Jan. 18, 1955 J. M. RHOADES 2,699,654

ICE TRAY

Filed March 14, 1952

Fig. 1.

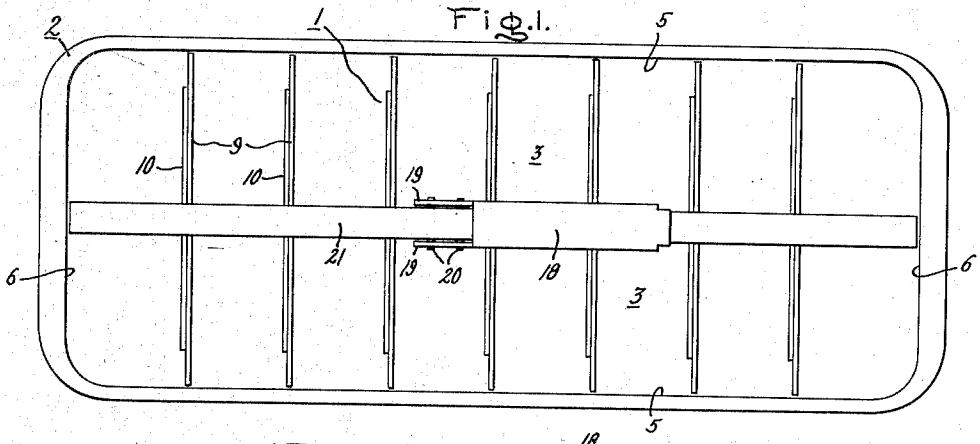


Fig. 2.

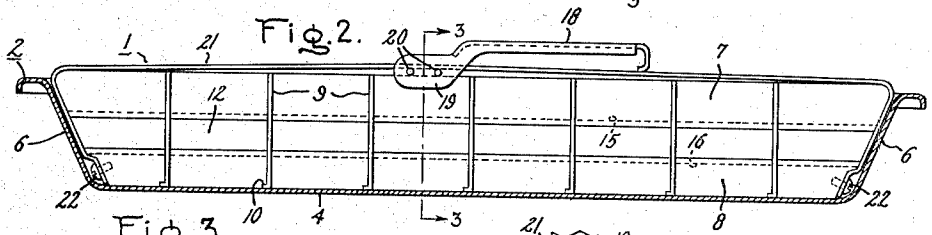


Fig. 3.

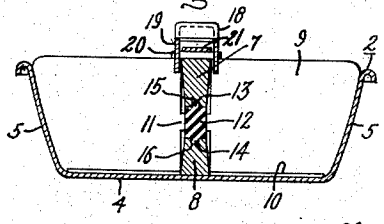


Fig. 4.

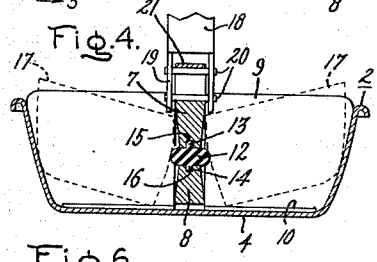


Fig. 5.

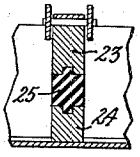


Fig. 6.

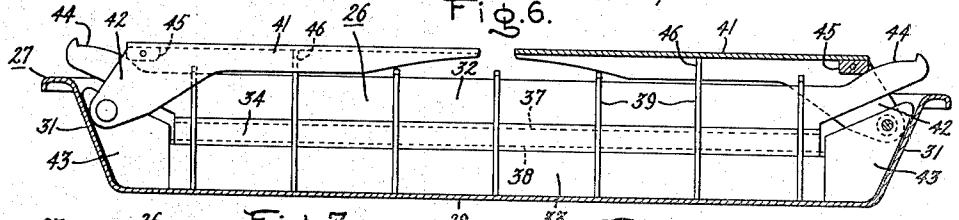


Fig. 7.

