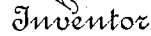


1,058,906.

2 SHEETS—SHEET 1.



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REFRIGERATOR.
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2 SHEETS-SHEET 2.

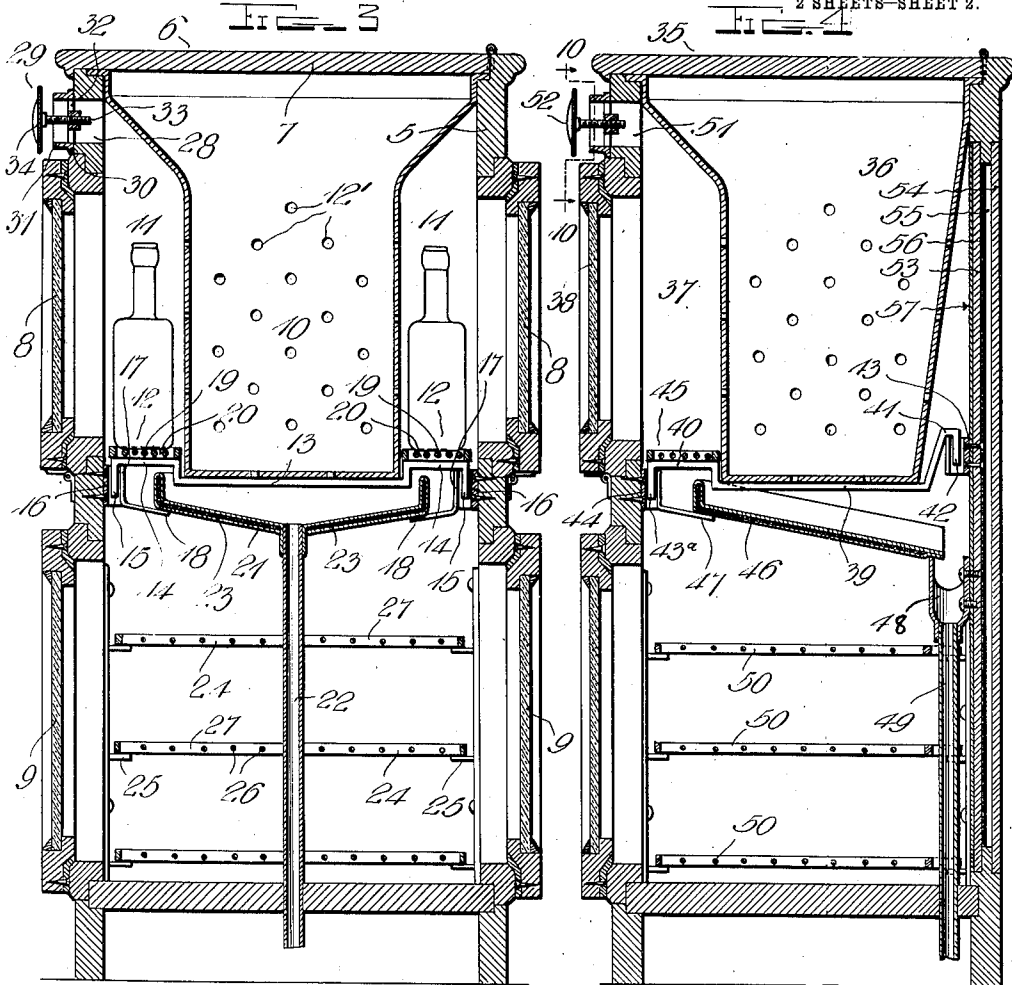
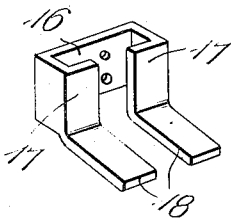


Fig. 5



Witnesses

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Fig. 6

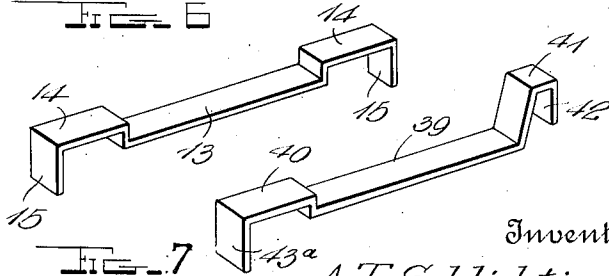
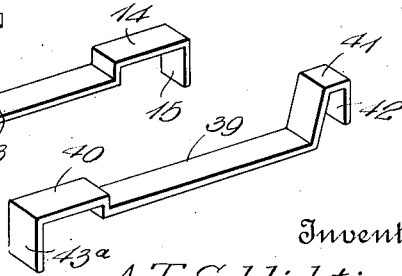


Fig. 7



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UNITED STATES PATENT OFFICE.

