

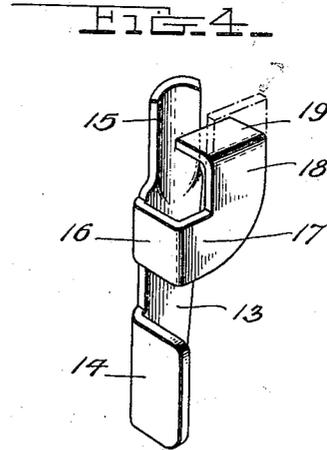
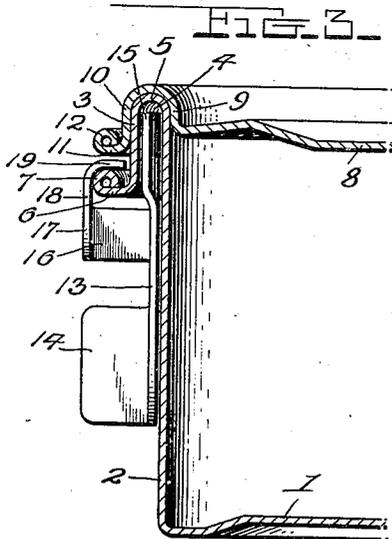
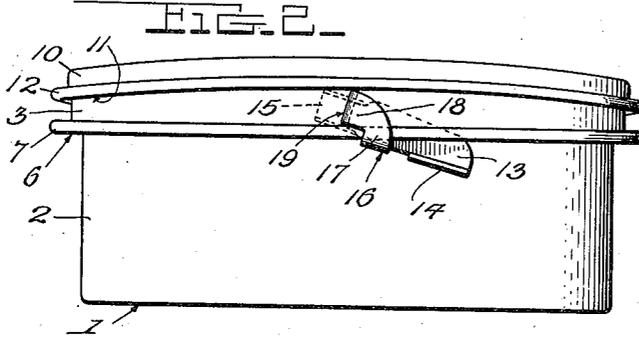
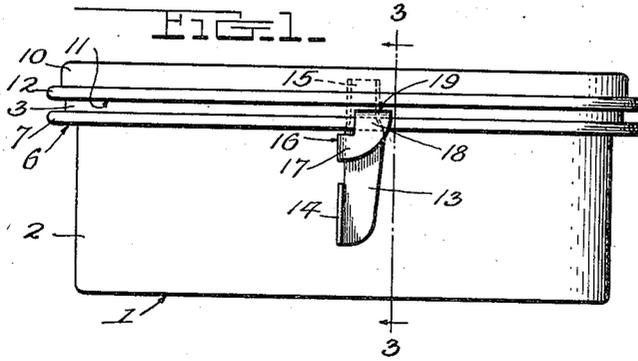
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EASY OPENING METAL CONTAINER

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EASY OPENING METAL CONTAINER

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1 Claim. (Cl. 220-43)

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The invention relates to new and useful improvements in a metal container wherein the cover is frictionally secured to the body and a pry-off lever is associated with the container for forcibly separating the cover from the body portion of the container.

An object of the invention is to provide a container of the above type wherein the cover and the body are provided with projecting flanges spaced from each other when the cover is fully seated on the body and wherein a pry-off lever is so secured to one of the flanges as to become a unit therewith and at the same time be shiftable to various set positions between the flanges.

A further object of the invention is to provide a container of the above type wherein the pry-off lever is provided with a member disposed between the flanges and is so dimensioned that when the lever is swung, said member will engage and separate the flanges from each other for releasing the cover from the body.

A further object of the invention is to provide a container having a cover secured thereto by friction wherein the body wall of the container is shaped outwardly to provide a U-shaped channel having a projecting flange and wherein the cover is provided with a flange spaced from the flange on the body when the cover is seated, and wherein a pry-off lever is provided with a retaining member extending into the channel and a pry-off member extending between the flanges, which pry-off member is so dimensioned that the swinging of the lever from one position to another will cause said member to engage the flanges and separate the same for releasing the cover from the body.

These and other objects will in part be obvious and will in part be hereinafter more fully disclosed.

In the drawings which show by way of illustration one embodiment of the invention,

Figure 1 is a side view of a container with the cover attached and the pry-off lever in its normal position of rest on the flange of the container body;

Figure 2 is a view showing the pry-off lever turned so that the member thereof between the flanges engages the flanges and separates one from the other for releasing the cover from the body.

Figure 3 is a sectional view on the line 3-3 of Figure 1;

Figure 4 is a perspective view of the pry-off lever showing in broken lines the position of the

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pry-off member before the lever is attached to the flange of the container body.

