

No. 653,119.

Patented July 3, 1900.

R. H. REEVES.  
REFRIGERATOR.

(Application filed Apr. 5, 1900.)

(No Model.)

Fig. 1.

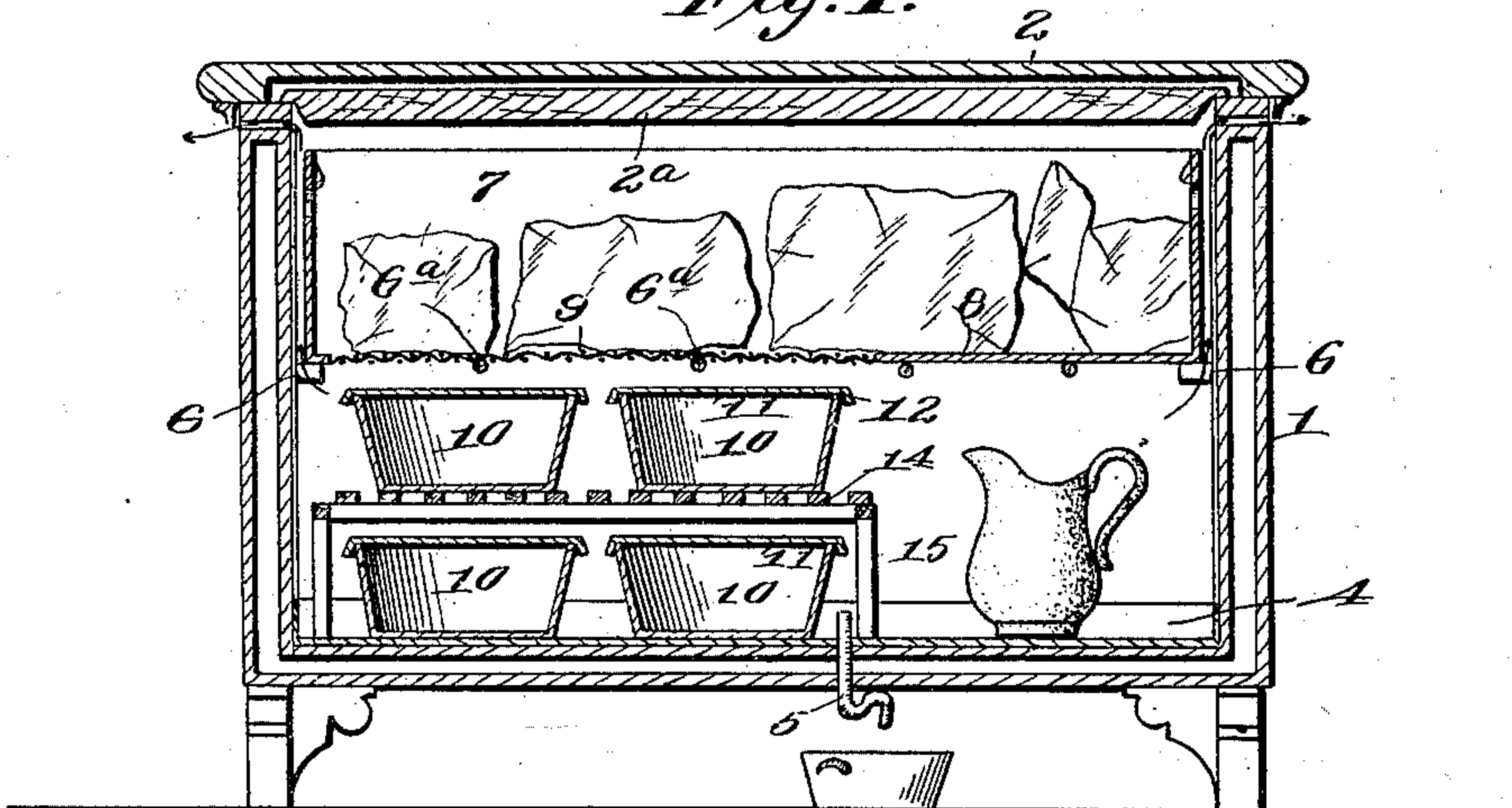


Fig. 2.

