R. E. JOYCE.

REFRIGERATOR.

APPLICATION FILED JUNE 23, 1910.

988,269. Patented Mar. 28, 1911.

Fig. 1.

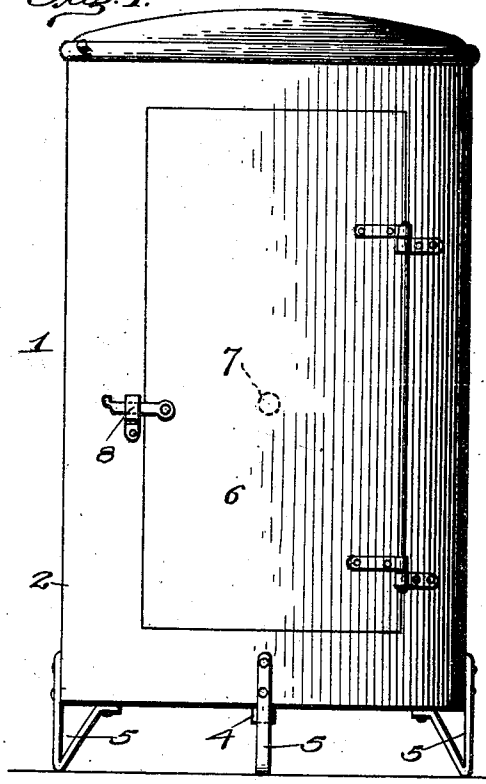


Fig. 2.

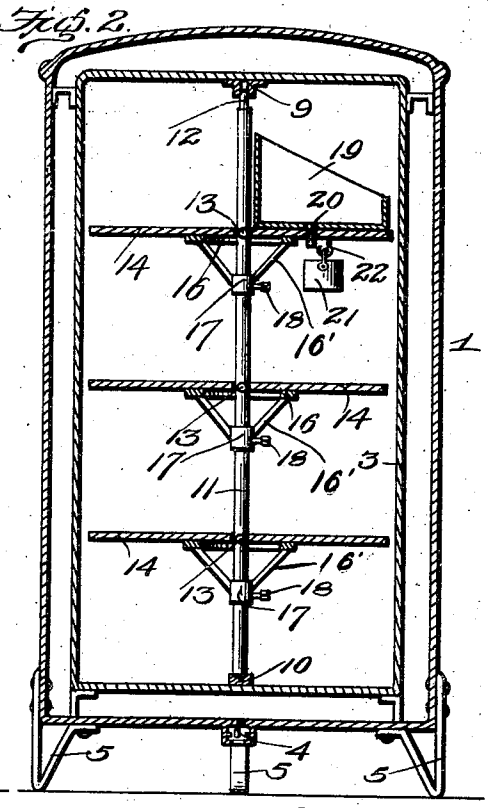


Fig. 3.

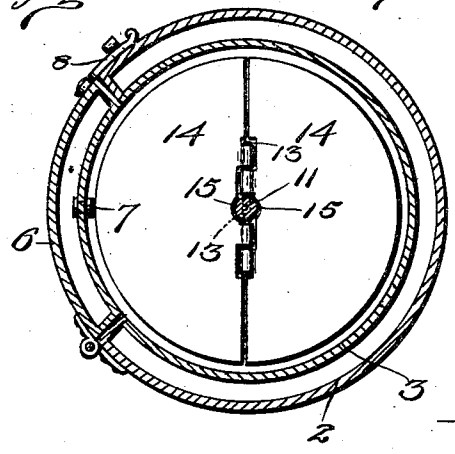
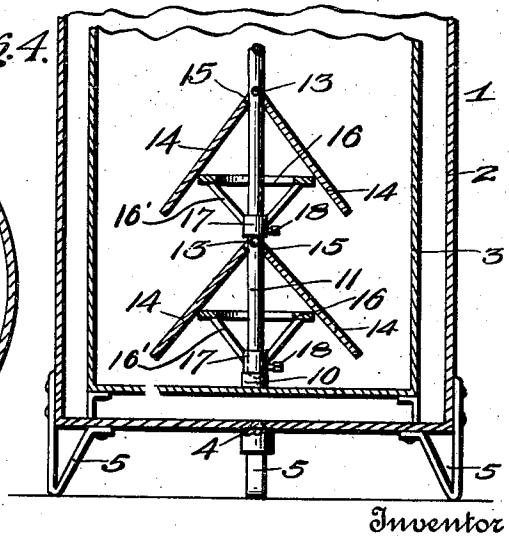


Fig. 4.



Witnesses

C. E. Hunt.

C. H. Griesbauer.

Inventor

Roy E. Joyce,

by H. B. Williamson & Co

Attorneys

UNITED STATES PATENT OFFICE.

