R. W. GEARHART.

SALES CABINET FOR PACKAGE GOODS.

APPLICATION FILED SEPT. 7, 1921.

1,432,284.

Patented Oct. 17, 1922.

2 SHEETS—SHEET 1.

Fig. 1

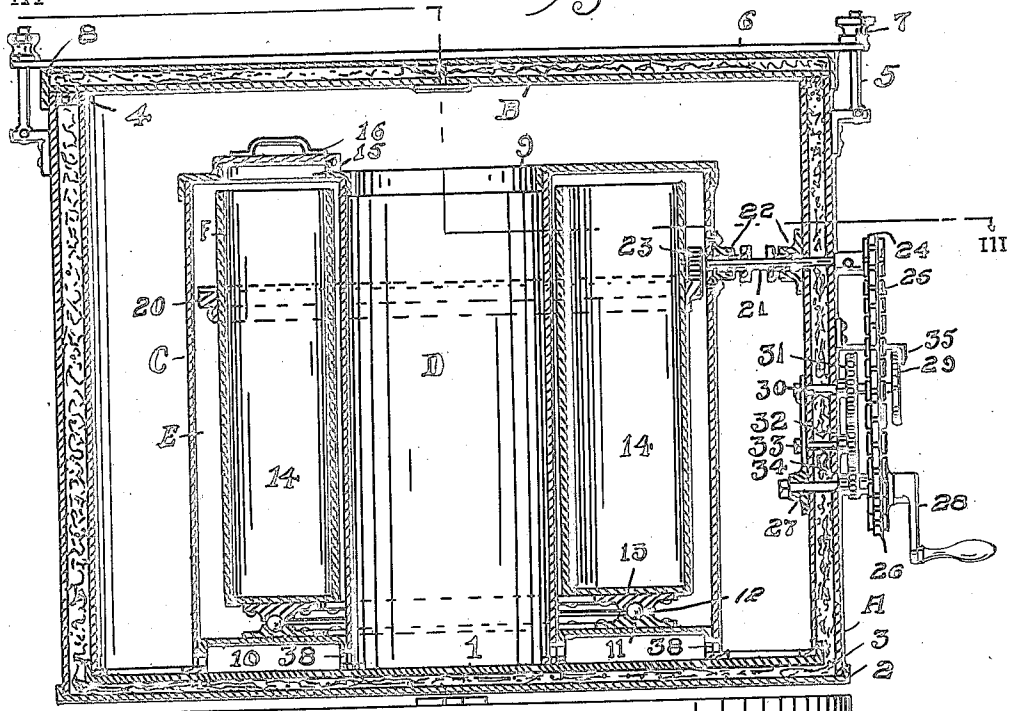
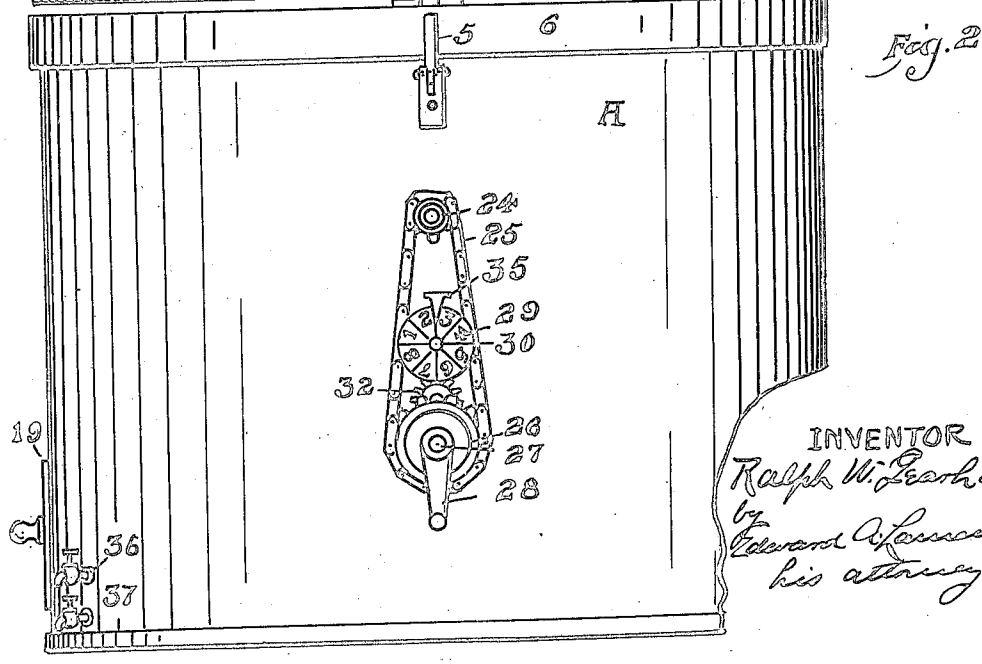


