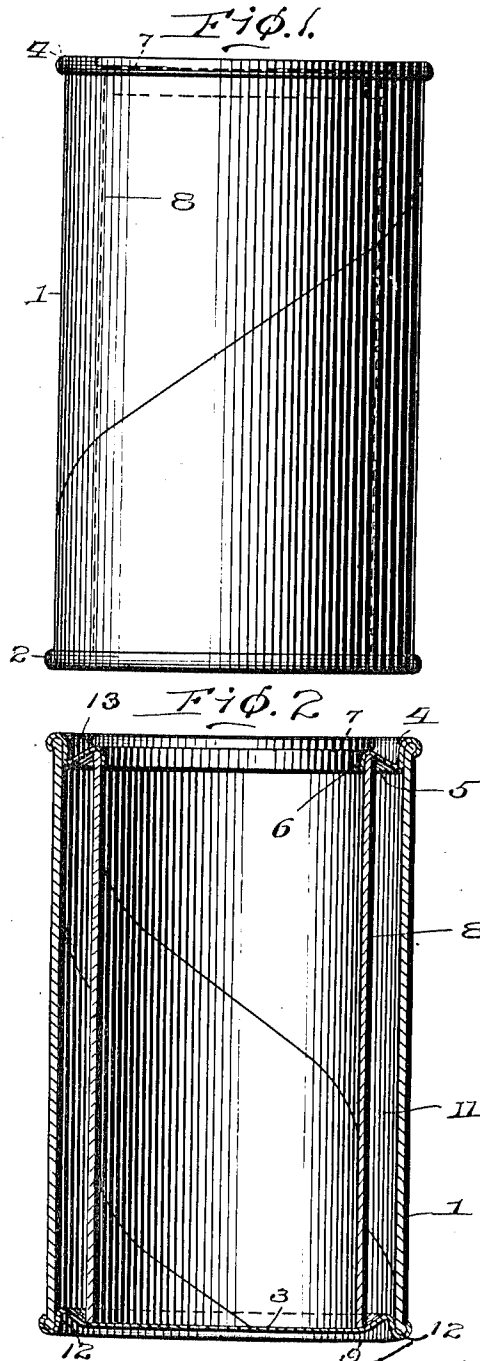


J. W. HARRISON.
 DOUBLE WALLED VESSEL WITH METALLIC END CLOSURE.
 APPLICATION FILED JULY 9, 1912.

1,073,983.

Patented Sept. 23, 1913.



Witnesses

J. M. Fowler
L. Morrell

Inventor

John W. Harrison,

By *Mason F. Lawrence,*
 Attorneys

UNITED STATES PATENT OFFICE.

JOHN W. HARRISON, OF RICHMOND, VIRGINIA.

DOUBLE-WALLED VESSEL WITH METALLIC END CLOSURE.

1,073,983.

Specification of Letters Patent.

Patented Sept. 23, 1913.

Application filed July 9, 1912. Serial No. 708,493.

To all whom it may concern:

Be it known that I, JOHN W. HARRISON, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Double-Walled Vessels with Metallic End Closures; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to double walled containing vessels provided with a considerable air space between the walls, and has for its object to produce a vessel of this character which will be simple in construction, efficient in action, and comparatively inexpensive to manufacture.

With these ends in view, the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views: Figure 1 is an elevational view of a complete vessel made in accordance with my invention; and, Fig. 2 is a longitudinal sectional view thereof.

1 indicates an outer wall of any suitable material, 2 a bottom closure, preferably of metal, having an annular flange 12 fitting tightly within the outer wall and permanently secured to said outer wall, and provided with the depressed portion 3, as illustrated.

4 designates a ring permanently secured to the upper end of said outer wall, and having an annular flange 13 fitting tightly within said wall, and also provided with the upwardly inclined portion 5 and downwardly extending flange 6, as shown. Fitting the interior of the flange 6 is any suitable plug closure such as 7, and surrounding said flange 6 is one end of the interior wall 8, the other end of which fits the angle 9 separating the depressed portion 3 from the other portions of the bottom 2.

