G. P. ALTENBERG.

CASING FOR FRANGIBLE VESSELS AND CUPS THEREFOR.

APPLICATION FILED MAR. 9, 1917.

1,354,711. Patented Oct. 5, 1920.

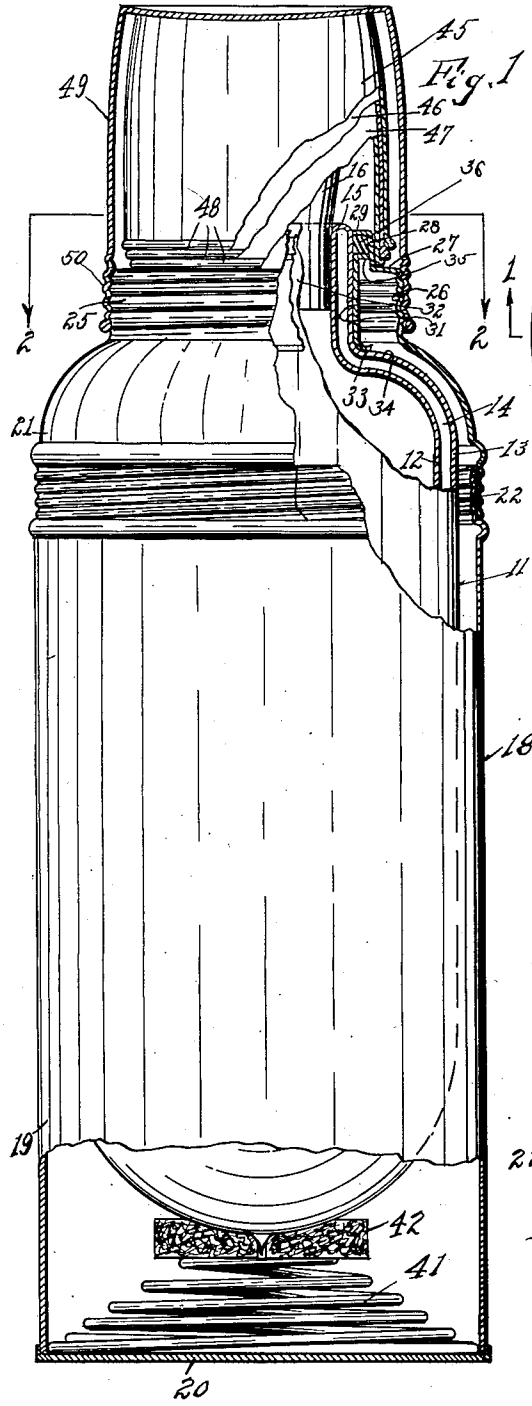


Fig. 1

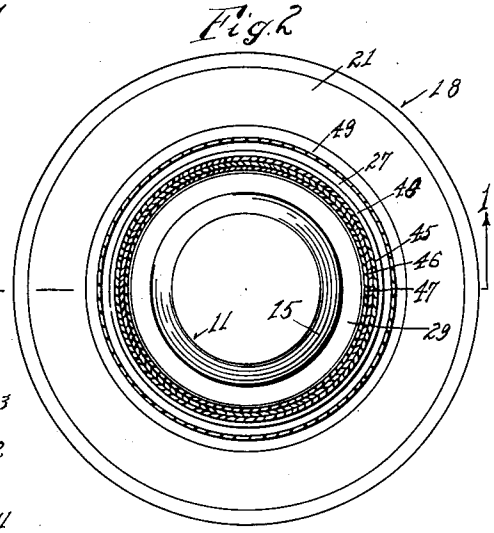


Fig. 2

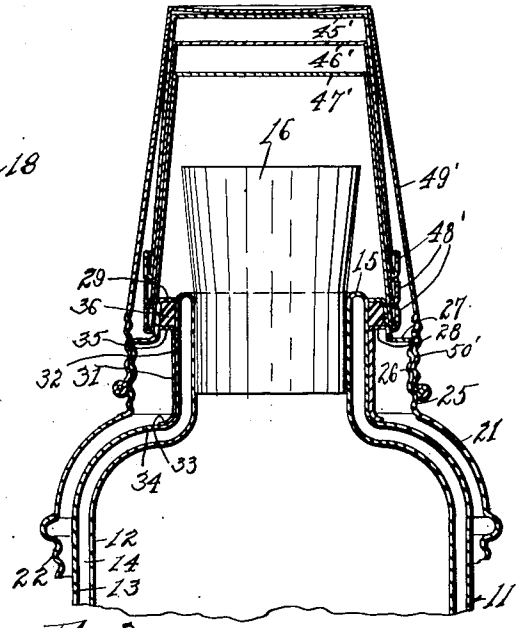


Fig. 3.

Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE P. ALTENBERG, OF CINCINNATI, OHIO, ASSIGNOR TO THE ICY-HOT BOTTLE COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF WEST VIRGINIA.

CASING FOR FRANGIBLE VESSELS AND CUPS THEREFOR.

1,354,711. Specification of Letters Patent. Patented Oct. 5, 1920.

Application filed March 9, 1917. Serial No. 153,734.

To all whom it may concern:

Be it known that I, GEORGE P. ALTENBERG, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Casings for Frangible Vessels and Cups Therefor, of which the following is a specification.

It is the object of my invention to provide a plurality of cups in connection with a casing employed for protecting a frangible vessel, instanced as a vacuum-insulated vessel, the term cup being herein employed in the broader sense of a serving dish, regardless of its form or material, for use in connection with a bottle, which latter term is also herein employed in the broader sense of a container for the drinkable or edible being served.

It is the object of my invention, further, to provide a nest of cups and novel positioning and securing means for the same, and the invention will be further readily understood from the following description and claims, and from the drawing, in which latter:

Figure 1 is a side elevation exemplifying a vacuum insulated bottle employing my invention, partly broken away, and partly in axial section in the plane of the line 1—1 of Fig. 2.

Fig. 2 is a cross-section of the same in the plane of the line 2—2 of Fig. 1; and,

Fig. 3 is a view similar to Fig. 1, partly broken away, and showing my invention applied to a slightly different form of cup.

The vessel is instanced as a vacuum-insulated vessel 11, comprising an inner wall 12, and an outer wall 13, said walls having a vacuum-insulated space 14 between them, and being connected at the mouth of the vessel by an annular cross-seal, as shown at 15. This vessel is a frangible vessel, being usually made of glass. It is adapted to be closed by a stopper 16.

A protecting casing is provided for the vessel, instanced as a casing 18 of sheet metal, comprising a body portion 19 having a bottom 20, and an upper portion 21, the upper portion and body portion being connected by means of threads 22 for drawing the upper portion and body portion one toward the other.

The casing is provided with a neck 25 comprising a threaded portion 26, at the upper end of which there is an inwardly extending annular shoulder 27, from which a reduced annular portion 28 extends upwardly, the upper end of this reduced annular portion being provided with an inwardly extending substantially radial flange 29.

A thimble 31 is received about the neck 32 of the vessel, and is provided with a flange 33 resting upon the breast 34 of the vessel, the upper end of the thimble being provided with an outwardly bent flange 35 received under the flange 29 of the neck-portion of the casing, and preferably within the inner face of the reduced annular portion 28 of said neck of the casing. A cushion ring 36, instanced as a rubber ring, is received in the space between the neck of the vessel and said annular reduced portion of the casing, which form side walls for said cushion, said cushion ring being received between the flanges 29 and 35.

The mouth of the vessel preferably protrudes upwardly through the flange 29 of the neck of the vessel. A cushion is disposed between the bottom of the vessel and the bottom of the casing, instanced as a conical spiral spring 41 upon which there is a cushion pad 42, which may, for instance, be a piece of felt, the inner vessel resting upon the cushion pad.

When the casing portions are threaded together, pressure is exerted upon the lower cushion and upon the thimble 31 and cushion ring 36 for securing the vessel within the casing.

Inner cups are received about the mouth of the vessel, these cups being shown as a nest of cups 45, 46, and 47, each of which is provided with an annular bead 48 at its mouth, the cups being received one within the other, and the nest of cups being received about the reduced annular portion 28 upon the shoulder 27. An outer cup 49 is received about the nest of the inner cups and is releasably secured to the mouth-end of the casing, instanced as accomplished by providing the mouth of the outer cup with a threaded portion 50, which is received about the threaded portion 26 at the mouth-end of the casing. When the outer cup is screwed in place it firmly secures the inner cups in place. A suitable number of these inner cups may be employed, their mouth-ends being received in the annular space above the shoulder 27 between the reduced

upper portion 28 of the neck of the casing and the inner face of the outer cup, the said space being sufficiently large to accommodate a number of the beaded mouths of the cups. The threaded portion between the neck of the casing and the outer cup is sufficiently long in the axial direction of the bottle to clamp selective numbers of the inner cups between the normal bottom of the outer cup and said shoulder.