Fig. 2



INVENTOR

Ralph W. Gearhart

by Edward A. Lawrence

his attorney.

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Fig. 3

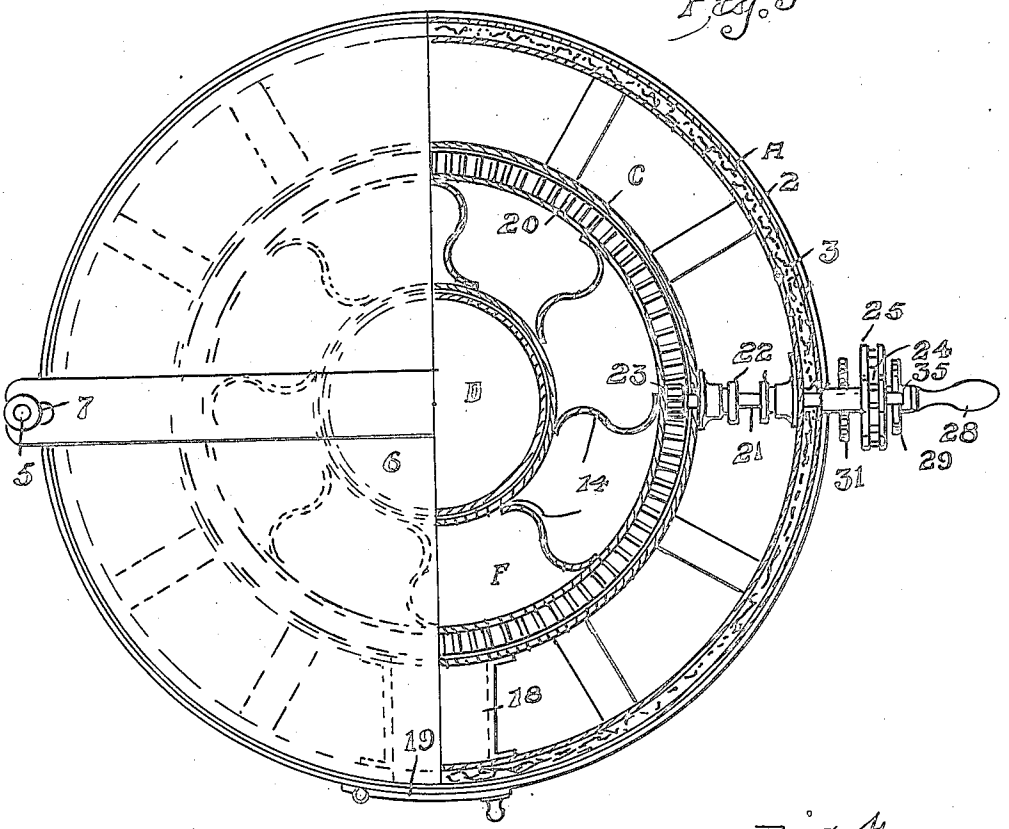
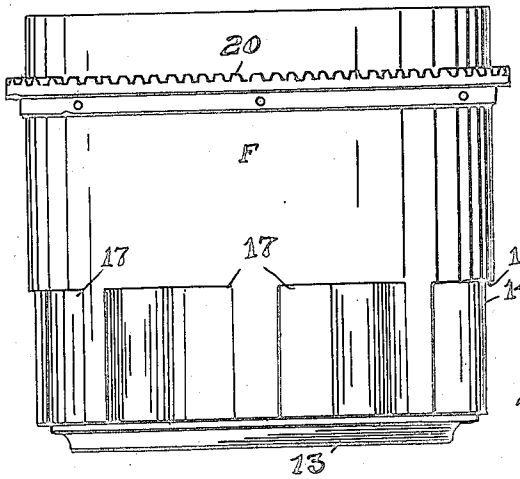


Fig. 4



WITNESS

R. E. Dilworth

INVENTOR

Ralph W. Gearhart

by Edward A. Lawrence

His attorney

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UNITED STATES PATENT OFFICE.