The inner wall 8 is made of a length just sufficient to fit between the ring 4 and the bottom 2, and is therefore held firmly in place at all times.

In manufacturing this container, the ring 4 is first crimped to the upper end of the

wall 1, the inner wall 8 is placed in position and the bottom 2 provided with the depressed portion 3, is next permanently crimped into place on the other end of the outer wall 1, when the said angular portion 9 of said bottom serves to firmly hold the inner wall 8 inside the vessel. The vessel may be now filled and any suitable closure 7 applied thereto.

This form of vessel is particularly adapted for holding coffee, teas or spices, in that should its walls be made of paper, a considerable dead air space is provided which serves to prevent, in a measure, the vital constituents of the contents from escaping.

The vessel is also especially adapted for holding any material that is to be subjected to great extremes of heat or cold, for the air space 11 serves to insulate the contents from extreme temperature changes.

What I claim is:—

1. In a vessel, the combination of an inner and outer wall concentrically arranged and providing a dead air space therebetween; a closure permanently secured to one end of said outer wall and dished to frictionally engage with and center the corresponding end of the inner wall; a ring permanently secured to the other end of said outer wall having an annular flange to frictionally engage with and center the corresponding end of the inner wall, said closure and ring adapted to close said dead air space; and a removable closure for the open end of the inner wall, substantially as described.

2. In a vessel comprising an inner and outer wall concentrically arranged and providing a dead air space therebetween, the combination of a metallic closure permanently secured to one end of the outer wall and having a centrally dished portion adapted to frictionally engage with and center the corresponding end of the inner wall, a metallic ring permanently secured to the other end of the outer wall having an upwardly inclined portion and provided with an annular flange adapted to fit within and frictionally engage with the corresponding end of the inner wall and center the same with respect to the outer wall; said fixed closure and ring adapted to close said dead air space; and a removable closure for the open end of the inner wall, substantially as described.

3. In a vessel comprising an inner and outer wall concentrically arranged and pro-

viding a dead air space therebetween, the combination of a metallic closure secured to one end of the outer wall and dished to provide a flat bottom and a surrounding inclined portion; an inner wall supported and centered on said bottom; a metallic ring secured to the other end of the outer wall and having an annular inclined portion and an annular flange; said inclined portion and annular flange frictionally engaging with the adjacent end of the inner wall and centering the same with respect to said outer wall; and a removable closure for the open end of the inner wall, substantially as described.

4. In a vessel, the combination of an inner and outer cylindrical wall concentrically arranged and providing a dead air space therebetween; a metallic closure crimped to the bottom edge of the outer wall, said closure having a flange tightly fitting within the outer wall, and having a dished portion providing a flat bottom and a surrounding inclined portion; said bottom supporting the inner wall and the inclined portion frictionally engaging and centering the same with respect to the outer wall; a metallic ring crimped to the upper edge of the outer wall and having a flange fitting tightly within the outer wall, and having an annular inclined portion and an annular flange; said inclined portion and annular

flange frictionally engaging with the adjacent end of the inner wall and centering the same with respect to said outer wall; and a removable closure for the open end of the inner wall, substantially as described.

5. A vessel comprising inner and outer concentric tubes, a closure at one end engaging at its periphery the outer tube and provided with an annular shoulder engaging the inner tube and a closure at the opposite end comprising an annular ring engaging at its periphery the outer tube and at the inner opening the inner tube, and a removable cover for the annular ring.

6. A vessel comprising outer and inner concentric tubes, a closure for one end embracing at its periphery the outer tube and provided with an annular shoulder engaging the inner tube and holding it in such concentricity, a closure for the opposite end comprising an annular ring embracing the outer tube at its periphery and having an inwardly-turned flange about the opening engaging and holding the inner tube in concentricity, and a removable cover fitting within the inturned flange.

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

JOHN W. HARRISON.

Witnesses:

D. B. PAYNE, Jr.,
W. A. BROWN, Jr.