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RECEPTACLE AND CLOSURE LID THEREFOR

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Fig. 1.

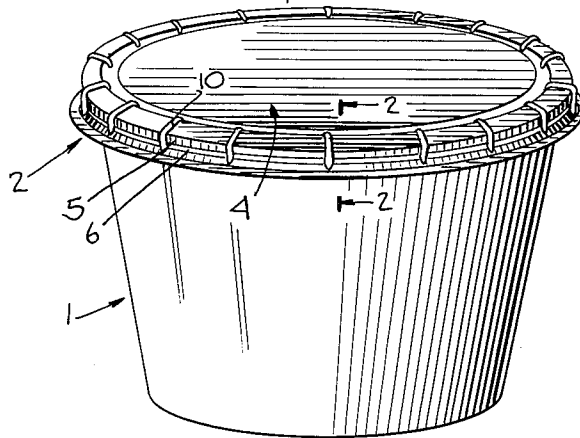


Fig. 2.

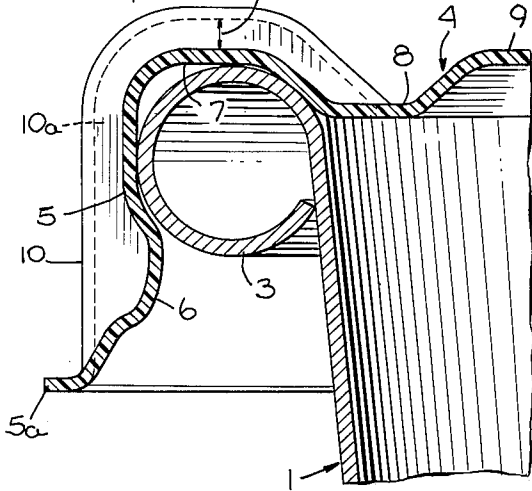
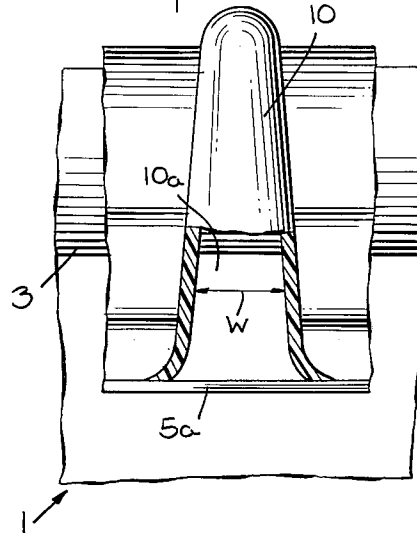


Fig. 3.



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RECEPTACLE AND CLOSURE LID THEREFOR
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4 Claims. (Cl. 43—55)

This invention relates to closure lids for containers and more particularly to lids made of plastic for use in containers having a narrow beaded upper lip; and to the combination of such receptacle and closure lid.

Receptacles of this character are well known and by way of example may be made of paper and provided with a lip bead on the upper marginal edge of the container.

An object of this invention is to provide a container for holding live fish bait, such for example as earth worms, crawfish, helgramites, minnows, etc., to thereby facilitate the storage, shipment or use of such live fish bait. To be adequate for such use the container must provide when closed a small but constant supply of atmospheric air. Supplying such ventilation by holes punched in the top of the lid would not be satisfactory because such holes would be covered when the containers are stacked one upon another, and further because the punching of such holes would add to the cost of the lids which must be produced at small cost.

This invention contemplates a lid which may be molded, such as by suction molding well known in the art, from a single piece of relatively thin plastic. By way of example, polystyrene plastic of a thickness of the order of .012" has been found satisfactory. The lid is so constructed and arranged that a series of interior open channels are provided by deforming the plastic sheet material outwardly. The lid is constituted by a top and an integrally formed down-turned skirt having bead means formed by bead segments spaced apart circumferentially for locking engagement beneath the container bead and alternating with the channels which are disposed in the spaces between the segments. Channels spaced at intervals of about 20 degrees and of a mean width of about one-tenth of an inch and of a height of about one-third of the width. An internal groove is formed at the juncture of the top and skirt for receiving the container bead. The channels extend upwardly from the internal lid bead segments and over the top of the interior recess and terminate in an exterior recess concentric to and closely adjacent the internal recess so as to provide a portion engaging the container lip at the inner portion of the container lip bead. This external recess also serves as a reinforcement to add stiffness to the periphery of the lid. It will be seen that the open channels permit the venting of the container to the atmosphere at all times and are of such size and number to furnish the required air to the bait while preventing the escape of the bait therethrough. Likewise, the venting channels are so disposed that they are not covered when the closed containers are stacked one upon another in storage or shipment.

