(No Model.)

J. C. MILLER.

DRAFT TUBE FOR SODA WATER.

No. 332,731. Patented Dec. 22, 1885.

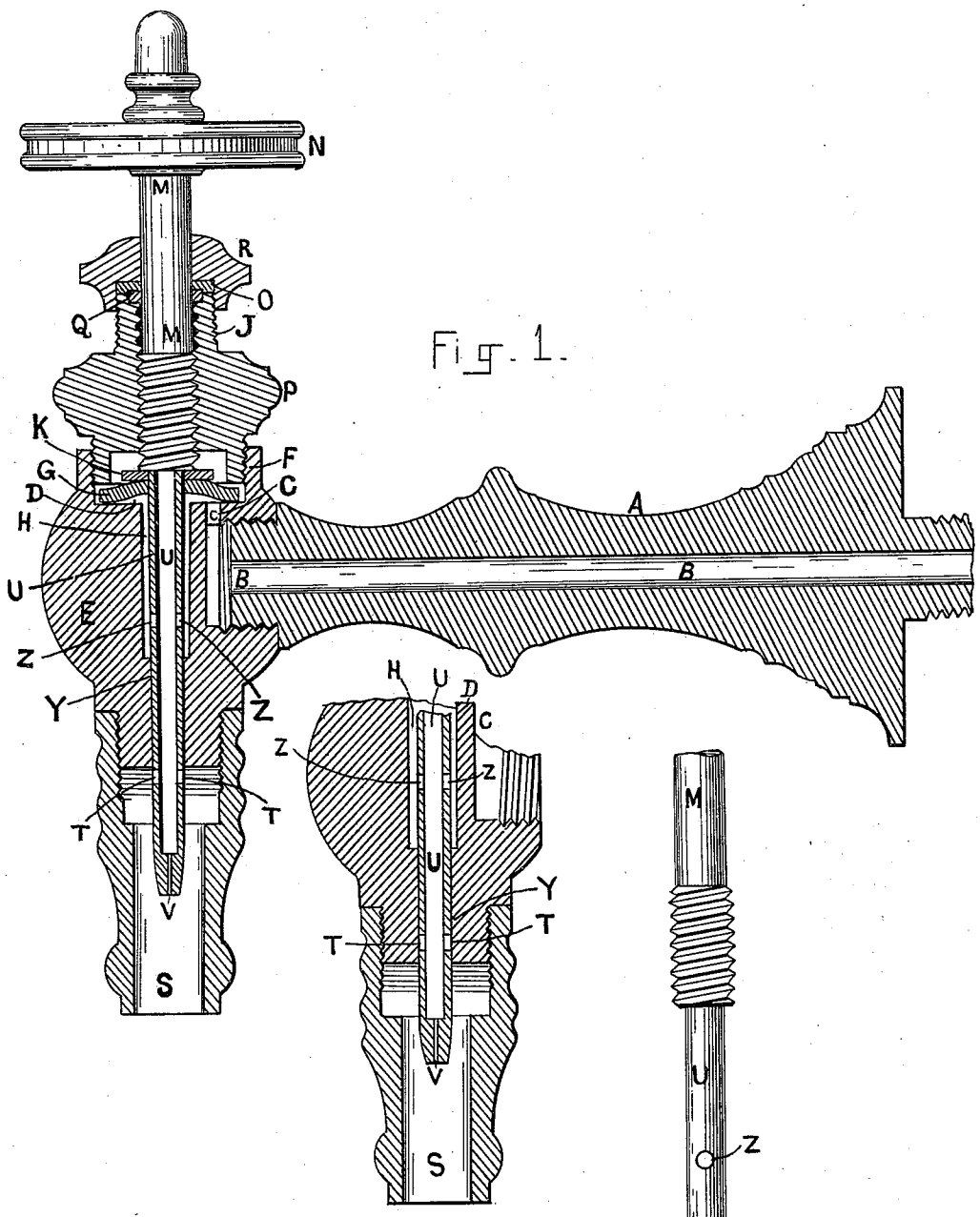

Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES:
Chas. S. Gooding.
W. R. Marble

INVENTOR:
Joseph C. Miller,
By S. S. Walker
ATTORNEY.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH C. MILLER, OF CHELSEA, MASSACHUSETTS.

DRAFT-TUBE FOR SODA-WATER.

SPECIFICATION forming part of Letters Patent No. 332,731, dated December 22, 1885.

Application filed April 17, 1885. Serial No. 162,611. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH C. MILLER, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Draft-Tubes for Soda-Water, of which the following is a specification.

This invention relates to draft-tubes wherein provision is made for discharging streams of different sizes and of greater or less force, so as to agitate the main body of soda-water first drawn into the glass, by changing the main stream so as to produce a small "sharp stream," whereby the sirup placed or drawn into the glass may be thereby thoroughly mixed with the soda-water subsequently drawn therein; and it consists in the construction, combination, and arrangement of the several parts of the draft-tube, as hereinafter more fully described, and specifically set forth in the annexed claims.

