

No. 652,408.

Patented June 26, 1900.

H. J. SULLIVAN.
REFRIGERATOR.

(Application filed Apr. 18, 1898.)

(No Model.)

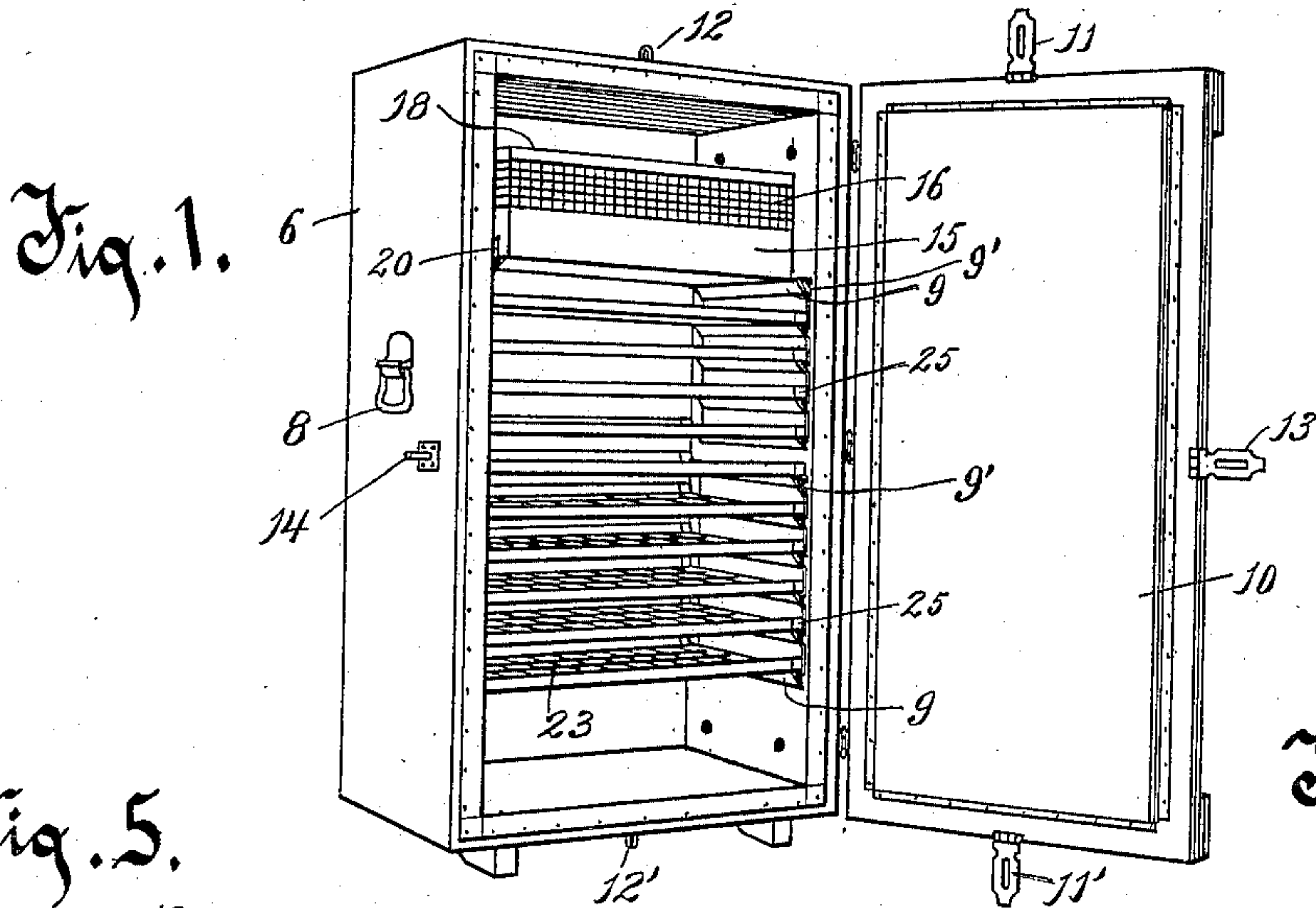


Fig. 6.

