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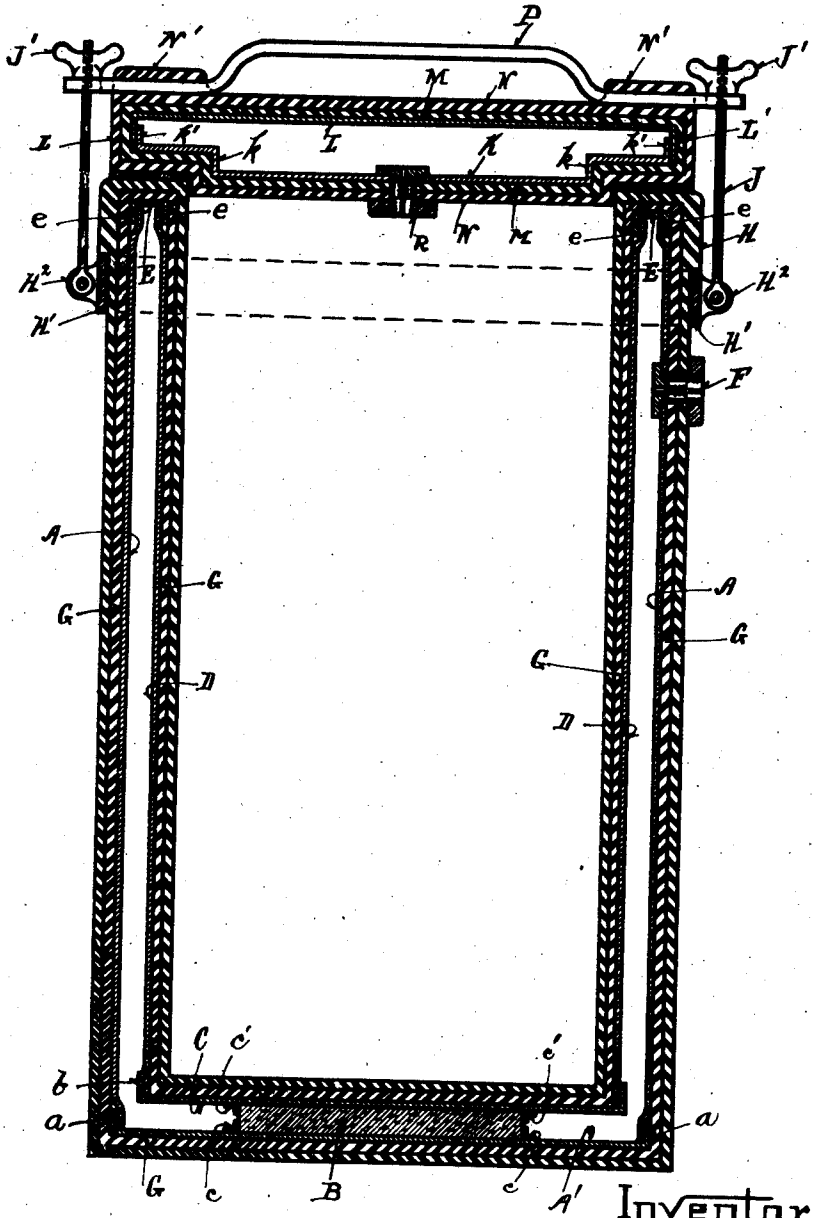

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CONTAINER FOR STORING AND SHIPPING.

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This invention relates to containers for storing and shipping ice cream and other articles which should be maintained at a low temperature.

The object of this invention is to provide a strong and comparatively light receptacle having double walls with an air chamber therebetween, in which a substantially reduced pressure can be maintained so that the container chamber will be insulated from the outer shell.

The features of my invention consist of a metallic outer shell and bottom plate, and an inner metal shell and bottom plate, said shells and bottom plates being concentric and spaced apart, with an annular ring closing the space at the upper ends of said shells, and a covering of rubber or other suitable material which is impervious to air, which will effectually seal the joints in said shells as well as the pores of the metal so that the intervening annular chamber will maintain a pressure below atmospheric. Also to provide a double walled metallic cover for the container, which is also provided with an outer coating of rubber or other suitable material adapted to render the same impervious to air so that a pressure below the atmospheric can be maintained therein.

Also to provide means to clamp the cover upon the receptacle.

These and other features of my invention are hereinafter set forth and pointed out, and are illustrated in the accompanying drawing, in which:

The figure is a central vertical section of my improved container.

