No. 881,121. PATENTED MAR. 10, 1908.

B. M. HODGINS.

EVAPORATOR COOLER.

APPLICATION FILED DEC. 18, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

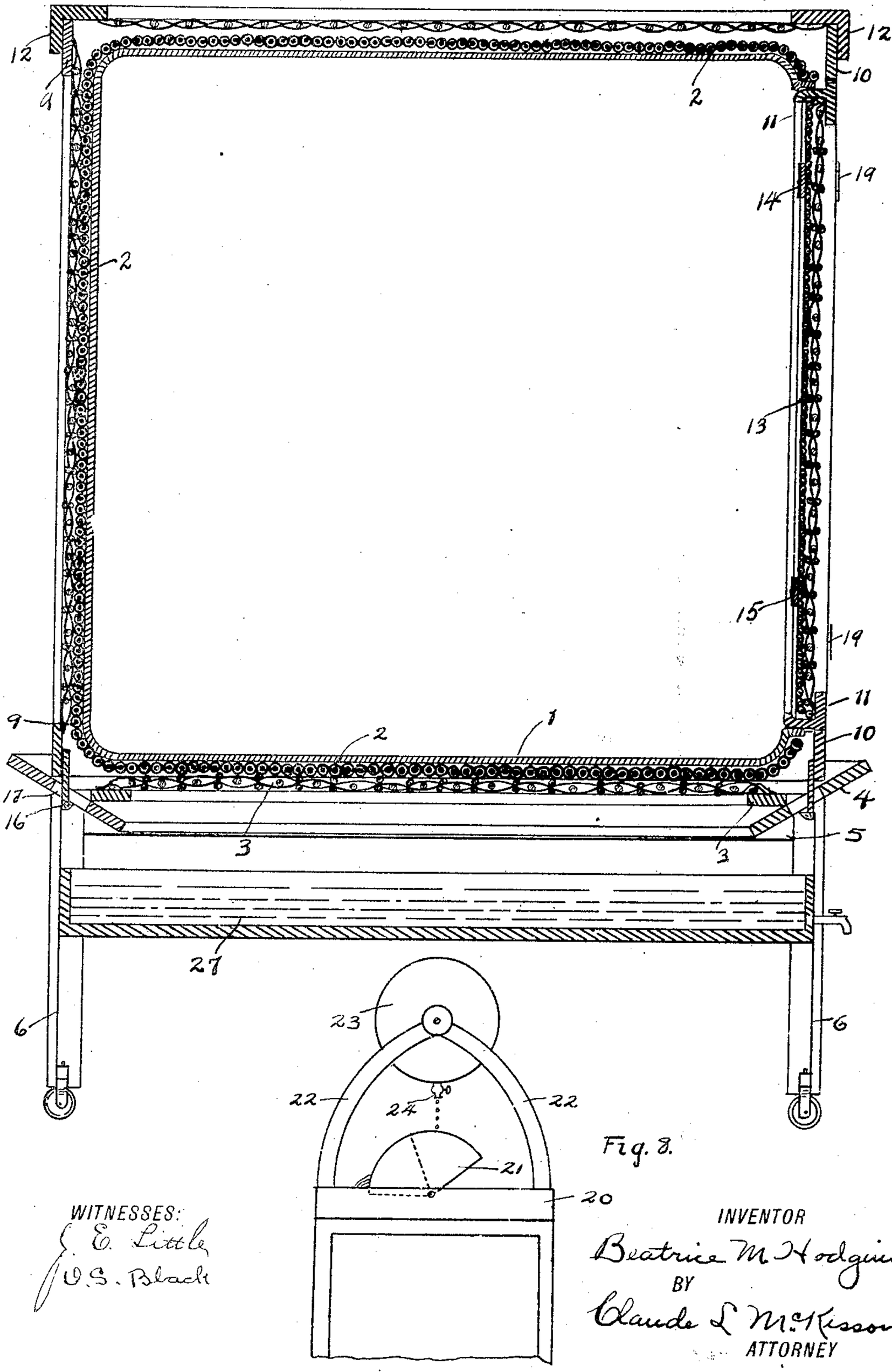

Fig. 8.

