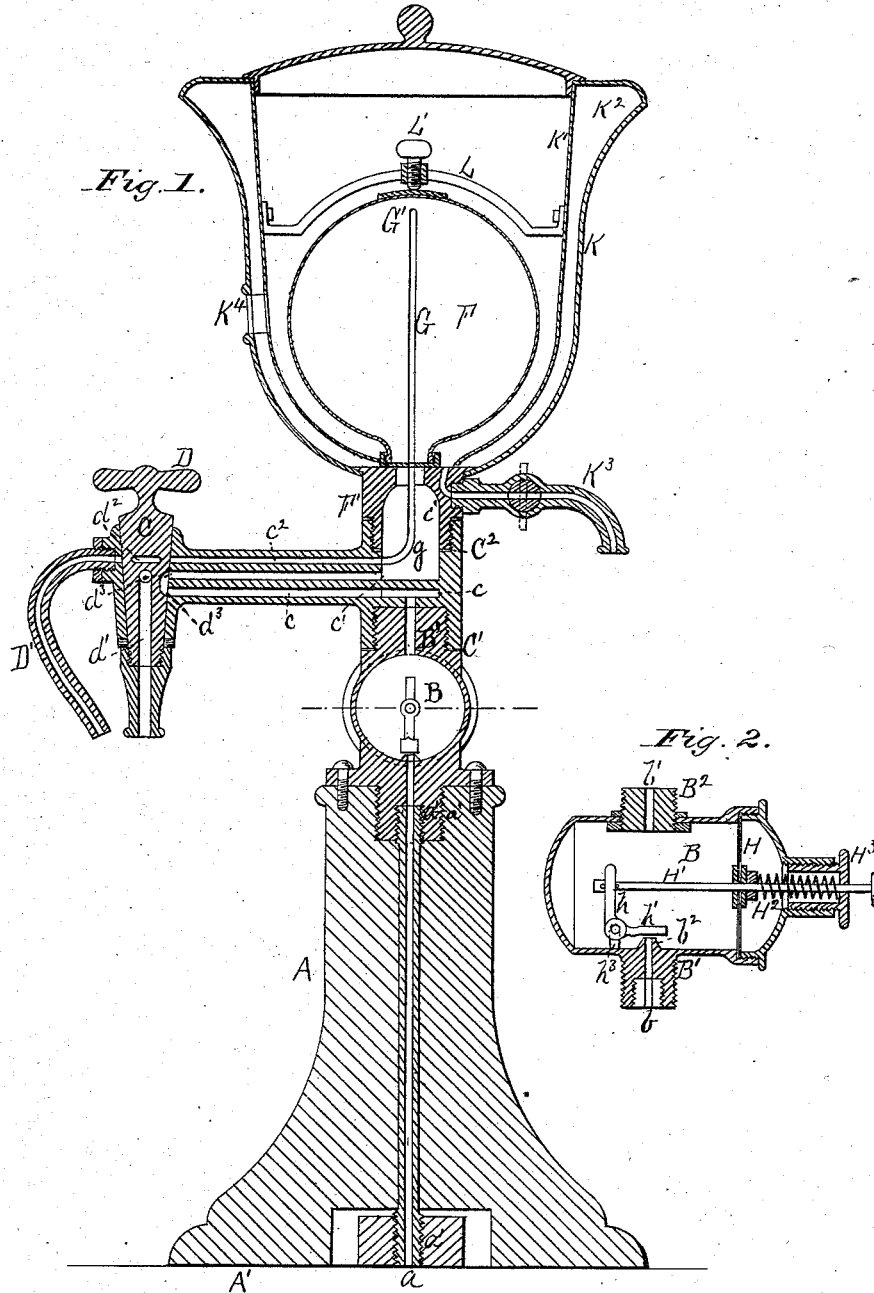


F. W. WIESEBROCK.

Apparatus for Drawing Effervescent Liquids.

No. 162,986.

Patented May 4, 1875.



Witnesses:  
Edwin James.  
John H. Jones.

Inventor:  
Frederick W. Wiesebrock  
per J. E. J. Holmead  
Attorney.

# UNITED STATES PATENT OFFICE.

FREDERICK W. WIESEBROCK, OF BROOKLYN, NEW YORK, ASSIGNOR TO  
HENRY W. SHEPARD AND ROBERT SEAMAN.

## IMPROVEMENT IN APPARATUS FOR DRAWING EFFERVESCENT LIQUIDS.

Specification forming part of Letters Patent No. **162,986**, dated May 4, 1875; application filed  
March 19, 1875.