Fig. 5.

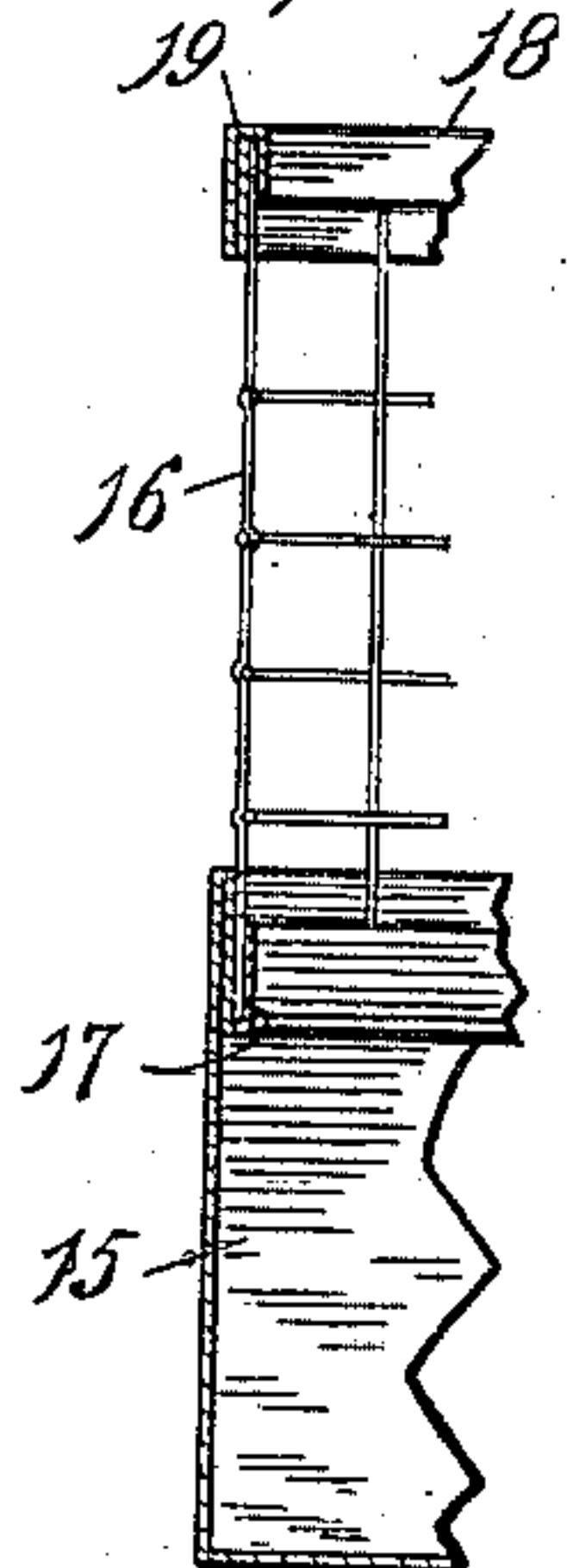


Fig. 2.