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REFRIGERATOR.

1,058,906.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT T. SCHLICHTING, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Refrigerators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in buffet and backbar refrigerators.

One object of the invention is to provide a refrigerator of this character having an improved arrangement of ice compartment, drip pan and goods supporting shelves and means for supporting the same whereby all of the parts may be readily removed from the refrigerator when desired.

Another object is to provide a refrigerator of this character having an ice compartment or receptacle constructed in such manner as to permit the cold air to readily escape therefrom and circulate through the refrigerator and in which the ice may be placed at any point or throughout the entire length of the compartment.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a perspective view of a buffet refrigerator constructed in accordance with my invention; Fig. 2 is a vertical longitudinal section thereof; Fig. 3 is a cross sectional view on an enlarged scale of the refrigerator shown in Figs. 1 and 2; Fig. 4 is a cross sectional view, similar to Fig. 3, showing the construction of my improved refrigerator as applied to a back bar; Fig. 5 is a detail perspective view of one of the supporting brackets or hangers for the supporting bars of the ice receptacle or compartment and drip pan of the refrigerator; Fig. 6 is a detail perspective view of one of the supporting bars for the ice receptacle or compartment of the buffet form of the refrigerator; and, Fig. 7 is a similar view of one of the

supporting bars for the ice compartment of the backbar form of the refrigerator.

Referring more particularly to Figs. 1, 2 and 3 of the drawings, wherein the invention is shown in the form of a buffet refrigerator, 5 denotes the casing of the refrigerator, on which is arranged a top 6 in the form of a series of hinged upwardly opening doors 7 arranged as shown in Figs. 1 and 2 of the drawings whereby the entire top of the refrigerator may be opened or access may be had to the top thereof at any desired point. In both sides of the upper portion of the refrigerator are arranged a series of doors 8 which are preferably provided with glass panels. In the opposite sides of the lower portion of the refrigerator are also arranged series of doors 9, said doors being also provided with glass panels through which the contents of the refrigerator may be readily seen.

In the upper portion of the refrigerator is arranged and removably supported an ice compartment or tank 10 the upper portion of which is substantially the same width as the inner side of the refrigerator, while the lower portion of said compartment or tank is reduced or constructed considerably narrower than the other portion, thus forming between the sides of the compartment and the inner sides of the upper portion of the refrigerator goods receiving spaces 11 in which are arranged suitably supported shelves or bottoms 12 adapted to support bottles or any other goods. The ice compartment or tank 10 has its sides and bottom perforated as shown at 12' to permit the cold air radiating from the ice in the compartment to pass freely therefrom and to circulate through the other parts of the refrigerator.

The ice compartment or tank is removably supported in the upper portion of the refrigerator by a series of transversely disposed supporting bars 13, said bars having their ends bent upwardly to form rectangular offsets 14 at each side of the compartment, said offset ends of the bars having on their extremities right angular downwardly projecting lugs 15 which are adapted to be engaged with brackets 16 in the form of

rectangular sockets which are secured to the adjacent inner surface of the sides of the refrigerator as clearly shown in Fig. 3 of the drawings. The brackets 16 are preferably
 5 formed from metal bars or plates having their ends bent outwardly at right angles and thence inwardly in the form of lugs 17 which form the outer sides of the sockets and which are extended at their lower ends
 10 and bent outwardly at a suitable angle to form hangers or drip pan supporting lugs 18 the purpose of which will be hereinafter described. The offset ends 14 of the bars 13 which are disposed opposite to the sides of
 15 the ice compartment 10 provide supports for the shelves or bottoms 12 of the spaces 11, said bottoms or shelves being preferably in the form of longitudinally disposed rods 19 which are connected by short cross bars 20
 20 as shown.

