

C. T. ADAIR.
REFRIGERATOR.
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1,275,191.

Patented Aug. 13, 1918.

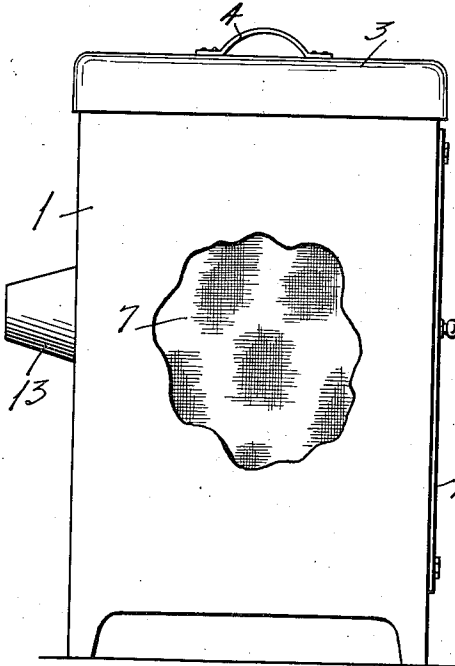


Fig. 1.

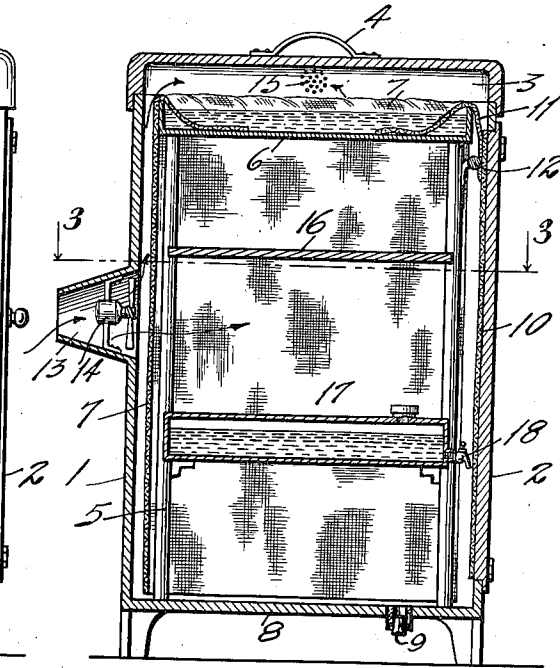


Fig. 2.

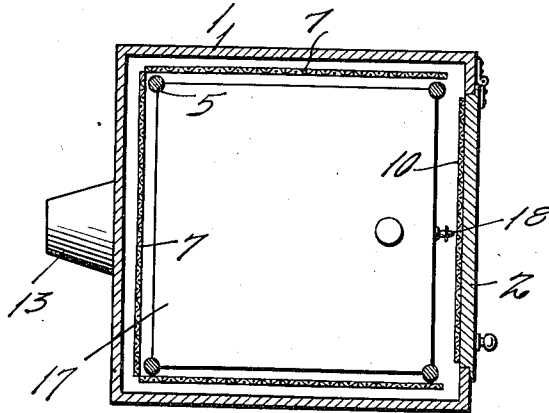


Fig. 3.

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REFRIGERATOR.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES T. ADAIR, citizen of the United States, residing at Tucumcari, in the county of Quay and State of New Mexico, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates to improvements in refrigerators.

10 In carrying out the invention an outer casing or housing is provided and equipped with means for creating and circulating, artificially a current of air. Within the housing sheets of fabric are disposed so as to surround supports on which the articles to be cooled may be placed. Means for saturating the sheets is provided and the current of air passes around and through said sheets causing an evaporation whereby a low temperature is obtained. It is also proposed to provide a door for the housing giving access to the interior and to include a novel arrangement for supplying moisture to a sheet of fabric carried by the door and whereby the cooling chamber is entirely surrounded by sheets of fabric. One of the features of the invention is the inclusion of a water cooling tank for providing drinking water.

