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2,842,286

ANNULAR INSERT FOR BOXES

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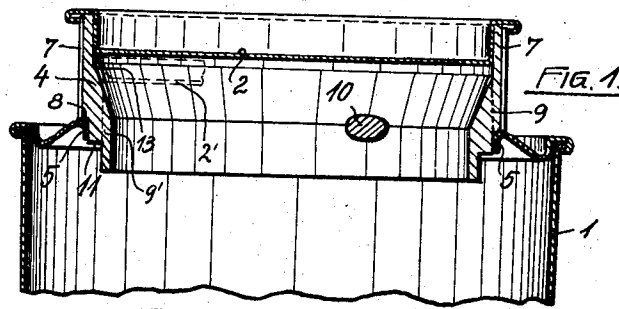


FIG. 1.

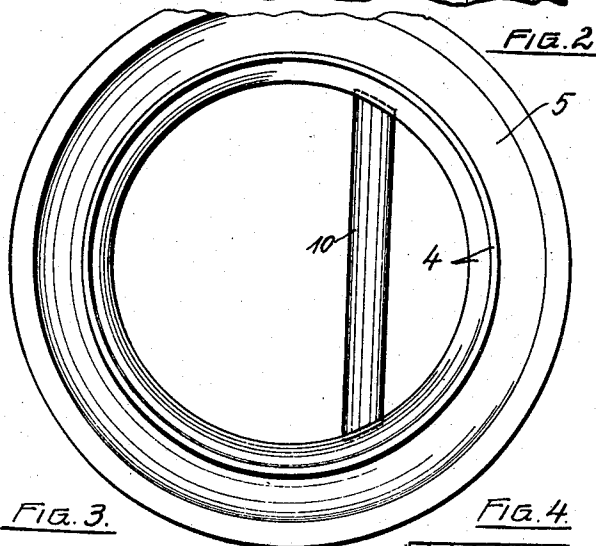


FIG. 2.

FIG. 3.

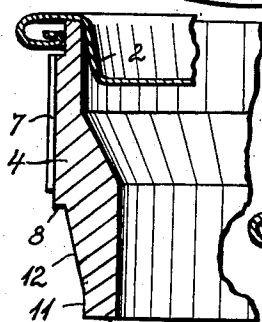
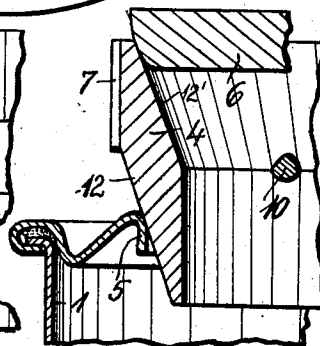


FIG. 4.



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1 Claim. (Cl. 220—90)

This invention relates to a supplementary insert or attachment for glue boxes of the type having an inserted cover which is formed with a depression tightly fitting into a complementary opening or rim of the box.

Such inserted covers have the drawback that by the repeated pressing of the cover into the opening of the box the protective coating provided on the material and consisting of tin in case of tin boxes, or of a lacquer or varnish in case of boxes of black sheet iron, is rubbed off, so that the filling material, if it is produced on an aqueous basis, immediately attacks the material and causes a more or less intensive corrosion, whereby the contents becomes mean-looking and in many instances is even spoiled.

Furthermore, many of the users of such inserted covers are in the habit of stripping the brush at the wall of the box, whereby incrustations are formed thereon. As a result, the cover can no longer be inserted, but has to be put loosely on the box, whereby the contents of the box very quickly tends to thickening or drying out. This causes substantial losses of the contents of the box, which otherwise would be serviceable.

It is an object of the present invention to provide means for eliminating these disadvantages.

With these objects in view, according to the present invention there is provided an annular insert consisting of a non-rusting and non-corrosive material and adapted to be inserted into the box after the opening thereof, in place of the inserted cover. The upper opening of the insert, facing away from the interior of the container, is adapted for receiving a closure, more particularly the inserted cover belonging to the box, and in the interior of the insert, more particularly in its lower third, there is provided a bridge member consisting of one or two transverse bars and serving for stripping and supporting the brush. Preferably, the outer periphery of the insert at its lower end is formed with step-shaped formations permitting inserting of the insert into boxes with openings of different diameters, more particularly in accordance with the standard sizes of the boxes. By way of alternative or in combination with steps, there may be provided one or more conical constrictions in the lower range of the insert.

It is an important feature of the present invention that the insert consists of a non-rusting and non-corroding material, more particularly, artificial resin, and that the cross bar also consists of a material which will not be attacked by the contents of the box.

Advantageously the outer periphery of the insert is fluted or formed with bridges or similar projections serving to ensure a firm grip of the human hand on the insert.