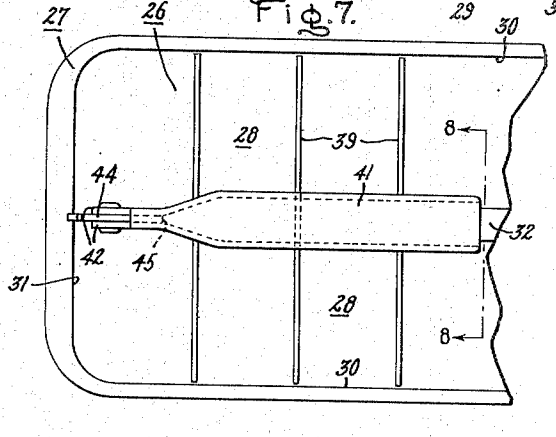


Fig. 8.

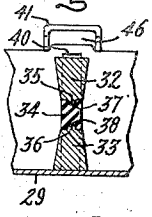
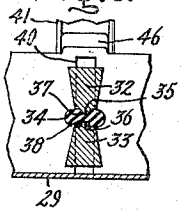


Fig. 9.



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United States Patent Office

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2,699,654

ICE TRAY

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Application March 14, 1952, Serial No. 276,515

20 Claims. (Cl. 62—108.5)

My invention relates to ice trays used in refrigerators and pertains more particularly to grid structures employed in ice trays for dividing the trays into ice block forming compartments.

The primary object of my invention is to provide an improved ice tray grid structure including means for facilitating release of formed ice blocks from the tray and the elements comprising the grid structure.

Another object of my invention is to provide in a grid structure for dividing an ice tray into a plurality of ice block forming compartments improved means for releasing ice blocks with a minimium of ice crushing.

Further objects and advantages of my invention will become apparent as the following description proceeds and the features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming part of this specification.

In carrying out the objects of my invention, I provide a grid structure including a pair of vertically arranged and spaced apart longitudinal dividers. The longitudinal dividers are movable toward each other and an elastic deformable center divider is disposed therebetween. Movement of the longitudinal dividers toward each other deforms the elastic center divider laterally to exert ice block releasing forces.

For a better understanding of my invention, reference may be made to the accompanying drawing in which Fig. 1 is a plan view of one embodiment of my invention; Fig. 2 is a longitudinal sectional view of the embodiment shown in Fig. 1; Fig. 3 is a section taken along the line 3—3 in Fig. 2 and looking in the direction of the arrows; Fig. 4 is a sectional view illustrating various elements of the grid structure in their operated positions; Fig. 5 is a fragmentary sectional view illustrating a modification of the first embodiment; Fig. 6 is a longitudinal sectional view of a second embodiment of my invention; Fig. 7 is a fragmentary plan view of the second embodiment; Fig. 8 is a fragmentary sectional view taken along the line 8—8 in Fig. 7 and looking in the direction of the arrows; and Fig. 9 is a sectional view of the second embodiment illustrating various elements of the grid in their operated positions.

In Figs. 1 and 2, I have shown a grid or grid structure constructed in accordance with one embodiment of my invention and generally designated 1. The grid 1 is adapted to cooperate with an ice tray 2 for providing a plurality of ice block forming compartments 3. The ice tray 2 is formed to include a bottom wall 4, side walls 5, and end walls 6. The ice tray 2 is of pressed sheet metal and the side walls 5 have such flexibility that they will readily yield outwardly when ice blocks are forced laterally thereagainst, as during operation of ice block releasing means provided in the grid 1 and hereinafter described. Also, the side walls 5 are slightly inclined outwardly which causes ice blocks pressed thereagainst to ride up the side walls and partly out of the tray to insure the release thereof from the walls of the ice tray.

