No. 657,930. Patented Sept. 18, 1900.

L. J. FELDKIRCHER.

REFRIGERATOR.

(Application filed Sept. 18, 1899.)

(No Model.) 4 Sheets—Sheet 1.

Fig. 1.

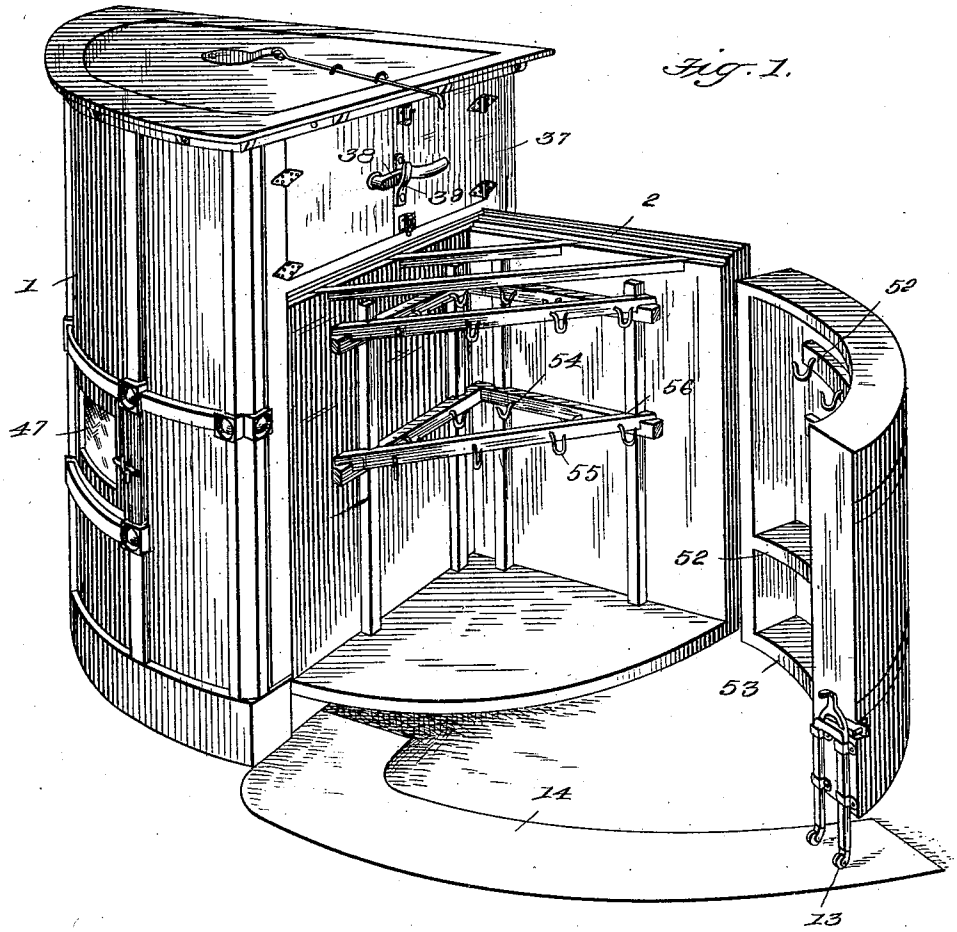


Fig. 7.

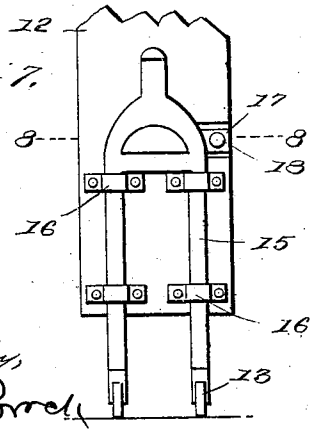
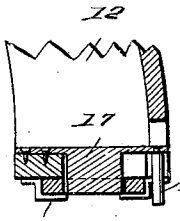


Fig. 8.



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(No Model.) 4 Sheets—Sheet 2.

Fig. 9.

