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DISPENSING REFRIGERATOR

Filed June 26, 1929

2 Sheets-Sheet 1

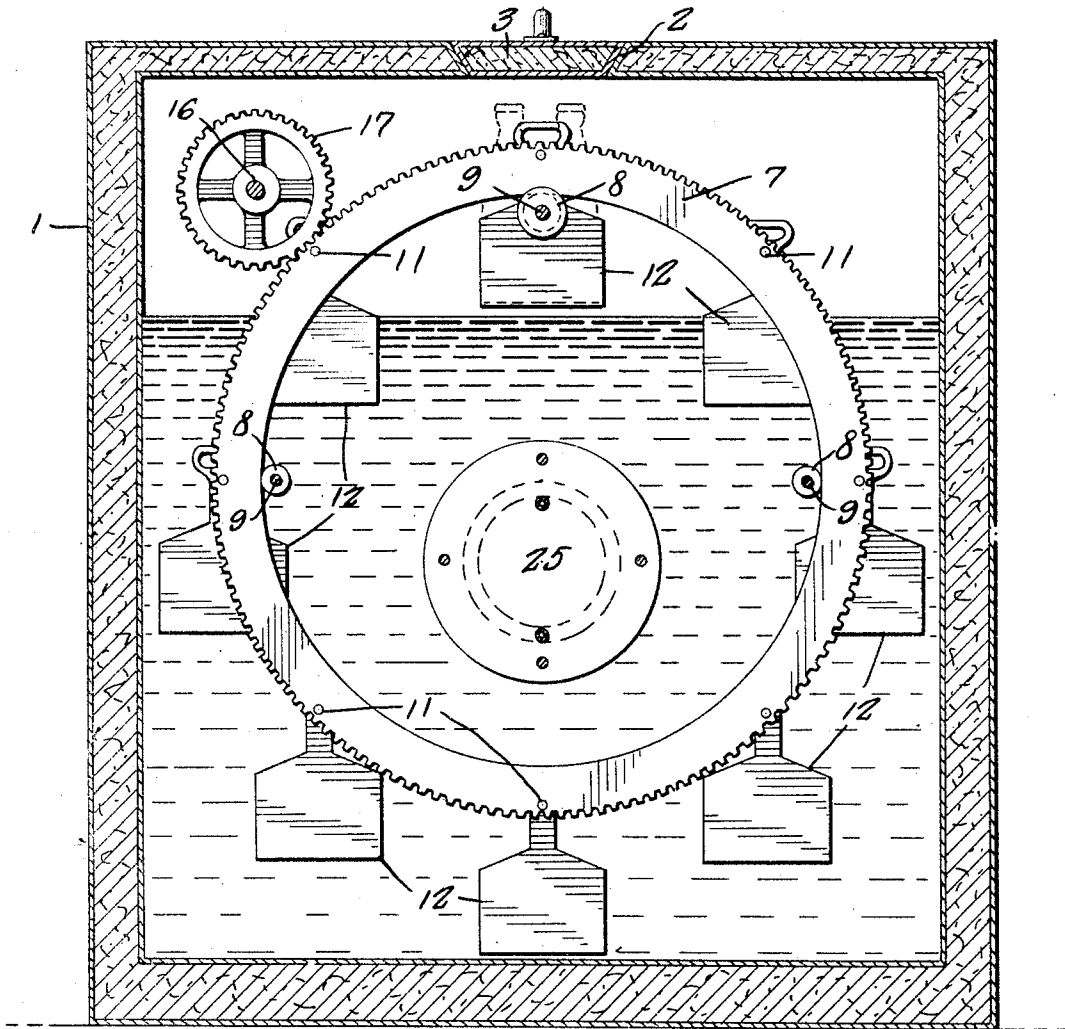


Fig. 1.

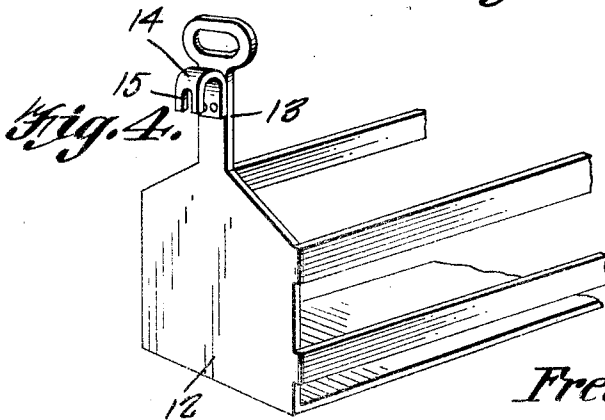


Fig. 4.

