

W. M. HOWLAND.
WINDOW COLD AIR REFRIGERATOR.
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975,954.

Patented Nov. 15, 1910.

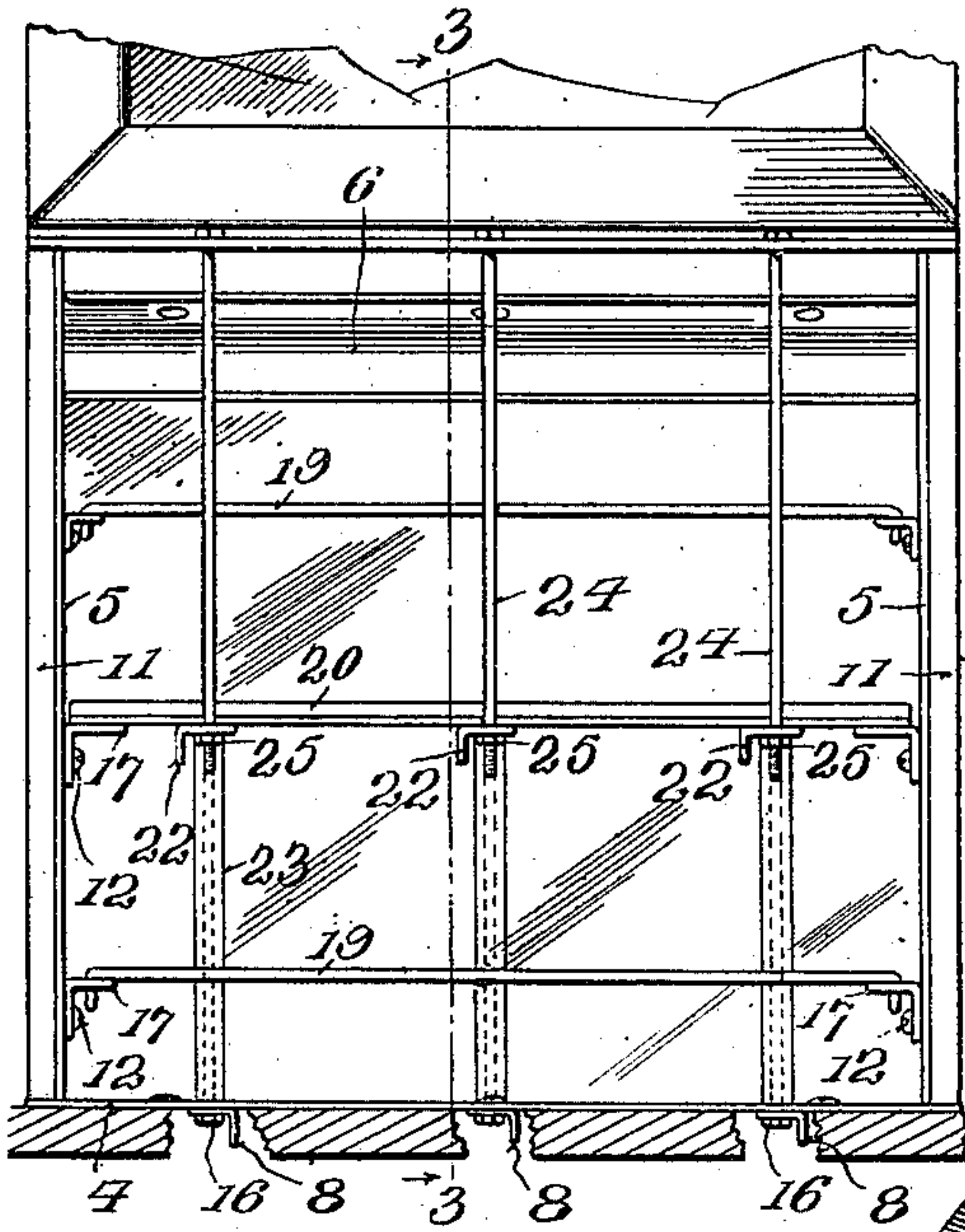


Fig. 2.