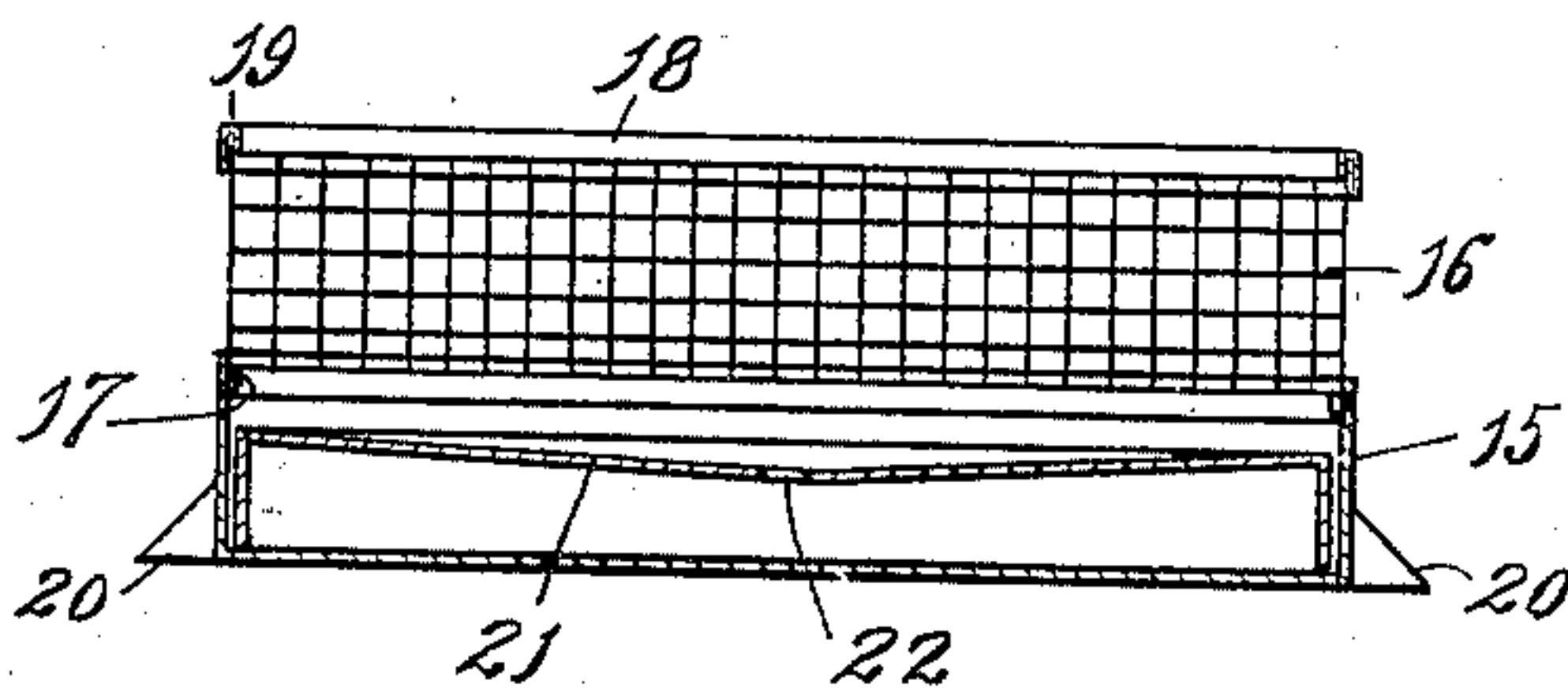


Fig. 3.

