

(No Model.)

E. B. JEWETT.

REFRIGERATOR.

No. 306,833.

Patented Oct. 21, 1884.

FIG. 1.

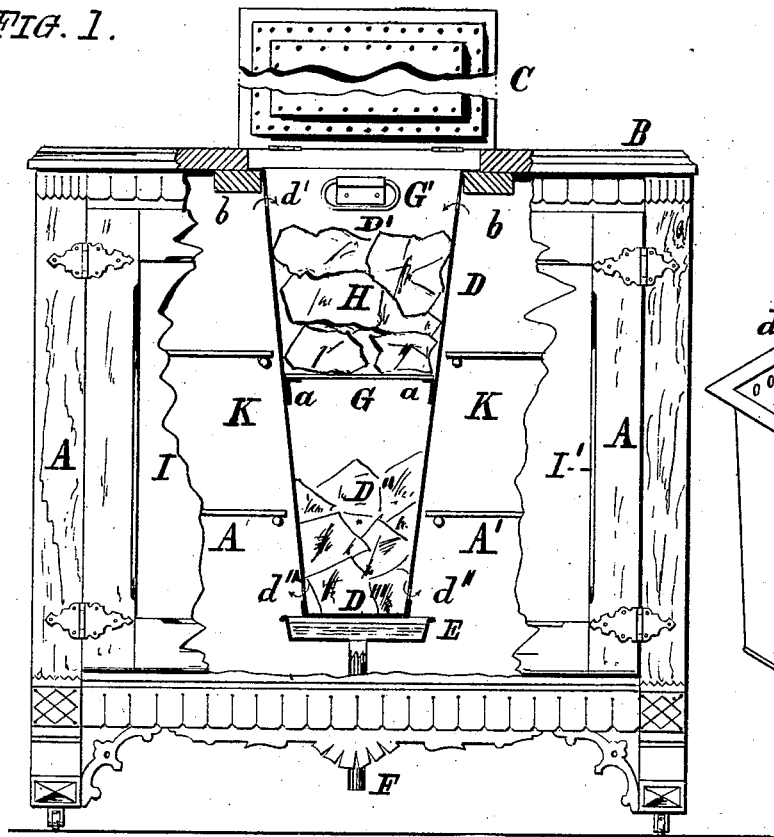


FIG. 2.

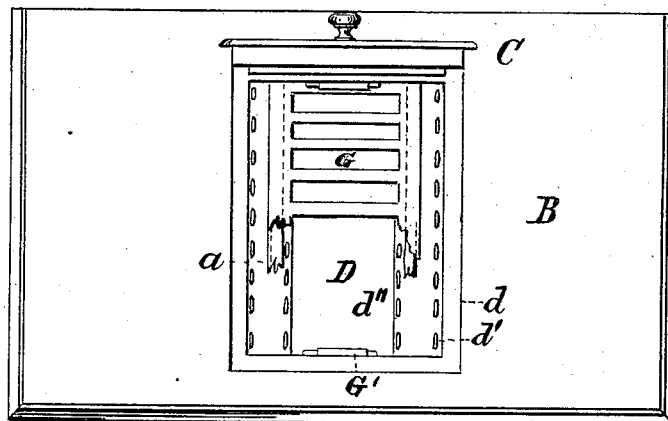
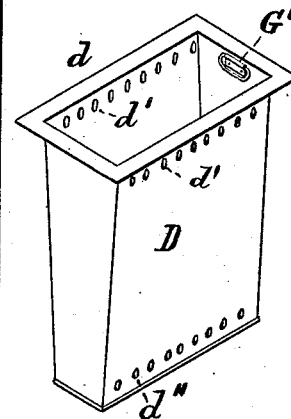


FIG. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

EDGAR B. JEWETT, OF BUFFALO, NEW YORK.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 306,833, dated October 21, 1884.

Application filed August 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDGAR B. JEWETT, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements on Refrigerators; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

My present invention has general reference to improvements in refrigerators; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already referred to, which serve to illustrate my said invention more fully, Figure 1 is a side elevation of my improved refrigerator, parts being broken to disclose the interior construction. Fig. 2 is a plan of the same, and Fig. 3 is a perspective view of the removable ice-receptacle and condenser detached.

Like parts are designated by corresponding letters of reference in all the figures.