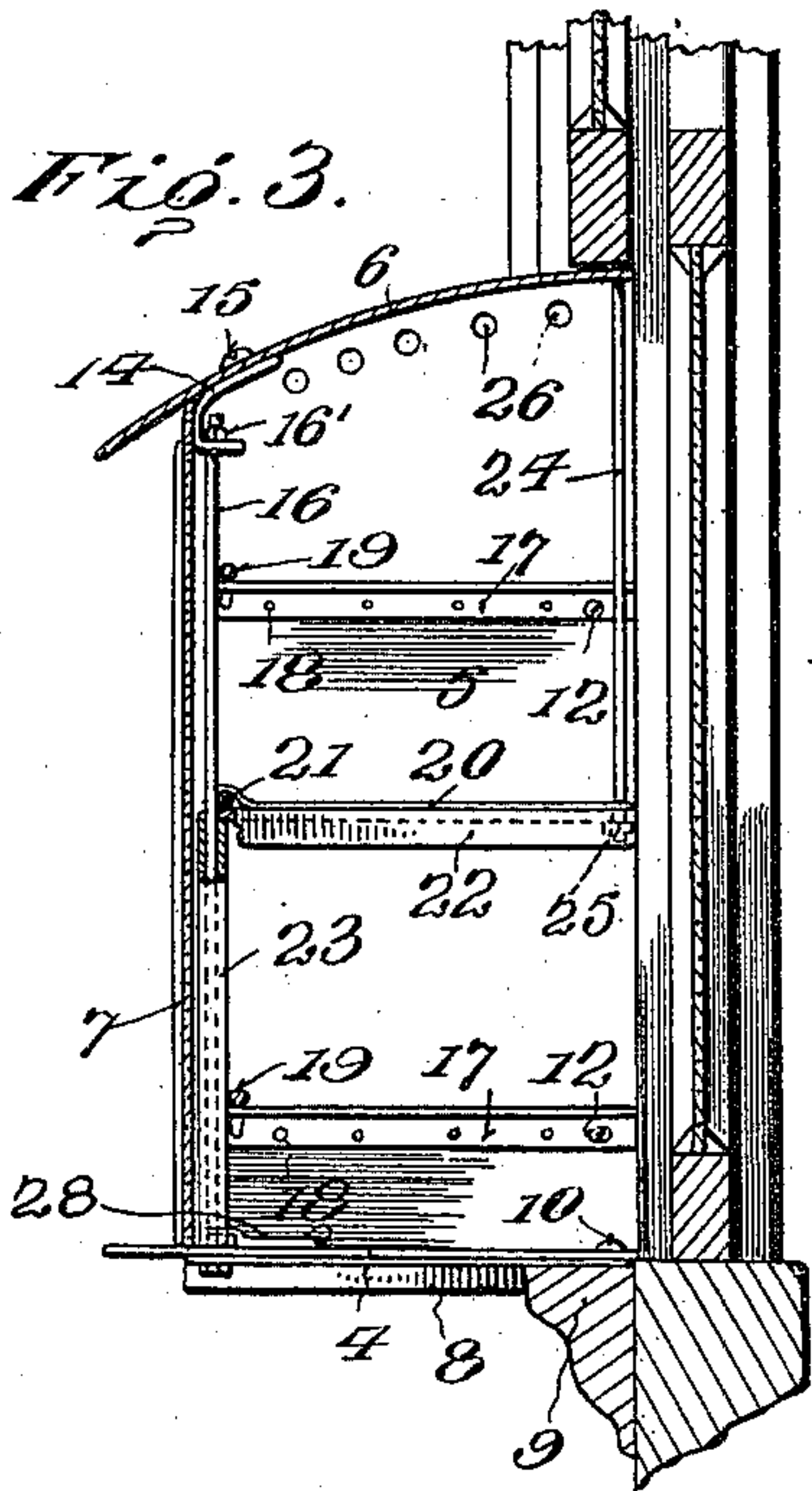


Fig. 3.

