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J. H. MURCH

2,054,094

CONTAINER

Original Filed Oct. 31, 1929

Fig. 1

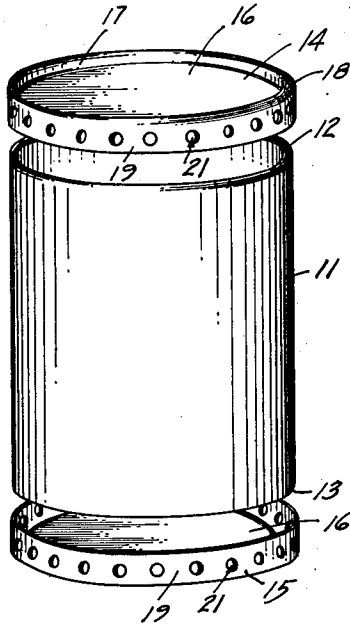


Fig. 2

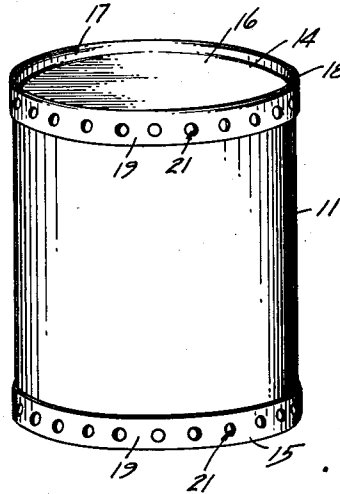


Fig. 3

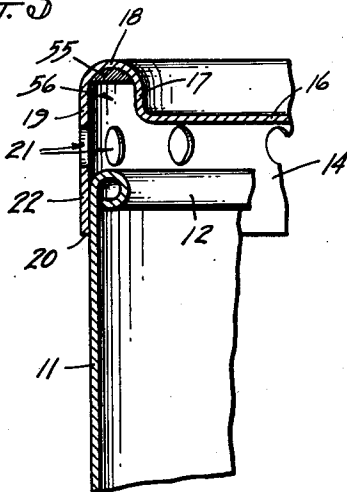
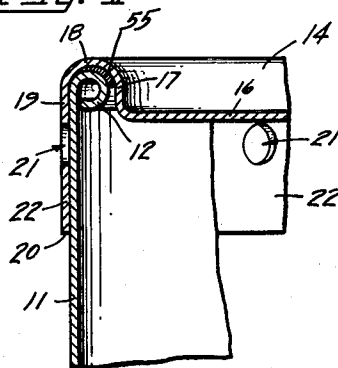


Fig. 4



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CONTAINER

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Original application October 31, 1929, Serial No.
403,887. Divided and this application May 21,
1934, Serial No. 726,857

4 Claims. (Cl. 220-44)

This invention relates in general to the art of packing food and other products in containers and more specifically to the provision of a container of improved construction. This is a division of my application Serial No. 403,887, filed October 31, 1929, on Container and method of processing its contents.

An important object of the invention is the provision of a sheet metal container having end closures which, while confining contents of a solid nature within the container, permit free circulation of steam or other processing fluid through the container from one end to the other, thereby effecting speedy, uniform, and thorough processing and sterilization of the contents.

Another important object of the invention is the provision of a sheet metal container with metal ends of the friction or slip cover type having circulation holes in a part thereof, preferably in the flange of each cover, which permit the partial closing of the ends to retain the contents, while at the same time allowing free circulation of a processing fluid which enters through the circulation holes of one end and escapes through the circulation holes of the other, said ends being also adapted to be hermetically sealed to the container by simple pressure mechanism after the processing has been completed.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a perspective view of one type of container to which my invention is applicable, showing the metal ends with circulation holes in separated alignment with the container body;

Fig. 2 is a view similar to Fig. 1, showing the metal ends completely sealed to the container body;

Fig. 3 is an enlarged cross section of part of a container body and the end closure partially applied to the same; and

Fig. 4 is a view similar to Fig. 3, showing the end closure in full sealing engagement with the container body with the circulation holes sealed up by the container body wall.

To illustrate a preferred embodiment of my invention I have shown my improved end closure applied to a well known type of sheet metal container, preferably the distributable can of commerce which comprises a cylindrical body 11 having its top and bottom edges curled inwardly and

then outwardly to form hollow top and bottom beads or rounded edges 12 and 13.

