(No Model.)

W. E. TEMPLETON.

COMBINED FILTER, COOLER, AND REFRIGERATOR.

No. 280,881. Patented July 10, 1883.

Fig. 1.

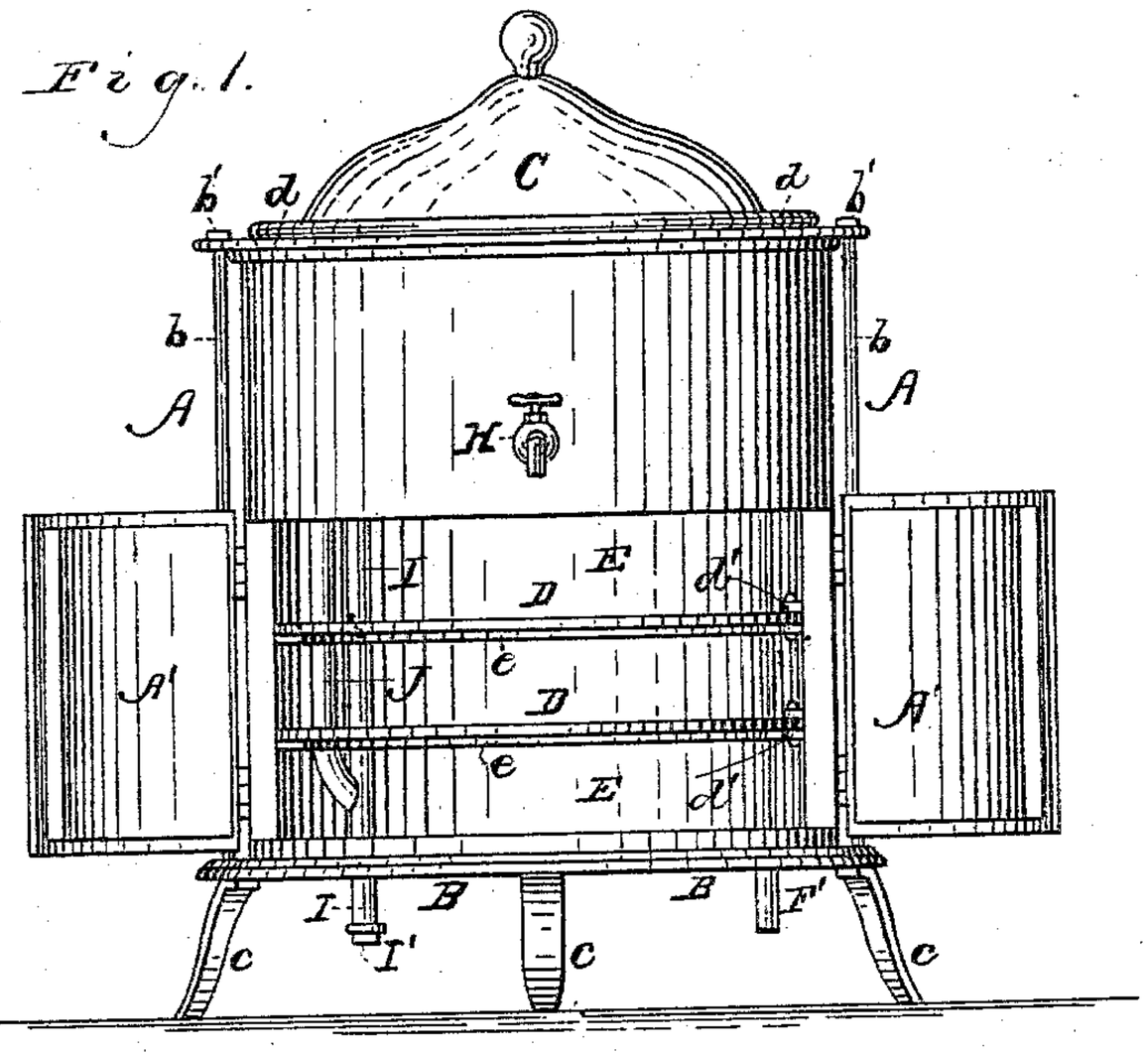


Fig. 2.

