

(No Model.)

C. H. LEONARD.
REFRIGERATOR.

No. 454,747.

Patented June 23, 1891.

Fig. 1.

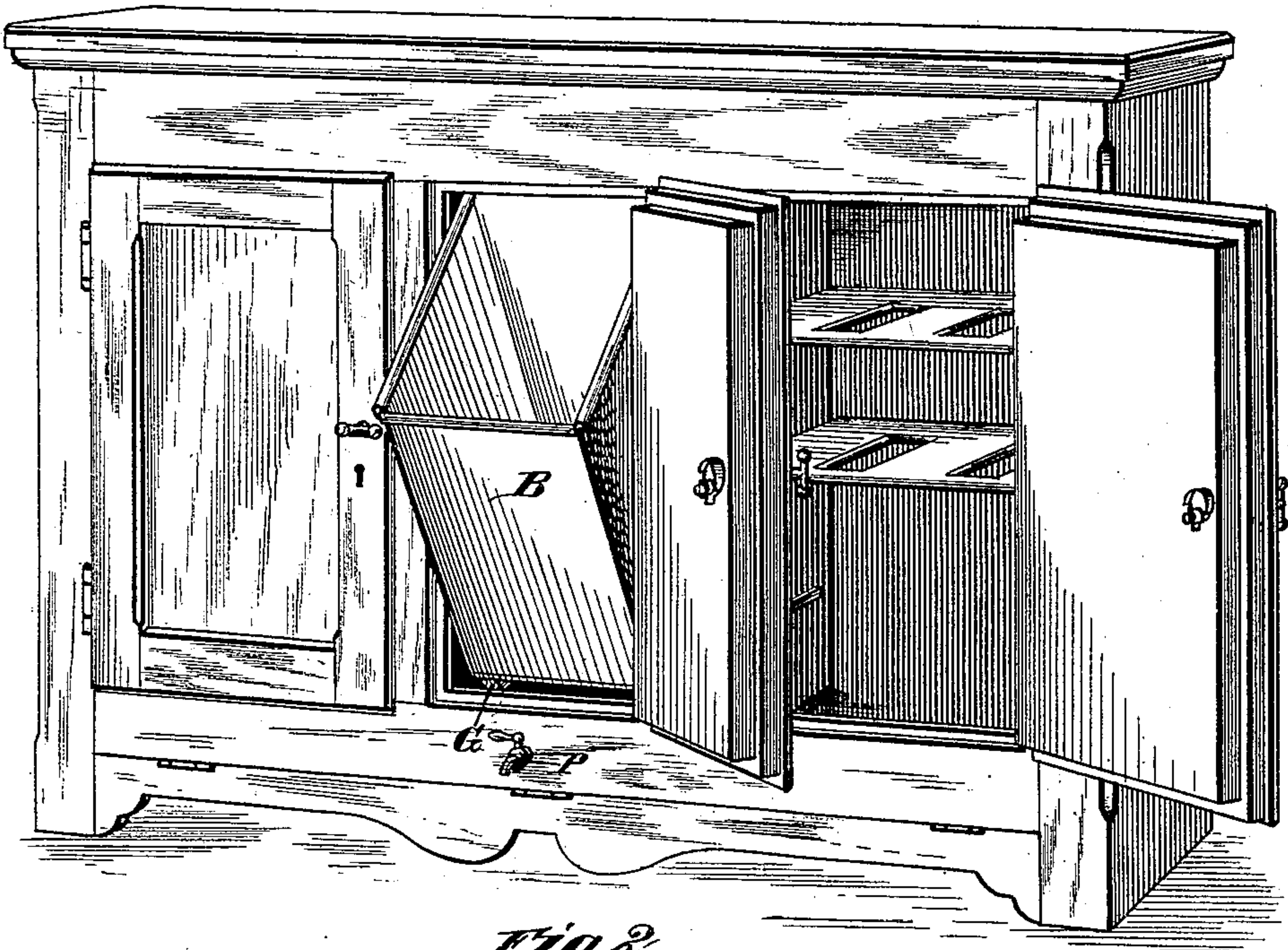
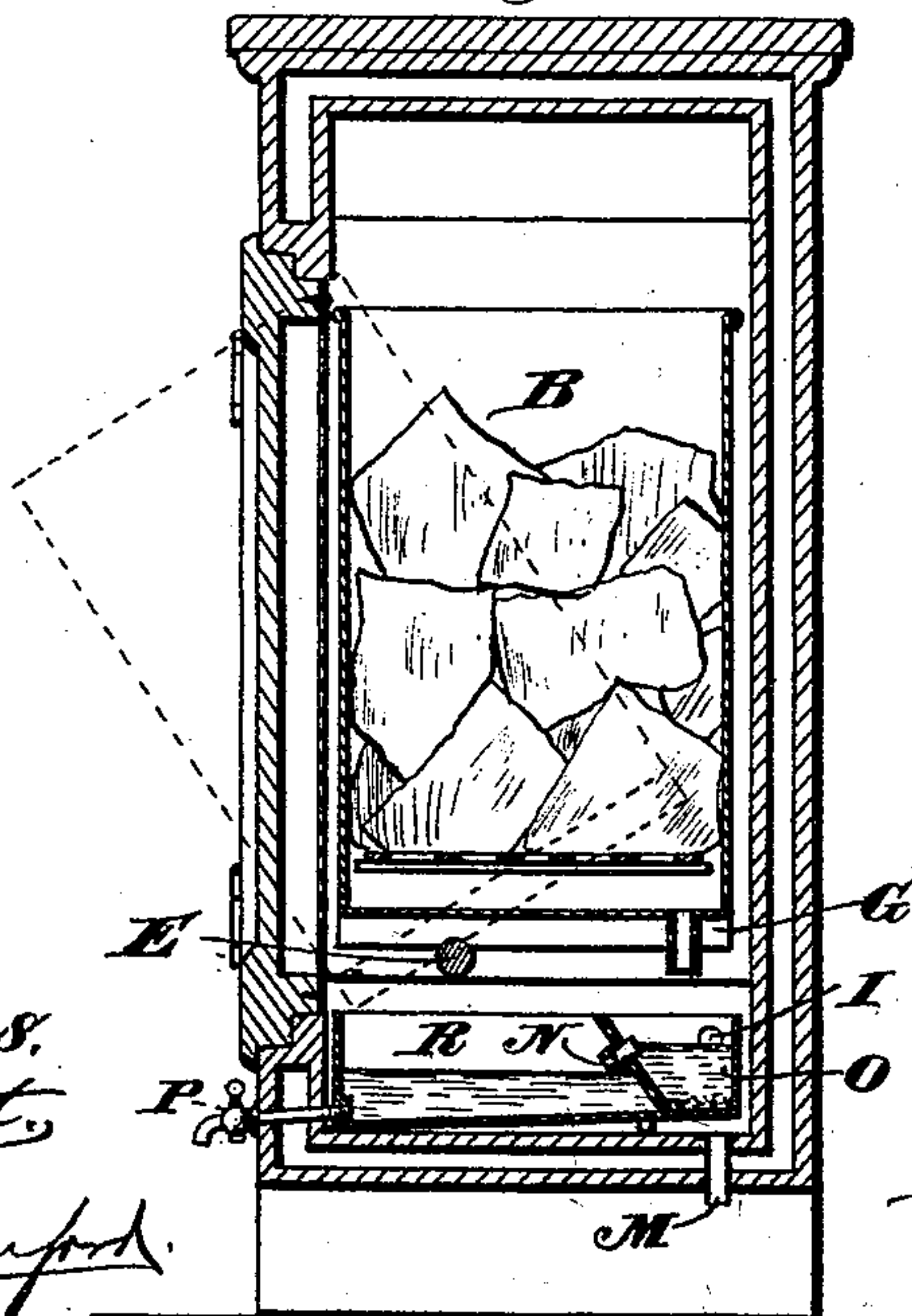


