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1,744,973

CONTAINER AND METHOD OF MAKING SAME

Filed March 28, 1927

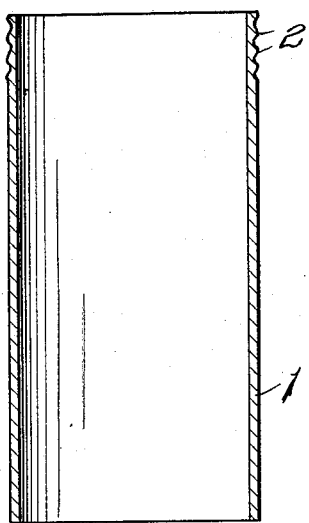


Fig. 2.

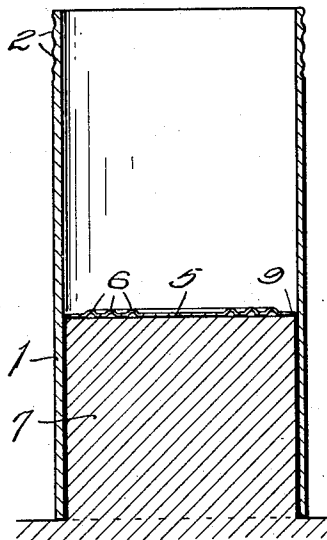
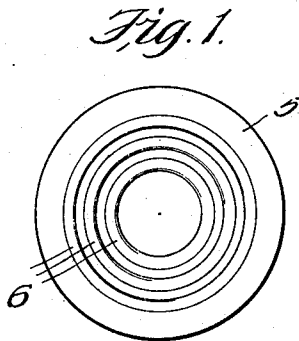


Fig. 3.

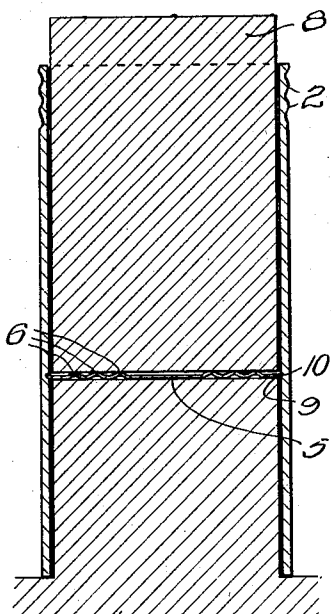


Fig. 4.

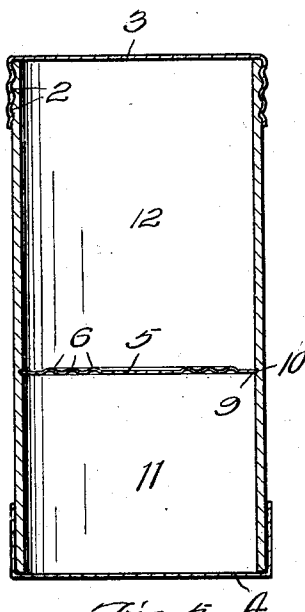


Fig. 5.

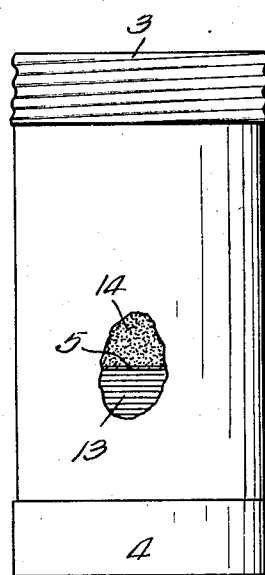


Fig. 6.

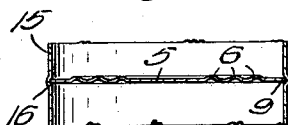


Fig. 7.

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CONTAINER AND METHOD OF MAKING SAME

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My invention relates to a container and method of making same.

The object of my invention is to take a circular metallic disc provided with a series of spaced concentric annular grooves which disc is normally the same size as the inside diameter of the tube to which it is to be applied, and by pressure applied to the raised faces of the grooves cause the grooves to be flattened, or shallowed sufficiently thereby to cause the disc to be expanded in all directions radially within the tube to imbed its peripheral edge into the inner face of the paper tube to retain it from displacement.

A further object of the invention is the provision of a stationary member for insertion into the tube the desired distances and upon which the concentric channeled disc is mounted and to associate therewith a movable member for forced contact with the disc to shallow the channels sufficiently to cause expansion of the disc and force the peripheral edge of the disc into embedded engagement with the body of the paper tube, thereby holding it against displacement within the tube.

A further object of the invention is the provision of a container and method of making same which possesses advantages in points of simplicity and efficiency, and, at the same time proves itself comparatively inexpensive in cost of manufacture.

For a full understanding of the invention, reference is to be had to the accompanying drawings forming a part of this specification, wherein like characters of reference denote similar parts throughout the several views:

Fig. 1, is a plan view of a metallic disc partition for paper tubes so as to provide the tubes with two compartments.

Fig. 2, is a sectional view of a paper tube before the disc partition is applied thereto.

