

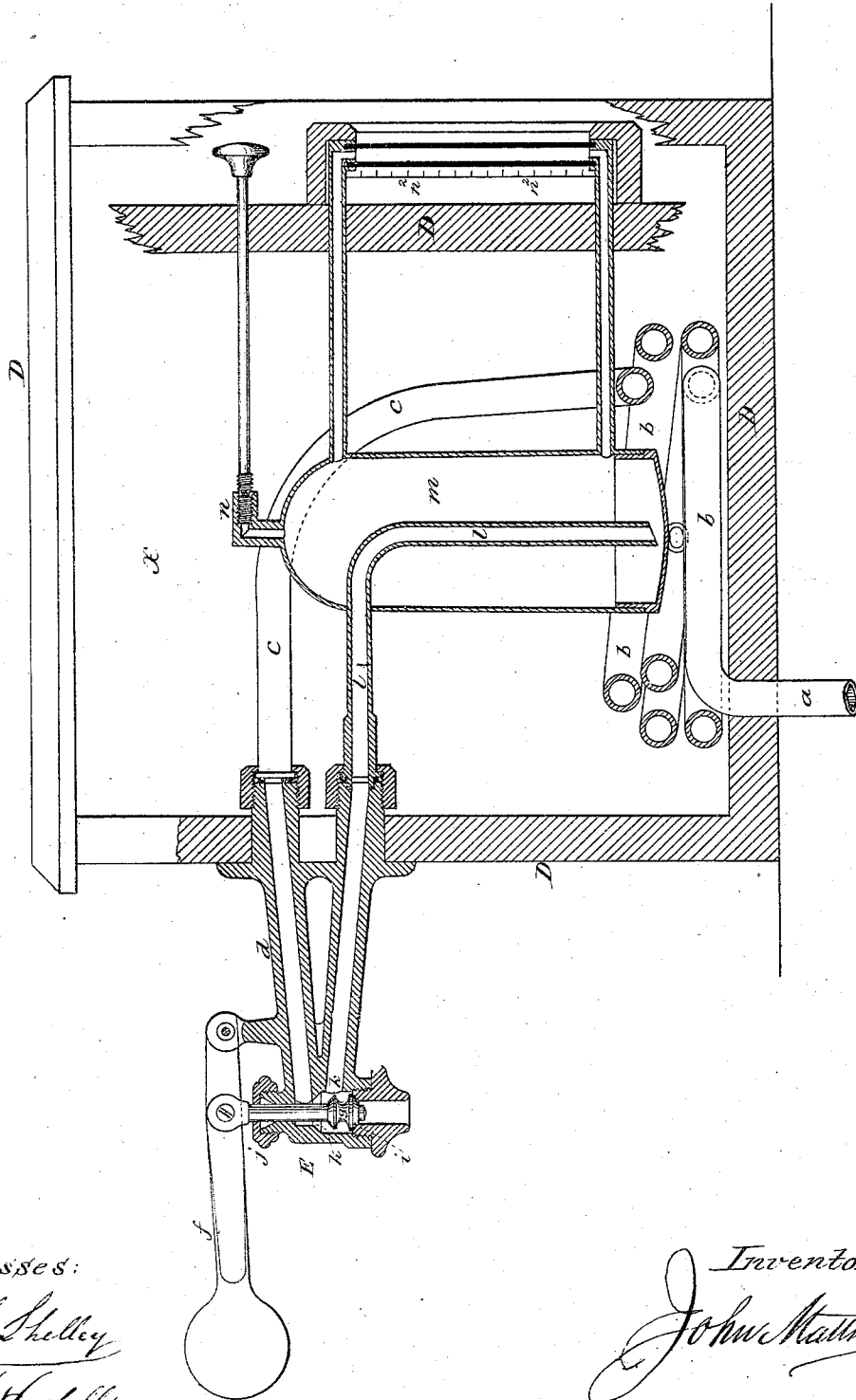
J. MATTHEWS.

Apparatus for Cooling and Dispensing Beverages.

No. 138,671.

Patented May 6, 1873.

Fig. 1.