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2 SHEETS—SHEET 2.

Fig. 2.

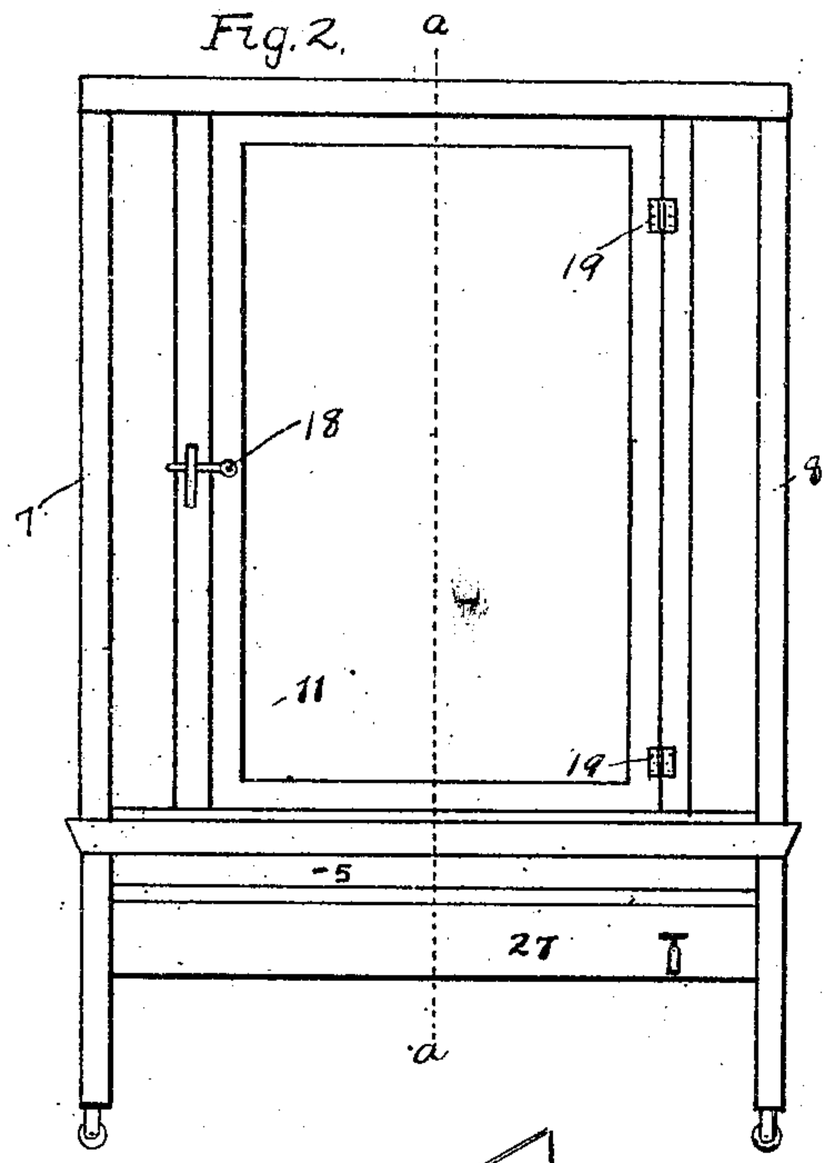


Fig. 4.

