Feb. 25, 1936. A. M. MEIER ET AL 2,032,296

CONTAINER

Filed Feb. 18, 1933

Fig. 1

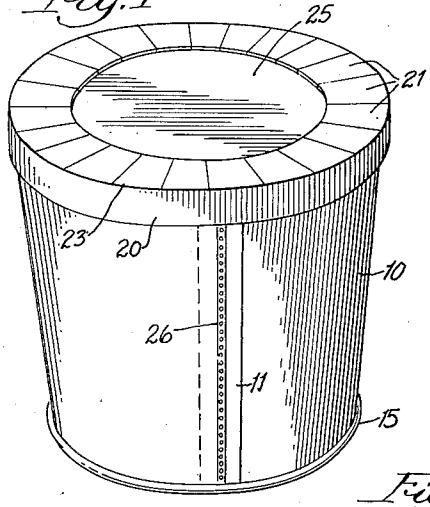


Fig. 2

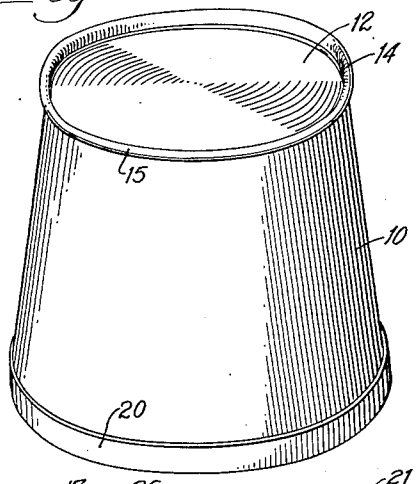


Fig. 3

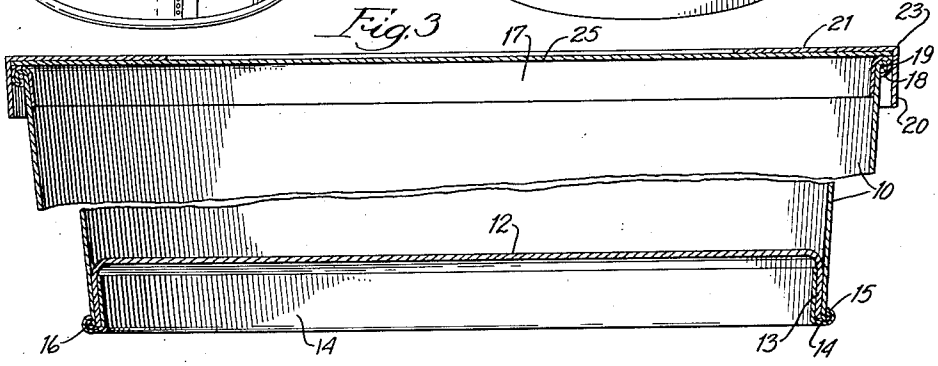


Fig. 4

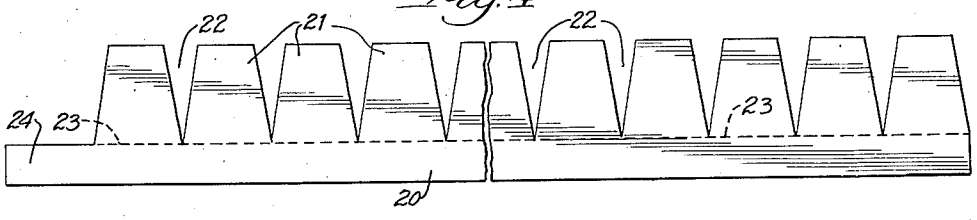
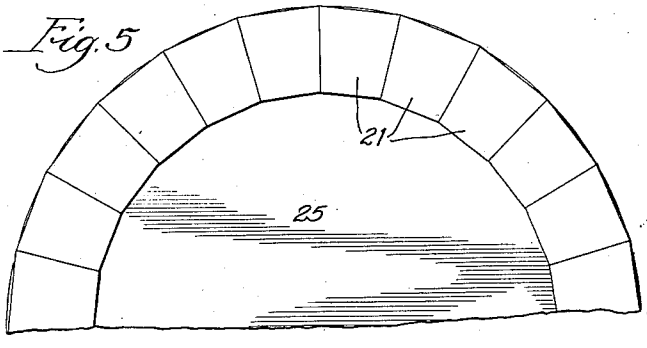


Fig. 5



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UNITED STATES PATENT OFFICE

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CONTAINER

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Application February 18, 1933, Serial No. 657,346

2 Claims. (Cl. 229—43)

The present invention relates to a container composed of substantially cylindrical formation and intended primarily, though not exclusively, for the shipment of ice cream in bulk. Since the present container is of a type which is intended to be used for single service in lieu of metal containers of relatively large capacity, it is essential that the container be made strong and rigid and capable of withstanding heavy strains in use, and also that it be so constructed as to permit of its production at sufficiently low cost to justify the discarding of the container after a single use, thereby saving expense in reshipment, which is a considerable item of transportation cost in the use of metal containers of the character now commonly employed.

