June 24, 1930. E. LENÉ 1,767,685

SANITARY ICELESS SHIPPING CONTAINER

Filed June 26, 1928

Fig. 1.

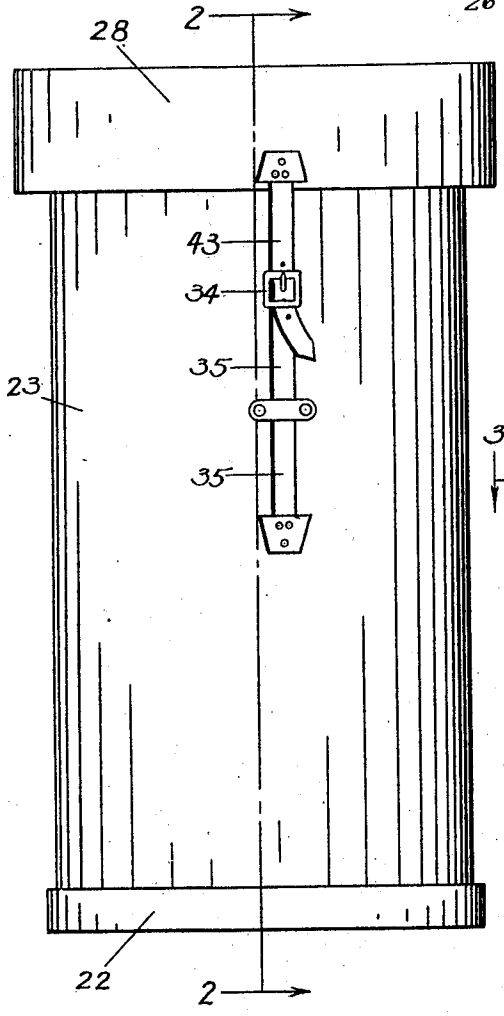
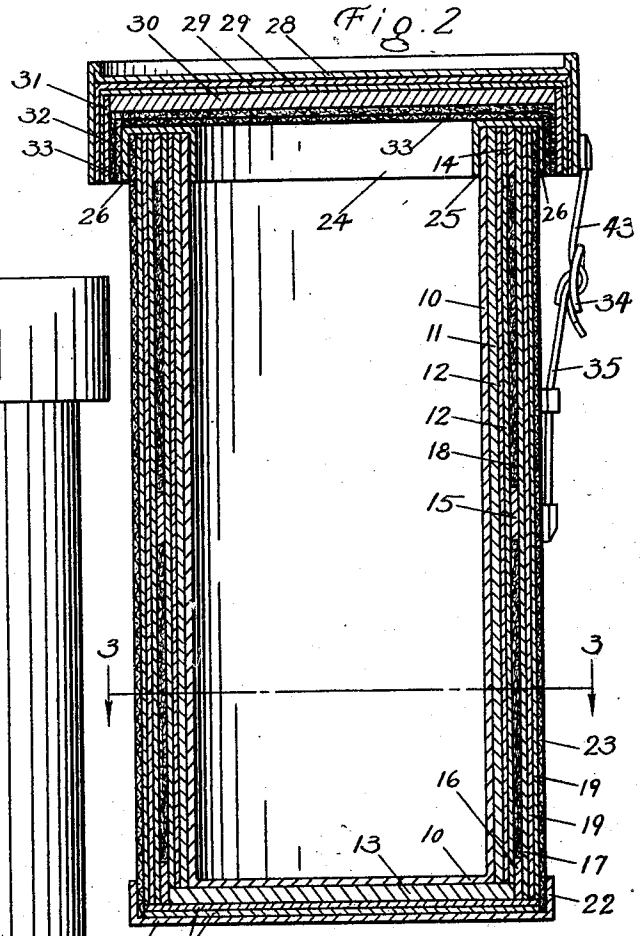


Fig. 2



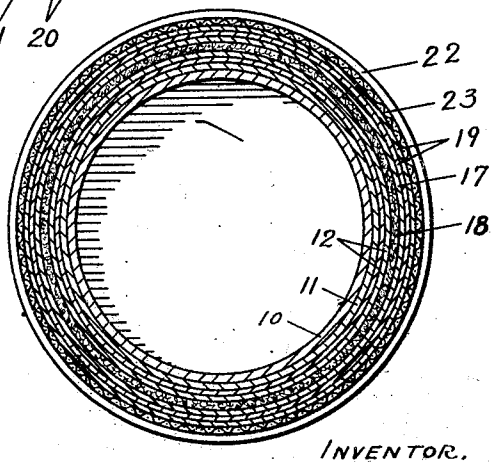


Fig. 3

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UNITED STATES PATENT OFFICE

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SANITARY ICELESS SHIPPING CONTAINER

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This invention relates in general to insulated containers and in particular to an insulating structure. The primary purpose of the invention is to provide a container with insulated walls of the least possible thickness that will effectually prevent the transfer of heat through the insulation to or from the container so insulated, over a long period of time.