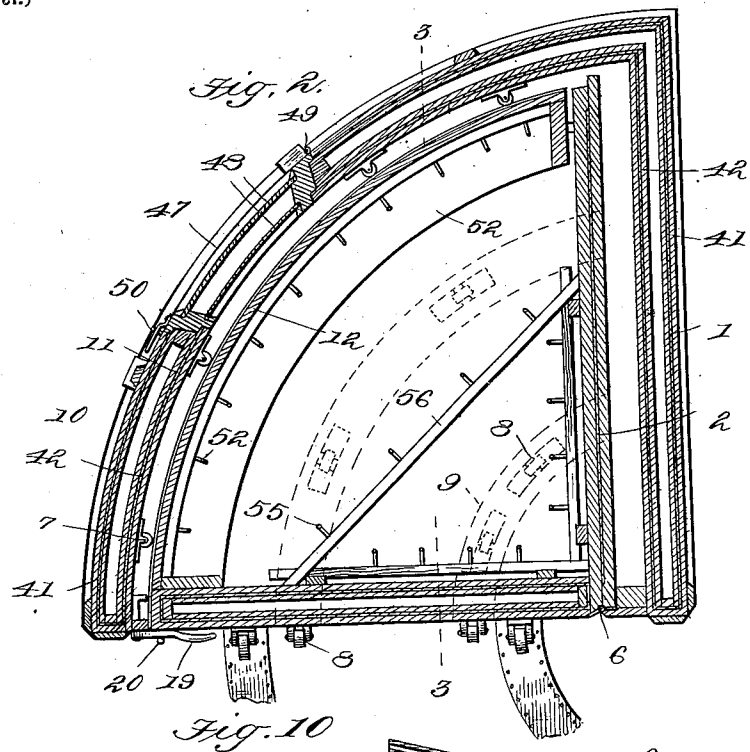
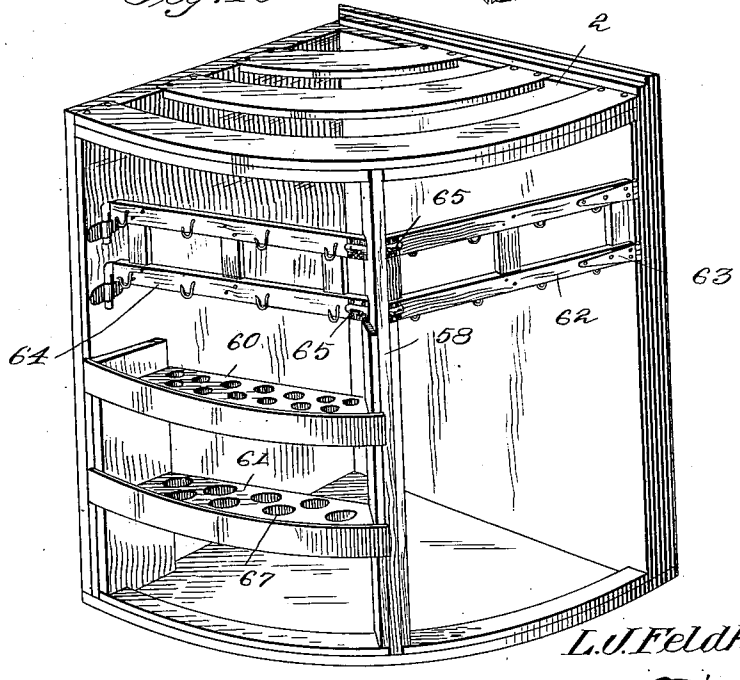


Fig. 10



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Fig. 3.