Witnesses:

P. H. Shelley

W. H. Herbell

Inventor:

John Matthews

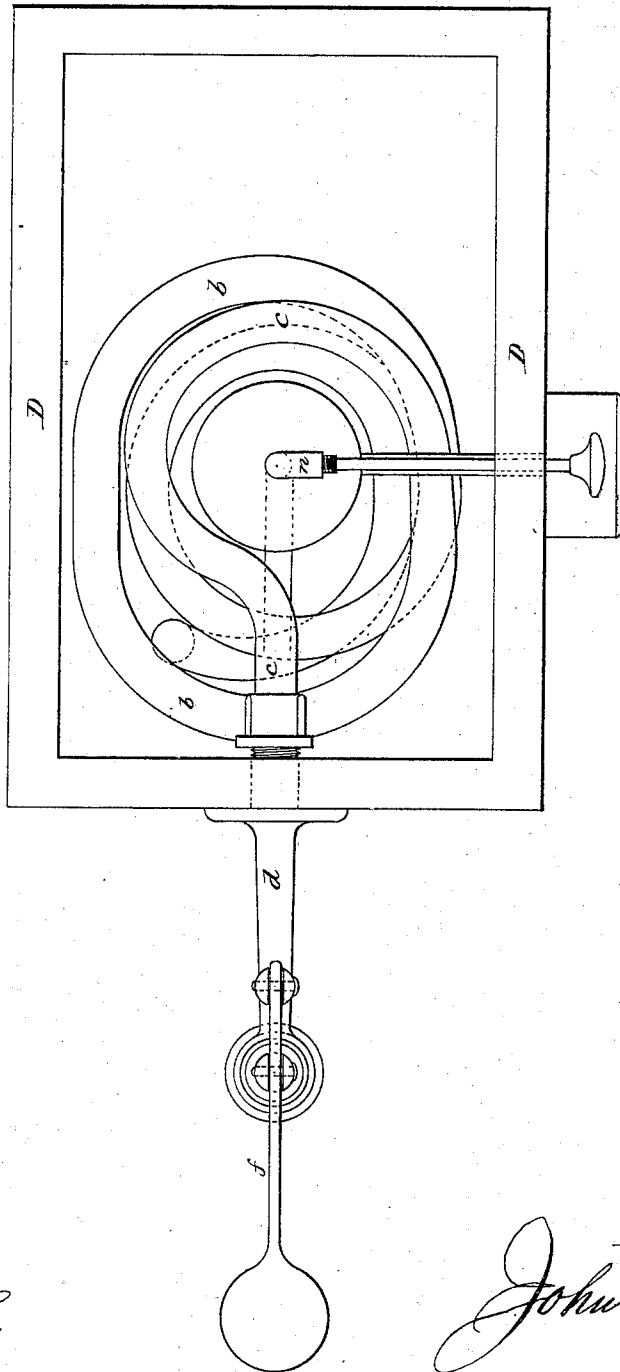
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Fig. 2.



Witnesses:

J. H. Shelley
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Inventor:

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UNITED STATES PATENT OFFICE.

JOHN MATTHEWS, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR COOLING AND DISPENSING BEVERAGES.

Specification forming part of Letters Patent No. **138,671**, dated May 6, 1873; application filed April 24, 1873.

To all whom it may concern:

Be it known that I, JOHN MATTHEWS, of the city, county, and State of New York, have made a new and useful Improvement in Apparatus for Cooling and Dispensing Beverages; and hereby declare the following to be a full and exact description of the same, reference being had to the accompanying sheet of drawing, in which—

Figure 1 is a sectional elevation, and Fig. 2 a plan view.

In apparatus of this kind it is usual to draw the liquid directly from the cask or fountain in which it is contained, through the cooling chamber into the glass or cup into which it is drawn. This occasions several evils. As the pressure is often great in the cask or fountain the liquid is projected with great force into the glass or cup, and causes frothing and foaming, varying as the pressure varies, so that the same amount of liquid is seldom dispensed at different times. When the liquid is rapidly drawn it passes through the cooling-chamber and receives but little effect from the ice. When slowly drawn it is cooled too much. The amount drawn in this way cannot be measured.

The invention, therefore, consists in placing a receiving-vessel within the ice-chamber to receive the beverage from the cask or fountain. In this receiving-vessel the pressure may be relieved to any extent desired, by means of valves properly arranged, together with a draft-arm. A suitably-graduated scale is attached to the receiving-vessel, so as to indicate and correctly measure the quantity of liquid drawn during any period of time. As the receiving-vessel will hold sufficient liquid for dispensing during any short period, it can be kept at the proper temperature by means of ice or other means for cooling. The great body of the liquid in the cask is not disturbed till it is required to refill the receiving-vessel.