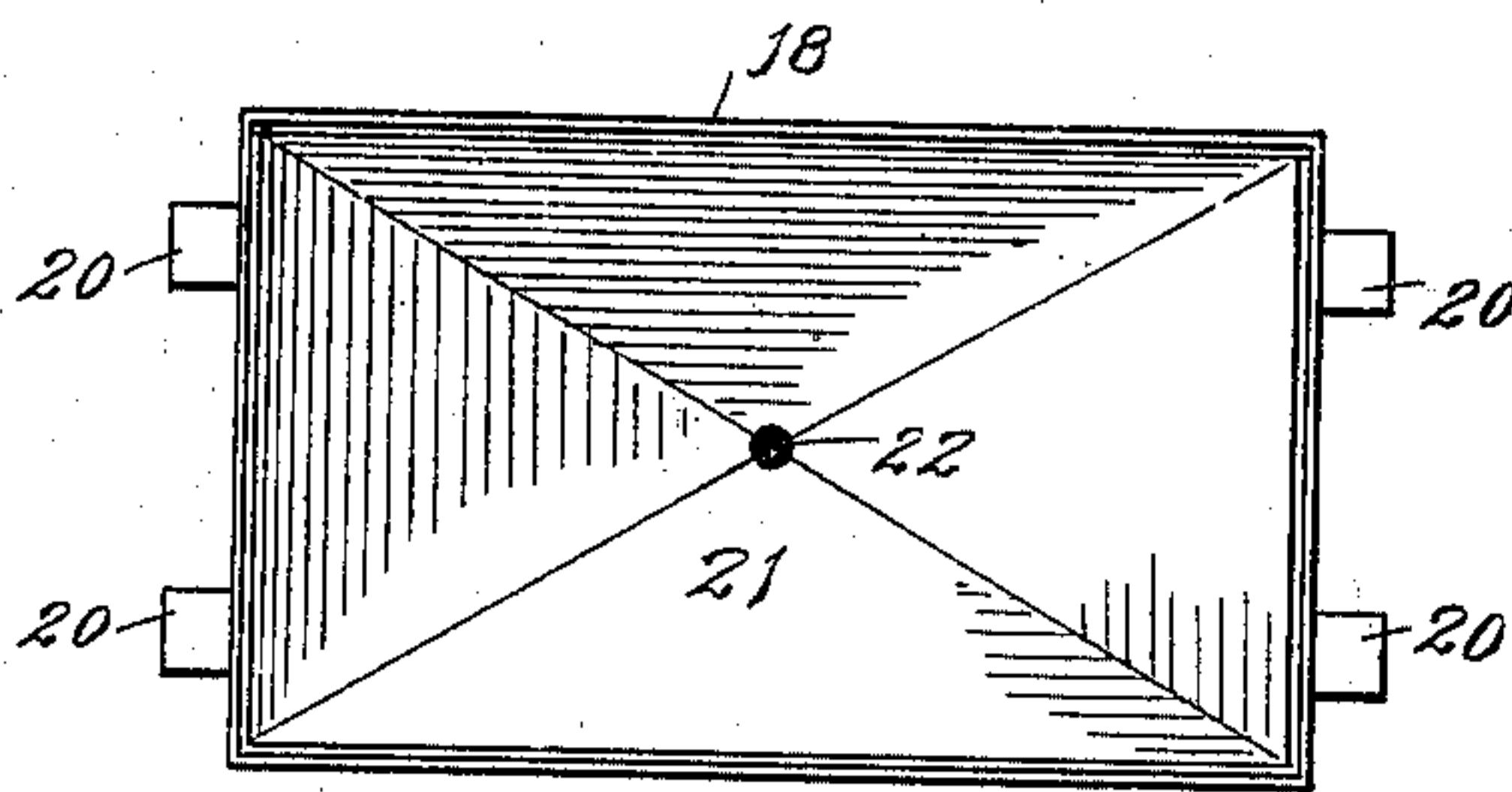
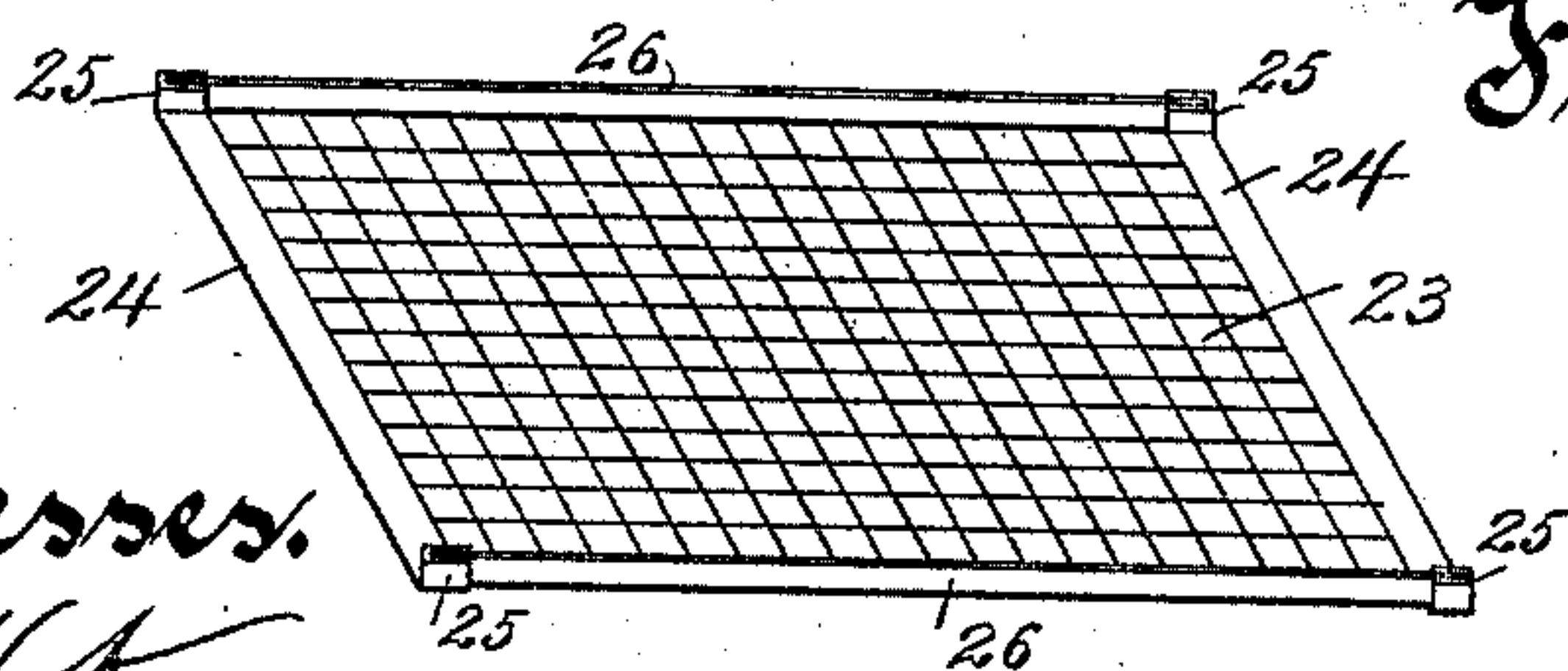


