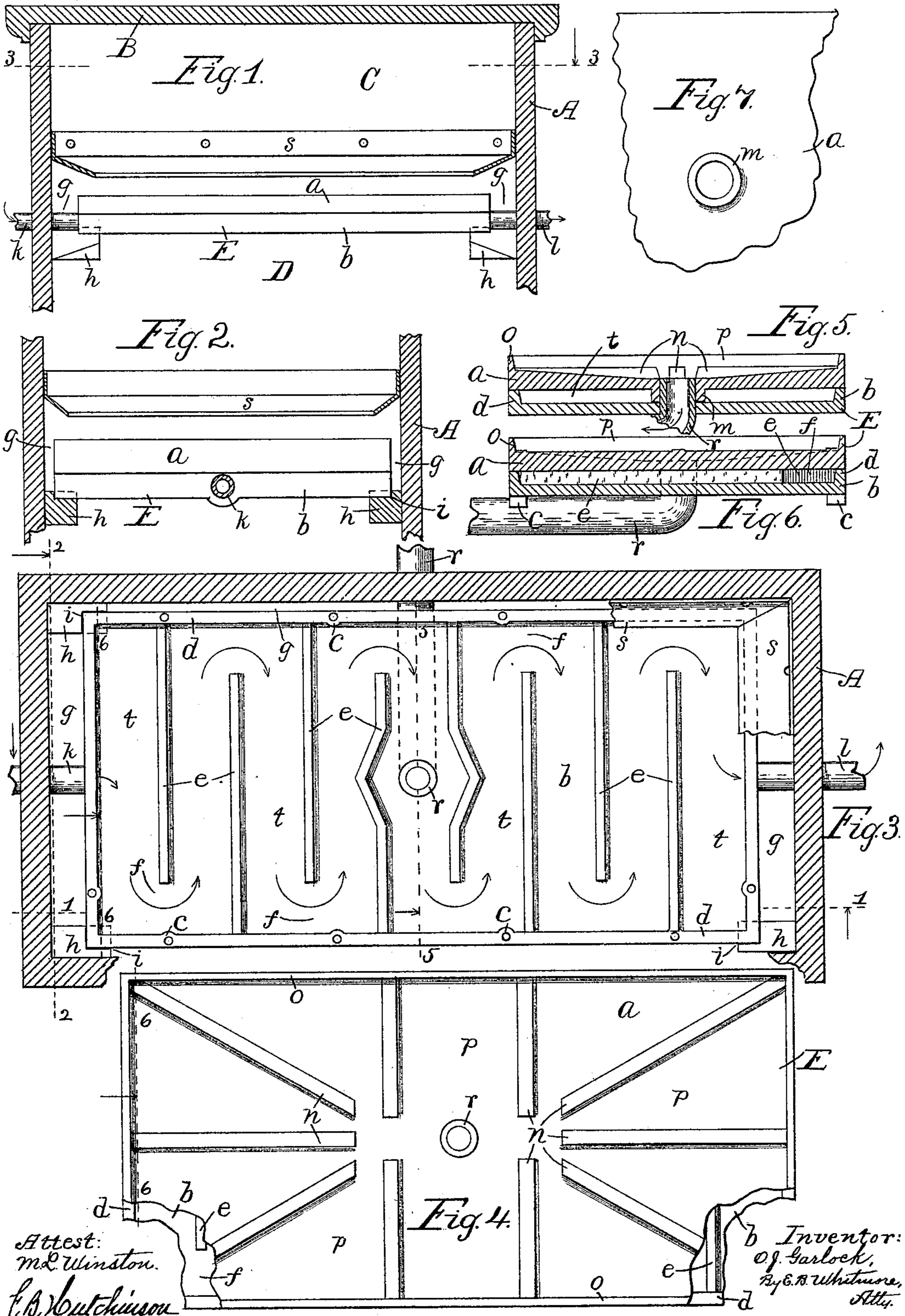


(No Model.)

O. J. GARLOCK.
WATER COOLER FOR REFRIGERATORS.

No. 582,857.

Patented May 18, 1897.



UNITED STATES PATENT OFFICE.

OLIN J. GARLOCK, OF PALMYRA, NEW YORK, ASSIGNOR TO THE GARLOCK PACKING COMPANY, OF SAME PLACE.

WATER-COOLER FOR REFRIGERATORS.

SPECIFICATION forming part of Letters Patent No. 582,857, dated May 18, 1897.

Application filed August 4, 1896. Serial No. 601,683. (No model.)

To all whom it may concern:

Be it known that I, OLIN J. GARLOCK, of Palmyra, in the county of Wayne and State of New York, have invented a new and useful Improvement in Devices for Cooling Water, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to refrigerators, and more particularly to the means for simultaneously supporting the ice and cooling water that may be used for drinking purposes; and it consists in the improved construction of the same, whereby a combined ice-rack and cooling device is formed, which may be placed within the ice-chamber of an ordinary ice-box, or it may constitute an essential part of the same and be built therewith.