RALPH W. GEARHART, OF JOHNSTOWN, PENNSYLVANIA.

SALES CABINET FOR PACKAGE GOODS.

Application filed September 7, 1921. Serial No. 499,016.

To all whom it may concern:

Be it known that I, RALPH W. GEARHART, a citizen of the United States, and residing in the city of Johnstown, in the county of Cambria and State of Pennsylvania, have invented or discovered new, useful, and Improved Sales Cabinets for Package Goods, of which the following is a specification.

My invention consists of a new and improved selective sales cabinet for package goods, and more especially for package ice-cream and other package substances requiring refrigeration.

The present practice in retailing package ice-cream is to store the packages of various flavors or combinations of flavors in a lidded metal can which is set in a tub packed, with ice and salt. When a customer asks for a package of a particular flavor or combination of flavors, the clerk scrapes the ice from the lid, removes the lid and then reaches down and takes the packages from the can and examines the same until he happens on a package of the proper character. The other packages are then replaced in the can, the lid put on and the ice scraped back over the lid. The result is that the packages are repeatedly handled, and thus become soiled and unattractive and unsanitary, and the contents of the packages soon become half melted and unusable.

The object which I have in view is the provision of a selective sales cabinet which will dispense the package required by the customer without the handling or exposure of the remaining packages.

For this purpose I have devised a selective sales cabinet comprising an outer box with heat-insulated walls, and within which is mounted a container divided into compartments to receive the various characters of package goods, the packages, in the case of the package ice-cream, being assorted in the various compartments in accordance with their flavors or combinations of flavors. The compartments are arranged radially of the container, and their outer walls are apertured so that by rotating the container to bring the aperture of any given compartment into registration with a doored opening in the outer wall of the cabinet, the clerk can, by opening the door and reaching in, remove from the compartment a package of the character desired. Provision is made for packing the container with ice and salt or supplying other refrigerant, such as brine, in such a manner that the refrigerating materials or substances do not come into contact with the goods nor enter the interior of the compartments.

In the preferred embodiment of my invention which is shown in the drawings, the cabinet is provided with a pair of vertically disposed annular partitions or walls which are concentric, and thus form between them an annular chamber in which is mounted an annular container divided in a substantially radial manner into a plurality of compartments, one compartment being provided for each character of package to be kept on hand. The container is preferably open at its top and is closed in by means of a cover which fits down on said annular walls of the chamber. The cover is preferably provided with a lidded aperture for loading the compartments, the container being rotated to bring said compartments in turn beneath said lidded aperture. The outer walls of the cabinet are extended up above the partition and the top of said cabinet is closed by means of a removable lid. The circular space within the interior annular partition and the annular space between the outer walls of the cabinet and the outer of the two annular partitions, as well as the space above the cover of the annular chamber, are filled with ice and salt, or supplied with other refrigerants. The outer wall of the container is provided at its bottom with a series of apertures or hand openings, one for each package compartment, which apertures may be brought into registration with a tunnel or walled opening extending from the interior of the cabinet through the outer annular partition therein and which is provided at its outer end with a suitable door. Means are provided for rotating the container, and thereby bringing the aperture of the proper package compartment into registration with said door, thus enabling the clerk to open the door and reach through the tunnel to remove from the bottom of the package compartment a package of the required character.

Other novel features of construction and arrangement of parts will appear from the following description.

In the accompanying drawings, which are, however, merely intended to illustrate a practical embodiment of the principles of my in-

vention without limiting the scope of the same to the construction shown, Fig. 1 is a vertical, diametric section through the sales cabinet; Fig. 2 is an elevation of the same, looking from the right in Fig. 1; Fig. 3 is a horizontal section taken along the line III—III in Fig. 1, and Fig. 4 is an elevation of the compartmented container.

The following is a detailed description of the drawings.