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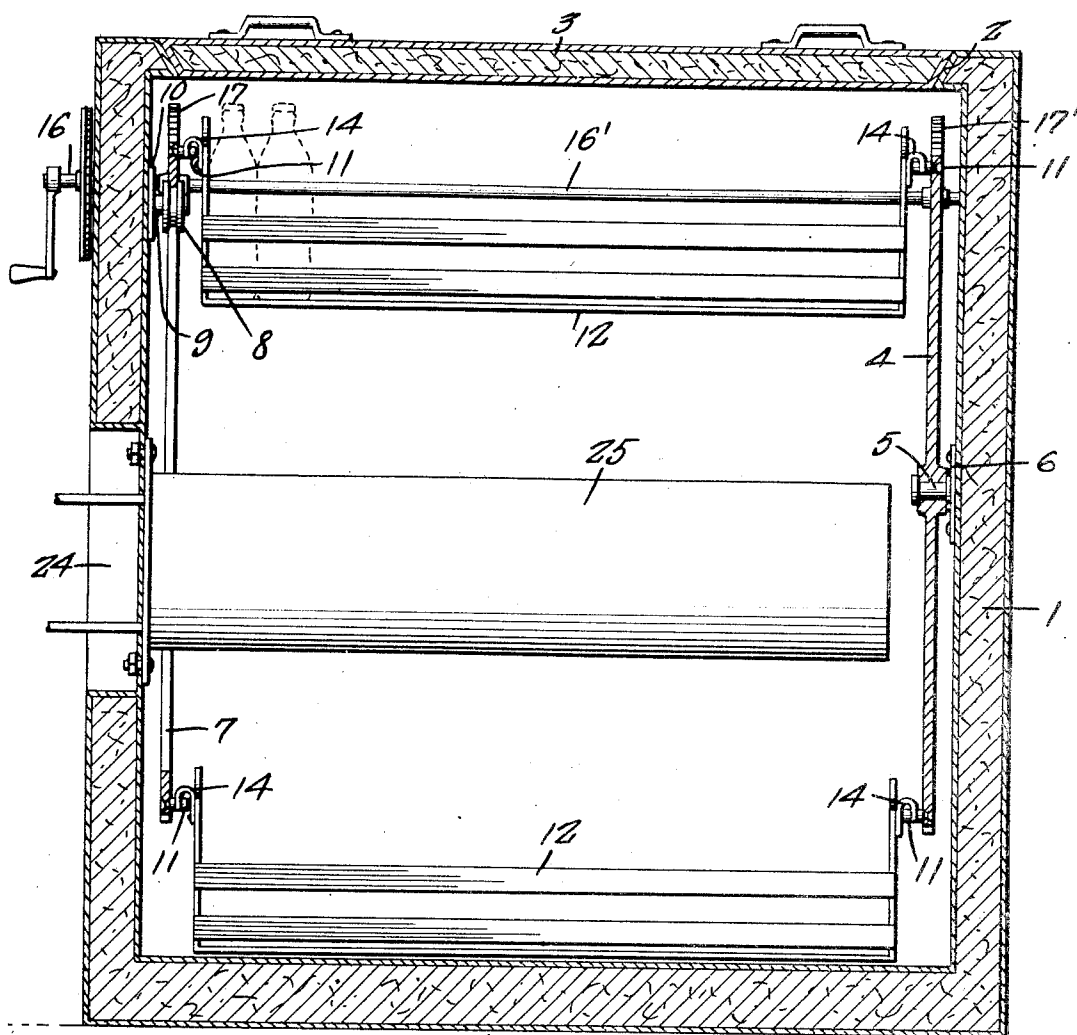
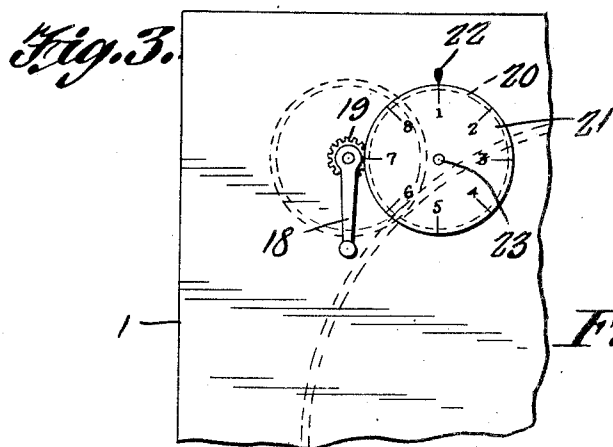
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DISPENSING REFRIGERATOR

Application filed June 26, 1929. Serial No. 373,867.

This invention relates to a refrigerating and dispensing device which is mainly designed for use with bottled beverages, but which, of course, can be used for other purposes, the general object of the invention being to provide a rotary member in the cooling chamber of the device from which is suspended a plurality of racks or trays for holding the bottles or other articles, the racks being so connected with the member that they always assume an upright position irrespective of their positions relative to the rotary member, with exterior means for rotating the member to bring any desired rack or tray opposite an opening in the cooling chamber.

Another object of the invention is to so place the cooling medium with respect to the trays or racks that said racks and the articles therein will remain close to the medium throughout the rotation of the rotary member.

