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LUG FORMED VACUUM SEALED CAP

Filed Oct. 5, 1925

Fig. 1.

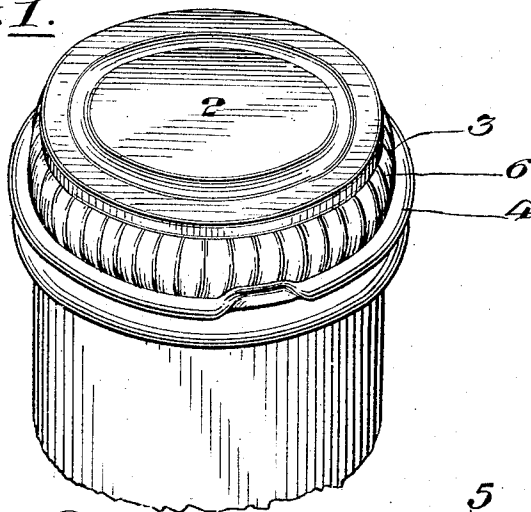


Fig. 2.

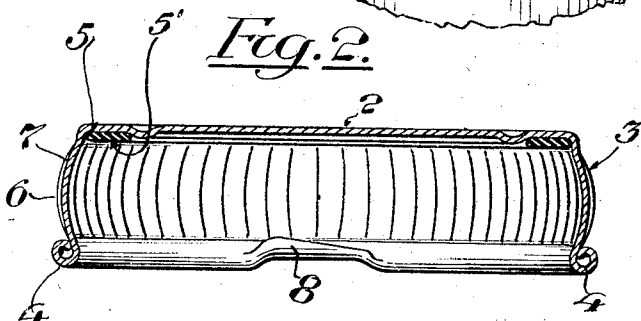


Fig. 4.

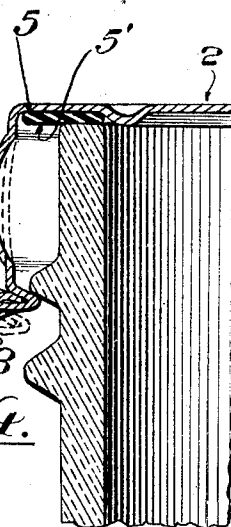
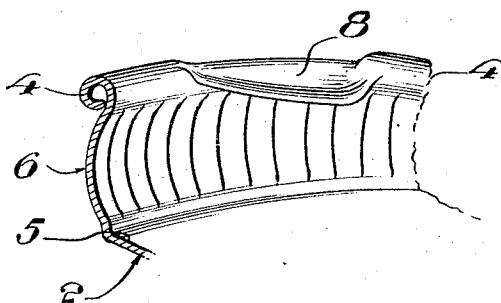


Fig. 3.



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LUG-FORMED VACUUM-SEALED CAP.

Application filed October 5, 1925. Serial No. 60,419.

This invention relates to metal caps or closures having locking lugs or projections for securing the cap on the container, the object of the invention being to provide a
5 lug-formed vacuum seal cap particularly adapted for use in the vacuum sealing of containers and which can be quickly and easily released by the user.

In the vacuum sealing of containers, particularly when packed hot the cap usually used is a friction sealing cap which is secured to the tumbler or container solely by friction, and considerable difficulty is experienced by the user in releasing these caps
15 from the containers.

The object of the present invention, therefore, is the provision of a readily released lug-formed cap so constructed that it can be used in the vacuum sealing of containers, and for this purpose the cap is provided with means which will not only permit the escape
20 of the air when the container is packed hot but will also enable the cap to be readily released by the user.

In the vacuum sealing of containers it is necessary that the cap be quickly and easily released without the breaking of the glass containers. Lug caps, as ordinarily constructed, are not adapted for this purpose
30 since, as the top and its liner are in engagement with the top edge or mouth of the container and the skirt is in contact with the glass threads of the container, it follows that if the top is struck or the skirt is struck to release the cap the force of the blow is
35 received by the glass either on the top mouth edge or on the glass threads or other cap retaining projections of the container, resulting in the breaking or chipping of those portions of the container which are likely to
40 get into the contents and therefore make it dangerous to use the same. By forming the cap in the manner shown and described herein, any pressure on as by the striking of
45 the skirt of the cap due to the bowed formation thereof whereby it is away from the glass threads or retaining projections of the container, prevents the glass container threads from receiving the force of the blow
50 and enables the cap skirt to be lengthened and the locking lugs released, and this without any danger of injuring the contents of the container.

In the drawings accompanying and forming part of this specification, Fig. 1 is a per-

spective view of this improved cap in position on a glass container; Fig. 2 is an enlarged cross sectional view of this improved cap; Fig. 3 is an inverted view of a part of the cap; and Fig. 4 is a detail enlarged view
60 showing in dotted lines the manner in which the cap is quickly released from the container when used as a vacuum sealing cap.

