

E. D. CONROY.  
REFRIGERATOR.

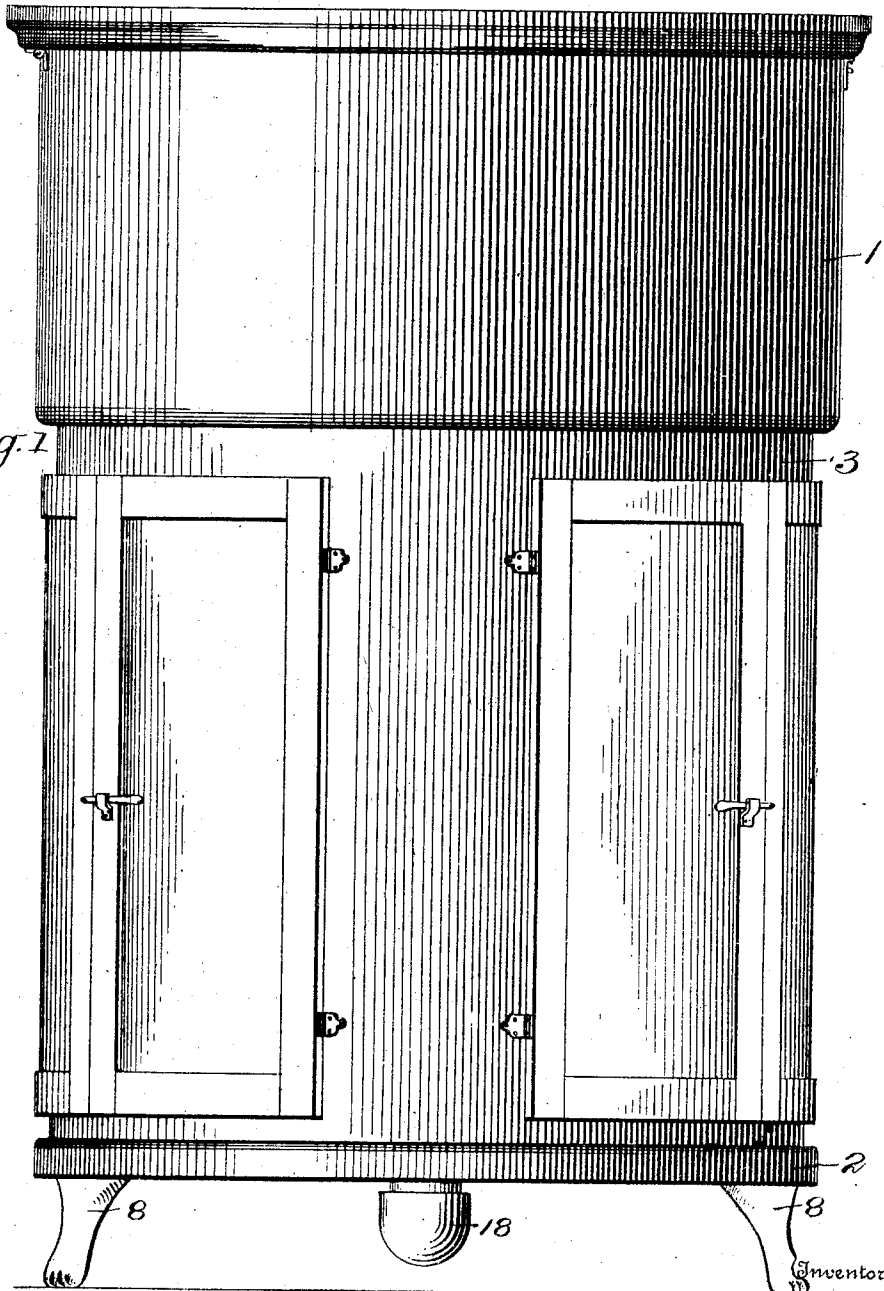
APPLICATION FILED APR. 24, 1909.

Patented July 19, 1910.

3 SHEETS—SHEET 1.

964,900.