*To all whom it may concern:*

Be it known that I, FREDERICK W. WIESEBROCK, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Apparatus for Drawing Effervescent Liquids, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a vertical sectional view of the apparatus. Fig. 2 is a vertical sectional view of a regulator which may be used with the apparatus shown in Fig. 1.

My present invention is an improvement in the apparatus used in drawing or dispensing effervescent liquids, and is designed to remedy difficulties hitherto experienced in the use of said apparatus, and which have chiefly resulted from the presence of carbonic-acid gas in said liquids, and the difficulty of so regulating its pressure as to permit the liquid to be drawn comparatively unaffected by the pressure of said gas.

To accomplish this most advantageous result my invention consists, first, in arranging between the supply-vessel and the vessel from which the liquid is to be drawn or dispensed, and connected therewith, a pressure-governor, and which shall so operate as to permit the dispensing apparatus to be operated entirely irrespective of the pressure of the supply. My invention also consists of a novel construction and arrangement of faucet and cock, and of a supplemental discharge or pressure escape tube, whereby the liquid is fed from the supply by turning the cock in one direction, and then drawn off by turning the same in an opposite direction; but, owing to the arrangement of the openings or slots in the cock, when caused to register with the discharge-channel of the faucet through an upper slotted opening, which is immediately above the regular discharge-orifice, any surplus pressure in the discharge-vessel is relieved from the liquid, and escapes through the supplemental tube the instant before the discharge-orifice is caused to fully register with the channel, through which the liquid to be drawn off or dispensed is fed.

This arrangement is most advantageous, as practical experience has fully demonstrated, as it surely guards against any too-forceful ejection of the liquid, and as the relieving of the excess or surplus pressure is only an instant before the liquid flows out, the gas contained in the liquid has not sufficient time to escape below a desired quantity, or to a degree or an extent to leave the liquid flat, as is the case in other apparatuses of this character.

The construction and operation of my invention are as follows:

A is a stand, and is of any desired form, and may be constructed of any suitable material, and is secured to a counter or other suitable support, A'. *a* is a tube, which extends up through a vertical opening in the stand A, and is connected, by suitable attachments *a' a'*, with a supply-vessel, (not shown in the drawing,) and with the inlet-channel *b* of the opening B<sup>1</sup> of the pressure-regulator B, and the construction and operation of which regulator I will describe hereafter, but not in this connection, as it forms no part of my present invention, but which I wish to make the distinctive subject-matter of an independent application; and, besides, in present invention I do not desire to be limited or restricted to the use of any particular or given kind of regulator, but to have the option left me of using any regulator whose construction and operation are such as to render it applicable for the purpose designed. C is a faucet, whose inlet-opening C<sup>1</sup> is screwed around the discharge-opening B<sup>2</sup> of the regulator B, and whose channel *c* communicates with the channel *b*<sup>1</sup> of said discharge. In the faucet C, and immediately above the channel *c*, and running parallel therewith, is a channel, *c*<sup>1</sup>, and which channels form a continuous passage for the ingress of liquid from the regulator B to the vessel F when the cock D is so turned as to cause the lateral slot *d*<sup>1</sup>, which is cut in its vertical face, to register with the openings of the channels *c c*<sup>1</sup>. F is a glass globe or vessel, and from which the liquid to be dispensed is drawn, and at its lower section F' is secured to the opening C<sup>2</sup> of the faucet, the channel *c*<sup>1</sup> of the latter leading into, and communicat-

ing with, its interior chamber. G is an elbow-shaped tube, extending up into the interior of the chamber of the vessel F, and having its inlet-opening G' at the upper section of said chamber. At its lower section *g* it enters, and is secured in, a channel, *c*<sup>2</sup>, of the faucet C, and which extends in a longitudinal direction, running parallel with the channels *c* *c*<sup>1</sup>. In the cock D, besides the slot *d*<sup>3</sup> and the ordinary outlet-orifice and channel *d*<sup>1</sup>, there is cut crosswise the cock, and above the orifice *d*<sup>1</sup>, an oblong slot, *d*<sup>2</sup>, and which, when the cock is so turned as to cause its outlet-opening *d*<sup>1</sup> to register with the channel *c*<sup>1</sup>, so as to permit the liquid in the vessel F to be drawn off, the opening *d*<sup>2</sup> will have an instant previously registered with the channel *c*<sup>2</sup>, and which has permitted any excess of pressure in the vessel F to pass down through the tube G, and out through the channel *c*<sup>2</sup>, slot *d*<sup>2</sup>, and supplemental discharge tube or nozzle D', and which avoids all danger of the liquid being discharged under an undue pressure. The regulator B is provided with an elastic diaphragm, H, through the center of which passes a vertical valve-rod, H<sup>1</sup>, and to which is attached a bell-crank-shaped lever, *h*, the arm *h*<sup>1</sup> of which constitutes the valve. This lever *h* is pivoted in a suitable bearing-arm, *h*<sup>3</sup>, secured to the inner surface of the shell of the regulator. The valve-arm *h*<sup>1</sup> acts against a valve-seat, *b*<sup>2</sup>, and which is a cone-shaped nozzle, encircling the discharge-opening of the inlet-channel *b*. Around the valve-rod H<sup>1</sup> is secured a spring, H<sup>2</sup>, and which has its upper bearing against the inner face of the screw-cap H<sup>3</sup>, and which works in suitable bearings in the upper section of the shell of the regulator.