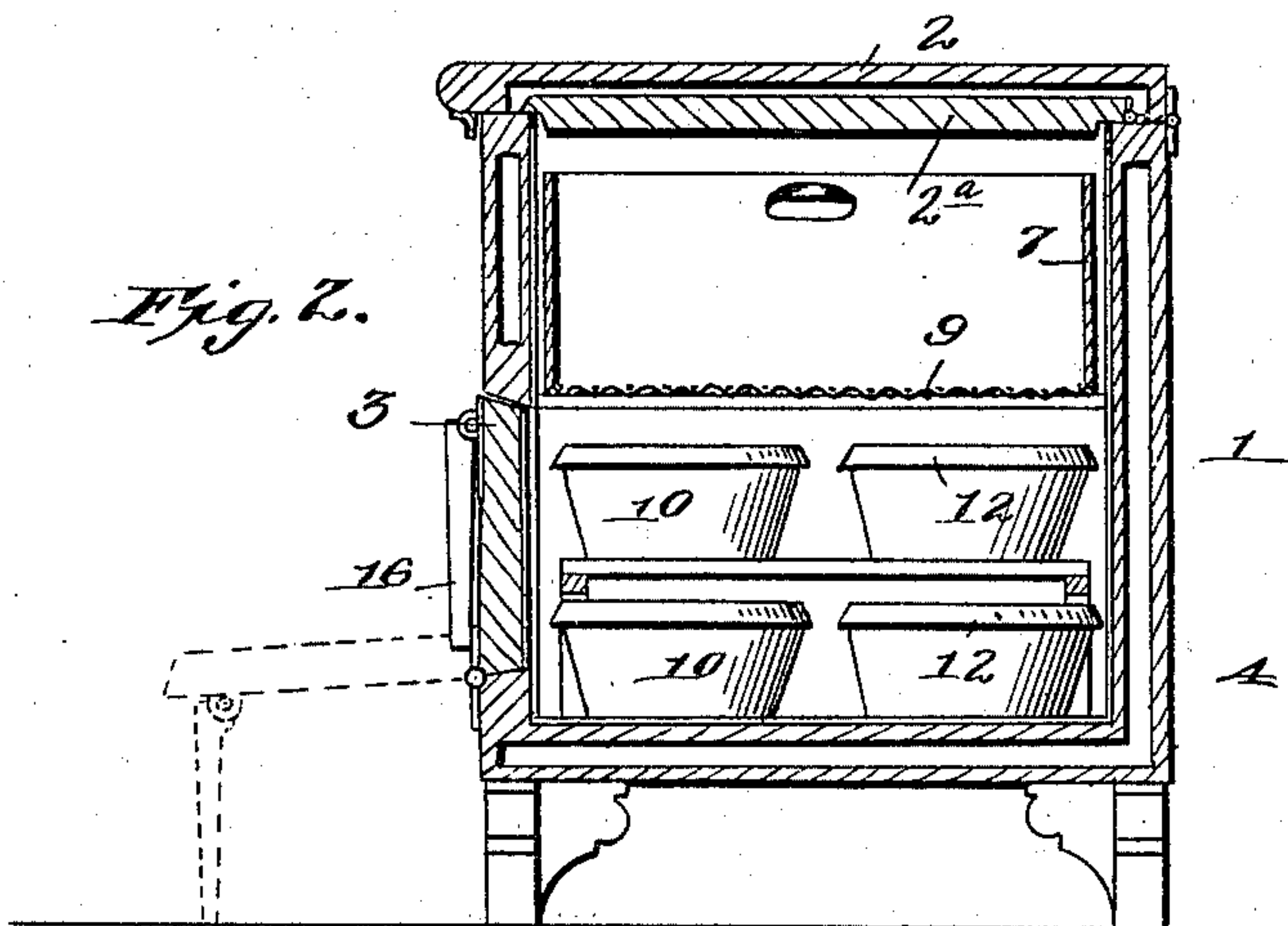
