

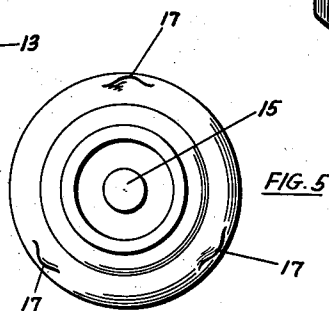
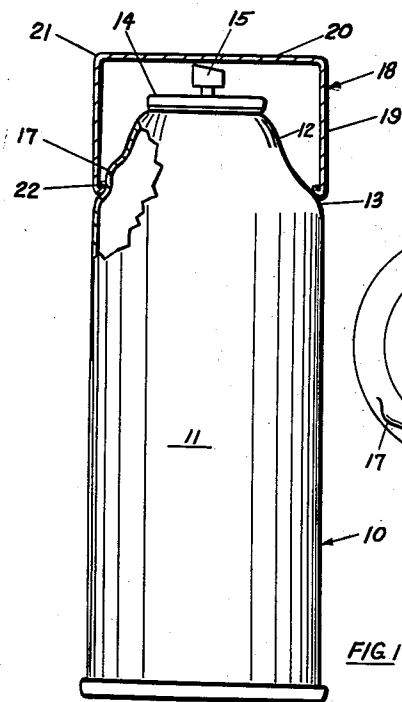
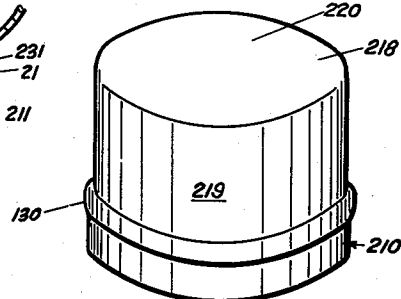
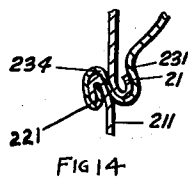
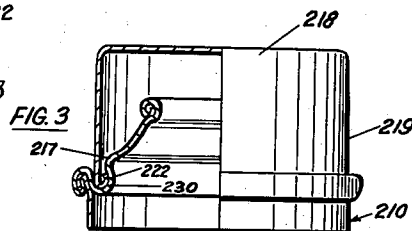
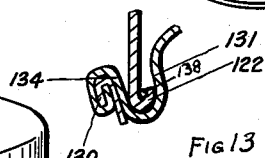
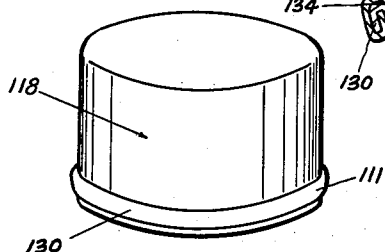
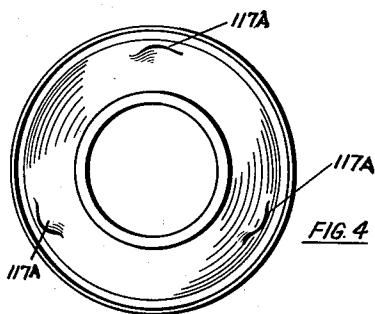
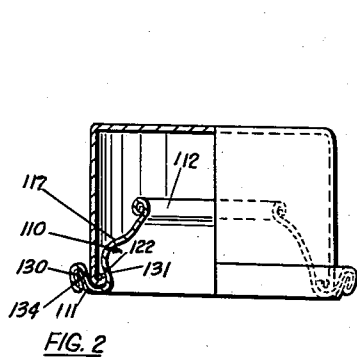
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F. S. PATTON ET AL
COVER FOR A CONTAINER

3,022,922

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2 Sheets-Sheet 1



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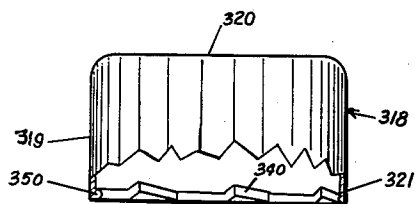


FIG. 8

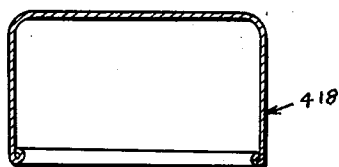


FIG. 10

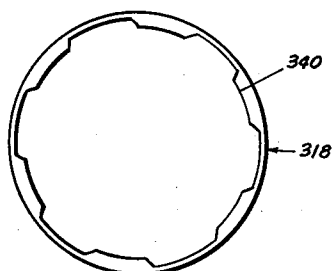


FIG. 9

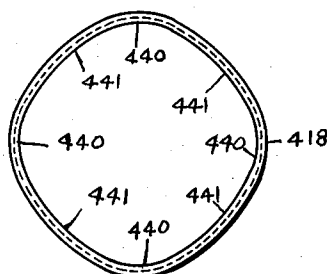


FIG. 11

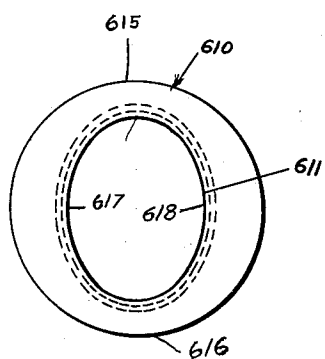


FIG. 12

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COVER FOR A CONTAINER

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3 Claims. (Cl. 222-182)

This invention relates to covers and, more particularly, to covers for containers.

