Aug. 5, 1947. G. L. C. EARLE 2,425,232

FOOD SUPPORTING RACK FOR REFRIGERATOR DRAWERS

Original Filed March 6, 1944

Fig. 1.

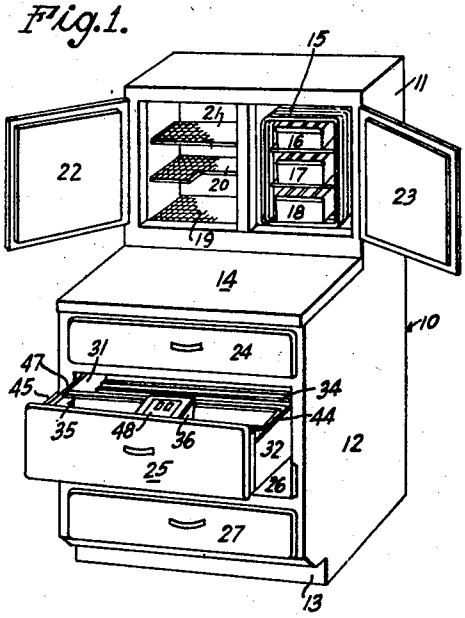


Fig. 2.

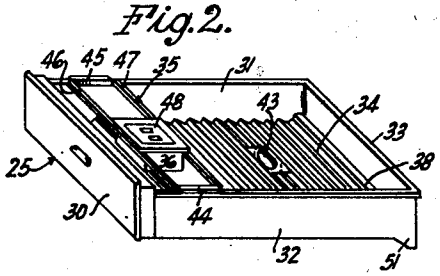


Fig. 4.

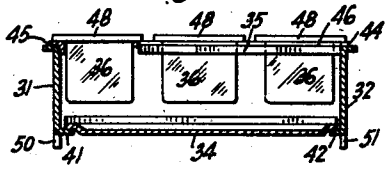


Fig. 5.

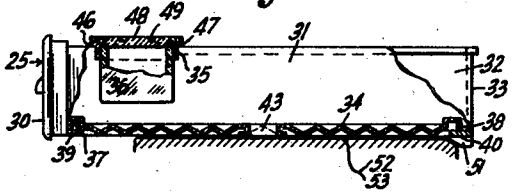


Fig. 6

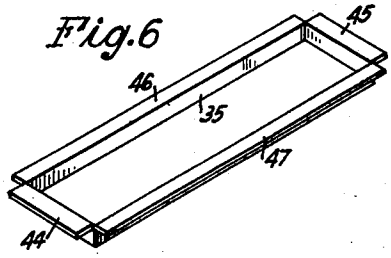


Fig. 3.

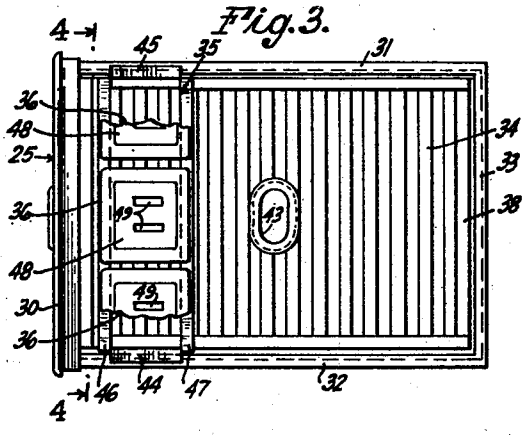
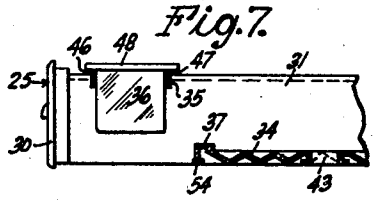


Fig. 7.



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UNITED STATES PATENT OFFICE

2,425,232

FOOD SUPPORTING RACK FOR REFRIGERATOR DRAWERS

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Original application March 6, 1944, Serial No. 525,146. Divided and this application September 25, 1944, Serial No. 555,706

4 Claims. (Cl. 62—89)

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This invention relates to refrigerators and more specifically to refrigerator drawer structures. This application is a division of application Serial No. 525,146, filed March 6, 1944.

It is an object of this invention to provide novel means for supporting food in refrigerators having drawers.

