HOLLOW WALLED RECEPTACLE.
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HOLLOW-WALLED RECEPTACLE.

UNITED STATES PATENT OFFICE.

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1,374,905.


To all whom it may concern:

Be it known that we, WILLIAM J. CASEY and ARNT HAANES, citizens of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Hollow-Walled Receptacle, of which the following is a specification.

This invention relates to hollow walled receptacles such as provide against thermal induction through the walls thereof.

The invention has for its principal object the provision of a receptacle or container for temporarily retaining and preserving in a pre-temperature condition food stuffs or other perishable articles placed therein.

A further object is to form such receptacle by a structure affording a maximum of lightness and strength, and providing hollow air surrounding walls, in which adjacent walls are spaced apart and reinforced upon each other by interengaging parallel ribs struck upon the opposed faces thereof, the ribs of one wall being disposed at right angles upon the ribs of the opposite wall, whereby a plurality of intercommunicating cells or chambers is formed between the walls and the latter contacting only at the intersecting points of said ribs to reduce to a minimum the conductivity therethrough while said ribs serve to support and support said wall against lateral stresses throughout the entire area thereof.

A preferred structural embodiment of the essential features of the present invention is illustrated in the accompanying drawings, in which,

Figure 1 is a front elevation of a receptacle constructed in accordance with our invention.

Fig. 2 is a longitudinal sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a vertical sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is also a fragmentary section on line 5—5 of Fig. 1.

Fig. 6 is a similar view on line 6—6 of Fig. 3.

Referring to the parts of the structure by the characters of reference on the drawings, 1 indicates the body of the receptacle which is preferably of rectangular formation but may be of any suitable form comprising spaced outer and inner surrounding walls. In the present instance the outer and inner front walls 2 and 2', end walls 3 and 3', and back walls 4 and 4', respectively, are formed integral from continuous strips of sheet metal bent at right angles to form the corners 5 and 5', as shown in Fig. 2.

The bottom of the receptacle is closed by a spaced outer and inner walls 6 and 6' respectively, the marginal edges of which are formed with right angle flanges 7 and 7' respectively, which engage with and are fixedly secured to the lower edges of the corresponding surrounding walls by brazing, welding or other suitable means to secure an air tight joint at the points of union. (See Fig. 3).

The top of the receptacle is provided with a detachable closure 8 comprising spaced outer and inner walls 9 and 9', the extremities of which are angularly bent and fixedly secured together upon their inner marginal faces to form a flaring peripheral flange 10 extending in a plane approximately at an angle of 45 degrees to the plane of the surrounding walls of said receptacle, and said walls are formed and united at their upper marginal edges in similar manner to provide a corresponding angular flange 11, upon which the flange 10 of the closure is seated, said flanges being adapted to be tightly secured together by bolts 12 as indicated in Fig. 4, or other suitable clamping means.

Formed to project upon the inner faces of the outer walls and also upon the outer faces of the inner walls of the receptacle, as well as the closure therefor, is a plurality of spaced parallel integral V-shaped ribs 13 closed at their end portions which terminate within the marginal edges of said walls, the ribs of one wall being disposed at substantially right-angles to those of the opposite wall and having their apex portions interengaged at the points of intersection of said ribs. By this construction it will be observed that the ribs serve the double purpose of stiffening the walls against lateral stresses and for retaining the walls in spaced relation to provide insulating passages 14 with a minimum of conducting contact.
points between them. When it is desirable to induce a vacuum between the walls, the ribs will serve to effectively support said walls against the tendency to collapse under exterior or atmospheric pressure.

A door or closure constructed similarly to the cover 8 may be provided in a side wall of the receptacle, and such a door 15 is shown as seated in a flaring frame 16 extending through the walls 2—2' and is secured to inwardly turned flanged portions 17 and 17' respectively formed on said walls, said door may be retained in position by any suitable fastening means.

What we claim is:

1. A hollow walled receptacle, comprising spaced walls joined at their extremities and having a plurality of integral parallel ribs struck from the opposed faces of said walls, the ribs of one wall extending at substantially right angles to the ribs of the opposed wall and interengaging each other at the points of intersection.

2. A hollow walled receptacle comprising spaced surrounding walls joined at their extremities and having a plurality of integral parallel ribs formed upon the opposed faces of said walls, the ribs of one wall engaging and angularly crossing the ribs of the opposite wall, one of said spaced walls having an opening therethrough, and a detachable closure for said opening.

3. A hollow walled receptacle comprising spaced upright inner and outer surrounding walls united to form a flange at their upper edges and formed with a plurality of parallel integral ribs upon the opposed faces of said walls, the ribs of one wall engaging and angularly crossing the ribs of the opposite wall, spaced inner and outer bottom walls formed with a plurality of angularly interengaging ribs and joined at their extremities with corresponding surrounding walls, and a closure formed of inner and outer walls spaced apart by angularly interengaging ribs and united at their extremities to form a flange engageable with the flange of said surrounding wall.

4. A hollow walled receptacle comprising spaced wall sections formed with a plurality of parallel integral ribs struck upon the opposed faces thereof and angularly intersecting and engaging each other, and means for interconnecting said sections at their extremities to form an inclosed receptacle.

In testimony whereof we sign this specification.

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