The grid structure 1 includes an upper longitudinal divider 7 and a lower longitudinal divider 8. As perhaps better seen in Fig. 3, the upper and lower longitudinal dividers are arranged vertically and spaced apart. The ends of the upper longitudinal divider 7 are shaped to conform to the end walls 6 of the tray 2; and the bottom and ends of the lower longitudinal divider 8 are shaped to conform to the bottom and end walls 4 and 6, respectively, of the ice tray 2. As also seen in Fig. 3, the upper and

lower longitudinal dividers are tapered toward each other throughout their lengths.

Also included in the grid structure 1 is a plurality of transverse dividers 9 having lip portions 19 formed on the lower edges thereof. Each transverse divider 9 is formed with a reduced center portion 11 disposed between the upper and lower longitudinal dividers. The transverse dividers 9 are spaced apart by a plurality of center dividers 12 disposed longitudinally between the upper and lower dividers and formed of rubber or any other similarly elastic deformable material.

The elastic center dividers 12 are formed with upper tongues 13 and lower tongues 14. The upper tongues 13 are seated in a longitudinal groove 15 formed in the under side of the upper divider 7 and the lower tongues 14 are seated in a longitudinal groove 16 formed in the upper side of the lower divider 8. In this manner the center dividers 12 are retained between the upper and lower longitudinal dividers.

The center dividers 12 normally maintain the spacing between the upper and lower longitudinal dividers. The upper and lower dividers, however, are formed with slots (not shown) which cooperate with the center portions 11 of the transverse dividers 9 and render the upper and lower dividers movable toward each other.

It will be seen that each of the above-mentioned ice block forming compartments 3 includes walls formed by portions of the upper and lower longitudinal dividers 7 and 8, respectively, and a deformable elastic center divider 12, at least one transverse divider 9, the bottom wall 4 and a side wall 5 of the ice tray 2. The end ones of the compartments 3 further include walls formed by the end walls 6 of the ice tray 2. When ice blocks are frozen in the compartments 3, they become bonded to the various walls thereof and it is necessary to break the bonds in order to release the blocks for use.

Release of the ice blocks is effected by moving the upper and lower longitudinal dividers 7 and 8, respectively, toward each other. Such movement of the longitudinal dividers causes them to shear free of the inner sides of the ice blocks indicated by 17 in Fig. 4 and to deform the rubber center dividers 12 laterally in the manner shown in Fig. 4. Lateral deformation of the center dividers 12 exerts laterally directed forces against the ice blocks 17. Similar forces are directed against the ice blocks by the longitudinal dividers 7 and 8, due to the cross sectional configurations thereof. These laterally directed forces combine and release the ice blocks from the transverse dividers 9. The laterally directed forces also cause the ice blocks to be present with a high force against the somewhat flexible side walls 5 of the tray 2 which causes the side walls to bow outwardly slightly and the ice blocks to ride upwardly on the slightly inclined side walls. This insures release of the ice blocks from all those walls of the compartments 3 formed by the ice tray 2 with a minimum of ice crushing. Thereafter the grid 1 and the ice blocks 17, retained in the grid by the lips 10 on the transverse dividers 9, may be lifted freely from the tray 2 and the ice blocks may be removed freely from the grid.

Various means may be employed for moving the upper and lower longitudinal dividers toward each other to effect release of the ice blocks in the above described manner. I have provided a lever and strap arrangement including a lever 18 formed with a pair of side arms 19. Extending between the side arms 19 is a pair of pins 20. Passing through the side arms 19 and over the pins 20 is a strap 21 preferably of metal. The strap 21 passes about the upper longitudinal divider and is secured at its ends to the ends of the lower longitudinal divider 8 by screws 22. When the lever 18 is lifted or operated, one of the pins 20 engages the upper longitudinal divider 7 and the other engages the underside of the strap 21 and the strap is tensioned. Tensioning of the strap 21 moves the upper and lower longitudinal dividers toward each other and the ice blocks 17 are released in the manner shown in Fig. 4.

