

(No Model.)

2 Sheets—Sheet 1.

W. C. LANCASTER.
COOLER OR REFRIGERATOR.

No. 437,697.

Patented Oct. 7, 1890.

Fig. 2.

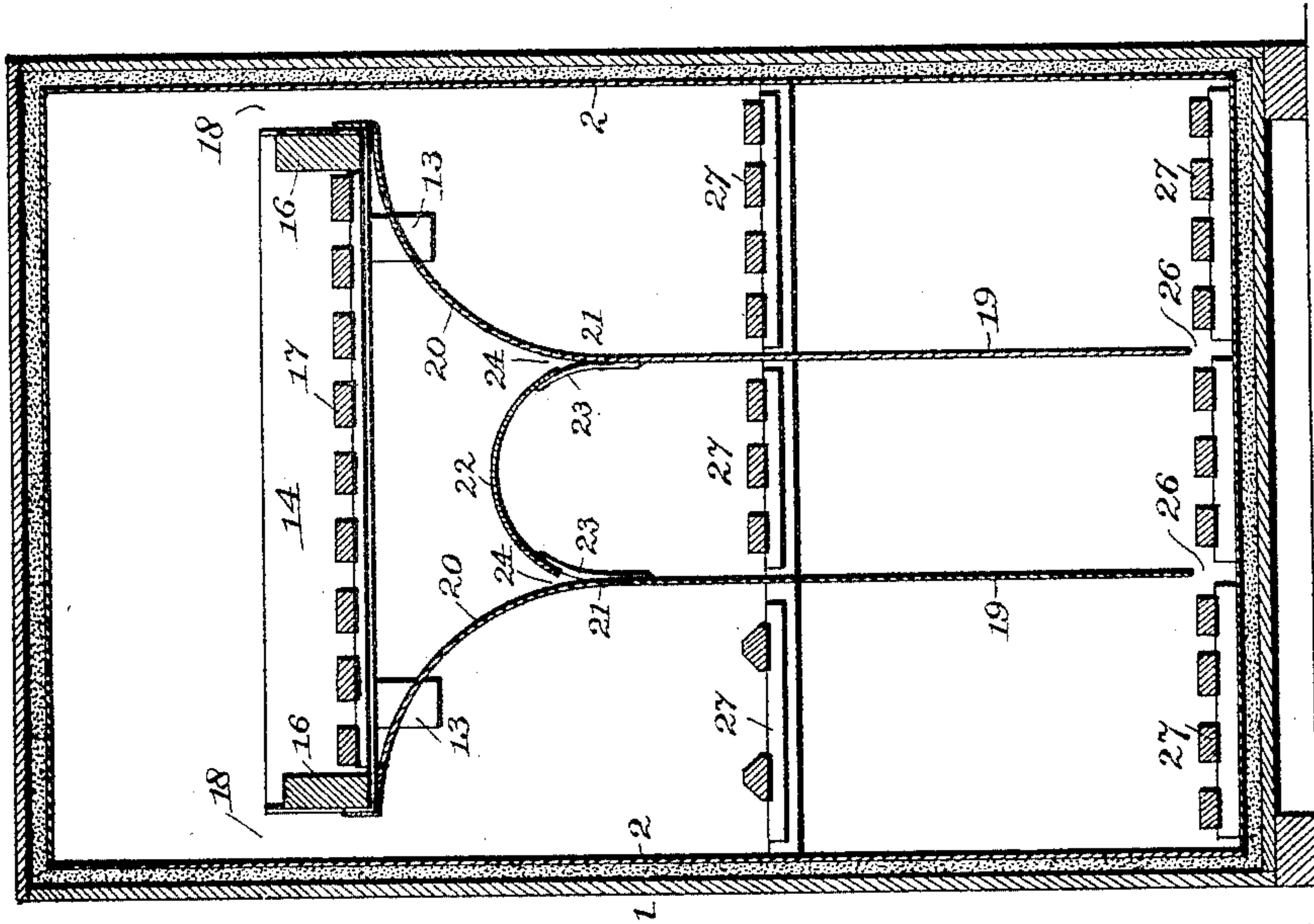
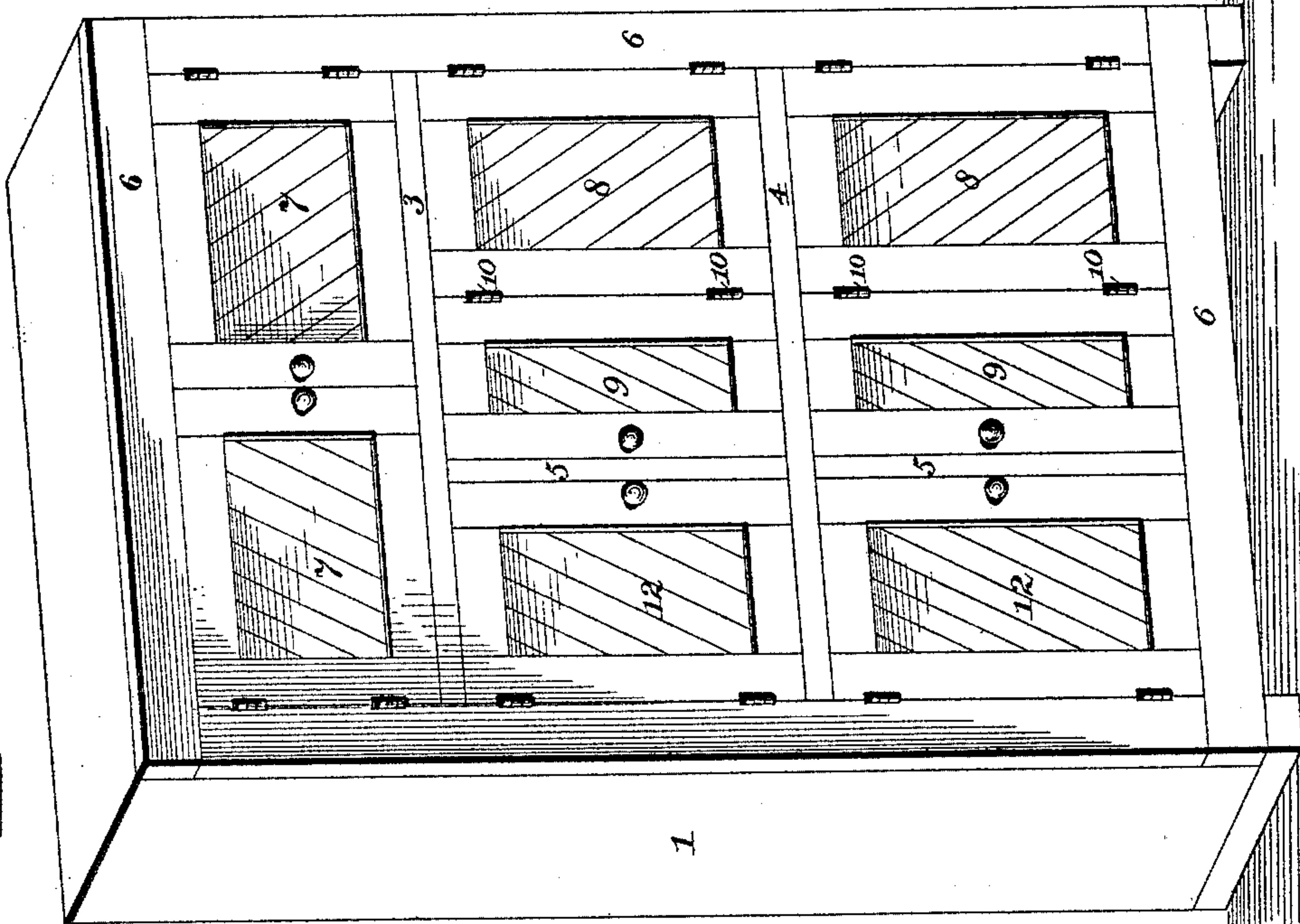


