

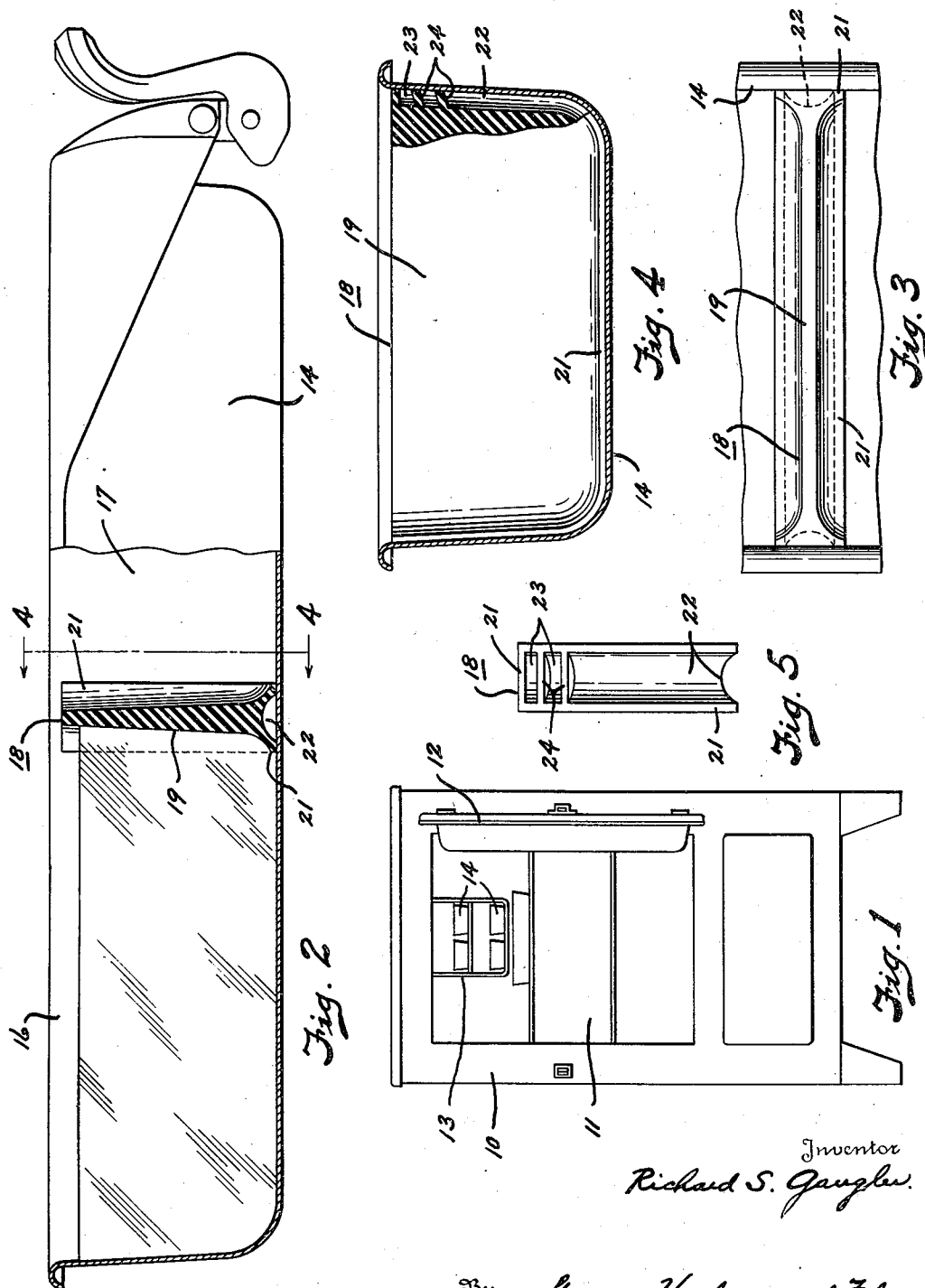
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REFRIGERATING APPARATUS

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REFRIGERATING APPARATUS

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5 Claims. (Cl. 62—103.5)

This invention relates to refrigerating apparatus and particularly to ice trays or molds associated with the cooling element of a household refrigerator.

