(No Model.)

E. S. THOMAS.

REFRIGERATOR CRATE.

No. 435,953. Patented Sept. 9, 1890.

Fig. 1.

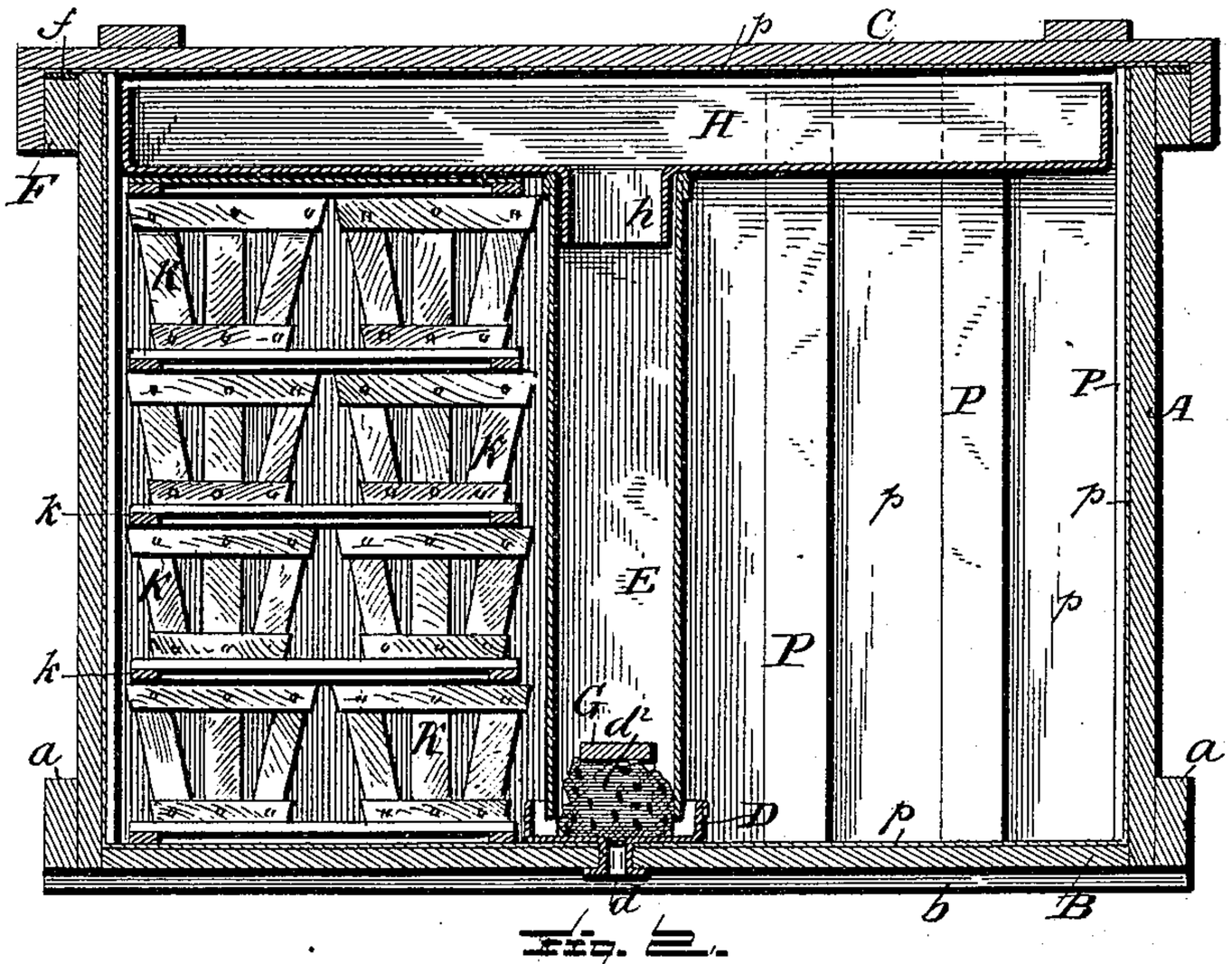
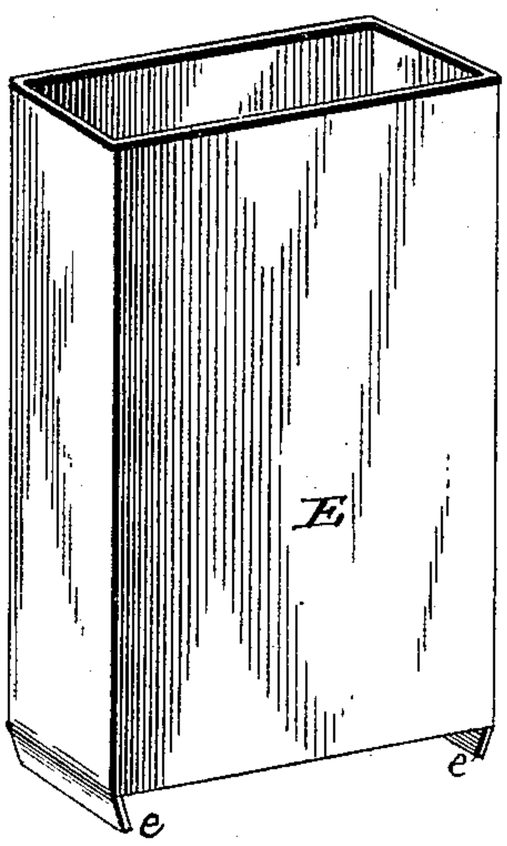