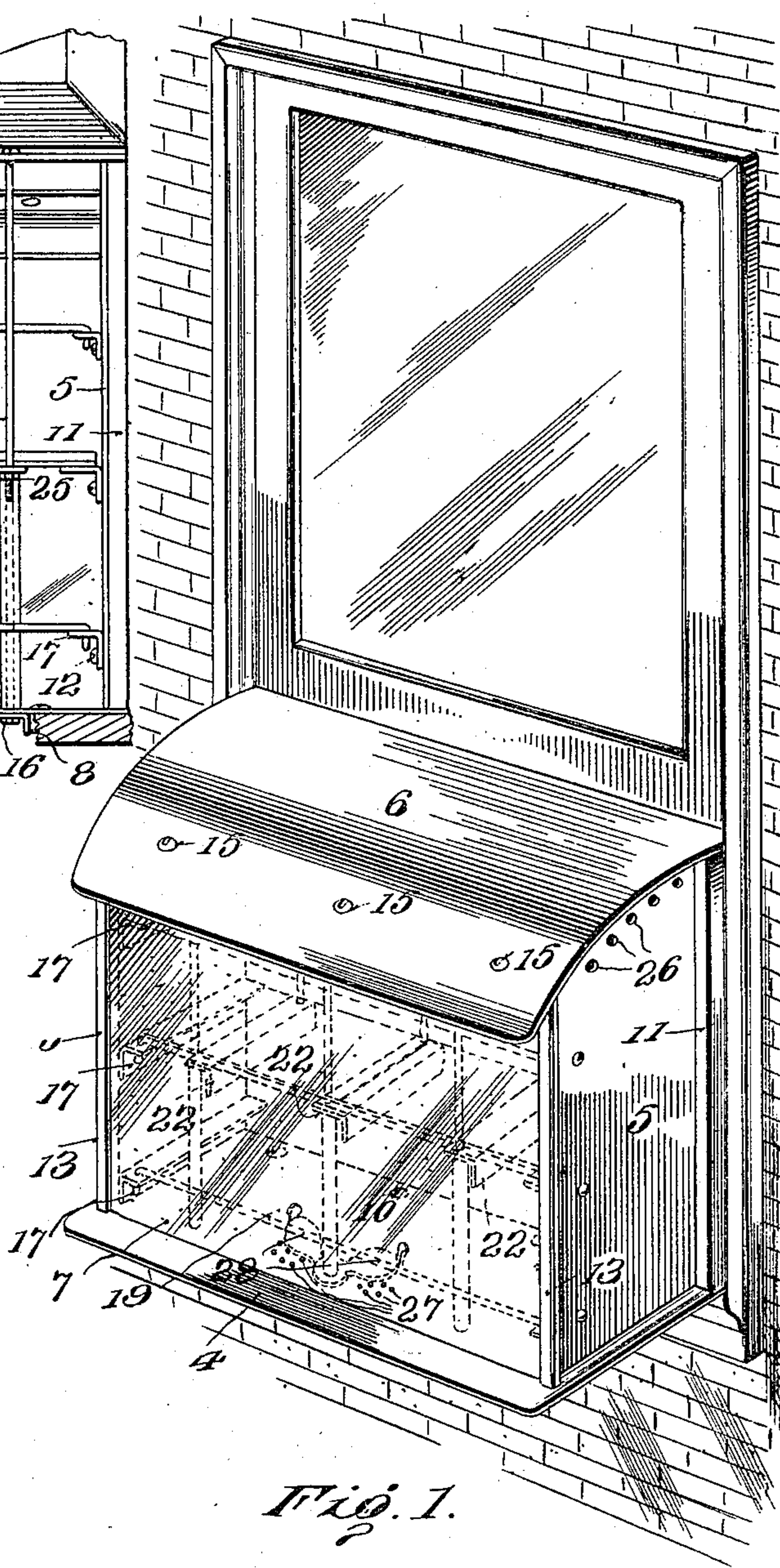


Fig. 1.

