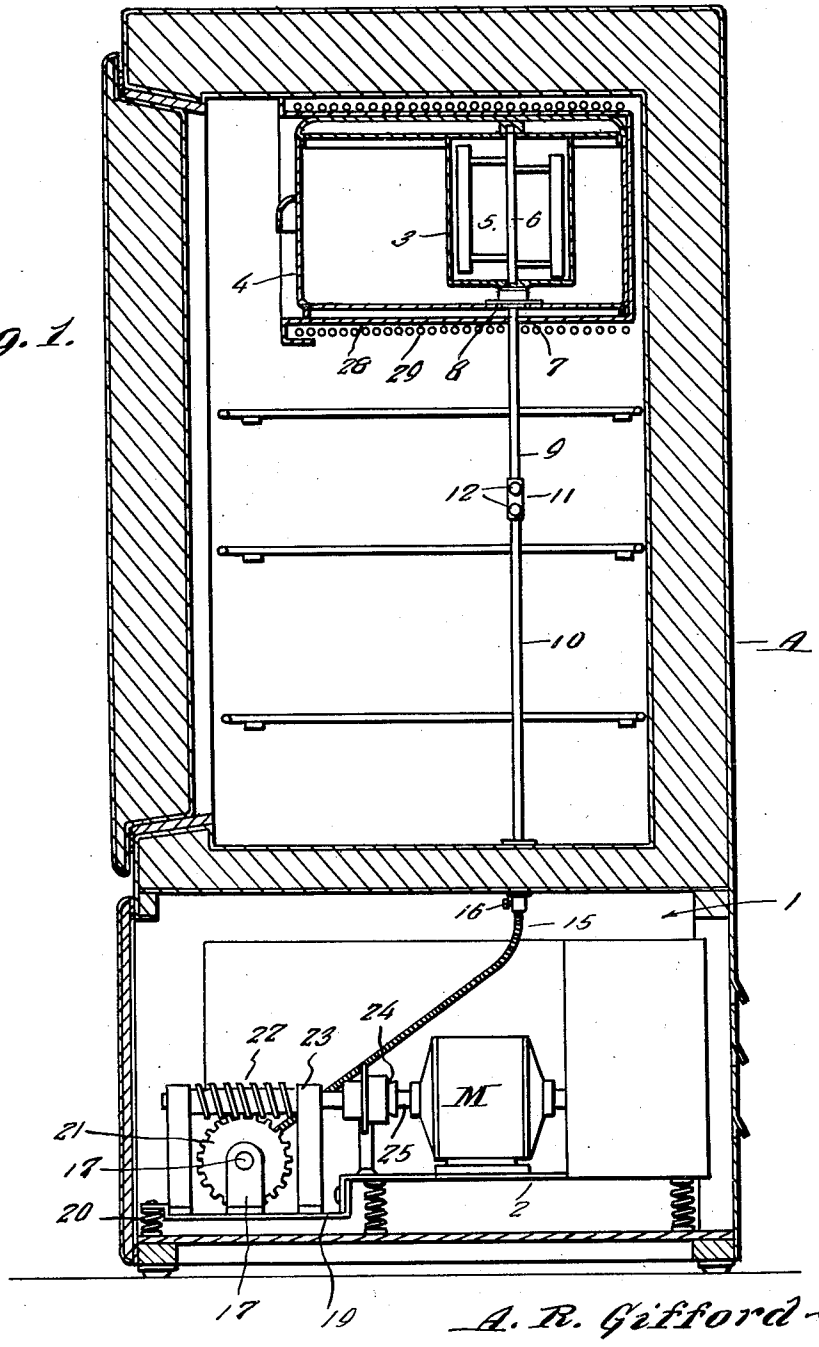
Feb. 21, 1933. A. R. GIFFORD 1,898,724

MEANS FOR MAKING ICE CREAM IN AN ELECTRIC REFRIGERATOR

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Fig. 1.