5 In the use of molds or ice trays in mechanically refrigerated refrigerators of the household type it is the general practice of the housewife or user to remove the ice cube or block forming grid, ordinarily furnished and associated with such
10 molds or trays from the trays, and to employ these molds or ice trays for freezing a mixture or batch of a substance into ice cream or for storing custards and the like. It quite frequently happens that a housewife does not wish to prepare an
15 amount of a mixture or batch sufficient to substantially fill an entire mold or tray. It also quite frequently happens that a housewife wishes to prepare a small amount of a mixture or batch of one flavor and a small amount of a mixture
20 or batch of another flavor and does not wish to employ two trays or molds for the two different mixtures because the ice cube supply will be reduced or eliminated according to the size of the evaporator in the refrigerator cabinet and its tray or mold receiving capacity. The present invention is therefore directed to a means for increasing
25 the utility of molds or receptacles used in household refrigerators for storing, congealing or freezing certain substances.

30 An object of the invention is to provide a removable partitioning member which may be readily and quickly placed in a mold or tray having flat smooth inner walls at any location along the length thereof to divide the interior of the
35 tray or mold into a plurality of compartments.

In providing a partitioning member for a mold or tray in accordance with the foregoing object it is a still further object of the invention to insure that the partitioning member, when placed
40 in the mold to divide same into a plurality of compartments, will tightly engage the inner walls of the mold to form a seal between the compartments.

Further objects and advantages of the present
45 invention will be apparent from the following description, reference being had to the accompanying drawing, wherein a preferred form of the present invention is clearly shown.

In the drawing

50 Fig. 1 is a front elevational view of a household refrigerator cabinet having molds or trays, to which the present invention may be applied, disposed in a cooling element located in the cabinet;

Fig. 2 is a longitudinal vertical section through
55 one of the molds or trays shown in Fig. 1 and dis-

closes a partitioning means constructed in accordance with the present invention located in the mold or tray;

Fig. 3 is a fragmentary top plan view of a portion of the mold or tray shown in Fig. 2;

Fig. 4 is a side view partly in section and partly in elevation of the partitioning member disposed in the mold or tray and taken along the line 4—4 of Fig. 2, and

Fig. 5 is a detail end view of the partitioning member.

Referring to the drawing, for the purpose of illustrating my invention, I have shown in Fig. 1 thereof a mechanical refrigerator of the household type. The refrigerator includes a cabinet 10 having insulated walls forming a food storage compartment 11 provided with an access door 12. A cooling element or evaporator 13 of any suitable or conventional construction is located in the compartment 11 and forms a freezing chamber or compartment within the food storage compartment in which freezing chamber any desired number of refrigerated shelves for supporting molds, trays or receptacles 14, adapted to contain a substance to be congealed or frozen by the cooling effect produced by the evaporator, may be located. Each of the molds or trays 14 commonly employed in a household refrigerator of the type described ordinarily has a grid, comprising longitudinal and transverse members, disposed therein and forming a plurality of small compartments in order that water placed in the tray will be frozen into the form of cubes of such size as to permit the cubes to be placed in glasses when removed from the tray. When the housewife wishes to store ice cream or custards and the like in one of the molds or trays 14 the grid ordinarily positioned therein is removed therefrom. As previously stated the amount of ice cream, custard or such other substance to be stored in the mold or tray may not be sufficient to completely fill the mold. In such case it has been found that a relatively thick body of the substance to be made and/or stored in the mold is preferable over a thin body therein for the reason that the constituents of substance to be congealed or frozen freezes into a more mellow form than if frozen into a thin layer. Therefore I provide a partitioning member for dividing the interior of a mold or tray into a plurality of compartments of smaller capacity than the entire interior of the mold or tray.

Referring now to Fig. 2 of the drawing it will be noted that one of the trays 14 is shown as having the interior thereof divided into compartments

16 and 17 by a partition member 18 of such structure as will be hereinafter more fully described. As shown, the compartment 16 contains a congealed or frozen substance while the compartment 17 is empty. It is obvious however that compartment 17 may also contain congealed or frozen substance or a batch of a substance to be congealed or frozen and of a different flavor than that of the substance in compartment 16. The opposed sidewalls of such molds 14 are ordinarily directed outwardly from one another gradually from the bottom of the mold to the top thereof to facilitate the removal of the frozen contents therefrom. The sidewalls of such molds are also ordinarily relatively smooth and flat in order to permit same to be readily and easily cleaned. It is not desirable to provide an obstruction or indentation in such molds or trays for receiving a partitioning member. Therefore a partitioning member as suggested by the present disclosure must be constructed to fit snugly against walls of the mold to seal the compartments, 16 and 17 formed thereby in the mold, from one another.