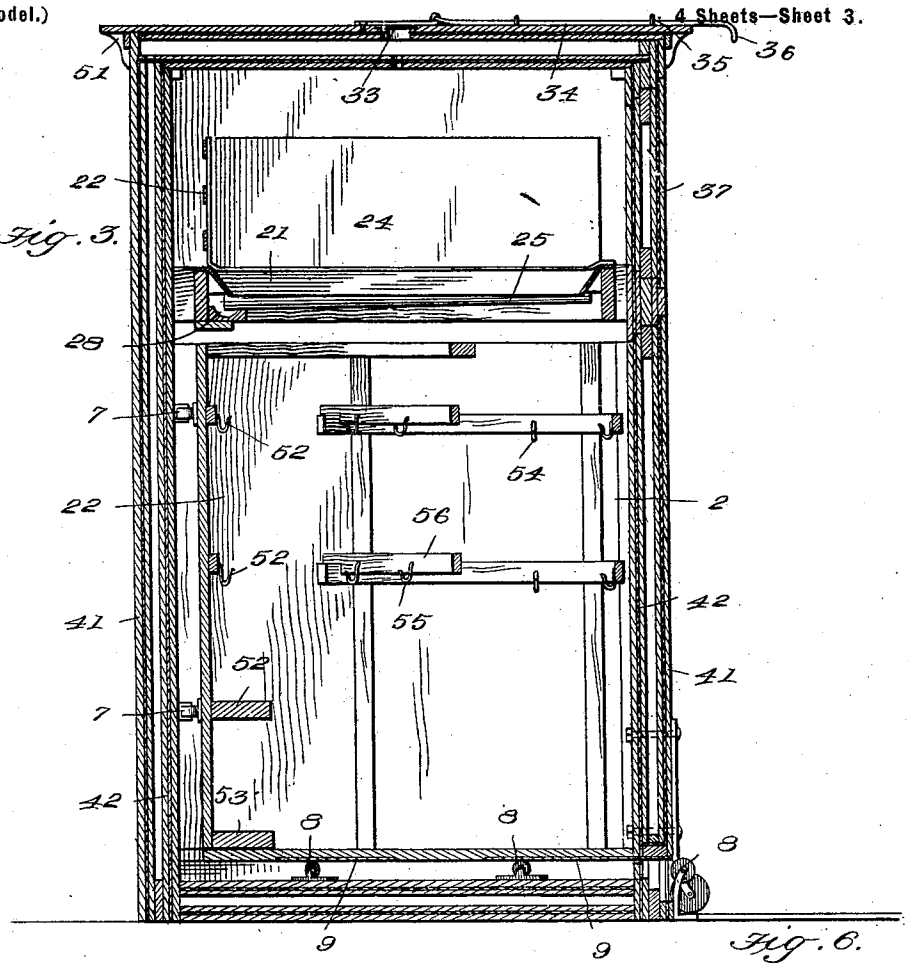


Fig. 6.

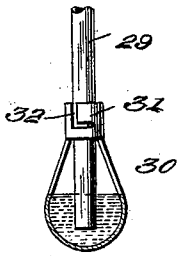
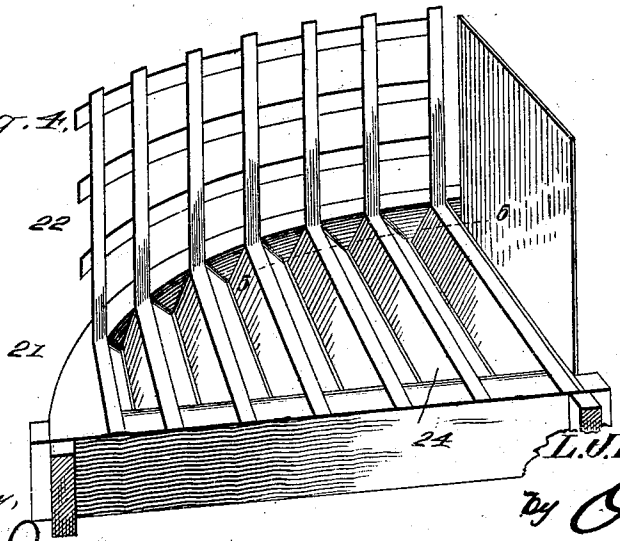


Fig. 4.



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REFRIGERATOR.

(Application filed Sept. 18, 1899.)

(No Model.) 4 Sheets—Sheet 4.

Fig. 9.

