

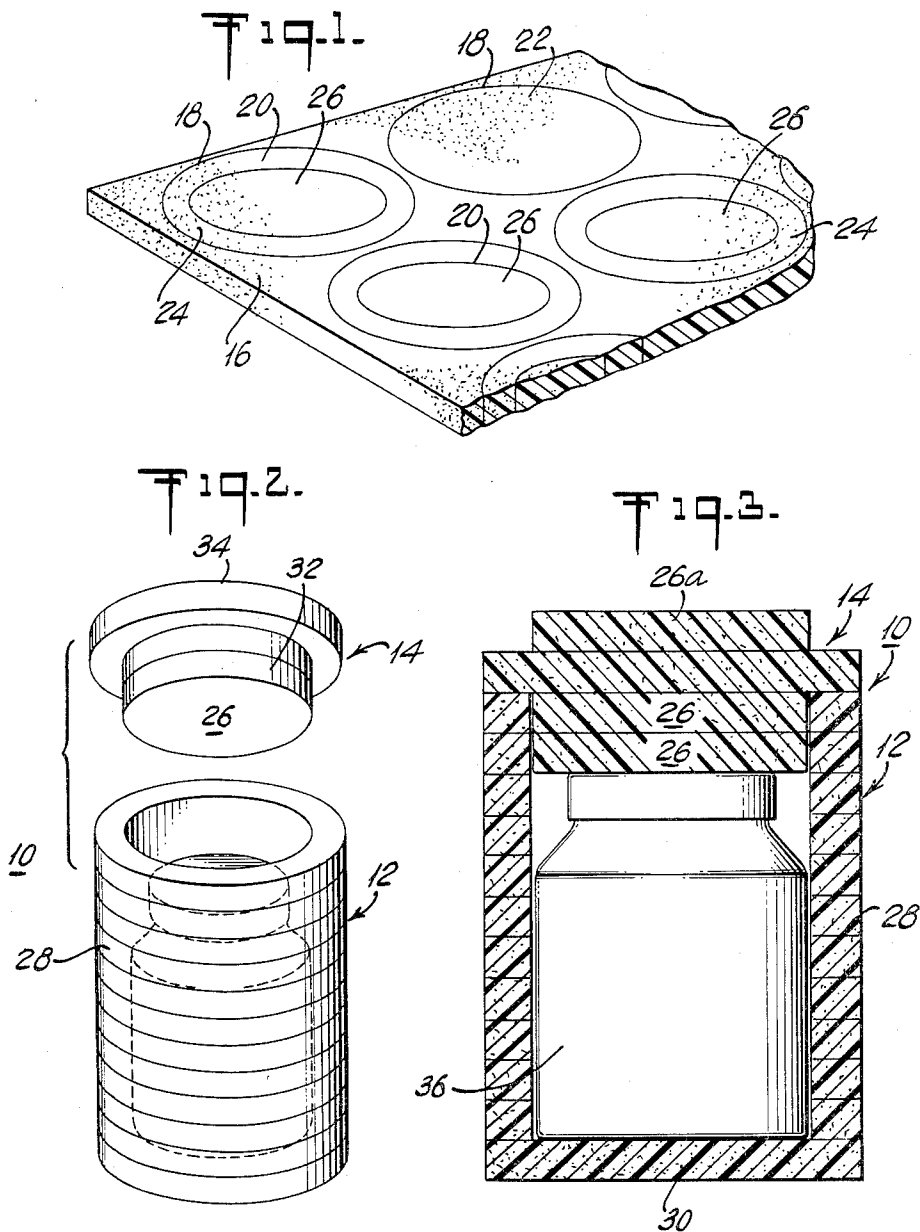
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PACKING OR SHIPPING CONTAINER

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PACKING OR SHIPPING CONTAINER

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2 Claims. (Cl. 156—264)

The present invention relates generally to improvements in receptacles, and in particular it relates to an improved packing or shipping container and to an improved method for producing the same.

The foamed synthetic organic plastic materials, by reason of their light weight, shock-absorbing qualities, heat insulating properties and ease of working, are ideally suited for use as a packing material or for shipping containers, and are widely so employed. In the production of shipping containers from organic plastic foams, it is conventional to mold the foamed plastic material to the complementary configuration of the packaged article. While this procedure results in an eminently suitable packaging container for many applications, it leaves much to be desired. It requires the use of expensive equipment resulting in a container of a cost which does not justify its use in many cases.

It is, thus, a principal object of the present invention to provide an improved receptacle and an improved method for producing the same.

Another object of the present invention is to provide an improved shipping container formed of a foamed synthetic organic plastic material and an improved method for producing the same.

Still another object of the present invention is to provide an improved foamed synthetic plastic container which may be fabricated from the foamed plastic sheet in varying sizes and shapes, and from scrap pieces thereof.

A further object of the present invention is to provide an improved receptacle and method of the above nature characterized by its simplicity, versatility and low cost.

