

L. R. STEEL.  
BOTTLE.

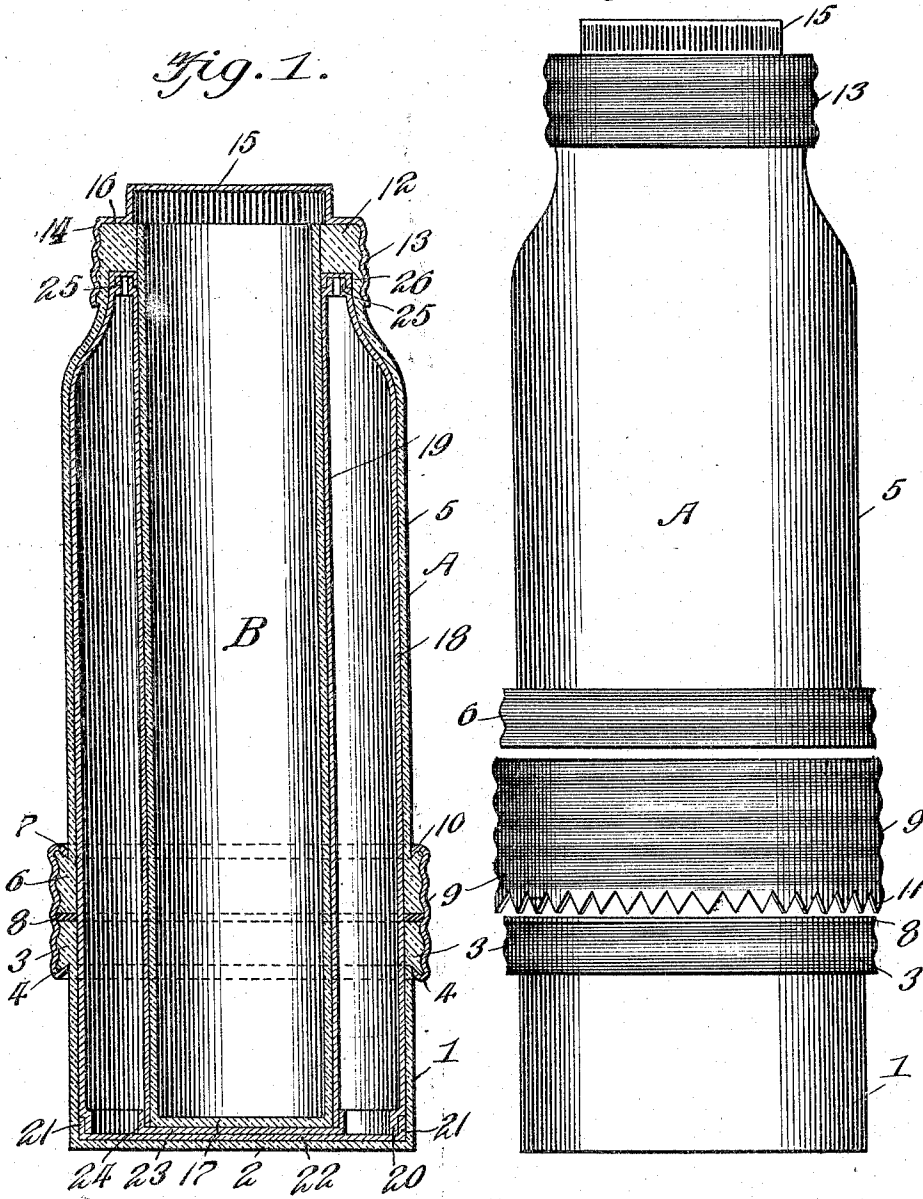
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957,809.

Patented May 10, 1910.

Fig. 2.

Fig. 1.



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Witnesses

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# UNITED STATES PATENT OFFICE.

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## BOTTLE.

957,809.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed November 4, 1908. Serial No. 461,073.

*To all whom it may concern:*

Be it known that I, LEONARD R. STEEL, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Bottles, of which the following is a specification.

My invention relates to improvements in bottles, and its primary object is the provision of a device of this character in which liquids may be kept at a predetermined temperature without the employment of a refrigerating or heating medium, the invention comprehending a bottle which embodies a simple construction, and which may be manufactured and sold at a comparatively low cost.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawing, wherein:—

Figure 1 is a sectional view of a bottle constructed in accordance with my invention, the section being taken on a plane extending centrally and vertically through the bottle, and Fig. 2 is a view in side elevation of the bottle, the upper and lower section of the bottle being shown separated.

