

L. R. STEEL.
HEAT INSULATED MILK CAN.

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1,059,230.

Patented Apr. 15, 1913.

Fig. 1.

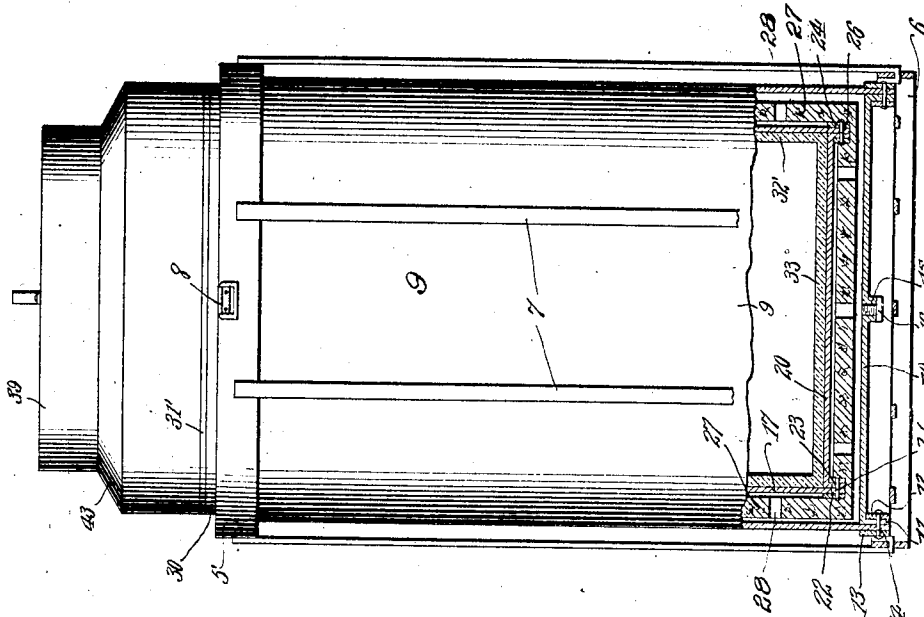
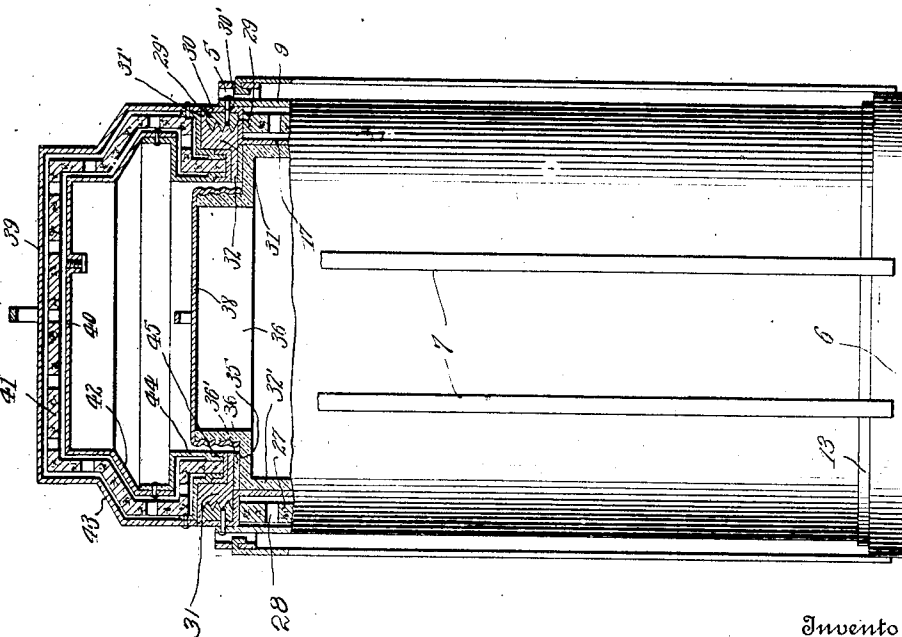


Fig. 2.



Witnesses

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HEAT-INSULATED MILK-CAN.

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To all whom it may concern:

Be it known that I, LEONARD R. STEEL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Heat-Insulated Milk-Cans, of which the following is a specification.

This invention relates to improvements in receptacles for holding liquids and more particularly to the type wherein the liquid holding receptacle is placed within an insulated jacket serving to protect the content of the receptacle from the temperature of the atmosphere outside the jacket, whereby the contents of the receptacle may be maintained at a required temperature for a comparatively long time.

The object of the invention is the provision of a means for detachably securing the receptacle within the jacket.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claim, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming part of the specification;—Figure 1 is a side elevation of the device with the lower end portion broken away. Fig. 2 is a similar view with the upper end portion broken away.

Similar numerals of reference are employed to designate corresponding parts throughout.

The device is inclosed within a crate or carrier comprising an upper band 5 and a lower band 6, the said bands being connected by a plurality of spaced slats 7. The upper band 5 is provided at diametrically opposite points with pivoted handles, one of which is shown and designated by the numeral 8.

