

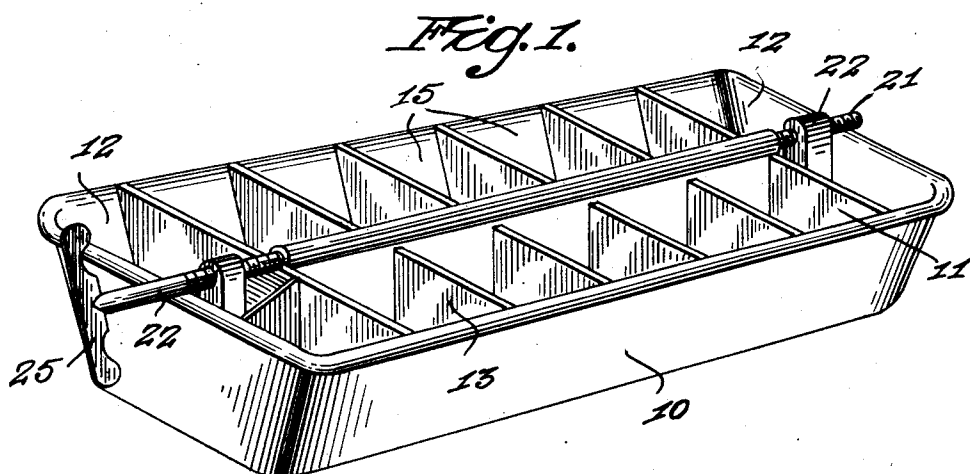
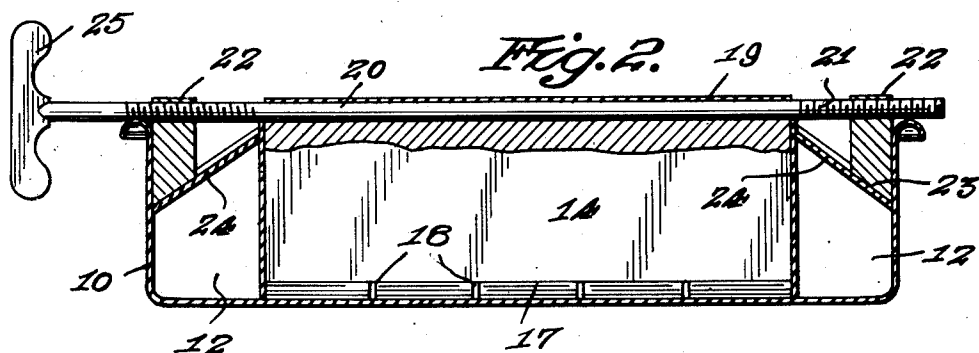
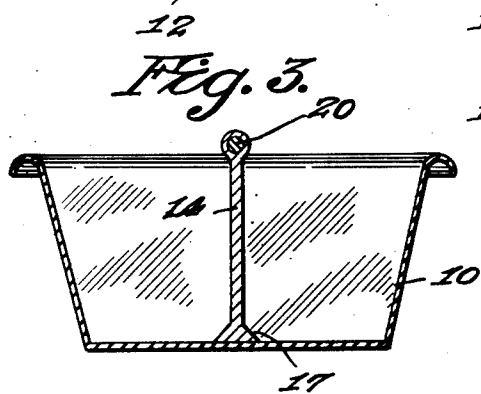
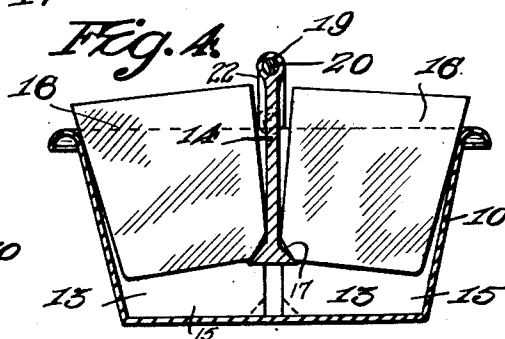
Sept. 27, 1932.

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1,879,400

ICE TRAY

Filed Aug. 20, 1930



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ICE TRAY

Application filed August 20, 1930. Serial No. 476,671.

This invention relates to trays of the character used in artificial household refrigeration for the purpose of freezing water and other liquids, an object being to provide a tray with means for loosening the ice blocks without raising the temperature of the tray by placing the same under running water, so that subsequent freezing may occur in a relatively short time, and liquids may be frozen in a much shorter period than with the use of the ordinary tray.

