

No. 782,815.

PATENTED FEB. 21, 1905.

C. H. BANGS.
SODA FOUNTAIN.
APPLICATION FILED MAY 31, 1904.

2 SHEETS—SHEET 1.

Fig. 1

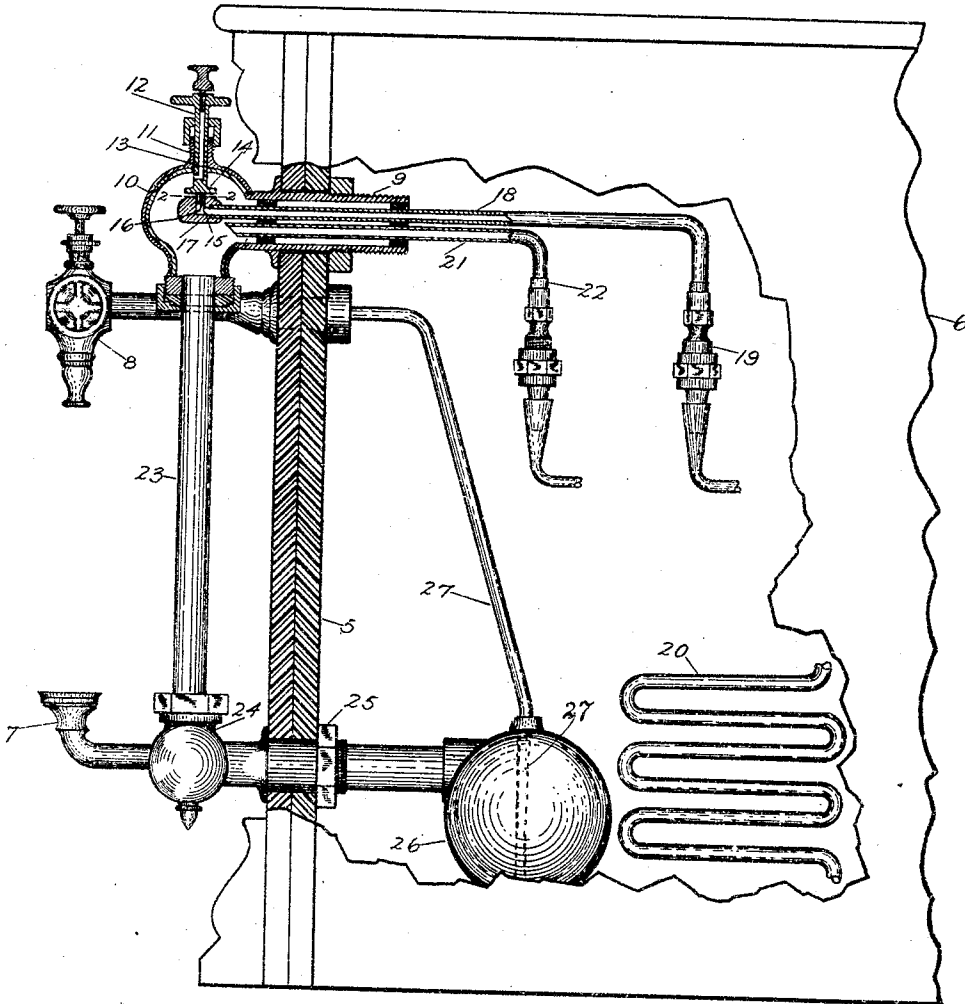


Fig. 2

Witnesses:
Geo. A. Knox
S. Gostray



Inventor:
Charles H. Bangs
Wm. J. Miller
att'y.