The invention is hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 shows the front of the upper part of a refrigerator, vertically sectioned, as on the dotted line 1 1 in Fig. 3, with my improved parts in place and shown in side elevation. Fig. 2 is a side view of the upper parts of the refrigerator, sectioned as on the dotted line 2 2 in Fig. 3. Fig. 3 is a horizontal section on the dotted line 3 3 in Fig. 1, showing the interior of the lower part of the cooling device, the upper part being omitted and parts being broken away. Fig. 4 is a plan showing the upper surface of the cooling device with parts broken away. Fig. 5 is a central transverse section on the dotted line 5 5 in Fig. 3, the drip-pipe being in part broken away. Fig. 6 is a transverse section on the lines 6 6 in Figs. 3 and 4. Fig. 7 is a view of the middle portion of the under surface of the top piece of the cooling device.

Referring to the parts shown in the drawings, A is the body of an ordinary refrigerator for family use, and B, Fig. 1, the cover.

C is the ice box or chamber at the upper part of the structure.

E is the improved device for cooling water, it being placed horizontally within the refrigerator, and constitutes a partition between the ice-chamber and the space D beneath. This

device also constitutes a floor upon which to place the ice held in the ice-box.

The cooling device, which is preferably made of cast metal, is formed of two parts—an upper part *a* and lower part *b*—placed one directly upon the other, as shown, and joined rigidly by simple fasteners *c*. The device is rectangular in form, the lower part *b* being plane at its bottom surface and formed hollow or with a space *t* at its upper surface, like a shallow pan. A flange or rim *d* extends around its four sides, the inclosed space *t* being formed to hold water under pressure for drinking purposes. In the space *t* are formed transverse strips or partitions *e*, Figs. 3 and 6, reaching substantially from side to side, with openings *f* at their ends, alternated, as shown. The upper surfaces of these partitions are in the plane of the upper surface of the flange or rim *d*. This device E is smaller in plan than the interior of the ice-chamber, there being spaces *g*, Figs. 1, 2, and 3, between its periphery and the inner surfaces of the ice-chamber for the circulation of air. The device may be supported in place within the refrigerator by any convenient means—as, for instance, rests *h* at the corners, rigid with the body of the structure. These rests may be formed with depressions *i* in their upper surfaces in which to receive the angles of the cooling device, as shown, to center the latter within the chamber.

An inlet-pipe *k* enters the side of the refrigerator and, piercing the end of the cooling device, communicates with the interior *t* of the latter. A similar outflow-pipe *l* leads from the interior *t* out through the opposite side of the refrigerator, from which water may be drawn. The alternated partitions *e* cause the water in passing through the cooling device to flow many times from side to side thereof to bring it in contact with a broad surface cooled by the ice above it.

The lower surface of the upper part or cover *a* of the cooling device is plain save as to a hub *m*, Figs. 5 and 7, which projects downward through the space *t*. This plain surface of the part *a* is designed to rest directly upon the rim *d* of the part *b* and the ribs or partitions *e* or separated therefrom by some sim-

ple packing to form a tight joint between the parts *a* and *b* along the flange *d*.

The upper surface of the part *a* is preferably formed, as shown in Fig. 4, with ribs *n*, upon which the body of ice rests. It is also formed with a peripheral flange *o*, surrounding space *p* within, Figs. 5 and 6. The floor of this space, which is also the floor of the ice-box, inclines from the sides toward a drip-pipe *r* to control the flow of the water resulting from the melting ice.

When a refrigerator is built with this cooling device as a part thereof to form the floor of the ice-box and the partition between the upper and the lower apartments, inclined ledges *s*, Figs. 1, 2, and 3, are provided, secured to the inner walls of the ice-chamber. These ledges are preferably of sheet metal and of such width as to cover the spaces *g* around the cooling device to prevent water formed by melting ice from passing through said spaces in the lower chamber. Water that may fall on any of these ledges will flow into the space *p* of the cooler, and thus out through the drip-pipe, as stated.

By supplying this cooling device to a refrigerator, as described, the latter is adapted to serve the double purpose of preserving articles of food placed within it and at the same time cooling nearly to the temperature of freezing water required for drinking purposes, thus avoiding the necessity and the cost of two separate devices for accomplishing the two purposes.

What I claim as my invention is—

1. In an ice-box, a combination ice-rack and cooling device, consisting of two parts, each part provided with an opening, the upper surface of the lower part being provided with a tortuous passage, and the lower sur-

face of the upper part being provided with a perforated hub resting upon the lower part and registering with the openings of the two parts, and the remaining portion of the surface being smooth and fitting upon the walls forming the passage of the lower part, and the upper surface being inclined toward the opening, an inlet and an outlet for the lower part, and an outlet secured within the hub of the upper part and projecting through the perforation of the lower part, substantially as set forth.

2. In an ice-box, a combination ice-rack and cooling device, consisting of two parts, each part provided with an opening, the upper surface of the lower part being provided with a rim around its edge and with transverse strips reaching nearly from side to side with alternately-arranged openings at the ends, the upper surfaces of the strips being in the plane of the rim, and the strips upon opposite sides of the openings being bent laterally therefrom, and the upper part of the device having its lower surface provided with a perforated hub resting upon the lower part within the space formed by the bent strips and the remaining portion of the lower surface of the upper part being smooth and resting upon the edges of the rim and the strips, an inlet and outlet for the lower part, and an outlet leading from the hub through the opening in the lower part, substantially as set forth.

In witness whereof I have hereunto set my hand, this 18th day of July, 1896, in the presence of two subscribing witnesses.

OLIN J. GARLOCK.

Witnesses:

ROBT. M. SMITH,
HARRY G. CHAPMAN.