If desired, the nest of cups may be formed up of cups of equal sizes and dimensions, an exemplification of which is instanced in Fig. 3, in which the cup parts are identified by similar but primed reference numerals. When forming the nest of cups in this manner, I prefer to give the inner cups a more conical form than the form illustrated in Fig. 1, and also preferably correspondingly form the outer cup 49′; an exemplification of which is found in Fig. 3.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination of a frangible double-walled vessel having a heat-insulation between the walls thereof and comprising a body portion and a neck-portion, a casing therefor comprising a body-portion and a neck-portion received respectively about said body-portion and said neck-portion of said double-walled vessel, said neck-portion of said casing comprising a threaded portion, a shoulder above said threaded portion and a reduced portion above said shoulder spaced from said first-named neck-portion and having an inwardly extending flange at its upper end, a thimble received inside said threaded portion about said neck-portion of said double-walled vessel and arranged to be pressed toward said inwardly extending flange by endwise pressure on said frangible vessel, a compressible gasket in the space between said reduced portion and said first-named neck-portion, said gasket located between said thimble and said flange, means exerting said endwise pressure between said frangible vessel and said inwardly extending flange whereby to press said thimble and said inwardly extending flange toward each other to compress said gasket, a cup, and complemental securing means for said cup and said threaded portion.

2. The combination of a frangible double walled vessel having a heat-insulation between the walls thereof and comprising a body-portion and a neck-portion, a casing therefor comprising a body-portion and a neck-portion received respectively about said body-portion and said neck-portion of said double-walled vessel, said neck-portion of said casing comprising a threaded portion, a shoulder above said threaded portion and a reduced portion above said shoulder having an inwardly extending flange at its upper end, a thimble received inside said threaded portion about said neck-portion of said double-walled vessel and arranged to be pressed toward said inwardly extending flange by endwise pressure on said frangible vessel, said first-named neck-portion protruding upwardly through said flange, a compressible gasket between said thimble and said flange, means exerting said endwise pressure between said frangible vessel and said inwardly extending flange whereby to press said thimble and said inwardly extending flange toward each other to compress said gasket, an inner cup on said shoulder about said reduced portion, an outer cup about said inner cup, and complemental securing means for said outer cup and said threaded portion, said neck-portion protruding upwardly through said flange, said shoulder and said reduced portion forming positioning means for a cup, and a cup about said inner cup having a threaded portion complemental to said first-named threaded portion.

3. The combination of an inner vessel provided with a neck-portion, a casing therefor provided with a neck-portion received about said neck-portion of said inner vessel, said neck-portion of said casing having outer threads at its lower portion and a shoulder at the upper end of said threaded portion, inner cups received in selective numbers relatively telescopingly upon said shoulder, an outer cup received over selective numbers of said inner cups, and complemental securing means for said outer cup and said outer threads of said neck-portion of said casing, arranged to press selective numbers of said inner cups upon said shoulder by coaction between said complemental securing means and said outer threads of said neck-portion of said casing.

4. The combination of a vessel-casing provided with outer threads, a shoulder at the upper end of said threads, and a reduced portion above said shoulder, telescoping cups provided with outer beads at their mouths, said beads superposed when said cups are telescoped, and an outer cup having its mouth-end provided with inner threads co-acting with said first-named threads, said telescoping cups received upon said shoulder with said superposed beads located between said reduced portion and said outer cup and supported by said shoulder when said parts are assembled.

5. The combination of an inner vessel provided with a breast and a neck, a casing therefor provided with a neck received about said neck of said inner vessel, said neck of said casing comprising an annular inwardly extending shoulder adjacent its upper end, a reduced annular upward extension extending upwardly from said shoulder, and an inwardly extending annular flange at the

upper end of said reduced upward extension, said reduced annular upward extension spaced from said neck of said inner vessel by an annular space, a thimble received about said neck of said inner vessel, the lower end of said thimble positioned by said breast, the upper end of said thimble provided with a laterally extending flange, an annular cushion in said annular space between said flanges, and means causing axial compressive movement between said breast and said inwardly extending annular flange whereby to compress said annular cushion between said inwardly extending annular flange and said laterally extending flange, and between said reduced upward extension and said neck of said inner vessel.

6. The combination of an inner vessel provided with a breast and a neck, a casing therefor provided with a neck received about said neck of said inner vessel and a bottom, said neck of said casing comprising outer threads at its lower portion, an annular inwardly extending shoulder at the upper end of said threads, a reduced annular upward extension extending upwardly from said shoulder and an inwardly extending annular flange at the upper end of said upward extension, said reduced annular upward extension spaced from said neck of said inner vessel by an annular space, a thimble received about said neck of said inner vessel, the lower end of said thimble positioned by said breast, the upper end of said thimble provided with a laterally extending flange, an annular cushion in said annular space between said flanges, a cup provided with internal threads coacting with said first-named threads, cushioning means between said inner vessel and said bottom coacting with said annular cushion, said neck and said bottom of said casing having complemental connecting means between them causing axial compressive movement on said last-named cushioning means and between said breast and said inwardly extending annular flange, whereby to compress said annular cushion between said inwardly extending annular flange and said laterally extending flange and between said reduced upward extension and said neck of said inner vessel.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE P. ALTENBERG.

Witnesses:

M. F. HAWKINS,

DAWSON E. BRADLEY.