C. H. BANGS.
SODA FOUNTAIN.
APPLICATION FILED MAY 31, 1904.

Fig. 3

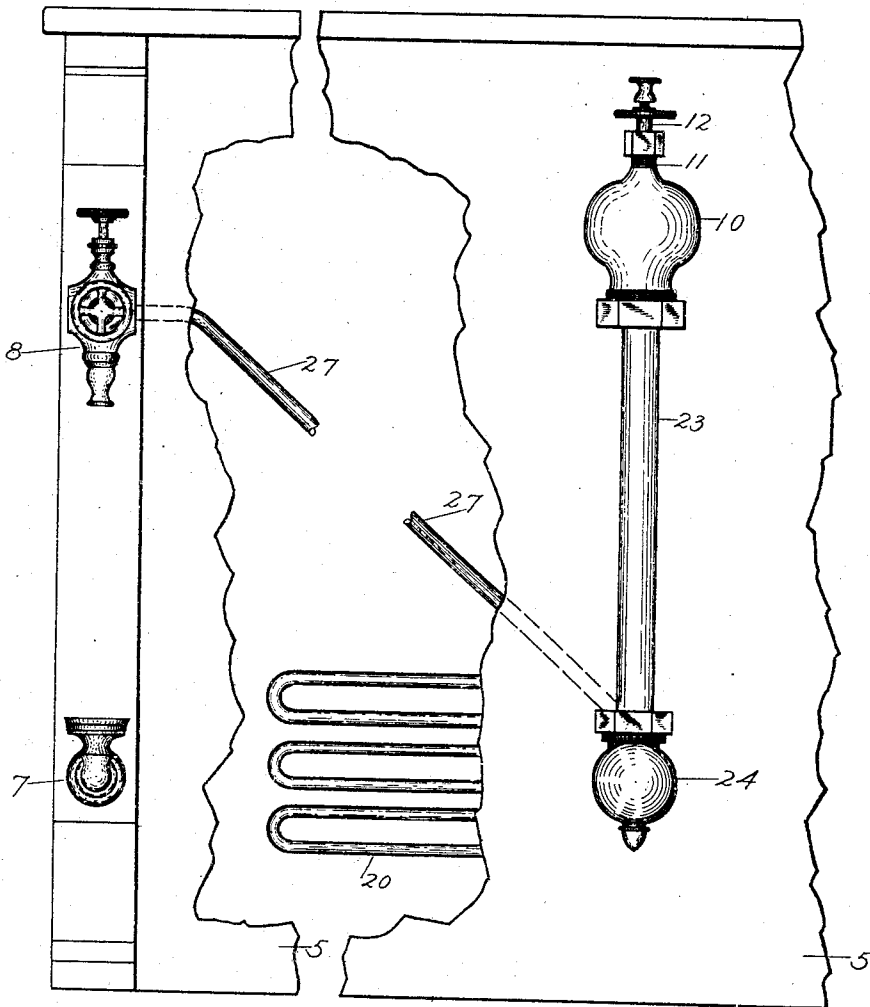
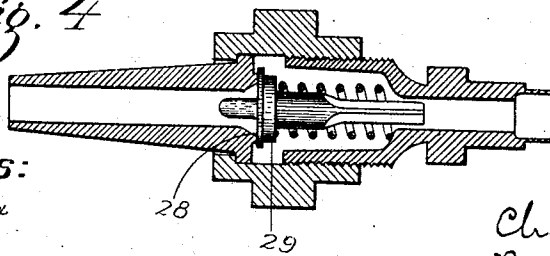


Fig. 4



Witnesses:
Geo. A. Kuor
S. Gostray.

Inventor:
Charles H. Bangs
Per Henry J. Miller
att'y.

UNITED STATES PATENT OFFICE.

CHARLES H. BANGS, OF EVERETT, MASSACHUSETTS.

SODA-FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 782,815, dated February 21, 1905.

Application filed May 31, 1904. Serial No. 210,395.

To all whom it may concern:

Be it known that I, CHARLES H. BANGS, of Everett, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Soda-Fountains; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in soda-fountains, and relates particularly to the means for carbonating beverages adapted to be dispensed from said fountain.

One object of the invention is to so construct a soda-fountain that the carbonation of beverages, for the dispensing of which the fountain is designed, may be effected in view of the purchaser.

Another object of the invention is to so construct a soda-fountain that the fluid to be carbonated may be drawn therefrom to an exterior carbonator, may there be supplied with carbonic-acid gas, and may be led from said carbonator back to the interior of the fountain by a pipe of which a portion is transparent, whereby the action of the gas on the fluid may be in view.

Other objects of the invention will appear from the following description.

The invention consists in such novel features of construction and combination of parts as shall hereinafter be described, and pointed out in the claims.

Figure 1 represents an end view of a soda-fountain partially broken away to show the connections between the exterior carbonator and portions of the interior cooling and storing devices, the carbonator being shown in section. Fig. 2 represents a cross-sectional view of the carbonator, taken on line 22, Fig. 1. Fig. 3 represents a front view of the improved soda-fountain partially broken away to show some of the interior connections. Fig. 4 represents a sectional view of one of the check-valves.

Similar numbers of reference designate corresponding parts throughout.

