

July 9, 1963

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3,096,905

CAN AND RECLOSURE LID AND TAPE SEAL THEREFOR

Filed Sept. 28, 1961

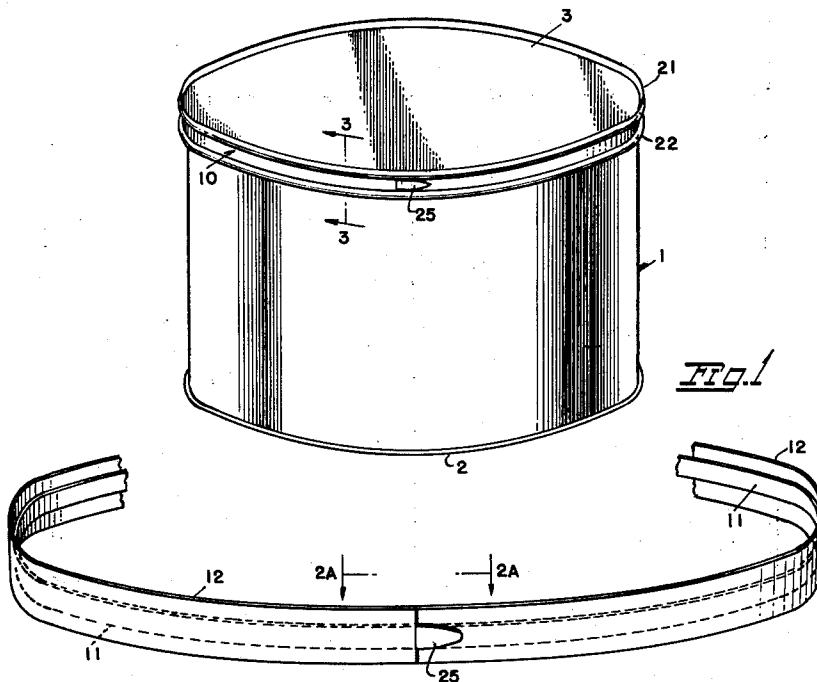


FIG. 1

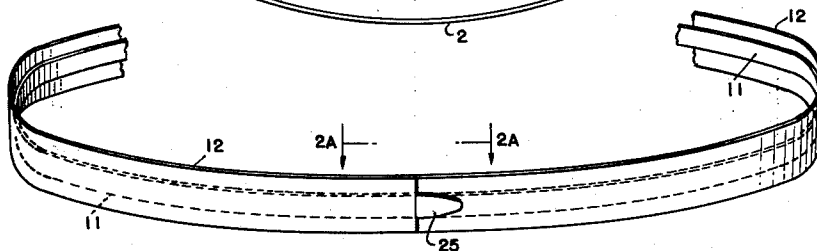


FIG. 2



FIG. 2A

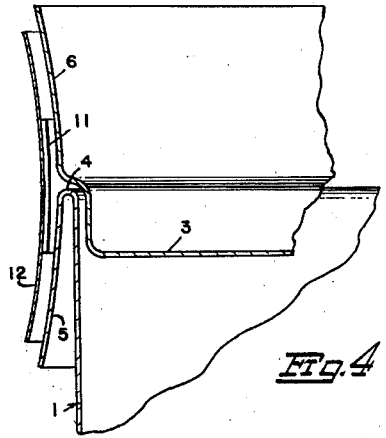


FIG. 4

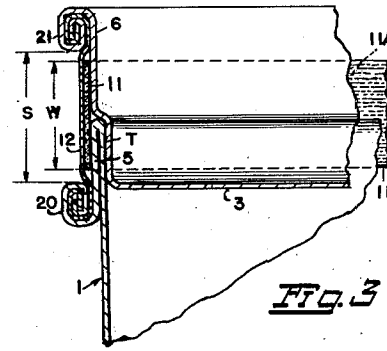


FIG. 3

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3,096,905
CAN AND RECLOSURE LID AND TAPE
SEAL THEREFOR

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Filed Sept. 28, 1961, Ser. No. 141,370
2 Claims. (Cl. 220—53)

This invention relates to improvements in sheet metal containers such as coffee cans and the like, and has particular reference to an improved seal for the closure of the can to seal off the contents thereof from outside atmosphere prior to and subsequently to the initial opening of the can thereby protecting the contents both before and after the can is opened and also when the lid is used to reclose the can.

One of the principal objects of the invention is the provision of a seal of the character described which may be removed as the initial step in opening the can without disturbing the seal between the lid and the can so that the final opening step of detaching the lid which inherently breaks the seal may be delayed or postponed to the time when the opening may be hurriedly effected.

Another object of the invention is the provision of a seal of the character described in the form of aluminum foil backed and reinforced by filament tape, or the like, which may or may not be adhesively integrated with the foil and circumscribing the juncture of the lid with the top rim of the can and wherein the aluminum foil is of sufficient gage to provide a proper body to the seal but which can be readily broken or severed by pulling on the reinforcing tape and thus providing a safe and convenient means of opening the can in contrast to the time consuming operation of key-opening as heretofore.

The foregoing and other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof and in which:

FIGURE 1 is a perspective view of a can provided with a closure and seal made in accordance with my invention.

FIGURE 2 is a fragmentary perspective view on an enlarged scale of the seal made in accordance with my invention.

