May 17, 1932. D. H. REEVES 1,858,558

REFRIGERATING APPARATUS

Filed Dec. 31, 1928

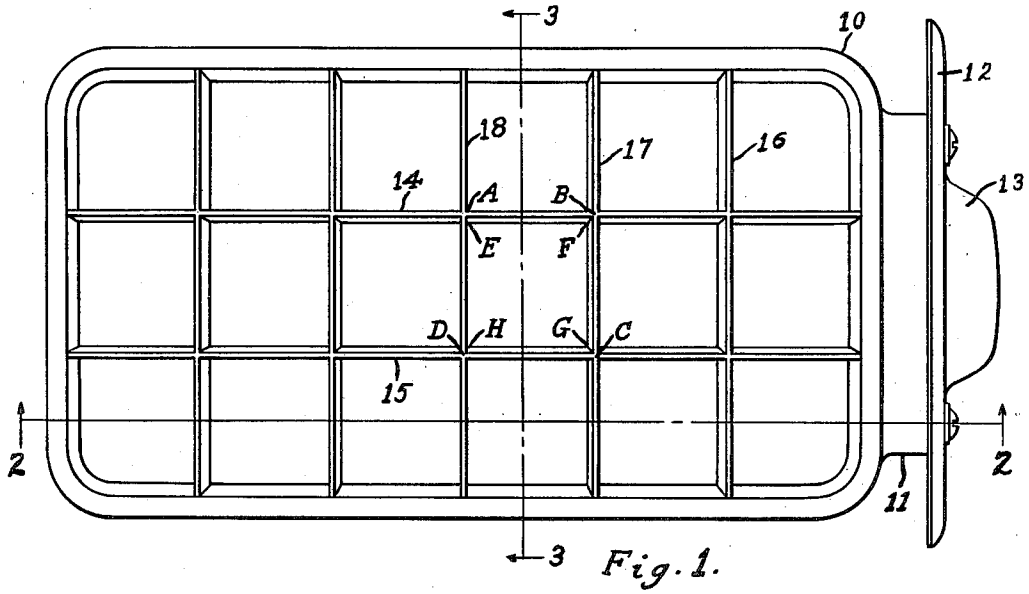

Fig. 1.

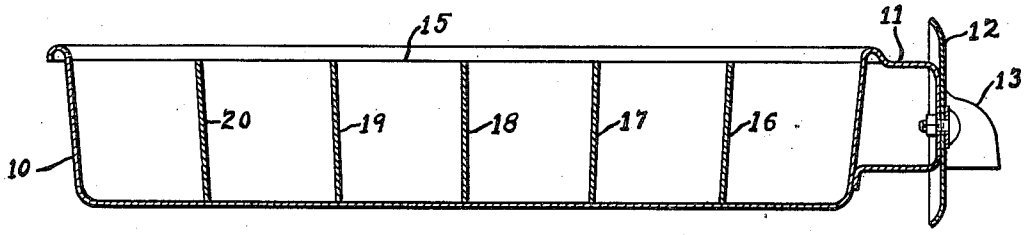

Fig. 2.

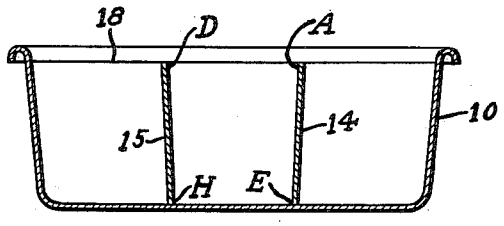

Fig. 3.

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UNITED STATES PATENT OFFICE

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REFRIGERATING APPARATUS

Application filed December 31, 1928. Serial No. 329,348.

This invention relates to refrigerating apparatus and especially to the structure of the tray, or ice-making container for domestic mechanical refrigeration.

An object of the invention is to construct the tray so that the contents may be easily removed.

More specifically it is an object to construct a removable grid so that ice blocks may be easily removed from the grid after the entire frozen mass has been removed from the tray.

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

In the drawings:

Fig. 1 is the top view of a tray with a grid embodying the invention.

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

Fig. 3 is a transverse cross section of the tray.

In Fig. 1 is disclosed the tray 10 with the projection 11 supporting the tray front 12 and the handle 13. The tray can be used with any suitable cooling unit but it is preferred to use the tray with a system such as shown in the patent to Jesse G. King, No. 1,654,504. The invention, however, is not limited to the particular form of the tray shown. Within the tray 10 are longitudinal grid partitions 14—15, and the transverse grid partitions 16, 17, 18, 19, 20. To more clearly explain the invention the inter-section of paritions 14 and 18 has been labeled A at the top and E at the bottom. Similarly the inter-section of 17 and 14 has been labeled B at the top and F at the bottom. Likewise the inter-section of 17 and 15 has been labeled C at the top and G at the bottom, and the inter-section of 15 and 18 has been labeled D at the top and H at the bottom. The invention contemplates having a partition 17, for example, divergent upwardly from both adjacent partitions 16 and 18. Also the partition 19 will diverge upwardly from the partition 18 and likewise 20 will diverge from partition 19. This is more clearly shown in Fig. 2. Likewise the horizontal partitions 14 and 15 will diverge upwardly from one another. This will result in the distance A—B being greater than the distance E—F, B—C being greater than F—G, D—C being greater than G—H and D—A being greater than H—E. In other words the area A—B—C—D is greater than the area E—F—G—H. The grid may be fixed within the tray or made removable therefrom. However in practice it is usual to make the grid removable. In using the apparatus it is customary to invert the tray under a tap of warm water which loosens the entire contents of the tray as a mass including the grid and the ice cubes frozen therein. The tray is removed from this mass leaving the latter in an inverted position. If this mass is now held under the tap the individual cubes will be loosened from the grid and will be very easily removed because they taper toward the top. It will be noted that the compartment A—B—C—D—E—F—G—H is a non-prismatic polyhedron. More particularly it is an inverted frustum of a pyramid. While it is desired to have all the partitions upwardly diverging it is obvious that some benefit of the invention may be obtained by making some of the partitions diverging and others not diverging. For instance the longitudinal partitions may be made divergent and the transverse partitions not divergent or the reverse.

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. An ice-making container for domestic mechanical refrigerators comprising a tray and partitions dividing the tray into compartments for forming ice blocks, said partitions being of uniform thickness and diverging from one another to form tapering compartments.

2. An ice-making container for domestic mechanical refrigerators comprising a tray and longitudinal and transverse partitions dividing the tray into compartments for

forming ice blocks, said partitions being of uniform thickness, adjacent transverse partitions diverging from each other, and adjacent longitudinal partitions diverging from one another to form tapering compartments.

3. A removable grid for dividing an ice-making container for domestic mechanical refrigerators into compartments for forming ice blocks, said grid having partition members of uniform thickness arranged to diverge from one another to form tapering compartments.

4. As a new article of manufacture, a separable grid or partition element for ice trays, providing sets of plates intersecting substantially at right angles, the plates of one of said sets being alternately tilted in opposite directions from the perpendicular.

In testimony whereof I hereto affix my signature.

DONALD H. REEVES.