June 20, 1933. T. J. FEGLEY ET AL 1,915,220

ICE CREAM FREEZER

Filed Oct. 8, 1932

Fig. 1.

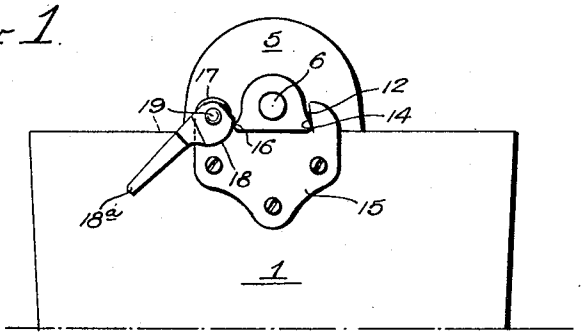


Fig. 2.

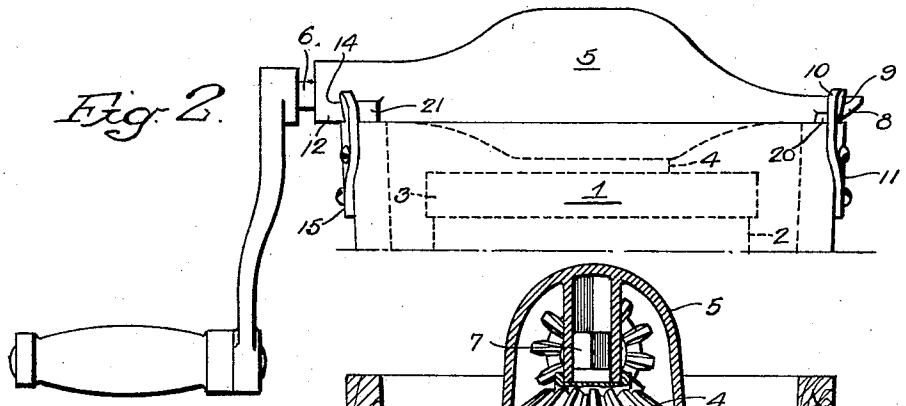


Fig. 3.

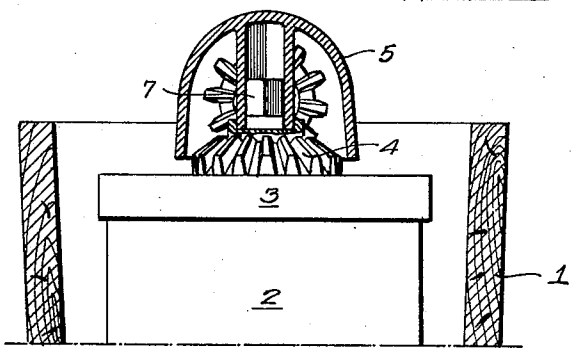


Fig. 4.

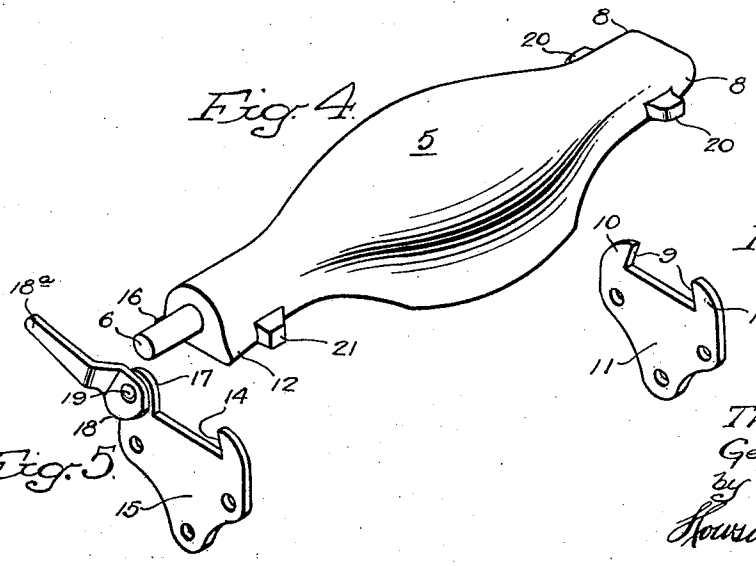


Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE

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ICE CREAM FREEZER

Application filed October 8, 1932. Serial No. 636,902.

