

(No Model.)

F. E. RANNEY.
ICE RACK FOR REFRIGERATORS.

No. 519,432.

Patented May 8, 1894.

Fig. 1

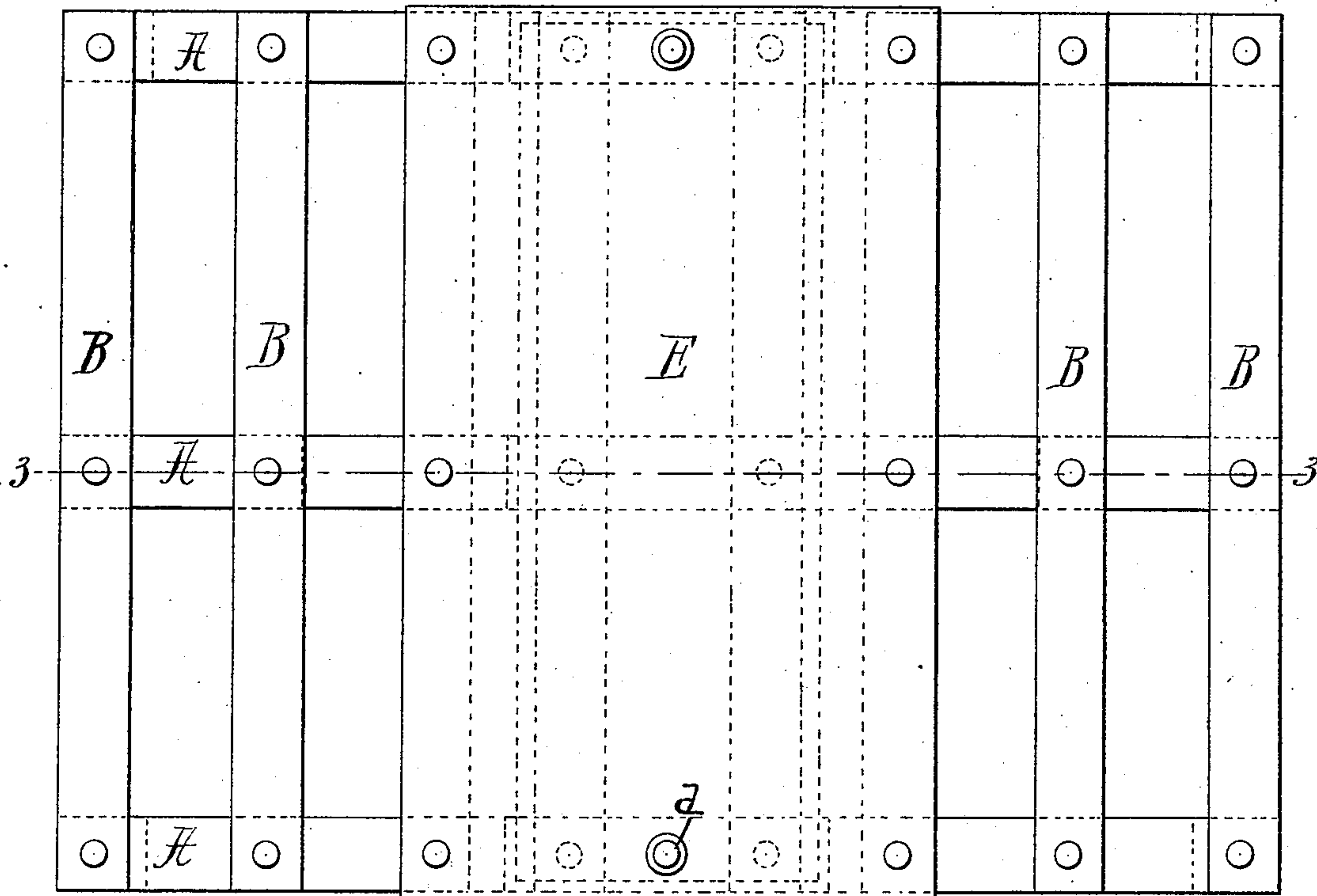


Fig. 2.