The object of my present invention is the production of a sufficient and serviceable refrigerator in which the ice shall be contained in a removable ice-receptacle in such manner that a perfect circulation of air in the structure shall be accomplished with the least expenditure of ice, and a sufficiently low temperature attained to preserve perishable articles and substances, substantially as hereinafter described and mentioned. To obtain these important results I construct my refrigerator essentially of a suitable structure, A, in the usual manner, of a size suitable for the object to be attained, and locate therein a removable ice-chamber and condenser, D, said refrigerator having in its top B a suitable opening, through which the ice-chamber and condenser is inserted into the interior of the box A. This combined ice-receptacle and condenser D has on its upper edge a flange, *d*, by means of which it is supported upon the cleats *b*, Fig. 1, fastened to the under side of the top B, and a bottom, D'', soldered or otherwise affixed to or formed in one part with the body of the receptacle D. Near the flange *d* the receptacle

D has a row of openings, *d'*, and near the bottom D'' there is a further row of openings, *d''*, in each side wall of said receptacle, the former series of openings admitting the warm air to the ice-chamber, and the latter providing for means of escape of the cooled and condensed air from the condenser D or lower portion of the ice-receptacle D.

In the interior of the refrigerator A, and located underneath the ice-receptacle D, there is placed a fixed tray or trough, E, having an escape-pipe, F, said trough being made of a width slightly larger than the width of the bottom D. The object of this trough is to collect both the water resulting from the melting of the ice H and that resulting from the condensation of the vapors on the cold walls of the ice-receptacle D, while the pipe F conveys this water to the exterior of the refrigerator in an obvious manner. The ice, already mentioned, is placed upon a rack, G, the latter being arranged to rest upon angle-iron supports *d, d'*, as clearly shown in Fig. 1, said ice-rack G being loosely placed into the receiver D, so as to be readily removed, when desired, for cleaning of the interior of the said receiver D, and for other obvious and evident purposes. The opening in the top B of the refrigerator is covered by a lid, C, hinged (or not) to the said top B, so that the ice-receptacle D may be removed from the refrigerator A through the said opening, handles G' or other similar means being provided for, so as to facilitate the lifting of the ice-receptacle from its normal resting place. In operation, the ice being placed both upon the rack G and upon the bottom of the condenser D'', said condenser being, as a matter of fact, an auxiliary ice-chamber having a direct communication with the main ice-chamber D', and the doors I I and lid C in the refrigerator closed, a circulation of air in the preserving-chambers K K will immediately begin in the direction of the arrows shown in Fig. 1—that is to say, the warm air rising will pass through the apertures *d'* in the ice-receptacle D into the ice-chamber D', and by coming in contact with the ice therein be cooled, and thereby caused to pass downward through between the ice H and ice-rack G into the condensing-chamber and auxiliary ice-chamber D'' and escape through the openings *d''* into the preserving-chamber K, where said air ab-

sorbs heat from the objects contained in said chamber, and, thereby being expanded, rises to again pass over the ice in the ice-chamber, and thus keeps up a continuous circuitous route and an appropriate and corresponding reduction of the temperature in the interior of the refrigerator. In its passage through the preserving-chamber the air absorbs vapors which condense upon the cold surfaces of the ice-receptacle D and drop down the sides thereof into the trough E, to be conveyed therefrom by the pipe F to the exterior of the apparatus.

It will now be readily observed that the ice-receptacle D is best constructed from galvanized iron, such sheet metal rendering the said receptacle comparatively light to facilitate its removal from and insertion into the said refrigerator, and at the same time enabling me to produce this receptacle at a reasonable figure. Owing to its removability, the ice-receptacle can be taken out of the refrigerator as often as desired and thoroughly cleansed and put back into its normal position by any one about the house, while, in case of leakage, caused by corrosion of the metal and for other repairs, said ice receptacle may be removed and its perfect condition restored without necessitating the entire refrigerator being shipped to the factory, which advantage is of considerable importance to the owner of a refrigerator.

I will here state that the ice contained in the auxiliary ice and condensing chamber should be broken into smaller lumps; in fact, the ice left from one day's supply of the ice-chamber D' should be removed therefrom and placed into the auxiliary ice-chamber, whereby the supply of the said auxiliary chamber is con-

tinuously augmented at no expense to the housekeeper.

Heretofore refrigerators have been constructed with both movable and removable ice-receptacles, and such being the case I do not broadly claim such construction of the ice-receptacle; but,

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States—

1. As an improved article of manufacture, a refrigerator having in its top B an opening covered with a lid, C, and in its interior an ice-receptacle, D, removably inserted into the top B, said ice-receptacle consisting of a sheet-metal vessel, D, having laterally projecting flange *d* on its upper end, a series of apertures, *d'*, below said flange, ice-rack G, with its supports *a a*, and the auxiliary condensing-chamber D'', provided with a series of discharge-openings, *d''*, the whole being constructed and combined substantially as and for the use and purpose specified.

2. A refrigerator having the ice-chamber D', and an auxiliary ice and condensing chamber, D'', located underneath and in direct communication with said main chamber, substantially as and for the object stated.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the presence of two subscribing witnesses.

EDGAR B. JEWETT.

Attest:

MICHAEL J. STARK,
MINNIE HEIM.