Moreover, it is important to construct the insert in such a way that the internal or seating diameter of the insert in the upper part receiving the inserted cover corresponds to the diameter of the insert in the region of one of the steps. The insert also may be formed at its upper end facing away from the interior of the container, with steps corresponding to the steps arranged in the part

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of the insert facing the interior of the container, in such a way that the internal seating diameters in the upper stepped region correspond to the external seating diameters in the lower stepped range of the insert.

Other and further objects, features and advantages of the invention will be pointed out hereinafter and appear in the appended claim forming part of the application.

In the accompanying drawings several now preferred embodiments of the invention are shown by way of illustration and not by way of limitation.

Fig. 1 is a longitudinal section through an open box with an inserted attachment or insert in accordance with the present invention and a closure thereof, formed by the inserted cover belonging to the box,

Fig. 2 is a plan view thereof, with the cover removed, and

Figs. 3 and 4 are fragmentary sections similar to Fig. 1, of two further embodiments of the insert.

Similar reference numerals denote similar parts in the different views.

Conventional sheet metal boxes 1 are closed by so-called inserted covers 2. In accordance with the present invention, on removal of the cover 2 and of a protective foil 3 an annular insert 4 is placed into the rim 5 of the box, as indicated in Fig. 1. This insert 4 in accordance with Figs. 1 and 3 may be closed by the inserted cover 2 of the box or according to Fig. 4 by a separate closure member 6.

The inserted ring 4 is formed at its circumference with ridges 7 or other corrugations facilitating the inserting and removing of the cover. The cross section of the ring 4 according to Fig. 1 is shaped in such a way that the lower part facing the interior of the container is formed with a step 8 serving for insertion of the attachment or ring into the rim 5 of the box, while the upper end facing away from the interior of the container forms an opening of such a diameter that the cover 2 belonging to the box 1 fits into this opening. The internal diameter of the upper opening of the insert thus corresponds to the external diameter of the lower part of the insert as indicated by the dotted line 9.

Provided in the lower part of the insert 4 facing the interior of the container is a bridge or cross bar 10 serving for stripping and supporting the brush when the box with its insert is used.

As shown in Fig. 1, a further step 11 may be provided at the lower end of the box for using the insert 4 also for boxes 1 having a smaller diameter. The boxes in question are standardized as to their dimensions so that these two steps 8 and 11 in most instances will be sufficient.

Similarly, the upper opening of the insert 4 may be provided with a step corresponding to the diameter of the smaller boxes. The smaller portion of such a stepped upper seating surface is indicated at 13 in Fig. 1, in dotted lines, its internal diameter corresponding to the smaller external diameter of the lower external seating surface 11, as shown by the dotted line 9', for reception of a smaller cover 2'.

By way of alternative, and as shown in Figs. 3 and 4, in addition to the steps 8 and 11, or combined therewith, conical seating surfaces 12 may be provided on the insert, in such a way that the same may also be inserted in openings of any intermediate diameter. As indicated in Fig. 4, a similar conical constriction 12' may also be provided in the upper region of the insert 4 facing away from the container, so that covers 2 or 6 of any intermediate diameter may be inserted. Fig. 4 also shows a cross bar 10 which may be of advantage in some instances.

It will be appreciated that the insert 4 which acts as a protective insert, is suitable for boxes and containers of

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any kind, with round, rectangular, or other polygonal shape.

While the invention has been described in detail with respect to certain now preferred examples and embodiments of the invention it will be understood by those skilled in the art after understanding the invention that various changes and modifications may be made without departing from the spirit and scope of the invention and it is intended, therefore, to cover all such changes and modifications in the appended claim.

I claim:

An insert adapted to be used with a plurality of cans having circular open ends of varying predetermined diameters with removably inserted covers of corresponding predetermined diameters, comprising a one-piece ring member of a resilient, non-rusting, non-corrosive substance, said ring member having an external conical sealing surface and an internal conical sealing surface

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parallel and complementary to said external conical sealing surface, said ring member being adapted for insertion into the circular open end of one of the cans when its respective cover is removed from said can, and in place of the cover, whereby said ring member's external conical sealing surface may be placed in sealing engagement with the open end of the can, and its respective cover inserted in the ring member in sealing engagement with said internal conical surface of the latter, and a cross bar secured to said ring member for stripping off and supporting a brush.

References Cited in the file of this patent

UNITED STATES PATENTS

15	650,615	Salomon	May 29, 1900
	650,617	Salomon	May 29, 1900
	2,591,482	Weltlich	Apr. 1, 1952
	2,688,418	Carter	Sept. 7, 1954