FIGURE 2A is a fragmentary detail view on an enlarged scale taken approximately along the line 2A—2A of FIGURE 2.

FIGURE 3 is a sectional view on an enlarged scale taken approximately along the line 3—3 of FIGURE 1, and

FIGURE 4 is a view similar to FIGURE 3 showing the can, the lid, and components of the seal in position to be rolled to provide the seal as best illustrated in FIGURE 3.

As a preferred or exemplary embodiment of my invention, the drawing illustrates a sheet metal can made of tin plate or the like and comprising a cylindrical tubular body indicated generally at 1, provided with a bottom wall 2 and a closure or lid indicated generally at 3.

In the formative stage of the can lid, as best illustrated in FIGURE 4, the top rim 4 of the can is provided with a downwardly extending annular flange 5 and the lid 3 with an upwardly extending annular flange 6, both flanges being formed on a common radius of curvature in section as shown to provide a self-centering characteristic for applying the seal indicated generally at 10 and which comprises an inner strip 11 of filament tape or its equivalent to serve as a backing and reinforcement for an outer seal 12. The strip 11 and seal 12 may be secured together throughout their length by any suitable adhesive if desired.

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The seal 12 is made of frangible material such as aluminum foil of a gage somewhat the same as used in aluminum freezer pie plates and similar containers. The reinforcing strip 11 is preferably made of strong flexible material such as filament tape whose tensile strength is greatly increased by the inclusion therein of threads or fibers 11A during the course of its manufacture.

In assembling the can and lid and the circumscribing strip 11 and seal 12 therearound with the parts positioned approximately as shown in FIG. 4, the can flange 5, lid flange 6 and bottom and top margins of the seal 12 are rolled respectively upwardly and inwardly as indicated at 20, and downwardly and inwardly as at 21. The vertical or transverse tension thus applied to the seal 12 and strip 11, compresses both of them into firm sealed engagement with the can lid entirely therearound.

The strip 11 terminates in an exposed pull-tab 25 overlying one end of the outer seal 12 whereby a sustained pull on the inner seal entirely around the can will sever the seal 12 without disturbing the air-tight seal T between the annular vertical friction wall of the lid and the inner face of the can as shown in FIGURE 3.

It will also be noted in FIGURE 3 that the width W of the reinforcing strip 11 is slightly less than the vertical spacing S between the rolled edges 20 and 21 of the can and lid. This arrangement provides for neat severance and practically entire removal of the seal 12 with the remaining raw edges thereof out of the way and closely adjacent the outer faces of the can and lid flanges 5 and 6 and the inside of their respective rolled edges 20 and 21. Thus, the remaining edges of the outer seal 12 cannot get in the way of or interfere with replacement of the lid on the can and this would also be true if the width of the gap left by the severance of the seal 12 were only slightly greater than the interengaging top edge 4 of the can and the adjacent shoulder on the lid.

To remove the lid after severance of the outer seal and removal of the reinforcing strip 11, it is merely necessary to lift up on the lid to pull it away from its sealed engagement with the can.

The lid may then be conveniently used for reclosure purposes and will, by reason of the pressure of the annular lid flange against the inner face of the can, be frictionally held in place, and will effect a substantially sealed closure for the can.

While I have shown a particular form of embodiment of my invention, I am aware that many minor changes therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the invention. Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. A cylindrical sheet metal container having a top end, a permanently closed bottom end and a closure lid, said lid frictionally seated within the top end of the can to provide an air-tight seal, said can having a downwardly extending annular flange at the top thereof rolled upwardly and inwardly, said lid having an upwardly extending annular flange rolled downwardly and inwardly, an inner reinforcing strip of non-frangible material of a width substantially equal to the vertical spacing between the rolled edges of said can and lid flanges, an outer seal of frangible material of greater width than said reinforcing strip and secured along its top and bottom marginal edges respectively within the rolled edges of said lid and can, said reinforcing strip terminating in an exposed pull-tab whereby manually pulling said reinforcing strip outwardly by means of the pull tab will sever said outer seal along lines above and below the top edge

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of the can whereby the initial step in opening the can may be effected without disturbing said air-tight seal between the lid and the can and whereby said remaining edges of said outer seal being closely adjacent said rolled edges of said can and lid flanges will not interfere with replacement of the lid on the can. 5

2. A cylindrical sheet metal container having a top end, 10
 a permanently closed bottom end and a closure lid, said lid frictionally seated within the top end of the can to provide an air-tight seal,
 said can having a downwardly extending annular flange at the top thereof rolled upwardly and inwardly, said lid having an upwardly extending annular flange 15
 rolled downwardly and inwardly,
 an inner reinforcing strip of filamentous tape of a width substantially equal to the vertical spacing between the rolled edges of said can and lid flanges,
 an outer seal of metal foil adhered throughout its 20
 length to and of greater width than said reinforcing strip and secured along its top and bottom marginal edges respectively within the rolled edges of said lid and can,

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said reinforcing strip terminating in an exposed pull-tab whereby manually pulling said reinforcing strip outwardly by means of the pull tab will sever said outer seal of metal foil along straight clean cut lines above and below the top edge of the can whereby the initial step in opening the can may be effected without disturbing said air-tight seal between the lid and the can and whereby said remaining edges of said outer seal being closely adjacent said rolled edges of said can and lid flanges and therefore substantially inconspicuous will not interfere with replacement of the lid on the can.

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