

(No Model.)

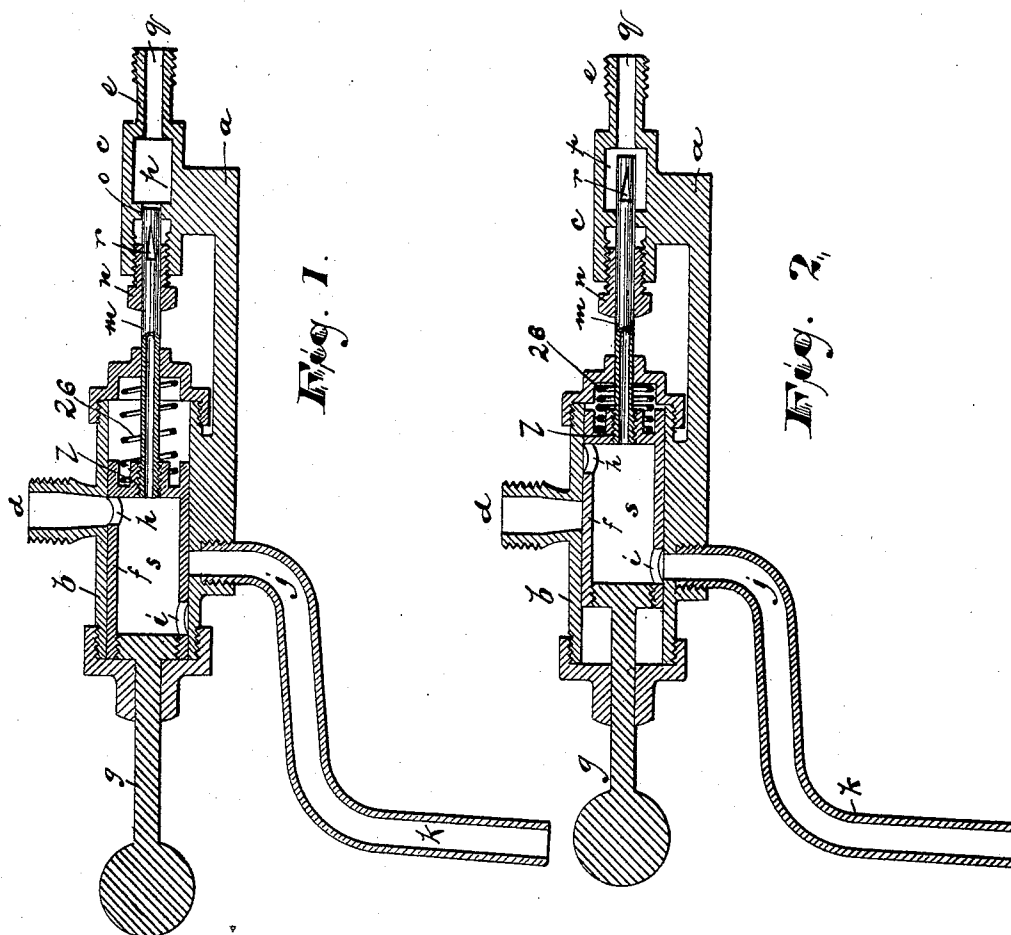
4 Sheets—Sheet 1.

C. B. BLOEMECKE.

APPARATUS FOR DISPENSING SODA WATER.

No. 585,179.

Patented June 29, 1897.



WITNESSES:

INVENTOR:

Robert Gallberger
Louisa Browne

Charles B. Bloemcke,

BY *Spake & Co* ATTY'S.

(No Model.)

4 Sheets—Sheet 2.

C. B. BLOEMECKE.
APPARATUS FOR DISPENSING SODA WATER.

No. 585,179.

Patented June 29, 1897.

