

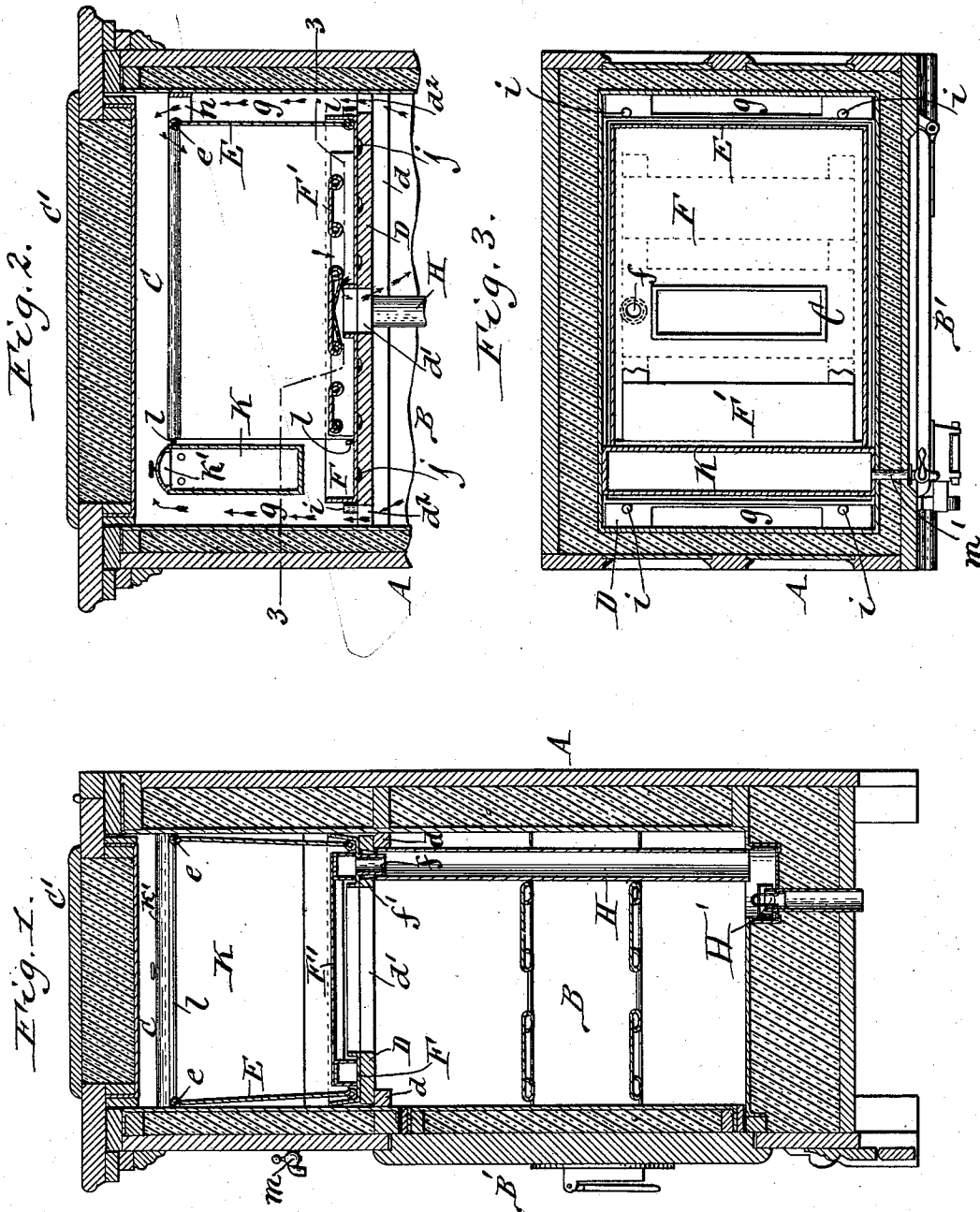
(No Model.)

2 Sheets—Sheet 1.

J. J. SCHNEIDER.
REFRIGERATOR.

No. 578,469.

Patented Mar. 9, 1897.



Witnesses:
Emmet Pulsford.
Henry L. Deck.

John J. Schneider Inventor.
By Wilhelm H. Primmer.
Attorneys.