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

HUGH JAMES SULLIVAN, OF MILWAUKEE, WISCONSIN.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 652,408, dated June 26, 1900.

Application filed April 18, 1898. Serial No. 677,966. (No model.)

To all whom it may concern:

Be it known that I, HUGH JAMES SULLIVAN, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Refrigerators, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in refrigerators. The improved form adopted by me is more especially intended, although not necessarily, for use by camping parties, it being of such compact form and convenient arrangement as to be readily transported from one place to another.

The primary object is to provide a construction in which the maximum cooling and refrigerating effects are produced and also to provide a convenient means for supporting the ice or refrigerant, all as will hereinafter more fully appear.

With the above ends and other incidental objects in view the invention consists of the devices and parts or their equivalents, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a perspective view of my improved refrigerator with the door thrown open to disclose the interior arrangement. Fig. 2 is a detail view of the ice-receptacle. Fig. 3 is a plan view of Fig. 2. Fig. 4 is a perspective view of one of the supporting-trays. Fig. 5 is a fragmentary detail view of the ice-receptacle, showing the means for connecting the wire screen; and Fig. 6 is a tray-supporting device.

Referring to the drawings, the numeral 6 indicates the refrigerator-casing of any desirable form, preferably of rectangular shape. Secured to the outer faces of the sides of the casing are drop-handles 8 for convenience in carrying the refrigerator. For supporting the trays in the refrigerator-chamber and so as to be conveniently removable for cleaning I preferably employ tray-supporting devices consisting of sheet-metal plates 9, each having a series of transversely-disposed ledges thereon. These plates 9 are severally hung on a cleat 9', affixed to the inner surface of the wall of the refrigerator, which cleat enters the recess of a ledge in the plate. The open front of the casing is adapted to be closed by means of a hinged door 10. Pivoted to the

top and bottom edges of the door, respectively, are hasps 11 11', which are adapted to pass over staples 12 12', respectively secured to the top and bottom of the casing, being secured by means of a pin, button, forelock, or padlock. The free edge of the door has also pivoted thereto a hasp 13, which is adapted, when the door is closed, to be passed over a staple 14, extending out from the side piece of the casing.

