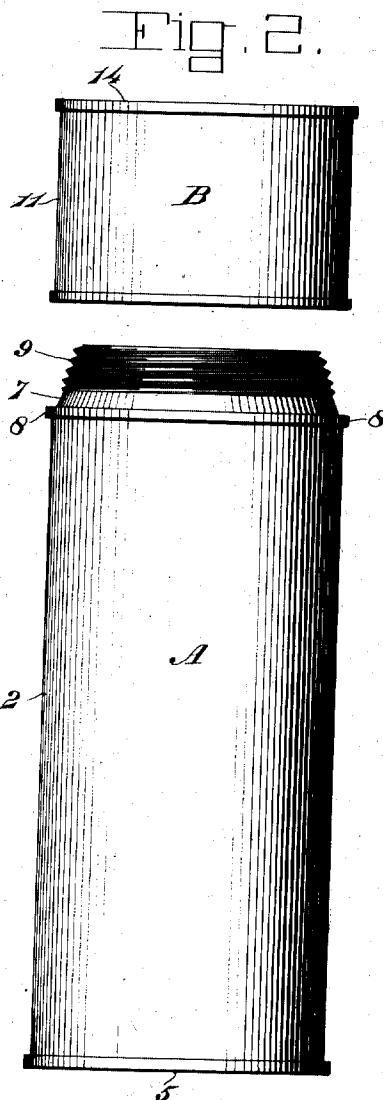
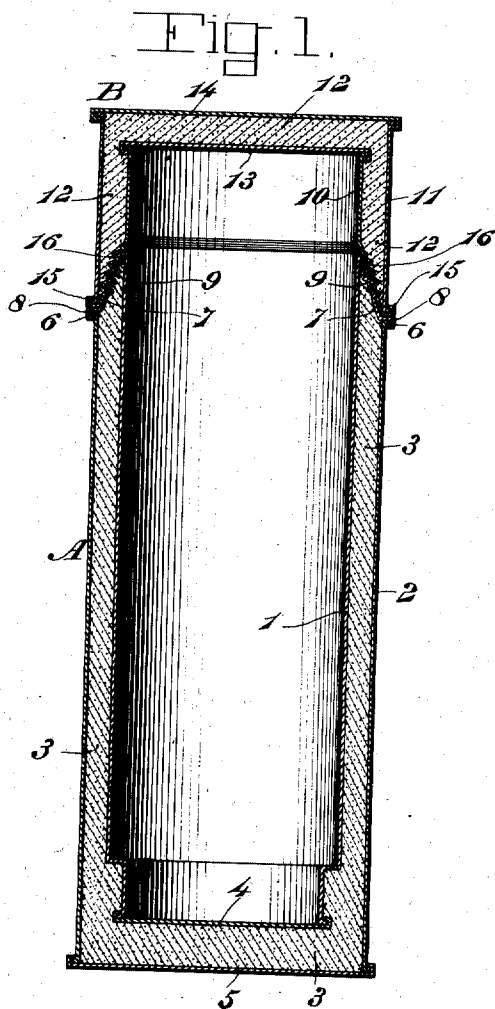


L. R. STEEL.
HEAT INSULATING TUBE OR RECEPTACLE.
APPLICATION FILED OCT. 12, 1910.

1,002,009.

Patented Aug. 29, 1911



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UNITED STATES PATENT OFFICE.

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HEAT-INSULATING TUBE OR RECEPTACLE.

1,002,009.

Specification of Letters Patent.

Patented Aug. 29, 1911.

Application filed October 12, 1910. Serial No. 586,744.

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-Insulating Tubes or Receptacles, of which the following is a specification.

This invention relates to inclosures for bottles containing liquid or the like that is to be maintained for an indefinite period at the same temperature as that at which it was placed in the bottle.

The invention has for one of its objects to improve and simplify the construction of receptacles or inclosures of the character referred to so as to be comparatively simple and inexpensive to manufacture and of such design as to effectively insulate the contents of the inclosed bottle or container from the surrounding atmosphere.

With such and other objects in view, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claim appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a vertical central section of the receptacle. Fig. 2 is a side view thereof with the cover raised from the body of the receptacle.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, A designates the body of the insulating tube or receptacle, and B, the cover or closure therefor, the receptacle or tube being shown empty, but it is to be understood that a glass bottle or other container shaped to fit the body A is adapted to be used in connection with the tube or receptacle.

The body A consists of inner and outer cylindrical shells 1 and 2 that are of different diameters so as to provide an intervening chamber which is filled with cork, asbestos or other material 3 that is a non-conductor of heat, and the bottom 4 of the inner shell is spaced above the bottom 5 of the outer shell so that the intervening space can also be filled with the insulating material 3. The upper edge of the shell 2 is formed with an outstanding annular flange 6

which not only reinforces the outer shell but forms means whereby the inner shell can be joined thereto. The upper end of the inner shell 1 projects out of the outer shell and has a downwardly bent truncated portion or flange 7 and the widest part of this truncated portion is of substantially the same diameter as the outer shell. The bottom edge of the truncated portion 7 is curled outwardly around and under the flange 6 on the outer shell in the form of a bead 8 so as to form a joint between the inner and outer shell and also stiffen the upper end of the body A. The conical surface formed by the flange or truncated portion 7 is provided with screw threads 9 so as to secure the cover or closure B to the body A.

The cover or closure B consists of inner and outer shells 10 and 11 which are also of different diameters so as to provide an intervening chamber that is filled with non-conducting material 12 that extends also between the tops or heads 13 and 14 of the shells. The bottom portion of the inner shell 10 flares downwardly so as to be of the same diameter as the outer shell, and the bottom edge 15 of this flared portion is curled outwardly and upwardly around the bottom edge of the outer shell and can be soldered thereto to form a strong joint. The flared or conical portion of the inner shell is shaped to snugly fit the tapered upper end of the body A, and it is also provided with threads 16 for engaging the threads 9.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

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

A tube or receptacle body consisting of inner and outer shells of different diameters, insulating material filling the space between the shells, an annular flange at the upper edge of the outer shell, the upper end of

the inner shell being turned downwardly to form a truncated flange, an annular bead at the lower edge of the truncated flange arranged in clamping engagement with the
5 flange at the upper end of the outer shell; and a closure consisting of inner and outer shells of different diameters, insulating material between the shells, the inner shell being extended downwardly at an angle to
10 ward the lower extremity of the outer shell and contacting with the truncated flange on the said first named inner shell, the outer shell of the closure being formed at its lower end with a peripheral flange, and the

said downwardly extending portion of the 15 inner shell of the closure being formed with a peripheral bead which is arranged in clamping engagement with the flange of the said outer shell of the closure and which frictionally binds against the first named 20 bead when the closure is in a closed position.

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

LEONARD R. STEEL.

Witnesses:

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