It will be seen that the grid structure 1 could be arranged in such a manner that a single elongated rubber center divider could be employed rather than the plurality of center dividers shown and described. Also the upper

and lower longitudinal dividers could be divided into sections and the ice block releasing lever could be slidable along the strap so that two laterally adjacent ice blocks could be removed at a time without disturbing the remaining ones.

In Fig. 5 I have shown a modification of the first embodiment whereby crushing of ice during the release of the ice blocks is further minimized. This form also includes upper and lower longitudinal dividers **23** and **24**, respectively, and a rubber center divider **25** disposed and retained between the longitudinal dividers. In this form, however, the upper and lower longitudinal dividers are not tapered. Instead the corresponding sides of the longitudinal dividers and the center divider are in substantially the same vertical planes. This arrangement prevents formation of ice between the upper and lower longitudinal dividers which would have to be crushed in order to effect deformation of the center divider.

In Figs. 6, 7, 8 and 9, I have shown a grid or grid structure constructed in accordance with a second embodiment of my invention and generally designated **26**. The grid **26** cooperates with an ice tray **27** for providing a plurality of ice block forming compartments **28**. The ice tray **27** is identical to the ice tray **2** used with the first described embodiment. It is formed to include a bottom wall **29**, side walls **30** and end walls **31**. Also, it is of pressed sheet metal and the side walls **30** are both slightly yieldable and slightly inclined outwardly.

The grid **26** includes an upper longitudinal divider **32** and a lower longitudinal divider **33**. As seen in Fig. 8, the longitudinal dividers are arranged vertically and are spaced apart by a longitudinal center divider **34** formed of rubber or any other similarly elastic deformable material. Also, the upper and lower longitudinal dividers are tapered toward each other throughout their lengths. The center divider **34** is formed with an upper longitudinal groove **35** and a lower longitudinal groove **36** in which are seated, respectively, a longitudinal tongue **37** on the under side of the upper longitudinal divider **32** and a similar tongue **38** on the upper side of the lower longitudinal divider **33**. By this arrangement, the center divider **34** is retained between the upper and lower longitudinal dividers. Also, the tongues **37** and **38** have a wedging effect in the grooves **35** and **36** whereby lateral deformation of both sides of the center divider **34** is insured when the upper and lower longitudinal dividers **32** and **33** are moved toward each other. It will be seen that this particular structure for retaining the elastic center divider could be substituted for the arrangement used in the first described embodiment shown in Figs. 1 to 4 and the modification thereof shown in Fig. 5.

Also included in the grid structure **26** is a plurality of parallel transverse dividers **39**. As seen in Fig. 8, the transverse dividers **39** each include a downwardly opening slot **40**. The sides of the upper and lower longitudinal dividers **32** and **33**, respectively, are formed with spaced apart slots (not shown). The grid **26** is assembled by inserting the slotted transverse dividers into the slots provided in the longitudinal dividers. In this arrangement, the upper and lower longitudinal dividers are movable toward each other.

In the present embodiment, as in the first-described embodiment, ice blocks formed in the compartments **28** become bonded to the walls thereof formed by the various elements comprising the grid **26** and the walls of the ice tray **27**. The ice blocks are released from the walls of the compartments **28** in the same manner described with respect to the first embodiment, specifically by movement of the upper and lower longitudinal dividers toward each other, the lateral deformation of the rubber center divider **34**, and the riding of the ice blocks up the inclined side walls **30**.

Provided for moving the upper and lower longitudinal dividers **32** and **33** toward each other in the present arrangement is a pair of levers **41**. Each lever **41** is formed with a pair of pendent arms **42**. The arms **43** straddle and are pivotally connected to end pieces **43** formed on the ends of the lower longitudinal divider **33** and shaped to conform to the corresponding end walls **31** of the ice tray **27**. Formed on the ends of the upper longitudinal divider **32** are cam portions **44** which are inserted between the arms **42** of the levers **41**. Secured between the arms **42** are blocks **45** for cooperating with the cam portions **44**. Lifting or operation of the levers **41** causes the blocks **45** to engage the cam portions **44** and move the upper

and lower longitudinal dividers toward each other, that is, toward the positions thereof shown in Fig. 9. Movement of the longitudinal dividers toward each other deforms the rubber center divider **34** laterally to the position thereof also shown in Fig. 9.