ROY E. JOYCE, OF COFFEYVILLE, KANSAS, ASSIGNOR OF ONE-HALF TO LEVI I. BRIGHTON, OF COFFEYVILLE, KANSAS.

REFRIGERATOR.

988,269. Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed June 23, 1910. Serial No. 568,525.

To all whom it may concern:

Be it known that I, ROY E. JOYCE, a citizen of the United States, residing at Coffeyville, in the county of Montgomery and State of Kansas, have invented certain new and useful Improvements in Refrigerators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in refrigerators.

An object of the invention is to provide a refrigerator of this character having an improved construction and arrangement of revolubly mounted shelves for supporting the food and ice.

With the foregoing and other objects in view, the invention consists of certain novel features of construction and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side view of a refrigerator constructed in accordance with the invention. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a horizontal sectional view. Fig. 4 is a central vertical section of a portion of the refrigerator showing the manner in which the shelves are swung down to permit the removal thereof from the refrigerator.

Referring more particularly to the drawings, 1 denotes my improved refrigerator which may be constructed in any suitable size and shape and which is preferably cylindrical as shown. The sides, top and bottom of the refrigerator are formed of an outer wall 2 and an inner wall 3 which is separated from the outer wall and securely fastened thereto in any suitable manner to form spaces of suitable width from which the air is exhausted, thus providing a vacuum between the walls of the refrigerator. In any suitable location and preferably in the lower outer wall of the refrigerator is arranged a check valve 4 through which air is exhausted from the spaces between the refrigerator walls. The refrigerator is supported upon suitable legs 5. In one side of the refrigerator is arranged a door 6 which is also of double wall construction to provide a space from which the air is exhausted through a suitable check valve 7 preferably arranged in the inner wall of the door as shown. The door 6 is provided with a suitable latch 8 whereby the same is fastened in closed position.

Arranged in the center of the inner upper and lower walls of the refrigerator are bearings 9 and 10 with which are detachably engaged a centrally disposed shelf-supporting shaft 11, said shaft being revolubly engaged with said bearings whereby the shaft and the shelves attached thereto may be revolved. The lower bearing 10 is preferably in the form of a shallow cone-shaped socket with which the cone-shaped lower end of the shaft is engaged while the upper bearing member is in the form of a cylindrical socket with which is adapted to be engaged a reduced upper end 12 of the shaft. The reduced upper end of the shaft is of sufficient length to permit the shaft to be moved upwardly far enough to disengage the conical shaped lower end thereof from the bearing 10 thereby permitting the shaft to be removed from the bearings.

Arranged through the shaft 11, at suitable intervals, are transversely disposed hinge pins 13 with which are hingedly connected the inner edges of pairs of semi-circular shelves which, when swung upwardly to horizontal positions, form continuous circular shelves 14 around the shaft 11. The inner edges of the shelves, where they engage the shaft 11, have formed therein, semi-circular notches or recesses 15, whereby, when the shelves are swung upwardly to horizontal positions, said recessed or notched portions thereof will fit around the opposite sides of the shaft and thus permit the inner edges of the shelves to fit closely together. In order to hold the sections of the shelves up in operative position I provide a series of annular supporting brackets 16 carried by arms 16′ projecting upwardly and outwardly from collars 17 which are slidably mounted on the shaft 11 and are provided with set screws 18 whereby the brackets are secured to the shaft to support the shelves in horizontal or operative positions. When it is desired to drop or swing the shelves downwardly for the purpose of removing the shaft and shelves from the refrigerator, the set screws 18 are loosened, thus permitting the supporting brackets 17 to be lowered

and the shelves swung downwardly as clearly shown in Fig. 4 of the drawing.

On one-half of the upper shelf is preferably arranged an ice receptacle 19 in the bottom of which is arranged a dripping tube 20 which projects through a suitable opening in the shelf whereby the water formed by the melting ice is conducted to a suitable receptacle 21 arranged beneath the dripping tube and preferably supported in position by means of a hook 22 secured to the lower side of the shelf as shown.

By revolubly mounting the shelves in the manner described they may be readily turned to bring any part of the same opposite to the door in the side of the refrigerator thus facilitating the removal or placing of articles on the shelves. By hingedly connecting the shelves in the manner described they may be readily swung downwardly to a sufficient extent to permit the removal of the same through the refrigerator door.

From the foregoing description taken in connection with the accompanying drawings the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claim.

Having thus described my invention what I claim is:

A refrigerator comprising a cylindrical body, a central rotary shaft therein, semicircular shelves pivoted to said shaft, collars adjustably secured to the shaft below the several shelves, arms projecting upward and outward from the said collars, and annular brackets carried by the upper ends of said arms engaging the under sides of the shelves.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROY E. JOYCE.

Witnesses.

ED. KARNS,

IRVIN W. POTTER.