Another object of the invention is the provision of means for quickly and easily loosening the ice blocks and partly projecting them above the tray where they may be gripped with a pair of tongs, the said loosening and projecting being accomplished without breaking the blocks and without contact with the hands, so that the blocks may be removed in a more or less perfect state and in a sanitary condition.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawing:—

Figure 1 is a perspective view of a tray constructed in accordance with the invention.

Figure 2 is a longitudinal sectional view of the same.

Figure 3 is a transverse section.

Figure 4 is a similar view illustrating the manner of removing the ice blocks.

Referring to the drawing in detail wherein like characters of reference denote corresponding parts, the reference character 10 indicates a tray which may be made of any suitable size and material. The tray is provided with synclined side walls 10'. This tray is provided adjacent each end with a partition 11 and the space between these partitions and the adjacent end walls of the tray provide compartments 12.

The tray is further provided with transversely disposed partitions 13 arranged in pairs and the partitions of each pair have their adjacent ends slightly spaced apart to receive a movable partition 14.

The partitions 11 and 13 are formed integral with the walls of the tray, while the partition 14 is separately formed. This partition 14 is positioned between the adjacent ends of the aligned partitions 13 and provides one wall for each of a number of compartments 15 formed by the partitions and walls of the tray. These compartments are for the purpose of receiving water or other liquid to be frozen so that the tray may be used to form ice blocks 16.

Extending laterally from the lower edge of the partition 14 into each of the compartments 15 are inclined ribs 17, grooves 18 between these ribs acting to receive the inner edges of the partitions 13.

The partition 14 is movable vertically, and when this partition is moved upward, in a manner to be later described, it will break the blocks 16 loose from the walls of the compartment and will lift the blocks a sufficient distance to permit of their ready removal with a pair of tongs, or with the fingers if desired. To facilitate the removal of the blocks, the side walls of the tray are outwardly and upwardly inclined as shown.

The top of the partition 14 is provided with a longitudinal bore 19 for the reception of a rod 20 and this rod has its opposite ends oppositely threaded as shown at 21 for threaded engagement in openings provided in lifting blocks 22. The lower ends of these blocks are inclined as shown at 23 for engagement with the upper inclined surface of supports 24. These blocks 23 and supports 24 are positioned within the end compartments 12 and these compartments are separated from the compartments 15 by the partitions 11, so that no water can flow into the compartments 12, and freezing of the movable elements in these compartments will be prevented.

The rod 20 is provided with an operating handle 25.

It will be apparent from the foregoing description and accompanying drawing that by rotating the rod 20 in one direction, the blocks 22 may be moved relatively inward so that the partition 14 will be raised vertically. This action will break the blocks 16 loose from the walls of the compartments 15 so

that the said blocks may be readily removed without the necessity of subjecting them to the action of running water with a constant raising of the temperature of the tray. When
5 the blocks are removed in this manner, the trays 15 may be refilled and their contents frozen in a much shorter space of time due to the fact that the temperature of the tray has not been greatly raised.

10 In addition, the ice blocks 16 may be much more easily removed and may be handled in a sanitary manner.

The upper surfaces of the rib 17 at the lower edge of the partition 14 are anti-clined
15 and the said anti-clined surfaces are located opposite the synclined side walls 10' of the tray. Therefore when the partition is moved in an upward direction the anti-clined surfaces of the rib 17 will force the blocks
20 of ice to canted positions in the compartments so that they may be readily removed therefrom.

The invention is susceptible of various changes in its form, proportions and minor
25 details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having described the invention what is claimed is:—

30 1. In a freezing tray, a plurality of separate compartments adapted to contain liquid to be frozen into separate blocks, a vertically movable member extending into said compartments to lift the frozen blocks, a threaded
35 shaft rotatable in said member, and means threadedly engaged with the shaft and operable when the latter is rotated to move said member vertically.

40 2. In a freezing tray, a plurality of separate compartments adapted to contain liquid to be frozen into separate blocks, a vertically movable member extending into said compartments to lift the frozen blocks, a threaded
45 shaft rotatable in said member, inclined supports carried by the tray, and blocks threadedly engaged with the shaft for sliding engagement with the inclined supports to move said member vertically when the shaft is
50 rotated.

In testimony whereof I affix my signature.
JACK J. MITCHELL.

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