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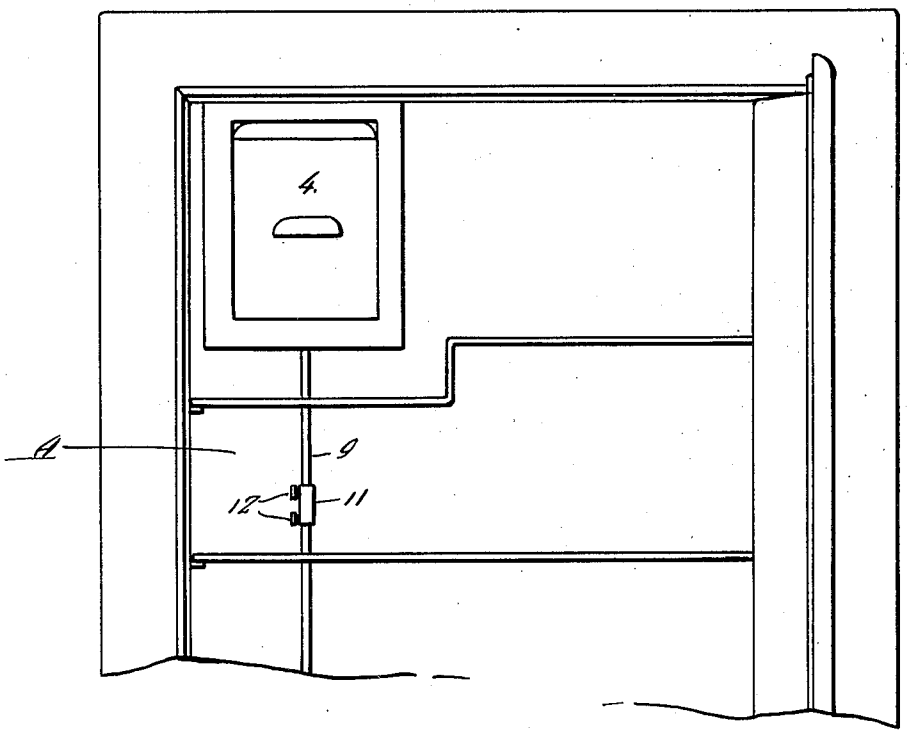
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MEANS FOR MAKING ICE CREAM IN AN ELECTRIC REFRIGERATOR

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Fig. 2.



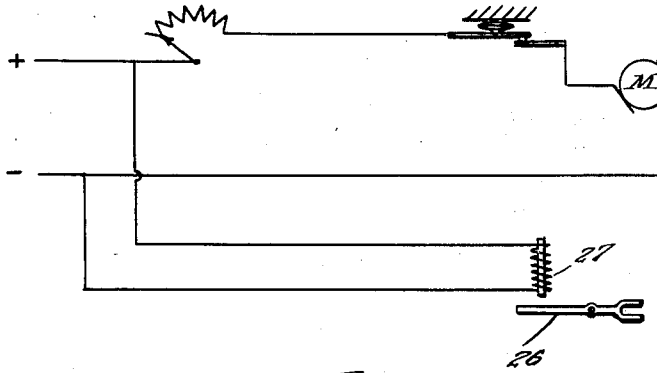


Fig. 7.

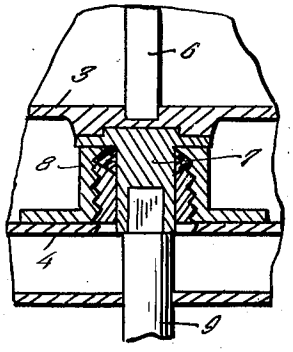


Fig. 8.

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Fig. 3.

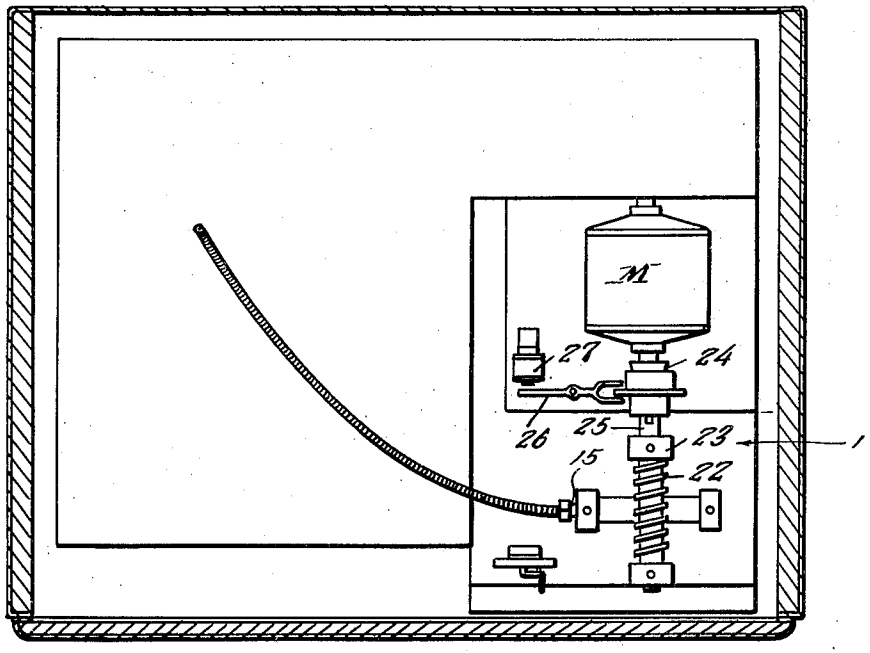
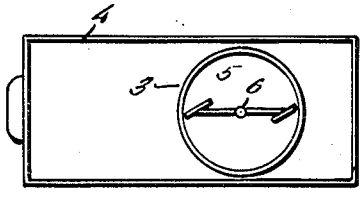


Fig. 4.



