Dec. 8, 1925. 1,564,958

E. HILDEBRANDT ET AL

CAN CLOSURE

Filed Dec. 27, 1923

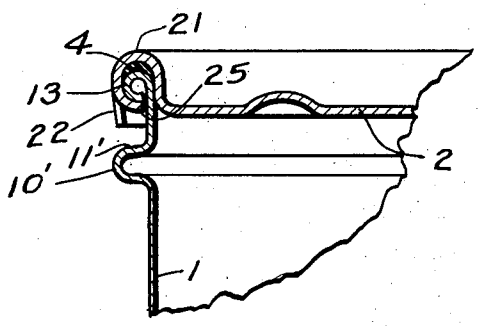
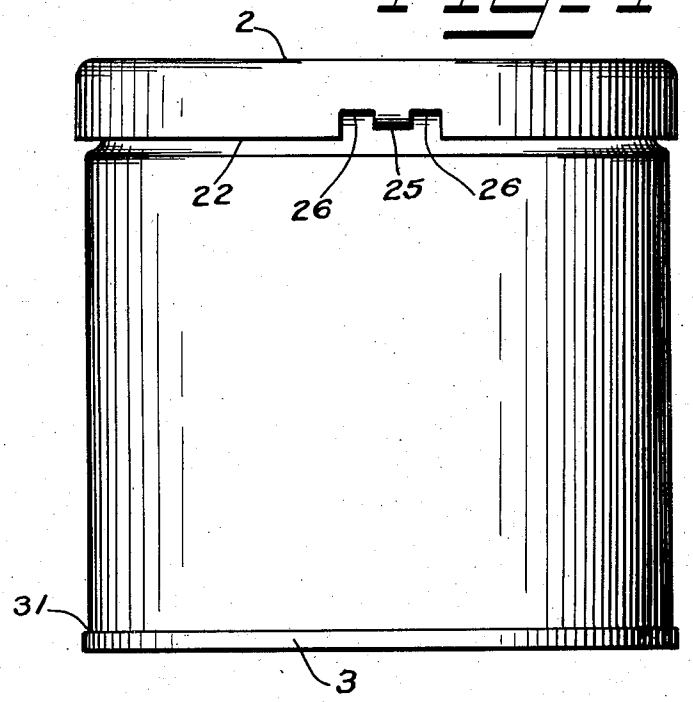


Fig-3

Fig-1



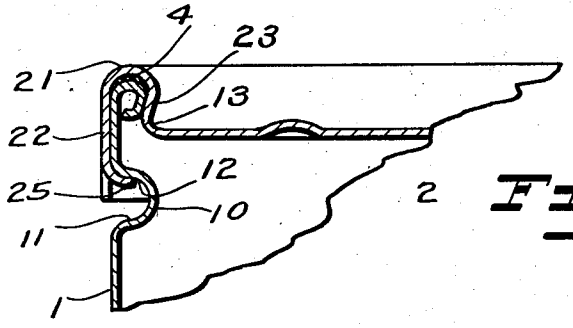


Fig-2

Inventors

Edward Hildebrandt

Harold Hildebrandt

By W.L. & C.L. Reynolds

Attorneys

Patented Dec. 8, 1925. 1,564,958

UNITED STATES PATENT OFFICE.

EDWARD HILDEBRANDT AND HAROLD HILDEBRANDT, OF TACOMA, WASHINGTON.

CAN CLOSURE.

Application filed December 27, 1923 Serial No. 682,967.

To all whom it may concern:

Be it known that we, EDWARD HILDEBRANDT and HAROLD HILDEBRANDT, citizens of the United States of America, and residents of the city of Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Can Closures, of which the following is a specification.

Our invention relates to a can and to a top therefor, particularly a top which is frictionally yet securely held in place thereon and preferably one which has incorporated in it and cooperating with the can itself means for showing at a glance whether or not the can has been opened or tampered with.

One object of our invention is to provide a can with a frictional closure for one end, which frictional closure can be tightly and semi-permanently secured in place, and which is adapted then to have its other end closed by a closure which may be seamed into place after the frictional cap has been put on and the contents placed within the can.

A second object is the provision of a can having a frictional closure and having means associated therewith but not unduly noticeable from the exterior of the can nor projecting therefrom, which will permit the frictional cap to be lifted easily.

Still another object is to provide means which may be formed as a part of the cap and cut from the same blank, and which will not project from the general confines thereof, and which will serve as a telltale to show if the cap has been removed after having been originally put into place.