Fig. 1



Witnesses

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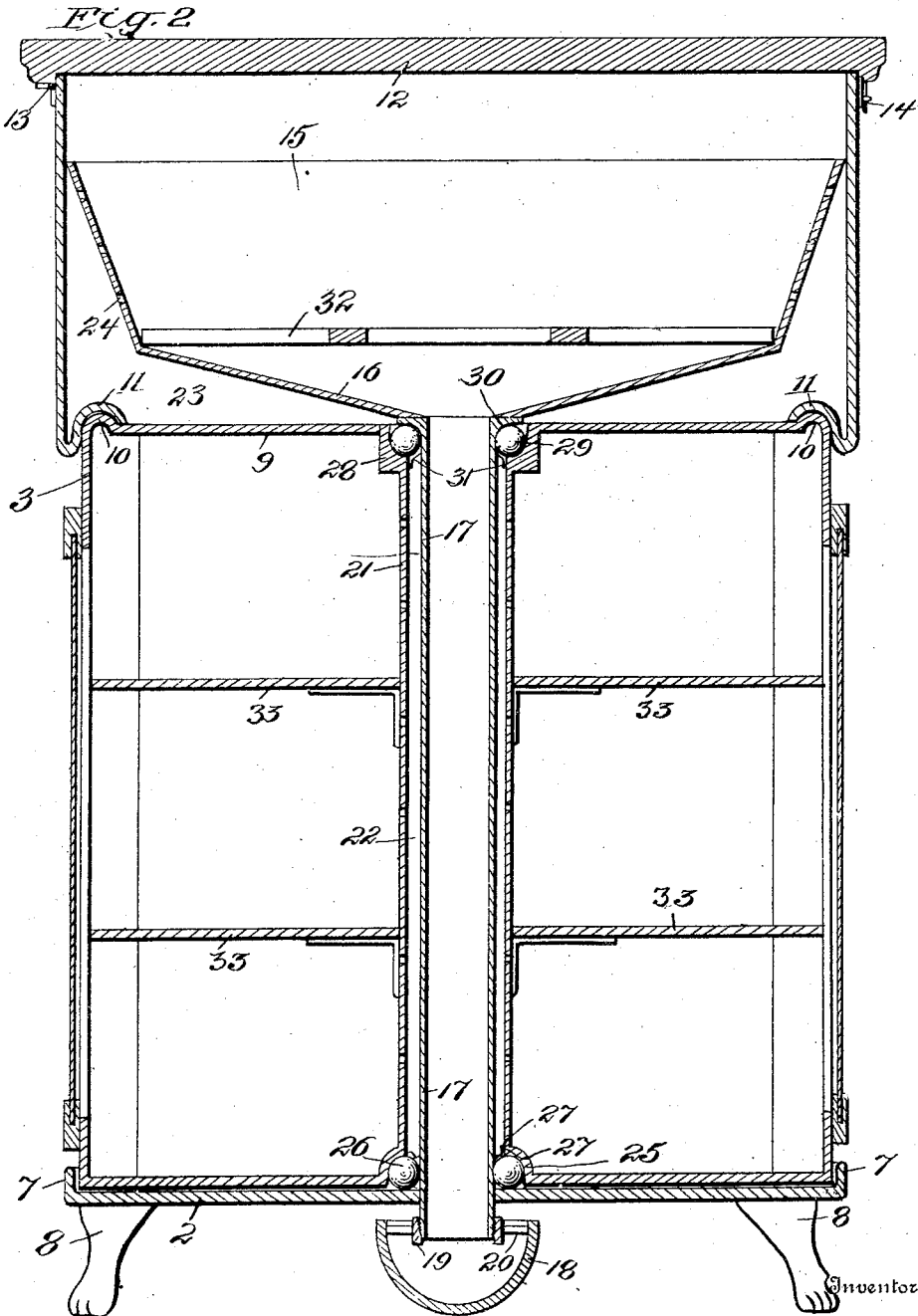
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3 SHEETS—SHEET 2.