The invention is adapted for use for containers of a wide range of products, such as ice cream, milk, hot liquids, and the like, but is described herein in one particular form as shown by the accompanying drawing, in which—

Fig. 1 is a side elevation of a container embodying my invention;

Fig. 2, a diametrical vertical section on the line 2—2 in Fig. 1; and

Fig. 3, a transverse horizontal section on the line 3—3 in Fig. 2.

Like characters of reference indicate like parts throughout the several views in the drawing.

The container 10 here shown is cylindrically formed of metal with a closed bottom and open top. A thin sheet of wood veneer 11 is wrapped around the cylindrical surface of the container 10, over which are wrapped a plurality of sheets of heavy paper 12, here shown as two in number.

A plate of wood 13 is placed against the bottom of the container to extend outwardly around therefrom to the outer sheet of paper 12, and the sheets of paper 12 and veneer 11 are held in place by the top hoop 14, the intermediate hoop 15 and the bottom hoop 16, the hoop 16 being secured by nails (not shown) to the plate 13.

The three hoops are preferably made of wood and in addition to their retaining usage serve as means to receive circumferentially therearound and to space a sheet of wood veneer 17 from the paper 12. The space between the paper 12 and veneer 17 as determined by the hoops is filled with felt 18, and the outer surface of the veneer 17 is wrapped with several layers of paper 19, here shown as two in number.

Under the plate 13 is placed a plurality of sheets of paper 20, here shown as two in number, to extend outwardly therefrom to the outer side of the paper 19, and a disc of leather 21 is placed under the paper 20 and has an upturned flange 22, to which is attached the canvas covering 23 which entirely surrounds the paper 19. At the top of the container, an annular channel member 24 is positioned to cover the ends of the various wood and paper layers and is secured in place by the downturned legs 25 and 26 which compressively engage against the container 10 and canvas 23 respectively. The member 24 is made of metal and prevents the entrance of moisture between the layers of veneer and paper.

A lid or cap is provided with an outer inverted cup-shaped leather shell 28, which is lined internally with a plurality of layers of paper 29, here shown as two in number, and against the paper 29 is placed a disc of wood 30 around the edge of which is secured a downwardly extending ring of metal 31. A layer of felt 32 is then placed against the disc 30 and ring 31 with a final undercovering of canvas 33, the felt 32 preferably being rubber coated against the canvas 33.

The lid fits down with the canvas lining 33 contacting thereon and is retained on the container by the straps 43 which are secured to the lid and pass through buckles 34 carried on the straps 35 secured to the canvas 23. These straps by their angle of inclination from the side wall to the outer circumferential side of the lid form convenient handles for lifting the container.

While I have here described my invention in one particular form, it is obvious that structural changes may be made without departing from the spirit of the invention, and I, therefore, do not desire to be limited to the precise form as shown and described nor any more than may be required by the following claims.

I claim:

1. A container comprising an inner receptacle, layers of insulating material thereabout, said layers being comprised of materials of porosity different one from the other, and a ring at the top of the receptacle cov-

ering the ends of and securing said material to the receptacle, and a cover adapted to be resiliently fitted over and around the outside of said ring, said cover being formed in the shape of an inverted cup and comprising a rigid core, a resilient covering on the underside of the core, an annular band fixed to and depending from said core, and layers of nonconducting material on both sides of said band, the total combined horizontal thickness of said material and band being sufficient to space the outer annular face of said cover at a substantial distance from the vertical wall of said container.

2. A container comprising an inner receptacle, layers of insulating material thereabout, said layers being comprised of materials of porosity different one from the other, and a ring at the top of the receptacle covering the ends of and securing said material to the receptacle, and a cover adapted to be resiliently fitted over and around the outside of said ring, said cover being formed in the shape of an inverted cup and comprising a rigid core, a resilient covering on the underside of the core, an annular band fixed to and depending from said core, and layers of non-conducting material on both sides of said band, the total combined horizontal thickness of said material and band being sufficient to space the outer annular face of said cover at a substantial distance from the vertical wall of said container, the outer of said layers being made of a yielding material, and a pair of straps detachably extending obliquely upwardly from said outer layer to be attached to the outer annular wall of said cover as a means of compressively securing said cover yieldingly on said container and forming handles thereby.

3. In a container, an inner receptacle, insulating material fixed around the receptacle, a yielding wrapper around said material, a cover having an annular depending wall of appreciable thickness therearound adapted to fit around the outside of said wrapper, a pair of spaced apart adjustable straps extending obliquely from points on said wrapper spaced substantially below said cover and upwardly to the outer side of said annular wall whereby said cover may be secured compressively over said receptacle and handles are formed by said straps.

In testimony whereof I affix my signature.

ELMER LENÉ.