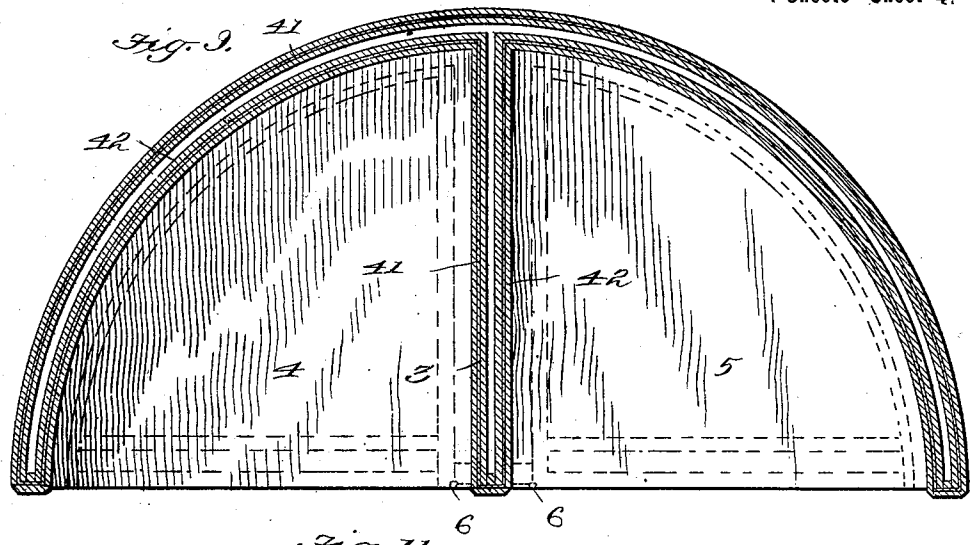


Fig. 11.

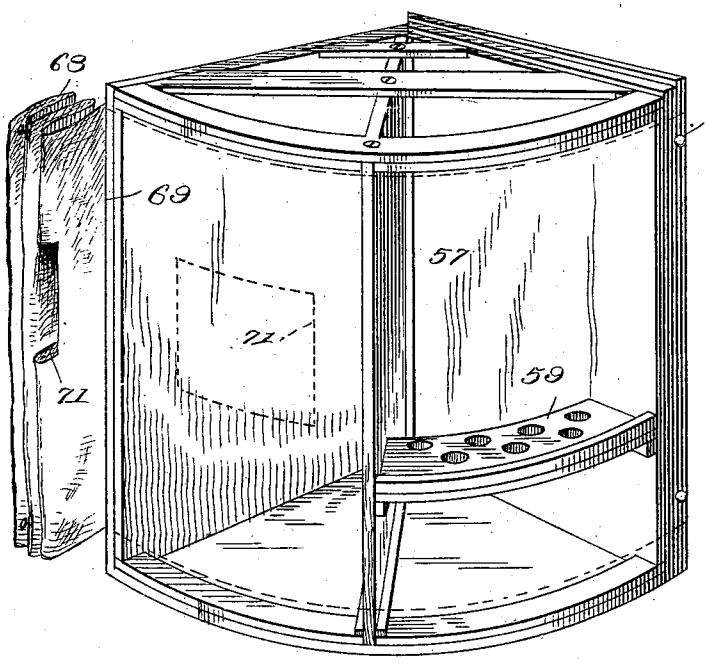


Fig. 12.

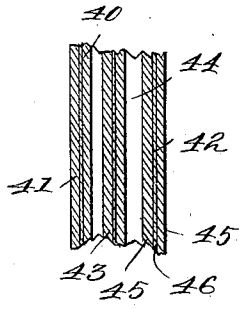
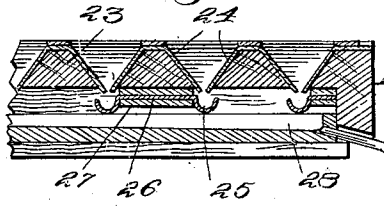


Fig. 5.



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UNITED STATES PATENT OFFICE.

LOUIS J. FELDKIRCHER, OF NASHVILLE, TENNESSEE.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 657,930, dated September 18, 1900.

Application filed September 18, 1899. Serial No. 730,933. (No model.)

To all whom it may concern:

Be it known that I, LOUIS J. FELDKIRCHER, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Refrigerator, of which the following is a specification.

My invention relates to refrigerators or ice-boxes for the use of families, butchers, stores, &c., the object of the invention being to simplify, cheapen, and generally improve the construction and to enhance the usefulness of such devices.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and arrangement of parts, reference being had to the drawings forming a part hereof, and in which—

Figure 1 is a perspective view illustrating a refrigerator constructed in accordance with my invention, the meat-receptacle being shown in its open position, with its door also open. Fig. 2 is a horizontal sectional view of the complete refrigerator closed, taken on a plane cutting through it just above the lower meat-racks, as indicated by the dotted line 2 2 of Fig. 3 looking downward. Fig. 3 is a vertical sectional view on the plane indicated by the dotted line 3 3 of Fig. 2. Fig. 4 is a perspective view of the ice-pan inverted. Fig. 5 is a detail sectional view on the plane indicated by the dotted line 5 5 of Fig. 4. Fig. 6 is a view in side elevation of the trap-cup at the lower end of the drain-pipe. Fig. 7 is a detail view, in side elevation, of the roller-support for the door. Fig. 8 is a detail sectional view on the plane indicated by the dotted line 8 8 of Fig. 7. Fig. 9 is a horizontal sectional view through the semicircular box or casing of a refrigerator designed to receive two meat-receptacles. Fig. 10 is a perspective view of a meat receptacle and racks of modified form. Fig. 11 is a similar view of a receptacle of modified form provided with a curtain for closing it. Fig. 12 is a fragmentary detail view in section of the wall of the casing or box.