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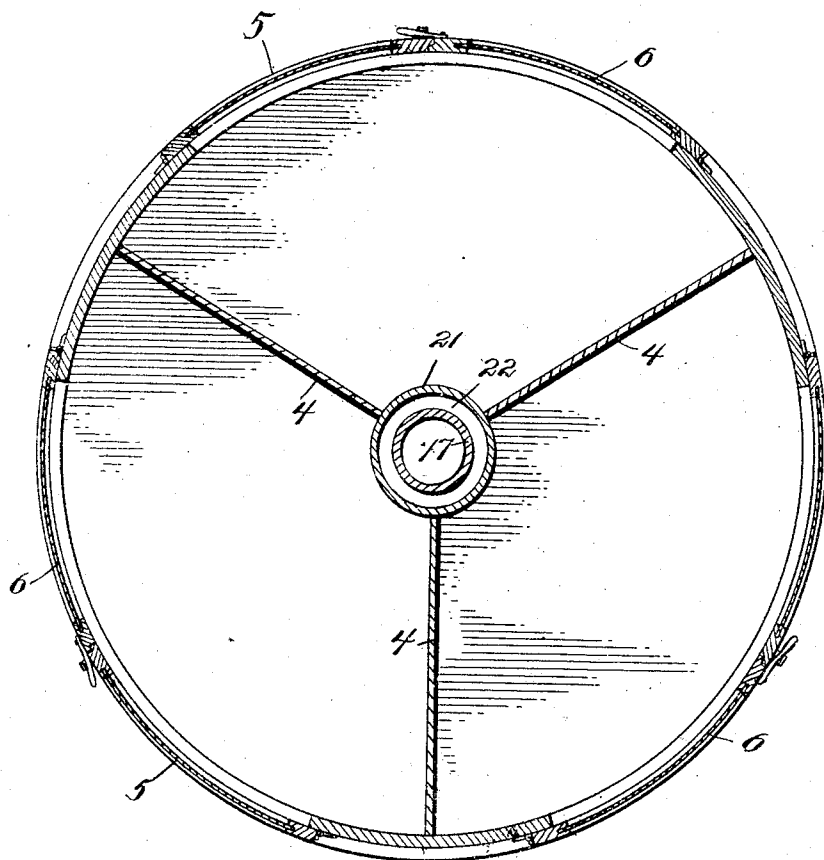
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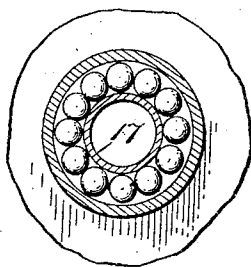
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3 SHEETS—SHEET 3.

*Fig. 3*



*Fig. 4*



Witnesses

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Inventor

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By *Victor J. Evans*

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# UNITED STATES PATENT OFFICE.

ELIZA D. CONROY, OF WACO, TEXAS, ASSIGNOR OF ONE-HALF TO ROBERT G. WENDLAND, OF WACO, TEXAS.

## REFRIGERATOR.

964,900.

Specification of Letters Patent.

Patented July 19, 1910.

Application filed April 24, 1909. Serial No. 492,026.

*To all whom it may concern:*

Be it known that I, ELIZA D. CONROY, a citizen of the United States, residing at Waco, in the county of McLennan and State of Texas, have invented new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates to refrigerators, the object in view being to provide a refrigerator having a number of compartments and a number of doors giving access to said compartments, combined with means for enabling a section of the refrigerator to be shifted for the purpose of bringing any required compartment into an accessible position, thereby saving valuable space, a particularly desirable feature in apartment houses. Furthermore, the compartments of the refrigerator are entirely separate and cut off from each other thereby rendering the refrigerator as a whole sanitary and preventing the commingling of odors from the different materials placed therein.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement herein fully described, illustrated and claimed.

In the accompanying drawings: Figure 1 is a view in elevation of the improved refrigerator. Fig. 2 is a vertical diametrical section through the same. Fig. 3 is a horizontal section taken about midway the height of the refrigerator. Fig. 4 is a detail horizontal section through one of the ball bearings.

The refrigerator of this invention comprises essentially a top section 1, a bottom section or base 2 and an intermediate or main section 3. As shown in Fig. 3, the intermediate section is divided by radial partitions 4 into a plurality of segmental compartments, the intermediate section as well as the top and bottom sections being cylindrical in form and the intermediate section being provided with a plurality of curved doors 5 and 6, the curvature of the doors corresponding to the general curvature of the intermediate section, thereby adding to the symmetry of the design.

The base 2 consists of a disk-shaped plate having an upstanding peripheral flange 7 within which the bottom edge of the inter-

mediate section 3 is adapted to turn. The base or bottom section 2 is mounted upon suitable supporting feet 8 and held at any suitable elevation thereby. The top wall 9 of the intermediate section is imperforate and where the outer edge of said top wall joins the outer cylindrical wall of the intermediate section, an upstanding annular half-round bearing flange 10 is formed over which works a correspondingly shaped concentric flange 11 at the bottom of the top section 1, as clearly shown in Fig. 2. The parts 10 and 11 work in close relation to each other in the operation of revolving the intermediate section 3 thereby excluding air and serving to retain the cold air within the refrigerator. The top section 1 is provided with a suitable cover or lid 12 which may be hinged thereto as shown at 13 and provided with a suitable catch or fastener as shown at 14.