Fig. 3, is a sectional view of a tube positioned over a stationary member upon which the disc partition is seated within the tube and shows a movable member for forced contact with the disc partition to expand the same in all directions radially to secure it against displacement within the tube by em-

bedding its peripheral edge into the body of the tube.

Fig. 4, is a sectional view of a tube with the metallic disc partition expanded into secured position with the walls of the tube.

Fig. 5, is a sectional view of the double compartment tube container, showing the partition and the two end cap enclosures to provide the tube with two compartments.

Fig. 6, is a side elevation of the tube container with a portion thereof broken away, showing tire patches on one side of the partition and a burning powder upon the other side thereof.

Fig. 7, is a modification showing the disc applied to a metallic can.

It is the purpose of my present invention to provide a concentric channeled metallic disc partition to be expanded into position within the tube in all directions radially to cause embedded engagement of the peripheral edge of the disc with the body of the tube so as to provide a tube with two separated compartments.

In carrying out the aim of my invention, I first employ a paper tube 1 of the desired wall thickness, length and diameter, preferably although not necessarily, having one end thereof provided with exterior screw threads 2 to receive a screw threaded cap closure 3 while the opposite end of the tube is provided with a non-screw threaded cap closure 4.

The partition which I employ for the tube 1 consists of a circular metallic disc 5 which is provided with a series of spaced concentric grooves, channels, or corrugations 6. The disc with its spaced concentric corrugations is of approximately the same outside diameter as the inside diameter of the tube so that it can be easily and quickly inserted into the tube.

The method of securing the partition against displacement after being positioned within the tube is by expanding the disc in all directions radially to cause the peripheral edge of the disc to embed itself into the body of the tube. The expansion of the disc is accomplished in one manner, as follows:

One end of the tube 1 is slipped over a

stationary member 7 upon which is positioned the disc partition 5. Next, a plunger 8 is moved into the opposite end of the tube 1 and by force applied thereto shallows, or flattens the corrugations 6 thereof sufficiently to cause the disc 5 to expand radially in all directions between the members 7 and 8 which, in turn, forces the peripheral edge 9 of the disc 5 into embedded engagement with the body of the tube 1, as at 10, which embedded condition of the edge of the disc securely holds the disc partition against displacement within the tube.

The disc partition 5 having been secured in position within the tube provides the tube with two compartments 11 and 12, which can be used for various purposes, one of which for instance, and, for which the tube is primarily desired, although not necessarily limited thereto, is for tire patch material, such as rubber patches 13, which are carried in compartment 11, while the powder to be burnt in vulcanizing the patches to a tube is carried in compartment 14, which compartment is provided with the screw threaded closure to prevent accidental loss of the powder from its compartment.

While I have shown in Figs. 1 and 6, a tube made from paper, I have shown a modification of the invention in Fig. 7, wherein I provide a metallic can, or tube 15 with the partition 5. In this modified form of invention, I provide the body or wall of the can, or tube 15 with an outwardly directed peripheral groove 16 into which peripheral edge of the disc 5 can expand, as the corrugations 6 are compressed as hereinbefore described for securely locking the disc against displacement.

While I have described the disc herein as employed as a partition, it is evident that it could be used as a can bottom, if so desired and also the disc may be stiff paper as well as metallic.

The many advantages of the herein described invention will readily suggest themselves to those skilled in the art to which it appertains.

It will be apparent that various changes may be made in the details of method described without departing from the spirit of my invention as set up in the following claims.

What I claim is:

1. The method of securing a disc partition having concentrically arranged corrugations within a tubular body which consists in positioning the disc within the body at the desired position between its open ends and expanding the disc radially under pressure by slightly flattening the corrugations.

2. The method of securing a disc within a tubular body which consists in positioning a disc having a series of concentric corrugations upon a support inserted into the body

and applying pressure to another member inserted into the body from the opposite direction for contact with the corrugations of the disc for flattening the corrugations sufficiently to expand the disc to embed the peripheral edge thereof into the wall of the body.

3. The method of securing a metallic disc within a tubular open ended body to provide a partition, or bottom therefor which consists in providing a disc holder and a driving punch, seating the disc provided with a series of corrugations upon the holder, slipping the tubular body over the holder and inserting the driving punch into the tubular body under pressure for contact with the disc to flatten the corrugations thereof sufficiently to embed the peripheral edge of the disc in the wall of the body to hold it against displacement.

4. The method of securing a metallic disc within a paper tube which consists in first inserting a corrugated disc within the tube and then compressing the corrugations of the disc between two members to expand the disc and bring the peripheral edge thereof into embedded engagement with the walls of the tube to secure the disc against displacement.

5. The method of securing a disc within a tube having an outwardly directed circumferential groove in the wall thereof which consists in positioning a concentrically corrugated disc within the tube upon a support and flattening the corrugations of the disc by pressure sufficiently to expand the disc and cause the peripheral edge of the disc to frictionally engage in the groove of the body of the tub to prevent displacement thereof.

6. A container comprising a tubular body, a disc having a series of concentrically arranged corrugations disposed within the tubular body intermediate the ends thereof and held against displacement by compressing the corrugations thereof sufficiently to expand the disc into embedded engagement with the wall of the tube and a closure for each end of the tub.

In testimony whereof, I have hereunto signed my name to the specification.

JOHN H. KUECHENMEISTER.