In the art of covers for containers such as aerosol cans and the like where the can has a breast with a central valve mounting cup thereon concentric to the breast, it has been common practice to provide a cover made of two concentric cup portions, the inner cup portion engaging the valve mounting cup while the outer cup portion engages the outer edge of the outer portion of the container of the can. The outer portion of the cover is usually made for the purpose of improving the appearance of the cover and, also, for protecting the outer portion of the inner cover. These covers are expensive to manufacture because they require additional material for building both the inner and outer cup portions and a more complicated manufacturing operation results.

It is, accordingly, an object of this invention to provide a cover for a container which is simple in construction, economical to manufacture, and simple and efficient to use.

Another object of this invention is to provide a cover for a container wherein the cover is made of a single cup shaped member having a generally cylindrical side and a closed top portion.

Still another object of the invention is to provide a cover for a two piece crown type can or any similar bottle or container, whether made of glass, plastic, or any combination of materials usually used in such environment, wherein beads or bumps are formed in the breast of the can and these bumps are used for the purpose of overlying an inwardly extending ledge on a can lid. The cap must thus have an internal projection and the projection could be in the form of an internally curved or rolled edge on the cover having dents therein.

A further object of the invention is to provide a cover for a can having an inwardly upwardly curving breast portion and dents formed in the breast portion forming members which project outwardly from the center portion, and a cover having a lower ring portion having means thereon to be engaged by the dents and the upwardly extending ring.

Still a further object of the invention is to provide an improved combination of can and cover therefor.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

FIG. 1 is a view of an improved cover in combination with a can according to the invention;

FIG. 2 is a partial cross sectional view of a cover similar to that shown in FIG. 1 used with a can having dents formed in the breast portion and an upwardly extending rim disposed outwardly of the breast portion;

FIG. 3 is a view of another embodiment of the invention;

FIG. 4 is a top view of the embodiment of the invention shown in FIG. 2 with the cover removed;

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FIG. 5 is a top view of the can shown in FIG. 1 with the cover removed therefrom;

FIG. 6 is an isometric view of the embodiment of the invention shown in FIG. 3;

FIG. 7 is an isometric view of the cover and can combination shown in FIG. 2;

FIGS. 8 and 9 are views of another embodiment of the invention;

FIGS. 10 and 11 are views of still another embodiment of the invention;

FIG. 12 is a view of yet another embodiment of the invention; and

FIGS. 13 and 14 are enlarged views of the edge details of FIGS. 2 and 3, respectively.

Now with more specific reference to the drawings, in the embodiment of the invention shown in FIGS. 1 and 5, a can 10 is shown having an upwardly extending, generally cylindrical body portion 11 terminating at the top in a breast portion 12 connected to the body portion 11 at 13.

A valve mounting cup 14 is attached to the upper breast portion 12 by rolling or other well known fastening means and a valve 15 is attached thereto in the usual manner. The breast portion 12 has a plurality of circumferentially spaced dents 17 formed therein by forcing the material of the breast portion 12 outwardly or, in the case of a molded plastic or glass device, the dents 17 could be formed during the molding process.

A cover 18 is a generally cup shaped cylindrical member having a side portion 19 integrally connected to a cover top 20 at 21 in the usual manner. The inner peripheral edge of the side of the cup shaped cover 18 is rolled inwardly at 22 to form an inwardly extending edge in the manner shown. The dents 17 are formed in such a way that when the cover 18 is put on the can 10 as shown in FIG. 1, the material distorted outwardly by the dents 17 overlies the inwardly extending edge portion 22 and, therefore, holds the cover 18 in position. The material distorted by the dents 17, being slightly resilient, generally snaps over the portion 22 when the cover 18 is put in position on the can 10.

In the embodiment of the invention shown in FIGS. 2, 4, 7, and 13, a can 110 having a breast portion 117 and a top 112 connected thereto terminates at its outer peripheral edge in a seam 130 which is formed by rolling the outer peripheral edge portion of the material of the breast portion 117 under the material of a side 111 in a usual manner. This forms a channel or groove 131 between the seam 130 and the breast portion 117. The channel 131 receives a rim portion 122 of a cover 118. The rim portion 122 may be formed into an internal curl or false wire 138. The material is distorted outward by dents 117A and the dents 117A overhang the groove or channel and have a downwardly facing portion preferably below a plane passing through the upper edge of the seam. The downwardly facing portion snaps over the rim portion 122 and holds the cover 118 in place on the can 110.

