May 3, 1932. C. A. ANDERSON 1,856,941

CAN

Filed Jan. 17, 1931

Fig. 1.

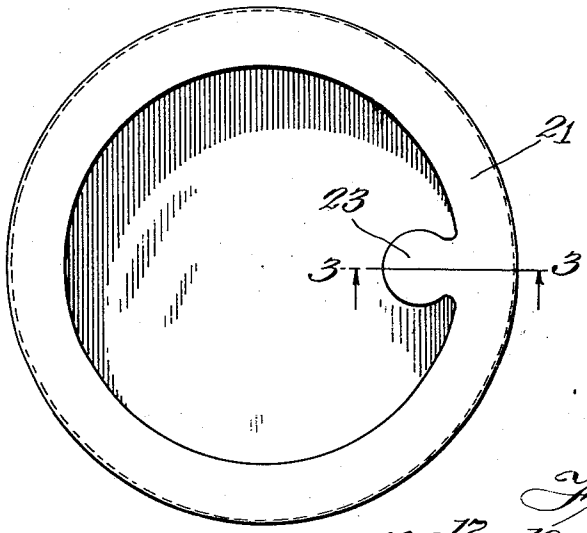



Fig. 3.

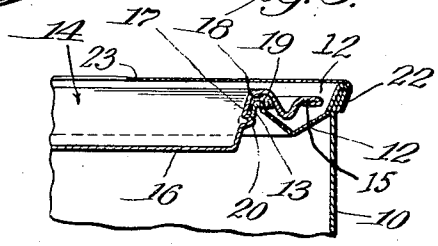
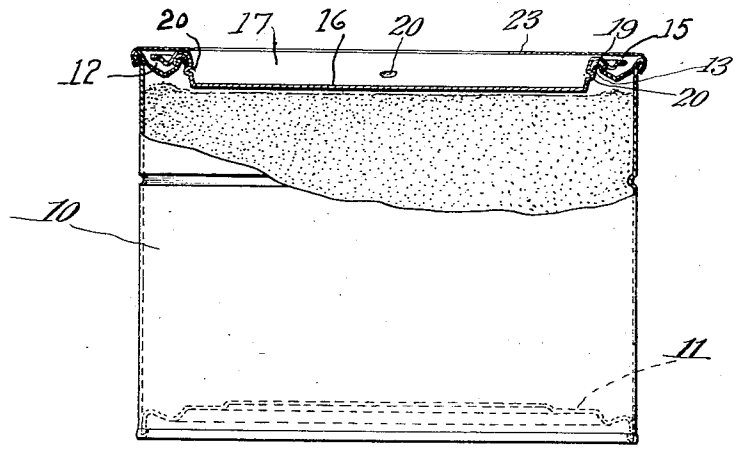



Fig. 2.

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# UNITED STATES PATENT OFFICE

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## CAN

Application filed January 17, 1931. Serial No. 509,297.

This invention relates to improvements in cans.

One object of the invention is to provide a friction type can which may be used for the vacuum packing of various products, the cover of which can be secured against displacement by internal pressure or by accident by means of lugs pressed into the cover, preferably after the latter is placed in position.

Another object of the invention is to provide a can or like receptacle having a friction top cover provided with an outer seal to prevent removal or substitution of the contents of the receptacle without first destroying the seal. It is not unknown to packers of high class merchandise, such as coffee, that inferior products have been substituted for their goods where the goods have been packed in friction top or other type of cans having readily removable covers. Inner paper or parchment seals have been used to some extent to guard against such fraudulent practice but the honest retailer is not thereby protected against the fraud unless he opens the cans to examine the seals, while the customers who purchase the goods for consumption generally do not notice whether the inner seals have been broken or removed.

Another objection to the paper seals is that they cannot be used for all kinds of merchandise adapted to be packed in friction type cans such as products in liquid form, for example.

In the accompanying drawings:

Fig. 1 is a top plan view of a can having thereon an outer seal to prevent surreptitious removal of the cover.