A represents the outer box or casing of the cabinet, which may be of wood or metal. The outer casing should have walls interlined with heat-insulating material. Thus I have shown said casing in the form of a circular box having an inner wall and bottom 1 spaced from its outer wall and bottom 2 by means of a layer of heat insulating material 3, which may be felt, cork or other suitable substance. At the top the walls 1 and 2 may be connected and braced by means of the annular fillet 4. The top of the casing A may be closed by means of a removable cover B which may be clamped snugly in place by means of the swinging bolts 5 connected to the outer wall of the box A and adapted to be tightened in the slotted ends of the diametric cleat 6 of the cover by means of the nuts 7. The cover is preferably provided with an interlining of suitable insulation, and with a depending flange 8 which fits down over the top of the casing A to render the closure air-tight.

Within the casing are provided a pair of concentric annular partitions C and D, spaced apart from each other and from the outer wall of the casing, and forming between them an annular chamber E. The two annular partitions are of less height than the outer wall of the casing and the annular chamber formed between the same is closed at the top by the removable annular cover 9 provided with edge flanges which fit down over said partitions. The annular chamber formed between said partitions is preferably provided with a raised bottom 10 upon which is mounted the lower half 11 of a raceway for the anti-friction members or ball bearings 12.

F represents an annular container having a closed bottom and an open top, and which is placed down in the annular chamber E.

The inner wall of the container F fits with substantial snugness the outer surface of the partition D while there is a space between the outer wall of the container and the partition C. To the bottom of the container is attached the upper member 13 of the raceway of the ball bearings 12, whereby the container is rotatably mounted in the chamber E.

The container F is divided into a plurality of compartments by means of vertical partitions 14 disposed in a substantially radial position. In the embodiment illustrated in the drawings said partitions are shown as substantially S shape, the same being particularly adapted for storing ice-cream in round packages or bricks.

These partitions 14 divide the container into a plurality of compartments, each intended to contain a supply of packages of ice-cream of the same flavor, or combination of flavors.

The compartments may be loaded with their proper contents by turning the container so that each compartment registers in turn beneath a loading aperture 15 in the cover 9 which aperture is normally closed by means of a flanged lid 16.

The lower outer wall of each compartment formed by the outer wall of the container F is provided with a hand hole or aperture 17, which by turning the container into proper position, may be brought into registration with the inner end of a tunnel or walled opening 18 extending from the exterior of the casing A through its wall and through the outer partition C. The outer end of said tunnel is provided with a door 19. Thus the clerk may open this door and reach through the tunnel 18 and through the hand hole 17 into the bottom of the compartment and remove a package. The clerk then closes the door.

Means are provided for rotating the container, which means are preferably of the following character.

20 is a ring gear surrounding the upper portion of the container F and secured thereto. 21 is a horizontally disposed shaft journaled in bearings in the wall of the casing A and in the partition C, said bearings being provided with stuffing boxes 22 to prevent leakage of water or air along the shaft. The inner end of said shaft 21 is provided with a pinion 23 meshing with the ring gear 20 while its outer end is provided with a sprocket 24 which is connected by a chain 25 with a sprocket 26 on a shaft 27 which is journaled in a bearing in the wall of the casing A. The shaft 27 is provided with a hand crank 28.

Thus by turning the crank 28 the proper compartment of the container is presented to either the loading aperture 15 or to the dispensing tunnel 18.

29 is a dial disk fixed on the end of the shaft 30 whose butt is journaled in a bearing in the wall of the casing A. 31 is a pinion fixed on said shaft 30, and meshing with an idler pinion 32 rotatably mounted on a spur shaft 33 extending from the casing A. The idler pinion 32 meshes with a pinion 34 fixed on the shaft 27. Thus the dial turns simultaneously and in the same direction as the crank handle 28. 35 is a fixed pointer which depends in front of said dial 29. Thus the dial may be numbered, a numeral indicating each compartment of the container F,

that the dial and pointer will indicate the compartment which is in registration with the tunnel 18.

Thus, when a customer requests a package of a particular character, the clerk turns the crank handle until the dial indicates that the compartment containing the package of the required character has come in registration with the tunnel 18. The clerk then opens the door 19 and reaches in and removes a package from the bottom of the compartment through the hand hole 17.