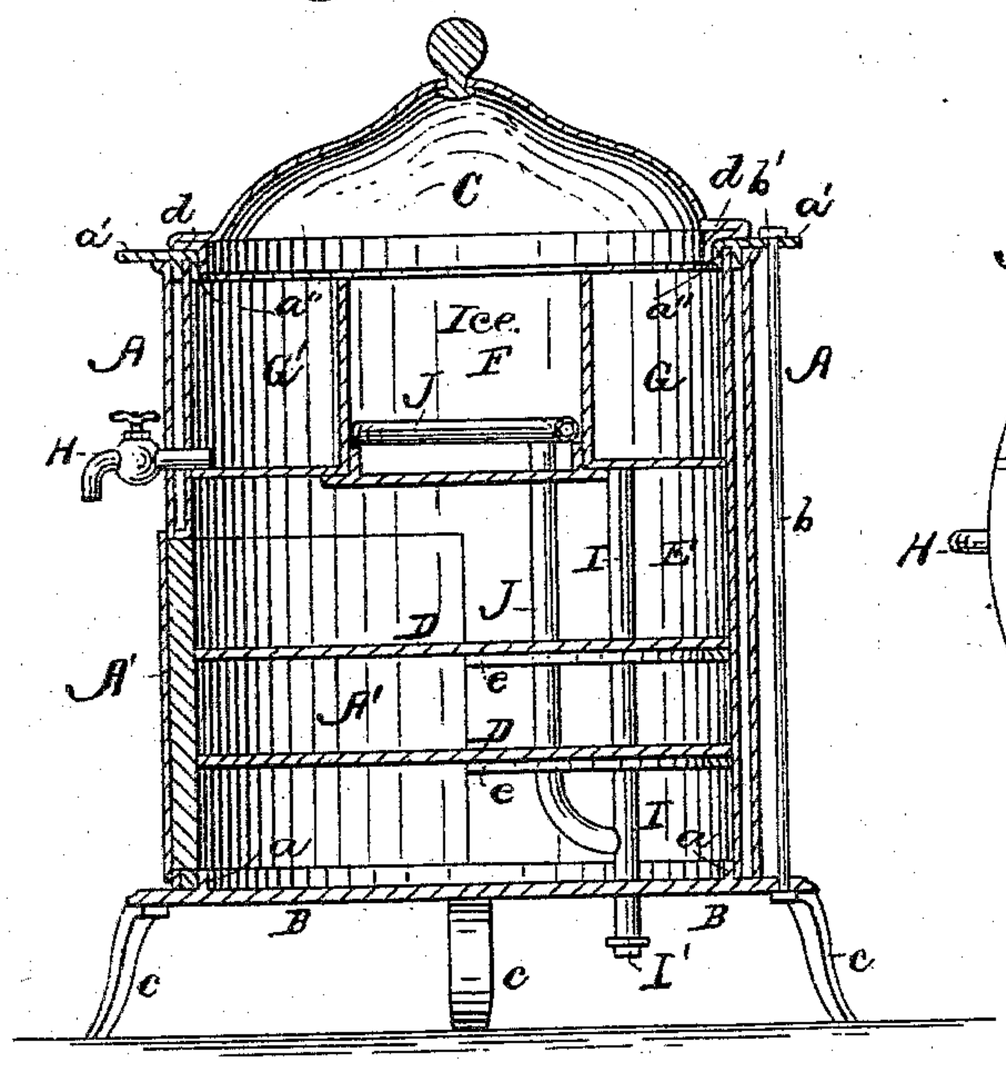


Fig. 3.

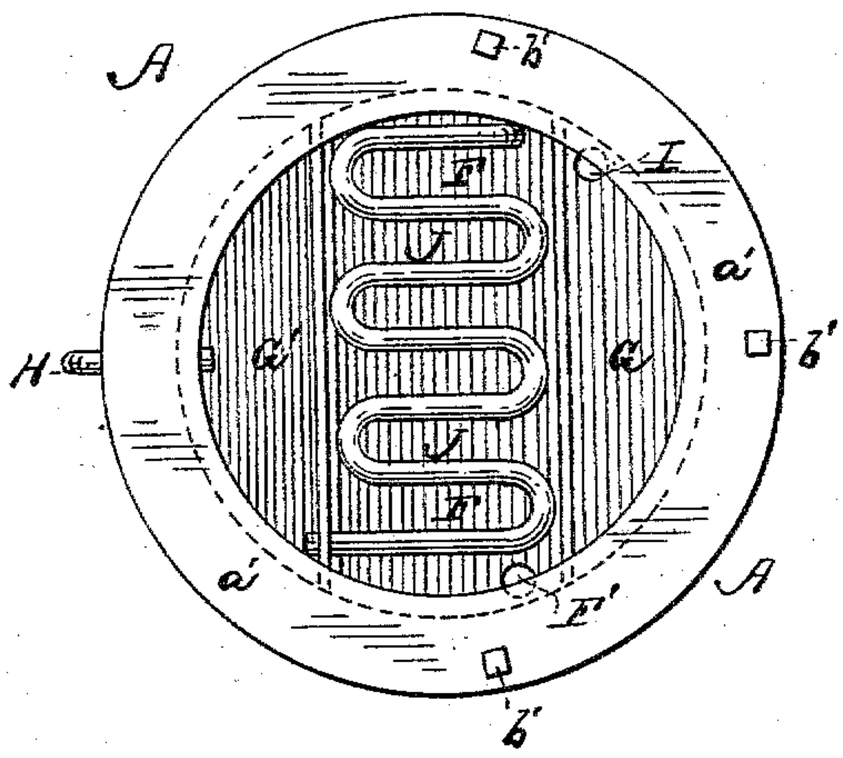
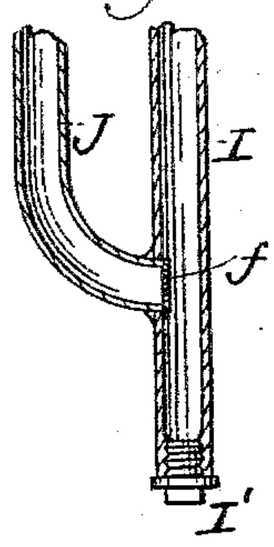


Fig. 4.



