Oct. 6, 1925. 1,556,548

A. H. ROBERTS

REFRIGERATOR

Filed April 30. 1924 2 Sheets-Sheet 1

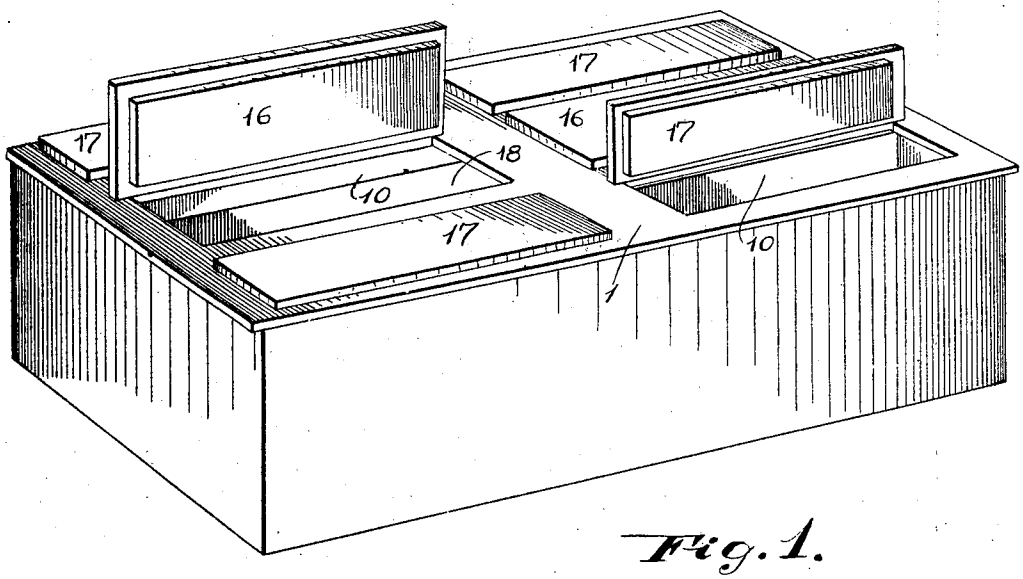


Fig. 1.

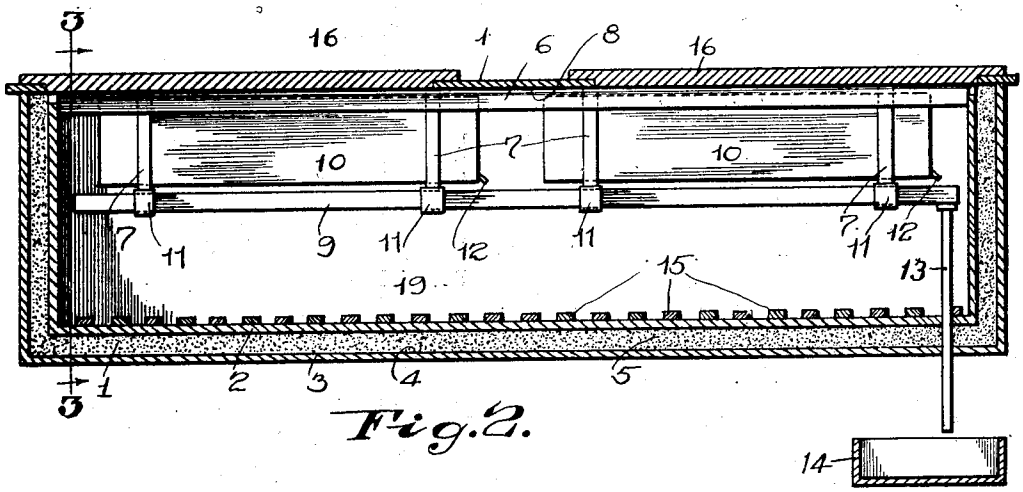


Fig. 2.

Inventor
A. H. Roberts.

By Thurman Talbert

His Attorney

Oct. 6, 1925. 1,556,548

A. H. ROBERTS

REFRIGERATOR

Filed April 30, 1924 2 Sheets-Sheet 2

Fig. 3.

