E. H. ROY.

REFRIGERATOR.

APPLICATION FILED NOV. 28, 1921.

1,409,587. Patented Mar. 14, 1922.

Fig. 2.

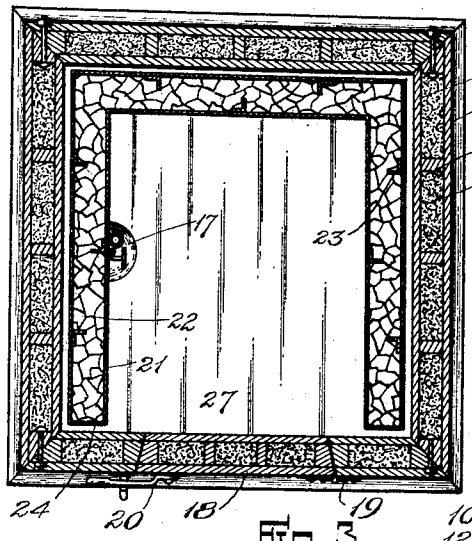


Fig. 1.

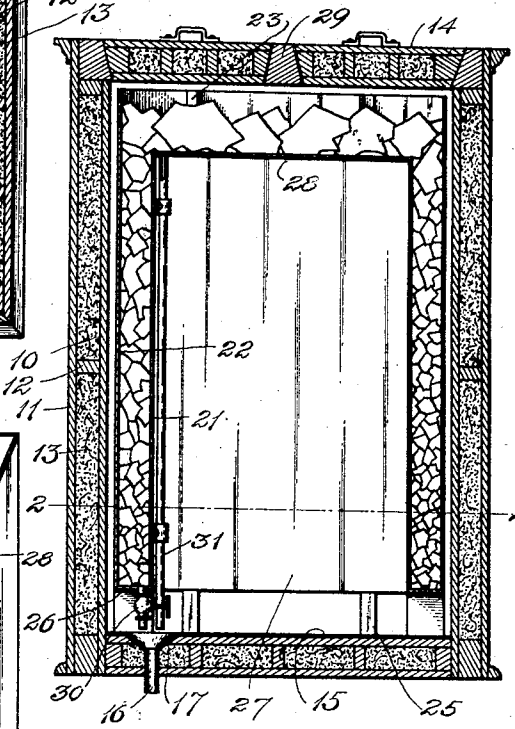
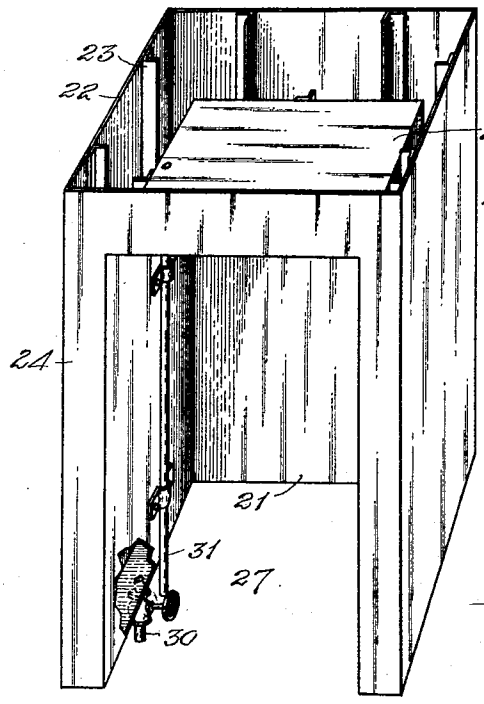


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD H. ROY, OF LOUISVILLE, KENTUCKY.

REFRIGERATOR.

1,409,587. Specification of Letters Patent. Patented Mar. 14, 1922.

Application filed November 28, 1921. Serial No. 518,335.

To all whom it may concern:

Be it known that I, EDWARD H. ROY, citizen of the United States of America, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates to refrigeration and has special reference to an improved ice-box.

One important object of the invention is to improve the general construction of devices of this character.

A second important object of the invention is to provide an improvement on the refrigerator for which application for patent has been previously filed by me, the same bearing the Serial Number 469,235 and being filed on the thirteenth day of May, 1921.

A third important object of the invention resides in providing an improved arrangement of box having a removable ice container.

