

No. 646,277.

Patented Mar. 27, 1900.

R. FREY.
REFRIGERATOR.

(Application filed Sept. 6, 1899.)

(No Model.)

Fig. 1.

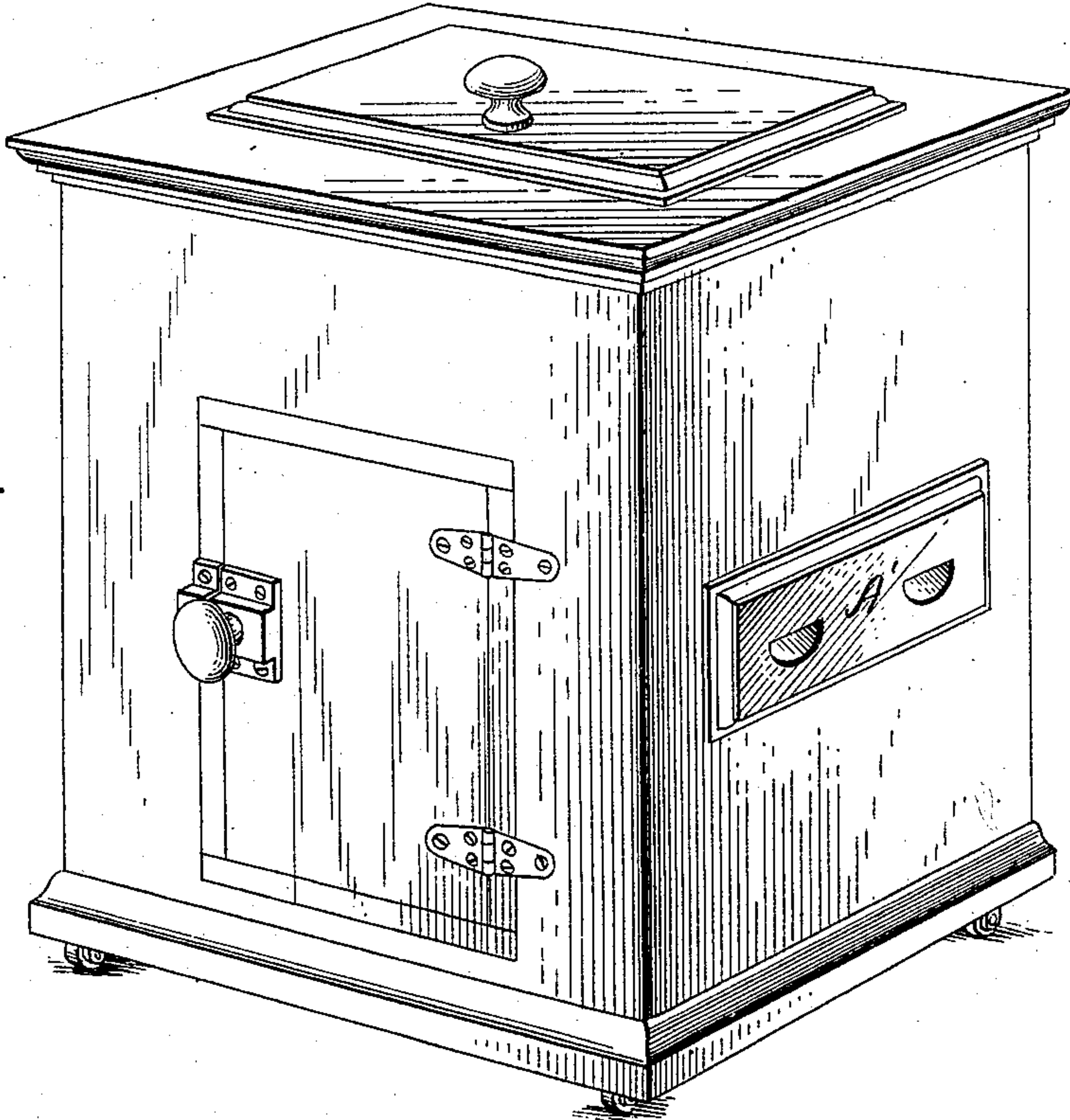
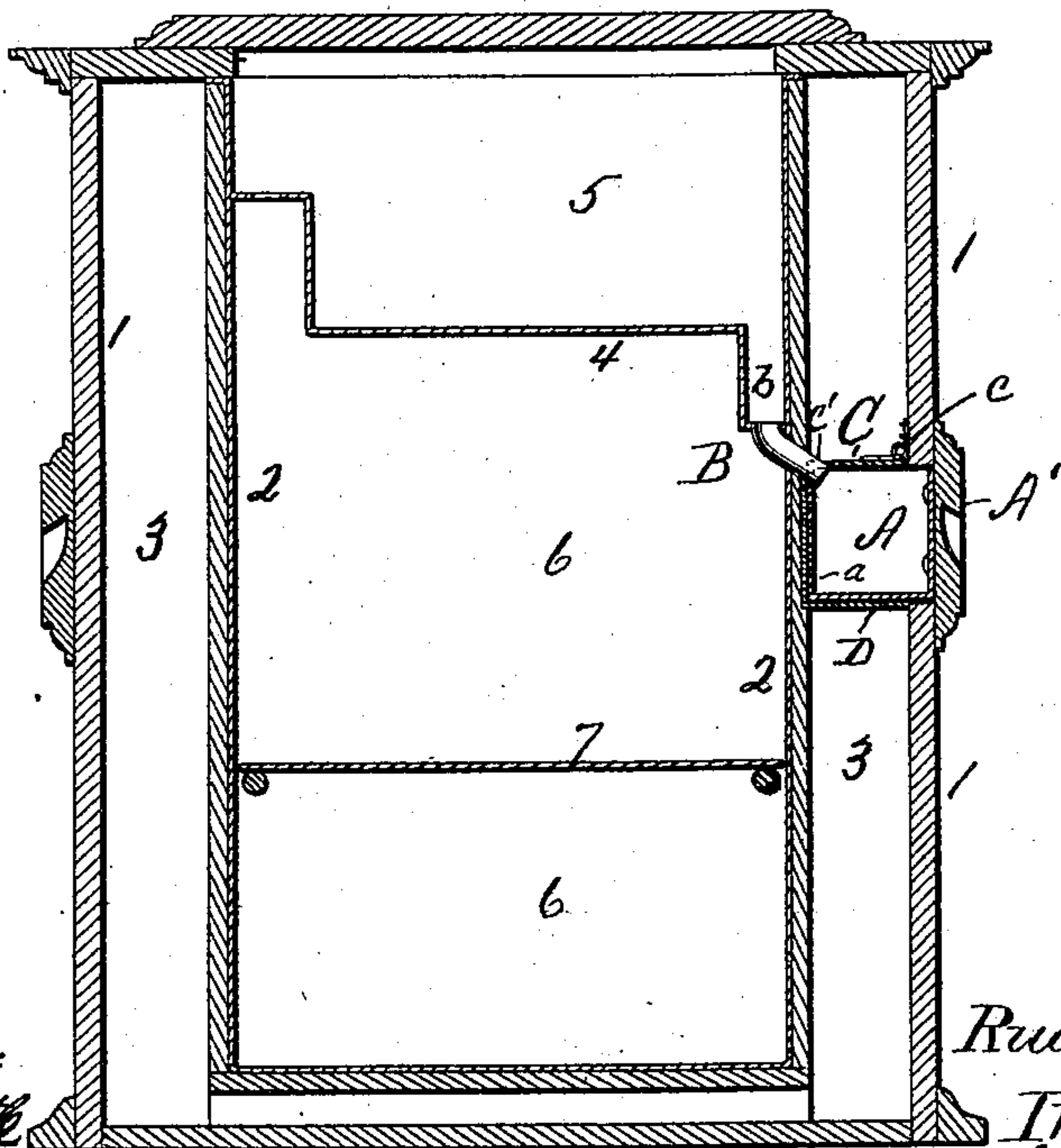


