Sept. 3, 1957 H. R. ANSEL 2,804,755

ICE CUBE TRAY

Filed Feb. 10, 1955

Fig. 1.

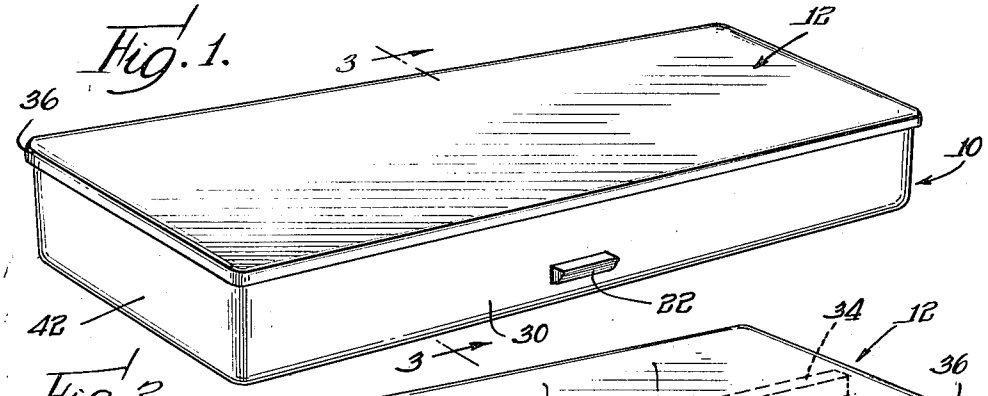



Fig. 2.

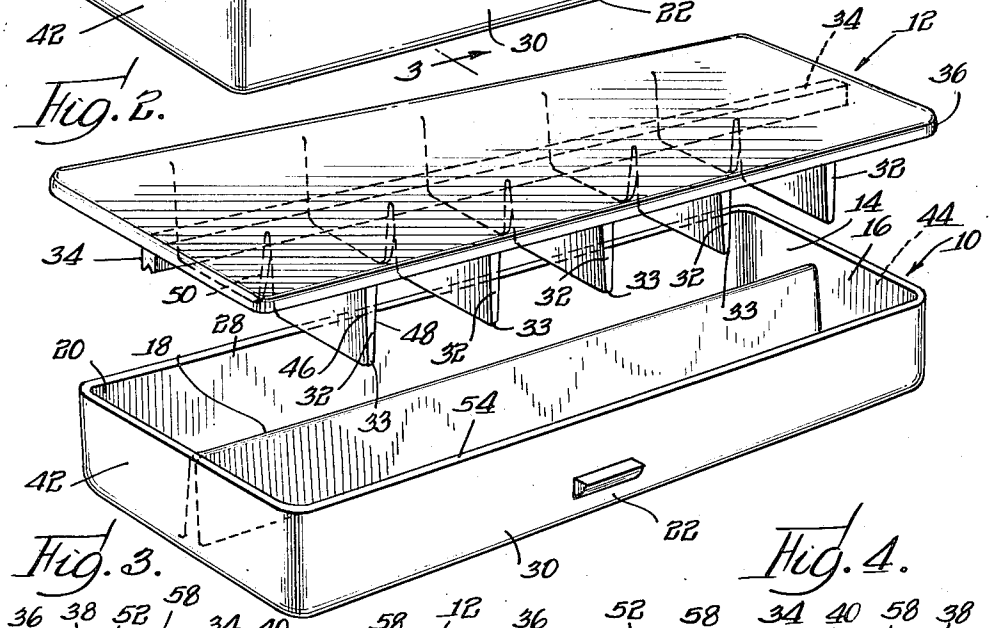



Fig. 3.

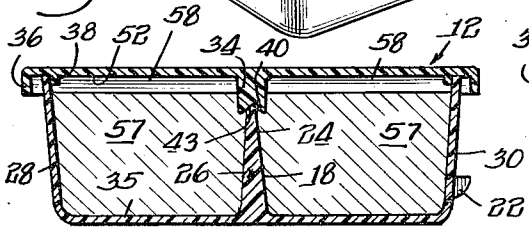
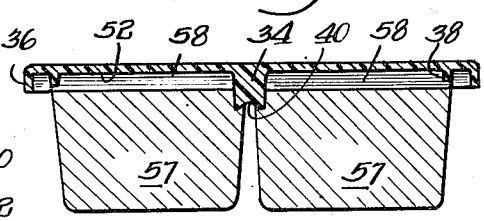



Fig. 4.



