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T. A. PRENDERGAST

1,911,969

CHILLING DISPENSER

Filed April 30, 1930

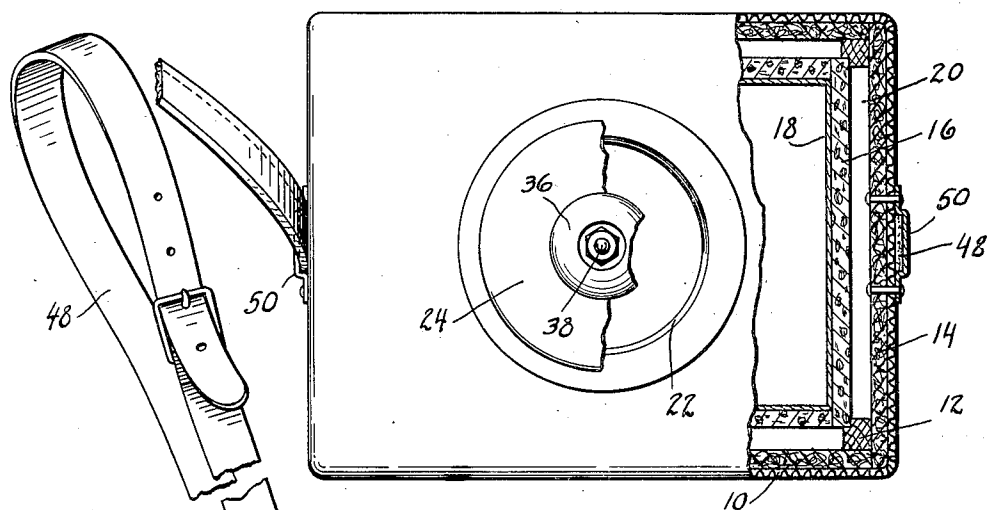


Fig. 2

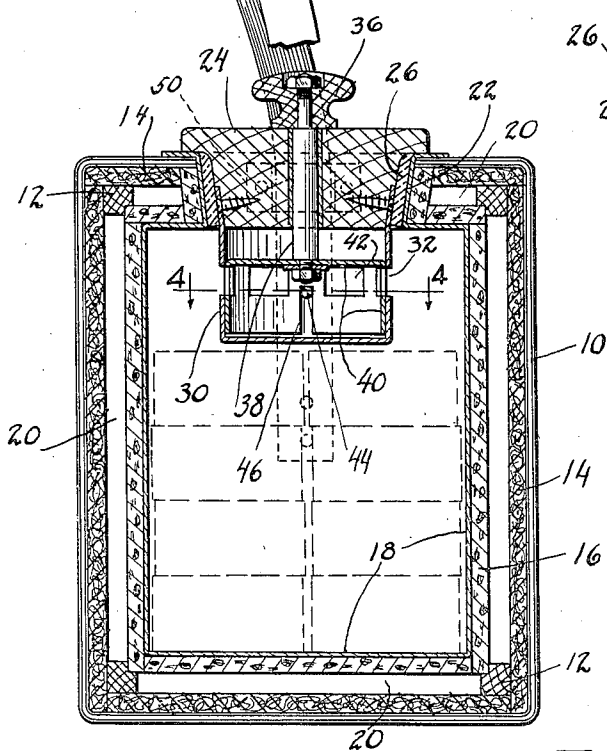


Fig. 1

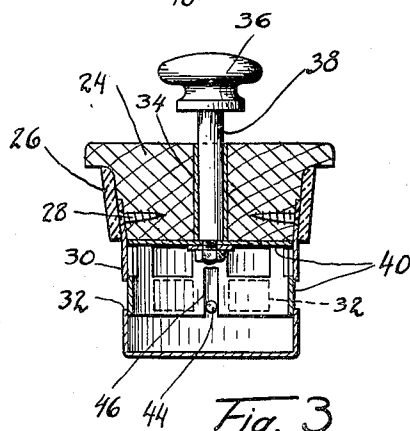


Fig. 3

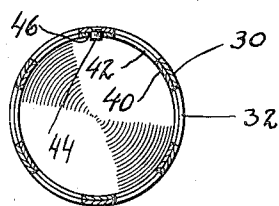


Fig. 4

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CHILLING DISPENSER

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My invention relates to a dispensing container for use in merchandising articles and has particular reference to a dispenser which is adapted for use with various edible materials which must be maintained at a low temperature for a considerable period of time.

