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A. R. CONSTANTINE ET AL

2,182,962

REFRIGERATOR

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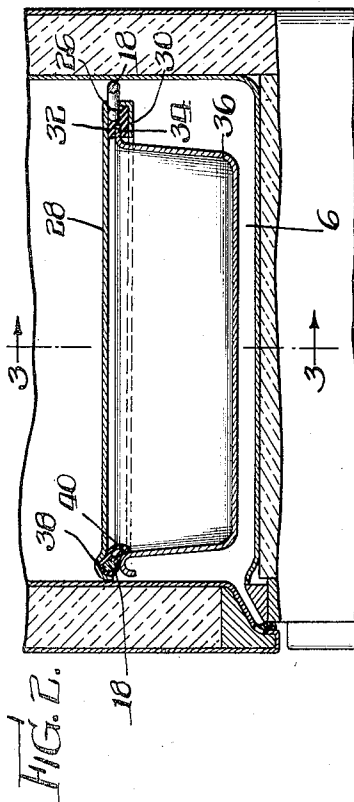


FIG. 1.

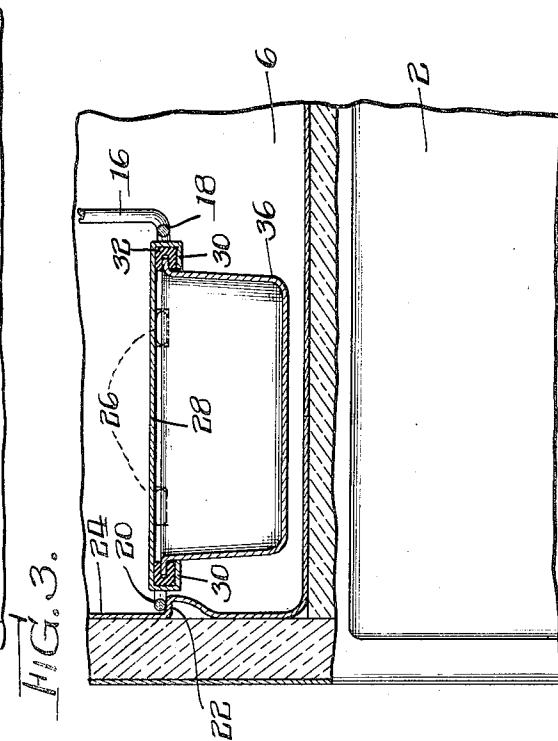


FIG. 2.