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UNITED STATES PATENT OFFICE.

WILLIAM M. HOWLAND, OF ECKINGTON, DISTRICT OF COLUMBIA.

WINDOW COLD-AIR REFRIGERATOR.

975,954.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed December 28, 1909. Serial No. 535,306.

To all whom it may concern:

Be it known that I, WILLIAM M. HOWLAND, a citizen of the United States, residing at Eckington, District of Columbia, have invented certain new and useful Improvements in Window Cold-Air Refrigerators, of which the following is a specification.

My invention relates to certain new and useful improvements in window cold air refrigerators, and the object of my invention is to produce a device of this character which is simple in construction, cheap to manufacture, and which may be sold in a knock-down condition, and set up in position in a window from within.

A further object of my invention is to produce a device of this character which shall be sanitary, and in which food and other perishable articles may be kept.

With these and other objects in view my invention consists in certain constructions, combinations and arrangements of parts the preferred form of which will be described in connection with the accompanying drawing, and then the invention particularly pointed out in the appended claims.

Referring to the drawing wherein the same part is designated by the same reference numeral wherever it occurs Figure 1 is a perspective view showing the outside of a window having my improved refrigerator in position therein; Fig. 2 is a view from within the window looking into the refrigerator and Fig. 3 is a section taken on line 3, 3 of Fig. 2.

4 designates the bottom of my refrigerator. 5, 5 the sides. 6 the top or roof and 7 the back wall which, preferably and as shown, is formed of glass.

The bottom 4 is preferably reinforced on its under side by the angle irons 8, the bottom being secured to the sill 9 of the window by means of screws or the like 10. The sides 5 are preferably secured to strips 11 secured to the sides of the window casing, the sides being secured to said strips by means of the screws 12. The top 6 rests upon the upper edges of the sides, and its rear edge extends over the glass back 7, the glass back being held in position by being slipped into ways 13 formed by bending up the rear edges of the sides 5.

14 is a curved flange secured to the under side of the roof 6 by means of the bolts 15, said flange being so positioned as to project

inside the upper edge of the glass plate 7, as best shown in Fig. 3.

16 are bolts which extend through the bottom 4 just within the back 7 and enter openings in the projecting edge of the flange 14, and are secured in position by means of nuts 16'.

Secured on the inner surfaces of the sides 5 are L shaped angle irons 17, these angle irons being secured adjacent their rear ends by the rivets 18 and at their forward ends by the screws 12 which secure the sides in position in the casing. As shown the sides are each provided with three of these angle irons 17, but it is to be understood that this number may be increased or diminished as desired. As shown, the upper and lower pairs of angle irons are connected together by the hooks 19, the ends of which pass through suitable openings formed in the angle irons. These hooks act as braces to the sides and hold them in properly spaced relationship.

20 is a shelf, which is shown as resting upon the middle pair of angle irons, this shelf being provided at its edge with a hook 21, secured therein, which hooks into suitable apertures formed in the middle pair of angle irons 17. In order to support the shelf I preferably provide the same with transverse angle irons 22 through the rear end of which extend the bolts 16. In order to support the rear end of the shelf I provide these bolts with sleeves 23 which are slipped over the bolts and rest upon the bottom 4. At the front end of the refrigerator the shelf 20 is supported by means of the bolts 24 which extend from the rear edge of the roof 6 through the angle irons 22 and are provided with nuts 25, whereby the rear edge of the shelf is firmly supported.

