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2,183,678

REFRIGERATOR

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Fig. 1.

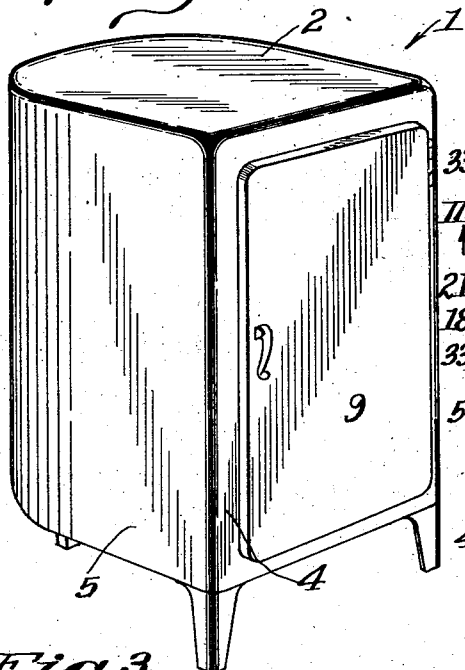


Fig. 2.

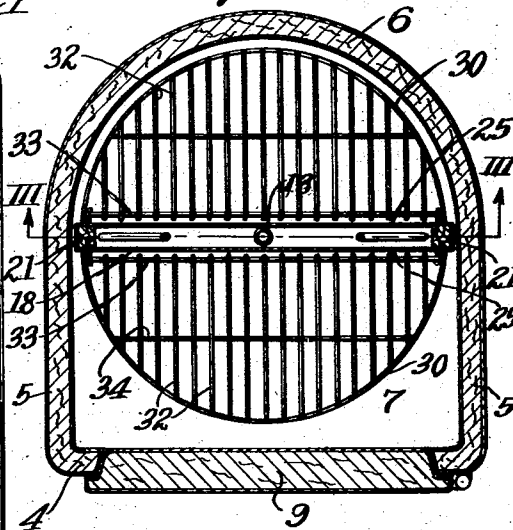


Fig. 3.

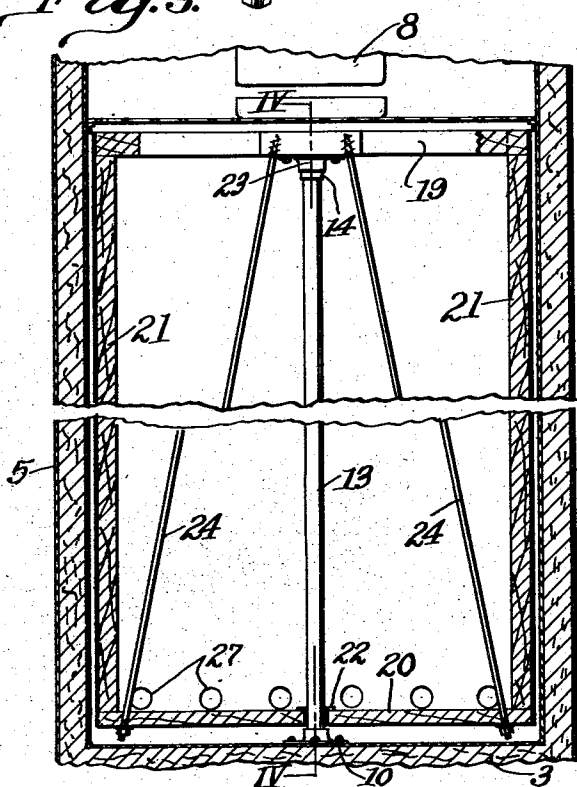
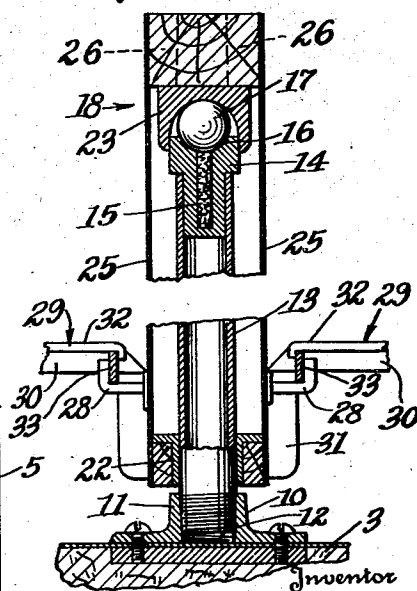


Fig. 4.



