

(No Model.)

E. N. DOLBEY.
REFRIGERATOR.

No. 489,290.

Patented Jan. 3, 1893.

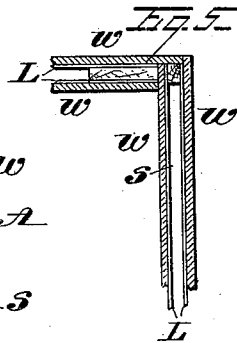
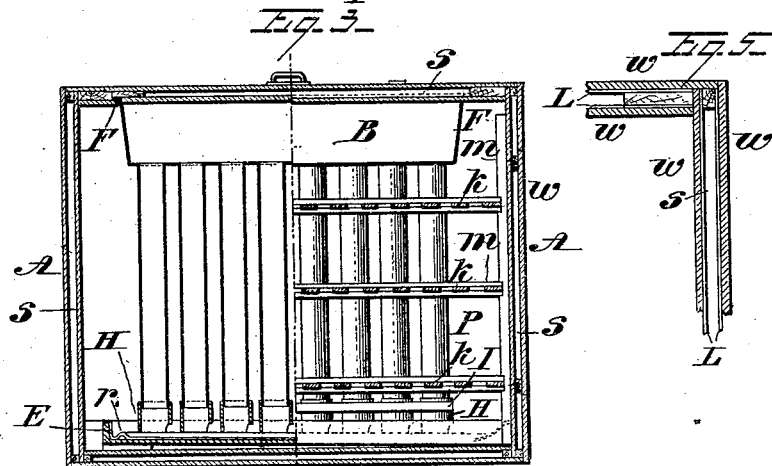
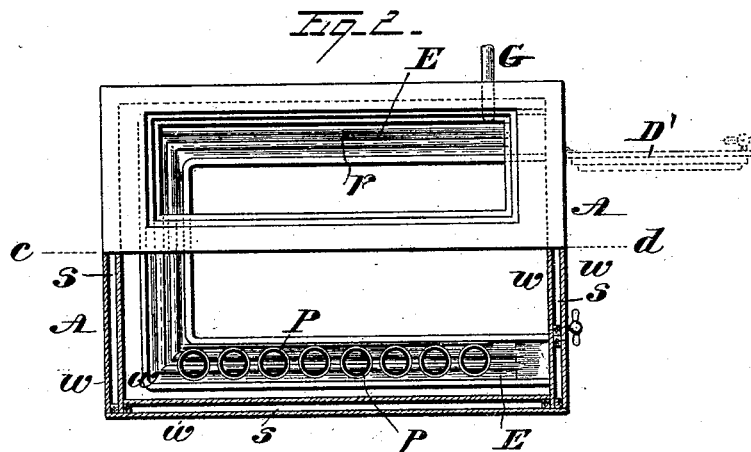
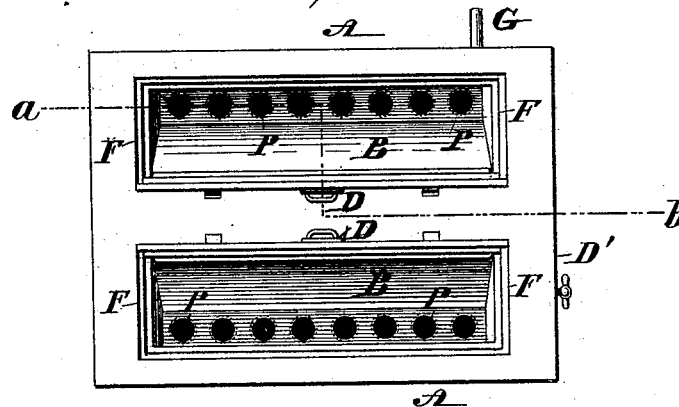
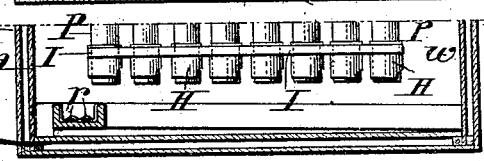


Fig. 4.

Witnesses:
Walter C. Pusey,
John R. Dolbey



Inventor:
E. Newlin Dolbey,
per Joshua Pusey,
att'y.

UNITED STATES PATENT OFFICE.

EDWARD NEWLIN DOLBEY, OF PHILADELPHIA, PENNSYLVANIA.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 489,290, dated January 3, 1893.

Application filed May 7, 1892. Serial No. 432,118. (No model.)