In order to provide ventilation for the box I preferably form a series of openings 26 in the sides 5 adjacent their upper edge, and I also provide the bottom with a series of small perforations 27, these perforations preferably, and as shown, being formed on either side of the central bolt 16, so that they may be opened or closed by means of the pair of plates 28 which are pivoted on the sleeve 23 of the middle bolt 16.

In placing my invention in position in a window it is merely necessary to first secure the bottom 4 in position by means of the screws or other fastening means 10. The

strips 11 are then secured to the sides of the window casing and the sides 5 are secured to said strips by the screws or similar securing means 12. The glass back 7 is now slipped in position by being slid into the ways 13 and the bolts 16 passed up through suitable openings in the bottom 4 and the sleeves 23 placed thereon. The roof or top 6 is now placed in position and the bolts secured in the openings in the flange 14 by means of the nuts 16'. The hooks 19 are now placed in position to connect the angle irons 17 and the shelf 20 is placed in position after which the bolts 24 are passed down through suitable openings in the top 6, and after the ends of the bolts have been passed through openings in the front edge of the shelf the nuts 25 are placed in position whereupon the device is completed and ready for use.

From the foregoing description of my invention it will be seen that all parts can be made of sheet metal except the glass back, and that the same can be cheaply manufactured. Further, that when in position the light in the room is not materially interfered with owing to the glass back, and further that by having the refrigerator lighted and open to sunlight its sanitary condition is greatly improved. It will therefore be seen that the same can be readily cleaned and can consequently be kept in proper condition. By proper regulation of the plates covering the ventilating openings in the bottom the proper amount of air to secure ventilation can always be admitted.

I realize that considerable variation is possible in the details of construction and arrangement of parts without departing from the spirit of my invention, and I therefore do not intend to limit myself to the specific form shown and described.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, the combination with a bottom adapted to be secured to the sill of a window, of a pair of sides adapted to be secured to the side casings thereof, a roof, a glass back plate, bolts connecting the bottom with the roof and hooks connecting the sides.

2. In a device of the class described, the combination with a bottom adapted to be secured to the sill of a window, a pair of sides adapted to be secured to the side casings thereof, a roof, a glass back plate, bolts connecting the bottom with the roof, angle plates secured to the sides, hooks connecting

the angle plates on opposite sides together, a shelf supported on said angle plates, one of said hooks being secured on the edge of said shelf, and bolts connecting the bottom with the roof.

3. In a device of the class described, the combination with a bottom adapted to be secured to the sill of a window, of a pair of sides adapted to be secured to the side casings thereof, a roof, a glass back plate, the edge of the roof overhanging the upper edge of the back plate, an inturned flange secured to the under side of the roof, said flange being adapted to extend within the back plate, and bolts connecting the bottom with the inturned flange of the roof.

4. In a device of the class described, the combination with a bottom adapted to be secured to the sill of a window, a pair of sides adapted to be secured to the side casings thereof, a roof, a glass back plate, bolts connecting the roof to the bottom, hooks connecting the sides said bottom being provided with openings and said sides being provided with openings adjacent their upper edges, and pivoted plates adapted to cover and uncover the openings in the bottom.

5. In a device of the class described, the combination with a bottom adapted to be secured to the sill of a window, a pair of sides adapted to be secured to the side casings thereof, a roof, a glass back plate, means carried by the sides for supporting a shelf, bolts connecting the bottom with the roof and passing through the shelf, and sleeves mounted on the bolts adapted to rest at their lower end on the bottom and at their upper end support the shelf.

6. In a device of the class described, the combination with a bottom adapted to be secured to the sill of a window, a pair of sides adapted to be secured to the side casings thereof, a roof, a glass back plate, means carried by the sides for supporting a shelf, bolts connecting the bottom with the roof and passing through the shelf, sleeves mounted on the bolts adapted to rest at their lower end on the bottom and at their upper end support the shelf, and a second set of bolts connecting the shelf with the roof.

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

WILLIAM M. HOWLAND.

Witnesses:

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