Fig. 1.



Witnesses:

Chas. H. Curand.

W. L. Swaine

By *his* Attorneys.

C. A. Snow & Co.

Inventor

W. C. LANCASTER.

(No Model.)

2 Sheets—Sheet 2.

W. C. LANCASTER.
COOLER OR REFRIGERATOR.

No. 437,697.

Patented Oct. 7, 1890

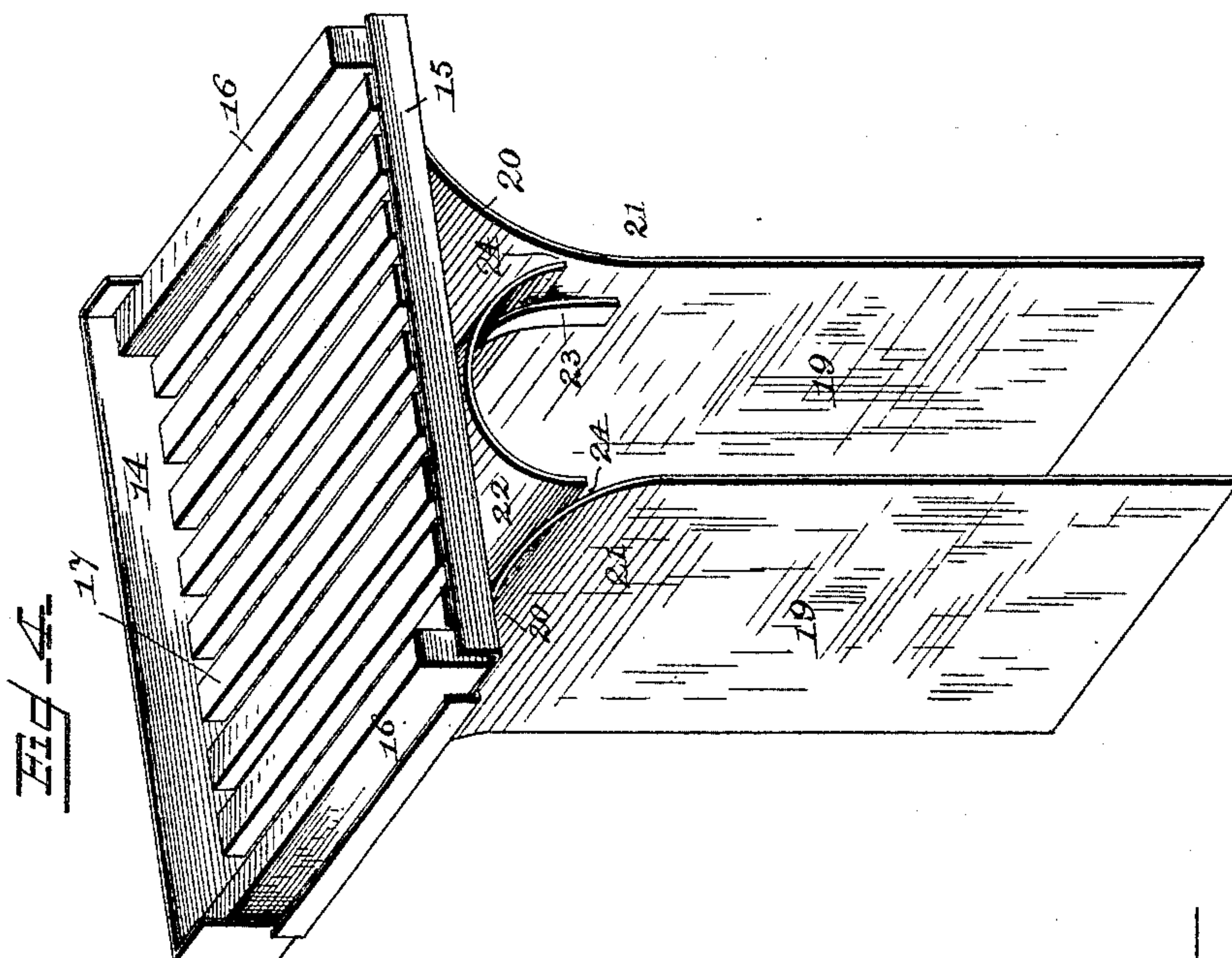
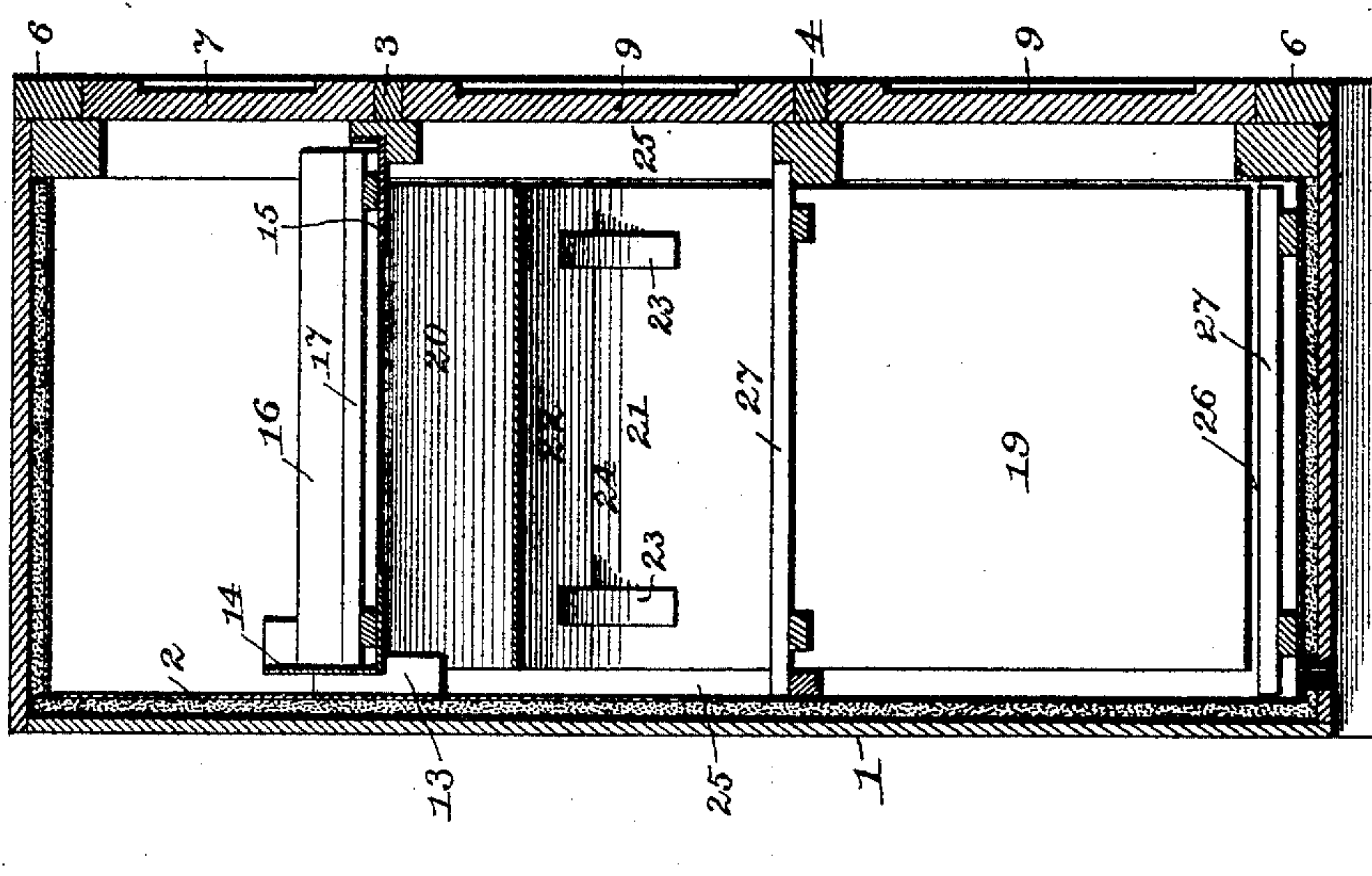


