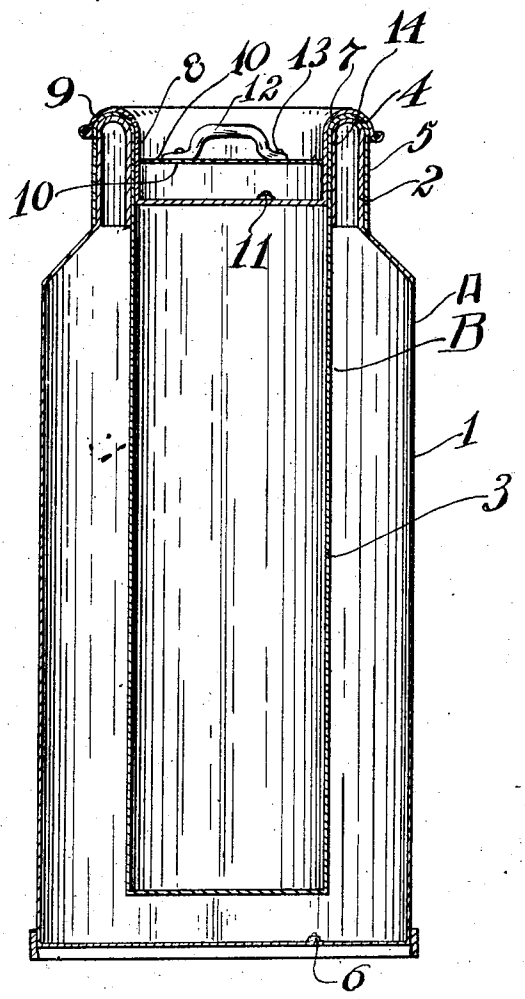
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MILK CAN

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MILK CAN.

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The present invention relates to a structure for a vacuum bottle or shipping container.

Where it is attempted to insulate the walls of a container against the passage of heat therethrough by evacuating air from a space intermediate the walls thereof, difficulty is sometimes experienced in making a container of sufficient strength to withstand the strain of having an inner shell supported upon the upper edge of an outer shell. This is due to the fact that many of such containers are provided with seams at a point of support intermediate the two shells and these seams tend to weaken the structure of the container.

An object of the present invention is to insulate a container having an inner shell and an outer shell and to reinforce the connection intermediate said shells.

Another object is to make an insulated container having a minimum number of parts, which parts are easily separable to facilitate repairs thereon.

In order to attain these objects there is provided, in accordance with one feature of the invention, an outer shell which is preferably formed with a neck portion of reduced diameter, said neck portion having an upper edge thereof turned inward and downward, the container having also an inner shell with an outwardly flanged upper rim, the inner shell being telescopically inserted into the neck of the outer shell to be supported thereby.

Referring to the drawing, the figure shows a vertical section through a container embodying the present invention.

In the illustration, an outer shell A comprises an enlarged lower portion 1 and a reduced neck portion 2, the entire outer shell being preferably spun from a single piece of metal. A portion 14 of the neck is turned inward and brought down into the neck portion in spaced relation to the outer wall 2 thereof, to telescopically receive an inner shell B therein. The inner shell B comprises a cylindrical portion 3 having an outwardly turned flange 4 forming the upper rim thereof. From the flange 4 a cylindrical skirt 5 depends in spaced relation to the walls of the cylindrical portion 3, the skirt being preferably of a length to completely enclose the reduced neck portion 2 of the outer shell when the flange 4 rests upon the top of the inwardly turned portion of the neck of the outer shell.

Before assembling the inner shell with the outer shell, the surfaces of the inner and outer shells which are to be in contact with each other when the parts are assembled, are treated with solder in a well known manner, and when the parts are assembled in the relative positions shown in the illustration, heat is applied to the neck portion to sweat the parts together and hermetically seal the joint between the inner shell and the outer shell. A valve 6 is provided in the outer shell and is of a well known type which will permit air to be evacuated from the vacuum chamber intermediate the inner shell and the outer shell, but which will prevent a return of air into the vacuum chamber.

A cover having a cylindrical central portion 8 may be telescopically inserted into the cylindrical inner shell 3, and is provided with an outwardly turned flange 9 to cover the upper edge of the container and prevent an accumulation of dirt thereon.

A plate 10 is hermetically sealed across the cylindrical central portion of the cover to form a space intermediate said plate and the bottom of the cover. The air from within the space may then be evacuated through a valve 11 similar to valve 6 to prevent the passage of heat therethrough. A handle 12 may be secured to the plate 10 as by rivets 13.

The fact that the upper rim of the container is rounded, together with the cylindrical shape of the inner shell, greatly facilitates the cleaning of a vessel of this type. Should the outer shell A become battered through abuse in handling, the vacuum intermediate the inner and the outer shell may be released by opening the valve 6 to permit the entrance of air at atmospheric pressure. The neck portion of the container may then be heated to melt the solder intermediate the inner shell and the outer shell, and the inner shell may be withdrawn from the neck of the outer shell. The shells may be spun back into their original shape to remove dents and deformities therefrom, and the parts reassembled to restore the container to approximately its original condition with a minimum expenditure of time, labor, and material.

What we claim is:

A vacuum insulated container comprising an outer shell having a reduced upper por-

tion, said shell having its upper edge turned inwardly and downwardly the full length of the reduced portion in spaced relation thereto, a cylindrical shell telescopically inserted into the outer shell and having its upper edge turned outwardly and downwardly the full length of the reduced portion of the outer shell and in contact therewith, and a cover telescopically inserted into the inner shell and having its upper edge turned outwardly and downwardly to overlie the inner and outer shells and having a plate hermetically sealed transversely thereof and below the upper edges of the shells to form a hermetically sealed chamber in the cover.

In testimony whereof we affix our signatures.

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