

J. DOWNING.
LIQUID-COOLER.

No. 175,343.

Patented March 28, 1876.

Fig. 1.

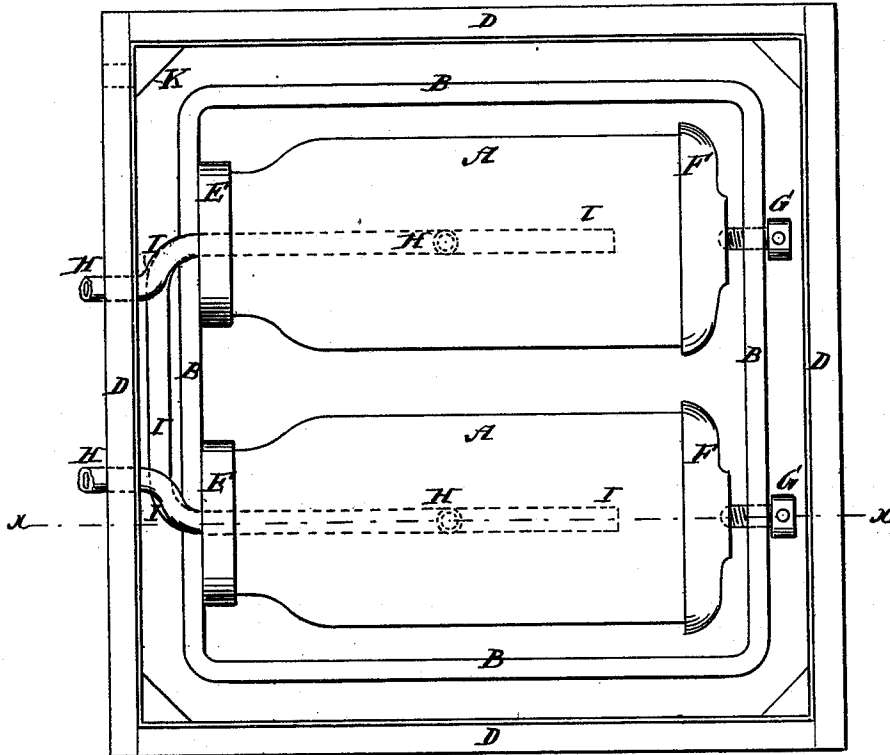
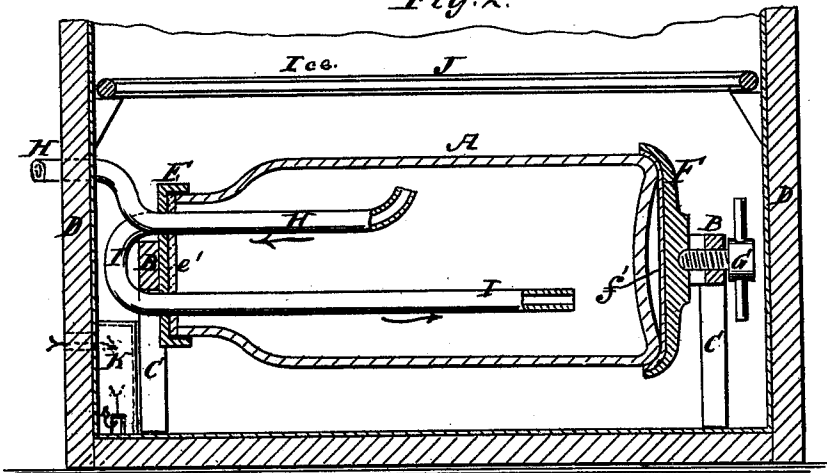


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN DOWNING, OF BINGHAMTON, NEW YORK.

IMPROVEMENT IN LIQUID-COOLERS.

Specification forming part of Letters Patent No. **175,343**, dated March 28, 1876; application filed February 28, 1876.

To all whom it may concern:

Be it known that I, JOHN DOWNING, of Binghamton, in the county of Broome and State of New York, have invented a new and useful Improvement in Liquid-Coolers, of which the following is a specification:

Figure 1 is a top view of the cooler, the cover and grate being removed. Fig. 2 is a vertical section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved apparatus for cooling water, beer, and other liquids, which shall be simple in construction and convenient in use, and which will not affect the liquid injuriously when allowed to stand in it.

The invention consists in the combination of the iron band or frame B, provided with the legs C, the jars A, the packed covers E, the packed cups F, the set-screws G, the inlet-pipes I, and the outlet-pipes H, with each other and the case D, as hereinafter fully described.

I will describe the apparatus as arranged for a water-cooler.

A are jars, any desired number of which may be used, and which may be made of glass, iron, or other material that will not injuriously affect the water when allowed to stand in them. The jars A are placed horizontally in an iron band, B, which is provided with legs C, to support the band B and jars A above the bottom of the case D. The mouth of the jar A is closed with a cover, E, which is held in place by the band B, and is made tight with a rubber packing, *e'*. Upon the bottom of the jar A is placed a cup, F, a rubber packing, *f'*, being interposed between them. The jar A is forced forward against the cover E by a set-screw, G, which passes in through a screw-hole in the band B, and presses against the bottom of the cup F. H I are two pipes, which pass in through the cover E, the upper pipe H being the outlet-

pipe, and the lower pipe I being the inlet-pipe. In the case of a water-cooler the inlet-pipe of the first jar is connected with the water-supply pipe, and the outlet-pipe of each preceding jar is connected with the inlet-pipe of each succeeding jar. The outlet-pipe of the last jar is connected with the discharge-pipe or faucet. By this arrangement the water is drawn from the last jar of the series, which is immediately replaced by partially-cooled water from the next jar, and so on, the water from the reservoir entering the first jar, so that cold water can be drawn almost continuously. The water may be passed through a filter before being introduced into the first jar, or one of the jars may be arranged as a filter.

When the apparatus is arranged as a cooler for beer, &c., each inlet-pipe I is connected with a supply-pump, and each outlet-pipe H is connected with a cock.

The case D is lined with zinc, and in it, a little above the jars A, is placed a grate, J, to receive the ice. The grate J rests upon cleats or corner-pieces attached to the case D. In one corner of the case D is placed a tube, K, the open lower end of which is near the bottom of the case, and its upper end passes out through the wall of the said case, so that the lower part of the case may be always supplied with a quantity of ice-water to assist in cooling the jars A. The case D is supplied with a closely-fitting cover.

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

The combination of the iron band or frame B, provided with the legs C, the jars A, the packed covers E, the packed cups F, the set-screws G, the inlet-pipes I, and the outlet-pipes H, with each other and the case D, substantially as herein shown and described.

JOHN DOWNING.

Witnesses:

W. E. MAYS,
THOS. CONNELLY.