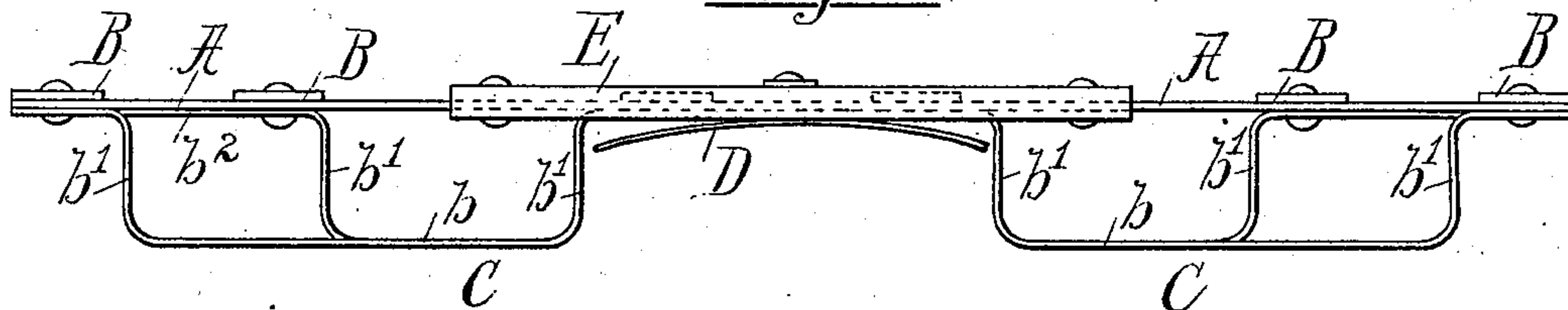
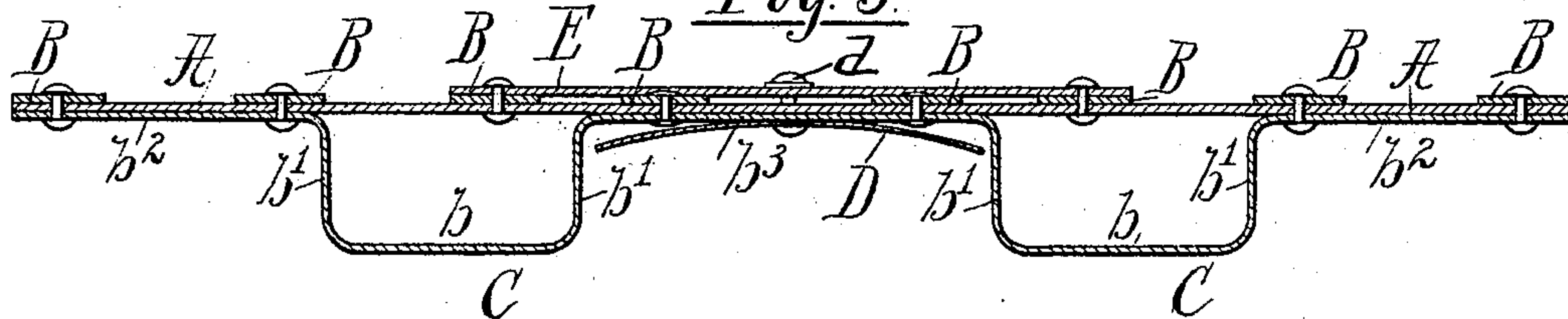


Fig. 3.



Witnesses
John W. Adams.
Louis M. Whitehead.

Inventor
Fred E. Ranney.
by Dayton, Pool & Brown
his Attorneys

UNITED STATES PATENT OFFICE.

FRED. E. RANNEY, OF GREENVILLE, MICHIGAN.

ICE-RACK FOR REFRIGERATORS.

SPECIFICATION forming part of Letters Patent No. 519,432, dated May 8, 1894.

Application filed August 19, 1893. Serial No. 483,509. (No model.)

To all whom it may concern:

Be it known that I, FRED. E. RANNEY, of Greenville, in the county of Montcalm and State of Michigan, have invented certain new and useful Improvements in Ice-Holders; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to ice racks for refrigerators, ice chests and other similar receptacles in which the ice is supported in a box at a distance above the bottom thereof, and the present invention embraces improvements in an ice rack generally similar to that illustrated and described in Letters Patent No. 497,458, granted to me and issued May 16, 1893. While the construction set forth in said Letters Patent No. 497,458 is a very desirable one and possesses valuable features, especially for small or medium sized racks, yet it has been found in practice that for ice racks of relatively large size the same general features of utility may be retained in the modified construction herein shown and with the use of considerable less metal, and consequently at a less cost, while at the same time the present invention embodies other features of improvement incident to this special construction. In said former construction the supporting legs are located at the extreme ends of the rack, and in order to afford sufficient rigidity to the intermediate portion of the rack, the side bars are made double or triple by lapping the ends of the said side bars across the said intermediate portion. In an ice rack of relative large size such a construction would necessarily be heavy. In the present construction, which is designed more especially to be used in refrigerators of larger size, permitting a better distribution of the metal, the supports are so arranged as to give the required rigidity with the minimum amount of metal.

The invention consists in the matters hereinafter described and particularly pointed out in the appended claims and will be readily understood by the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of an ice rack embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a central longitudinal vertical section thereof.

