

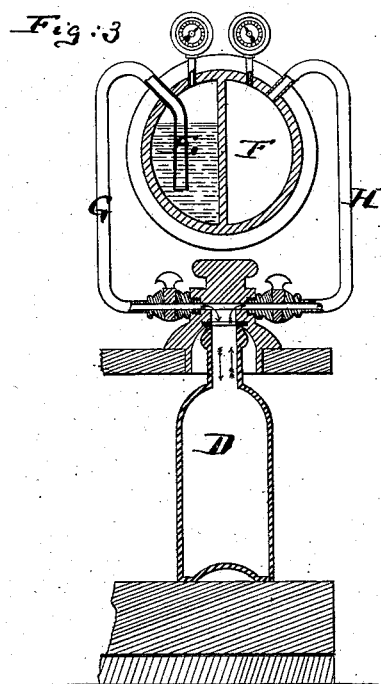
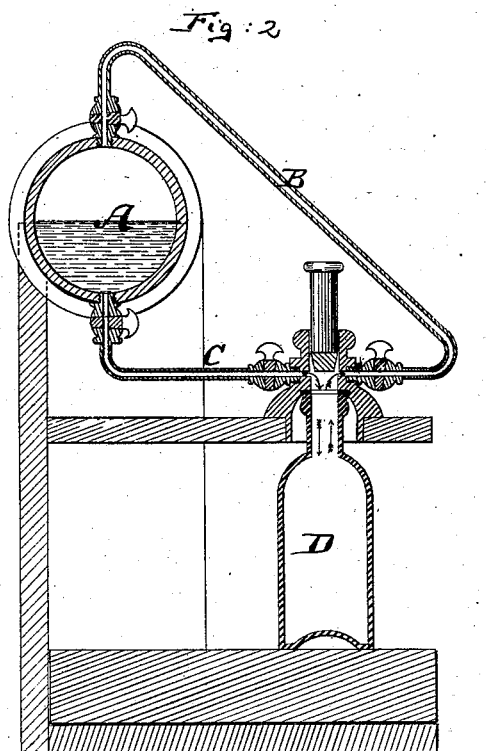
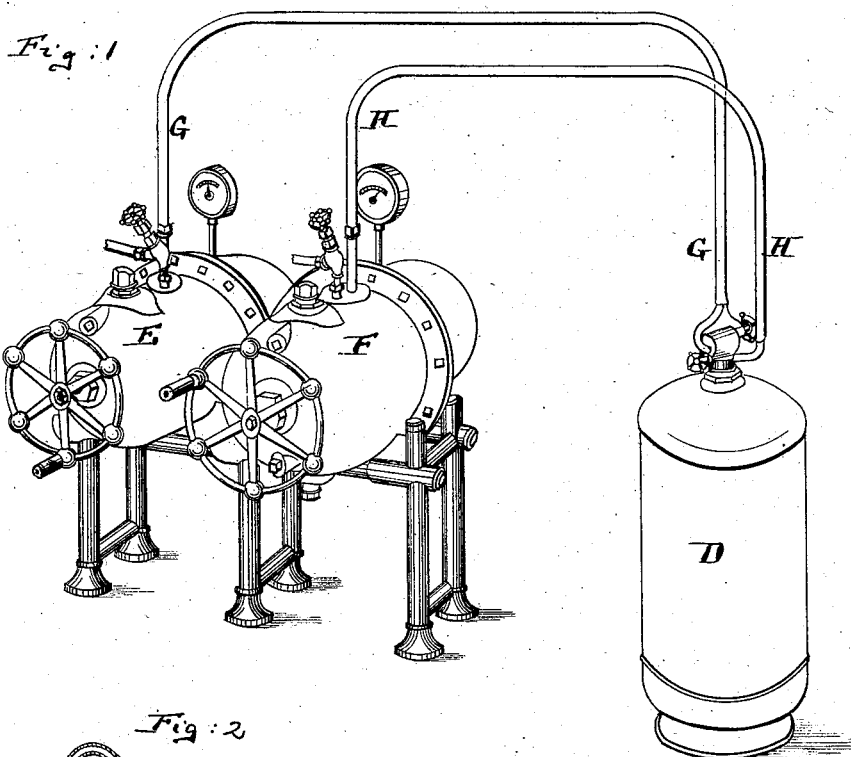
(No Model.)

