

J. W. Cahill,

Soda-Water Apparatus,

N^o 58,375,

Patented Oct. 2, 1866.

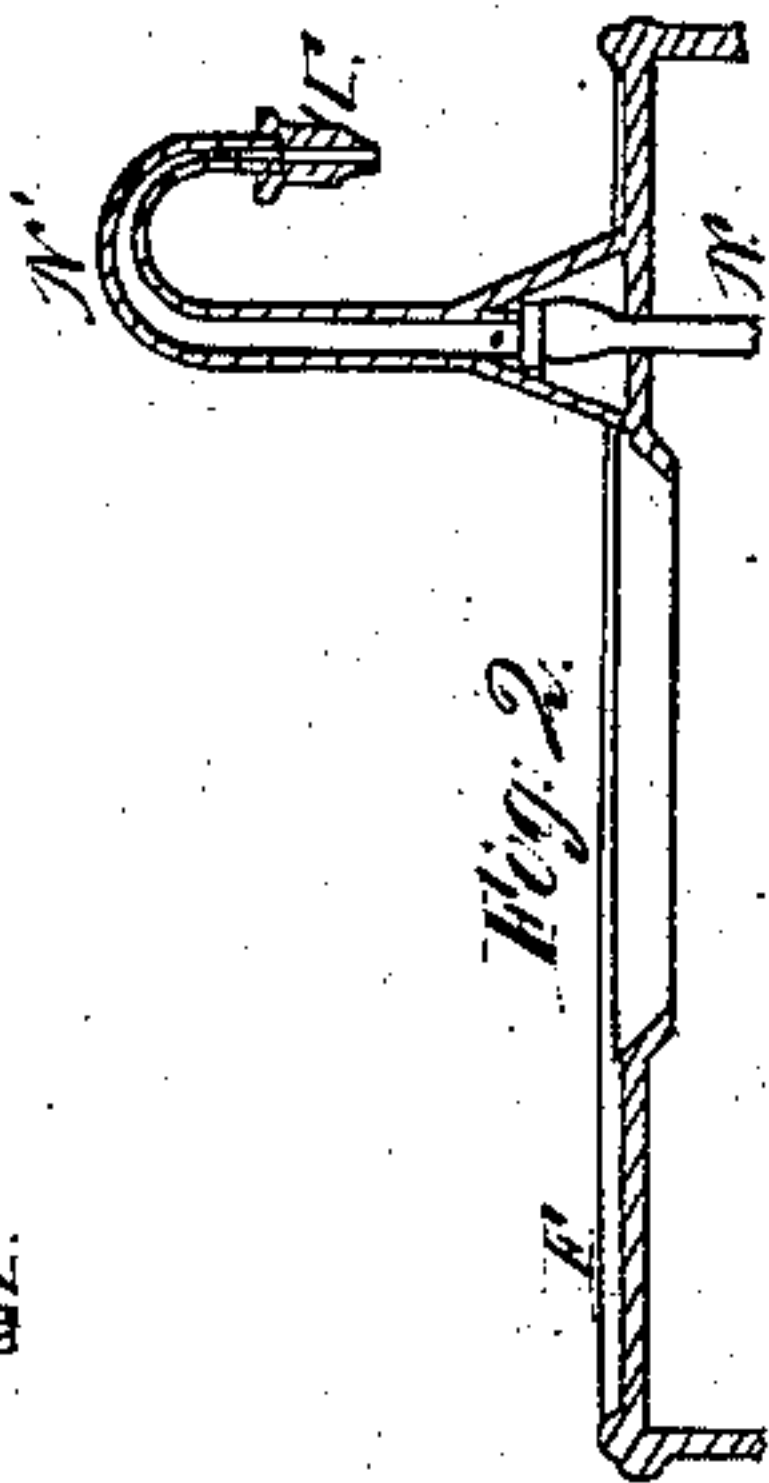
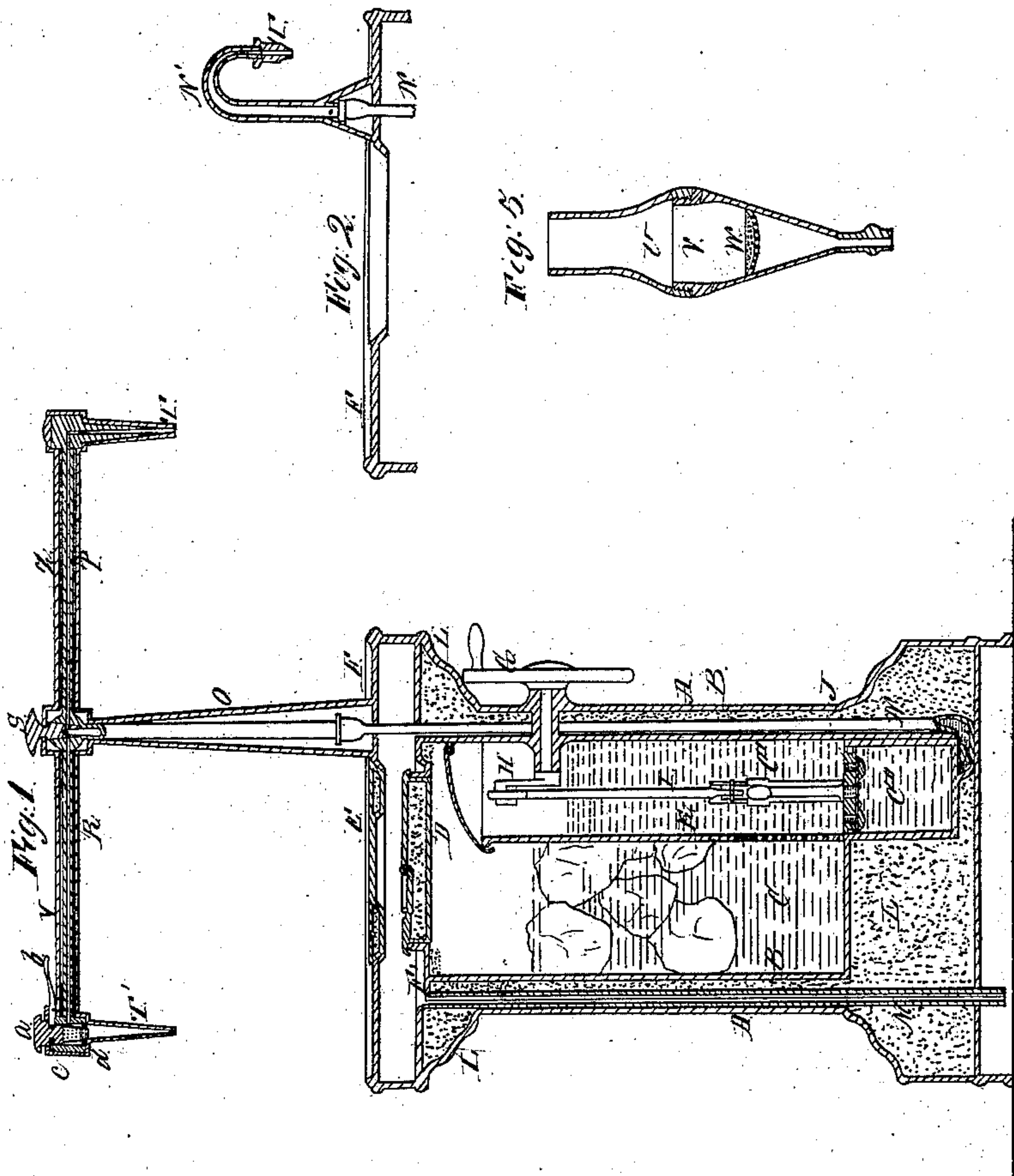