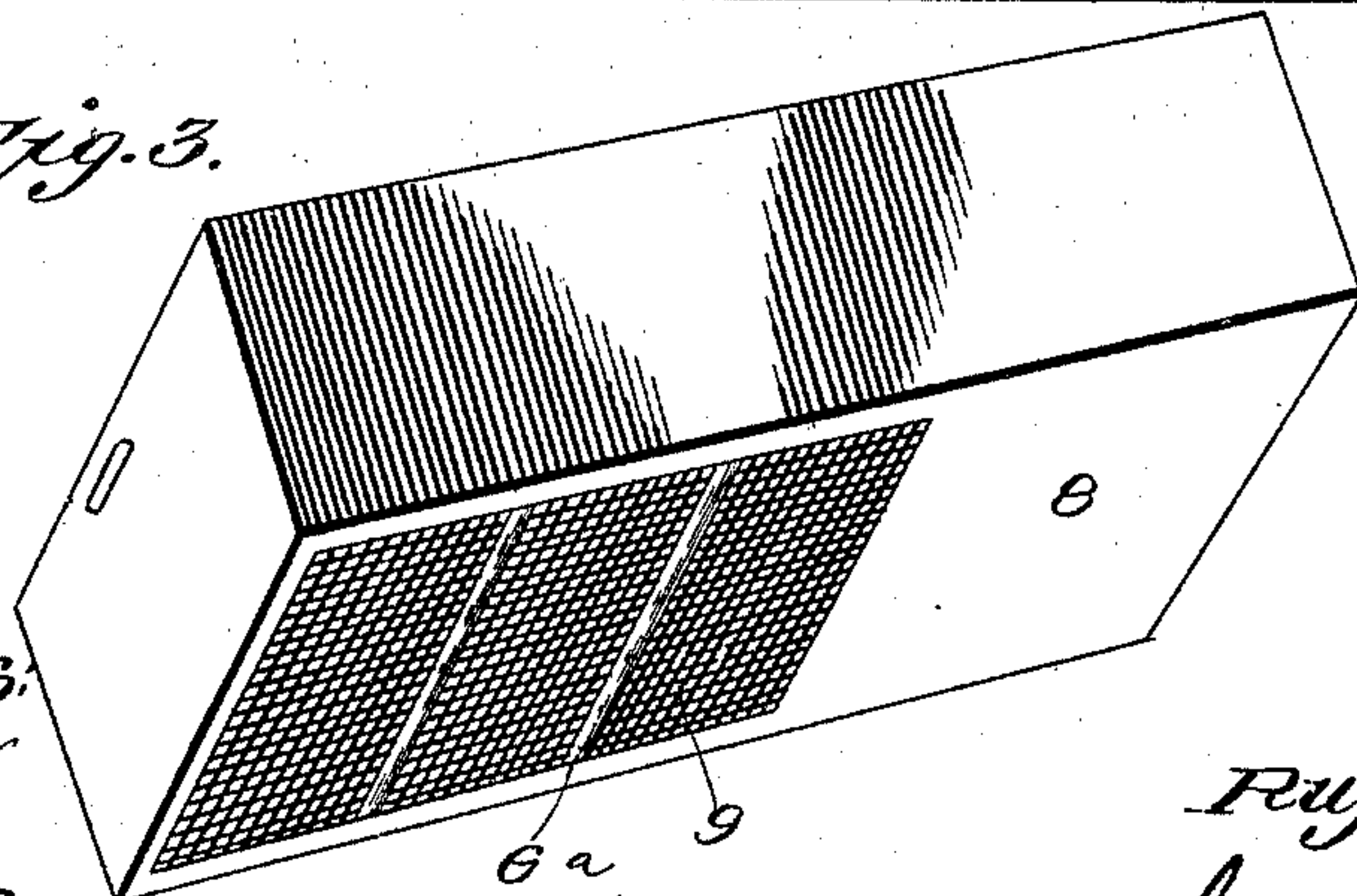