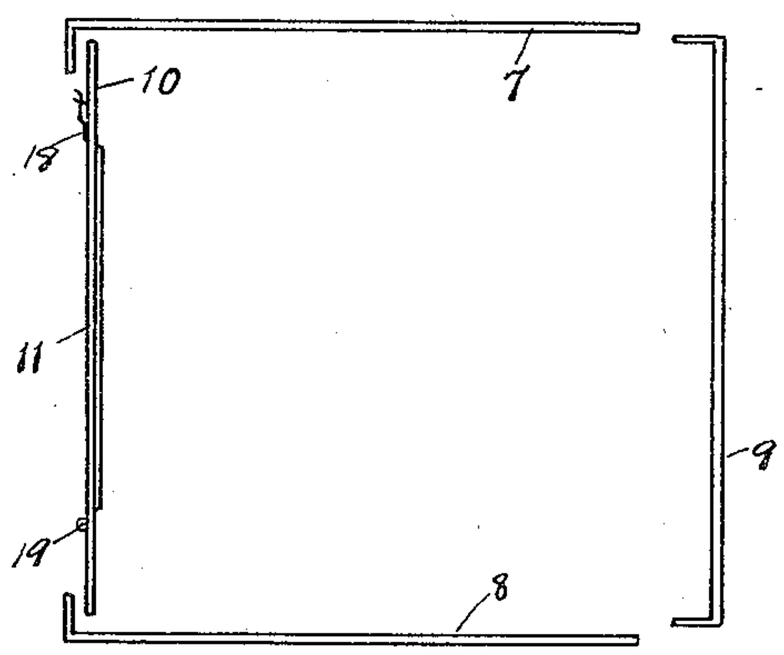


Fig. 5.

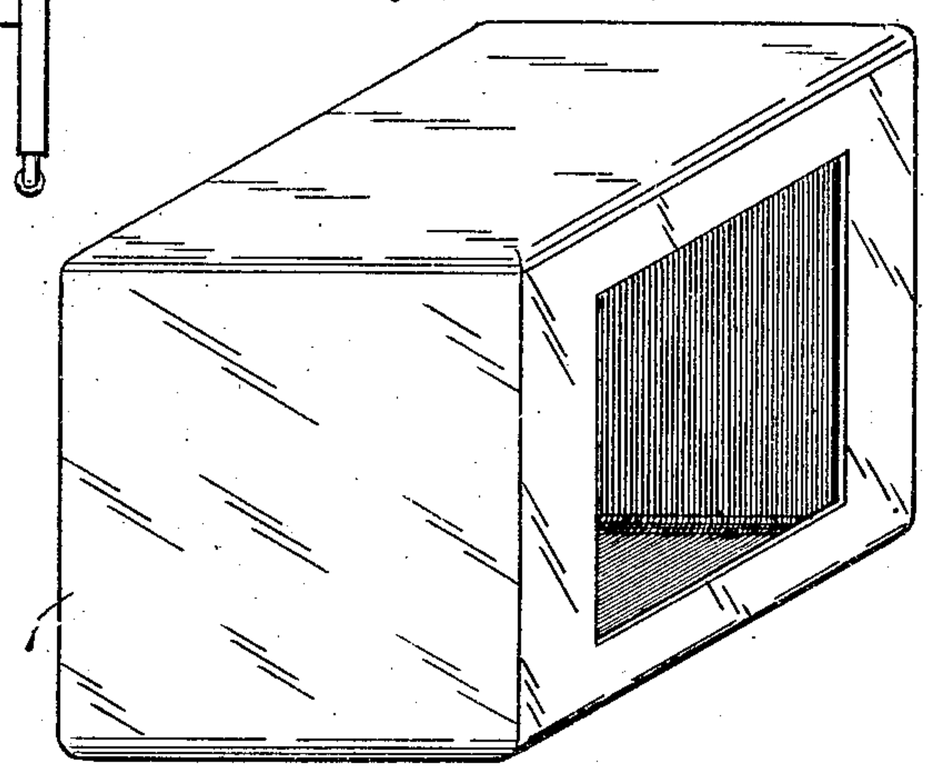


Fig. 6.