Further objects, features and advantages of the invention will appear from the following specification and claims taken in connection with the accompanying drawings in which:

FIG. 1 is a perspective top view of a closed container showing an embodiment of the invention;

FIG. 2 is a somewhat enlarged cross-sectional view taken on line 2—2 of FIG. 1; and

FIG. 3 is a view, partly in section, showing further details of the air channels shown in FIGS. 1 and 2.

Referring to the drawings, and more particularly to FIGS. 1 and 2: the container is designated in general as

1 and the lid is designated in general as 2. The beaded lip of the container is designated as 3. The lid 2 consists of a top 4 and an integrally formed down-turned skirt 5 provided with a plurality of bead segments 6 jointly forming bead means disposed for locking engagement beneath the container lip bead 3. At the juncture of the top 4 and skirt 5 an internal circumferentially disposed internal recess 7 is provided for receiving the container bead 3 and in the present embodiment an external recess 8, closely adjacent to and concentric with the recess or groove 7, provides the inner limit of the lip bead receiving recess 7 and at its inner edge extends gradually upwardly and merges with a flat portion 9 of the lid top. This construction serves to reinforce the peripheral edge of the lid.

The plastic material is deformed outwardly in-between the internal bead segments 6 as at 10 (FIG. 1) to provide interior air channels such as 10a (FIG. 2) which extend from below the bead means 6 upwardly and then radially inwardly across the top of the internal recess 7 and terminate in the external recess 8. It will thus be seen that open channels 10 pass upwardly of the skirt and thence inwardly over the lip bead 3 and open into the interior of the container at the recess 8.

It has been found that channels spaced about 20 degrees apart having a mean width W (FIG. 3) of about one-tenth of an inch and a height H (FIG. 2) of about one-third of the width W provide satisfactory venting of the closed container at atmospheric pressure. The channels are widest at their lower ends adjacent the bead segments 6 and taper upwardly to a narrower width where the channels pass over the container bead 3 at the internal recess 7.

Having thus described my invention with particularity with reference to its preferred form, it will be obvious to those skilled in the art, after understanding my invention, that other changes and modifications may be made therein without departing from the spirit and scope of my invention, and I aim in the appended claims to cover such changes and modifications as are within the scope of the invention.

What I claim is:

1. A closure lid for a container having a beaded lip, said lid being constituted of one piece of relatively thin plastic material comprising a top and an integral continuous peripheral skirt of substantially uniform thickness with said top, said lid being formed with an annular internal recess at the juncture of said top and skirt for receiving said beaded container lip, said skirt being deformed inwardly immediately below said annular internal recess to form a plurality of circumferentially extending locking bead segments for locking engagement beneath said beaded container lip, said bead segments extending over the major circumferential portion of said skirt, said skirt further being deformed outwardly between said bead segments to form internal depressions defining permanently open channels which extend continuously up from between adjacent bead segments and radially inwardly across said annular internal recess to overlie said container lip along the top of said lid, the number and size of said channels providing continuous venting of the interior of said container at substantially atmospheric pressure while preventing the escape of live bait from said container.

2. A closure lid as set forth in claim 1, in which the top of said lid is provided with an external recess concentric to and disposed closely adjacent said internal recess and said outward deformations extend into and through the wall of said external recess.

3. A closure lid as set forth in claim 1, in which the lid is constituted of one piece of polystyrene of a thick-

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ness of the order of .012", said radially extending deformations are spaced apart about 20 degrees and said channels have a mean width of slightly less than one-tenth of an inch and a height over said internal annular recess of about one-third of said width.

4. In combination, a container having an outwardly extending relatively narrow beaded lip and a closure lid for said container, said closure lid being constituted of one piece of relatively thin plastic material comprising a top and an integral continuous peripheral skirt of substantially uniform thickness with said top, said lid being formed with an annular internal recess at the juncture of said top and skirt for receiving said beaded container lip, said skirt being deformed inwardly immediately below said annular internal recess to form a plurality of circumferentially extending locking bead segments for locking engagement beneath said beaded container lip, said bead segments extending over the major circumferential portion of said skirt, said skirt further being deformed outwardly between said bead segments to form internal depressions defining permanently open channels which extend continuously up from between adjacent bead segments and radially inwardly across said annular internal recess to overlie said container lip along the top

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of said lid, the number and size of said channels providing continuous venting of the interior of said container at substantially atmospheric pressure while preventing the escape of live bait from said container.

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