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REFRIGERATOR

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6 Claims. (Cl. 62-89)

This invention relates broadly to refrigerators and is specifically directed to an improvement in domestic type of refrigerators. The primary object of the invention resides in the provision of a refrigerator having a vertical partition to divide the interior of the cabinet into front and rear compartments in order that when the door is opened, the entire interior of the refrigerator will not be exposed to the external atmosphere but a portion at the rear of the partition will be protected therefrom. This feature will result in a conservation of the cool air of the refrigerator inasmuch as that behind the partition will be prevented from escaping.

It is also an object of the invention to provide a partition having an internal passage, the inlet of which is disposed in closed proximity to the cooling unit. The outlet of the passage is arranged adjacent the lower portion of the cabinet whereby improved circulation of the cooling air will be effected. This improved circulation will not be interfered with by the order in which the articles to be cooled are disposed upon the shelves in the refrigerator.

A still further object rests in the provision of novel means for mounting the partition in the cabinet so that it will be free to rotate to permit of access to the shelves on either side of the partition.

It is also an object to provide the refrigerator with an improved shelf construction in which the rear portion of the shelf engaging the support is provided with means to effect the support of the shelf, the outer portion of which is not supported.

An object of the invention also resides in the formation of a novel cabinet design, the cabinet being provided with a semicircular vertical rear wall which will conform to the contour of the shelves carried by the rotatable partition. The rounded rear wall makes the cabinet more easily positioned in the corner of a room and permits the use of a single rear leg. This leg in combination with the two front legs provides a three-point bearing and the refrigerator will rest on an uneven floor surface without tipping.

Other objects will be apparent from the following description and the accompanying drawing in which the invention is shown in its preferred form.

In the drawing:

Fig. 1 is a perspective view of a refrigerator cabinet formed in accordance with the present invention.

Fig. 2 is a typical horizontal sectional view taken through the refrigerator shown in Fig. 1.

Fig. 3 is a vertical longitudinal sectional view taken through the refrigerator on the plane indicated by the line III—III of Fig. 2 and shows the partition in longitudinal section.

Fig. 4 is a vertical sectional view taken on the plane indicated by the line IV—IV of Fig. 3 and shows the means for supporting the partition in vertical section.

Referring more particularly to the drawing, the cabinet of the refrigerator is designated by the numeral 1 and comprises a top wall 2, bottom wall 3, front and side walls 4 and 5 and a rounded rear wall 6. These walls cooperate to form an enclosure 7, in the upper portion of which is disposed a cooling unit 8. The front wall 4 is provided with a door 9 through which access to the compartment 7 is obtained. The bottom wall 3 is provided at the center for the radius of the arcuate back wall with a base plate 10 having an upstanding projection 11 in which is formed a threaded opening 12. The threaded lower end of a vertically extending tubular column 13 is positioned in the opening 12, the vertical position of the column being maintained by the secure engagement of the plate with the lower wall of the cabinet.

The upper end of the column 13 receives a plug 14 having a central socket for the reception of a felt wick 15. The upper surface of the plug is depressed as at 16 to receive and support a steel ball 17 which furnishes an antifriction bearing for the rotatable support of a partition 18. The partition includes a rectangular wooden frame having upper and lower bars 19 and 20, the outer ends of which are connected by vertical bars 21. The center of the lower bar 20 is formed with an opening for the reception of a sleeve 22 through which the column 13 extends. At the center of the upper bar, there is secured a fitting 23 having a socket formed in its under surface for the reception of the ball 17. The weight of the partition rests upon the ball and is free to rotate around the vertical axis provided by the column 13.

A pair of brace rods 24 extend diagonally between the upper bar 19 and the lower bar 20 and serve to strengthen the framework and maintain its rigidity. The front and rear surfaces of the frame have metallic plates 25 secured thereto to complete the partition, the frame serving to space the plates and provide a passage therebetween. The sides of the upper bar of the frame are relieved as at 26 to provide

an entrance to the passage at the top of the partition. At the lower ends, the side plates 25 include a plurality of openings 27 which constitute the outlets of the passage and permit cool
5 air which enters the passage at the top to pass outwardly from the interior of the partition to the lower portion of the refrigerator cabinet.