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES H. LEONARD, OF GRAND RAPIDS, MICHIGAN.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 454,747, dated June 23, 1891.

Application filed November 22, 1890. Serial No. 372,371. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. LEONARD, a citizen of the United States, residing at the city of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

This invention has for its object to improve that type of refrigerators wherein an ice-receptacle is pivoted within a case in such manner that it can be swung outwardly to supply the same with ice.

My invention consists in the features of construction and the combination or arrangement of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 shows a front elevation of my preferred form of case, partially in perspective, without the water-receptacle. Fig. 2 shows a vertical sectional view of the refrigerator, the dotted lines showing the position of the ice-chamber when opened.

Similar letters refer to similar parts throughout both the views.

The case which receives the ice-receptacle is preferably constructed in the form of what is sometimes termed an "ice-chest," having two food-receptacles, one on either side of the ice-receptacle, and an ice-receptacle extending from near the bottom of the inner chamber to within a short distance of the top; but it is evident that this form of ice-receptacle can be used with various forms of cases, and in small refrigerators but one provision-chamber need be used.

B represents the ice-receptacle, placed within a suitable chamber, which, as illustrated in Fig. 1, is placed between two provision-chambers.

G G represent supports for the ice-receptacle. The base-supports G G may be constructed of any suitable material, and the ice-receptacle is placed upon these base-supports in any suitable manner.

The bottom of the ice-receptacle is provided with suitable ice-supports or ice-rack so constructed and arranged as to allow the air to circulate freely through the ice and to pass down into the bottom of the ice-chamber, from whence it is conveyed to the provision-cham-

ber. Passing into the provision-chambers it rises over the partition of the ice-chamber and descends, mostly through the ice, escaping at the bottom of the ice-receptacle, as described. The ice-receptacle, however, may be made of such size that a portion of the air which rises over the side walls of the ice-chamber will pass down on the outside of the ice-receptacle, but in close contact with its walls.

The general construction of refrigerators is well known and further description is unnecessary.

E is a rod resting upon proper supports and supporting the base-supports G G. I place this support near the front part of the ice-receptacle, upon which it turns or oscillates as a pivot, in order to facilitate the turning outward of the ice-receptacle, as shown in Fig. 1 by B.

The circulation of the air is the same as that generally used in refrigerators, and therefore need not be more fully described.

I prefer to construct the ice-receptacle of such width as to substantially fill the ice-chamber laterally and of such height that when the ice-receptacle is tilted forward, as shown in Fig. 1, the rear wall of the ice-receptacle would reach the upper wall of the ice-chamber, so as to prevent the escape of any cold air which may be contained within the ice-chamber or may be drawn into the ice-chamber from the provision-chamber. The cold air being heavier than the outside atmosphere will force its way out of the refrigerator with considerable rapidity whenever an opening is made, and it is to prevent the escape and loss of this cold air that I have constructed the ice-receptacle so as to practically cover the opening when turned out in position to be filled.

I have described what I at present believe to be the best method of supporting the ice-receptacle; but it is evident that many modifications might be used without departing from the spirit of my invention.

The bottom of the ice-receptacle is provided with an ice-support constructed in any suitable manner and provided with openings for the escape of cold air at the bottom of the ice-receptacle into the chamber, and from

thence into the provision chamber or chambers, as above described.

In using the water-reservoir, as shown in Fig. 2, the bottom of the ice-chamber is above the reservoir, so that the ice-water dripping from the ice will cool the drinking-water in the reservoir.

R represents the reservoir, having a faucet, as P. At one side of the reservoir, preferably at the rear, is a receptacle O, into which the water drips. A water-escape, as I, is provided for the overflow of the water from O to the discharge-pipe M. In place of the opening I for the escape of water the entire rear wall of the receptacle O may be a little lower than its front wall. An opening N is provided between receptacle O and reservoir R. This opening can at any time be closed by means of a cork or any suitable device. In using the water which drips from the ice the opening N is preferably placed near the upper part of the receptacle O, thus allowing the sediment and impurities to settle within O, and only the clear water will pass into the reservoir R. When the water dripping from the ice is not used for drinking purposes, the opening N is closed and the ice-water used merely for cooling the water in reservoir R. It is evident that this part of my invention may be used in a refrigerator having a stationary ice-chamber, as well as in one with a tilting chamber. The reservoir R is preferably so constructed as to be readily detached from the refrigerator-case. When the reservoir R is filled with water, the drippings from the ice will always retain the water in the res-

ervoir at a low temperature, and when the ice-water is used for drinking purposes the water-receptacle will serve as a purifier for the water.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. A refrigerator consisting of a case containing a provision-chamber and an ice-receptacle chamber, a rod E, arranged horizontally in the base of the ice-receptacle chamber in juxtaposition to the front portion thereof, and an ice-receptacle B, provided at its bottom with base-supports G, engaging the horizontal rod, so that the ice-receptacle can oscillate thereupon as a center and when swung outward serve to close the front opening of the ice-receptacle chamber and thereby prevent the exit of cold air, substantially as described.

2. In combination with a case of a refrigerator, an ice-chamber, a water-reservoir placed beneath the ice-chamber, a receptacle for the ice-water from the dripping ice and having a wall in common with the water-reservoir, and an overflow-opening from the water-reservoir to the water-receptacle, substantially as described.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

CHARLES H. LEONARD. [L. s.]

Witnesses:

HARRY P. VAN WAGNER,
CLINTON L. DAYTON.