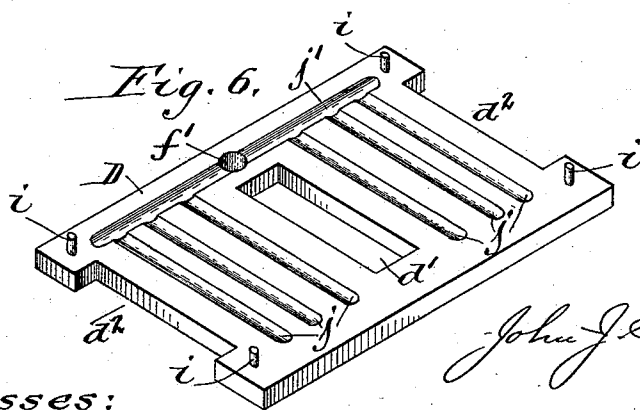
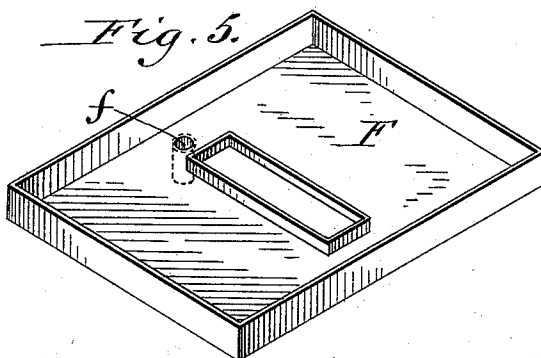
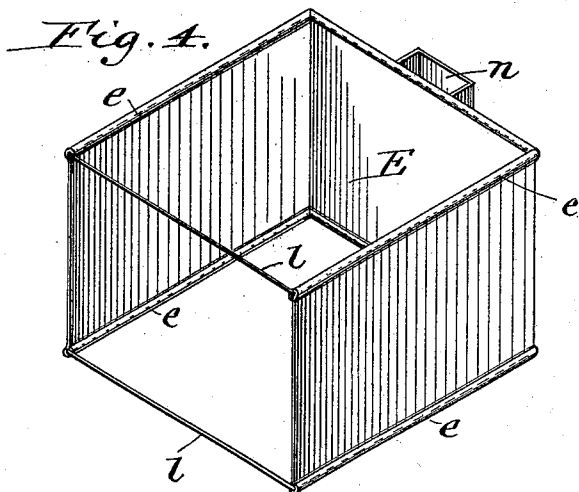
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2 Sheets—Sheet 2.

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REFRIGERATOR.

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Witnesses:
Emes & Puleford.
Henry L. Deck.

John J. Schneider
Inventor
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UNITED STATES PATENT OFFICE.

JOHN J. SCHNEIDER, OF BUFFALO, NEW YORK.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 578,469, dated March 9, 1897.

Application filed March 14, 1896. Serial No. 583,231. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. SCHNEIDER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates more particularly to that class of domestic refrigerators having an ice-receptacle which is removably arranged in the ice chamber or compartment of the refrigerator.

One of the objects of my invention is to provide simple means for carrying off any water of condensation that may accumulate between the pan of the ice-receptacle and the bottom of the surrounding chamber, so as to prevent such water from dripping into the provision-chamber.

The invention has the further objects to increase the capacity of the ice-receptacle, to center the pan of the ice-receptacle upon the bottom of the ice-chamber by simple means, and to protect the drip nipple or spout of said pan against breakage, and to combine a water-cooler with the ice-receptacle in such a manner that the cooler is brought in direct contact with the ice.

In the accompanying drawings, consisting of two sheets, Figure 1 is a transverse vertical section of my improved refrigerator. Fig. 2 is a vertical longitudinal section of the upper portion of the refrigerator. Fig. 3 is a horizontal section in line 3 3, Fig. 2. Fig. 4 is a detached perspective view of the ice-receptacle. Fig. 5 is a similar view of the pan or separable bottom of the ice-receptacle. Fig. 6 is a similar view of the bottom of the ice-chamber.

A is the casing of the refrigerator, which may have its hollow walls filled with non-conducting material in the customary manner.

B is the provision-chamber, arranged in the lower portion of the case and having the usual door B', and C is the ice-chamber, arranged above the provision-chamber and having the usual lid C'. The ice and provision chambers are separated by a partition D, resting upon cleats or ledges d. This partition forms the bottom of the ice-chamber and preferably

rests loosely on its supports, so that it can be readily removed for cleaning it.

E is the ice receptacle or inclosure, arranged in the ice-chamber and preferably constructed without a bottom, as shown in the drawings. This receptacle is seated in a drip pan or tray F, which rests removably upon the partition D and receives the water resulting from the melting of the ice.

F' is the rack for the ice, arranged in the drip-pan. The walls of the ice-receptacle are preferably tight or imperforate, as shown, and the receptacle is of rectangular form to correspond to the shape of the ice-chamber. By this construction the ice-receptacle can be made practically as wide as the ice-chamber without liability of causing condensation upon the adjacent walls of the ice-chamber, thus obtaining a receptacle of larger capacity than can be employed when the receptacle is constructed in the form of an open or perforated basket. In the latter case it is necessary to make the receptacle so small that the ice, should it protrude through the open sides of the receptacle, will not come in contact with the surrounding wall of the ice-chamber.

The beads or enlargements e, which are formed at the upper and lower edges of the receptacle and receive the usual stiffening-wires, separate the side walls of the receptacle from the opposing walls of the ice-chamber sufficiently to form the necessary air-passage for the circulation of the cold air, and the end walls of the receptacle are separated from the adjacent walls of the ice-chamber by the usual passages g. The bottom D is provided with the central air-passage d' and the end passages d'', and the drip-pan has an air-passage coinciding with the central passage of the removable bottom. The ice-receptacle terminates a sufficient distance below the under side of the lid C' to leave an air-passage between the receptacle and the lid, as shown.