In the drawing A indicates the outer metallic shell of the container, and A′ indicates the bottom plate thereof, which is provided with an upturned flange *a* around the perimeter thereof adapted to receive the lower end of the shell A. Upon the bottom plate A′ is placed a disc B of non-conducting material, preferably cork, upon which is placed the bottom plate C of the inner metallic shell, said bottom plate C being provided with an annular flange *b* around the perimeter thereof. The disc B is maintained in a central portion on the bottom plate A′ by means of up-turned stops *c* secured on the bottom plate A′ and down-turned stops *c′* on the under side of the bottom plate C, so that said disc B is not only itself maintained substantially concentric with the plate A′ but acts to maintain the inner bottom plate C concentric with the outer shell A. The bottom plate C is of less diameter than the outer shell A, so that the annular flange *b* thereon is spaced away from said outer shell. Upon the inner bottom plate C is placed an inner metallic shell D which fits inside of the annular flange *b*.

Placed upon the upper ends of the outer shell A and inner shell D is a ring E of plate metal having down-turned annular flanges *e* which lap downwardly over the outer and inner shells, so that when air is exhausted from the space between the inner and outer shell, as hereinafter described the metallic joints will be drawn together.

I provide a non-return outlet air valve F through which air can be drawn from the space between the shells.

In order to seal the metallic joints hereinbefore described, I cover the interior of the inner shell D with a coating G of elastic rubber or other material adapted to resist the passage of air therethrough, said elastic coating extending over the metallic bottom plate, and over the top ring, and over the exterior and bottom of the outer shell, and to protect the elastic coating G, inside and outside, I place a covering of hard rubber material, or other protective material, each of said coatings being separately vulcanized in place, so that all the metallic joints and interstices are perfectly sealed against the passage of air therethrough, so that when air is exhausted from the space between the metallic shells, a chamber of lower pressure will be maintained.

Around the upper end of the container I form a shoulder H of the protective coating, below which I place a metallic band H′ upon which are lug ears H^2 to which clamp rods J are pivoted, upon which thumb nuts J′ are threaded.

To close the upper end of the container I provide a hollow cover consisting of a metallic plate, K, having an annular shoulder *k* concentric with the inner wall of the container, and around the periphery thereof is a flange *k′*. Upon the plate K is placed an upper plate L having a down-turned peripheral flange L′ which fits around the annular flange *k′* on the plate K. The metal plates K and L thus form an air chamber. The metallic cover structure is then coated with

elastic rubber M which effectually seals all the joints interstices of the cover structure. To protect the elastic rubber coating M of the cover I preferably apply a layer of hard rubber compound N over the elastic rubber M. Upon the protection coating N I place a cross-bar P, which is provided with slots at the ends thereof, indicated by broken lines, to receive the clamp bolts J, and against which the thumb-nuts J′ can be screwed to securely fasten the cover upon the receptacle. The cross-bar P, is secured in place upon the cover by means of a strip N′ of the protection material, which holds the cross-bar P, in place when the nuts J′ are loosened and the bolts J swing out of engagement therewith. The cross-bar P is formed for use as a handle as shown in the drawing, by means of which the cover can be lifted off of the receptacle.

The cover is provided with a non-return valve R through which air can be exhausted from the chamber in the cover. The elastic coating M, and the hard rubber protection covering N are each vulcanized in place, so that the same is impervious to the passage of air therethrough, and a pressure below atmospheric can be maintained therein.

It will be obvious that a can of ice cream, or other article, desired to be stored can be placed in this receptacle, and that the same will be securely insulated from the atmosphere.

Having thus fully described the construction of my invention so that others can utilize the same, what I claim as new and desire to secure by Letters Patent is:

1. In a double walled container, metallic inner and outer walls, means to maintain said walls in spaced relation to each other, a coating of elastic rubber covering the interior and exterior surfaces thereof and vulcanized in place whereby the metallic joints and interstices are rendered impervious to the passage of air, and a layer of hard rubber compound covering the interior and exterior surfaces of said elastic rubber covering vulcanized in place, whereby said elastic rubber covering will be protected.

2. In an article of the class described, inner and outer walls of porous metallic material having a rarefraction space therebetween, a layer of soft rubber compound on the inner and outer surfaces of said walls, and a layer of hard rubber compound covering the inner and outer surfaces of said soft rubber compound, and the whole being vulcanized in place, whereby the said porous metallic material will be hermetically sealed.

In testimony whereof I affix my signature.

FRANK L. RANDALL.