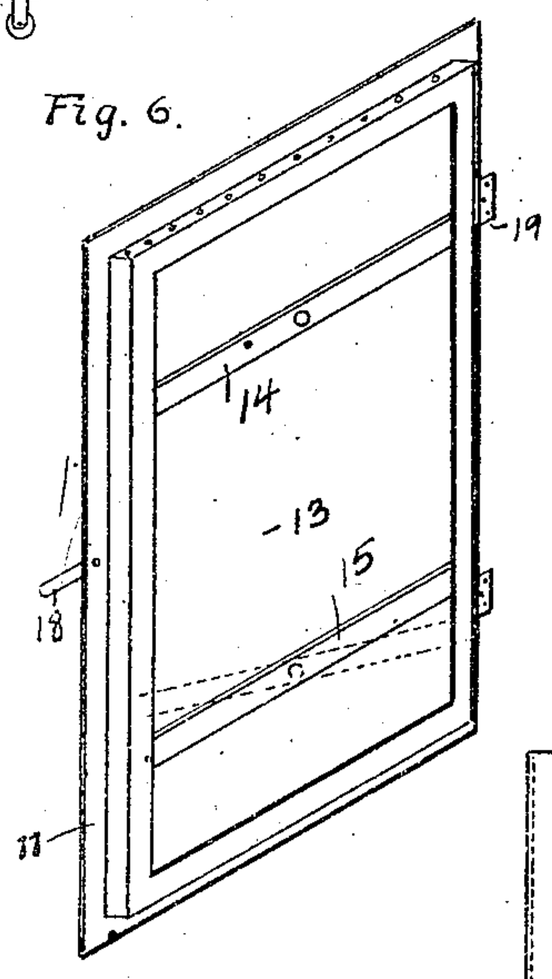


Fig. 7.

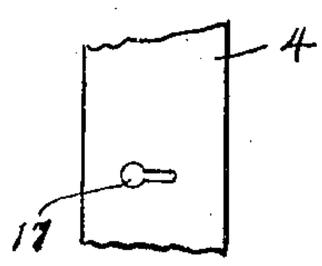
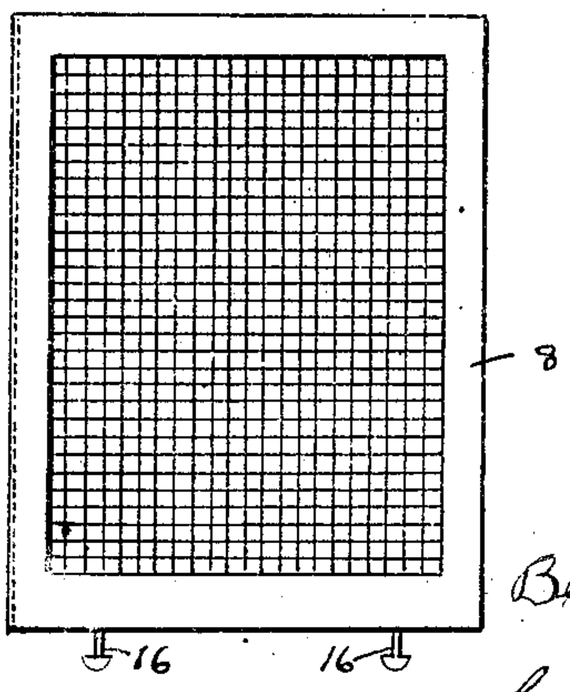


Fig. 3.



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UNITED STATES PATENT OFFICE.

BEATRICE M. HODGINS, OF COLORADO SPRINGS, COLORADO.

EVAPORATOR-COOLER.

No. 881,121. Specification of Letters Patent. Patented March 10, 1908.

Application filed December 18, 1906. Serial No. 348,486.

To all whom it may concern:

Be it known that I, BEATRICE M. HODGINS, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Improvement in Evaporator-Coolers, of which the following is a specification.

My invention relates to that class of refrigerators in which a low temperature is maintained by evaporation and without the use of ice. The arrangement herein set forth is simple, inexpensive, easily kept in a sanitary condition and automatic in operation.

In the accompanying drawings to which reference is hereinafter made, Figure 1 is a cross sectional view of the refrigerator taken on the dotted line *a*, *a*, in Fig. 2. Fig. 2 is a front elevation of the refrigerator without the automatic watering device. Fig. 3 illustrates the construction of one of the sides or walls. Fig. 4 is a top plan view showing the four walls and the manner in which they go together at the corners. Fig. 5 is an isometric projection of the inner metal receptacle. Fig. 6 is a view of the back of the door used in the refrigerator. Fig. 7 is a plan view of a small section of the flange surrounding the top edge of the base and upon which rests the superstructure. Fig. 8 is a view in end elevation of the watering device used in conjunction with the invention.

Throughout the several views like characters refer to like parts.

Referring to the details of construction 1 is a metal receptacle which forms the cooling chamber.

