

C. V. HILL.
REFRIGERATOR DISPLAY CASE.
APPLICATION FILED AUG. 17, 1920.

1,409,856.

Patented Mar. 14, 1922.

Fig. 1.

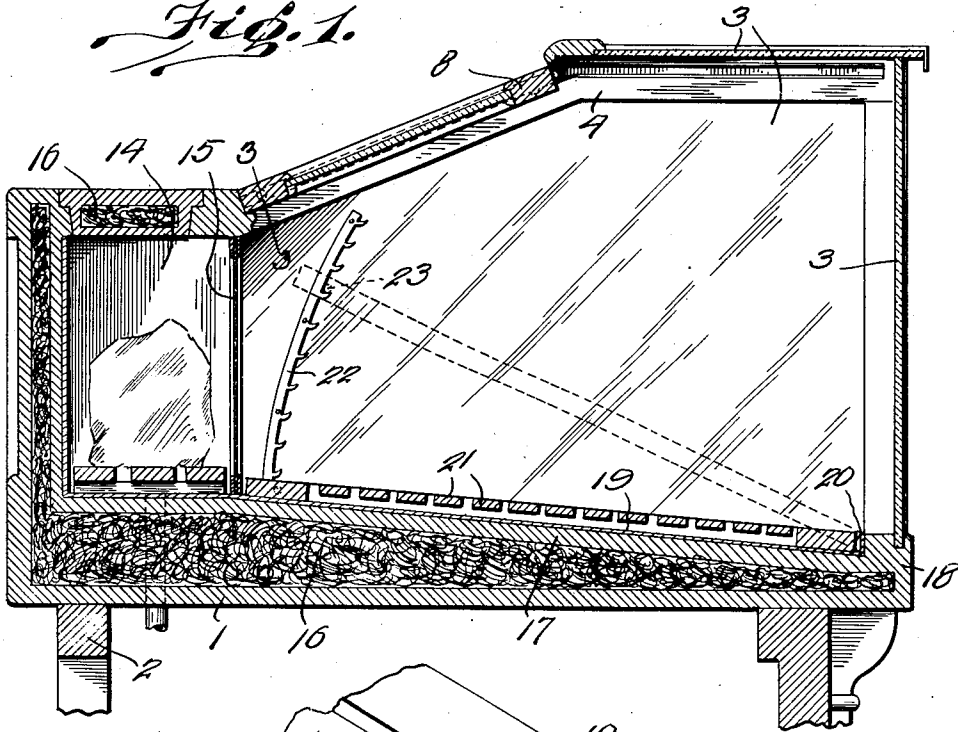


Fig. 2.

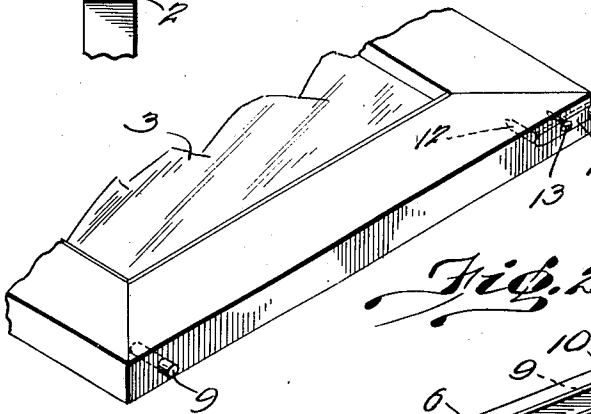


Fig. 3.

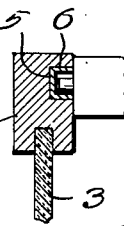
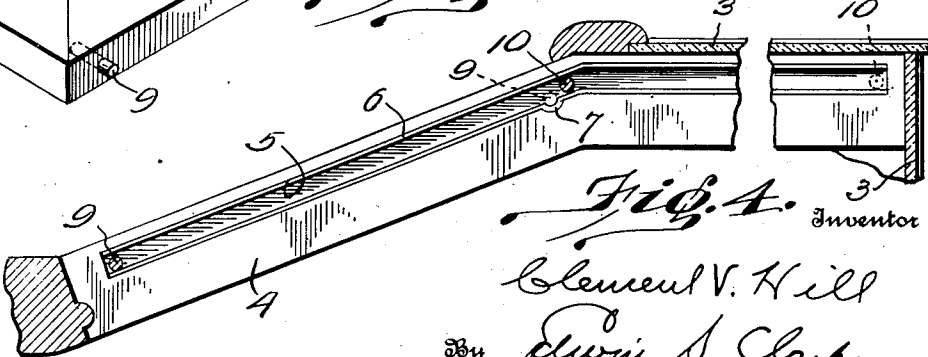


Fig. 4.



Witness
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UNITED STATES PATENT OFFICE.

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REFRIGERATOR DISPLAY CASE.

1,409,856.

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To all whom it may concern:

Be it known that I, CLEMENT V. HILL, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Refrigerator Display Cases, of which the following is a specification.