The removable partitioning member 18 of the present invention may be of any suitable construction and is preferably molded of rubber material. Member 18 includes a wall portion 19 which is slightly tapered outwardly from the top to the bottom of the member (see Fig. 2) in order to increase the structural strength or rigidity thereof. The edge portions of the wall 19 of member 18 which are adapted to engage sidewalls of the mold or tray 14 are flared outwardly as at 21 and these edge portions are flexible or resilient. The resilient or flexible edge portions 21 have a groove 22 formed therein and also have pockets 23 formed therein by webs 24 adjacent the top of the member 18. The groove 22 and pockets 23 form, when the resilient edge portions 21 of member 18, are associated with walls of the mold or tray 14, suction chambers or cups which cause the flexible or resilient edge portions 21 to firmly grip the walls of the mold 14 to maintain member 18 in a vertical position within the mold and to form a seal between the compartments 16 and 17. In order to accomplish the gripping action of member 18 to walls of the mold 14 it is obvious that the member 18 must be of the same configuration and equivalent to or slightly larger than the space between the side walls of the mold or tray.

The partitioning member may be placed in the mold or tray 14 at any locality along the length thereof to provide compartments of any described size within the mold. When positioning the partitioning member 18 in mold 14 the member is held in a vertical position relative to the length of the mold and is moved or forced into the mold and into tight engagement with the bottom wall of the mold. By forcing the member 18 into tight engagement with the bottom of the mold 14 in this manner the edge portions 21 are caused to be temporarily deformed so that the wall of the groove 22, along the bottom of the member 18, will move into close proximity to the bottom wall of the mold. Air within the groove 22 is expelled from the groove and the chamber provided by the groove, when member 18 is being positioned in the mold, thus forms a suction pocket or cup and when the force applied to the member 18 is released the edge portions 21 thereof return to their original formation. Suction created in the chamber between walls of groove 22 and walls of the mold causes the edge portions 21 of member 18 to snugly grip the interior walls of the mold 14

to firmly maintain the member 18 in position in the mold until manually removed therefrom and to form a fluid tight seal between compartments formed in the mold by the member 18.

From the foregoing it is apparent that I have provided an improved arrangement or combination which increases the utility of a mold or tray commonly employed in mechanically refrigerated refrigerators of the household type. The partitioning member of the present invention may be applied to molds or trays now in general use throughout the country. No obstruction indentation or the like need be provided in walls of molds to hold the partitioning member of present invention in place. Thus the desired feature of construction of molds or trays of the type herein described, which permits readily and easily cleaning thereof to maintain same in a sanitary condition, is retained.

While the form of embodiment of the invention as herein disclosed constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. In combination, a mold adapted to be placed in or on a cooling element of a refrigerating system and adapted to contain a substance to be congealed or frozen, a partitioning member removably positioned in said mold and dividing the interior thereof into a plurality of compartments, said partitioning member being provided with resilient edge portions and a groove intermediate the edge portions, and said groove forming, when the edge portions of the partitioning member are brought into engagement with walls of said mold, a suction or vacuum-like chamber for causing the resilient edge portions of the member to tightly engage walls of said mold to form a seal between the compartments.

2. In combination, a metallic mold adapted to be placed in or on a cooling element of a refrigerating system and adapted to contain a substance to be congealed or frozen, a substantially rigid moulded rubber partitioning member removably positioned in said mold and dividing the interior thereof into a plurality of compartments, said partitioning member being provided with flexible resilient edge portions and a groove intermediate the edge portions, and said groove forming, when the edge portions of the partitioning member are brought into engagement with walls of said mold, a suction or vacuum-like chamber for causing the edge portions of the member to tightly engage walls of said mold to form a seal between the compartments.

3. In combination, a mold adapted to be placed in or on a cooling element of a refrigerating system and adapted to contain a substance to be congealed or frozen, a partitioning member removably positioned in said mold and dividing the interior thereof into a plurality of compartments, and means forming a seal between the partitioning member and said tray to provide a liquid tight division between said compartments.

4. In combination, a mold adapted to be placed in or on a cooling element of a refrigerating system and adapted to contain a substance to be congealed or frozen, a partitioning member removably positioned in said mold and dividing the interior thereof into a plurality of compartments, and said partitioning member being constructed and arranged, when said member is brought into engagement with walls of said mold, to tightly

engage the walls of the mold to form a seal between the compartments.

5 5. In combination, a mold adapted to be placed in or on a cooling element of a refrigerating system and adapted to contain a substance to be congealed or frozen, a partitioning member removably positioned in said mold and dividing the interior thereof into a plurality of compartments,

and said partitioning member being constructed and arranged to form, when said member is brought into engagement with walls of said mold, a suction or vacuum-like chamber between the member and a wall of said mold for causing said member to tightly engage walls of said mold to form a seal between the compartments. 5

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