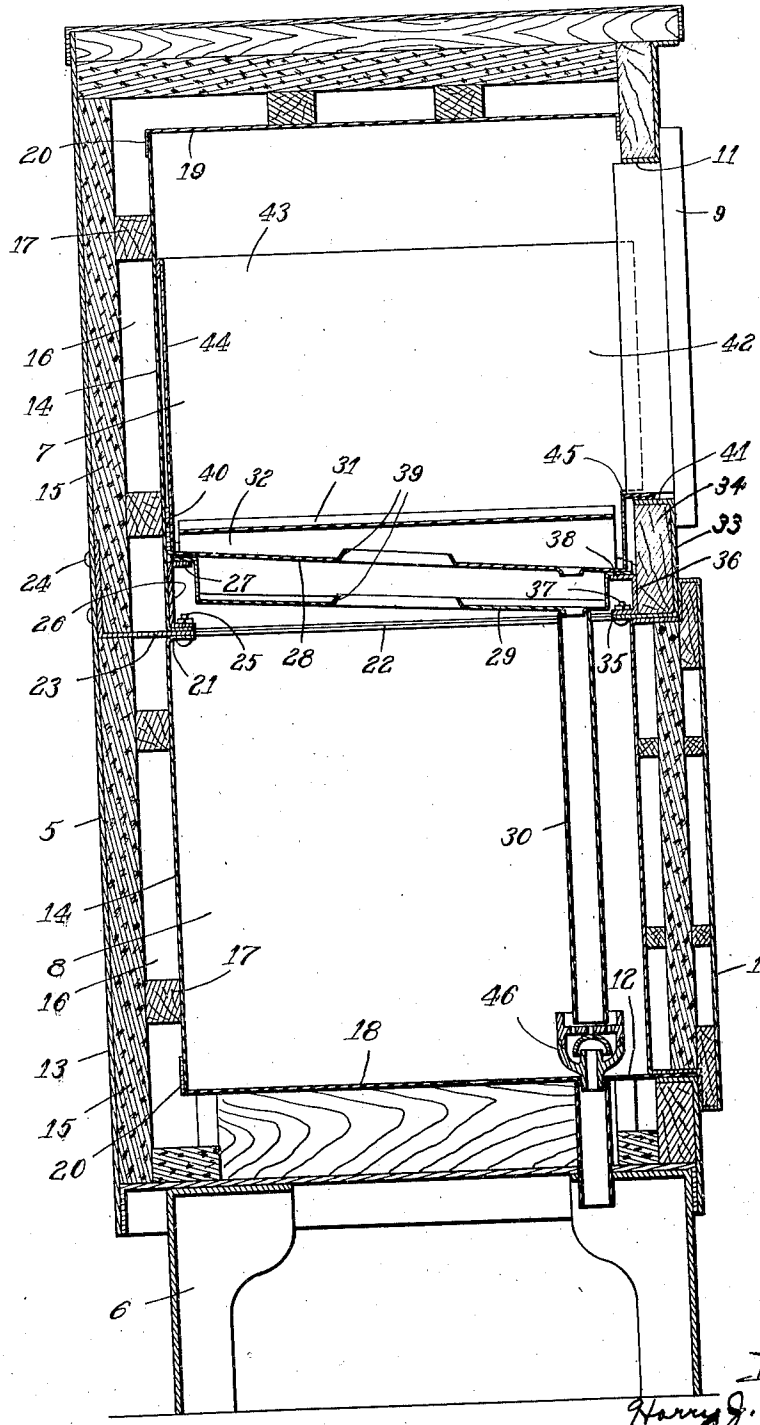
Jan. 4, 1927.

1,613,468

H. J. McCLAFFERTY

REFRIGERATOR

Filed Dec. 31, 1925



Inventor:
Harry J. McClafferty
By Wilson & McCanna
Attys.

Patented Jan. 4, 1927. 1,613,468

UNITED STATES PATENT OFFICE.

HARRY J. McCLAFFERTY, OF ROCKFORD, ILLINOIS, ASSIGNOR TO ROCKFORD STEEL FURNITURE COMPANY, OF ROCKFORD, ILLINOIS, A CORPORATION OF ILLINOIS.

REFRIGERATOR.

Application filed December 31, 1925. Serial No. 78,499.

This invention relates generally to refrigerators and has special reference to improvements in certain details of construction of domestic refrigerators in particular, and still more particularly, refrigerators wholly or partly of sheet metal construction.

One of the features of the refrigerator of this invention consists in the novel manner of supporting the weight of the ice on the tray in the ice compartment on the outside heavy walls in a hollow-walled body or chest instead of imposing this duty on the relatively flimsy inner body linings. Also in avoiding having any of the load of the ice assumed by the light sheet metal drain pans that always become rusted in time and prove poor support.