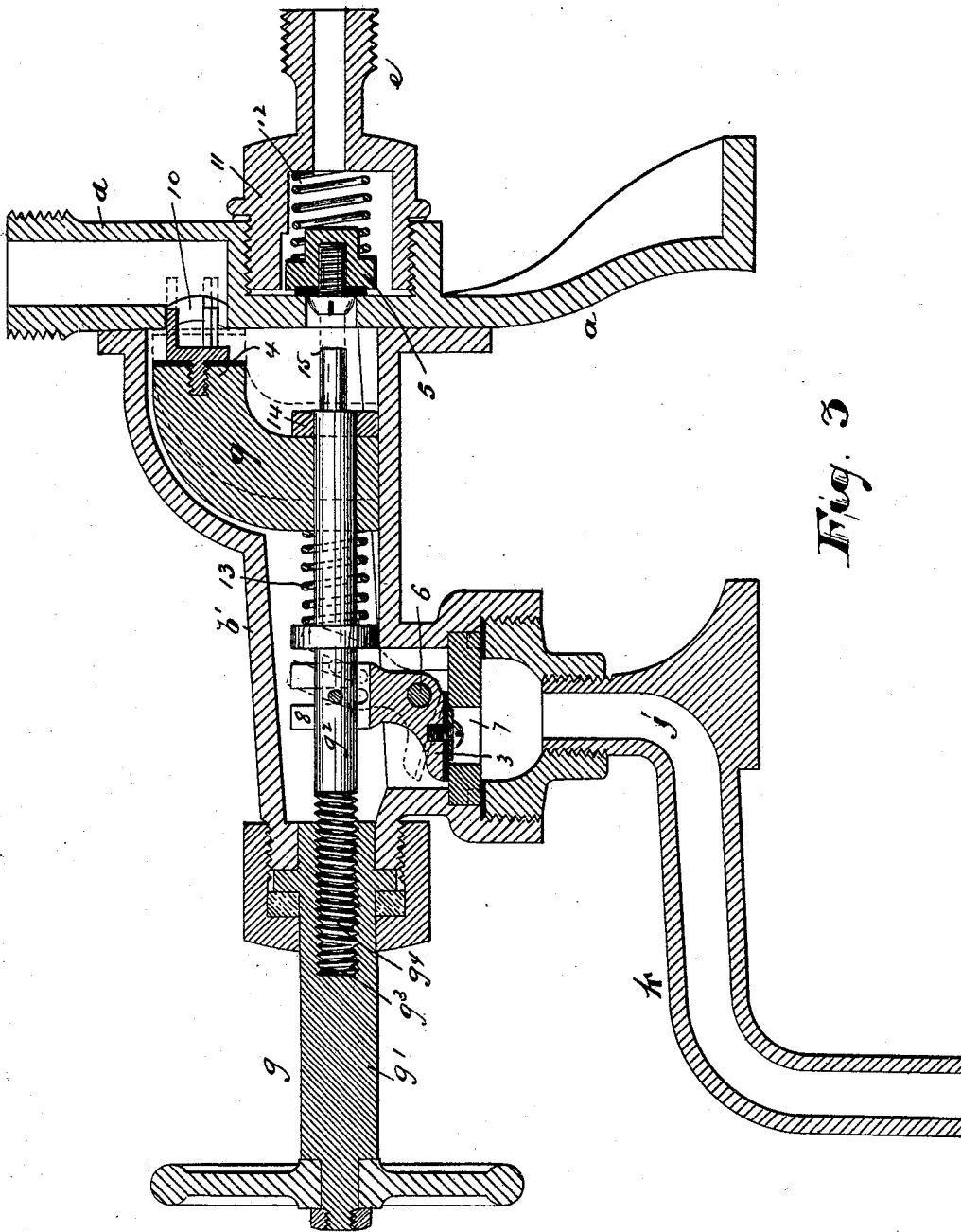


Fig. 3

WITNESSES:

INVENTOR

Robert Gollinger
Louisa Broome.

Charles B. Bloemcke,

BY *Drake & Co* ATTY'S.

(No Model.)

4 Sheets—Sheet 3.

C. B. BLOEMECKE.
APPARATUS FOR DISPENSING SODA WATER.

No. 585,179.