In carrying this invention into practice my main object has been to so construct a soda-fountain that the fluid adapted to be dispensed

therefrom should be carbonated approximately in view of the purchaser or that the fluid directly after carbonation should be led through a transparent tube or conduit of any suitable cross-sectional shape or size, whereby the carbonated fluid is adapted to attract the eye and direct evidence is given of the carbonation of additional fluid as the previously-carbonated fluid is drawn from the fountain.

As shown in the drawings in its preferred form, 5 indicates the front of a soda-fountain of any well-known construction and material, of which 6 represents one end portion. On some convenient part of the front 5 is preferably mounted the glass-support 7, above which is located the draw-off faucet 8, provided with a suitable valve or valves for controlling the flow of the carbonated fluid therefrom. The use of the support 7 or the position of the draw-off faucet 8 with relation to the other parts of the fountain is, however, not material, and said faucet may be located and supported in any well-known manner or location.

Through the upper portion of the front 5 extends the neck 9 of the carbonator-chamber 10, preferably constructed as herein shown, having the stuffing-box 11, in which works the spindle 12, having the channel 13 and the plate 14 furnished with the axially-disposed screw-threaded projection 15, having the channels 16 16, as shown in section in Fig. 2, this screw-threaded projection 15 working in the orifice of the nozzle 17, which is connected by the pipe 18, through the backwardly (downwardly) closing check-valve 19, (shown in section in Fig. 4,) with any suitable coil 20, adapted to lead fluid under pressure through a cooling medium, such as ice, to said valve. Also extending through the neck 9 of the carbonator-chamber 10 is the gas-supply pipe 21, which is connected, through the backwardly-closing check-valve 22, similar to that shown in section in Fig. 4, with any usual tank or other source for supplying carbonic-acid gas under pressure.

Secured in the lower portion of the chamber 10 in any well-known manner is the transparent tube 23, preferably of the shape herein shown and connected at its lower end by the socket member 24 with the pipe 25, secured

through the front 5 of the fountain, this pipe communicating with the reservoir 26, adapted to receive and store the carbonated fluid and having a pipe 27 extending to the draw-off nozzle 8.

The check-valves (indicated at 19 and 22) are of any usual construction, as that shown in Fig. 4, and provided with the valve-seat 28 and the downwardly-closing spring-actuated valve 29, adapted to prevent the backward flow of the fluid from the pipes 18 and 21 under the pressure exerted in the carbonator-chamber 10.

The plate 14 is adjusted by the rotation of the spindle 12 to control the flow of water into the chamber 10, the water passing from between said plate and the end of the nozzle 17 in a thin sheet of spray which is impregnated with the carbonic-acid gas supplied under pressure through the pipe 21, after which the carbonated fluid in seeking an outlet from the chamber 10 passes down through the tube 23 and thence to the reservoir 26 until the pressure in said reservoir and in the pipe 27 equals the pressure in the chamber 10. The ebullition of the carbonated fluid in the tube 23 can readily be seen and tends to attract custom to the fountain by its evidence of the exhilarating qualities of the fluid. As the fluid is drawn from the faucet 8 the ebullition of the fluid in view in the transparent tube is increased for a time by the additional supply of gas entering the chamber 10.

I do not desire to limit myself to this particular transparent conductor or container for carbonated fluid, for I am aware that many other modifications thereof may be utilized for the main purpose, which is the exposure

to view of the ebullition of carbonated fluids in soda-fountains.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A soda-fountain comprising a casing, a carbonator mounted exteriorly thereof, connections for supplying water and gas to said carbonator from within the casing, automatic valves in said connections for preventing the backward flow of the water and gas, a reservoir contained within said casing and furnished with a pipe extending through the wall of the casing at a point below the carbonator, a transparent conduit connecting the carbonator with said pipe, a draw-off faucet located outside the casing, and a pipe connecting said faucet with said reservoir.

2. The combination with the casing 5, the carbonator-casing 10 mounted exteriorly of said casing and having the neck 9 extending through the wall of the casing, and the gas and water supply pipes 18 and 21 extending through said neck, of the reservoir 26 located within the casing 5 and having the pipe 25 extending through the wall of the casing and furnished with the socket member 24, the transparent conduit 23 connecting the carbonator-chamber with said socket member, and means located outside the casing and connected with the reservoir for drawing carbonated fluid therefrom.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. BANGS.

Witnesses:

HENRY J. MILLER,
S. GOOSTRAY.