Our invention comprises those novel parts and combinations thereof which are shown in the accompanying drawings, described in the specification and particularly defined by the claim terminating the same.

In the accompanying drawings we have shown our invention in forms which are now preferred by us.

Figure 1 is a side elevation of a can embodying the preferred form of our invention.

Figure 2 is a detail section through an edge of the can and its upper cap.

Figure 3 is a section similar to Figure 2, showing a modified form.

The can body 1 may be of any suitable shape or size. One end, which is designed to be the lower end, is formed as is customary with cans to receive a bottom cap 3 which is adapted to be secured to the bottom end of the can body 1 by a seamed joint, as indicated at 31, as is now common in the art. This seamed joint may be made, and preferably would be made, after the can has received its contents.

Adjacent the upper end of the body 1 a groove 10 is crimped into the body. Preferably this projects into the interior of the can, thus to leave an upwardly directed ledge 11 forming one side of the groove 10, and a downwardly directed ledge 12 closer to the upper end of the body 1 and forming the upper side of the groove 10. The upper edge of the body 1 may be formed with a bead 13, if desired, this being preferably inwardly turned, although this is more a matter of convenience and preference than of necessity. In the form shown in Figure 3 the bead is outwardly turned as is the groove 10′.

A friction cap 2 is formed to cooperate with the upper edge of the can body 1 in such manner as to secure it firmly in place thereon. It is shown as provided with a downwardly opening peripheral groove 21 and having a peripheral flange 22. The inner side 23 of the groove 21 is preferably not parallel to the flange 22, but one or the other of these sides is inclined relative to the axis of the can to cause the sides 22 and 23 to converge downwardly. In the preferred form shown in Figures 1 and 2 the side 23 is inclined and in Figure 3 the flange 22 is inclined. This is for the purpose of forming an inclined connection between the bead 13 and this inclined side of the groove. By this means the cap 2 is caused to fit snugly to the end of the body 1 and the bead 13 is caused to be forced toward the bottom of the groove 21. Preferably a gasket 4 of plastic sealing material such as is commonly used in the seams of cans is employed between the bottom of the bead 21 and the bead 13. This effects a tight seal, though it is readily broken when the cap is pried upward.

For removing the cap a coin, knife, or like device is inserted between the lower edge of the flange 22 and the upwardly facing ledge 11 or 11′, associated with the peripheral groove 10 in the can body. By prying with the coin or knife the flange 22 and the cap 2 is easily forced upward, breaking the seal at 4. In the form shown in Figures

1 and 2 the lower edge of the flange 22 must normally be positioned between the shoulders 11 and 12, and in the form shown in Figure 3 it must be between the shoulder 11′ and the lower side of the outwardly turned bead 13, which itself forms a downwardly facing shoulder.

We provide means whereby it may be ascertained at a glance whether or not the cap 2 has been removed. As is best shown in Figure 1 this comprises a telltale lug 25 which is formed in the flange 22 by cutting the flange at two adjacent points to define the edges of the lug 25. Figure 1 shows notches 26 cut out of the metal of the flange 22, these defining the lug 25. By so forming the lug its lower edge does not project below the lower edge of the flange 22. This insures that the lugs will not be accidentally broken off, either before or after placing upon the can body, and insures that the caps, if handled by machinery, will slide readily and will not have members projecting beyond their general plane to interfere or catch on other parts.

The lug 25, after the cap 2 has been pressed into place, is bent sharply beneath the downwardly facing shoulder 12, in the form shown in Figures 1 and 2, and beneath the lower side of the bead 13 in the form shown in Figure 3. In this manner any attempt to remove or pry the cap from the can will first bend the lug 25 sufficiently to break it, and thus it can be seen that if the lug is not in place or has been tampered with, that the cap has been removed.

Such a can is highly desirable for granular materials, as, for example, coffee, and permits the material to be kept tightly sealed to be filled and handled by the customary filling and seaming machines, and yet permits the use of a friction cap so that the materials within the can may be reached from time to time and yet kept well covered.

What we claim as our invention is:

A can having a downwardly directed ledge and an adjacent upwardly directed ledge near one end, a flanged friction cap fitting upon this end, the edge of the cap flange having a pair of adjacent cuts defining a lug whose edge is substantially continuous with the flange edge, said flange edge, when the cap is in place, lying between said ledges, and the lug being bent beneath the downwardly directed ledge.

Signed at Tacoma, Pierce County, Washington this 21st day of December 1923.

EDWARD HILDEBRANDT.
HAROLD HILDEBRANDT.