Among still other features may also be mentioned that of providing a one piece removable lining of a novel form for the ice compartment to facilitate thorough cleaning and thereby insure longer and better service because of the lack of inconvenience and added incentive to keep the drain pans and drain clear and clean.

The invention is more completely described in the following specification which makes reference to the accompanying drawing illustrating the invention.

The drawing is a vertical cross-section front to rear of a refrigerator of a very simple form embodying the improvements of my invention.

The refrigerator consists of a chest or body 5 of hollow-walled sheet metal construction suitably provided with legs 6 or some other form of base support and including an ice compartment 7 and a provision compartment 8 therebeneath. These compartments are closed by an ice door 9 and a provision door 10 in the openings 11 and 12 of the respective compartments. The outside walls of the chest 5, as for example the rear outside wall 13, are of a comparatively heavy and rigid sheet metal, preferably sheet steel of about 22 gauge. The outside walls are also preferably continuous from top to bottom of the chest, as indicated, giving a smooth, flush and neat appearing exterior and one which is readily kept clean. The linings 14 are conveniently in sections for the two compartments and a comparatively light sheet metal, preferably sheet steel, is used. In this case galvanized sheet metal of 26 gauge is found most suitable.

In referring to the gauges it will, of course, be understood that this is done only with a view to enabling a comparison between the relatively heavy rigid outside walls and the comparatively thinner linings. The walls are suitably insulated, as by means of the sheet material 15 and by the dead air spaces 16, in a manner well known in this art. Blocks 17 are provided at intervals to maintain the spaced relation of the linings relative to the outside walls 13.

The lining sections 14 are suitably joined with a bottom wall 18 in the compartment 8 and a top wall 19 in the compartment 7 as indicated at 20. The abutting edges of the two sections are flanged inwardly as indicated at 21 and suitably joined together along the side walls of the chest 5 as indicated at 22. Along the rear wall of the chest 5 the flanges 21 receive between them the inner edges of the horizontal flange of an angle iron 23 extending crosswise of the rear outside wall 13 and fastened thereto as by means of bolts or rivets 24. A plurality of bolts 25 serve to fasten the lining sections 14 to the angle iron 23 along with a channel iron 26 extending crosswise within the chest 5 along the back wall in flush engagement with the lining 14. The channel iron 26 provides a ledge 27 on the top of its upper flange which is inclined to the horizontal transversely with respect to the chest 5 for the purpose of draining the pans 28 and 29 toward a drain pipe 30 in a well known manner. An ice tray 31 has one end of the cleats 32 thereon resting on the ledge 27 with the drain pans 28 and 29 therebetween. In this way the weight of the ice on the tray is carried independently of the linings 14 on the angle iron 23 which in turn is supported in the manner described on the outside wall 13. This positively avoids buckling, distortion or tearing loose of the linings which usually resulted where the weight of the ice was imposed on these parts. Furthermore, it is evident that none of the load of the ice is assumed by the rather light sheet metal drain pans. The latter always become rusted in time and in any event are inadequate support for the ice but particularly after rusting has set in.

A channel iron 33 provided with a filler 34 forms the cross piece in the front wall of the chest between the door openings 11 and 12. The lower flange of the channel iron

33 is elongated to provide a ledge 35 inside the chest where a channel iron 36 is bolted as shown at 37. The channel iron 36 is of lower height than the channel iron 26 and similarly provides a ledge 38 on top of its upper flange which is inclined to the horizontal transversely of the chest for the drainage of the pans 28 and 29 which rest thereon. The front ends of the cleats 32 on the bottom of the ice tray 31, it will be noted, rest over the ledge 38 with the drain pans 28 and 29 interposed, thereby supporting the weight of the ice on the channel iron 33 and independently of the drain pans.