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

RUDOLPH FREY, OF NEW YORK, N. Y.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 646,277, dated March 27, 1900.

Application filed September 6, 1899. Serial No. 729,595. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH FREY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Refrigerators, of which the following is a full, clear, and exact specification.

This invention relates to improvements in refrigerators, and more particularly to the devices designed to catch the water resulting from melted ice.

The objects of my invention are to reduce the height of refrigerators of given size, thus rendering the top lid easier of access, to avoid the necessity of stooping or bending to reach and handle the drip-pan, to enable the refrigerator to be moved without first emptying the drip-pan, and generally to make refrigerators more sightly and easier of handling during transportation and use.

With these objects in view my invention consists in a construction which I will first describe in detail and then point out the novel features and combinations.

In the accompanying drawings, Figure 1 is a perspective view of a refrigerator embodying my improvement. Fig. 2 is a vertical section thereof.

My improvements are applicable to refrigerators of various forms, though here illustrated in conjunction with the conventional upright rectangular frame or case in common use.

The exterior frame or case 1, comprising the outer walls of the refrigerator, contains an inner frame 2, said frames being separated by a space 3, which may be a dead-air space or be filled in whole or in part by some non-conductor of heat, all in the usual manner.

The inner frame 2 may be divided in any usual or preferred manner by means of a partition, such as 4, to form the ice-chest 5, and the provision-chamber 6 may be divided by fixed or movable partitions, as 7, to suit the views of manufacturer or user.

At a point just below the partition 4, constituting the floor of the ice-chest, I form an opening in the outer frame or wall 1 for the reception of a drawer A of such depth that when closed its rear wall *a* will rest against the outer surface of the inner wall 2 of the

refrigerator. Said inner wall 2 is pierced by a short pipe or tube B, leading from the drip-trough *b* of the ice-chest 5, the relations of the drip-tube B and the drawer or drip-pan A being such that the discharge end of the tube will be received within a semicircular notch in the top of the rear wall *a* of the drawer when said drawer is in its closed position, and thereby discharge water from the melted ice directly into the drawer. It will be noted in this connection that the outer wall of the drawer A is permanently secured to a strip or molding A' of wood, the edges of which extend outward from the drawer proper and rest snugly against the surface of the outer wall or frame 1 of the refrigerator, thus preventing the ingress of warm air to the drawer and preventing egress of cold air therefrom. This is of importance, as it tends to maintain an even temperature between the drawer (which receives and contains cold water) and the drip-tube, thus preventing the sweating of the drip-tube and the consequent moisture in the provision-chamber 6. Moreover, as there can be no entrance of warm air to the ice-chest through the drip-tube the ice will melt less rapidly. A most important feature in connection with the location of the drip-pan drawer A is that its elevation above the floor (approximately about the line of the hips) permits of its removal and replacement without the necessity of the attendant materially bending her body and placing the weight of the filled drawer at a point where it is much more easily and safely handled than would be the case were she compelled to stoop to lift the drawer. Another advantage obtained is that the height of the refrigerator may profitably be decreased from eight to twelve inches, thus rendering it much easier to lift and lower the top lid.

Hinged within the outer wall or frame 1 is a door C, arranged to close the opening in said wall 1 when the drawer is removed, and thus prevent entrance of warm air or escape of cold air. To insure the prompt and tight closing of the door C, it may be weighted; but I prefer to employ a spring or springs *c*, which bear constantly upon the inner surface of the door and cause it to promptly and tightly close the drawer-opening when the drawer is removed. In the construction shown the edge

of the door C is provided with a semicircular notch *c'* to permit of the passage of the discharge end of the drip-pipe. In the event of using a drawer A of greater height than the distance between the walls of the refrigerator a door may be provided at both the upper and lower edges of the opening in the outer case or wall 1, the combined width of said doors being equal to the height of the drawer, so that the opening will be effectually closed when the drawer is removed. I prefer, however, to so proportion the depth of the drawer and width of door that the latter will serve as a cover for the former when the parts are in the position shown, as this arrangement provides for a tight cover to the drawer and prevents splash or leakage of water when the refrigerator is moved.

With a refrigerator constructed with a dead-air space between its walls, as shown, brackets may be secured to the wall 1 or 2 to serve the purpose of drawer-guides; but when a non-conducting filling is packed between the inner and outer frames or walls of the refrigerator I employ a sheet-metal partition or box D, surrounding the drawer-opening, as this insures against moistening said filling from the drip-tube when the drawer is removed and will prevent particles of the packing falling into the drawer.

What I claim is—

1. In a refrigerator having a double wall

extending from corner to corner, the combination with the ice-chest, of a drip-pan drawer arranged between the inner and outer members of said double wall and just below the bottom of the ice-chest, and a short drip-tube leading from the drip-trough of the chest through the inner member of the double wall into the top of said drawer.

2. In a refrigerator having a double wall, the combination with the ice-chest, of a drip-pan drawer located between the inner and outer walls just below the bottom of said chest, a drip-tube leading from the drip-trough of said chest through the inner wall to the top of the drawer, and a door to automatically close the drawer-opening when the drawer is removed.

3. In a refrigerator having a double wall, the combination with the ice-chest, of a drip-pan drawer located between the inner and outer walls just below the bottom of said chest, a drip-tube leading from the drip-trough to the drawer, a door to close the drawer-opening, and means causing said door to close on withdrawal of the drawer.

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

RUDOLPH FREY.

Witnesses:

FRANK FOULKE,

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