The present invention is directed in particular to the construction and reinforcement of the base of the container and to the construction of the cap or cover therefor and the means provided for firmly securing it in engaging relation with the beaded upper margin of the container body in such a way as to prevent accidental displacement thereof.

Further objects and details will appear from a description of the invention in conjunction with the accompanying drawing, wherein,—

Figure 1 is a perspective view of the container looking toward the top thereof;

Fig. 2 is a similar view looking toward the bottom thereof;

Fig. 3 is a sectional elevation through the top and bottom of the container, with the body wall broken away;

Fig. 4 is a developed view of the blank from which the top cover flange is formed; and

Fig. 5 is a plan view of the cover partially broken away.

The container is formed with a circular body 10 which may be pail shaped or slightly tapering, as shown, or of truly cylindrical formation. The body is formed of a single sheet of relatively heavy fiber board which is rolled to the desired configuration and overlapped and glued along the side 11. The body near its base is closed by means of an elevated bottom 12 provided with a downturned marginal flange 13 which abuts snugly against the surrounding body wall, and the body and bottom are reinforced by a circular metallic binding ring 14, the lower edge of which is rolled outwardly and upwardly to afford an outer bead 15, the edge of which is bent inwardly to abut against the body wall near the base thereof.

The lower edge 16 of the body wall is rolled over to furnish a core within the rolled metallic bead. The flange 13 terminates in a plain unrolled edge lying closely adjacent to the rolled edge of the body wall, so that the rolled edge of the metal ring closely embraces and clamps together the lower edges of the body and base flange, thereby affording two plies of fiber board with a metal reinforcement afforded in part by the rolled edge of the metal ring and in part by the upstanding body wall of the ring, so that a firm, rigid base is afforded capable of resisting heavy pressures and providing a seal against leakage of the contents of the container.

Furthermore, the metallic ring furnishes an upstanding ledge or reinforcement for the bottom 12, thus substantially reinforcing the bottom around its margin at the line of juncture with the body wall.

The upper rim of the body is similarly reinforced by a metallic binding ring 17, the rim of which is rolled outwardly to afford a bead 18 which encloses the rolled upper edge 19 of the body wall.

The cover flange is formed from a single blank of relatively stiff fiber board comprising a continuous strip 20 from which extends a series of tongues 21 separated by notches 22 in the flat blank. The tongues are connected with the body along continuous folding lines 23, and the strip 20 at one end terminates in a pasting tongue 24.

The strip 20 co-operates with a disk 25 in the formation of a flanged cover which is formed by bending the strip to circular form to constitute a flange for the cover and by inturning the tongues 21 and drawing them together into abutting relation and gluing them around the margin of the disk 25.

In order to cause the cover flange to grip snugly around the upper body bead 18, the notches 22 are cut very slightly in excess of the width required to afford a truly cylindrical configuration to the flange, with the result that in drawing them together the flange will be drawn inwardly at a slightly oblique angle, as indicated in Fig. 3, so that in forcing the flange over the bead, its lower lip will be slightly distended to cause the cover to closely hug the bead and thus prevent accidental displacement. This slightly tapered configuration of the flange is further maintained by employing a cover body disk 25 of slightly larger diameter than the rim would normally allow, with the result that in fitting the rim to the cover disk and gluing the tongues in closely abutting relation, the lower edge of the rim will be slightly drawn in to give the convergence mentioned. The rim is completed by

underlapping the tongue 24 beneath the opposite end of the strip 20 and gluing or otherwise fastening the same in position.

The container above described, even when made in sizes sufficient to hold five gallons, will be extremely strong and rigid, so that there will be no tendency toward breaking down or distortion, even when subjected to considerable pressure, so that the container is well adapted for the transportation of such commodities as ice cream or other food products, and the use of properly waxed or otherwise treated fiber board provides the necessary sanitary conditions, so that inner liners or the like are not required in order to meet the highest sanitary standards.

Although it will not ordinarily be necessary to secure the overlapped ends of the body section, as indicated at 11 in Fig. 1, by attaching means other than gluing, nevertheless, if additional strength is required, a metallic fastening strip 26 may be provided as an additional form of securement, particularly in containers of the larger sizes.

We claim:

1. In a container of the class described, the combination of a body provided around the exterior of its upper edge with a marginal bead, and a cover consisting of a disk-shaped body portion and a downwardly extending converging flange closely embracing the beaded edge of the body, the flange having formed therewith inwardly extending tongue portions bent at an angle thereto and secured to the cover disk.

2. In a container of the class described, the combination of a body provided around its upper edge with a marginal bead, and a cover consisting of a disk-shaped body portion and a downwardly extending converging flange closely embracing the beaded edge of the body, the diameter of said disk shaped body portion being of a larger diameter than the normal flange diameter, the flange having formed therewith inwardly extending tongue portions bent at an angle thereto and secured to the cover disk.

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