The ice-receptacle consists of a lower pan portion 15, having solid bottom and walls, and an upper screen portion 16, said screen being formed, preferably, by a series of intersecting and interwoven wires. The lower ends of the wires are secured to the upper edge of the pan portion 15 of the ice-receptacle in a peculiar manner, as shown most clearly in Fig. 5. This consists in bending the upper edges of the walls of the lower section 15 first downwardly adjacent to the inner surface of the section and thence upwardly, forming a channel 17, in which the ends of the wires are placed. The sides of the channel are pressed against the lower ends of the wires in order to secure them rigidly, and, if desired, solder may be applied thereto for the purpose of forming a still more secure connection. The upper ends of the wires are also provided with a border 18, composed of a strip of metal, which is first folded upwardly and thence downwardly for a short distance to form a channel 19 in which to receive the upper ends of the wires. The sides of this channel are also pressed tightly against the wires and solder may likewise be applied thereto. By providing the double bend to the upper edge of the lower portion 15 of the ice-receptacle and also by providing a bend to the border 18 the upper edge of the portion 15 presents a rounded contour and likewise the lower exposed edge of the border 18, whereby sharp exposed edges are avoided. The ends of the lower portion 15 of the ice-receptacle are provided with projecting lugs 20, which are adapted to rest on ledges of the supporting devices 9, preferably near the top of the refrigerator-chamber.

Adapted to rest on the bottom of the ice-receptacle is a removable ice-supporting tray 21, which consists of a dishing flooring provided with a central opening 22. This dish-

ing flooring converges from all four sides downwardly to the central opening. The edges of this flooring are bent downwardly, forming a rectangular support, which rests
 5 on the bottom of the pan portion 15 of the ice-receptacle.

The several trays employed in connection with this form of refrigerator and which are adapted to be supported on the ledges, ad-
 10 visably below the ice-receptacle, are of the peculiar form shown most clearly in Fig. 4. Each of these trays is formed of a series of intersecting and interwoven wires 23. The ends of the longitudinal wires are connected
 15 to border-strips 24 24, said border-strips being bent into the form of channels, into which the ends of the wires are passed. The extremities of these channel-formed border-strips are then bent upwardly at right angles,
 20 as indicated at 25. The ends of the transverse wires also pass into the channels of folded border-strips 26 26. These border-strips, together with the ends of the transverse wires secured in the channels thereof,
 25 are bent up at right angles, forming front and rear upwardly-projecting margins, which strengthen the construction and serve to prevent articles on the tray from working off at the front and rear of said trays. The ex-
 30 tremities of these border-strips 26 extend into the upwardly-bent ends 25 of the border-strips, as shown in Fig. 4.

In the use of my invention the ice-supporting tray is placed removably on the bottom
 35 of the ice-receptacle, as shown in Fig. 2, and a cake of ice is put into the receptacle and on the tray 21. As the ice melts the water produced runs to and through the opening 22, owing to the inclination of the dishing tray
 40 21, and collects in the pan portion 15 of the

ice-receptacle. Owing to the fact that the upper portion of the ice-receptacle is composed of wire screen, the cold air produced by the melting of the ice in the receptacle is free
 to pass into the chamber of the refrigerator 45 and to descend through the series of open trays below.

As stated at the outset, this form of refrigerator is more particularly intended for use by camping and fishing parties, owing
 50 to the removable construction of its parts, adapting it to be readily and thoroughly cleaned and compactly and securely packed and the facility with which the refrigerator
 55 can be transported. The trays located below the ice-receptacle will be found particularly convenient for holding fish and keeping them fresh until ready for shipment or the return
 of the camping party.

What I claim as my invention is— 60

The combination, with a refrigerator-case or analogous device, cleats secured to opposite sides of said case, and tray-supporting devices consisting of sheet-metal plates, each
 65 formed with a series of bends forming transverse ledges on one side of the plate for supporting the trays, and forming transverse grooves or recesses on the opposite side thereof, which grooves or recesses are made to en-
 70 gage the cleats, whereby said cleats firmly support the plates, but permit said plates to be removed therefrom by being slid out-wardly.

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

HUGH JAMES SULLIVAN.

Witnesses:

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