Similar characters of reference indicate corresponding parts in the several views.

Before explaining in detail the present improvement and mode of operation thereof, I desire to have it understood that the invention is not limited to the details of construction and arrangement of parts
70 which are illustrated in the accompanying drawings, since the invention is capable of other embodiments, and that the phraseology which I employ is for the purpose of description and not of limitation.

This improved lug-formed vacuum sealing cap comprises a top 2 and a depending flange or skirt 3 provided at its lower edge with a strengthened or reinforced edge 4
80 which is usually obtained by beading, curling or rolling such lower edge. The top of the cap is provided with an annular recess 5 in which is located a suitable flat ring gasket 5'. The skirt of the cap is outwardly bowed as at 6 between its top
85 and lower edge and this outwardly bowed portion is provided with a series of reinforcements shown in the form of corrugations 7 or similar reinforcing means, which not only permit the escape of air during the
90 vacuum sealing of the container but the construction thereof enables the cap to be readily released by the user. When the container is packed the cap with its gasket is placed in position and rotated in one form
95 thereof so as to bring its locking lugs under the projections or threads of the container whereby the container is vacuum-sealed. Great difficulty however, would be experienced in the release of such cap, in fact
100 it would be almost impossible to turn the cap off unless means were provided for this purpose, and this means in the present instance consists of the outwardly bowed corrugated skirt, since by pressure thereon as
105 by striking on the same at any point the resilient skirt is thereby lengthened out and the lugs therefore released from the holding projections or threads on the container, so that the cap can be easily turned off.

The cap is provided with lugs 8 and as shown herein these lugs are formed from the rolled edge of the skirt, and in the form shown two diametrically opposed lugs are provided and owing to the bowed formation of the skirt it is obvious that the skirt may be pressed or squeezed midway between the lugs into the dotted line position shown in Fig. 4, thus releasing the lugs from the threads or other form of container holding means so that the cap may be quickly and readily removed. When the container is provided with a different form of cap holding means and the cap is provided with two lugs as shown herein, it may be both applied and removed without rotating the same by pressing or squeezing the skirt owing to the bowed or resilient formation of said skirt since such pressure will act to release the lugs in the manner before described.

It is to be understood that by describing in detail herein any particular form, structure or arrangement, it is not intended to limit the invention beyond the terms of the several claims or the requirements of the prior art.

Having thus explained the nature of my said invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, I claim:

1. A metal cap adapted for use with a container having cap holding means comprising a top having a dependent resilient outwardly bowed and inwardly pressable skirt provided with a pair of diametrically opposed inwardly extending locking lugs, the skirt and lugs being so proportioned with respect to the container holding means as to permit the cap to be readily released by the distortion of the cap skirt by inward pressure upon the skirt midway of such lugs.

2. A metal cap adapted for use with a container having cap holding means and comprising a top having a dependent resilient outwardly bowed and inwardly pressable skirt having a reinforced lower edge provided with a pair of diametrically opposed inwardly extending locking lugs, such bowed portion terminating in a line with each lug where the lug joins the inner side of the skirt, whereby pressure upon the bowed portion of the skirt will act directly upon the

lugs, the skirt and lugs being so proportioned with respect to the container holding means as to permit the cap to be readily released by the distortion of the cap skirt by inward pressure upon the skirt between said lugs.

3. A metal cap adapted for use with a container having cap holding means and comprising a top having a dependent resilient outwardly bowed and inwardly pressable skirt provided with a pair of diametrically opposed inwardly extending locking lugs located adjacent to the lower edge of the skirt, such bowed portion terminating in a line with each lug where the lug joins the inner side of the skirt, whereby pressure upon the bowed portion of the skirt will act directly upon the lugs, the skirt and lugs being so proportioned with respect to the container holding means as to permit the cap to be readily released by the distortion of the cap skirt by inward pressure upon the skirt midway of such lugs.

4. A vacuum sealed package comprising a container having cap retaining projections thereon, a metal cap comprising a top having a gasket and a depending outwardly bowed resilient reinforced skirt provided with a pair of diametrically opposed inwardly extending locking projections located adjacent to the lower edge of the skirt and adapted to cooperate with the retaining projections of the container and releasable by inward pressure on the outwardly bowed portion between the projections to distort the cap skirt thereby to lengthen the skirt and release the cooperating projections.

5. A vacuum sealed package comprising a container having cap retaining projections, and a rotary metal cap comprising a top having an annular recess for the reception of a flat ring gasket and a depending outwardly bowed resilient reinforced skirt terminating in a reinforced or strengthened lower edge having a pair of diametrically opposed inwardly extending locking projections formed therefrom cooperating with the retaining projections of the container and releasable by pressure on the bowed skirt between the projections to distort the cap skirt thereby to lengthen the same and release the cooperating holding projections.

Signed at Brooklyn, New York, this 2nd day of October, 1925.

CHARLES HAMMER.