The above and other objects of the present invention will become apparent from a reading of the following description, taken in conjunction with the accompanying drawing, wherein

FIGURE 1 is a top perspective view of a sheet of foamed plastic material showing the cut lines delineating the components of the improved receptacle;

FIGURE 2 is a front perspective exploded view of the completed receptacle in open condition; and

FIGURE 3 is a vertical sectional view thereof in closed condition.

In a sense, the present invention contemplates the provision of a receptacle of the above nature, comprising a bottom wall and side walls defined by a plurality of coaxially aligned, vertically stacked end-to-end frame members formed of a foamed synthetic organic plastic material, the contiguous faces of said frame members being cemented or otherwise secured to each other, and the underface of the lowermost frame member being cemented to said bottom wall, the inner faces of said frame members and bottom wall demarcating an article receiving well.

According to a preferred form of the present invention, the bottom wall of the container is formed of a foamed synthetic organic plastic disc, and the frame members are annuli of similar material having outer diameters equal to that of the bottom wall. There is also provided a foamed synthetic organic plastic cover member which includes a disc-shaped top and a depending concentric cylindrical plug formed of superimposed discs having diameters equal to or slightly less than the inner diameter of the annuli. In producing the improved re-

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ceptacle, the discs and annuli are stamped or die-cut from a sheet of the foamed plastic material, the cover plug forming discs being the cut-out center sections of the annuli. The various annuli and discs are cemented together in the arrangement above set forth.

Referring now to the drawings, which illustrate a preferred embodiment of the present invention and an intermediate component in its production, reference numeral 10 generally designates the improved receptacle which includes a body member 12 and a mating cover member 14. Receptacle 10 is fabricated from one or more sheets 16 of any suitable, preferably rigid foamed synthetic organic plastic material, which, if desired, may be scrap sheets or portions thereof. The plastic foams which may be employed are well known in the art and include foamed polystyrene, foamed saran, foamed polyvinyl chloride and other like materials. The thickness of the sheet 16 may vary as available but is preferably in the range of about 1/4 inch to about 1 inch.

Employing any suitable conventional cutting device, which may be of the individual or multiple cutting type and of the continuous or intermittent type, a plurality of closely spaced circular cuts 18 are formed therein and concentric with most of cuts 18 there are formed circular cuts 20, of lesser diameter than cuts 18. There are thus produced a plurality of large discs 22, a plurality of annuli 24 having the same outer diameters as discs 22 and a plurality of small discs 26 having diameters substantially equal to the inner diameters of annuli 24.

In assembling the body 12 of receptacle 10, a plurality of annuli 24 are stacked in coaxial end-to-end position, their contiguous abutting faces being secured to each other by any suitable cement or other means well known in the art, to produce a tubular member which defines the receptacle cylindrical side wall 28. A large disc 22 is then cemented in coaxial disposition to the bottom face of the side wall 28 thereby to define the receptacle bottom wall 30. The cover member 14 is produced by assembling and cementing together a pair of small discs 26 to form the cover plug section 32 which is then cemented to, in coaxial relationship with, a large disc 22 which defines the cover top wall 34. A hand grip may be provided by a small disc 26a cemented atop disc 22 and in coaxial relation thereto.

In employing the improved receptacle of the present invention, an article, such as a closed bottle or jar 36, is nested in the body member well, and the receptacle 10 is closed by inserting cover plug 32 into the upper section of the body member well, said plug 32 bearing against the top of the article 36 and the side walls of the well, and the under border of cover top 34 resting on the top face of the wall 28. As a consequence, the article 36 is supported in a substantially shock-protected position within receptacle 10 by reason of the material forming the receptacle 10 and by reason of the snug fit of the article within the closed receptacle cavity. Furthermore, the article 36 is also highly heat insulated by reason of the thermal properties of the foamed synthetic organic plastic material of which the receptacle 10 is made.

While there has been illustrated and described a preferred embodiment of the present invention, it is apparent that numerous alterations and omissions may be made without departing from the spirit thereof.

I claim:

1. The method of forming a cylindrical receptacle which comprises making a plurality of circular cuts of a first diameter from a sheet of a foamed synthetic organic plastic material, thereby to form a plurality of large discs, making a concentric circular cut of a second and smaller diameter in certain of said large discs, thereby to form a plurality of annular rings and a similar plurality of

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small discs defined by the centers of said annuli, the outer diameters of the annuli being equal to the diameters of the large discs, the inner diameters of the annuli being substantially equal to the diameters of the small discs, cementing a plurality of said annuli in stacked coaxial relationship to define the hollow open-ended body of the receptacle, cementing a large disc to an end face of said stacked annuli to close off one end of said receptacle body, and cementing at least one small disc in coaxial relationship to one face of a second large disc to define therewith a cover member adapted to overlie the other and open end of said receptacle, the smaller disc extending into and registering snugly within the center opening of the uppermost annulus of said receptacle.

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2. The method of claim 1, including the step of cementing at least one small disc in coaxial relation to and on the opposite face of said second large disc, thereby to define a hand grip for said cover member.

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