Patented June 29, 1897.

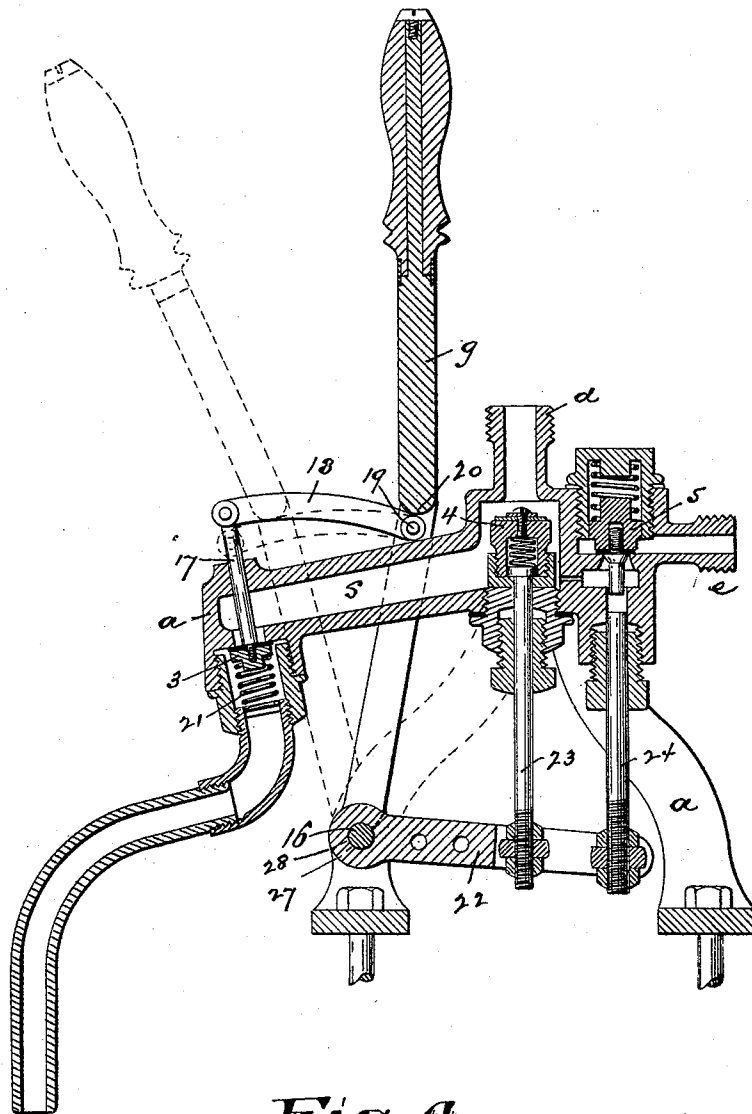


Fig. 4.

WITNESSES:

INVENTOR:

Robert Gallinger
Louisa Browne **Charles B. Bloemcke,**

BY *Drake* & *Co* ATTYS.

(No Model.)

4 Sheets—Sheet 4.

C. B. BLOEMECKE.

APPARATUS FOR DISPENSING SODA WATER.

No. 585,179.

Patented June 29, 1897.