The ends 14 and 15 are alike in construction and dimension and only one of them need be described. Each end closure consists of a drawn shell having a sunken circular panel 16, a short vertical wall 17 terminating in a rounded edge or shoulder 18, and a depending annular flange or skirt 19 terminating in an edge 20. The skirt 19, about midway between the shoulder 18 and the edge 20, has a series of holes 21, preferably of circular formation, punched out of its material. These perforations or apertures 21 are spaced away from the edge 20 a sufficient distance to leave a substantial annular imperforate sealing area or band 22, which may be die sized in the drawing of the end to fit tightly around either the upper or lower end of the body 11, and to adhere thereto with sufficient tightness to partially seal the container to confine the contents until the latter have been thoroughly processed.

In practice, containers of the preferred type illustrated are filled with a solid, or substantially solid, product after one of the ends, say the bottom end 15, has been partially assembled to the lower end of the body 11. The top end 14 is then partially assembled in like manner. The contents which are thus confined in the body 11 between the two end closures are now ready to be processed.

For this purpose the containers may be placed in a steam retort or the like apparatus and steam or other processing fluid may be circulated through the contents by entering the perforations in the top closure, passing down through the product in the container and emerging from the bottom closure through its perforations. In this manner processing or sterilizing heat treatments may be quickly and effectively applied to all parts of the container contents.

Such a container readily lends itself to a simple closing operation after processing or sterilizing which operation may be performed in the retort if desired. To hermetically close the container it is only necessary to press each end member further on the body. This action positions the perforations adjacent the body wall as shown in Fig. 4 and cuts off communication with the interior of the container.

To insure a perfect hermetic seal between the body 11 and the closures 14 and 15 a gasket or sealing compound 55 may be interposed between the rounded edges 12 and 13 of the body 11 and a channel 56 of the ends 14 and 15.

It is thought that the invention and many of

its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A container for a product processed therein, comprising a body, flanged end closures proportioned and dimensioned to be slidably frictionally telescoped upon the ends of the can body, thereby providing a hermetic seal, the flange on each end closure being provided with holes located intermediate the depth of the flange, the circumferential disposition of the holes in each flange being such as to provide a substantially uniform ingress and egress of the processing fluid when the holes are not covered by the container body.
2. A container for a food product to be processed therein, comprising a body, flanged end closures slidably frictionally telescoped upon the ends of the can body, thereby providing a hermetic seal when said ends are forced home, the flange on each end closure being provided with a plurality of peripherally spaced apertures located intermediate the depth of the flange, the circumferential disposition of the apertures in each flange being such as to provide a substantially uniform ingress and egress of the processing fluid uniformly through the contained product when the end closures are partially telescoped on the container body and the apertures are not covered by said container body when the end closures are in innermost position relative to said body.
3. A container for a food product processed therein, comprising a body having curled beads at its opposite ends, flanged end closures, each

proportioned and dimensioned to be slidably frictionally telescoped upon the ends of the can body and each having a sealing compound therein, thereby cooperating with the closure flanges to provide a hermetic seal when said ends are forced home, the flange on each end closure being provided with peripherally spaced apertures located intermediate the depth of the flange, the circumferential disposition of the apertures in each flange being such as to provide a substantially uniform ingress and egress of the processing fluid uniformly through the contained product when the end closures are partially telescoped on the container body and the apertures are not covered by said body, said apertures being sealed by said container body when the end closures are in innermost position relative to said body.

4. A container for a food product to be processed therein, comprising a body having inwardly curled beads at its opposite ends, flanged end closures each having a peripheral channel and slidably frictionally telescoped upon the ends of the can body, and a sealing compound in said channel, thereby cooperating with the closure flanges to provide a hermetic seal when said ends are forced home, the flange on each end closure being provided with peripherally spaced apertures located intermediate the depth of the flange, the circumferential disposition of the apertures in each flange being such as to provide a substantially uniform ingress and egress of the processing fluid uniformly through the contained product when the end closures are partially telescoped on the container body and the apertures are not covered by said body, said apertures being sealed by said container body when the end closures are in innermost position relative to said body.

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