The invention is applicable to apparatus for dispensing mineral-waters, to the common soda-water apparatus, and for cooling and dispensing all kinds of beverages charged with gas, such as ale, beer, porter, wine, cider, and the like.

The following description will enable those

skilled in the art to make and use my invention:

The apparatus consists of an external case, D, of the usual construction, including an ice-chamber, *x*. *a* is the inlet-tube, by which the beverage is conducted from the cask or fountain into the apparatus; *b*, inlet-pipe, coiled so as to form a cooler; *c*, tube from the cooler to the upper branch *d* of the draft-arm *e*; *f*, lever of the draft-arm operating the double-faced valve *g*; *h*, seat of valve which closes passage in upper branch of the draft-arm; *i*, seat of valve closing dispensing part of draft-arm; *j*, stuffing-box of valve; *k*, passage in lower branch of draft-arm; *l l*, tube connecting passage in lower branch of draft-arm with receiving-vessel, and terminating at its bottom; *m*, receiving-vessel; *n*, valve in receiving-vessel to permit exit of gas when necessary; *n*², gage connected at top and bottom of receiving-vessel to indicate outside the apparatus the height of liquid in the receiving-vessel.

Mode of Operation.

The beverage, being admitted to the apparatus through the inlet-tube *a*, passes through the coil *b* to the upper branch *d* of the draft-arm *e*, following through the valve-seat *h* and passage *k* in the lower branch of the draft-arm, and thence through the tube *l l* into the receiving-vessel *m*, and rising within it to a height due to the compression of the air inclosed in the receiving-vessel. Upon opening the valve *n* at the top of the receiving-vessel, the air or gas may be permitted to escape so as to permit the liquid to rise within the receiving-vessel to any desired height as may be indicated upon a gage, *n*², consisting of a glass tube outside the apparatus, connected at the top and bottom of the receiving-vessel. This glass tube may have a scale to indicate the quantity of beverage contained within receiving-vessel *m*.

To Use the Invention.

The operator raises the lever *f* connected with the valve *g* by a stem which passes through the stuffing-box *j*; the valve is thus raised so as to close upon the valve-seat *h* and thus shut off the access of any beverage or

pressure to the receiving-vessel *m*. The same movement raises the lower face of the valve *g* from the valve-seat *i*, thus opening the dispensing part and discharging the beverages with gradually-diminishing force into the drinking-vessel. The operator can control the quantity of liquid dispensed by depressing the lever and thus shutting off the discharge part as soon as the gage indicates that the required quantity has been dispensed; and the inlet-valve *a* of the passage in the upper branch being at the same time opened, the receiving-vessel is again replenished. The receiving-vessel, being surrounded with ice, serves as a cooler for the beverage.

I have described the valve arrangement as a double valve of the puppet construction, but it is obvious that it may be made to operate well by constructing the valve upon any of the well-known plans familiar to mechanics. I sometimes construct the receiving-vessel wholly or in part of glass or other transparent material; and, also, provide openings or windows in the sides, which are closed with a transparent material. The height of the liquid in the receiving-vessel may then at all times be ascertained by inspection, so that the quantity of liquid drawn may be graduated or measured.

Having thus described my invention, what

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

1. The combination, in the cooling-chamber, of the coil *b*, branches *c* and *l* of the draft-arm with the receiving-vessel, so as to cool and dispense the beverage under reduced pressure, substantially as set forth.

2. The double-branched draft-arm with passages and valves, arranged substantially as described.

3. The combination of the ice-chamber, receiving-vessel, and draft-pipe, as and for the purpose set forth.

4. The inlet-valve, discharge-port and valve, and draft-arm, all arranged and combined substantially as set forth.

5. The gage *n*² in combination with the receiving-vessel and projecting outside of the cooling-chamber, as and for the purpose specified.

6. The receiving-vessel and draft-tube in combination with the glass gage, as specified.

7. The receiving-vessel made wholly or in part of glass or other transparent material, in combination with a side opening or a side of transparent material in the cooling-chamber, substantially as specified.

Witnesses: JOHN MATTHEWS.

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