Arranged below and spaced a suitable distance from the ice compartment 10 is a drip pan or tray 21, the bottom of which inclines from its sides toward the center and to the
 25 center of the pan or tray is connected the upper end of a drain pipe 22 which extends downwardly through the lower portion and bottom of the refrigerator and provides means for carrying off the water from the
 30 melted ice in the ice compartment which drains into the drip pan. The drip pan 21 is formed of a double thickness of metal between which is arranged an asbestos packing 23 which prevents the moisture from accu-
 35 mulating on the outer side of and dripping from the pan into the lower portion of the refrigerator. The pan 21 is removably supported in position below the ice compartment by the hangers formed by the lugs 18
 40 on the bar supporting brackets 16 as clearly shown in Fig. 3 of the drawings.

In the lower portion of the refrigerator below the drip pan is arranged a series of goods supporting shelves 24, said shelves being
 45 spaced suitable distances apart and supported on cleats or other supporting devices 25. The shelves are of open structure and preferably consist of a plurality of removably spaced rods 26 which are engaged with
 50 cross bars 27. By thus arranging the shelves or bottoms 12 of the compartments 11 and the shelves 24 of the lower compartment of the refrigerator and arranging the doors 8 and 9 in the sides of the refrigerator,
 55 it will be seen that access to the goods contained in the refrigerator may be had from either side thereof.

In the ends of the refrigerator are compartments 5^a the upper portion of which
 60 open through the top and one side of the refrigerator as shown. In the lower portion of the compartments below the rear open upper side thereof are arranged doors 9^a whereby the lower portions of the compart-

ments are closed. In the compartments 5 65 are arranged sinks or wash tanks 6^a which may be of any suitable depth and which are surrounded and supported at their upper ends by a drain board 9^b, said board being corrugated and inclining toward the tank as 70 shown.

In the tanks are arranged overflow pipes 5^b which extend upwardly sufficiently to permit the tanks to hold a suitable quantity of water for rinsing glasses and other articles 75 therein. In the bottom of the tanks are arranged suitable discharge openings 6^b which are adapted to be closed by removable plugs or stoppers 6^c whereby the water may be drained from the tanks. The discharge 80 openings 6^b and the lower ends of the overflow pipes 9^c are connected with waste pipes 6^d arranged in the compartments 5^a below the tanks and which may be connected with the waste pipe of the building or with any 85 other place of discharge. The doors 9^a are provided in the lower sides of the compartments to permit access to the lower outer portion of the tanks for connecting the waste pipes with the overflow pipes and dis- 90 charge openings in the bottom of the tanks.

In the upper portion of one or both sides of the refrigerator above the doors 8 and communicating with the spaces 11 are ventilating apertures 28 which are adapted to 95 be opened and closed by ventilators 29. The ventilators 29 preferably comprise base plates 30 having therein centrally disposed openings corresponding to the size of the apertures 28 and having on their outer sides 100 annular outwardly projecting flanges 31. Arranged across the openings in the base plates 30 is a cross bar 32 having therein a centrally disposed apertured passage into which is adapted to be screwed the threaded 105 stem 33 of a disk or plate 34 which is adapted to be engaged with and disengaged from the outer edge of the flange 31 by screwing the stem thereon inwardly and outwardly through the threaded opening in the cross 110 bar 32 thereby closing and opening the ventilators.

In Figs. 4 and 7 of the drawings my improved refrigerator is shown in the form of a backbar 35, the construction and arrange- 115 ment of which is practically the same as the construction and arrangement of the buffet refrigerator except that access to the goods compartment of the refrigerator can be had from but one side thereof as is clearly indi- 120 cated in Fig. 4.