Patent 2,312,326, issued March 2, 1943, to Guyon L. C. Earle discloses a refrigerator of the "set-back" type. This refrigerator comprises a lower refrigerated portion containing a plurality of drawers, an upper refrigerated portion the front plane of which is "set-back" or placed to the rear of the front plane of the lower refrigerated portion, and a table-top member located above the lower portion and in front of the upper portion of the refrigerator. An evaporator is preferably located in the upper portion and this sets up a fairly rapid circulation of cold air in the rear of the lower portion behind the drawers. By deflecting or other means a slower, substantially horizontal circulation of cold air is set up in each of the drawers in the lower portion. By this means a very uniform degree of cold can be obtained throughout all parts of the refrigerator, if desired.

Some of the refrigerator drawers are utilized to carry bottles of milk, beer, cola drinks, etc., and it occasionally happens that liquid from a bottle is spilled into the drawer. Moreover, defrosting water might get into one of the drawers. If the drawer has a firmly attached, smooth bottom, when the drawer is opened the liquid flows to the back and when it is closed it flows towards the front, thus splashing the liquid over articles placed in the drawer or splashing out into other drawers.

It is another object of this invention to provide a refrigerator drawer structure which does not have the above-mentioned disadvantages.

The above and other objects are attained in accordance with this invention by providing as an illustrative embodiment thereof a refrigerator drawer which has a corrugated bottom, the corrugations preferably running parallel to the front of the drawer, and by providing a rack, supported from the drawer frame, which holds up one or more food containers in such a manner that cold air is free to circulate around and under each of them and so that liquid on the drawer bottom does not splash on them. The drawer bottom is preferably removable so that it can be cleaned readily. The rack and food containers are also removable. The drawer bottom has one or more finger or hand holes therein to permit it to be easily lifted out of the drawer.

In a modification, the drawer bottom does not extend under the food containers, thus making possible better cold air circulation in and among the drawers.

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The invention will be more readily understood by referring to the following description taken in connection with the accompanying drawing forming a part thereof, in which:

Fig. 1 is a perspective view of a refrigerator employing one or more drawers in accordance with the invention;

Fig. 2 is a perspective view of a drawer in accordance with the invention;

Fig. 3 is a top view of the drawer of Fig. 2 carrying three food containers;

Fig. 4 is a cross-sectional view taken along the line 4—4 of Fig. 3;

Fig. 5 is a side view, partly in cross section, of the drawer of Fig. 2;

Fig. 6 is a perspective view of the rack for holding the food containers; and

Fig. 7 is a side view of a modification of the drawer of Fig. 5.

Referring more particularly to the drawings, Fig. 1 shows, by way of example for illustrative purposes, a refrigerator 10 of the "set-back" type provided with a plurality of drawers, one or more of which are in accordance with the invention. While the invention will be described in connection with a "set-back" refrigerator, it is to be understood that certain features of the refrigerator drawer of this invention can be utilized in other types of refrigerators.

The refrigerator 10 comprises an insulated upper refrigerated portion 11, an insulated lower refrigerated portion 12, both portions being supported by a recessed base 13, and a table-top member 14 of any suitable material, such as, for example, porcelain, linoleum, stainless steel or Monel metal. The upper portion 11 contains an evaporator 15 the coils of which are adjacent or surround one or more ice cube trays or food containers such as the trays or containers 16, 17 and 18. The upper portion also contains mesh shelves 19, 20 and 21, the upper two of which may have cut-out portions so that tall bottles can be accommodated. Doors 22 and 23 are provided as closure members for the upper portion of the refrigerator 10.

The lower portion 12 comprises a suitable framework and a plurality of drawers, such as the drawers 24, 25, 26 and 27. The drawer 25 has been shown partially open in Fig. 1 to indicate the internal details thereof but these details are more clearly shown in the other figures so reference is now made to them. At least one of the drawers of the refrigerator 10 embodies one or more of the features shown in Figs. 2 to 7, inclusive.