Fig. 3.



Witnesses:  
C. D. Hester  
J. B. Keefe

Inventor  
Rufus H. Reeves  
By James L. Norris  
Atty



# UNITED STATES PATENT OFFICE.

RUFUS H. REEVES, OF ASHEVILLE, NORTH CAROLINA.

## REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 653,119, dated July 3, 1900.

Application filed April 5, 1900. Serial No. 11,756. (No model.)

*To all whom it may concern:*

Be it known that I, RUFUS H. REEVES, a citizen of the United States, residing at Asheville, in the county of Buncombe and State of North Carolina, have invented new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates to refrigerators, and especially to that class of refrigerators generally known as "ice boxes or chests;" and it has for its object to provide a refrigerator of the character described wherein the drip resulting from the melting of the ice is utilized to the fullest extent in order to keep the articles stored in the refrigerator at a very low temperature for long periods of time with a relatively-small consumption of ice.

It has for its further object to provide improved means for storing and supporting the ice in the refrigerator in such manner that articles in both covered and uncovered vessels may be safely stored without said articles being brought into actual contact with the drip and whereby the odors and exhalations from the articles in the covered vessels will not permeate or affect the articles in the uncovered vessels.

Finally, it has for its object to provide a refrigerator possessing the characteristics referred to which will be simple in construction, easily cleaned and maintained pure and sweet, efficient in operation, and which can be made and sold at small cost.

To these ends my invention consists in the features and in the construction, combination, and arrangement of parts hereinafter described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a vertical longitudinal sectional view of my improved refrigerator. Fig. 2 is a similar view taken at a right angle to Fig. 1, and Fig. 3 is a perspective view of the ice-tray.

Referring to the drawings, the numeral 1 indicates a box or chest constructed in a usual and well-known or any preferred manner, provided at its top with two hinged lids or covers 2 and 2<sup>a</sup>, as usual, 2<sup>a</sup> being the inner and 2 the outer lid or cover, and in the lower

portion of its front side with a door 3, hinged at its lower edge, so as to swing outward and downward. The lower portion of the box or chest constitutes a catch trap or basin 4, which extends over and forms the entire bottom of the chest, and projecting up through the bottom of the chest and basin 4 is a trapped drip-pipe 5. This drip-pipe is preferably arranged near the rear wall of the chest, where it will not interfere with the ready insertion and removal of articles, and its upper end, as shown, projects slightly above the bottom of the drip tray or basin, preferably from one-quarter to one-half an inch, whereby the water dripping from the ice will be collected in the drip tray or basin and maintained at a constant depth therein.

Attached to the inner sides of the chest are cleats or battens 6, which form rests for supporting the ice-tray. Said ice-tray comprises a rectangular casing 7, preferably formed of galvanized iron or zinc and of a shape and size to loosely fit within the chest and rest on the cleats or battens, said tray or casing being entirely open at its upper end. The lower end of the ice-tray is closed for a sufficient distance from one end by an imperforate bottom 8, preferably constructed of the same material as the sides and ends of the tray and joined water-tight to the lower edges thereof, while in the remaining open portion of the lower end of the tray is rigidly and securely fixed a reticulated bottom 9, of woven wire or the like. In practice the reticulated bottom extends, approximately, two-thirds of the length of the ice-tray and the imperforate bottom one-third.

Iron rods 6<sup>a</sup> are preferably arranged in the chest at the same level as the cleats 6<sup>a</sup> and support the bottom of the ice-tray and prevent it from sagging.

Arranged in the chest beneath the reticulated bottom 9 of the ice-tray is a series of superimposed pans 10, each provided with a flat cover 11, having a depending flange 12. The lowermost pans rest on the bottom of the drip tray or basin 4, while the upper pans rest on a removable support comprising a frame or table having a slatted top 14 and supporting legs 15, which rest on the bottom of the drip tray or basin.



Beneath the imperforate portion of the ice-tray, as will be seen, there is a protected or roofed chamber closed against the ice-drippings, so that open vessels may rest therein and the contents be kept cool without any liability of ice-drippings having access thereto.