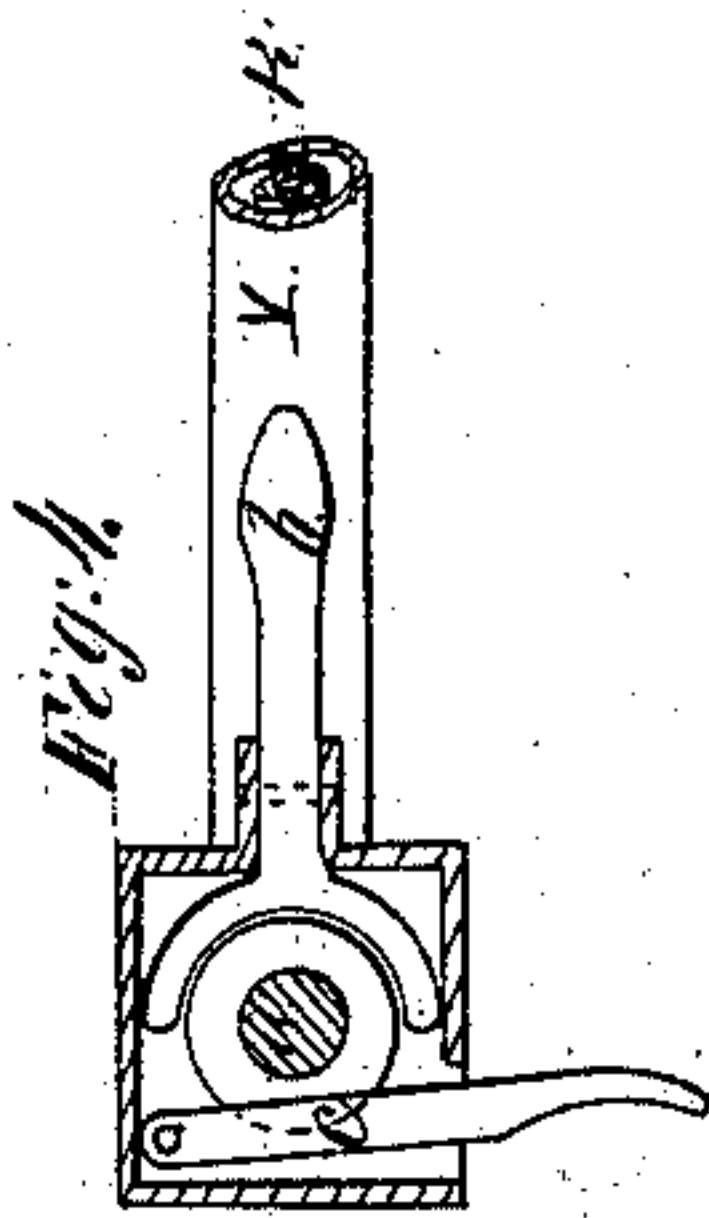