The jacket includes an outer cylindrical casing the body portion of which is designated by the numeral 9 and at its lower end is provided with a bottom, the flat body portion of which is designated by the numeral

10 and the flange of which is designated by the numeral 11. The body 10 of the bottom is arranged a short distance above the lower edge of the outer casing 9 so that the lower edge of the flange 11 will be co-incident with the lower edge of the outer casing 9, or substantially so. The bottom is secured to the outer casing by means of metallic bands 12 and 13. The band 12 is arranged on the inner face of the flange 11, while the band 13 encircles the lower end portion of the outer casing 9. The bands 12 and 13 and likewise the flange 11 and casing are provided with alining openings for the reception of rivets 14, which pass through the said bands and flange 11, after which the parts are soldered in order to insure an airtight joint. The body portion 10 of the bottom is provided with a nipple 15, the said nipple being interiorly screw-threaded to receive a plug 16. When the inner casing, about to be described is placed within the outer casing and its upper end suitably secured to the latter and its bottom slightly spaced from the body portion 10 of the bottom of the outer casing, by the provision of the nipple 15 the air may be exhausted from the space between the outer and inner casings and the nipple sealed by means of the plug.

The lower end of the inner casing extends to a point adjacent to the bottom 10 of the outer casing, and arranged within the said inner casing is a bottom. The bottom of the inner casing comprises a circular body portion 20. Depending from the periphery of the body portion 20 is a flange 22, the said flange 22 bearing on the inner surface of the inner casing. The bottom is secured to the inner casing by means of bands 23 and 24, the said band 23 bearing on the inner face of the flange 22, while the band 24 embraces the lower end portion of the inner casing. The bands 23 and 24 and likewise the flange 22 are provided with alining openings for the reception of rivets 26. Arranged in the space between the body portions of the outer and inner casings is a hollow cylindrical body 27 of cork, asbestos, or other suitable insulating material and provided with a plurality of perforations as shown at 28. Arranged in the space between the bottoms of the outer and inner casings is a perforated disk of cork, asbestos or other suitable insulating material. By the provision of the perforations in the insulating material, it will be manifest that the air may be more

effectively exhausted from the space between the outer and inner casings. The upper end portion of the inner casing terminates in a lateral shoulder 29 corresponding in width to the width of the space between said casings, said shoulder ending in a vertical portion 30 a part of which bears on the inner face of the outer casing and the upper portion of which extends above the upper end of the outer casing.

By reference now to Fig. 2 it will be seen that arranged on the inner surface of the portion 30 of the inner casing and bearing on the shoulder 29 is a metallic ring 29' having adjacent to its lower side a plurality of openings which aline with openings in the portion 30 and upper end portion of the outer casing, these openings receiving rivets 30'. The inner surface of the ring is screw-threaded, for a purpose to be presently described.

What will subsequently be termed a retaining ring is shown to include a circular body portion 31, having exterior screw threads to engage with the threads of the ring 29'. The upper end of the ring 31 terminates in a lateral flange 31', to bear on the upper edge of the ring 29'. The lower end portion of the ring 31 is provided with an inwardly extending flange 32 which extends inwardly and beyond the inner face of the inner casing.

The inner receptacle is preferably of glass or analogous material and is shown to include a cylindrical body portion designated by the numeral 32'. The lower end portion of the receptacle is provided with a bottom 33, the lower surface of which bears on the bottom of the inner casing. The upper end portion of the inner receptacle 32' is contracted to provide a neck 36 and a shoulder 35. By the provision of the shoulder 35 the receptacle may be locked within the inner casing by means of the retaining ring. Since it will be seen by inspection of Fig. 2 that when the retaining ring is screwed into the ring 29' the flange 32 will bear on the shoulder 35, thus preventing outward or endwise movement of the receptacle. As shown in Fig. 2 a gasket 36' is interposed between the bearing surfaces of the flange 32 of the retaining ring and the shoulder 35 on the inner receptacle in order to prevent the receptacle from bearing directly on the retaining ring. The neck is exteriorly screw-threaded and is provided with a screw-threaded cover 38. By the provision of the contracted neck 36 it will be manifest that a space will exist between the said neck and the inner surface of the body of the retaining ring, this space receiving the depending flange of the cover about to be described.

The cover comprises a circular body por-

tion made up of outer and inner top members designated respectively by the numerals 39 and 40. The portions 39 and 40 are spaced, the space therebetween being partly filled with asbestos or other suitable insulating material as shown at 41. Extending downwardly and outwardly from the peripheries of the sections 39 and 40 are flanges 42 and 43, the said flanges 42 and 43 being arranged in spaced relation, the space therebetween being partly filled with asbestos or other suitable insulating material. The flange 43 terminates in a shoulder which is adapted to bear on the upper surface of the lateral extension 31' of the retaining ring. The flange 42 is provided with a depending flange 44 which is insertible into the space between the upper end portion of the neck 36 and the inner surface of the retaining ring. The lower edges of the flanges 43 and 44 are connected together by a channeled ring 45.

The insulating material between the inner and outer casings of the structure may be cemented if desired to the shoulder 29. In addition to cementing the insulating material as just described, the material may be spaced from the walls of the casing in any obvious manner such as by small cork insulating blocks or the like. The insulating material of the closure of the vessel may be secured between the walls of the closure in a manner similar to that above described.

I claim:—

A vessel comprising inner and outer casings, the inner casing having its wall offset at its upper end to provide a horizontal shoulder, the said shoulder being provided with a vertical portion which is secured to the wall of the outer casing, insulating material located in the space defined by the inner and outer casings and having a portion contacting with the said horizontal shoulder of the inner casing, a vessel removably mounted in the inner casing and provided with a shoulder which is located slightly below the plane of the shoulder of the inner casing, a gasket embracing the said second vessel and bearing against the shoulder thereof and disposed in the same general plane with the first shoulder, means on the first vessel detachably connecting the said first vessel with the second vessel and having a portion bearing against the gasket and a portion bearing against the said first shoulder, and an insulated closure detachably connected with said means.

In testimony whereof I affix my signature in presence of two witnesses.

LEONARD R. STEEL.

Witnesses;

MABEL LAWRENCE,
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