Both of the drain pans are provided with openings 39 defined by upturned flanges as shown which permits the refrigerated air to escape downwardly to the provision compartment while at the same time retaining on the linings any moisture to be conveyed to the drain pipe 30. The drain pan 28, it will be noted, is flanged upwardly at its edges as shown at 40 along the inside of the compartment 7 and is preferably provided with a forward extension 41 to overlie the top of the upper flange of the channel iron 33 in the opening 11. A one-pieced lining 42 providing two side expanses 43 for the sides of the compartment 7 and a back expanse 44 for the corresponding wall of the compartment 7 is provided seating within the drain pan 28 inside the upturned flange 40 as shown. The lining 42 is insertable and withdrawable through the opening 11 and sets down in the depression afforded in the drain pan 28. The front lower corners of the side expanses 43 are notched as shown at 45 to have the forward edges of the lining overlie the bottom of the opening 11 and overlap the sides of the opening. By virtue of this arrangement any moisture that may get on the lining by reason of the ice coming in contact therewith drains into the pan 28 and is thereby carried to the drain pipe 30. In the absence of the lining the ice would come into direct contact with the inside walls 14 and water would run down outside the drain pans into the provision chamber. Also the lining is easily and quickly removable for cleaning and inspection or repair. In a like manner the tray 31 and the drain pans 28 and 29 may be readily withdrawn and thoroughly cleaned. With the removal of these parts and the drain pipe 30 with its trap 46 the whole interior of the chest is easily accessible for cleaning, inspection or repair.

It is believed that the foregoing description gives a full and complete understanding of the invention and its objects as above prefaced so that anyone skilled in the art to which the invention relates could make and use the same to derive the advantages herein referred to. It will be understood that the essential features of my invention are capable of embodiment in various other structures differing to some extent in details from that herein shown and the claims hereinafter are therefore to be construed to cover such legitimate modifications and adaptations.

I claim:

1. In a refrigerator a chest having a sheet metal lining spaced from the outside wall to provide a hollow-walled construction, said outside wall being relatively more rigid than said lining, an ice tray in said chest and a support therefor carried on said outside wall and extending inwardly therefrom beyond said lining.

2. In a refrigerator a chest having a sheet metal lining spaced from the outside wall to provide a hollow-walled construction, said outside wall being relatively more rigid than said lining, an ice tray in said chest and a support therefor carried on said outside wall and extending inwardly therefrom beyond said lining, said support also providing a place for attaching said lining.

3. In a refrigerator, a chest having a sheet metal outside wall of comparatively heavy gauge, and having an inside sheet metal lining of comparatively light gauge, an ice tray in said chest, and an angle iron mounted on said outside wall extending through said lining and providing a ledge for supporting said tray independently of said lining.

4. In a refrigerator, a chest having sheet metal walls of comparatively heavy gauge and continuous from top to bottom of the chest, inside linings of comparatively light gauge sheet metal provided in sections for within said chest, an ice tray in said chest, and an angle iron supported on one of said outside walls and extending inwardly to a point within said chest to provide a ledge for supporting said tray, said angle iron also providing a place for the junction of said lining sections.

5. In a refrigerator, a chest having comparatively heavy sheet metal outside walls continuous from top to the bottom of the chest, comparatively light sheet metal linings provided in sections for within said chest, an angle iron secured to and supported by one of said outside walls and extending inwardly to a point within said chest providing a supporting ledge therein, a channel iron extending along said angle iron within said chest for support on said ledge, flanges provided on said lining sections secured together, and with said ledge and channel iron, and an ice tray within said chest supported on said channel iron.

6. In a refrigerator, a chest having comparatively heavy sheet metal outside walls continuous from top to bottom of the chest, comparatively light sheet metal linings provided in sections for within said chest, an angle iron secured to and supported by one

of said outside walls and extending inwardly to a point within said chest providing a supporting ledge therein, a channel iron extending along said angle iron within said chest for support on said ledge, flanges provided on said lining sections secured together and with said ledge and channel iron, an ice tray within said chest, and a drain pan flanged upwardly at its marginal edges supported on said channel iron with said tray therein disposed over said channel iron.

7. In a refrigerator, a chest having a sheet metal lining spaced from the outside wall to provide a hollow-walled construction, an angle iron at the back of said chest supported on said outside wall and projecting inwardly beyond said lining to provide a supporting ledge within said chest, a channel iron forming a cross piece between openings in the front of said chest having an elongated flange extending inwardly to a point within said chest to provide a supporting ledge, and an ice tray supported at the front and rear ends thereof on said ledges.

8. In a refrigerator, a chest having a sheet metal lining spaced from the outside wall to provide a hollow-walled construction, an angle iron at the back of said chest supported on said outside wall and projecting inwardly beyond said lining to provide a supporting ledge within said chest, a channel iron forming a cross piece between openings in the front of said chest having an elongated flange extending inwardly to a point within said chest to provide a supporting ledge, an ice tray arranged to be supported at the front and rear ends thereof on said ledges, channel irons of different heights mounted on said ledges providing supporting ledges on the tops thereof, and a drain pan having upturned flanges defining the marginal edges thereof supported on said channel irons in an inclined relation relative to the horizontal with said ice tray disposed therein with the ends thereof over said channel irons for support by said first mentioned ledges.

In witness of the foregoing I affix my signature.

HARRY J. McCLAFFERTY.