A fourth important objection of the invention is to provide a refrigerator having an improved removable ice container so constructed and arranged as to provide a wall of ice about the sides and over the top of the cooling or refrigerating chamber proper.

A fifth important object of the invention is to provide a refrigerator of this class wherein the improved ice chamber may be spaced from the inner wall of the refrigerator casing whereby an air space may exist between the ice container and such inner walls.

A further object of the invention is to provide an improved ice-box of this character wherein the ice chamber has both draw-off and over-flow pipes.

With the above and other objects in view, the invention consists in general of certain details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—

Figure 1 is a vertical median section through an ice-box constructed in accordance with this invention.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a perspective view partly broken away and showing the removable ice compartment.

In the invention herein illustrated there is provided an outer heat insulating casing and an inner ice receptacle. This outer casing is substantially identical with the outer casing of my previously described application having inner and outer walls 10 and 11 which are held apart by suitable spacing blocks 12 so that between these inner and outer walls there may be a packing of heat insulating material such as sawdust, flax tow, asbestos or any other like material as indicated at 13. These inner and outer walls are preferably constructed of wood.

The ice compartment is arranged to be filled from the top and in order to accomplish this the top of the outer casing is provided with a plurality of inverted frusto-pyramidal openings or hatchways which are normally kept closed by suitable doors or hatches 14 constructed in all respects as is the body of the casing, being provided with inner and outer walls, separating members and insulating packing. Protecting the bottom inner wall is a metallic floor 15 and from this metallic flooring at one side of the box extends a drain pipe 16 having an intake end leading from the flooring as at 17, this intake end being of inverted frusto-conical form. At the front of the box there is provided a door 18 constructed similarly to the hatches and having the usual hinge mounting 19 at one side and latch 20 at the other.

The ice receptacle proper is preferably made of metal and has an inner side wall 21 and an outer side wall 22 which are braced by suitable angle irons 23. It will be seen that these angle irons are arranged in staggered relation on the inner and outer walls of the ice-box and that they not only stiffen the ice-box walls but also act to prevent lateral movement of the ice during filling and when it is melting. These inner and outer side walls are spaced to provide an ice receptacle and as this removable ice-box extends around the packing and along the sides of the main refrigerator casing the ice-box or receptacle is in plan of substantial U-shape, the legs of the U being closed as at 24. This box is supported on legs 25 resting on the floor 15 and the sides and back of the box are closed by a bottom 26, the front of the box opposite the door 18 being open as clearly shown in Figure 3. Thus between the legs of the ice-box there is provided a refrigerating space 27 and this space is closed at the top by a metallic sheet 28 car-

ried by the inner wall of the ice-box. It is to be noted that the outer wall 22 of the ice-box is spaced from the inner wall 10 of the casing and that the hatches 14 are supported on a removable cross-bar 29, the spacing and the sides of the hatches being such that the ice-box or receptacle proper may be removed in this way.

In order to drain the melted water from the ice receptacle there is provided at the bottom of one leg a valved drain pipe 30 which is positioned over the mouth 17 and similarly in order to drain the over-flow water which may exist by reason of inattention being paid to the drain 30, there is provided a drain pipe 31 which extends up to the top 28 and also empties into the mouth 17.

In operation the hatches are removed and the ice is packed in the legs of the ice receptacle and also over the top 28 thereof and the hatches are replaced. (Food or other articles to be refrigerated may be placed in the box through the door in the usual manner.) Whenever it is desired to remove the ice receptacle bodily the hatches 14 and cross-bar 29 are all removed whereupon the ice receptacle will be lifted directly out.

It is to be observed that the various parts of the body of the outer casing are held together by bolts as shown in Figure 2, the casing thus being sectional in construction. By this means the outer casing can be disassembled which, in the instance of large refrigerators, is of great aid in getting the ice chamber in and out.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as properly come within the scope claimed.

Having thus described the invention, what is claimed as new, is:—

In an ice-box of the kind described, an outer casing having a front door and filling housings in the top, an ice receptacle substantially U-shaped in plan mounted within the outer casing and having the open end of the U opposite the door, said ice receptacle having spaced inner and outer walls, the space within the inner wall forming a refrigerating chamber, a top for the refrigerating chamber carried by said inner wall, and angle irons on the proximal surfaces of the inner and outer walls of the ice receptacle for stiffening and hindering lateral movement of the ice in said receptacle.

In testimony whereof I affix my signature.

EDWARD H. ROY.