Like numerals of reference mark the same parts wherever they appear in the several figures of the drawings.

Referring to the drawings by numerals, 1 indicates the casing or box, and 2 the meat-receptacle. The box will be made in horizontal section, either quarter-circular, as in Figs. 1, 2, and 3, or semicircular, as in Fig. 9, and in the latter instance will be provided with a central radial partition 3 to divide it into two compartments 4 and 5, quarter-circular in section. The meat-receptacles 2 are shaped in horizontal section of quarter-circular form to correspond with the casings of Figs. 1, 2, and 3 or the compartments in Fig. 9 and are mounted in the casing on a pivot or hinges 6, vertically arranged, substantially at the center of the circle of which the casing forms part, so that the receptacles may be moved freely into and out of the casing swinging on the hinges, the outer curved edges of the receptacles bearing against rollers 7, journaled in brackets fixed to the inner face of the curved wall of the receptacle. In their movements the meat-receptacles are supported on valves 8, journaled in brackets secured on the upper face of the floor of the casing, which contact with curved rails 9, secured to the under face of the bottoms of the receptacles.

The casings each have one radial wall and a curved wall, the other radial wall being omitted to allow the receptacles to swing in and out. The receptacles are constructed with two radial walls 10 and 11, the curved wall 12 forming the door of the receptacle, being supported or hinged to the outer end of radial wall 10, said radial wall resting, when the receptacle is in the casing, in the opening where the radial wall of the casing was omitted, and the radial wall resting in and closing said opening when the receptacle is swung out of the casing, as shown in Fig. 1.

When the door of the receptacle is swung open, it is supported on rollers 13, which traverse a track 14, laid on the floor of the room in which the refrigerator is located, as shown in Fig. 1. The rollers 13 are mounted on the lower ends of the two bars 15, which pass upward through keepers or brackets 16 on the edge of door 12, whereby they are slidable vertically to adjust them below the door, where they are secured by a spring-latch 17, the bars 15 being joined at their

upper ends and provided with a handle 18. The receptacle is locked in the casing by a pivoted latch 19, engaging a keeper 20.

The receptacles are of less height than the boxes or casings, the upper part of the casing forming a compartment to receive an ice-rack 21, the curved side 22 of which is slatted (see Figs. 3 and 4) and its bottom of bars 23, (see Figs. 4 and 5,) said bars having beveled sides and being covered with sheet metal, as at 24, extending below the bars at the sides to form eaves, over which the water from the melting ice will drip into troughs 25, formed of a sheet of metal 26, secured to the bottom of the bar by a clamp-strip 27, said bar inclining toward one end and draining into a pan or trough 28, from which leads a drain-pipe 29, upon the bottom of which is removably secured a trap-cup 30, into which the end of the pipe extends, forming a seal against the admission or escape of air at the bottom of the casing. The trap-cup is secured to the pipe by means of a bayonet-joint 31 (see Fig. 6) and is of inverted pear or balloon shape, the upper part being slatted, as shown at 32. The ice-rack compartment is closed at the top by means of a cover 33, which may be raised by a rod 34, passing through staples 35 in the cover and attached at its inner end to a bracket 36 on the top of the cover. The side of the ice-compartment is provided with hinged doors 37, securable by a lever-latch 38, pivoted to one door and engaging a keeper 39, secured to the other door.

The walls of the casing are double, with an air-space 40 between the inner and outer thicknesses 41 and 42, as shown in Figs. 2, 3, and 9, but may be of three thicknesses, as in Fig. 13, at 41, 42, and 43, with two spaces—the space 40 for air or vapor and the space 44 for charcoal or other filling. Each thickness is composed of an inner and outer layer 45 45 of wood and an inclosed layer 46 of tarred or pitched paper, as shown in Fig. 12. The air-space may be ventilated, if desired.

In the curved wall of the casing I provide a suitable frame 47 with sash and glass 48, forming a window for observation from without and for the admission of light. The sash is hinged at 49 and provided with a suitable latch 50, whereby access may be had to the interior of the casing or the window safely secured, as may be desired. The whole top of the casing is removable, being held in position by downwardly-projecting brackets or lugs 51, which fit over the upper edge of the walls, as seen in Figs. 1 and 2.