Refrigerator display cases are now almost universally used in stores for the display of food stuffs, especially meat, and it is very important that the temperature in these cases be kept uniform throughout the entire area of the case.

It has been found that the space adjacent the front glass panel of the case is at a higher temperature than the balance of the case and it is one of the objects of my invention to eliminate this objection. It has also been found that fluids from the goods of the case flow over the top of the bottom stile and seep down between the front face of the stile and the glass panel giving the case a very unsanitary and untidy appearance and it has been found impossible to remove the stains incident to such seepage so that the ornamental effect and sanitary effect of the case is lost or impaired. This objectionable feature is eliminated by my invention.

In the display cases on the market with which I am familiar the goods displayed in the case are on a plane with or slightly above the bottom of the opening between the refrigerator chamber and the display chamber so that the goods displayed do not get the full effect of the refrigerant and there is no provision for the circulation of the refrigerant under and around the goods displayed. Another object of my invention is to eliminate this objection by positioning the bottom of the display case entirely below the opening between the refrigerator chamber and the display chamber and to provide a tray on said bottom also below said opening and spaced from the bottom of the case so that the refrigerant may circulate freely over, under, and between the goods displayed in the case.

In the drawings:

Figure 1 is a vertical transverse section through a display case embodying my invention.

Figure 2 is an enlarged detail perspective view of the door of the case, partly broken

Figure 3 is an enlarged detail sectional view on the line 3—3 Figure 1.

Figure 4 is an enlarged detail sectional view of the case showing the run-way for the door.

The reference numeral 1 designates a display case mounted upon a suitable support 2, said display case having glass panels 3 in the top, ends and front of the case which may be constructed and mounted in any desired manner. I provide the top rails 4 each with a groove 5 in which I mount a channel iron 6 of light gauge, the bottom wall of which is provided with an offset or depression 7. The door 8 of the display case is provided at the rear end with pintles 9 and at the front end with pintles 10, the pintles 10 resting in a groove formed in the front face of the front stile of the door. The pintles 10 are provided with an arm 11 and a spur 12. There is a groove in the side stiles of the door in which the arm 11 and pintles 10 are counter sunk and secured by means of a screw 13 while the spur 12 is driven into the side stile as more clearly illustrated in Figure 2. These pintles 9 and 10 slide in the channels 6 in the opening and closing of the door and when the door is opened it is locked into position by the pintles 9 dropping into the offset or depression 7 as will be clearly understood from the drawings.

14 is the ice chamber the front of which is open as at 15 and in communication with the display chamber. Of course it is obvious that instead of employing ice a cooling coil may be located in this chamber. 16 is suitable insulating material.

The bottom wall 17 of the display case is inclined forwardly and downwardly from a point below the floor of the ice chamber to a point below the top of the bottom stile 18 of the display case. A suitable metallic lining 19 is placed on said bottom and terminates at its outer end in an upwardly turned lip 20, the upper edge of which lip is, approximately, in the plane of the upper face of the bottom stile 18. 21 is a slatted tray mounted upon the metallic lining 19 with its front edge spaced slightly from the lip 20. The front and rear supports of the slatted tray are of such thickness they space the major area of the slatted tray from the metallic lining 19 whereby the cold air may circulate freely through, over and under the slatted tray and the goods displayed

thereon. It will be seen from the above that the entire area of the slatted tray is below the bottom of the opening between the ice chamber and the display case and that the angle of inclination of the tray toward the front of the case is such that the cold air will readily flow down toward the front of the case over and under and between the goods. By forming this comparatively deep pocket at the front of the case below the bottom of the ice chamber I am enabled to take care of the radiation at the front of the display case which has been one of the problems in refrigerator display cases in the past.

In locating the plane of the bottom of the display case below the top face of the bottom stile 18 I provide a drain for all liquids from the goods to a point below the top of the bottom stile and thereby entirely eliminate all possibility of said liquids flowing on top of the bottom stile 18 and seeping between the said stile and the glass panel and thus prevent the ornamental as well as the sanitary features of the display case.

In some instances, dealers, at certain times, desire to position the tray on a more acute angle with reference to the front of the case

than is shown in full lines in Figure 1 and in order to provide such disposition of the tray I secure racks 22 at each end of the case which are adapted to be engaged by pins 23 on the ends of the tray as shown in dotted lines in Figure 1.

While I have shown a screen in the opening between the ice chamber and display case, it will be understood that when a cooling coil is used this screen is not necessary.

What I claim is:

In a refrigerator display case, the combination of an ice chamber therein, the bottom wall of the display case inclined downwardly and forwardly from a point below the floor of the ice chamber to a point below the top of the bottom stile of the display case, a metallic lining in said bottom wall, terminating in an upturned lip, the upper edge of which is approximately in the plane of the upper face of the bottom stile of the case, whereby liquids flowing from goods in the case are trapped below said stile and prevented from entering the joint between the stile and the glass mounted thereon.

In testimony whereof I affix my signature.

CLEMENT V. HILL.