By screwing up this cap the pressure on the spring is relieved, and by screwing down the cap the spring can be regulated and caused to exert any desired degree of pressure; but, instead of this form of regulator, either of the regulators embraced and claimed in Letters Patent of the United States issued to me January 12, 1875, Nos. 158,767 and 158,768, and February 9, 1875, Nos. 159,731 and 159,732, or, indeed, any other regulator that is so constructed as to be purely automatic in operation, feeding a varying quantity from a supply whose pressure is constantly varying, and which will under all circumstances operate comparatively unaffected by the pressure of the supply, may be used.

If desired, the glass globe or vessel F may be incased in an ice-chamber, K, having a lining, K<sup>1</sup>, and which is relatively so arranged in connection with the interior surface of the wall *k* as to provide an annular chamber, K<sup>2</sup>, and which may be filled with a suitable non-conducting material or composition. The ice-chamber is provided with a discharge-cock, K<sup>3</sup>, for drawing off the water, and a bull's-eye, K<sup>4</sup>, and through which the operator can view the contents of the globe F.

L is a detachable cross-bar, which serves to

hold and retain the vessel in position by means of the thumb-screw L'. This cross-piece can readily be detached, and which permits of the vessel F being removed for the purpose of cleansing.

From the foregoing full and detailed description the operation of my improved apparatus will be readily understood. The apparatus being attached to a counter, or other suitable support, and the tube *a* being attached to the supply-vessel that contains the root-beer, white-beer, sarsaparilla, or other like liquids that contain or are charged with carbonic-acid gas, and the cock or plug D being turned so as to cause its slot *d*<sup>3</sup> to register with the channels *c* *c*<sup>1</sup>, and the screw-cap H<sup>3</sup> being screwed down to open the valve *h*<sup>1</sup>, and the spring H<sup>2</sup> adjusted to resist a given pressure, the cock in the supply-vessel is now opened. The liquid will now pass through the tube *a* into the regulator, and out through the tube *c* into the slot *d*<sup>2</sup>, and back through the slot *c*<sup>1</sup> into the globe or vessel F. So soon as the globe is properly charged, and the liquid has accumulated in the reservoir until its density or pressure is greater than that the spring is adjusted to resist, then instantly the diaphragm H will be lifted, and the valve *h*<sup>1</sup> closed. After the desired quantity of liquid is in the vessel F, to draw off the same you simply have to turn the cock D so that its slot *d*<sup>2</sup> shall register with the channel *c*<sup>2</sup>, and the outlet-orifice shall register with the channel *c*<sup>1</sup>. But as the slot *d*<sup>2</sup> is cut crosswise the cock and above the opening *d*<sup>1</sup>, and as the opening *d*<sup>2</sup> through the channel *c*<sup>2</sup> and tube G with the upper section of the vessel F, any surplus pressure in the vessel passes off through the tube G, channel *c*<sup>2</sup>, slot *d*<sup>2</sup>, and tube or nozzle D' an instant before the opening *d*<sup>1</sup> communicates with the channel *c*<sup>1</sup>, and which prevents any forcible ejection of the liquid, and as the relieving of this surplus pressure is immediately before the liquid flows out the gas contained in the liquid has not sufficient time to escape to such an extent as to render the liquid flat, as is the case with other apparatuses of this character.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In an apparatus for drawing effervescent liquids, a pressure-regulator, B, arranged in connection with a dispensing-vessel, F, the whole being combined and arranged to operate substantially as described.

2. A dispensing-vessel, F, faucet C, having a nozzle, D', communicating through its opening *d*<sup>2</sup> with channel *c*<sup>2</sup> of the faucet, and tube G, the whole being combined and arranged to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

F. W. WIESEBROCK.

Witnesses:

JOHN B. BAKER,  
JOHN J. HINMAN.