Fig. 3.



Witnesses:

Charles C. Ourand

W. S. L. Swall

By his Attorneys,

C. A. Snow & Co.

Inventor

W. C. LANCASTER.

UNITED STATES PATENT OFFICE.

WILLIAM C. LANCASTER, OF XENIA, INDIANA.

COOLER OR REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 437,697, dated October 7, 1890.

Application filed March 6, 1890. Serial No. 342,845. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. LANCASTER, a citizen of the United States, residing at Xenia, in the county of Miami and State of Indiana, have invented a new and useful Cooler or Refrigerator, of which the following is a specification.

This invention has relation to coolers or refrigerators for use in families or in bar-rooms. Among the objects in view are to provide for thorough equalization of the temperature, to economize the refrigerative agent, to utilize the drip from said agent, and arrange the compartments and doors in a convenient and economical manner.

With the above general objects in view the invention consists in features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a cooler constructed in accordance with my invention. Fig. 2 is a transverse vertical section. Fig. 3 is a transverse vertical section, the section being taken at a right angle to that of Fig. 2. Fig. 4 is a detail in perspective of the depending partitions and ice-tray removed.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a rectangular ice chest or cooler suitably lined with non-conducting materials and made in accordance with any of the well-known constructions so far as relates to its walls, and the interior of the box or chest is provided with a suitable metallic lining 2.

The front of the box is provided with transverse strips 3 and 4, which are connected by vertical strips 5, thus forming an upper transversely-elongated or oblong opening, and below the same two vertically-opposite square openings and two vertically opposite and disposed oblong openings. Each of these openings is provided with the usual jamb or bead frames 6, and the upper oblong opening, which is for the introduction of the refrigerative agent, is adapted to be closed by two similarly-constructed hinged doors 7. The two lower square openings are adapted to be covered by separate doors hinged at one side and formed in a wide and narrow section 8

and 9, respectively, which sections are hinged, as at 10, so that the narrow sections may be folded back upon the wide section and thus access to the ice-box be had at the center of the box without opening the wide doors. The two vertically-disposed and vertically-opposite oblong openings are each closed by separate doors 12.