The top section 1 forms the ice compartment and within said ice compartment there is arranged a removable ice tray 15 preferably of inverted frusto-conical form as shown in Fig. 2, the said ice tray being provided with a dish-bottom 16 having a central opening surrounded by a central drain pipe 17 the length of which is sufficient to extend downward entirely through the intermediate section and also through the bottom section where it is provided with a trap 18, the latter being shown as hemispherical in shape and embodying an internally threaded ring 19 detachably secured upon the lower extremity of the drain pipe 17 as shown in Fig. 2. The ring 19 is connected to the main body of the trap 18 by spokes or braces 20 which serve to support the trap in position while allowing the water to overflow therefrom. This also forms a water seal to prevent air from finding its way upward through the drain pipe.

The intermediate section 3 comprises a central cold air pipe 21 to which the partitions 4 are connected by an air-tight joint at their inner edges. This cold air pipe is of sufficiently greater diameter than the center drain pipe 17 to leave an intervening annular cold air space 22 which receives the cold air from the space 23 extending around the bottom and sides of the ice tray 15, the side walls of the ice tray being perforated as shown at 24 to allow the cold air from the

ice compartment to pass downward and fill the spaces 23 and 22.

In order to enable the intermediate section 3 to revolve upon the bottom section or base 2 and between said bottom section and the top section 1, the intermediate section is provided with ball cups 25 in which is arranged a circular series of anti-friction balls 26 which work in contact with the upper surface of the bottom section as shown in Fig. 2. In connection with the balls 25, a suitable ball retainer 27 is employed for the purpose of retaining the balls in place when the center pipe 17 is withdrawn as hereinafter described. In like manner a ball bearing is arranged at the top of the intermediate section 3, embodying a ball cup 28 on the intermediate section in which are arranged balls 29 which work in contact with a ball race 30 at the bottom of the ice tray immediately adjacent to the junction of the ice tray and the center drain pipe 17 as clearly shown in Fig. 2. A ball retainer 31 is also arranged at this point to hold the balls 29 in place when the center drain pipe 17 is withdrawn in an upward direction.

32 designates a grate for supporting ice above the bottom of the ice tray, while 33 designates shelves arranged in the several compartments of the intermediate section for supporting the various articles placed therein.

In view of the construction described it will be seen that the ice tray 15 together with the center drain pipe 17 may be removed from the remainder of the refrigerator by opening the top 12 of the refrigerator and withdrawing said tray in an upward direction. Before doing this, however, it is necessary to remove the trap 18 by unscrewing the same from the lower end of the drain pipe. The top section 1 may then be removed from the intermediate section and if desired, the intermediate section may be lifted off the bottom section or base. Thus different parts of the refrigerator may be readily disassembled which will greatly facilitate the thorough cleansing of the same. By making the intermediate section revolvable, the refrigerator may be placed against a side wall or in a corner and yet access may be readily obtained to each and all of the compartments thereof by revolving the intermediate section to the necessary extent.

I claim:—

1. A refrigerator of cylindrical shape, comprising separable top, bottom and intermediate sections, the intermediate section being revoluble upon the bottom section and containing a storage compartment and a central cold air pipe, and an ice tray removably mounted in the top section and embodying a straight central drain pipe which extends downward through the cold air pipe of the intermediate section and is adapted to be withdrawn in an upward direction therefrom.

2. A refrigerator comprising separable top, bottom and intermediate sections, the intermediate section being revoluble upon the bottom section and embodying a central cold air pipe perforated to communicate with the interior of the intermediate section, radial partitions extending from said cold air pipe outward and dividing the intermediate section into a plurality of compartments, and a removable ice tray fitted in the top section and provided with a central downwardly extending drain pipe of less diameter than the cold air pipe and extending lengthwise within said cold air pipe, substantially as described.

3. A refrigerator comprising separable top, bottom and intermediate sections, the intermediate section being revoluble upon the bottom section and provided along the margin of the top thereof with an upstanding annular bearing flange arched in cross section, the top section being provided at its lower marginal edge with a concentric flange which is also arched in cross section and embraces said bearing flange, a cold air pipe extending vertically and centrally of the intermediate section and perforated to communicate with the internal space of the intermediate section, an ice tray fitted in the top section and embodying a dished bottom, and a center drain pipe extending from said dished bottom downward through the cold air pipe of the intermediate section and through the bottom section, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ELIZA D. CONROY.

Witnesses:

E. F. METZE,  
W. B. BISHOP.