The invention is particularly adapted for an easy opening container of the specific type illustrated in the drawings and therefore the structure of the container illustrated will be described in detail.

The body of the container is formed from a single blank by a drawing of the metal so as to provide a bottom 1 and a cylindrical body portion 2. The cylindrical body portion 2, by die-shaping, is formed with a depending member 3 which is spaced away from the body wall so as to provide a channel 4 and a U-shaped friction seat 5. The depending member 3 is provided with a flange 6 which is rolled into a bead 7.

The cover is also formed from a single metal blank by drawing and is shaped so as to provide a central depressed portion 8 surrounded by an inner wall 9. The cover has a depending skirt 10 and the metal between the wall 9 and the skirt 10 is shaped to provide a recess which conforms to the upper curved edge of the body wall. This cover is so dimensioned that the side walls of the recess make frictional contact with the inner and outer walls of the body member, which constitutes the seat on the container body. This provides a double friction grip between the cover and the body wall.

The lower portion of the skirt 10 is bent outwardly to provide a flange 11 which is rolled into a hollow bead 12. These flanges 6 and 11 are spaced away from each other when the cover is fully seated. A sealing compound may be placed in the cover recess to aid in making a very tight seal.

The pry-off lever is attached to the body flange as a unit. This pry-off lever includes a main portion 13 having at the lower end thereof a finger piece 14 and at the upper end a retaining member 15. The lever at the side thereof between the retaining member 15 and the finger piece 14 is bent outwardly as shown at 16, thence laterally as at 17, and is shaped so as to provide an upwardly extending portion 18 which, after attachment to the flange of the container body, is bent inwardly from the broken line position to the full line position to provide a pry-off member 19.

The lever is applied to the container body by placing the retaining member 15 in the channel formed by the depending member which is spaced away from the body wall. The outwardly bent portion 16 of the lever lies below the flange 6 on the body member and is spaced a slight dis-

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tance away from the flange so as to permit the lever to be swung. The inwardly bent portion 19 lies between the flanges and is the operative pry-off member for separating the flanges when the lever is turned from the vertical position shown in Figure 1 to the angular position shown in Figure 2. This inwardly turned portion indicated in full lines at 19 is of a width greater than the distance between the flanges when the cover is fully seated.

When the lever is swung to the position shown in Figure 2, this pry-off member 19 will engage both flanges and will separate the flanges so as to release the cover from its frictional engagement with the body. As shown in Figure 2, the cover flange has been lifted and in so doing, the flange curved to some extent. This is because the cover is not completely released from its frictional grip upon the body. The lever can be readily returned to its vertical position and thence moved along the body flange to another set position and again turned for separating the flanges. The lever can be shifted from one point to another along the flange and operated to separate the flanges until the cover is completely released from the body.

It will be noted that the pry-off lever is a unit with the container and is shipped therewith so that it is always readily accessible for the releasing of the cover from the container body. It will also be noted that the lever is so constructed that it lies close to the body wall and does not project to any appreciable distance beyond the projecting flanges on the body and cover. The finger piece 14 projects outwardly from the body wall and this enables the lever to be readily engaged by the operator and shifted to release the cover.

When sealing compound is used in the cover recess to aid in making a very tight seal, the compound is compressed between the cover recess and the U-shaped friction seat of the body at the time the closure is applied. The aging of the compound during storage of the can and its product adds to the difficulty of removing the cover and increases the force required to remove it. The pry-off lever is a very effective means for breaking this seal and removing the cover. It is obvious that minor changes in the details

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of construction of the container and in the detailed construction of the pry-off lever may be made without departing from the spirit of the invention as set forth in the appended claim.

I claim:

A metal container comprising a body portion having the upper edge thereof bent outwardly and thence downwardly in spaced relation to the body to provide an annular channel encircling said body, a cover having a portion extending outwardly over the body and thence downwardly and frictionally engaging a downwardly extending portion on the body, said downwardly extending portion on the cover and said downwardly extending portion on said body each having an outwardly protecting flange, which flanges are spaced from each other when the cover is seated, and a pry-off lever disposed along the body wall and extending into said channel, said pry-off lever having an outwardly extending portion carrying a pry-off member disposed between the flanges and initially parallel therewith, said pry-off member being of a width greater than the distance between the flanges so that when it is turned by the swing of the lever, it will engage the flanges and forcibly separate the same, said pry-off member, the portion of the lever carrying the same and the portion of the lever extending into said channel serving to prevent removal of the lever while permitting movement thereof to selected position about the container body.

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