As seen in Figs. 6 and 8, two of the transverse dividers **39** are formed with upwardly extending portions **46**. The portions **46** are provided for supporting the levers **41** when they are in their normal or unoperated positions.

While I have shown and described specific embodiments of my invention, I do not desire my invention to be limited to the particular forms shown and described and I intend by the appended claims to cover all modifications within the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; a pair of spaced apart and vertically arranged dividers, said dividers being movable toward each other, and an elastic deformable member disposed between said dividers, said elastic member being adapted to be deformed laterally by movement of said dividers toward each other, and the lateral deformation of said elastic member effecting lateral movement of the sides thereof to exert lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

2. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; a pair of spaced apart dividers arranged in the same vertical plane, said dividers being movable toward each other, an elastic deformable member disposed between said dividers, said elastic member being adapted to be deformed laterally by movement of said dividers toward each other, and means for moving said dividers toward each other thereby to deform said elastic member laterally, the lateral deformation of said elastic member exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

3. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; a pair of spaced apart dividers arranged in the same vertical plane, said dividers being formed with opposed tongue portions, said dividers being movable toward each other, and an elastic deformable member disposed between said dividers, said elastic deformable member being formed with grooves receiving said tongue portions on said dividers, and means for moving said dividers toward each other thereby to deform both sides of said elastic member laterally, the lateral deformation of said sides of said elastic member exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

4. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; a pair of spaced apart dividers arranged in the same vertical plane, said dividers being tapered toward each other, said dividers being movable toward each other, an elastic deformable member disposed between said dividers, and means for moving said dividers toward each other, movement of said dividers toward each other deforming said elastic member laterally, lateral deformation of said elastic member and movement of the sides of said tapered dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

5. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; a pair of spaced apart dividers arranged in the same vertical plane, said dividers being tapered toward each other, said dividers being formed with opposed tongue portions, said dividers being movable toward each other, an elastic deformable member disposed between said dividers, said elastic member being formed with grooves receiving said tongue portions on said dividers, and means for moving said dividers toward each other, movement of said dividers toward each other deforming both sides of said elastic member laterally, lateral deformation of said sides of said elastic member and movement of the sides of said tapered dividers exerting lateral forces against adjacent

ice blocks for facilitating the release of said ice blocks from said compartments.

6. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; a pair of spaced apart dividers arranged in the same vertical plane, said dividers being movable toward each other, an elastic deformable member disposed between said dividers, the corresponding sides of said dividers and said elastic member being in substantially the same planes thereby to prevent formation of ice between said dividers, and means for moving said dividers toward each other thereby to deform said elastic member laterally, lateral deformation of said elastic member exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

7. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged spaced apart in the same vertical plane, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed and retained between said upper and said lower longitudinal dividers, and leverage means for moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center divider laterally, lateral deformation of said rubber center divider exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

8. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged spaced apart in the same vertical plane, said upper and said lower longitudinal dividers being movable toward each other, said upper longitudinal divider having a longitudinal tongue formed on the under side thereof, said lower longitudinal divider having a longitudinal tongue formed on the upper side thereof, a longitudinal rubber center divider disposed between said upper and said lower longitudinal dividers, a longitudinal groove formed in the upper side of said center divider receiving said tongue on said upper divider, a longitudinal groove formed in the under side of said center divider receiving said tongue on said lower divider, and leverage means for moving said upper and said lower longitudinal dividers toward each other thereby to deform both sides of said rubber center divider laterally, lateral deformation of said sides of said rubber center divider exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

9. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged spaced apart in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed and retained between said upper and said lower longitudinal dividers, and leverage means for moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center divider laterally, lateral deformation of said rubber center divider and movement of the tapered sides of said upper and lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

10. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged spaced apart in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, said upper and said lower longitudinal dividers being movable toward each other, said upper longitudinal divider having a longitudinal tongue formed on the under side thereof, said lower longitudinal divider having a longitudinal tongue formed

on the upper side thereof, a longitudinal rubber center divider disposed between said upper and said lower longitudinal dividers, a longitudinal groove formed in the upper side of said center divider receiving said tongue on said upper divider; a longitudinal groove formed in the under side of said center divider receiving said tongue on said lower divider, and leverage means for moving said upper and said lower longitudinal dividers toward each other thereby to deform both sides of said rubber center divider laterally, lateral deformation of said sides of said rubber center divider and movement of the tapered sides of said upper and lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

11. In a grid structure for cooperating with an ice tray to provide ice block forming compartments, compartment dividing means comprising; an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged vertically and spaced apart, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed and retained between said upper and said lower longitudinal dividers, the corresponding sides of said upper and said lower longitudinal dividers and said rubber center divider being in substantially the same planes thereby to prevent formation of ice between said upper and said lower longitudinal dividers, and leverage means for moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center divider laterally, lateral deformation of said rubber center divider exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

12. A grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, a plurality of transverse dividers each having a reduced center portion located between said upper and said lower longitudinal dividers, said upper and said lower longitudinal dividers being movable toward each other, a plurality of longitudinal rubber center dividers disposed and retained between said upper and said lower longitudinal dividers and spacing said transverse dividers, a strap passing about said upper longitudinal divider and having the ends thereof secured to said lower longitudinal divider and a lever engaging said upper longitudinal divider and the under side of said strap for moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center dividers laterally, lateral deformation of said rubber center dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

13. A grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, a plurality of transverse dividers each having a reduced center portion located between said upper and said lower longitudinal dividers, said upper and said lower longitudinal dividers being movable toward each other, a plurality of longitudinal rubber center dividers disposed and retained between said upper and said lower longitudinal dividers and spacing said transverse dividers, a strap passing about said upper longitudinal divider and having the ends thereof secured to said lower longitudinal divider, and a lever engaging said upper longitudinal divider and the under side of said strap for moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center dividers laterally, lateral deformation of said rubber center dividers and movement of the tapered sides of said upper and lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

14. A grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged vertically and spaced apart, a plurality of

transverse dividers each having a reduced center portion located between said upper and said lower longitudinal dividers, said upper and said lower longitudinal dividers being movable toward each other, a plurality of longitudinal rubber center dividers disposed and retained between said upper and said lower longitudinal dividers and spacing said transverse dividers, the corresponding sides of said upper and said lower longitudinal dividers and of said rubber center dividers being in substantially the same plane thereby to prevent formation of ice between said upper and said lower longitudinal dividers, a strap passing about said upper longitudinal divider and having the end thereof secured to said lower longitudinal divider, and a lever engaging said upper longitudinal divider and the under side of said strap for moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center dividers laterally, lateral deformation of said rubber center dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

15. A grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: a plurality of spaced apart transverse dividers, an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed and retained between said upper and said lower longitudinal dividers, and levers pivotally connected to the ends of said lower longitudinal divider, said levers engaging the ends of said upper longitudinal divider, operation of said levers moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center divider laterally, lateral deformation of said rubber center divider exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

16. In a grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: a plurality of spaced apart transverse dividers, an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, said upper and said lower longitudinal dividers being movable toward each other, said upper longitudinal divider having a longitudinal tongue formed on the under side thereof, said lower longitudinal divider having a longitudinal tongue formed on the upper side thereof, a longitudinal rubber center divider disposed between said upper and said lower longitudinal dividers, a longitudinal groove formed in the upper side of said center divider receiving said tongue on said upper divider, a longitudinal groove formed in the under side of said center divider receiving said tongue on said lower divider, and levers pivotally connected to the ends of said lower longitudinal divider, said levers engaging the ends of said upper longitudinal divider, operation of said levers moving said upper and said lower longitudinal dividers toward each other thereby to deform both sides of said rubber center divider laterally, lateral deformation of said sides of said rubber center divider exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartment.