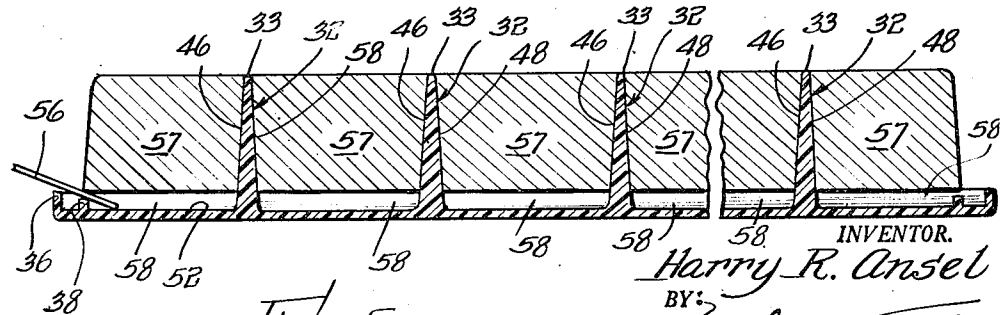




Fig. 5.

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United States Patent Office 2,804,755 Patented Sept. 3, 1957



2,804,755

# ICE CUBE TRAY

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Application February 10, 1955, Serial No. 487,272

5 Claims. (Cl. 62—108.5)

This invention relates to a freezing and storage container for ice cubes, and more particularly to an improved and covered ice cube tray.

It is well known that ice cube trays now in common use consist of a pan and a separate network of longitudinal and transverse dividers. Such trays generally have no covers. Also, such trays generally have vertical side walls, and the walls of the transverse and longitudinal dividers also are generally disposed in a vertical position. A disadvantage of such trays is that, because they have no cover, they must be carefully balanced when carried from a faucet after being filled to the freezing compartment of a refrigerator. Needless to say, some of the water is frequently spilled during this operation, and even with due care water overflows the side of the container and freezes to the outside of the tray making its removal difficult from the freezing compartment. Loose covers, such as are found on some trays, do not prevent such spilling and the ensuing undesirable results. Another disadvantage of such trays is that the vertical walls of the container, as well as those of the transverse and longitudinal dividers, make it difficult to remove the ice cubes from the tray. These trays also have the disadvantage that it is impossible to remove a single ice cub without removing all of them from the tray. The fact that a cover is generally not provided makes it possible for the ice cubes, if they are stored for a long period of time, to acquire an off-taste.

It is an object of the present invention to provide an ice cube tray with a cover which prevents spillage of the water when lifting the tray from a water faucet to the freezing compartment.

It is another object of this invention to provide a tray in which the walls thereof, as well as the sides of the dividers, are tapered thereby facilitating removal of the ice cubes from the tray.

It is still another object of this invention to provide an ice cube tray in which the cubes may be individually removed.

It is another object of the invention herein to completely seal the ice cubes within the tray so that they do not acquire an off-taste from foods within the freezing compartment.

It has been found that a number of the difficulties and disadvantages occurring in ice cube trays heretofore known result from the fact that the ice cube tray and the longitudinal and transverse dividers are all in one piece, or that the dividers are formed in a single unit which is inserted in the tray. The invention herein eliminates these disadvantages and difficulties by providing an ice cube tray and cover in which a longitudinal divider is placed in the pan and the transverse dividers are located in the cover.

The majority of ice cube trays now in use are made of metal, as are also the dividers used therein. The use of metal for such purposes is rather expensive and it is an object of the invention herein to provide an ice cube tray molded of plastic, thereby reducing production costs.



Plastic has the additional advantage over metal in that it is flexible.

These and other objects will be more apparent from the detailed description and drawings hereinafter provided wherein like numerals are used to designate the same parts throughout.