The sides of the partition are provided with outwardly projecting hooks 28 to receive and support semi-circular shelves 29 which include a
10 peripheral frame 30 formed of a metallic strip, the ends of which are bent downwardly at right angles to the remaining portion of the bar.

The downwardly projecting portion 31 of the strap engages the partition below the hooks and serves to hold the shelf in a true horizontal position. To complete the shelves, there is provided a plurality of wires 32 which extend from the strap 30 to a transverse brace 33 extending between the end portions of the straps 30. The
20 wires 32 may be secured to the members 30 and 33 by welding or any other suitable means. The intermediate portions of the wires 32 are braced by one or more transverse wires 34 extending between the sides of the strap 30.

It will be seen from the foregoing that there has been provided an improved refrigerator construction in which means are provided to divide the interior of the refrigerator cabinet into front
30 and rear compartments and that when the door is opened to provide access to the interior, the entire interior will not be exposed to the external atmosphere but a portion behind the partition will be protected and the air and commodities contained therein unexposed to the atmosphere. By
35 revolving the shelf upon its pivotal support, access may be had to the articles on the shelves on either side of the partition.

While I have shown and described the invention in its preferred form, it will be understood that numerous minor variations may be made therein, such as increasing the number of compartments, without departing from the spirit and scope of the invention as set forth in the following
40 claims.

What is claimed is:

1. A refrigerator comprising a cabinet, cooling means disposed in the upper portion of said cabinet, a vertically extending hollow partition positioned in said cabinet with its open upper end
50 in close proximity to said cooling means, said partition being provided with outlets adjacent its lower end, semicircular shelves supported by the sides of said partition, and means for supporting said partition for swinging movement around its
55 longitudinal axis.

2. A refrigerator comprising a cabinet, cooling means disposed in the upper portion of said cabinet, a vertically extending hollow partition positioned in said cabinet with its open upper end in
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close proximity to said cooling means, said partition being provided with laterally directed outlets adjacent its lower end, semicircular shelves supported by the sides of said partition, and means for supporting said partition for swinging
5 movement around its longitudinal axis.

3. A refrigerator comprising a cabinet having top, bottom, front and side walls and a semicircular vertical rear wall, a base plate secured to the bottom wall in spaced relation to the side
10 walls, a column supported in a vertical position by said base plate, a rectangular frame journaled for movement around the axis of said column, side plates secured to said frame in spaced relation to provide a passage having an open top,
15 the lower portions of said side plates being provided with openings, and shelf means secured to the sides of said frame.

4. A refrigerator comprising a cabinet having top, bottom, front and side walls and a semicircular vertical rear wall, a base plate secured to the bottom wall in spaced relation to the side
20 walls, a column supported in a vertical position by said base plate, a rectangular frame journaled for movement around the axis of said column substantially diagonally extending brace means connected with said frame, side plates secured to said frame in spaced relation to provide a passage having an open top, the lower portions of
25 said side plates being provided with openings, and shelf means secured to the sides of said frame.

5. A refrigerator comprising a cabinet having top, bottom, front, side and rear walls, the rear wall being arcuate in horizontal cross section,
35 a column rigidly positioned in said cabinet on the center for the arc of said rear wall, a partition including a rectangular frame journaled around the longitudinal axis of said column, plate means secured to the front and rear of said frame to form a passage extending the full length of said partition, said passage having an inlet at the top and an outlet at the bottom, and shelf
40 means secured to the sides of said partition.

6. A refrigerator comprising a cabinet having a semicircular vertically extending rear wall, a vertically extending partition positioned in said cabinet to divide the interior thereof into front and rear compartments, a passageway extending
45 vertically of said partition, a plurality of outlets provided in spaced relation from the upper end of said passageway and establishing communication between said passageway and said compartments, semicircular food supporting shelves carried by said partition, and means for supporting
50 said partition for swinging movement about its vertical axis to alternately position the shelves on each side in the front and rear compartments.

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