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O. BECKER

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ANTIFREEZING SUPPORT FOR ICE TRAYS

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Fig. 1.

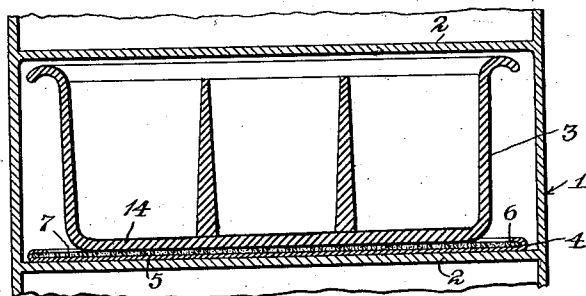


Fig. 2.

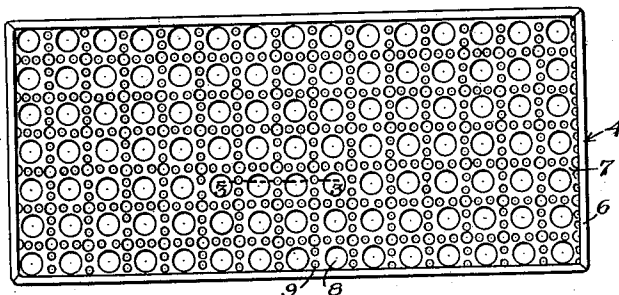
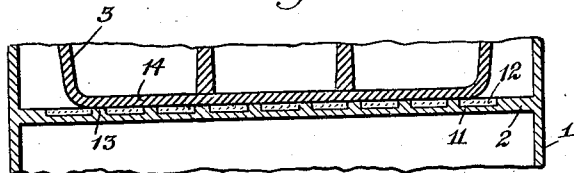


Fig. 3.



Fig. 4.



WITNESSES

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ANTIFREEZING SUPPORT FOR ICE TRAYS

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4 Claims. (Cl. 62—1)

This invention relates to refrigerator constructions and particularly to an improved antifreezing support for ice trays of refrigerators, an object being to provide a simple construction where-
in the trays may be freely used but will not freeze in the support of the freezing unit of the refrigerator.

Another object of the invention is to provide a support for an ice tray which may be an integral part of the freezing unit or a separate member applied thereto.

A further object of the invention is to provide an antifreezing support for ice trays whereby depressions or openings are provided for the reception of salt, a mixture of salt and cornstarch, or other antifreezing mixture or compound.

In the accompanying drawing—

Fig. 1 shows a sectional view through part of the freezing unit of a mechanical refrigerator and illustrates an embodiment of the invention applied thereto;

Fig. 2 is a plan view of the antifreezing support illustrated in Fig. 1;

Fig. 3 is an enlarged sectional view through Fig. 2 approximately on the line 3—3;

Fig. 4 is a view similar to Fig. 1 but showing a modified form of the invention.

In mechanical refrigerators a freezing unit is provided at some part, usually in one corner, and this freezing unit includes a plurality of shelves or supports in which trays are adapted to be inserted. The usual trays consist of a metal container with either integral or removable partition members. As is well known, these trays become wet to a certain extent and quite often freeze in the unit so that they are very difficult to remove. To obviate this difficulty and yet allow the use of the usual metal trays now on the market, an improved antifreezing support has been provided which may be formed as an integral part of the shelves of the freezing unit, or as a separate member applied thereto.

As shown in the accompanying drawing, 1 indicates the freezing unit, which is provided with supports or shelves 2 so as to support the conventional trays 3. As is well known, the compartments of each tray are filled with water and then the trays are slid on to the supports 2 and left in this position until the water becomes frozen. Quite often the trays are left many days without removal, but sometimes they are removed quite often. If the trays should freeze fast to the shelves or supports 2, considerable difficulty is experienced in removing the same and sometimes it is even necessary to defrost the refrigerator

before the trays can be removed. In attempting to remove frozen trays the front of the trays is sometimes mutilated and even broken.

The present invention presents means whereby the trays may be freely used in the desired manner and yet may be slid into and out of position at any time. As illustrated in Figs. 1 to 3 inclusive there is provided an antifreezing support 4, which is slid into position on top of the shelf or support 2 and then the tray 3 is slid on top of the antifreezing support 4. The support 4 is especially prepared so that it will not freeze to the tray 3 even though the bottom of the tray 3 should be wet.

In forming the support 4, a plate 5 of sheet metal, as for instance iron, is provided and the ends bent up and then turned over as indicated at 6, and the insert 7 clamped in place. This insert may be zinc, aluminum, or other metal, and is formed with a number of large apertures 8 and a still larger number of apertures 9 of smaller diameter. Any desired number of apertures may be provided and arranged in any preferred order. In these apertures there is placed an antifreezing substance 10. This substance may be any desired material that will accomplish the result to be accomplished, as for instance plain salt or a mixture of salt and cornstarch. Preferably the apertures are completely filled and the material caused to project a slight distance beyond the top of the plate 7, as shown in Fig. 3. If desired, the turned-over edge 6 could be merely an upstanding flange so that the insert 7 could be readily removed, though this is not essential. After the insert 7 has been provided with the antifreezing material, the support 4 is then slid into position, as shown in Fig. 1. With one filling the support will usually prevent freezing or sticking of the tray 3 for several months. At the end of this time or at some other time, the insert could be removed and the material in the various apertures or depressions 8 and 9 removed and new material supplied. If desired, instead of having two members as described, one member could be provided of metal or other material and formed with depressions for receiving the antifreezing material.

As shown in Fig. 4, a modified form of the invention may be used. In this form the shelf or support 2 is provided with a number of depressions 11, which are filled with material 12, which material may be salt, cornstarch, a mixture of these materials, or other substance. Preferably the depressions 11 are made close to-

gether so that the small metal portions 13 which contact with the bottom 14 of the tray 3 will not prevent easy removal of the tray even though these small portions should freeze to the tray. Ordinarily this will not occur as the material 12

5 will prevent such action.

I claim:

1. An antifreezing support for an ice tray of refrigerators including a supporting base member, an insert arranged on the base member, the base member having the sides and ends bent over for clamping said insert, said insert being formed with a plurality of openings extending entirely therethrough, and an antifreezing material filling said openings.

15 2. An antifreezing support for an ice tray of mechanical refrigerators comprising a support for the tray formed with a plurality of comparatively large openings extending entirely therethrough and a plurality of smaller open-

ings extending therethrough, and an antifreezing material arranged in each of said openings.

3. An antifreezing support for an ice tray of refrigerators comprising a supporting member, an insert carried by said member formed with a plurality of comparatively large openings extending entirely therethrough and a plurality of smaller openings extending therethrough, and a filling for each of said openings of salt and cornstarch, said filling acting to prevent freezing of the tray resting on said insert.

4. An antifreezing support for ice trays of refrigerators comprising a base member, an insert arranged on the base member, the base member having the sides and ends bent over for clamping said insert, said insert being formed with a plurality of openings extending entirely therethrough, and a mixture of salt and cornstarch filling each of said openings.

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