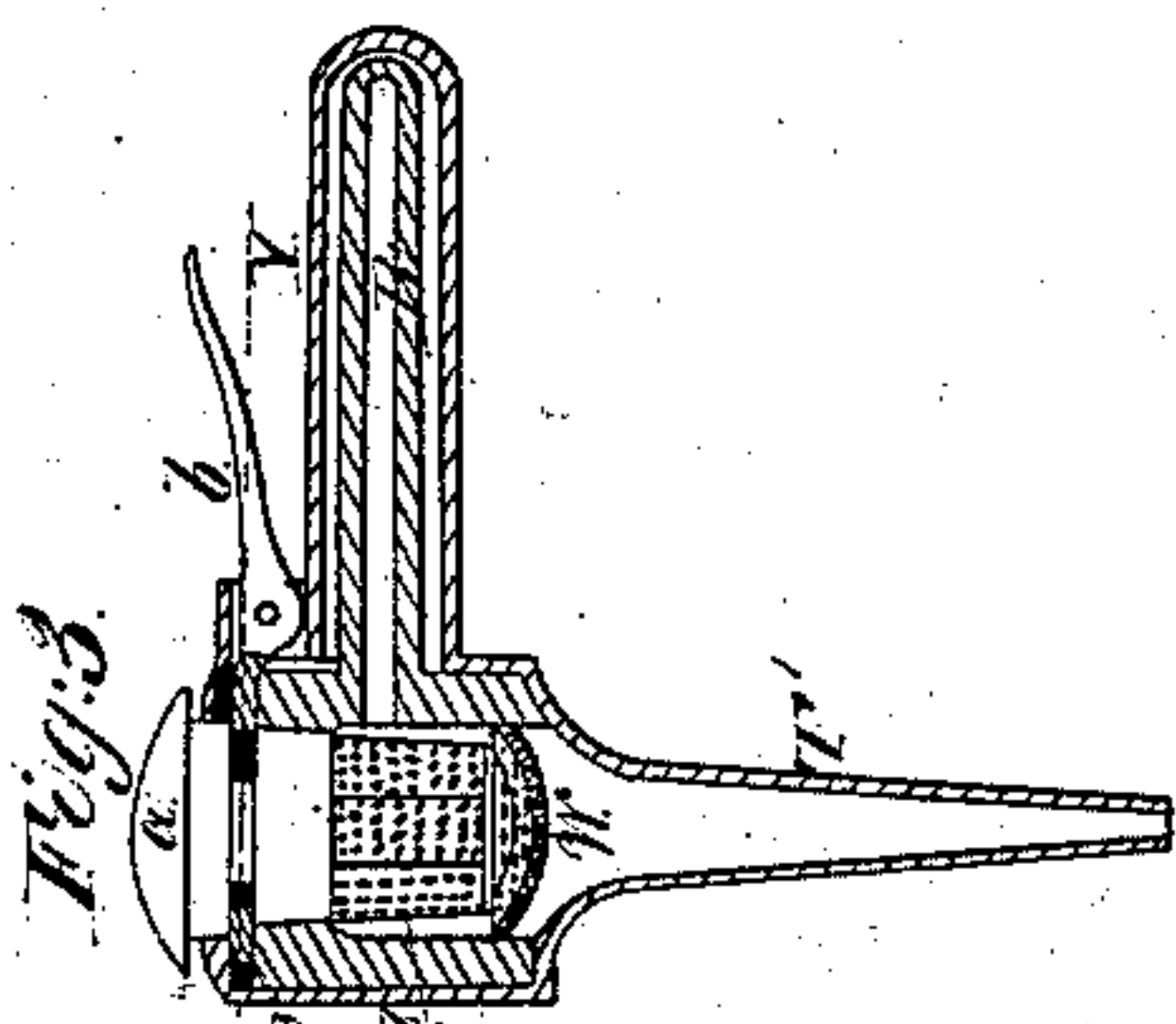
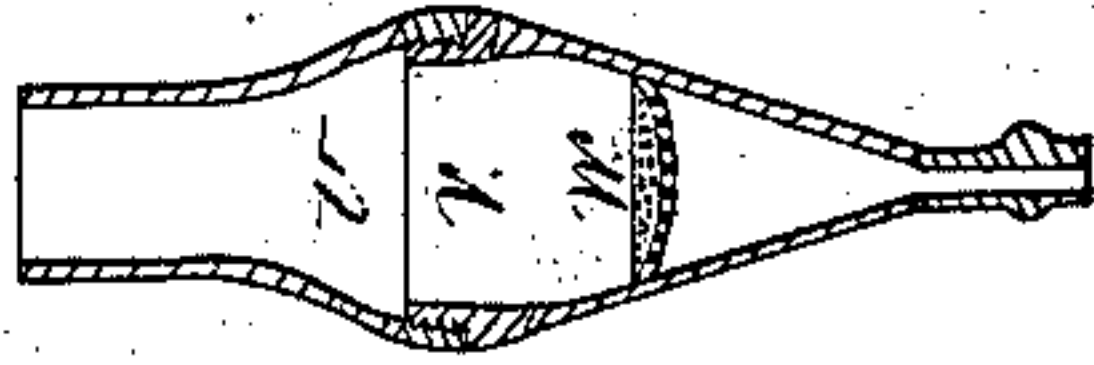


