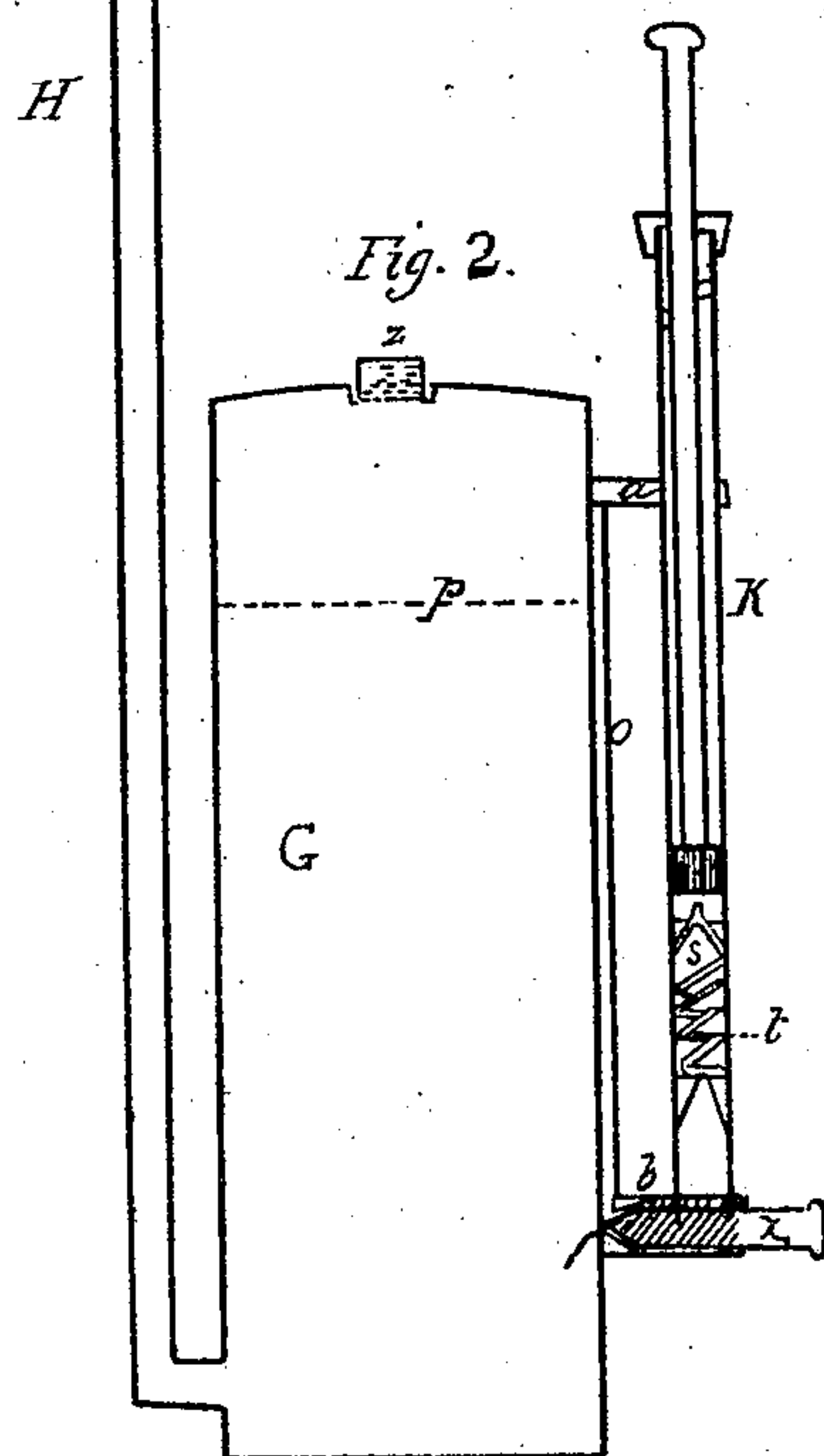
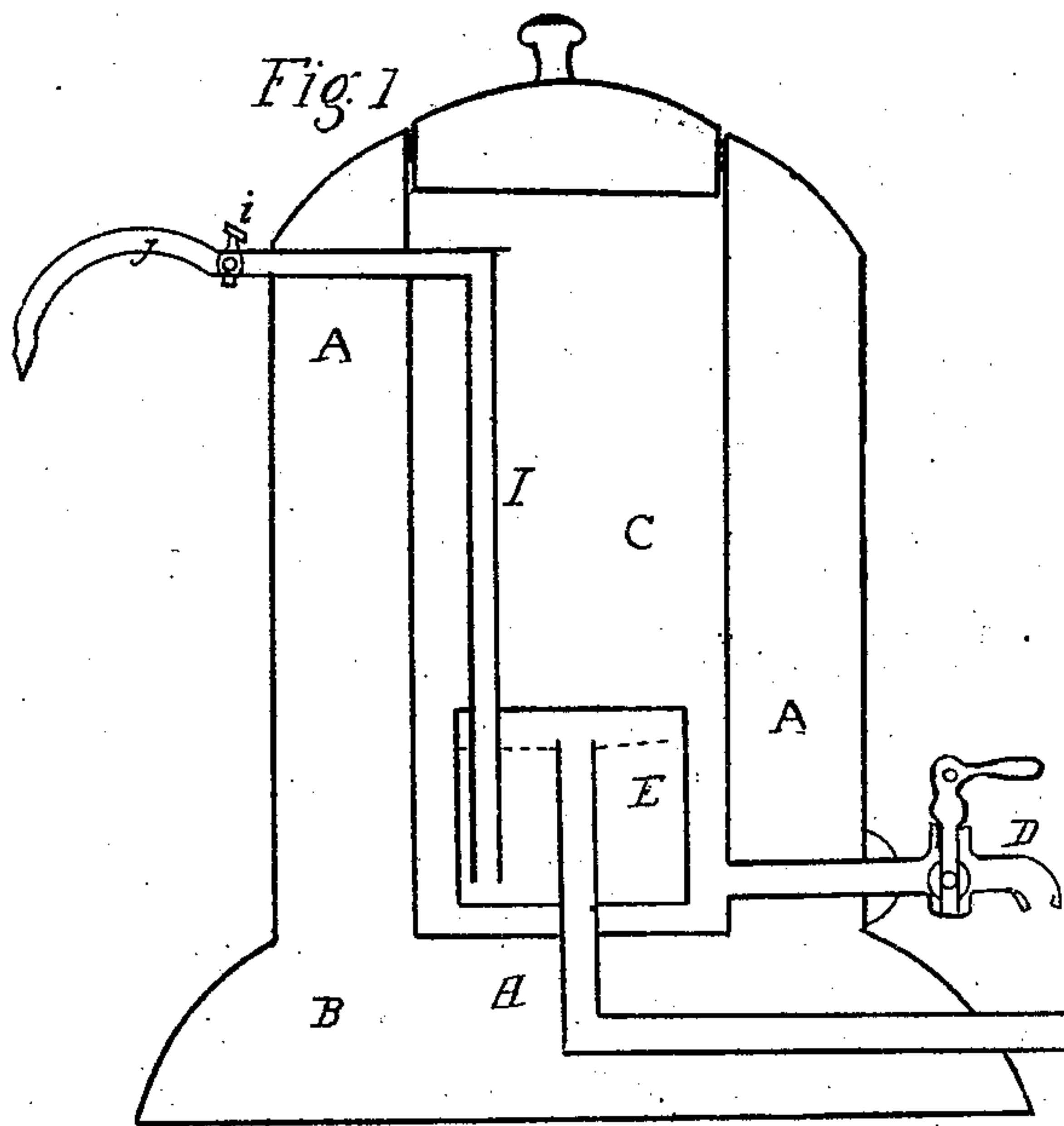