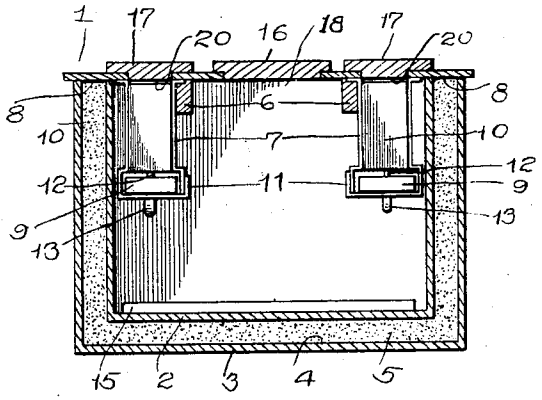


Fig. 4.

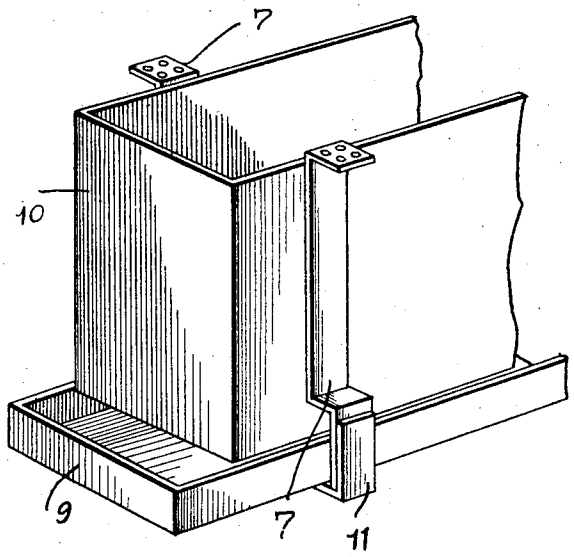
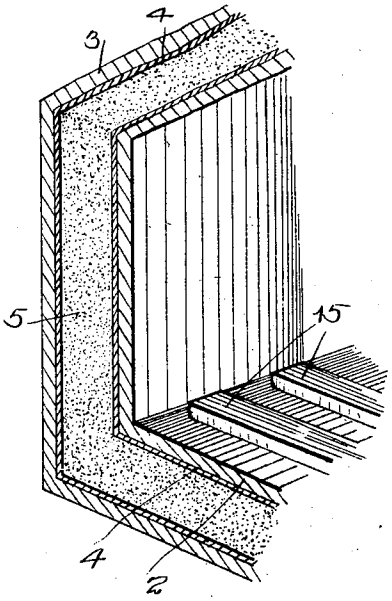


Fig. 5.



Inventor

A. H. Roberts.

By Thurman Talbert

His Attorney

Patented Oct. 6, 1925. 1,556,548

UNITED STATES PATENT OFFICE.

ARCHIE H. ROBERTS, OF MORRIS, MINNESOTA.

REFRIGERATOR.

Application filed April 30, 1924. Serial No. 710,055.

To all whom it may concern:

Be it known that ARCHIE H. ROBERTS, a citizen of the United States of America, residing at Morris, in the county of Stevens and State of Minnesota, has invented new and useful Improvements in Refrigerators, of which the following is a specification.

It is a purpose of the present invention to provide in a refrigerator or ice-box a construction which will require a relatively small quantity of ice and yet permit varying temperature.

Another purpose is to provide a refrigerator including a casing made up of inner and outer ceiling board walls with heavy paper adjacent the inside faces of the side, end and bottom walls thereof including an intermediate space filled with saw-dust or the like to insure permitting varying temperature on the interior of the refrigerator.

Still another purpose is the provision of brine containers adjacent the top and the sides of the casing, said containers holding about seventy-five pounds of crushed ice and salt for the purpose of permitting of a varying temperature on the interior of the refrigerator casing.

A further purpose is the provision of means for supporting the brine containers and for supporting drain pans, one drain pan extending under two brine containers on each side.

A still further purpose is the provision of a rack in the bottom of the refrigerator casing designed for the support of various articles of food, preferably meat, for the purpose of insuring their preservation.

It is to be understood that the particulars herein given are in no way limitative and that, while still keeping within the scope of the invention, any desired modifications of detail and desired proportions may be made in the apparatus according to the circumstances.

The invention comprises further features and combinations of parts to be hereinafter set forth, shown in the drawings and claimed.

In the drawings:

Figure 1 is a perspective view of the improved refrigerator or ice-box constructed in accordance with the invention, showing certain of the covers open.

Figure 2 is a longitudinal sectional view through the same, showing the brine containers, their drain pans and the means for supporting the same.