Fig. 1 is a perspective view of a storage and freezing container for ice cubes showing the invention herein;

Fig. 2 is an exploded perspective view showing the pan and cover in disassembled relationship;

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 1;

Fig. 4 is a portion of Fig. 3 showing the cover with the ice cubes affixed thereto; and

Fig. 5 is an inverted longitudinal sectional view of the cover with the ice cubes affixed thereto.

Referring now to Fig. 2 of the drawings, there is shown therein a tray or pan **10** and a cover **12**. The pan is rectangular in shape, and includes two compartments **14** and **16**, separated by a longitudinal divider **18**. The pan is preferably made of plastic, but may be made of any suitable material including aluminum or other metals. The tray **10** is rounded at the corners as shown at **20** to provide a smooth internal surface thereby facilitating removal of ice cubes frozen therein. The tray is of sufficient length to fit the normal refrigerator freezing compartment and is of a depth similar to ice cube trays heretofore known. Affixed to the side of the tray and adjacent the top portion thereof is a horizontally disposed lug **22**. The purpose of the lug is to facilitate the removal of the cover of the tray from the pan portion. Its use and operation will be elaborated upon hereinafter.

Referring now to Fig. 3, and specifically to the longitudinal divider **18**, it will be noted that the divider is wedge-shaped in cross section with tapered sides **24** and **26**, and extends from one end of the tray to the other. The top edge **43** of the longitudinal divider is disposed below the top edges of the side walls **28** and **30** and the end walls **42** and **44** of the tray. It will also be noted that the sides **28** and **30** of the pan **10** are also tapered. Tapering the sides of the divider and the sides of the pan is important because it facilitates removal of the ice cubes from the tray.

Referring again to Fig. 2, the cover **12** is rectangular in shape and includes on its under surface transverse dividers **32**, a longitudinal rib **34**, and a circumferential lip **36**. As shown in Fig. 3, the cover also includes an internal flange **38**. The longitudinal rib **34** extends throughout substantially the entire length of the cover **12** and has provided on the downwardly extending end thereof a notch **40**. The notch **40** fits over the top **43** of the longitudinal divider **18**. As is apparent from the drawings, the longitudinal rib **34** is formed integral with the cover **12**. The cover is preferably made of plastic, but may be made of any other suitable material.

The circumferential lip **36** is curved downwardly from the outer surface of cover **12** and is approximately one-fourth inch in height. Lip **36** is provided to prevent the ice cubes from sliding out of the cover when the tray is inverted. Its use will be more fully explained when the operation of the tray is discussed.

The internal flange **38** preferably is formed integral with the under side of the cover, and parallels lip **36**, being disposed approximately one-fourth inch inwardly therefrom. The flange extends downwardly approximately one-eighth inch from the under side of cover **12**. The flange provides a means for sealing the tray against seepage of water such as when the tray is carried from a faucet to the freezing compartment. It will be noted that the outer edge of the flange defines the inner boundary of the sides of the tray **10**, and therefore accurately positions the cover **12** on the pan or tray **10**. When

the cover **12** is placed over the pan **10**, the inner flange **38** fits snugly against the inner surfaces of the sides **28** and **30** and ends **42** and **44** of the tray **10**.

As will be noted in Fig. 2, the transverse dividers **32** are formed integral with the cover **12** and have tapered sides **46** and **48**. Each of these dividers is also provided with a wedge-shaped opening **50** in the center thereof, which opening is adapted to accommodate the longitudinal divider **18** in the pan **10**. The tapered sides **46** and **48** facilitate removal of ice cubes from the cover portion of the freezing and storage container. The transverse dividers extend down from the under side of cover **12** a sufficient distance so that when the cover is placed over the tray **10**, the ends **33** of the dividers engage the bottom **35** of the inside of the tray.

The freezing and storage container for ice cubes herein is used as follows: The tray portion **10** is filled with water to a point approximately equal to the height of longitudinal divider **18**. The cover **12** is then placed over the tray **10**, the flange **38** facilitating accurate placement. The longitudinal rib **34** fits over the top of longitudinal divider **18**, and the under surface **52** of the cover is pressed firmly against the top edge **54** of the tray. With the tray thus sealed the water cannot escape, and the tray is moved to the freezing compartment of a refrigerator. After the water has frozen, and it is desired to remove ice cubes from the tray, the container is removed from the freezing compartment.