Referring to the drawings A A A designate the longitudinal bars of the rack, which are formed of bar or strap metal, preferably of galvanized iron, and of a length to properly fit within the ice compartment longitudinally. These bars are connected at suitable intervals by overlying cross-bars B B B of suitable length to fit transversely within the ice compartment, the two sets of bars being suitably secured together, by rivets or otherwise, thus forming a rectangular frame or rack of considerable rigidity. The supporting legs C C C, formed of similar strap metal, are suitably secured longitudinally beneath the bars A A A; said legs or supports, of which there are at least two for each bar A being of approximately rectangular skeleton form, each having a horizontal or base portion b , upright or vertical risers b' b' and horizontal laterally extending portions b^2 and b^3 . Each pair of legs C C C are preferably made of a single bar of metal as shown, and the horizontal portion b^3 , therefore, extends and joins from one leg to the other. These legs are secured to the bars A A A, preferably by extending the rivets which secure the cross-bars to the bars A through the horizontal portions b^2 and b^3 of the legs. It will be noticed that the length of the horizontal portions b^2 , b^2 , the width of the base portions b and the length of the connecting portion b^3 of the supporting legs are in such proportion as to most economically dispose the sustaining strength of the latter; the risers b' b' of the marginal legs being set in some distance from the ends of the rack under each side bar A A, while the support of the central longitudinal bar A is set in a still greater distance as shown in Figs. 2 and 3. It being obvious that little weight can come on the extreme ends of the rack, adjacent to the end walls of the ice box, this construction will be a desirable one as bringing the supporting legs into the best position to support the weight coming on the ice rack in its central parts.

It will be observed that the legs of the side bars A A are near enough to the ends of the

rack to prevent tipping of the latter, while the central legs are placed farther in so as to bring them directly underneath that part of the rack which will bear the greatest weight, thus insuring the greatest possible strength and rigidity. A further advantage gained by setting the risers b' b' in from the end of the rack is, that in such a construction these risers will not interfere with the usual seam in the lower corners of the sheet metal lining of the ice compartment, and small fragments of ice or other debris resting on the bottom of the box will interfere less with the replacement of the ice rack if they can be brushed aside in either direction by the leg. The width of the base portions b and the length of the connecting portions b^3 are so proportioned relatively to each other as to most efficiently support the central portion of the rack, while at the same time the distance between the inner risers is such as to provide room for a central deflecting plate D. This plate when used in connection with a refrigerator having a centrally arranged air opening in the lower floor of the ice compartment connection with the provision chamber beneath, is formed of sheet metal of a width somewhat greater than the space occupied by said opening, is formed slightly concave on its under side, and is transversely secured by suitable rivets d or otherwise to the under side of said rack above the air openings. A second deflecting plate E, also of sheet metal and of a width slightly greater than the deflecting plate D is secured preferably by the same rivets d d , to the upper side of the rack above the deflecting plate D so as to prevent drip from the ice falling onto the lower plate. This plate E is flat, and is in this instance shown as made slightly longer than the width of the rack with its overhanging ends bent downward over the side of the rack so as to form a smooth finish thereto.

It is obvious that in the case of a relatively narrow ice chamber, the central supporting bar A with its supporting legs may be omitted, and by reason of the decreased length of the cross-bars B the ice rack will be sufficiently rigid. It will be seen that by the above construction I have provided an ice rack having most desirable features possessing great strength and rigidity, employing the minimum amount of metal in its con-

struction, and which at the same time is cheap and durable.

It will be noticed that the ends of the bars A are joined by a cross-bar B. These marginal cross-bars B form a straight and smooth surface or end for the ice rack at those places where the latter would otherwise impinge against the zinc lining of the ice compartment of the refrigerator. Thus the ends of the leg arms of metal ice racks have heretofore been bended or turned over to avoid cutting the zinc lining but have been found insufficient for this purpose and I have found it quite essential that the end of the rack should present a continuous surface as is provided by the side of the marginal cross-bars B.

I claim as my invention—

1. An ice rack for refrigerators, comprising a rectangular frame embracing longitudinal side bars and a center bar, and transversely arranged cross-bars secured thereon, each of said bars being provided with two skeleton-formed legs or supports placed intermediate of and at a distance from its ends, the legs of said center bar being located farther from the ends of the rack than are the legs of the side bars, a curved deflecting plate secured transversely underneath the central part of said frame, substantially as set forth.

2. An ice rack for refrigerators, comprising a rectangular frame embracing longitudinal side bars and a center bar, and transversely arranged cross-bars secured thereon, each of said bars being provided with two skeleton-formed legs or supports placed intermediate of and at a distance from its ends, the legs of said center bar being located farther from the ends of the rack than are the legs of the side bars, a curved deflecting plate secured transversely underneath the central part of said frame and a flat deflecting plate of greater width than the said curved deflecting plate, secured transversely on said frame above the latter, substantially as set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

FRED. E. RANNEY.

Witnesses:

LEVI SPAULDING,
JOSEPH M. FULLER.