Opposite the upper cross-bar 3 at the front of the box there is secured a pair of brackets 13, and upon the same there is located a transversely-disposed L-shaped metallic rest 14, which is duplicated by a similar rest 15 at the opposite or front of the box, the latter rest resting upon the inner edge of the bead-frame. Transverse cleats 16 connect the opposite ends of the rests, and upon the rests there is mounted a grating-frame 17, removable and adapted to support the refrigerative agent. It will be noted that the rests do not extend to the side walls of the box, but terminate short of the same, so that the cleats 16 and the side walls combine to form opposite side passages 18. Depending from each of the cleats 16 and having their upper ends secured thereto are opposite inwardly-curved sheet-metal partitions 19, the curved portions 20 of the partitions extending inwardly a little over one-third the width of the chest, and from those points depending, as at 21, in a straight line. The two partitions are connected near their upper ends by a curved shed or roof 22, the edges of which are secured to metallic straps or brackets 23 projecting from the partitions, and said edges terminate above the partitions, leaving an intermediate opening 24 at each side of the shelf. The width of the partitions and the location of the rear L-shaped rest are such as to combine with the rear wall of the box to form a front and rear air-space or passage 25. The length of the partitions is such that they do not reach to the bottom of the box, and therefore the lower edges of the partitions combine with the bottom to form a communicating-passage 26.

By the construction described it is apparent that I provide an upper chamber for the ice, extending the entire width of the chest, and six lower chambers, the two central and vertically-opposite chambers preferably being smaller. Each of these six lower cham-

bers is provided with the usual removable rack or shelf 27 for the reception of articles to be preserved.

It will be observed that the divisional partitions, the curved shed, the L-shaped rests, and the connecting-cleats are formed as one structure, and may be removed for cleaning purposes, and, in fact, all portions of the refrigerator are accessible and may be readily removed. It is further evident that while an ordinary refrigerator may not be provided with all the accessories herein described, yet the same may be provided with the divisional partitions, ice-receptacles, &c., mentioned.

It will be noticed that the drippings from the ice will fall upon the curved shed and the curved ends of the partitions, and will follow the partitions to the bottom of the box, so that said partitions are maintained in an extremely cold state, and even the drippings utilized as a refrigerative agent; also, that the compartments will be filled with cold, dry air. The cold air falling passes under the lower end of each of the partitions, so that a constant circulation is maintained, the warm air rising at the rear and front sides of the box and re-entering the ice-chamber to be again cooled and fall.

Having thus described my invention, what I claim is—

1. The combination, with an ice-box, of opposite rests supported in the upper end of the same and adapted to receive an ice-supporting shelf, cleats connecting the rests, opposite inwardly-disposed depending partitions secured at their upper ends to the cleats and terminating above the floor of the box, substantially as specified.

2. The combination, with an ice-box, of opposite rests supported in the end of the same, cleats connecting the rests, and the rests adapted to receive and support an ice-shelf, opposite inwardly-curved partitions depending from the cleats and terminating above the bottom of the box, and an intermediate curved roof connecting the partitions and having its opposite edges terminating short of the partitions so as to form an intermediate space, substantially as specified.

3. The combination, with an ice-chest, of an ice-supporting frame mounted in the up-

per end of the same and at a distance from the walls of the chest, opposite partitions the edges of which terminate short of the front and rear walls of the chest, having their upper ends secured to the ice-supporting frame and having their lower ends terminating short of the bottom, and the series of frames subdividing the compartments formed by the partitions, and the curved shed connected by straps to the upper ends of the partition and serving to shed the drip-water upon the partitions, substantially as specified.

4. The combination, with the transverse bars 3 and 4 and the opposite brackets arranged in a plane with the former, of the opposite L-shaped rests terminating short of the sides of the chest, the connecting-cleats 16, the opposite metallic partitions, the upper ends of which are curved and connected to the cleats, the intermediate curved shed, and the supporting-rack subdividing the three compartments formed by the partitions, substantially as specified.

5. The combination, with an ice-box, of opposite rests supported in the end of the same adapted to receive and support an ice-shelf, opposite inwardly-curved partitions depending from the ice-shelf and terminating above the bottom of the box, and an intermediate curved roof connecting the partitions and having its opposite edges terminating short of the partitions so as to form an intermediate space, substantially as specified.

6. The combination, with an ice-chest, of an ice-supporting frame mounted in the upper end of the same and at a distance from the walls of the chest, opposite partitions the edges of which terminate short of the front and rear walls of the chest, having their upper ends secured to the ice-supporting frame and having their lower ends terminating short of the bottom, and the series of frames subdividing the compartments formed by the partitions, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM C. LANCASTER.

Witnesses:

JOHN REYOWN,
FRANK MORAN.