When a compartment has been emptied, the clerk turns the container until the empty compartment is beneath the loading aperture 15, removes the cover B scrapes away the ice and salt, and then takes off the lid 16 and reloads the compartment. The lid 16 is then replaced, the ice and salt pushed back over it, and the cover B put back and clamped in position.

36 and 37 represent a pair of drainage cocks, one at the bottom of the casing A and the other slightly above the same, for the removal of water caused by the melting of the ice.

38 represents ports in the bottoms of the partitions C and D for the drainage of water from the central chamber within the partition D.

When in use, the interior of the casing A is filled with broken ice and salt which extends over the cover 9 thus thoroughly refrigerating the contents of the cabinet. It is evident that any other convenient means of refrigeration, as a substitute for ice and salt, may be used.

It is evident from the foregoing that my improved cabinet maintains a product in a perfectly refrigerated condition, so that the last remaining package will be in a hard frozen condition when sold. The packages remain unhandled until sold, and are therefore sanitary and neat. The goods are also much more conveniently and expeditiously dispensed than in the present.

Although for the sake of clearness of description, I have described in detail the embodiment of the principles of my invention shown in the drawings, I do not wish to limit myself thereby, but claim broadly—

1. A cabinet for the selective sale of package goods comprising an outer casing having an open top, a removable cover adapted to close said top, a vertically disposed annular partition in said casing spaced inwardly from the outer wall of the latter to provide a space for refrigerating substance, the interior of said partition being connected near its bottom by a walled opening to the exterior of said casing, a removable closure for the outer end of said opening, a container mounted to rotate on a vertical axis within said annular partition, said container being divided radially into a plurality of compartments, and the outer wall of said container being apertured to form hand holes for access into each of said compartments, whereby rotating said container into proper position access may be had through said opening and the hand hole of the selected compartment for the removal of a package.

2. A cabinet for the selective sale of package goods comprising an outer casing having an open top, a removable cover adapted to close said top, a pair of concentric annular partitions vertically disposed within said casing, a walled opening extending from the exterior of said casing through the outer of said annular partitions, a door for the outer end of said opening, an annular container rotatably mounted between said annular partitions, said container being divided radially into a plurality of compartments, and the outer wall of said container being apertured to form hand holes for access into each of said compartments, whereby by rotating said container into proper position access may be had through said walled opening and the hand hole of the selected compartment for the removal of a package.

3. A cabinet for the selective sale of package goods comprising an outer casing having an open top, a removable cover adapted to close said top, a pair of concentric annular partitions vertically disposed within said casing, said partitions being of less height than the walls of said casing, a walled opening extending from the exterior of said casing through the outer of said annular partitions, a door for the outer end of said opening, an annular container rotatably mounted between said annular partitions, said container being divided radially into a plurality of compartments, and the outer wall of said container being apertured to form hand holes for access into each of said compartments, whereby by rotating said container into proper position, access may be had through said walled opening and the hand hole of the selected compartment for the removal of a package, and an annular cover adapted to fit on the upper ends of said annular partitions to inclose the top of said container.

4. A cabinet for the selective sale of package goods comprising an outer casing having a doored opening, a container rotatably mounted in said casing and divided radially into a plurality of compartments, the outer wall of said container being apertured to form hand holes for access into each of said compartments, whereby by rotating the container into the proper position access may be had through said opening and the hand hole of th selected compartment for the removal of a package, a ring gear mounted circumferentially of said container, a shaft journaled in the wall

of said casing, a pinion on the inner end of said shaft and in mesh with said gear, and means for applying rotary power to the outer end of said shaft.

5. A cabinet for the selective sale of package goods comprising an outer casing having a withdrawal opening provided with a closure, an outer and an inner refrigerant compartment within said casing, the inner wall of said outer refrigerant compartment and the outer wall of said inner refrigerant compartment being formed by concentric circular walls spaced apart to form an annular space, and a container fitting in said space and rotatable with the wall of the inner refrigerant compartment as its axis, said container being divided radially into compartments whereby said container may be turned to bring any one of its compartments into registration with said withdrawal opening for the purpose described.

Signed at Johnstown, Pa.

RALPH W. GEARHART.