The distribution and sale of varied sorts of food products on a large scale among large gatherings of people has become prevalent, as is manifested by the ballyhooing of the sales boys at football games, baseball games, and numerous other events which interest a large number of people. A great many of these food articles which are so sold and distributed throughout crowds necessitate that they be chilled to at least a certain extent when they reach the hands of the customer and for that reason it has been somewhat difficult to vend the articles for any length of time throughout the crowd without returning to the source of supply for a freshly chilled supply of the articles. Soda pop, Eskimo pies, ice cream cones, and numerous other such food products demand some means whereby they may be kept in their chilled condition for a considerable period of time.

Comparatively recently there has come upon the market a product which consists of solid carbon dioxide and is quite generally known as "dry ice". This chemical is solidified at a very low temperature and remains in a solid state for a period ranging from 12 to 24 hours. The obvious advantages of such a product over the conventional ice which has heretofore been used brought this product into extremely wide commercial usage. Various methods of utilizing it in the sale of food articles to preserve them in their original state have been developed. The product is usually sold in ordinary paper bags which is deposited in proximity to the food articles to be chilled.

An object of my invention is to enable the vendor of such articles as above enumerated to retain his food articles in a chilled condition throughout a long period by using this "dry ice", or even by use of ordinary ice, by providing a simple, compact, and

roomy dispensing container which is provided with a distinct container, which is substantially smaller than the dispenser unit, secured to the closure member of the dispenser and adapted to hold the refrigerating product. Means are provided for automatically closing the interior of the smaller container from exposure to the outer atmosphere upon removal of the closure member from the container body, and for opening the same when the closure is inserted. The means associated with the closure member, which is adapted to contain the refrigerating product, also comprises means whereby the degree of exposure may be regulated.

In this way the refrigerating qualities of whatever product is used in the small closure container may be preserved throughout a longer period of time than would be possible if the said product was exposed to the warm atmosphere each time the closure of the dispensing container was removed for the purpose of permitting removal of some of the food products contained therein.

Still another object of my invention is to provide a dispensing container unit which is inexpensive to manufacture and of sturdy construction. A meritorious feature resides in the fact that the container comprises spaced apart walls, the space constituting an air insulation wall which protects the food products within the container from the surrounding atmosphere to a certain extent.

Still further objects and meritorious features of my invention will be apparent from the following description taken in conjunction with the drawing wherein like numerals refer to like parts throughout the several figures and wherein:

Fig. 1 is a vertical section through the center of my dispenser,

Fig. 2 is a plan view with parts broken away for the sake of clearness,

Fig. 3 is a detail of the closure unit with the refrigerating product container in its closed position, and

Fig. 4 is a section taken on the line 4-4 of Fig. 1.

The outer covering 10 of my dispenser

may consist of any desirable material which will constitute a satisfactory skin covering and in the preferred embodiment herein illustrated I have used corrugated cardboard.

5 The structural skeleton consists of a plurality of wooden cross pieces 12 which form a rectangular framework about which there is an inner covering 14 of wood fiber board. While I mention wood fiber board as constituting a possible material it should be understood I do not limit myself to any particular material.

An inner lining structure 16, of some such material as cork, is supported in longitudinal channels formed in the frame members 12 as illustrated and within this inner lining is set the metal receptacle portion 18 which holds the various products which are to be dispensed. It will be noted that there is an air space 20 between the cork inner lining and the fiber board outer lining which is of material assistance in protecting the products within the container from the surrounding atmosphere.

25 There is an opening 22 in the top of the container which is designed to be closed by my improved closure member. This closure member consists of a wood stopper piece 24 to the peripheral edge of which is secured, by cementing or otherwise, a soft rubber contact strip 26. This is manifestly for the purpose of providing a stopper which is rigid and durable while at the same time flexible around its outer periphery so that it may be fitted tightly into the opening 22 of the container. A further purpose in utilizing a rigid stopper body material will be brought out hereafter.