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES W. CAHILL, OF MADISON, INDIANA.

IMPROVED SODA-FOUNTAIN.

Specification forming part of Letters Patent No. 58,375, dated October 2, 1866.

To all whom it may concern:

Be it known that I, JAMES W. CAHILL, of Madison, in the county of Jefferson and State of Indiana, have invented a new and Improved Soda-Water Fountain; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical central section. Fig. 2 is a modification, showing a single head. Fig. 3 is an enlarged sectional view of one of the heads shown in Fig. 1. Fig. 4 is a horizontal section on line *x x*, Fig. 3. Fig. 5 is an enlarged view of the soda-cup.

The apparatus is adapted for forcibly passing a stream of ice-water through a chamber containing a portion of soda and discharging it into the tumbler containing the acidulated sirup.

In one of its modifications it is susceptible of being charged with aerated water, and in the other it is adapted to supply plain ice-water or soda-water at the respective nozzles.

The improvements consist of a soda-cup with a perforated bottom, which screws onto the collar-piece connecting it with the nozzle. The water-chamber is divided by a perforated shield, which prevents the interference of the ice with the pump-rod and crank, and the pump-chamber occupies the lower position, so as to admit the more perfect discharge of the water.

In the drawings, A is the outer case, and B the inner, the intervening space being occupied by the non-conducting material L, for the purpose of preserving the ice. The cover F has a rim around it to prevent the drip of water around its edge, and what water may be spilt on the surface is conducted through holes in the cover to the inner plate, E', from whence it passes away by the discharge-pipe M. The cover F has a lid, E, which is somewhat larger than the lid D, which closes the cover F'.

By this arrangement the lid D may be withdrawn from the aperture in F' when desired.

The lid D, as well as all other parts of the walls of the chamber which contains the water, are packed with non-conducting material.

The perforated partition K keeps the ice

in the water-chamber C from coming in contact with the crank H, connecting-rod I, and plunger J of the pump, which latter works in the portion C' of the water-chamber, which is the lowest, and in it the water collects as it becomes diminished in quantity.

From the cover F rises the standard O when the two-headed arrangement is in use, as in Fig. 1, or the single pipe N, with its nozzle T, when but one is used, as in Fig. 2.

When the single arrangement is used, as in Fig. 2, the bent pipe N' is attached to the pipe N, and a nozzle, T, on the end affords a place of attachment for the soda-cup, Fig. 3, which is attachable thereto.

The soda-cup is formed of two portions, which are screwed together. The upper portion, U, is slipped over the nozzle T, to make the required attachment, and the lower portion, V, forms a cup with a perforated bottom to hold a small quantity of carbonate soda, through which the ice-water passes, becoming impregnated with the soda, so as to cause an ebullition when injected into the glass containing the acidulated sirup.

When the double arrangement is used, as shown in Fig. 1, the branch pipes P R are, respectively, connected with the main pipe N, as may be required. The pipe P connects with the nozzle T, and is adapted to discharge the contents of the chamber C without the addition of soda, and the nozzle T' is adapted to discharge the water through the cup W, which contains a portion of carbonate of soda.

The cap *a* is detached from its socket in the end of the branch Y by retracting the latch *c* and vibrating the lever *b*, so that a portion of soda may be placed in the chamber *w*, the water passing being impregnated therewith, and being discharged at the nozzle T into the glass containing the acidulated sirup.

The water rising through the pipe N is turned into the pipes P R, respectively, by the rotation of the spigot S. The water is raised in the pipe N and forcibly ejected at the nozzle by the rotation of the wheel G, which is attached by a crank, H, with the piston-rod I of the pump.

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

1. The cup U V, made of two portions screw-

ing together, and with perforated bottom W, constructed and operating as and for the purpose described.

2. The perforated shield K, extending nearly to the top of the water-chamber, to keep the ice away from the pump, pump-rod, and crank.

3. The branching head O Y X, provided at the respective ends with the plain nozzle T and the soda-cup nozzle T', substantially as described.

To the above specification of my improvement in soda-water fountains I have signed my hand.

JAMES W. CAHILL.

Witnesses:

R. C. WEIGHTMAN,
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