The door 12 of the meat-receptacle is hollow and on the inside is provided with a series of hooks or pins 52 and shelves 53, upon which to hang small pieces of meat, poultry, &c., and to place small articles not suitable for hanging. The receptacle for meat is also provided with hooks or pins 54 on its radial sides and hooks 55 on a diagonal brace 56, as seen in Fig. 2. The arrangement of the hooks may be varied and the receptacles divided by a partition 57, as in Fig. 11, or simply with an upright, as at 58, in the curved door-space, as seen in Fig. 10. Shelves, as at 59 in Fig. 11 and at 60 and 61 in Fig. 10, are secured in position, so as to receive small articles which might be accessible through the window without opening the door or swinging out the receptacle when made without a door, as in Figs. 10 and 11. In Fig. 10 I show a hook-rack 62 hinged at 63, fronting inward, which rack will be made very strong and securely hung in order to hang large meats, such as sides or quarters of beef or whole veal or mutton carcasses. This rack and a rack 64 are provided with suitable latches, as 65 66, the rack 64 fronting outward and being intended to receive small meats or the like within ready reach of the window. The shelves 59, 60, and 61 are perforated, as at 67, to hold jars or bottles when desired.

A curtain 68 may be secured to one edge of the curved opening of the receptacle, as at 69 in Fig. 11, which may be used either with or without the door, being securable upon pins or buttons 70 when closed. A window hole and flap may be provided in the curtain, as at 71, which will coincide or register with the window when the receptacle is swung into the casing, and thus permit of access to the interior through both window and curtain.

The construction and operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings. It will of course be obvious that the ice-rack will be quarter-circular for a quarter-circular casing and half-circular for a half-circular casing, the partition in the latter extending only as high as the meat-receptacle. The sheet-metal eaves or covers for the bottom bars will properly conduct the dripping water to the troughs and prevent its dripping into the inner receptacle. The partitions in the meat-receptacles are made removable, as well as the shelves, these parts sliding in grooves, as shown.

The central radial partition 3 may be omitted, and the walls may be made in sections to take apart, the walls being secured by screws or threaded rods or ribs.

Having thus fully described my invention, what I claim as new, and desire to obtain by Letters Patent of the United States, is—

1. A refrigerator having a compartment of the shape of a quarter-circle in horizontal section, in combination with a receptacle of similar form swung on a vertical pivot at about the center of the circle adapted to be swung on said pivot into and out of the compartment, and having a door formed in the curved wall thereof, substantially as described.

2. A refrigerator having a compartment of the shape of a quarter-circle in horizontal section, in combination with a receptacle of similar form swung on a vertical pivot at about

the center of the circle and adapted to be swung on said pivot into and out of the compartment, a door forming the curved wall of the receptacle and hinged at the outside of its outside radial wall, and adjustable roller-supports adapted to be engaged with the floor of the room to support the door while open, substantially as described.

3. In a refrigerator, the combination of a meat-receptacle pivoted above the floor of the room, a door pivoted to the receptacle and adjustable roller-supports on the door to support it while open, substantially as described.

4. In a refrigerator, the combination of a door swung above the floor, keepers on its end, slidable rods in said keepers, rollers at the lower ends of said rods, a handle for raising the rods and a latch for retaining them in raised position, substantially as described.

5. In a refrigerator, the combination of a receptacle of sector shape, a rack fronting outward, a sector-shaped casing to receive the receptacle, and a window with hinged sash, in the curved side of the casing to afford access to the rack, substantially as described.

6. In a refrigerator, the combination of a sector-shaped casing, a window in its curved side, a sector-shaped meat-receptacle hung to swing into the casing, a curtain to inclose its curved side, and a window-hole and flap in the curtain registering with the window when the receptacle is swung into the casing, substantially as described.

7. In a refrigerator, the combination of a sector-shaped receptacle provided with horizontal grooves in the inside of its radial walls, and shelves adapted to be removably fitted into said grooves, and racks hinged between the radial walls above the shelves, substantially as described.

8. In a refrigerator, the combination with a swinging door carrying keepers, of a sliding bracket carrying rollers at one end and formed with a handle portion at its opposite end, and a latch carried by the door adapted to engage said bracket and hold the same raised, substantially as described.

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