Witnesses.
Louis Bauergeist.
C. A. Knumbein,

Inventor.
William E. Templeton
per F. F. Warner-
hie — Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM E. TEMPLETON, OF CHICAGO, ILLINOIS.

COMBINED FILTER, COOLER, AND REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 280,881, dated July 10, 1883.

Application filed November 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. TEMPLETON, of Chicago, in the county of Cook and State of Illinois, have invented a new, useful, and Improved Combined Filter, Cooler, and Refrigerator, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a front elevation of a filter, cooler, and refrigerator embodying my invention. Fig. 2 is a vertical central section thereof. Fig. 3 is a top view of the same, the lid or cover being removed; and Fig. 4 is a detail showing the perforated diaphragm at the juntion of the filtering-pipes.

Like letters of reference indicate like parts.

A represents the body of my filter, cooler, and refrigerator, B the base, and C the lid or cover. The part A, I make by preference of papier-maché, and in the form of a hollow cylinder, and I arrange it vertically, as shown. The body I secure to the base in any suitable or well-known way—for example, by making on the base the vertical annular flange *a*, projecting upward, and by mounting on the top of the body the annulus or ring *a'*, having thereon a vertical depending annular flange, *a''*, and by then clamping the body between the base and the ring *a'* by means of bolts *b b* and nuts *b' b'*. I deem it best, but not absolutely essential, to support the base B on comparatively short legs *c c*, and to flange the lid C, as shown at *d d*, to fit neatly into and rest firmly upon the body.

A' A' are doors, and D D are shelves in a lower or refrigerator chamber, E. In order that access may be had with facility to these shelves, I prefer to hinge or pivot them at one side to circular cleats *e e*, in the refrigerator-chamber, as indicated at *d' d'*, and the other side rests on the said cleats or supports *e e;* but it is not absolutely essential that these shelves should be so hinged.

F is the ice box or chamber, and F' is a drip-pipe extending therefrom and passing down and out through the base B.

G and G' are water-tight compartments on each side of the ice-box.

H is a draw-off or faucet entering the chamber G', and I is a pipe entering the chamber G and extending down into and through the bottom of the chamber E.

J is a pipe, the upper end of which enters the chamber G'. This pipe passes thence in reverse directions along the bottom of the ice-box, and thence vertically downward through the chamber E, and is elbowed or bent to enter the pipe I, as shown. I' is a removable plug or stopper in the lower end of the pipe I. I deem it best, for the purpose hereinafter referred to, to place a perforated diaphragm, *f*, in the pipe J, at or just above its junction with the pipe I. The pipe J, I fill with quite fine gravel, and the pipe I, I fill with pulverized charcoal. The diaphragm *f* prevents the gravel from dropping down into the pipe I.

To reduce this invention to practice I fill the chamber G with water, which will pass down through the pipe I, which, as it contains pulverized charcoal, will filter and purify the water. The water will then pass up through the pipe J and through the gravel therein, and so be further filtered. It will then pass through the reversely-bent part of the pipe J, which lies in the bottom of the ice-box F, and be there cooled or made cold. The water then passes into the chamber G', from which it may be drawn off for use through the faucet H. The water takes this course for the reason that, obeying a well-known natural law, it will stand as high in the chamber G' as in the chamber G, those chambers being connected in the manner described by the filtering-pipes I and J. In the chamber E, I place fruits, vegetables, or other articles for preservation, the chamber E serving as a refrigerator-chamber, being rendered cool by the ice in the ice-box above it.

By making the wall of the body A of papier-maché I have a good non-conductor of heat, and the low temperature produced by the ice in the ice-box is thus retained.

To clean the filter I remove the plug I' and insert a rod or wire to loosen the charcoal in the pipe I. The charcoal will then drop out and the pipe be refilled with fresh charcoal.

The filtering parts of this device, as will be perceived, constitute a double filter—that is, the water, after descending through the charcoal, rises through the gravel; also, the water, in being cooled, is separated from contact with the ice.

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

A combined filter, cooler, and refrigerator in which are combined the refrigerator-chamber, near the bottom, the ice box or chamber F, located in the top or upper part, the water-chambers G and G′, arranged one on each side of the chamber F, the draw-off H, entering the chamber G′, the pipe I, entering the chamber G and extending down through the chamber E, the pipe J, entering the chamber G′, and passing thence through the ice-box, thence vertically down into the chamber E, and entering the pipe I, near the lower end thereof, and a plug or cap, I′, substantially as and for the purposes specified.

WILLIAM E. TEMPLETON.

Witnesses:

F. F. WARNER,

H. FRANKFURTER.