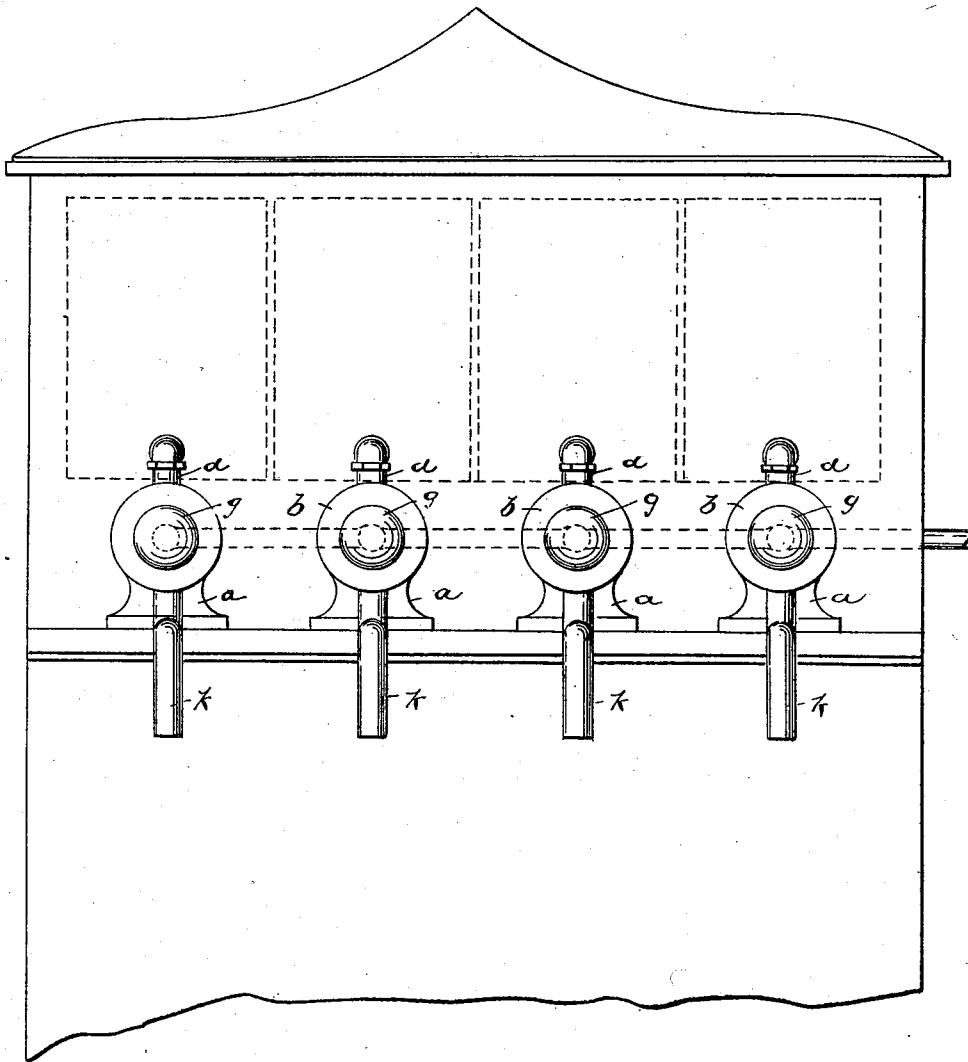


Fig. 5.

WITNESSES:

INVENTOR:

Robert Solberger
Louisa Browne

Charles B. Bloemcke,

BY *Drake & Co.*, ATTY'S.

UNITED STATES PATENT OFFICE.

CHARLES B. BLOEMECKE, OF NEWARK, NEW JERSEY.

APPARATUS FOR DISPENSING SODA-WATER.

SPECIFICATION forming part of Letters Patent No. 585,179, dated June 29, 1897.

Application filed April 4, 1894. Serial No. 506,262. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. BLOEMECKE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Apparatus for Dispensing Soda-Water and other Beverages; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

The object of this invention is to enable soda-water and similar gas-impressed fluids to be dispensed more quickly, to enable the said water and the syrup with which it is tinted to be more uniformly proportioned, to avoid the objections arising from the independent dealing out of syrup and water, and to secure other advantages and results, some of which will be referred to in connection with the description of the working parts.

The invention consists in the improved soda-water fountain and in the arrangements and combinations of the parts thereof, substantially as herein described, and finally embraced in the claim.

Referring to the accompanying drawings, in which like letters and figures of reference indicate corresponding parts in each of the view, Figures 1 and 2 are sectional views of that portion of the soda-water fountain to which my invention particularly relates, the same showing the preferred construction. Figs. 3 and 4 are similar views showing modifications of construction; and Fig. 5 is a front elevation of the preferred construction, all of which will be more particularly described.