17. A grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: a plurality of spaced apart transverse dividers, an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed and retained between said upper and said lower longitudinal dividers, and levers pivotally connected to the ends of said lower longitudinal divider, said levers engaging the ends of said upper longitudinal divider, operation of said levers moving said upper and said lower longitudinal dividers toward each other thereby to deform said rubber center divider laterally, a lateral deformation of said rubber center divider and movement of the tapered sides of said upper and lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

18. In a grid structure for cooperating with an ice tray to provide ice block forming compartments comprising: a plurality of spaced apart transverse dividers, an upper longitudinal divider, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, said upper and said lower longitudinal dividers being movable toward each other, said upper longitudinal divider having a longitudinal tongue formed on the under side thereof, said lower longitudinal divider having a longitudinal tongue formed on the upper side thereof, a longitudinal rubber center divider disposed between said upper and said lower longitudinal dividers, a longitudinal groove formed in the upper side of said center divider receiving said tongue on said upper longitudinal divider, a longitudinal groove formed in the under side of said center divider receiving said tongue on said lower longitudinal divider, and levers pivotally connected to the ends of said lower longitudinal divider, said levers engaging the ends of said upper longitudinal divider, operation of said levers moving said upper and said lower longitudinal dividers toward each other thereby to deform both sides of said rubber center divider laterally, lateral deformation of said sides of said rubber center divider and movement of the tapered sides of said upper and lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartment.

19. A grid structure for cooperating with an ice tray to provide ice block forming compartments comprising, a plurality of spaced apart transverse dividers, an upper longitudinal divider, said upper longitudinal divider having cam portions formed on the ends thereof, a lower longitudinal divider, said upper and said lower longitudinal dividers being arranged in spaced apart relationship in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed and retained between said upper and said lower longitudinal dividers, and a lever pivotally connected to each end of said lower longitudinal divider and operatively engageable with said cam portion on the corresponding end of said upper longitudinal divider, operation of said levers moving said upper and lower longitudinal dividers toward each other thereby to deform said rubber center divider laterally, lateral deformation of said rubber center divider and movement of the tapered sides of said upper and lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

20. In a grid structure for cooperating with an ice tray to provide ice block forming compartments comprising a plurality of spaced apart transverse dividers, an upper longitudinal divider, said upper longitudinal divider having cam portions formed on the ends thereof, said upper longitudinal divider having a longitudinal tongue formed on the under side thereof, a lower longitudinal divider, said lower longitudinal divider having a longitudinal tongue formed on the upper side thereof, said upper and said lower longitudinal dividers being arranged in spaced apart relation in the same vertical plane, said upper and said lower longitudinal dividers being tapered toward each other throughout their lengths, said upper and said lower longitudinal dividers being movable toward each other, a longitudinal rubber center divider disposed between said upper and said lower longitudinal dividers, a longitudinal groove formed in the upper side of said rubber center divider receiving said tongue on said upper longitudinal divider, a longitudinal groove formed in the under side of said center divider receiving said tongue on said lower longitudinal divider, and a lever pivotally connected to each end of said lower longitudinal divider and operatively engageable with said cam portion on the corresponding end of said upper longitudinal divider, operation of said levers moving said upper and lower longitudinal dividers toward each other thereby to deform both sides of said rubber center dividers laterally, lateral deformation of said sides of said rubber center divider and movement of the tapered

sides of said upper and said lower longitudinal dividers exerting lateral forces against adjacent ice blocks for facilitating the release of said ice blocks from said compartments.

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