Figure 3 is a transverse sectional view on line 3—3 of Figure 2.

Figure 4 is an enlarged detail view of a portion of one of the brine containers, its hangers and the drain pan.

Figure 5 is an enlarged detail sectional view of the wall of the refrigerator, showing the inner and outer ceiling boards, the heavy paper and the saw-dust.

Referring to the drawings, 1 designates the refrigerator casing as a whole which comprises the inner and outer walls 2 and 3 made of any suitable material, preferably ceiling boards, and 4 denote heavy thicknesses of paper next to the adjacent faces of the ceiling board walls. These thicknesses of paper are spaced and contained in the space is a filler 5 of any suitable material, preferably saw-dust or the like. The saw-dust or like filler 5 between the refrigerator or casing walls is designed for the purpose of absorbing the moisture and in this case the filler will swell and tightly seal the casing or box walls.

Arranged longitudinally of the refrigerator casing are supporting beams 6. The beams are arranged near the top of the refrigerator and are spaced from the side walls thereof and constitute means to assist in supporting the hangers 7, portions of which are secured to the beams, as shown. The other sides of the hangers at their upper ends are secured to supports 8 carried by the sides of the refrigerator. The hangers suitably suspend drain pans 9 at their lower ends, said pans being adapted for the reception of the drainage from brine boxes or containers 10 which are likewise supported by the hangers. In fact, the lower ends of the hangers are connected by supports 11 on which the brine boxes or containers are supported. The drain pans are secured to the hangers in any suitable manner in order to support them rigidly.

The brine boxes or containers have drain openings 12 used for drawing off the water from the boxes or containers. The drain openings or spouts 12 in the tanks may be placed in proportion to the size of the tanks and the amount of ice to be used in the tanks. These drain openings or spouts may be about half an inch from the bottoms of the tanks and if the tanks are of considerable

size, the drain openings or spouts may be raised to higher positions or locations. In fact, the drain openings or spouts 12 may be at varying distances from the bottoms of the tanks. This is so that the brine water which collects in the tanks up to where the drain openings or spouts are located may have a chance to refreeze from the cracked ice and the cold salt which is still on top which makes a big saving on ice. It is obvious that the brine tanks are not necessarily arranged on the sides of the outer casing but can be put on both sides and end of casing or along one side and both ends. However, the correct number of tanks may be used to maintain the required temperature.

The boxes or containers are adapted to receive about seventy-five pounds of crushed ice and salt which creates a varying temperature, for instance, anywhere from two to eight degrees above freezing, and at times the temperature may go a trifle below freezing. It will be noted that the boxes or containers are supported adjacent the sides and near the top of the refrigerator so as to provide a relatively large storage space below and in the center of the refrigerator casing for the reception of various articles of food, preferably meats and the like, for the purpose of insuring their preservation.

One end of each drain pan is provided with an outlet drain pipe 13 discharging into the drain pan 14. Adjacent the bottom of the refrigerator casing are racks 15 for supporting various articles of food, preferably meats.

The top of the refrigerator casing is constructed similarly to that of the casing proper and is provided with several covers or closures 16 and 17, the former adapted for closing the opening 18 to the cold storage space 19 while the latter controls the openings 20 to the brine boxes or containers. By this arrangement, separate access to the cold storage space and to the brine boxes or containers may be had for the purpose of placing various articles in the storage space or for replenishing the crushed ice and salt.

The outer casing or box may be made any proportions or in the form of a display box with the covers or closures 16 and 17 constructed of glass. In fact, the entire top of the box or casing may be constructed of glass. The box or refrigerator casing may form a part of a store or shop counter or designed in an upright form according to the requirements. Furthermore, the brine tanks may be made in proportion to the cooling space and are designed to create a temperature when in use at least not warmer than eight degreees above freezing. The brine or ice containers may be made to hold any quantity of ice according to the size of the refrigerator to be used.

The invention having been set forth, what is claimed is:

A refrigerator comprising a casing provided along its median longitudinal dimension and at its top with an opening, a cover for said opening, brine containers attached to the top of the casing and located one at each side of the said opening and extending longitudinally thereof, covers for the brine containers disposed upon the top of the casing, hangers depending from the top and extending around the brine containers, and drain pans supported in the lower portions of the hangers and beneath the brine containers.

In testimony whereof he affixes his signature.

ARCHIE H. ROBERTS.