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A. J. GODSHALK

2,374,481

CONTAINER

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Fig. 1

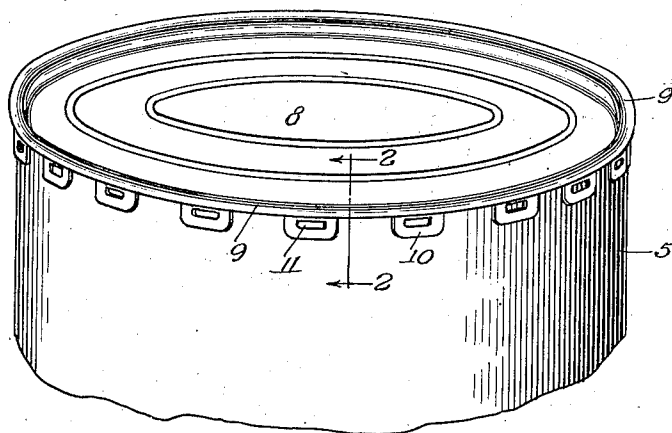


Fig. 2

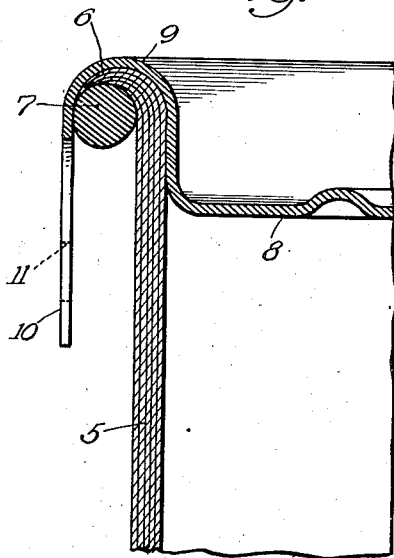
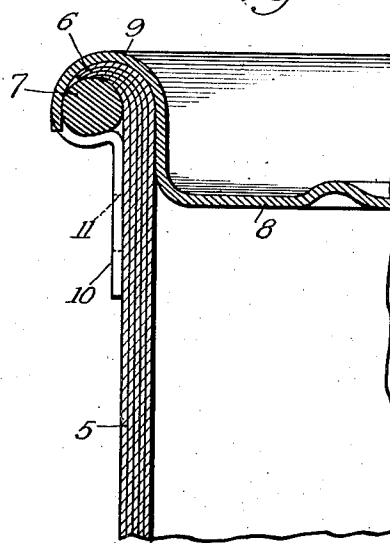


Fig. 3



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CONTAINER

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1 Claim. (Cl. 229—5.5)

This invention relates to containers having bodies formed of paper, fiber, or other suitable non-metallic material with metallic ends or covers. Heretofore large numbers of metallic containers such as cans or pails have been made with covers having lugs or rings fastened in closing position by means of closing machines particularly adapted for this purpose. One of the novel features of the present invention is the provision of a tubular body formed of paper or the like, having one or both ends constructed so that metallic covers may be applied thereto and closed by means of such closing machines.

The objects of the present invention are to provide an improved paper or fiber container having a metallic cover for securely closing or sealing the same; to provide a fiber or paper container with means at the end adapted to coact with a metallic end or cover for closing the same; to provide a container made of fibrous material with an outwardly extending flange at the end and having an auxiliary ring or annular filler which is adapted to be engaged by the closing portions of the cover; and to provide such other advantages and novel features as will be described more fully hereinafter.

In the accompanying drawing illustrating this invention,

Fig. 1 is a perspective view showing one end of the container with the cover in closed position;

Fig. 2 is a sectional view taken substantially on line 2—2 of Fig. 1, but drawn on an enlarged scale, showing the cover in position before being acted upon by the closing machine; and

Fig. 3 is a view similar to Fig. 2 showing the cover in closed position.

As shown in the drawing, 5 indicates the cylindrical body of the container which may be made of one or a plurality of thicknesses of material and which may be closed at the lower end by any suitable bottom or closure not shown. The upper edge of the body is pressed or rolled outwardly to form a flange 6 which as a result of the usual forming operation is tapered or reduced in thickness towards its outer periphery. The upper surface of the flange is curved or substantially semi-circular and forms a seat for the complementary curved portion of the cover.

With the usual thickness of stock adapted for making the bodies of such containers, the edge of the outwardly extending flange 6 will be relatively thin and the flange will not have sufficient body to coact with the closing portions of the cover to make a tight closure. In order to provide such necessary thickness or stock, I place a ring

or annular filler 7 against the lower face of the flange and fitting closely against the adjacent outer wall of the body. Such ring may be made of any suitable material, but is preferably made of paper or fibrous substance similar to the body and may be cemented or glued in position to hold it in place until the cover is applied to the container. These rings are substantially circular in cross section and when installed under the tapered flange as shown in the drawing, the ring and the adjacent portion of the flange closely simulates the ordinary bead or curl commonly provided on a metallic pail or can of the kind referred to. I have found that paper rope is well adapted for this purpose. It is customary to provide gaskets or sealing rings for sealing the covers of metallic containers and paper which may be suitably impregnated if desired, is used for such purpose. With my improved construction, such gaskets may ordinarily be omitted as the material of the body and of the ring 7 will make a tight or hermetically sealed closure with the metallic cover.

The cover 8 fits closely in the top of the pail or container and has a substantially U-shaped flange 9 which fits over the flange 6 and ring 7. In the particular form shown, the flange has a plurality of locking or fastening lugs or tabs 10 which normally project straight down before being fastened as shown in Fig. 2. These tabs or lugs have slots or holes 11 which serve as openings for receiving a screw-driver or the like for removing the cover from the pail. While I have shown a lug cover, any suitable cover such as used on metallic pails may be used to close my improved container.

When the cover is to be fastened in position, it is put on the can or container and then the lugs are bent inwardly and upwardly by means of a suitable closing machine to positions substantially shown in Fig. 3. The size or cross section of the ring 7 is sufficiently large so that when the lugs or closing portions of the cover are bent to closing position, all of the parts within the U-shaped flange 19 are compressed so that a tight seal or closure is made entirely around the top of the container. The closing machines used for this purpose are adapted to exert a considerable pressure so that the ring 7 may be flattened or deformed during the closing operation.

The cover may be removed by means of a screw-driver or other suitable tool which has a point that may be inserted in the holes 11 for bending the lugs outwardly to free them from the ring or bead.

I have shown and described a preferred commercial form of my invention, but changes may be made in the details of construction or in the assembly, as for adapting it to different types of covers, without departing from the scope of the invention, as set forth in the following claim in which I claim:

A container comprising a cylindrical body having a plurality of thicknesses of fibrous material with an outwardly projecting flange at one end having a substantially semi-circular upper surface, a ring formed of resilient fibrous material positioned in the angle between the outer wall of the body and the lower surface of the flange, means for holding the ring in such position, said ring being of sufficiently large cross section so that it extends beyond the outer edge of the flange

and together with the flange forms a substantial bead around the top of the container, a metallic cover having a peripheral wall fitting closely in the top of the container and having a U-shaped flange embracing the bead formed by said body flange and ring, and fitting closely thereover, said cover flange having a plurality of lugs which extend inwardly under said ring and then downwardly against the outer surface of the body, said lugs serving to compress the ring against the flange on the body and tending to hold the flange in extended position whereby the cover is held firmly in closing position so that it will provide a tight closure and will be held in closing position until the lugs are bent outwardly to free the same.

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