To remove the ice cubes from the tray, the tray is grasped in the hand of an operator with his thumb pressing over the lug **22**. The fingers of the other hand of the operator may then be used to grasp the lip **36** adjacent the lug **22**, and by exerting a slight force the cubes may be disengaged from the longitudinal divider **18** and the sides and ends of the tray. The tray and cover are then inverted and the tray **10** is lifted away from the cover **12**. The ice cubes may then still adhere to the transverse dividers **32**, and, if such is the case, they may be removed by flexing the cover or by inserting a knife **56**, as shown in Fig. 5, over the edge of lip **36** and under the ice cube **57**. Because the tray is filled only to a depth equal to the height of longitudinal divider **18**, there is always an air space **58** between the ice cubes **57** and the underside of the cover **12**. This makes it possible to insert a knife or the fingers of an operator into the air space to remove ice cubes adhering to the transverse dividers. It is to be noted at this point that the lip **36** prevents the ice cubes from slipping out of the cover. This is a significant advantage because in removing ice cubes from the trays without a cover they slide out on a counter or into the sink thereby rendering them unsanitary or unfit for use. Because the ice cubes are formed individually, and in view of the manner in which the longitudinal and transverse dividers are disposed in the invention herein, it is obvious that cubes may be removed individually if so desired.

From the foregoing detailed description it is apparent that the invention herein provides an improved storage and freezing container for ice cubes that may be manufactured inexpensively, prevents water from spilling such as when moving it from a faucet to a freezing chamber, provides for individual removal of ice cubes, and prevents the ice cubes from acquiring an off-taste. Various modifications in structure and materials are possible, and will be understood as forming a part of this invention insofar as they fall within the spirit and scope of the appended claims.

I claim:

1. A freezing and storage container for ice cubes, and comprising a substantially rectangular pan having a divider disposed longitudinally thereof and extending from the base of the pan upwardly toward the open end thereof, a cover for said pan and having transverse dividers integral therewith and depending therefrom a distance such as to substantially contact the base of the pan when the cover is placed thereon, the said transverse dividers on said cover each having a notch intermediate the ends thereof to substantially complement and straddle the said longitudinal divider in abutting relation therewith when the cover is placed on the pan and freely separable therefrom with the cover when the cover is removed; the assembly of pan, cover and dividers being formed of flexible plastic material capable upon manual flexing to release the ice cubes for ready removal therefrom.



2. A container as in claim 1, wherein the vertical surfaces of the pan and its longitudinal divider are tapered upwardly to facilitate removal of ice cubes, and wherein the transverse dividers on the cover are similarly tapered in opposite directions.

3. A container as in claim 1, wherein the cover is provided with a longitudinal rib depending substantially centrally therefrom to engage the top edge of the longitudinal divider in the pan.

4. A container as in claim 1, wherein the peripheral portion of the cover projects laterally beyond the peripheral open edge of the pan and is provided with a downturned peripheral lip spaced outwardly from the top edge of the pan and serving as a finger grip for removal of the cover and as a drip collection receptacle when the cover is inverted with the ice cubes stored therein.

5. A freezing and storage container for ice cubes and comprising a substantially rectangular pan having a divider disposed longitudinally thereof and extending from the base of the pan upwardly toward the open end thereof, a cover for said pan and having transverse dividers integral therewith and depending therefrom a distance such as to substantially contact the base of the pan when the cover is placed thereon, the said transverse dividers on said cover each having a notch intermediate the ends thereof to substantially complement and receive the said longitudinal divider therein when the cover is placed on the pan, the peripheral portion of the cover projecting laterally beyond the peripheral open edge of the pan and terminating in a downturned peripheral lip spaced outwardly from the top edge of the pan and serving as a finger grip for removal of the cover and as a drip collection receptacle when the cover is inverted with the ice cubes stored therein, and flange means depending from the cover and spaced inwardly of said lip for engagement with the inner surface around the open peripheral edge of the pan to properly center the cover with respect thereto; the assembly of pan, cover and dividers being formed of flexible plastic material capable upon manual flexing to release the ice cubes for ready removal therefrom.

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