To all whom it may concern:

Be it known that I, EDWARD NEWLIN DOLBEY, a citizen of the United States, residing at the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Ice-Boxes and Refrigerators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a top plan view with the lids raised. Fig. 2, is a plan the upper half of which, with the ice-receptacle and adjuncts, is removed, and the lower half in horizontal section. Fig. 3 is a vertical section as on the angular line *a b*, Fig. 1. Fig. 4 is a vertical section on line *c, d*, Fig. 2, of the part of my refrigerator showing the series of sleeves on the ends of the pipe, elevated. Fig. 5 is a corner horizontal section of the walls of the box showing the manner of securing insulation.

The object of this invention is to improve the construction of ice boxes and refrigerators, and it consists in a box, preferably of the rectangular form shown in the drawings, provided with a receptacle or receptacles for ice or a mixture of ice and salt or other refrigerating material, from which receptacle depends a series or line of pipes whose lower ends extend down within a short distance of, and over, a lateral trough or conduit, by way of which the water or liquid resulting from the melting of the refrigerating material is drawn off, as hereinafter described.

The invention also consists in the combination with said receptacles and pipes of a series of vertically sliding sleeves on the lower ends of said pipes united by a common connection, whereby said sleeves, whose lower ends rest normally upon the said trough and the lower ends of the pipes may be readily cleaned out.

The invention also comprises minor features that will be hereinafter pointed out.

Referring to the annexed drawings, A is the box, preferably of wood, with double walls W, leaving an air space S between the same, and lined preferably with sheet asbestos, as hereinafter described.

B is a receptacle, usually of galvanized iron, open at the top, from the under side of which extends downwardly into box A a series

of pipes P. The top of this receptacle is let into an opening in the top of box A, and its upper edge is provided with a flange F, which rests upon the edge of said opening in the box. Thus, it will be seen, the receptacle and its pipe system may readily be lifted out of the box and replaced. As shown there are in the present instance, two of these receptacles and series of pipes, one at each side of the box.

D is a door hinged to the top of the box, which when down closes over the top of the receptacle.

E is a trough or open conduit, resting upon the bottom of box A, and having longitudinal projecting ribs, *r*. This trough at the sides lies immediately beneath the lower ends of the pipes P, which latter do not, however, extend entirely down to the trough.

G is an outlet pipe which communicates with the trough E, the latter being inclined in such manner that all the wastewater coming from the melted refrigerating material, (usually a mixture of salt and ice) will find its way to the outlet pipe G.

On the lower end of each of the pipes P, is a sleeve H, and the series of sleeves are rigidly connected together, by means of a common bar I. This construction also serves to maintain the pipes in place, and prevents any one of the same from becoming accidentally bent out of their vertical position. Normally, the lower ends of the sleeves H, rest upon the ribs *r*, of the trough; but they may be readily elevated together by forcing the connecting bar upwardly, and are retained in the raised position by their friction upon the pipes, or otherwise.

M, Fig. 3, is a frame-work placed within the space between the opposite pipe series, adapted to support a number of horizontally sliding open shelves *k*, upon which the articles to be refrigerated are placed. These shelves are of ordinary construction and require no particular description.

D' is a door which gives access to the shelves *k*, and to the interior of the box.

In order to secure an insulating space around the box A, I not only make the walls of the top, sides and bottom, as well as the door, double with an air tight space S between them, but I also line the walls with thin sheets

of asbestos or asbestos papers (see Fig. 5) which I find not only to be a good non-conductor of heat, but it also prevents moisture from getting into the intervening space.

- 5 In using my ice-box or refrigerator, I place the refrigerating material, broken up, in the receptacle or receptacles B, which (naturally) also fills up the pipes P, and is prevented from escaping by the sleeves H which as
10 previously stated, rest normally upon the ribs r, of the trough E. The air within the box comes into contact with and circulates about the series of pipes, with their extensive surface, and then becomes rapidly refrigerated.
15 When it becomes necessary to clean out the pipes, and the trough beneath, the shelves are removed by way of the door D', the shelves H are raised up, as seen in Fig. 4, the accumulated material, dirt &c., may be readily
20 removed by way of the lower end of the pipes.

Should it become necessary to repair or renew any of the pipes or the receptacle B, the same may be lifted out of the box and easily replaced.

Having thus described my invention, I 25 claim:—

The combination with the receptacle, its series of depending pipes, and the trough E, of the sliding sleeves on the lower end of said pipes, rigidly connected by the common bar 30 I, substantially as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

E. NEWLIN DOLBEY.

Witnesses:

JOHN R. NOLAN,

H. ALFORD BOGGS.