Fig. 2.

Fig. 3.



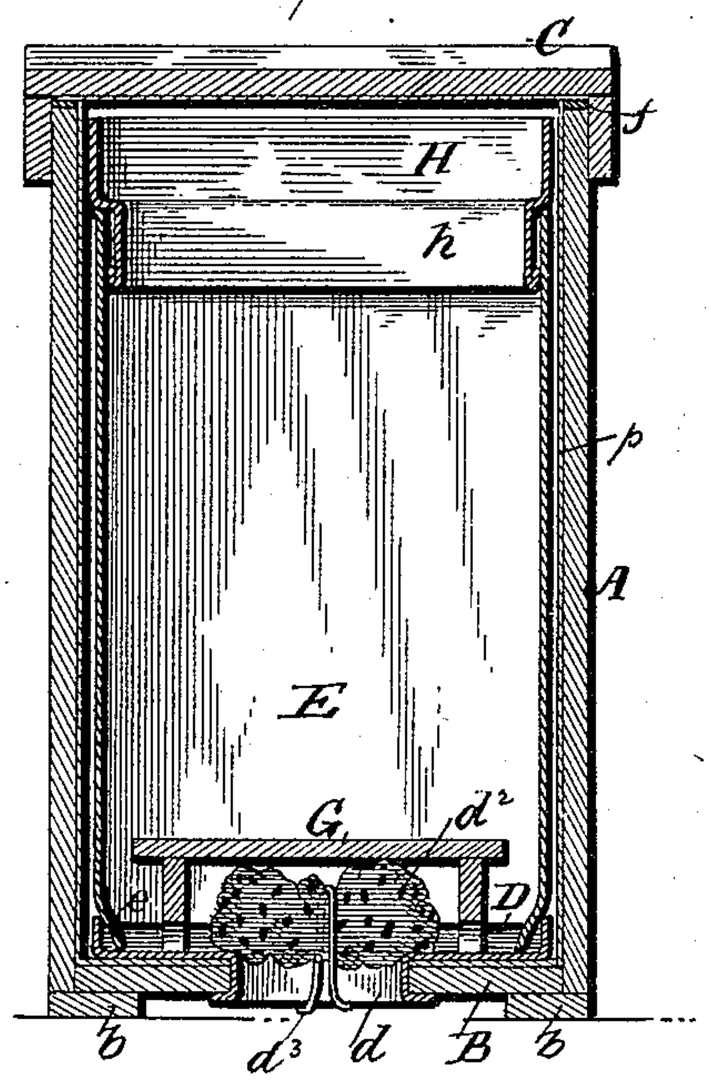
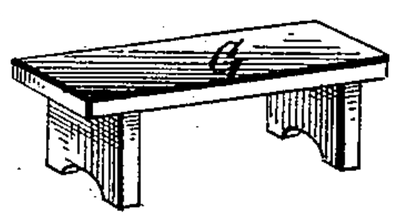


Fig. 4.



Witnesses
L. C. Hills.
C. C. Schiller, Jr.

Inventor
Enoch S. Thomas
By his Attorney
E. E. Masson

UNITED STATES PATENT OFFICE.

ENOCH S. THOMAS, OF STARKE, FLORIDA.

REFRIGERATOR-CRATE.

SPECIFICATION forming part of Letters Patent No. 435,953, dated September 9, 1890.

Application filed April 21, 1890. Serial No. 348,845. (No model.)