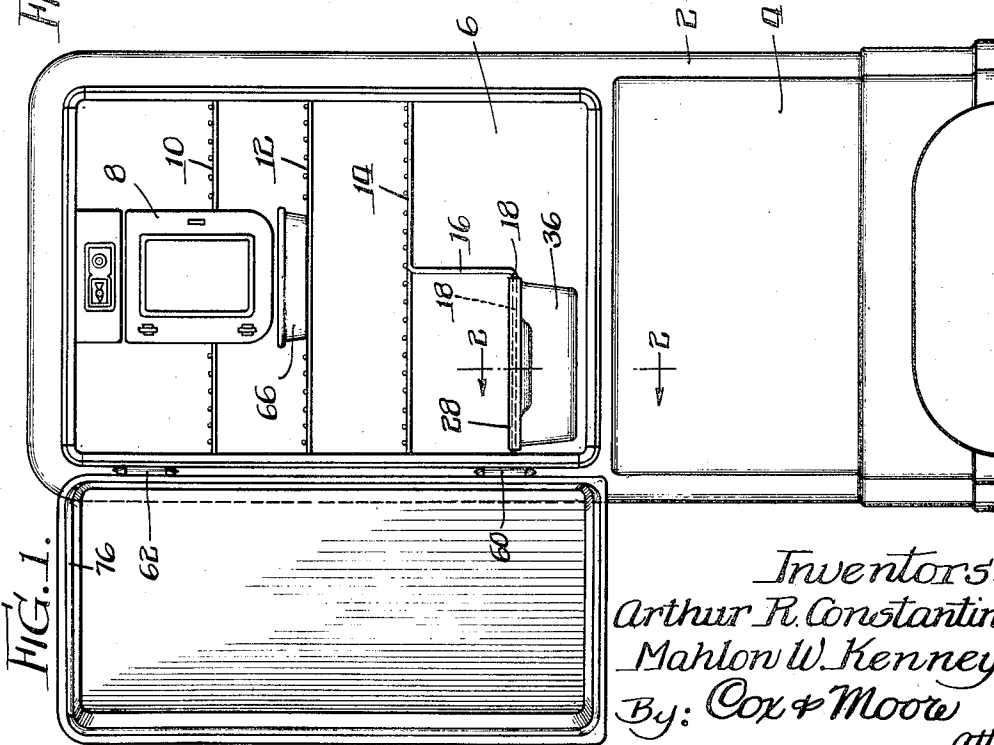


FIG. 3.

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UNITED STATES PATENT OFFICE

2,182,962

REFRIGERATOR

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7 Claims. (Cl. 62—89)

This invention relates to refrigerators and particularly to refrigerators of the household type.

One of the objects of the invention is to provide such a refrigerator with a chamber, compartment or receptacle adapted to hold any desired commodity, particularly vegetables and fruits, wherein the container, chamber or compartment is constructed and arranged so as to entirely or substantially entirely prevent the circulation of air from the cooling chamber of the refrigerator into the compartment, chamber or container.

Yet another object of our invention is to provide a compartment, chamber or container for a household refrigerator adapted to hold or contain vegetables, fruits or the like, or in fact any desired commodity, and wherein the chamber or container is hermetically sealed or practically hermetically sealed whereby to maintain the contents of the chamber, compartment or container at maximum freshness for the maximum period of time.

Yet another object of our invention resides in providing an hermetically sealed compartment or container or one which is substantially or practically hermetically sealed and wherein easy and quick access to the contents is afforded.

Yet another object of our invention resides in providing a practically hermetically sealed pan and mounting for a closed container for a household refrigerator in which container is kept fruits, vegetables and other commodities.

Yet another object of our invention resides in providing a suitable pan or receptacle for a household refrigerator in which fruit, vegetables and other perishable commodities are adapted to be kept and wherein the slidable mounting for the pan with relation to its cover is formed to provide a substantially hermetic seal between the pan and its cover, thereby to prevent the passage of air from the box in which the pan is located into and out of the pan.

These and other objects of our invention will be apparent from a perusal of the following specification when taken in connection with the following drawing, wherein

Fig. 1 represents the front view of a refrigerator particularly of the household type provided with an hermetically sealed container for the reception of fruits, vegetables and other perishable commodity, arrangement being shown whereby the container is of the suspended type and is adapted to slide into and out of the refrigerator, and wherein the sliding mounting forms an hermetic seal for the pan.

Fig. 3 is a section of line 3—3 on Fig. 2.

Referring now to the drawing in detail, the invention comprises a pan, chamber or compartment provided with an hermetically sealed closure or one that is substantially hermetically sealed. In the construction illustrated the refrigerator is shown as of the household variety and comprises a box 2 of any desired character having a lower compartment closed by panel 4 and in which compartment is contained the usual refrigerating apparatus, including the compressor and condenser. The upper portion of the refrigerator comprises a box or cooling chamber 6 in which is located any desirable type of the evaporator or cooling element 8. It is to be understood that the refrigeration system may comprise any desired type in order to provide a low temperature or relatively low temperature in the cooling chamber or box 6.