J. S. Hull.
Imp^d Soda-Fountain.
N^o 73249 *Patented Jan. 14, 1868.*



Witnesses

H. R. Peck
Nelson Gates

Inventor
John S. Hull

United States Patent Office.

JOHN S. HULL, OF CINCINNATI, OHIO.

Letters Patent No. 73,249, dated January 14, 1868.

IMPROVEMENT IN SODA-FOUNTAINS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN S. HULL, of Cincinnati, Ohio, have invented a new and useful Improvement in Soda-Fountains; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 represents that portion of my improved fountain which is designed to be placed upon a table or counter, and contains the cooling-chamber.

Figure 2 represents the receptacle for the soda-water with its connections with the air-pump and with the cooler.

The figures are taken as vertical sections.

My invention relates to that class of soda-fountains in which the water will be impregnated with soda, and the sirup will be suitably charged with acid; and my invention consists in the arrangement of means of compressing air, in connection with the liquid-fountain, air-chambers, and tubes, whereby the liquid will be ejected by compressed air forced into the water-chamber after the introduction of the water, as hereinafter described.

The cylindrical annular space A and base B may be filled with charcoal or other suitable material, to cause the ice-chamber C to be unaffected by a heated atmosphere. The faucet D serves to draw off the water from the ice-chamber C. The cooler E is situated near the bottom of the ice-chamber C, and communicates with the fountain G by means of a tube or pipe, H, which terminates very near the top of cooler E. Another tube, I, connected with the spout J, extends through the top of the cooler, and downwards, terminating near the bottom of the cooler, as represented in the drawing. The fountain G may be placed in the cellar of a house, or in any convenient position, at some distance from the ice-chamber and cooler, and the tube connecting the two may communicate with the cooler by passing directly through the bottom of the base, B, in a vertical line. The air-pump K, constructed to charge the fountain G with compressed air, is secured at the side of the fountain by means of bracket a and tube b. s is a metal valve, which is held up in contact with its seat by the spiral spring L, but will be depressed by the action of the piston when forcing the air into the fountain. The air will pass through the horizontal tube b when the screw-spigot or tap x is withdrawn sufficiently to open the orifice, and the air will pass upwards through the pipe o and enter the fountain G above the water-line p. After the fountain is sufficiently charged with compressed air, the tap x will be screwed up, to close the orifice and prevent leakage.

A quantity of water suitably impregnated with bicarbonate of soda is first introduced through the opening in the top of the fountain, when the screw-plug z will be inserted, to make the fountain perfectly "air-tight." The air-pump will then be employed to charge the fountain, or that portion of it above the water, with compressed air, the effect of which will be to cause the water to rise through pipe H into the receiver and cooler E, which, being already filled with air in a normal condition, will, when compressed by the introduction of the water, add its elasticity as a means of aiding the ejection of the water through the spout J when the faucet i is opened for the purpose.

It will be observed that the air-pipe o and water-pipe H both terminate at their upper ends above the water-lines of the vessels with which they communicate; also, that the lower ends of both the pipes I and H communicate with their respective vessels near their bottoms. By this arrangement I insure the passage of the water from the fountain to the exit-spout J, and retain the compressed air within the fountain and upper portion of the cooler E.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The soda-fountain G, tubes H, I, and J, and cooler E, combined and arranged for ejecting the water by compressed air forced into the water-fountain, substantially as described.

In testimony whereof, I have hereunto set my hand, this 9th day of September, 1867.

JOHN S. HULL.

Witnesses:

H. P. K. PECK,

H. D. PECK.