Figure 1 represents a vertical sectional elevation of a draft-tube embodying my invention. Fig. 2 represents a vertical section of a portion of the same with the interior tube raised upward. Fig. 3 represents an elevation of the interior adjustable discharge-tube removed.

A represents the horizontal arm, provided at one end with a collar, screw-thread, and screw-nut, by which it may be secured to the marble slab or other vertical support in such manner as heretofore employed for the purpose. Said arm is provided with an axial passage, B, in the usual manner, which communicates with the passage in the supply-pipe, that may be coupled to the said end of the horizontal arm A in any desired manner. The outward end of the said horizontal arm A is likewise provided with a screw-thread, by which the body portion E of the draft-tube is secured thereon by means of an opening in one side thereof provided with a corresponding screw-thread, as shown, or as may be desired. The said body portion E is provided with a vertical passage, C, leading from the opening or inlet-passage B, formed in the said horizontal arm A at its connection within said opening formed in the side of the said body portion E, and terminating within the seat D, formed within the top opening, provided with a screw-thread, F, adjacent to the said seat D, surrounding the interior vertical chamber, H, as shown. The said seat D is provided with an elastic washer or packing, G, upon the top of which is placed the metal washer K, upon which the lower end of the screw-threaded spindle M rests and has a bearing, so that when the said spindle is rotated by the hand-wheel N the screw-thread upon the lower end of the said spindle operates within a corresponding screw-thread formed within the body of the adjusting-collar P, the lower end portion or extension of which is provided with an external screw-thread adapted to connect with the said screw-thread F, formed within the walls surrounding the top opening formed within the upward end portion of the said body of the draft-tube E, as shown. The said adjusting-collar P is also provided with a smaller upward projection, J, provided with an external screw-thread, upon which is provided a screw-threaded capping-nut, R, provided with an elastic packing-ring, O, and metal washer Q, through which the body portion of the spindle M operates as it is rotated or screwed up and down in opening, closing, and operating the valves, as hereinafter described.

To the lower end of the said body portion E is secured, by means of a screw-thread, a spraying-nozzle, S, having a large internal opening, as shown, and against the walls or sides of which the soda-water is ejected or thrown from the horizontal openings T, formed through the sides of the lower portion of the small interior tube, U, the lower end of which is formed with a very small opening, V, and the upper end is soldered or permanently secured to the lower end of the said screw-threaded spindle M, and provided with inlet passages or openings Z, formed horizontally through the sides of the same at a point within said surrounding chamber H, so as to permit the soda-water to enter said openings Z, (when the said passage C is opened, through the movement of the said hand-wheel N, in the direction to remove the pressure from the said elastic packing G,) so that the pressure of the aerated or soda water will force the same from its seat sufficiently to permit it to pass into the said chamber H, and thence into the said

openings Z, formed in the said actuating-tube U, and downward in the same to the openings T, near the lower end thereof, and outward therefrom horizontally, and striking or impinging against the surrounding sides of the said spraying-nozzle S, and thence downward therefrom into a tumbler or other receptacle, as desired. Now, when the desired quantity of soda-water has been thus drawn, and it is desirable to agitate the same and stir up and mix the sirup previously drawn or placed in the bottom of the glass therewith, so as to form the beverage desired, the said hand-wheel is rotated so as to draw the said connected tube U upward, which vertical movement of the said tube U carries the said lower openings, T, into position with the contacting surface of the surrounding bottom portion or wall of the said passage Y, so as to close the said openings T, and thereby prevent the outward passage of the soda-water therefrom and cause the same to be forced through the very small opening V, formed in the extreme lower end of the said tube U, whereby a fine sharp stream is produced, as desired. The vertical opening through the bottom portion, Y, of the said body portion E forms a packing-joint with the exterior of the said discharge-tube E, so that when the said small tube U is drawn upward, it being fitted to fill the said opening through the portion Y closely, the holes or openings T are thus closed, and the soda-water thereby forced through the very small opening V, as above described, and shown in Fig. 2.

Having thus described my invention, what I claim is—

1. The draft-tube E, having an inclosed chamber, H, and contracted passage Y, and provided with an adjustable interior tube, U, having an inlet, Z, connecting with said chamber, and a large outlet, T, and small outlet V, whereby the upward movement of the said tube U closes the large outlet T, and thereby forces all of the discharge through the small outlet V in the end of the interior tube, as described, and for the purposes set forth.

2. The combination, with the draft-tube E, having a chamber, H, and contracted passage Y, of the adjustable interior tube, U, adapted to fit and slide within said passage Y, and provided with an inlet-opening, Z, outlet-opening T, and small hole V, and a spraying-nozzle, S, as set forth.

3. The combination, with the draft-tube E, having an internal opening, H, and contracted passage Y, of the adjustable interior tube, U, provided with an inlet-passage, Z, outlet-passage T, and small outlet V, said passage T being closed by contact with the walls of said passage Y by vertical movement of the said tube U, whereby the discharge is forced through the small outlet V, as described.

JOSEPH C. MILLER.

Witnesses:
SYLVENUS WALKER,
CHAS. S. GOODING.