Another object of the invention is to so construct and arrange the racks or trays that a large number of articles can be placed in each one of them, so that the capacity of the device is greatly increased and the bottles are held in upright position at all times so that they can be readily removed or inspected through a door formed in the top of the cooling chamber and when a cooling liquid is used in conjunction with a refrigerant unit, the movement of the trays will agitate the liquid so that a uniform cooling effect is provided.

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 claim.

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 the device.

Figure 2 is a similar view, but taken at right angles to Figure 1.

Figure 3 is a fragmentary view of one end of the cabinet, showing the operating handle

for the rotary member and the dial associated therewith.

Figure 4 is a fragmentary perspective view of one of the trays of racks.

In these views, the numeral 1 indicates the cabinet or casing which is formed in part of heat non-conducting material, and has an elongated opening 2 in its top, the walls of which are beveled to receive the beveled walls of a cover 3. A toothed wheel 4 is supported for rotary movement adjacent the inner wall of one of the ends of the casing by the stub shaft 5 which is attached to said wall by a bracket 6 and a ring gear 7 is supported for rotary movement adjacent the inner face of the other end of the casing by the grooved rollers 8, each of which is arranged on a stub shaft 9 carried by a bracket 10 which is fastened to said inner wall. Inwardly extending pins 11 are carried by the wheel 4 and the ring gear and act as suspension means for the racks or trays 12. Each tray has an upwardly extending handle part 13 having a hook 14 thereon which is notched, as at 15, to receive a pin; it being understood that one of these handle parts, with its hook, is connected with each end of a tray. Thus the trays will assume an upright position throughout the rotary movement of the supporting member formed by the wheel 4 and the gear 7. These racks or trays are of slatted construction, as shown, so as to support a plurality of bottles, with the bottles preferably in upright position, so that when the supporting member is moved to a position where one of the trays will be arranged under the cover 3, the bottles can be easily removed therefrom by lifting the cover, and the bottles can be readily inspected so that the bottle or bottles containing the beverage desired can be easily secured. The opening 2 is of such a size that the trays or racks can be passed through the same so that the entire rack, with the bottles therein, can be passed through the opening and placed on the supporting member or removed therefrom.

A shaft 16 passes through a wall of the casing and has a gear 17 on its inner end meshing with the ring gear and a handle 18 is connected with the outer end of the shaft

so that the shaft can be turned to impart movement to the rack supporting means. A small gear 19 is connected with the outer part of the shaft and meshes with a gear 20 carrying a dial 21, the numbers on which cooperate with the marker 22 to indicate which rack is under the opening 2. The gear 20 and its dial are arranged on a shaft 23 supported from the casing. Of course, if desired, the shaft 16 can be extended and provided with a second gear for meshing with the teeth of the wheel 4, as shown at 16' and 17'.

One end of the casing is formed with an opening 24 to permit a refrigerator unit 25 to be placed in the casing, this unit being eccentrically arranged with respect to the ring gear so that all the racks will be a uniform distance from said unit, as shown in Figure 1.

I prefer to place water or other liquid in the casing and to keep the level of the same at a point where the uppermost rack will have its bottom slightly above said level. Of course, this liquid is cooled by the unit and as the racks and their supporting means are moved, the liquid will be agitated, thus securing a uniform cooling effect.

It will be understood that the wheel 4 may be made in the form of a ring gear the same as the gear 7 where it is desired to use a number of units 25 with a unit attached to each end of the casing. This arrangement is desirable where the device is of considerable size. It will also be understood that it is not necessary to use the liquid, as the articles might be cooled by air cooled by the unit or units and it is also possible to use ice for the cooling agent. This ice may be placed in a basket substituted for the cooling unit 25 or it may be placed in a separate chamber which is in communication with the rack chamber. The device can also be used for cooling meats and other articles by substituting suitable trays for the racks and this arrangement could be used in a display case. Of course, the liquid would not be used in this event.

From the foregoing it will be seen that I have provided a device which has large capacity, as each tray holds a considerable number of bottles or other articles and that any desired tray can be readily brought under the opening 2 by simply turning the handle to bring the number corresponding to the desired tray opposite the marker 22. Then by lifting the cover, the bottles or other articles desired can be readily lifted from the tray.

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 claim.

What I claim is:—

In refrigerating and dispensing apparatus

of the class described, a casing, circular members mounted for rotation upon opposite side walls of the casing, means for imparting rotary motion to said members, in unison, an annular series of studs projecting from the inner face of each member, the studs of the two members being correspondingly spaced, trays to contain the products to be refrigerated, a handle member extending upwardly from each end of each tray, and a suspension member associated with each handle member and comprising an attaching portion secured to the respective handle member and a portion connected with the attaching portion by a bend and spaced with respect to said portion and provided with a notch in its free end for engagement with a respective one of said studs.

In testimony whereof I affix my signature.

FREDERICK S. HAYES.