Secured to the lower portion of the outer periphery of stopper 24 by means of screws 28, or any other convenient securing means, is a depending cup shaped member 30 which is designed to hold the refrigerating product to be used in conjunction with the dispenser. Obviously the cup shaped member 30 may be made as large or as small as desired for the specified purpose. The peripheral walls of this depending member 30 are provided with a plurality of openings 32 which permit exposure of the refrigerating product contained therein to the inside of the dispensing container.

A sleeve 34 extends axially through the center of the stopper member 24 and functions as a guide bearing for the control unit 36, which consists of a knob and a shaft 38 extending through the sleeve 34. To the inner extremity of this shaft 38 is secured an inverted cup shaped member 40 which has no bottom and which is designed to slide or telescope within the member 30. This telescoping cup 40 is provided with a plurality of openings 42 which correspond in size and shape to the openings 32 and are adapted, when the member 40 is raised to

its uppermost position by pulling on control unit 36, to move out of alignment with the said openings 32. In this position the space within the cup shape member 30 is obviously completely shut off from exposure to the surrounding atmosphere and it will be noted that when the closure member is removed by pulling upon control unit 36 the relatively movable units 30 and 40 are automatically placed in this closed position. On the other hand when the closure member is inserted and the control unit 36 pushed into its normal position wherein it rests upon the stopper member 24 the inner cup shaped member 40 will move downwardly to a position where the openings 32 and 42 are in alignment with one another, thereby exposing the contents of the closure member to the inner portion of the dispensing container.

It will be understood that there is sufficient frictional contact between the sleeve 34 and shaft 38 to retain the shaft in any position within the sleeve, thus permitting simple adjustment of the size of the opening in the closure container.

A guide pin 44 is provided in the cup shaped member 30 which extends inwardly through a longitudinal slot 46 in cup shaped member 40.

As illustrated in Figs. 1 and 2 a supporting strap 48 may be secured to the dispensing container in any desired manner, being held down in the illustrated embodiment by the bar strap member 50 which is riveted to the outer casing of the container as illustrated.

The refrigerating product, such as ice or solid carbon dioxide, may be inserted within the closure member through the aligned openings 32 and 42 if desired. However, it is obvious that various other provisions might be made for this operation, as for instance, threading on the bottom of cup shaped member 30.

From the foregoing description it will be apparent that when the closure is removed by pulling on the control unit 36 the container carried by said closure member is automatically shut off from the exposure to the surrounding atmosphere. On reinsertion of the closure member the natural procedure is to push the control unit into engagement with the stopper portion 24 which functions to once again open the container so that the refrigerating product contained therein will be exposed to the products contained in the dispensing unit. While I have illustrated a certain preferred embodiment of my invention I do not intend to be limited other than by the appended claims.

I claim:

1. In combination with a dispensing unit having an opening, a closure member comprising a stopper portion adapted for in-

sertion into said opening, a depending receptacle secured to said stopper portion and having openings therein, means slidable within said receptacle and adapted to open and close said openings, and means operable to automatically actuate said slidable means upon removal and insertion of said stopper.

2. In combination with a dispensing unit having an opening therein, a closure for the opening including a receptacle portion adapted to extend within the dispensing unit when positioned in said opening and having passages providing access to the interior of said unit, means for opening and closing said passages, and means extending through said closure member for removing and replacing the same associated with said passage closing means in such a manner that removal of the closure automatically closes the passages and replacement thereof opens the same.

3. In combination with a dispensing unit having an opening therein, a closure member for the opening including a receptacle portion adapted to contain a refrigerant, openings in said receptacle portion providing communication between the interior of the dispensing unit and the refrigerant means for opening and closing said openings, and means connected with said last mentioned means and extending through the closure member adapted to be grasped by the dispenser in removing and replacing the closure member whereby the receptacle portion is automatically opened when the closure is in place and closed when it is removed.

In testimony whereof, I, THOMAS A. PRENDERGAST, sign this specification.

THOMAS A. PRENDERGAST.

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