The drip-pan is provided with a depending discharge nipple or spout f, which delivers the water into the usual descending pipe or conduit H, whence the water is discharged into a basin or conducted to the sewer in a well-known manner.

The refrigerator is preferably provided with

a trap H', of any ordinary construction, for checking the passage of the exterior air into the provision-chamber.

The discharge-nipple *f* extends through an opening *f'*, formed in the removable bottom D, and into the conduit H, as shown in Fig. 1. *i* represents retaining-pins which project from the upper side of the removable bottom D and serve to hold the pan of the ice-receptacle in the proper position, the two sets of pins at opposite ends of the bottom being arranged just far enough apart to receive the pan between the same. These pins, by preventing lateral displacement of the drip-pan and the ice-receptacle, relieve the depending discharge-nipple of the pan from the jars and strains to which it would be subjected in the absence of such pins when a block of ice is dropped against one of the end walls of the receptacle in depositing the same in the refrigerator, thereby protecting the nipple against breakage.

The removable bottom D is preferably constructed of wood or other suitable non-conducting material, so as to reduce to a minimum the deposit of water of condensation on the under side of the drip-pan. In order to prevent any such water of condensation from dripping over the edge of the removable bottom into the provision-chamber below, this bottom is provided in its upper side with a number of channels, grooves, or gutters in which the water collects and whereby the same is delivered into the descending pipe H or into any other suitable discharge conduit or receptacle. In the construction shown in the drawings the removable bottom is formed for this purpose with a series of transverse grooves or channels *j*, arranged in two groups on opposite sides of its central air-aperture, and with a longitudinal channel *j'*, with which all of said transverse channels communicate and which intersects the opening *f'*, formed in the removable bottom D for the passage of the discharge-nipple of the drip-pan. This opening is larger in diameter than the nipple, as shown in Fig. 1, so as to leave an annular space or passage around the same, through which the water is allowed to flow from the longitudinal channel *j'* into the descending pipe or conduit H. The transverse channels *j* slope toward the longitudinal channel *j'* and the latter slopes from its ends toward the discharge-opening *f'*.

K is a water cooler or tank which is arranged in the ice-chamber between one end of the ice-receptacle E and the opposing end wall of the chamber and which is secured at its ends to the side walls of the ice-chamber. The adjacent end of the ice-receptacle is open or constructed without an end wall, as shown in Fig. 4, and the water-tank K is arranged to extend across this open end, so as to form an end wall for the receptacle, as shown in Figs. 2 and 3. By this construction the inner

wall of the water-cooler is brought in direct contact with the ice in the ice-receptacle or exposed directly to the cold air therein, whereby the water is cooled to a correspondingly lower temperature, while at the same time saving the stock or material which would be required for a separate end wall for the ice-receptacle. The side walls of the ice-receptacle are stiffened at the open end of the receptacle by transverse wires *l*, connecting the upper and lower portions of the side walls, as shown in Fig. 4.

The water-cooler has a cover *k'*, and a faucet *m* is connected therewith for drawing water therefrom. In order to permit the removal of the drip-pan from the ice-chamber, the water-cooler does not extend to the lower edge of the ice-receptacle, but terminates the necessary distance above the same, as shown in Fig. 2.

For the purpose of preventing the ice-receptacle from tipping away from the water-cooler in placing the ice therein the same is provided on the outer side of its end wall with a projection *n*, which bears against the adjacent end wall of the ice-chamber, the receptacle being held against tipping in the opposite direction by the water-cooler.

As the ice-receptacle is separate from the drip-pan and the partition or bottom D is loosely supported in the ice-chamber, all the parts contained in this chamber except the water-cooler can be readily removed for cleaning the same and the chamber.

I claim as my invention—

1. In a refrigerator, the combination with the ice-chamber provided with cleats or supports, of a removable bottom board or partition resting on said cleats and provided in its upper surface with channels or grooves and an opening toward which said channels lead, a removable drip-pan resting directly on said channeled bottom board and having a discharge-spout which passes through the opening of said board, said opening being larger than said spout for forming a water-passage between its edge and the spout, a conduit communicating with said spout and said opening, and a bottomless ice-receptacle resting on said drip-pan, substantially as set forth.

2. In a refrigerator, the combination with an ice-chamber and a provision-chamber, of a removable partition separating said chambers and forming the bottom of said ice-chamber, a removable drip-pan resting loosely upon said partition and having a discharge-spout, and a bottomless ice-receptacle removably seated in said pan, said ice-chamber having a door of sufficient size to permit the removal of said partition, said drip-pan and said ice-receptacle, substantially as set forth.

3. In a refrigerator, the combination with an ice-chamber, of an ice-receptacle removably arranged in said chamber and having an open end, and a fixed water tank or cooler

arranged outside of the ice-receptacle and extending across the open end thereof, whereby the water-tank closes the open end of the ice-receptacle when the latter is in place and at
5 the same time permits the removal of said receptacle without disturbing the water-tank, substantially as set forth.

Witness my hand this 4th day of March,
1896.

JOHN J. SCHNEIDER.

Witnesses:

THEO. L. POPP,
JNO. J. BONNER.