Fig. 2 shows in perspective the refrigerator drawer 25 having an insulated drawer front 30, sides 31 and 32, back 33, a bottom 34 (preferably but not necessarily removable), a rack 35 supported from the sides 31 and 32, and one or more

food containers 36 supported from the rack. The bottom 34, which is also shown in Figs. 3, 4 and 5, is made of any suitable material, such as corrugated aluminum, the corrugations preferably running parallel to the front of the drawer so that any liquid spilled in the drawer will not flow from back to front, and vice versa, when the drawer is opened and closed. The corrugations also serve to stiffen the bottom as do the front and rear edges 37 and 38 thereof which are bent or otherwise formed into channel members. The bottom rests on the flanges 39 and 40 projecting inwardly from the front 30 and the rear 33, respectively, of the drawer and/or on the flanges 41 and 42 projecting inwardly from the sides 31 and 32, respectively (see Fig. 4). If desired, metal strips extending between the sides or between the front and back can be used instead of the flanges to support the bottom. The sides 31 and 32 can be inclined downwardly at the back to provide runners 50 and 51, respectively, which slidably engage slides 52 and 53, respectively, when the drawer is being moved. These slides are supported from the interior walls of the refrigerator or are on mullions between the drawers and have downwardly inclined portions at the rear thereof to correspond to the runners 50 and 51. By this means, the drawers are held by gravity in the closed position, it requiring some little pull to open them. If desired, the runners may be located on the bottom of the drawer between the sides and the slides placed under the runners.

In order to remove the bottom 34 to clean it, one or more formed finger holds 43 are provided. The finger hold is preferably long enough to accommodate all the fingers of the hand and the lower edges thereof are turned outwardly so that there are no rough edges to cut the fingers. The upper surface of the finger hold is at least as high as the upper edges of the corrugations of the bottom 34 so that no liquid is spilled through the aperture of the finger hold. As shown in Fig. 7, the bottom 34 need not extend the entire distance between the front and back of the drawer. In this arrangement the bottom is supported in the front, by way of example, from a supporting strip 54 fastened to the sides.

In order to support food containers above the bottom 34 for the double purpose of separating them from any liquid on the bottom and of facilitating the free circulation of cold air around them, the rack 35 is provided in accordance with this invention. This rack is, for example, of metal formed as shown in Fig. 6 to have flanges 44 and 45 which fit over the sides 31 and 32 and flanges 46 and 47 which serve to support one or more food containers 36. In Figs. 3 and 4, three food containers 36 have been shown supported from the rack member 35. Each food container has, if desired, a top 48 which has much of its surface indented except for handles 49 which are flush with the unindented part of the top surface. The containers 36 are preferably of clear plastic and are separated from each other and from the front and side walls to permit the cold air from the evaporator to circulate around them. The containers 36 may be of various lengths and depths but the widths of all those containers designed for use with a single rack 35 should be equal.

By means of the drawer structure described above, circulation of cold air within and between the drawers is unimpeded, splashing of liquid is prevented and economic use of available space is permitted. Moreover, easy cleaning of the bottom is possible. Other advantages will be readily apparent. If the bottom is fastened to the sides, front, and back, the whole drawer is removed for cleaning purposes.

Although the present invention has been described in terms of a preferred illustrative embodiment, it should be realized that the invention and its several features are susceptible of embodiment in a wide variety of other forms, hence the invention is to be understood as comprehending such other forms as may fairly come within the spirit and letter of the appended claims.

What is claimed is:

1. A refrigerator drawer structure comprising a back, two sides, an insulated front, a corrugated bottom, said bottom being shorter than the distance between said front and back so that air may flow in and out of said drawer, a rack supported from said sides, and at least one food container supported from said rack, said rack being over the portion of the drawer which has no bottom.

2. A refrigerator drawer adapted to be used in a refrigerator wherein there is set up a substantially horizontal circulation of cold air through the drawer to uniformly refrigerate articles placed therein, comprising a drawer frame comprising a back, two sides, a bottom and an insulated front, a rack in the front part only of said drawer, said rack being supported by said frame, and at least one food container supported by said rack.

3. A refrigerator drawer adapted to be used in a refrigerator wherein there is set up a substantially horizontal circulation of cold air through the drawer to uniformly refrigerate articles placed therein, comprising a drawer frame comprising a back, two sides, a bottom and an insulated front, a rack in the front part only of said drawer, said rack being supported by said frame, and at least one food container supported by said rack, said rack having a maximum horizontal dimension between its front and rear which is less than half the distance between the front and rear of the drawer.

4. A refrigerator drawer adapted to be used in a refrigerator wherein there is set up a substantially horizontal circulation of cold air through the drawer to uniformly refrigerate articles placed therein, comprising a drawer frame comprising a back, two sides, a bottom and an insulated front, a rack in the front part only of said drawer, said rack being supported by said frame, and at least one food container supported by said rack, said rack comprising two parallel strips between the sides of the drawer for supporting the food container, which strips are separated by an open space extending almost the entire width of the drawer.

GUYON L. C. EARLE.

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