Referring to the drawing by reference characters, A designates the casing of my improved bottle, the casing being preferably constructed of glass and in two sections. The sections are cylindrical, and the lower section 1 is provided with an integrally formed bottom wall 2. The upper end of this section is increased in thickness to provide a bead 3 which has its upper surface screw-threaded and which is provided in its under surface with a groove 4. The upper and lower ends of the upper section 5 are fully open, and the lower end of the section is also increased in thickness to provide a bead 6 which has its outer surface screw threaded and which has its upper surface provided with a groove 7. A washer 8 is interposed between the beads 3 and 6 to provide an air tight connection between the sections. The sections are secured together by means of a coupling sleeve 9 which is threaded for engagement with the threads of the beads 3 and 6. The upper edge of the coupling sleeve 9 is provided with an inwardly and downwardly bent flange 10 which fits in the groove 7 of the bead 6.

The lower edge of the coupling sleeve is provided with a plurality of serrations 11 which, when the sleeve is adjusted to properly connect the sections 1 and 5, are bent upwardly into the groove 4 of the bead 3. As the flange 10 of the coupling sleeve 9 is located in the groove 7, and as the serrations 11 thereof are located in the groove 4, it is impossible for the sections to become accidentally separated. The upper portion of the section 5 is slightly reduced, an inwardly disposed annular shoulder 12 being located at the upper end of the section. The upper end of this section is threaded to receive the threaded flange 13 of a cap 14. The cap also includes a hollow cylindrical upwardly extending projection 15 which is smaller in diameter than the flange 13 and which is connected to the upper edge of said flange by means of a horizontally disposed flange 16, the flange 16 resting upon the upper edge of the section 5 when the cap is in applied position.

A cylindrical receptacle B which is preferably made of glass is mounted in the casing A, the diameter of which is such that its upper end snugly contacts with the inner wall of the flange 12, said flange equally spacing the side wall of the receptacle from the side wall of the casing. The upper end of the receptacle B is fully open while its lower end is closed by an integrally formed wall 17.

The space between the side walls of the casing A and receptacle B forms a dead air space which prevents liquid in the bottle from absorbing the heat of the atmosphere and which prevents the heat of the liquid from radiating, thereby enabling the liquid to be kept at a predetermined temperature in the bottle. The hollow portion 15 of the cap 14 also forms a dead air space between the upper surface of the contents of the bottle and the top of the cap which resists the absorption of heat by the liquid in the bottle and the radiation of heat from the liquid. As a further means of preventing the absorption of heat by the liquid in the bottle and the radiation of heat from the liquid, the inner surface of the casing A is provided with a lining 18 and the outer surface of the receptacle B with a lining 19. The lower end of the side wall of the lining 18 is offset inwardly to provide an annular flange 20 which is received by the annular flange 21 of the bottom wall 22 of the lining, the bot-

tom wall being secured to the side wall by means of solder. The bottom wall 23 of the lining 19 is provided with a flange 24 which receives the lower end of the side wall of the lining, the bottom wall being secured to the side wall by means of solder. The upper ends of the side walls of the linings 18 and 19 are offset inwardly to provide upstanding annular flanges 25 which are received by an annular member 26, said member being secured to the flanges by means of solder. The linings are constructed of re-tinned sheet metal which during the process of retinning is dipped in a mercurial solution. The retinning and mercurial solutions combine and form mirrored surfaces which add materially to the appearance of the bottle.

It should be apparent from the above description, taken in connection with the accompanying drawing, that I provide a bottle which is admirably adapted for the purpose for which it is intended, one which may be readily and quickly cleaned, and one which may be manufactured and sold at a comparatively low cost.

Changes in the form, proportions and minor details of construction may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is:—

1. A bottle comprising a sectional casing,

each section being provided with a threaded bead, each bead being provided with a groove, a coupling sleeve mounted on the bead, portions of the coupling sleeve being bent into grooves, a receptacle arranged within and spaced from the casing, and a closure for the bottle.

2. A bottle comprising a casing, a mirrored lining arranged within the casing, a receptacle arranged within and spaced from the casing, a mirrored lining secured to the outside of the receptacle, and a closure for the bottle.

3. A bottle comprising a casing having an inwardly disposed flange, a receptacle arranged within the casing, said flange spacing the receptacle from the casing, and a closure for the bottle.

4. A bottle comprising a sectional casing, means securing the sections of the casing together, a lining on the inside of the casing, a receptacle arranged within and spaced from the casing, a lining on the outside of the receptacle, and a cap threadedly mounted on the casing, said cap being provided with a hollow portion forming a dead air space above the contents of the bottle.

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

LEONARD R. STEEL.

Witnesses:

JOHN G. LEWIS, Jr.,

GUSSIE A. REICHWALD.