage in said plug; a syrup pump adapted to discharge syrup into the syrup passage in said plug; a handle pivotally mounted on said plug; and means for manually operating said handle to actuate said valve and syrup pump to permit the discharge of soda water and syrup in unison from one of said discharge nozzles; means to disconnect the handle from the pump whereby to actuate said valve to discharge soda water from an independent discharge nozzle; and means for operating said handle to actuate said syrup pump to discharge syrup independently of the soda water.

10. A dispensing faucet including a plurality of discharge nozzles; a plug connected with said faucet, having soda water, and syrup passages therein; a valve adapted to communicate the respective soda passages with said discharge nozzles; a source of soda water supply connected to the soda water passage in said plug; a syrup pump adapted to discharge syrup into the syrup passage in said plug; a handle pivotally mounted on said plug; and means for manually operating said handle to actuate said valve and syrup pump to permit the discharge of soda water and syrup in unison from one of said discharge nozzles; means to disconnect the handle from the pump whereby to actuate said valve to discharge soda water from an independent discharge nozzle; means for operating said handle to actuate said syrup pump to discharge syrup independently of the soda water; a plain water supply in said plug connected to a discharge nozzle; and a spring seated valve arranged in said plain water conduit between said plug and nozzle.

In testimony whereof, we have hereunto set our hands at San Francisco, California, this 30th day of April, 1920.

GEORGE H. T. SCRIBNER.
S. H. SUSSKIND.

In presence of—
LINCOLN V. JOHNSON.