Since the rim portion 122 is disposed in the channel 131, the outer part of the rim portion 122 at 134 will engage the outer portion of the cover 118 and urge it into even more firm engagement with the underside of the material distorted by the dents 117A. The outer peripheral surface of the cover 118, when in position on the can 110, will be generally flush with the outer peripheral portion of the side 111 of the can 110 and the seam 130 will urge the rim portion 122 of the cover 118 into firm engagement with the underside of the dents 117A.

In the embodiment of the invention shown in FIGS. 3, 6, and 14, a can 210 is shown having an upwardly extending side 211 and a rim portion 230 which lies around the outer portion of a cover 218 formed in the manner of

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the can 110 of FIGS. 2, 4, 7, and 13. The cover 218 is cup shaped similar to that shown in FIG. 7 having a top 220 and a cylindrical outer peripheral surface 219. The cover 218 has an inwardly turned rim portion 222 which lies in a groove 231 between the breast of the can 210 and the outer edges. The rim portion 222 could be made in the form of an irregularly formed edge or it could be formed of spaced internal curls, dents, or lugs. The lower edge of the cover 218 fits into the groove 231 and the outwardly and upwardly extending portion of the breast which forms the outer edge of the rim portion 222 engages the outer peripheral edge of the cover 218 adjacent the edge thereof at 234 and urges a rim portion 221 of the cover 218 under the rim formed by the outwardly distorted material moved out by a circumferential groove 217. The material moved outwardly by the groove 217 presents an overlying ledge over the groove 231 and has the effect of the material moved outwardly by the dents 117A of the embodiment shown in FIGS. 2, 4, 7, and 13. The ledge formed by the groove extends completely around the periphery of the can 210. This presents a more simplified manufacturing problem in some instances than is present in the spaced dents as in the embodiments of the invention shown in FIGS. 1 and 2 and in the details thereof.

The embodiment of the invention shown in FIGS. 8 and 9 constitutes a cup shaped cover 318 having a cylindrical peripheral surface 319 and a top portion 320. The lower edge of the rim turns inwardly at 321 and has serrated portions 340 disposed between notches 350 formed in the edges thereof. The cover 318 is made for use with a can such as the can shown in FIG. 1 or the can shown in FIG. 4 having an upwardly extending portion having dents formed in the breast thereof.

The embodiment of the invention shown in FIGS. 10 and 11 is similar to that shown in FIGS. 6 and 7 and constitutes a cover 418; however, the edge of the rim is formed with an opening of non-circular shape being larger at diametrically opposite parts at 440 than it is at intermediate opposite parts at 441. The cover 418 is suitable for use with a can such as the can shown in FIG. 11 and the can shown in FIG. 4.

In order to put the cover 418 on one of these cans, the cover 418 is put in place with the enlarged diametrical portions over the dents 17 as shown in FIG. 5. Then the cover 418 is rotated to bring the rim lying along the reduced size diametrical portion under the overhanging dents, thus locking the cover 418 on the can.

The embodiment of the invention shown in FIG. 12 shows a cover 610 having an oval shaped opening defined by the inwardly directed rim attached to the lower portion of the cylindrical side shown at 611. The cover 610 may be used in combination with a can having a top portion either defining an outwardly extending rim as the embodiment of the invention shown in FIG. 3, or it could be used on a can having dents in the breast thereof like that shown in the embodiment shown in FIGS. 1 and 5 wherein the top is round.

To remove the cover 610, the operator will apply a pressure at opposite points along the elongated ends at 615 and 616. Then edges 617 and 618 will spring away

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from each other and admit the groove 217 or the dents 17. To replace the cover 610, the same technique is used.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. In combination, an aerosol type can and a cover therefor, said aerosol can having generally cylindrical side portions and a bottom, the upper edges of said generally cylindrical side portions terminating in a seam, a top for said aerosol can, said top having a breast portion generally defining the frustum of a cone attached to said upper edges of said side portions of said can by said seam, said breast portion having an opening in the center thereof closed by a closure, said closure having a valve member disposed therein, said breast portion extending downwardly and outwardly and then upwardly and outwardly and terminating in said seam between said breast portion and said side portions with a groove disposed in said breast portion between said upper edges of said cylindrical side portions and the frusto-conical portion of said breast portion, said groove being concentric with said cylindrical side portions of said can, said groove being below the top of said seam and immediately adjacent thereto and having a downwardly facing portion, said breast portion having portions thereof bent outwardly and slightly overhanging said groove, said overhanging portions being slightly above the plane of the upper edge of said seam, a cup shaped cover having a cylindrical wall terminating at its open end in an inwardly curled bead, the bottom of said cup shaped cover being spaced from the top of said can to form a protection therefor, said bead having an inwardly turned edge portion, said bead in its operative position snugly received in said groove and held removably therein by said overhanging portions of said breast portion, said cover having snap action with respect to said overhanging portions of said breast portion and said groove when placed in closed position.

2. The combination recited in claim 1 wherein said overhanging portions comprise spaced grooves.

3. The combination recited in claim 1 wherein spaced notches are formed in said inwardly curled bead of said cover.

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