In said drawings, *a* indicates a suitable bed or supporting plate which may be attached to a counter or other fixture in any manner desirable, the same plate being in connection with a suitable receptacle for syrup and with an independent receptacle for carbonated water. In the preferred construction said bed-plate has cast integral therewith cylinders *b* and *c*, arranged in axial line, the first of which is in connection, through the nipple *d*, with the syrup receptacle or reservoir and the

other cylinder *c* is in connection with the carbonated or gas-impressed water receptacle through the nipple *e*.

Within the cylinder *b* is arranged a tubular plunger *f*, which is provided at one end with a handpiece *g*. The said tubular plunger may be moved longitudinally within the said cylinder *b*, the said handpiece being of any construction suitable to secure an operative movement of the valves, hereinafter referred to, with convenience and ease. The said tubular plunger *f* is provided with an opening *h*, adapted to coincide in one of its positions (shown in Fig. 1) with the passage through the nipple *d*. It is also provided with an opening *i*, which coincides with an exit-passage *j* in the spout *k* when the said plunger is in a second position. (Shown in Fig. 2.)

At the rear end of the tubular plunger the same is provided with a perforated head *l*, to which a tubular extension *m* is secured by means of screw-threads, as shown, or in any other suitable manner, which tubular extension projects through the follower *n* and valve-opening *o* into the cylinder-chamber *p*, which is in communication with the passage *q* of the nipple *e*. At its extremity adjacent to the chamber *p* the said tube is provided with an opening *r*, adapted to enter the cylinder-chamber *p* and to be withdrawn therefrom, as will be hereinafter described.

The parts above referred to are so related that when the handpiece *g* is thrust inward the extension *m* is forced in the same direction and the opening *r* enters the chamber *p*, so that there is a free outflow of gas-impressed fluid through the extension *m* into the plunger-chamber *s*, which is then in open communication with the passage *j* of the spout. Thus there will be a free outflow of said gas-impressed fluid into the glass or other receptacle beneath the spout. When the parts are in such communication, the opening *h* is not in communication with the passage of the nipple *d*, connecting with the syrup-receptacle, so that there will be no passage of compressed fluid into the syrup-receptacle, but, on the contrary, such communication is positively cut off.

In the reverse movement of the plunger *f*, which may be automatic or otherwise and be controlled by the spring 26, the opening *i* is

thrown away from the passage *j* and the opening *h* is brought into coincidence with the passage in the nipple *d*, and thus an inflow of syrup into the plunger-chamber *s* is allowed.

5 The same movement causes the opening *r* in the tubular extension to be drawn out of the chamber *p*, and thus communication with the reservoir of gas-impressed fluid is cut off from the plunger-chamber.

10 The plunger *s* serves as a measuring device for the syrup and is filled preparatory to repressing the plunger and drawing the compressed fluid, all as will be understood. After filling with syrup and opening the valve to the gas-impressed fluid the latter, moving

15 through the chamber *s*, mixes thoroughly with the syrup, as will be evident.

While I prefer the mechanism thus described, because of its simplicity and easy

20 manufacture, I am aware that various modifications may be made, and I have illustrated two other forms of my invention in Figs. 3 and 4.

In Fig. 3 the bed-plate is made in several

25 parts, and instead of a cylindrical or tubular plunger I have arranged in connection with the said bed-plate valves adapted to operate to secure the desired results. In said Fig. 3, *d* indicates the syrup-nozzle; *e*, the gas-impressed-fluid nozzle; *k*, the spout or reservoir;

30 *g*, a plunger for opening the valves by which the syrup and gas-impressed fluids are allowed an exit through the nozzle *k* at proper times. The said plunger in this case consists

35 of a rotary handpiece *g'*, connected to a threaded shaft or valve-rod *g''*, which is arranged longitudinally within the chambered casting *b'* of the bed. The said handpiece is provided with a female screw-thread *g'''* to receive the threaded valve-rod. When the

40 handpiece is moved pivotally, the valve-rod is moved longitudinally within the chambered portion *f'* of the bed to open or close the valves.