30 The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings, in which an example of the invention is illustrated, and wherein

35 Figure 1 is a side elevation of a structure built in accordance with this invention and illustrating a portion of one side as broken away to show the sheet of fabric within,

Fig. 2 is a vertical sectional view, and

40 Fig. 3 a horizontal cross sectional view, the view being taken on the line 3—3.

In the drawings the numeral 1 designates an upright housing or casing rectangular in cross section and having a door 2 in one side which we will term the front. The upper end of the housing is closed by a cap or lid 3 fitting tightly thereon but being removed by means of a handle 4. Within the housing a vertical rack 5 rectangular in cross section is mounted. This rack includes four corner posts and its transverse area is somewhat less than the transverse area of the inside of the housing so that when the rack is placed concentrically within the same a space on each of the four sides is provided therebetween. The rack supports at its top

a removable pan 6 which overhangs the sides of the rack as shown in Fig. 2. From three of the sides of the pan fabric sheets 7 depend, but have their upper ends immersed 60 in water in said pan whereby said sheets are saturated and supplied with moisture.

These sheets depend in the space between the rack and the walls of the housing and terminate just short of the bottom 8 which 65 has a drain 9 for carrying off any water which may accumulate in the bottom of the housing. The front side of the rack opposite the door 2 is open and the three sheets referred to cover the rear and sides of the 70 rack. On the inner face of the door I mount a sheet of fabric 10 and provide a short length of fabric or feeder strip 11 which depends from the pan and has its lower end to terminate just below the top 75 of the door so as to overlap the sheet 10. A transverse bar 12 mounted on the rack is positioned so as to bind the feeder strip and the sheet 10 together when the door is closed, thus supplying moisture to said 80 sheet. This transverse pressure bar extends the width of the door and gently presses the feeder cloth against the door cloth when the door is closed.

In the rear wall of the housing an air in- 85 let duct or flue 13 is arranged and within this flue a suitable motor driven fan 14 is mounted. This motor may be operated in any suitable manner and the fan is arranged so as to draw air into the duct and create a 90 current which passes through the sheets 7 and also up the space surrounding the same to an outlet 15 in the cap 3 whereby a circulation is obtained. Experience has shown that only a moderate current is required and 95 that the fan may be run quite slowly. The circulating air coming in contact with the moistened sheets sets up an evaporation whereby the temperature within the housing is reduced and maintained at a degree considerably lower than the degree of temperature outside of the said housing. 100

One or more shelves 16 may be included in the rack 5 and a flat water tank 17 is removably mounted in the rack so that it may 105 be taken out and cleaned when desired. This tank is provided with a faucet 18 whereby cooled water may be drawn off for drinking purposes. It will be seen that by removing the cap 3 the rack and the sheets 110 of fabric may be removed from the housing and the same cleansed. The fabric sheets

are protected from dust and dirt and a high sanitary condition maintained.

The foregoing description and illustration clearly express the invention, but it is to be understood that said illustration is merely an exemplification and the invention may be carried out in various other ways.

What I claim; is,

In an air cooling refrigerator of the evaporator type, the combination with a casing, a suitable door provided, an air circulating system supplied, a supporting rack for shelves and pans provided in the casing and removable therefrom, cooling sheets of fabric depending from the sides and the rear of

the casing and spaced apart from the walls of said casing to facilitate air circulation, feeder cloths attached to the cooling sheets of fabric and lying within a pan of water to transmit moisture, a cooling sheet fixed on the door, a feeder strip of fabric lying within the water pan and depending slightly below the upper edge of the door, a pressure bar fixed within the casing and positioned to support the lower edge of the feeder strip causing said strip to engage the cooling sheet on the door thus transmitting moisture to the said door sheet in a positive manner.

In testimony whereof I affix my signature.

CHARLES T. ADAIR.