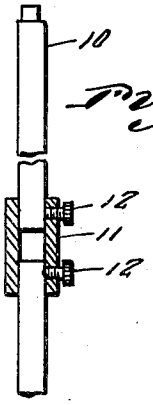
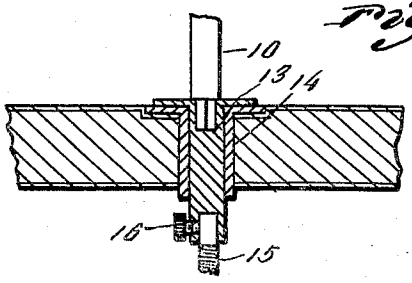


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE

ALBERT R. GIFFORD, OF LOS ANGELES, CALIFORNIA

MEANS FOR MAKING ICE CREAM IN AN ELECTRIC REFRIGERATOR

Application filed September 23, 1931. Serial No. 564,677.

This invention relates to means for making ice cream in an electric refrigerator, the general object of the invention being to provide means for operating an ice cream freezer by the motor of the refrigerator so as to utilize the motor of the refrigerator for turning the freezer.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a vertical sectional view through an electric refrigerator showing the invention in use.

Fig. 2 is a front fragmentary view with the doors of the refrigerator open.

Fig. 3 is a transverse sectional view through the motor chamber of the refrigerator.

Fig. 4 is a view of the drawer containing the ice cream freezer.

Fig. 5 is a sectional detail view showing the joints between the two vertical shafts.

Fig. 6 is a view of the coupling between the lower end of the bottom shaft and the flexible shaft.

Fig. 7 is a diagrammatic view of the circuit.

Fig. 8 is a sectional view showing the means for connecting the can to the sectional shaft.

In these drawings, the letter A indicates the refrigerator which is formed with a lower chamber 1 containing the motor M which is seated on a resiliently supported base 2 in the usual manner.

In carrying out my invention, I place a freezer 3 in a drawer 4 in the refrigerating chamber of the refrigerator, and a dasher 5 is located in the freezer and its shaft 6 is supported against rotary movement. A stub shaft 7 has a square upper end fitting in a recess in the bottom of the can or freezer so movement of the shaft will be imparted to the can. Said shaft has a packing gland 8 surrounding the same. This gland is connected with the bottom of the drawer and the lower end of the stub shaft has a square socket therein to receive the square upper end of a shaft 9.

A lower shaft 10 is connected by the sleeve 11 and the screws 12 to the shaft 9 and the lower end of this shaft 10 is detachably connected to a stub shaft 13 located in a bushing 14 in the bottom of the refrigerating chamber, and a flexible shaft 15 is connected to the lower end of the stub shaft by a screw 16. The lower end of the flexible shaft is connected to a stub shaft 17 supported in the bearings 18 carried by a base 19 which is attached to the base 2 supported by the springs 20.

A worm gear 21 is fastened to the shaft 17 and meshes with the worm 22 carried by the bearings 23 on the base 19, and the clutch 24 connects the worm shaft with the shaft 25 of the motor M. A forked lever 26 is provided for shifting the clutch, and if desired, an overload switch 27 may be located adjacent the outer end of the lever 26 to operate the same automatically, to release the clutch when an overload takes place.

This lever can be operated by hand when desired. As shown in Fig. 7, the circuit for the motor is the same as that used in electric refrigerators, except the overload switch is connected with said circuit.

It will thus be seen that when the clutch is in operative position, the motor M will operate the freezer through the shafting and gearing shown, and when desired ice and salt can be placed in the drawer around the freezer though if the ice cream is not to be frozen quickly, the ice and salt need not be used and the low temperature of the refrigerating chamber may be utilized for freezing the ice cream, though it is preferable to use the ice and this may be secured from the ice pan of the refrigerator.

As shown in Figs. 1 and 2 the drawer is placed in a chamber 28 located in the refrigerator chamber, and this chamber may be surrounded by the coils 29.

From the foregoing it will be seen that I have made use of the motor of the refriger-

ator for operating the ice cream freezer and when the parts are not in use, the shafts 9 and 10 can be removed, and the clutch moved to inoperative position so that the motor will not drive the gearing.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

Having thus described my invention what I claim as new is:—

1. In combination with an electric refrigerator including its motor, a freezer located in the refrigerating chamber thereof, means for operating the freezer from the motor, said means consisting of a pair of shafts, gears connecting the shafts together, clutch means for connecting one of the shafts to the motor shaft, a flexible shaft connected to the other one of said shafts, and a shafting connecting the flexible shaft with the freezer.

2. In combination with an electric refrigerator including its motor, a freezer located in the refrigerating chamber thereof, means for operating the freezer from the motor, said means consisting of a pair of shafts, gears connecting the shafts together, clutch means for connecting one of the shafts to the motor shaft, a flexible shaft connected to the other one of said shafts, a shafting connecting the flexible shaft with the freezer, a drawer in the refrigerating chamber in which the freezer is placed, a casing surrounding the drawer and coils surrounding the casing.

3. In combination with an electric refrigerator including its motor, a freezer located in the refrigerating chamber thereof and including a can supported for rotary movement and a paddle member located in the can, and means for rotating the can from the motor.

In testimony whereof I affix my signature.

ALBERT R. GIFFORD.