In practice the ice-tray is filled with ice, the ice resting on both the reticulated and imperforate bottom portions of the tray. The articles to be stored and preserved are placed in the chest underneath the ice-tray, those articles which are most liable to be affected by odors and exhalations from other articles being placed in the covered pans 10, which are disposed beneath the reticulated bottom 9, while open vessels—such as pitchers, bowls, and the like—containing articles or substances not necessary to be inclosed are placed on the bottom of the drip tray or basin to one side of the pans 10 and beneath the imperforate bottom 8. As the ice melts the water drips through the reticulated bottom 9 onto the flat covers 11 of the uppermost pans 10 and thence flows down onto the covers of the lowermost pans and finally into the drip tray or basin 4. The ice-water flows slowly over the covers 11 of the pans, and said covers being flat there is always a thin film of the water on the upper sides thereof, thereby keeping the contents of the pans at a low temperature. The water is prevented from entering the pans by the depending flanges 12 of the covers. The open or uncovered vessels being placed beneath the imperforate bottom 8 of the ice-tray, no water from the melting ice can drip therein. The drip-pipe 5 being projected above the bottom of the drip tray or basin, as described, there will always be a thin sheet of water in said tray, in which the bottoms of the open vessels and the lowermost pans rest, and inasmuch as the colder portions of the water will sink to the bottom of the tray or basin and the warmer portions will rise and overflow through the drip-pipe the water in the tray or basin will always be cold and aid in keeping the articles stored in the chest at a low temperature.

By providing the cover 2 in the top of the chest ice may be placed in the ice-tray without disturbing any of the contents of the chest, and by lowering the hinged door 3 articles may be conveniently inserted and removed from the chest without removing the ice-tray or the ice contained therein. As shown, the door 3 is hinged at the bottom, so that it swings outward and downward, and to said door is hinged the upper end of a swinging support or leg 16, which when the door is opened swings by gravity to a perpendicular position and supports the door in a horizontal position, the door thus serving as a convenient shelf on which to rest articles as the latter are inserted and removed from the chest. The ice-tray, the pans, and the support for the pans may be readily removed from the chest, whereby the

latter may be thoroughly and easily cleansed from time to time, as may be found necessary.

By my invention I provide a refrigerator in which the ice is stored at the top, access for removal or replenishment of ice being had from the top of the refrigerator through the covers 2<sup>a</sup>, the storage-chambers for the articles to be cooled being beneath and access thereto through the front of the refrigerator by means of a door therein, a portion of the refrigerator being adapted to receive covered cans so arranged that the drippings from the ice will continually pass thereover to cool the contents, the cooled water being retained in the bottom of the refrigerator to a certain depth, with the advantage of maintaining always in the refrigerator this cooled body of water, which has a cooling effect upon the interior thereof, and presenting also a compartment roofed off or closed from the drippings of the ice, in which open vessels may be placed and their contents kept cool without liability of the ice-drippings having access thereto.

There is a space between the ends of the ice-tray and the inner walls of the refrigerator to permit passage of warmer currents of air upward and out through the vent-openings suitably located near the top of the refrigerator and indicated by the letter V in the drawings.

Having described my invention, what I claim is—

1. In a refrigerator, the combination with a chest, of an ice-tray arranged in the upper part of the chest, one end portion of the said tray being imperforate to protect articles placed thereunder from the drippings from the ice and the other portion of said tray being reticulated to permit the drippings to fall upon vessels placed thereunder for containing articles to be refrigerated, substantially as described.

2. In a refrigerator, the combination with a chest, of an ice-tray removably supported in the upper portion thereof and comprising a casing open at its upper end and provided with a bottom one portion of which is imperforate and the other portion reticulated, substantially as described.

3. In a refrigerator, the combination with a chest, of an ice-tray arranged in the upper part of the chest and extending from end to end and front to rear of the latter, one end portion of the tray being imperforate and the other portion thereof being reticulated, and a table removably arranged in the bottom of the chest and provided with a slatted top for supporting covered vessels beneath the reticulated portion of the tray, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RUFUS H. REEVES.

Witnesses:

H. S. HARKINS,  
T. B. LONG.