2 is a removable covering consisting of any suitable cloth or fiber. This covering should be so made and constructed that it may easily be placed around the inner receptacle and secured by means of pins, buttons or tying and as easily removed for washing.

3 is a screen panel bottom upon which rests the receptacle and covering when the device is assembled. It consists of a wire netting or screen mounted upon a suitable metal frame. This bottom panel is in turn supported by the strip 4. The strip 4 is soldered or otherwise secured to the base 5 and is arranged on an incline and is intended to catch any drip water from the fabric and lead it to the drip pan 27, to be hereinafter referred to. To the base 5 are also attached the legs 6, 6. 27 is a drip pan secured to the inside of the legs 6, 6.

The outer covering of this cooler or refrigerator consists of suitable flanged and unflanged screen panels 7, 8 and 9 which form, respectively, the sides and back. 10 is the front and in this panel is made a suitable opening and frame for the door 11.

12 is a screen panel forming the top. This panel has all four edges flanged.

The door 11 has a metallic back 13 held in place by means of spring clips 14 and 15 pivoted to it. The front of the door consists of a screen panel. Between the screen in the front of the door and the metallic back is fitted a piece of cloth like that covering the inner receptacle. This may be removed for washing by loosening the spring clips, taking out the back and a clean cloth left in its place.

Each of the panels which form the four sides of the cooler should be provided with a suitable arrangement to hold it down on the flange 4. In the construction shown 16, 16 are headed pins projecting downward from the screen panels and adapted to engage the eye 17 in the flange 4. Any suitable hook or pin and eye arrangement may be used.

18 and 19, respectively, are the fastener and hinges provided for the door 11 and any suitable variety may be used.

The automatic watering device consists of a pan 20 having a perforated bottom, a double compartment dump tank 21 pivoted to the opposite sides of the pan. Standards 22 support the water reservoir 23.

24 is a suitable valve through which the water escapes from the reservoir to the dump tank.

For the purpose of rendering the drawing clearer the height of the standards 22, 22, are shown a little greater than that generally adopted and if desired the pan 20 may be entirely inclosed to prevent water from slopping over when the dump tank empties.

The general details of construction having been explained the uses, advantages and method of operation are summed up as follows.

Desiring to put the cooler together, the inner receptacle, covered with cloth as hereinbefore explained, is placed on the screen bottom panel. The four sides in order accord-

ing to the arrangement of the flanging would then be assembled around the receptacle. In building up the refrigerator the flanges serve to hold the sides together until the top which binds everything is placed over all.

When the watering device is used the screen on the top may be left off and the perforated bottom of the watering pan 20 takes its place.

In this refrigerator as in all evaporator coolers it is very essential to successful operation that the covering where the evaporation takes place be evenly and regularly dampened. To accomplish this result I have devised the automatic watering device above described. In this device the tank contains a sufficient supply of water to keep the cooler in operation for a desired period of time. From this tank or reservoir water passes through a drip valve where the flow is adjusted as desired to a double compartment dump tank. The partition dividing the two compartments being indicated in the drawings by a dotted line. One of the compartments is always under the drip valve and when the compartment is nearly filled, the water not being on the center of gravity of the entire dump tank overbalances it and spills the water in the pan underneath, from which pan the water is distributed through the perforations in the bottom, evenly over the entire top of the refrigerator, from there down over the sides to the bottom wetting the entire cloth covering and the surplus if any dripping off into the drip pan underneath.

The top of the door it will be seen is provided with a series of perforations along the upper edge. Through these the water reaches the cloth in the door and keeps it damp.

The screens in the sides and top serve to hold the cloth against the receptacle yet do not prevent the free circulation of air over the entire cloth covering.

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

In combination, a base, supporting means for the base, an inclined strip carried by the base, said strip being provided with openings, a receptacle having reticulated faces resting on the strip, means carried by the receptacle passing through the openings of the strip to hold the receptacle removably to the strip, an inner receptacle, a fabric covering for the inner receptacle, and means for feeding a liquid to the fabric covering.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

BEATRICE M. HODGINS.

In the presence of—

J. E. LITTLE,

O. S. BLACK.