To illustrate our invention we have shown a box provided with a series of horizontal partitions 10, 12 and 14, on which are adapted to be placed any desired commodity to be kept relatively cool. The lower shelf 14 is provided with a depending leg or support 16 which terminates in a substantially rectangular wire frame 18, one side 20 of which is adapted to rest upon an abutment 22 formed at front and back along the one side of the lining 24. At corresponding places the wire 18 is provided with an inwardly extending loop or bend as at 26, which loop or bend is adapted to enter a corresponding slot in a stationary cover 28, as shown in Fig. 2. Portions 26 are preferably disposed only at the back where they pass through slots or openings in the pan cover 28. This pan cover is provided at the back and the two sides with a substantially U-shaped flange 30, thereby providing a guideway at back and the two sides for the reception of a U-shaped rubber gasket 32. The space between the two legs of the gasket forms a horizontal slideway at the two sides as shown clearly in Fig. 3 and the space between the gasket at the rear forms a sealing strip which fits hermetically along the top and bottom of an outwardly extending flange 34 on the pan 36. The front edge of the cover is provided with a substantially semi-circular flange or lip 38 which is adapted to overlie the frame 18. This front edge is provided with a rubber sleeve surrounding the same, which sleeve on its inner side is provided with an enlargement 40 which abuts the front flange or lip of the pan whereby to provide an hermetic seal entirely along the front of the pan but which will yield to permit the pan to be withdrawn along the slideway.

Fig. 2 is a cross section on line 2—2 of Fig. 1.

This rubber sleeve and its flange 40 are separate from the two side rubber U-shaped guideways and the rear rubber U-shaped guideway. If desired, suitable rubber cement may be applied between these separate rubber guideways to maintain the same in place and to provide a complete hermetic seal around all the portions of the pan when it is closed. It will be obvious that by pulling out the pan immediate access is given to the contents thereof and that when the same is slid back into position it will be hermetically or substantially hermetically sealed.

We have discovered that by hermetically sealing one of these pans in which fruits, vegetables and other perishable commodities are contained that the same will be preserved with maximum freshness and to a marked degree as compared with any type of pan now in use on the market, and particularly with pans wherein a definite amount of air circulation is permitted between the cooling chamber 6 of the box and the interior contents of the pan 36.

It is thought that the invention and its numerous attendant advantages will be fully understood from the foregoing description, and it is obvious that numerous changes may be made in the form, construction, and arrangement of the several parts without departing from the spirit and scope of the invention, nor sacrificing its attendant advantages, the form herein described being a preferred embodiment merely for the purpose of illustrating the invention.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. In a refrigerator comprising means forming a cooling chamber having cooling means, the combination of a support element comprising a cover mounted in said chamber, a container element having an opening and carried by said support element in such relationship that said cover may serve to close said opening, when said elements are in closed position, and the container element may move on the support element from closed position to an open position permitting access into the container element through said opening, and gasket means on one of said elements forming an hermetic seal between the cover and the container element at the edges of said opening when the elements are in closed position.

2. The combination as set forth in claim 1, including means forming a flange on said container element at said opening, wherein said gasket means is formed with groove means and is carried by said support element in position to receive the said flange.

3. The combination as set forth in claim 1, including means forming a flange on said container element at said opening, wherein said cover comprises marginal portions forming a seat and wherein the gasket means is carried in said seat and provides groove means for receiving said flange.

4. The combination as set forth in claim 1, wherein the container element comprises a pan having the said opening in its top and outstanding flanges at the opposite sides of said opening, wherein said cover comprises marginal portions forming opposed seats and wherein the gasket means comprises portions secured in said seats and forming opposed grooves for slidably receiving the outstanding flanges on the container element.

5. The combination as set forth in claim 1, wherein the container element comprises a pan having the said opening in its top, and wherein said gasket means comprises portions secured on said support in position forming said hermetic seal between the cover and the lateral edges of said opening, and transverse portions extending in position to abut the front and rear edges of said opening when the elements are in closed position.

6. The combination as set forth in claim 1, wherein said support element comprises portions forming spaced seats and wherein the gasket means is supported in said seats in position forming said hermetic seal between the cover and the container element at the edges of said opening when the elements are in relatively closed position.

7. The combination as set forth in claim 1, wherein the gasket means comprises a strip of relatively resilient rubbery material having a portion of hollow tubular construction and portions comprising spaced flanges for receiving therebetween the edges of the container element defining said opening.

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