Inward movement of the valve-rod first

45 opens the valve 3 to the spout *k* and closes the valve 4, leading from the syrup-receptacle, and then opens the valve 5, leading from the gas-impressed-liquid receptacle. These several valves may be constructed in connection

50 with and relation to the valve-rod in any suitable manner.

In the construction shown the valve 3 is pivoted at 6, adjacent to the valve-opening 7, and is provided with slotted arms 8, in the

55 slots of which pins or projections of the valve-rod work, so as to occasion a pivotal movement and an opening of the valve 3 when the valve-rod is moved inward.

The valve 4 is on a lateral and inwardly-turned arm 9, having a limited and independent movement on the valve-rod controlled by the spring 13 and stop 14, the outer end of which arm lies closely adjacent to the valve-opening 10 from the syrup-passage.

65 The valve 5 is arranged in a chambered head 11 of the pipe or connection *e*, leading

to the gas-impressed or carbonated water receptacle and is normally closed by a spring

12. Said valve 5 is opened against the power of the spring when the head 15 of the valve-rod

70 in its inward longitudinal movement presses against the said valve 5.

In the construction shown in Fig. 4 the valves corresponding to valves 2, 4, and 5

75 are controlled by a system of levers and connecting-rods operated by the hand-lever *g*, fulcrumed, as at 16, upon the bed or frame.

The valve 3, closing the opening from the syrup-measuring chamber *s*, is operated by a valve-rod 17, extending out from the casting,

80 bed, or frame *a* having said chamber, where it is joined to a depression-lever 18, fulcrumed at 19 upon the said casting. Said depression-piece is engaged by a bearing or shoulder 20 of the hand-lever *g*, so that as the latter is

85 drawn forward on its fulcrum 16 and the bearing 20 slides over said depression-lever the latter is forced downward and the rod 17 and valve 3 are likewise moved to their open positions. A spring 21 serves to hold the

90 valve 3 normally closed when pressure is removed. At the fulcrum 16 the hand-lever *g* engages a lever 22, which controls the valve-rods 23 and 24 of the valves 4 and 5, respectively. There is a limited independence of

95 movement between the levers *g* 22, so that said lever *g* may operate to open the valve 3 and close the syrup-valve 4 before it opens the gas-impressed-water valve 5.

The lever 22 is provided near its junction

100 with the lever *g* with a shoulder 27, which engages a corresponding shoulder 28 on the lever *g*, so that the latter is allowed a limited movement sufficient to operate the valve 3 before affecting the lever 22, as will be understood. The lever 22 has a suitable

105 connection with the valve-rods 23 24, which operate the valves 4 and 5, respectively, to close and open the passages from the syrup and gas-impressed-water receptacles. These valves 4

110 and 5 may be modified in construction to suit varying conditions.

In operating the device it is only necessary to work the handle in either of the ways described to occasion the water under pressure

115 to flow through the previously-measured syrup, mixing thoroughly therewith before and while entering the glass, so that independent mixing operations by the attendant are dispensed with.

120

Having thus described my invention, what I claim as new is—

The improved soda-water-dispensing fountain herein described, in which are combined with a suitable frame or bed, having a syrup-

125 measuring chamber, a spout with an exit-passage for the mixed fluids, inlet passages or ducts for syrup and gas-impressed water, valves for closing communication of the syrup-chamber with the syrup-inlet, the said

130 syrup-chamber with the gas-impressed-water inlet and said syrup-chamber with the spout-

passage, a handle and means connected there-
with for operating said valves, said means be-
ing relatively timed in construction and ar-
ranged to close the syrup-supply passage and
5 open the gas-impressed-water inlet and spout-
passage at one operation of the handle, sub-
stantially as set forth.

In testimony that I claim the foregoing I
have hereunto set my hand this 26th day of
March, 1894.

CHARLES B. BLOEMECKE.

Witnesses:

OLIVER DRAKE,
EMIL L. NUEBLING.