This invention relates to improvements in ice cream freezers, and relates more particularly to improvements in the cross bars which house the drive shaft and associated gearing, and in the means for retaining this bar in the operative position.

One object of our invention is to provide a simple and substantial clamp for rigidly holding the cross bar of an ice cream freezer to the tub.

Another object of the invention is to provide a clamp of the stated character so constructed as to be substantially unaffected by the brine with which it necessarily unavoidably must come in contact.

Still another object of the invention is to provide a clamp of the stated character that may be readily operated either to clamp the cross bar to the tub or to release the bar to permit removal thereof.

Figure 1 is a side view of the upper portion of a tub showing the cross bar clamped to the tub;

Fig. 2 is a side view of the tub and the cross bar;

Fig. 3 is a sectional view of the upper portion of the ice cream freezer showing the rounded cross bar enclosing the gearing;

Fig. 4 is a detached perspective view of the cross bar;

Fig. 5 is a detached perspective view of the clamp, and

Fig. 6 is a detached perspective view of the undercut bearing for the opposite end of the cross bar from the clamp.

With reference to the drawing, 1 is the tub of an ice cream freezer, and 2 is the can having a cap 3 on which is cast a beveled gear wheel 4. 5 is the cross bar having bearings for a shaft 6 on which is a beveled gear wheel meshing with the gear wheel 4 on the top of the can. On the outer end of the shaft is a handle by which the shaft is turned. In the cross bar is a rectangular recess into which the correspondingly formed upper end of the dasher 7 extends. In this type of freezer the dasher is stationary and the can rotates. The above construction in general is in common use and we lay no claim to it.

In accordance with our invention, the upper surface of the cross bar is rounded and the bar is tapered towards each end both in the vertical and horizontal directions. The object of making the cross bar in this manner is that while access may be had to the space between the tub and the can for packing the ice and salt, the enlarged central portion, which projects downwardly into the tub to a point closely adjacent the top of the can, substantially embraces and thoroughly protects the gears. The upper rounded surface gives assurance that ice or salt spilled upon the cross bar will slide off and into the tub.

One end of the cross bar is beveled at each side as at 8 and this beveled portion fits into the recess 9 formed by the two undercut projections 10 of a plate 11 which is secured to the tub. Stop lugs 20 on the cross bar limit the movement of the cross bar in the plate. One side of the opposite portion of the cross bar is beveled at 12 and back of this beveled portion is a stop lug 21. The beveled portion 12 fits under an undercut projection 14 of a plate 15 secured to the tub and the stop lug bears against the inner side of the plate to prevent longitudinal movement of the bar. The opposite side of the end of the cross bar has a projecting edge 16 at its lower edge, and on a projection 17 of the plate 15 is pivoted a cam 18 having a handle 18*a*. The pivot pin 19 in the present instance is in the form of a rivet. When the cam is adjusted away from the cross bar the bar can be shifted slightly and raised from between the two projections 14 and 17 and can then be withdrawn longitudinally from the plate 11. When the cross bar is in position the cam can be turned to press upon the edge 16 of the bar so as to force the cross bar firmly onto the plate and against the beveled portion of the projection 14, whereby the cross bar is held rigidly in position while the ice cream is being made. The stop lugs at either end of the cross bar hold the bar against longitudinal movement, and the cam 18 when turned against the edge 16 exerts a progressively increasing force precluding any play developing between the bar and the clamping means.

We claim:

The combination in a clamp for the cross bar of an ice cream freezer, of a tub; a plate secured to the tub at its upper edge, said plate having a beveled undercut projection at one side and a projection at the opposite side; a handled cam pivoted to the last-mentioned projection, said projections being spaced apart; a cross bar shaped at one end to fit the space between the projections of the plate, said bar having a beveled edge at one side to extend under the undercut projection, and having a projecting edge at the opposite side to be engaged by the cam which when in position will bear upon the edge to force the bar against the body of the plate and against the undercut projection.

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