In the backbar form of the refrigerator the ice compartment 36 is offset on one side only to form a goods receiving space 37 between the front side of the compartment and 125 the upper row of doors 38 in the front side of the refrigerator. The compartment 36 is supported on supporting bars 39 one end

40 of which is offset in the same manner as the offset end 14 of the buffet form of the refrigerator, while the opposite ends have a slightly different form of offset 41, said offset ends having a bracket engaging lug 42 which is adapted to be engaged with a supporting bracket 43 secured to the rear side of the refrigerator, while the offset end 40 has a bracket engaging lug 43^a which is adapted to be engaged with a bracket 44 constructed in the same manner as the brackets 16 in the first form of the invention. The offset ends 40 of the bars 39 provide rests for a goods receiving shelf 45 which forms the bottom of the compartment 37.

Arranged below the ice compartment 36 is a drip pan 46 which is of double form and is engaged at its outer edge with the lugs 47 of the brackets 44 and at its inner or rear edge is supported upon a drain trough 48 secured to the rear side of the refrigerator as shown. The drip pan when thus arranged is supported at a suitable inclination from its forward toward its rear edge whereby the water from the melted ice in the ice compartment which drips into the drip pan will be conducted thereby to the drain trough 48 from whence said water is carried off through a drain pipe 49 connected with the trough midway between its ends, said trough having its bottom inclined from its ends toward its center.

Arranged in the lower portion of the backbar refrigerator below the drip pan 46 are shelves 50 which are constructed in the same manner as the shelves 24 of the buffet refrigerator and thus permit a free circulation of the cold air from the ice compartment through the lower compartment of the refrigerator. In the upper portion of the front of the backbar refrigerator above the doors 38 and communicating with the space 37 are ventilating openings 51 which are provided with ventilators 52 constructed in the same manner as the ventilators 29 of the buffet form of the refrigerator. The openings 28 and 51 in the upper portion of the sides of the buffet and backbar refrigerator permit the warm air which is forced upwardly from the lower portion of the refrigerator by the heavier cold air settling therein to be discharged from the upper portion of the refrigerator, thus providing a ventilating system whereby the cold air generated by the melted ice in the ice compartment may be utilized in its greatest degree for cooling the goods receiving compartments of the refrigerator.

My improved refrigerator preferably has a casing consisting of inner and outer walls 53 and 54 spaced apart to form an air space 55. On the side of the inner wall adjacent to the air space 55 is arranged a covering of heat insulating material 56 while on the op-

posite side of said inner wall is arranged a lining 57 of non-corrosive metal.

By constructing and arranging the various parts of both the buffet and backbar forms of the refrigerator as herein shown and described, it will be seen that all of these parts may be readily removed through the top and side doors of the refrigerator to permit said parts to be thoroughly cleaned, thus keeping the refrigerators in a perfectly sanitary condition.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

1. A refrigerator comprising a casing, an ice compartment therein having a reduced lower portion forming goods-receiving compartments between it and the sides of the casing, brackets secured within the walls of the latter and having sockets, supporting bars extending across the casing with their bodies beneath said ice compartment and their ends bent downwardly into lugs engaging said sockets, and shelves on the bars next outside said ice compartment, all for the purpose set forth.

2. A refrigerator of the character described comprising an ice compartment having a reduced lower portion provided with a series of perforations to permit the escape of the cold air therefrom, said reduced lower portion of the ice compartment forming between itself and the adjacent sides of the refrigerator goods receiving compartments, supporting brackets secured to the inner sides of the refrigerator, supporting bars having their ends offset and bent to form lugs adapted to be engaged with said brackets to removably support said ice compartment, open shelves adapted to be engaged with the offset ends of said supporting bars to form bottoms for the spaces between the ice compartment and the sides of the refrigerator, drip pan supporting lugs formed on said bar supporting brackets, and a drip pan engaged with and adapted to be removably supported by said lugs.

3. A refrigerator of the class described comprising a casing, an ice compartment therein having a reduced lower portion forming a goods-receiving compartment between it and the casing, brackets secured within the walls of the latter and having inturned lugs at their ends forming sockets, supporting bars extending across the casing

with their bodies beneath said ice compartment and their ends bent upwardly around the corners of the same and then outwardly and downwardly into lugs engaging said sockets, and shelves on the bars next adjacent their lugs, all for the purpose set forth.

In testimony whereof I have hereunto set

my hand in presence of two subscribing witnesses.

ALBERT T. SCHLICHTING.

Witnesses:

CHARLES J. BRENNER,
W. A. KELLER.