To all whom it may concern:

Be it known that I, ENOCH S. THOMAS, a citizen of the United States, residing at Starke, in the county of Bradford, State of Florida, have invented certain new and useful Improvements in Refrigerator-Crates, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a refrigerator for the transportation of perishable fruit; and the objects of my improvement are to provide a simple transportable refrigerator-box adapted to prevent for a considerable period of time the perishing of fruit contained therein and while the same is being transported, said box being adapted for the reception of layers of ordinary fruit-boxes in connection with a vertical and a superimposed ice-tank. I attain these objects by the construction hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of a refrigerator constructed in accordance with my invention. Fig. 2 is a transverse vertical section of the same through the center thereof. Fig. 3 is a perspective view of the vertical ice-receiving box. Fig. 4 is a perspective view of the ice-support removed from the vertical ice-box.

In said drawings, A represents the sides, B the bottom, and C the cover, of the refrigerator, the sides and bottom forming a rectangular box of suitable size, said sides being reenforced at the bottom with horizontal cleats *a*. The bottom is also provided with cleats *b*, which keep it elevated above its supports or the floor and permit the free escape of the water resulting from the melting of the ice in the refrigerator, said water being first received in a shallow rectangular pan D, secured upon the bottom B in the middle portion thereof. An elongated perforation *d* is made in the bottom of the pan for the escape of water therethrough, and the edges of said perforation are flanged outwardly under the bottom B, to secure the pan to said bottom. To nearly prevent the escape of air through the perforation *d* a sponge d^2 is made to fit tightly in or against said perforation by means of a cord or wire d^3, passing over it and having its ends secured to the under side of the bottom B; and to prevent the ice placed in the vertical ice-receiving box E from resting upon the fibrous material or sponge d^2 and so compressing it in the perforation *d* as to clog the latter, a supporting-stool G for said ice has its top over said sponge, the legs of said stool resting upon the bottom of pan D.

To prevent the dampness produced by the melting ice from reaching the interior wood surface of the box, and to render the refrigerator substantially air-tight, it is lined with non-absorbent or waxed paper *p*, which is retained in position by cleats P tacked to said interior surface, said cleats also keeping the fruit-boxes from the sides of the refrigerator and forming passages between them for the ascent of the warm air and to lead it into the ice-tank H, where it comes in contact with the ice therein, is cooled, and descends in the vertical ice-box E, where it is additionally refrigerated and escapes between the bottom of said ice-box and the pan D into the interior of the refrigerator, as the ice-box E is of less width than the pan D and its bottom is kept slightly elevated above the bottom of said pan by the downwardly-projecting ends *e* of the ice-box resting upon said bottom.

The vertical ice-box E can be inserted in proper position, with its bottom resting in the pan D, preferably, before the introduction and arrangement of the fruit boxes or baskets K in superposed layers, as shown in one half of the refrigerator in Fig. 1, said baskets being made to rest upon thin boards or strips of wood *k* that are placed on top of the under layer. When the refrigerator has been filled with fruit-baskets to nearly the height of the top of the vertical ice-box E, a dividing-strip is placed on top of the baskets, and over this is placed a thin covering of wood or other material, to prevent the warm ascending air from coming in contact with the bottom of the ice-tray H, which may otherwise cause sweating and water-dripping. Said tray or tank H is made to rest upon the upper edge of the box E, and may have its ends additionally supported by the wood-covered fruit-baskets, as it is desirable that the whole contents should be retained immovable while being transported. The tank H nearly fills the whole space between the cleated sides in the refrigerator above the fruit-baskets, and to steady the upper end of the ice-box E and

direct in said box the water resulting from the ice melting in the tank, said tank H has a short pendent rectangular funnel *h* that enters and fits within the upper end of the ice-box E. The refrigerator having been filled with fruit-boxes and the ice-box and tank placed in position, said ice-box and tank are then filled with ice, and the cover C, which does not quite rest upon the ice-tank, is secured in position either by means of hinges and hasps, which can be locked, or with screws, so that it can be opened without damaging it. To have the interior of the refrigerator as nearly air-tight as possible a yielding strip, of rubber or of felt *f*, is secured upon the top edge of the sides A or of the cleats F, between them and the cover, said cleats F constituting a ledge which permits the easy lifting or handling of the refrigerator without overturning it.

Having now fully described my invention, I claim—

1. The combination of the frame of a refrigerator, having vertical cleats thereon, a perforated pan secured to the bottom of said frame, a vertical ice-box resting in said pan and having passages between the lower end of the vertical ice-box and the pan, and a horizontal ice-tank having a funnel in the bottom thereof received in the top of the vertical ice-box, substantially as described.

2. The combination of the frame of a refrigerator, a perforated pan secured to the bottom of said frame, a sponge secured in the perforation of said pan, an ice-supporting stool above said sponge, and a vertical ice-box having downwardly-projecting ends *e* resting in the pan, said vertical ice-box inclosing said sponge and stool, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ENOCH S. THOMAS.

Witnesses:

M. C. LEVY,

R. C. HEIBERGER.