J. MATTHEWS.

METHOD OF CHARGING FOUNTAINS WITH AERATED BEVERAGES.

No. 260,766.

Patented July 11, 1882.



Witnesses:
John C. Fairbridge
John W. Speer

Inventor:
John Matthews
by his attorney *Frederick A. ...*

UNITED STATES PATENT OFFICE.

JOHN MATTHEWS, OF NEW YORK, N. Y.

METHOD OF CHARGING FOUNTAINS WITH AERATED BEVERAGES.

SPECIFICATION forming part of Letters Patent No. 260,766, dated July 11, 1882.

Application filed November 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN MATTHEWS, of New York, in the county and State of New York, have invented a new and Improved Method of Charging Fountains with Aerated Beverages, of which the following is a specification.

Figure 1 is a perspective view of an apparatus with the aid of which my process can be carried into effect. Fig. 2 is a sectional view of apparatus heretofore employed in charging fountains. Fig. 3 is a sectional view of the same old apparatus changed to admit of my new process.

In Letters Patent No. 53,019, granted me March 6, 1866, I have illustrated the apparatus shown in Fig. 2 of the accompanying drawings, and described a method of bottling liquids or the like under pressure, by which constant and uniform pressure is maintained upon the liquid as well when passing into the vessel to be filled as when in the reservoir from which it is taken.

My present invention is a departure from that above described in that I discard the constant and uniform pressure upon the liquid, using greater pressure in the liquid-reservoir than in the vessel to be filled therefrom.

My invention consists in the method of charging soda-water fountains and the like by connecting each fountain with two separate reservoirs, of which one contains gas and the other water, the water in its reservoir being under greater pressure than is the gas in its holder.

In Fig. 2, the letter A represents the reservoir of the old and previously-employed apparatus. B C are the pipes leading from the reservoir A to the vessel D to be filled. The reservoir A contained both gas and water and had means for conducting each to the vessel D.

In Fig. 3 will be found, in lieu of the reservoir A, a pair of reservoirs, E and F, each connected by a separate pipe with the vessel D to be filled. In Fig. 1 also are shown the reservoirs E F, the vessel or fountain D, the pipe G, leading from E to D, and the pipe H, leading from F to G. There is, it will be seen, no longer a circuit through any of the reservoirs,

nor are any of them connected by two pipes with the vessel D. The vessel E is partly filled with the aerated beverage under pressure greater than is finally desired in the fountain D. The vessel F is filled entirely with gas of the kind with which the water in E is charged; but the pressure in the reservoir F is less than that in the reservoir E. In other words, the gas in the reservoir E that is above the water therein contained is compressed more highly than the gas in the reservoir F.

In order to fill the fountain D with carbonated beverage, it is first placed in communication with the gas-reservoir F by opening a cock in the pipe H. This causes the vessel D to be filled with gas. The cock in the pipe G is then opened, establishing communication also between E and D. The vessel D is now connected with both reservoirs E and F. The water from the reservoir E, being under greater pressure, enters the fountain D and drives the surplus gas back to the vessel F. When the fountain D is properly charged the pipes G H are closed and disconnected from said fountain D. Thus, without risk of an equilibrium, which was liable to follow the old method, and without throwing the fountain D in communication with the atmosphere, I am enabled to rapidly fill such fountains to the exact extent required.

I claim—

The method herein described of charging a fountain with aerated beverages, by connecting it first with a reservoir that contains only gas under pressure, and then with another reservoir containing water and gas under greater pressure, meanwhile leaving the connection with the first reservoir uninterrupted, so that the fountain will first be charged with gas and then with water under greater pressure than the gas, the water expelling the surplus gas into the first reservoir, whereupon communication with both reservoirs is closed, substantially as specified.

JOHN MATTHEWS.

Witnesses:

FRED. MATTHEWS,
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