Fig. 2 is a broken elevation of the can and seal shown in Fig. 1.

Fig. 3 is an enlarged broken sectional view taken on line 3—3 of Fig. 1.

In the drawings, 10 indicates the can body provided with a bottom 11 which in the form shown is somewhat concave and sufficiently flexible to be pressed outwardly to compensate for internal pressure of gases given off by certain types of food products such as freshly roasted coffee, thereby lessening the possibility that the cover will be moved from its air-tight contact with the can top.

The top 12 is of annular shape, the outer periphery of which is seamed to the top edge of the can body while the inner periphery is shaped to form a bead 13 which defines the opening in the top of the can. The cover, indicated generally by the numeral 14, comprises a rim 15, a central portion 16 and an intermediate wall 17 which, in the form shown, flares outwardly slightly for providing frictional contact with the bead 13, when said cover is pressed down.

The wall 17, as shown in Figs. 2 and 3, when the cover is in sealing position, extends downwardly beneath the horizontal plane of the bead, the bead seating in a channel 18 formed in the flange 15.

In the vacuum packing of products, such as referred to herein, and in the case of coffee in particular, it is customary to exhaust most of the air from the can, creating as much as a twenty-six inch vacuum. Such a vacuum requires a very effective seal to prevent leakage of air into the can over a long period of time. Heretofore, in the case of vacuum cans for coffee, each can has been filled with coffee, while in inverted position, and the air has been exhausted from the upper part of the inverted can before the bottom has been applied to the can body by means of the usual seam. There has been no successful use of a friction can cover for maintaining a permanently tight seal where a high vacuum was to be maintained in the can as distinguished from the usual so-called air tight closure where the pressure within the can differed only slightly from the pressure without. A sealing compound 19 is placed into the channel 18 and the cover is then pressed downwardly to the position shown in Fig. 3. There-

after, by means of suitable mechanism forming no part of the present invention, a number of lugs 20 are formed in the walls 17 which are engaged by the lower edge of the bead 13. These lugs supplement very substantially the co-action between the wall 17 and the bead 13 although the cover 14 can be removed by any suitable prying tool inserted beneath the rim of the cover. By use of the lugs 20, any number of which may be employed, it has been found that friction top cans can be used satisfactorily for the vacuum packing of food or other products and that the covers remain in tight contact with the can, even with products which generate a limited amount of gas which normally tends to equalize the pressure within and outside of the can and eventually to lift the cover and to break the seal between said cover and the can.

My improved type of can has been found to be of an advantage over certain types of key opening cans in that the method of opening the can is simpler and without any danger of cutting the purchaser's fingers by raw edges of metal which frequently happens with the key opening cans. After the can has been opened the cover may be replaced and by virtue of the sealing compound, an air tight condition may be reestablished.

To prevent the opening of the cans for fradulent purposes, such as substitution of inferior materials for first-class goods, a seal for the can is provided in the form of an annular member 21, the outer periphery 22 of which is adapted to be rolled into engagement with the upper edge of the can 10 while the inner periphery extends over the cover 14 as shown. The cover 14 cannot be removed from the can without first destroying the seal and dealers or consumers are thereby warned that the contents may have been tampered with if he receives the cans with the seals removed.

To remove the seal, a tab 23 may be provided by means of which the seal can be torn in a radial direction, forming a split ring, which can then be removed from the can. The material of the seal preferably is thin metal which can be torn without the use of a key, such as thin aluminum for instance, or any suitable alloy.

Although I have shown and described an embodiment of my invention for the purpose of illustration, I do not wish to be restricted specifically therefor except as so limited by the appended claim.

What I claim is:

A receptacle having a top terminating in an inner peripheral bead, a cover having a channel into which said bead is adapted to seat frictionally when said cover is pressed into position on said receptacle, sealing material within said channel for forming an air tight seal with said bead, said channel having a wall extending beneath the lower edge of said bead, and lugs in said lower portion of said wall engaging the lower edge of said bead for supplementing the frictional engagement of said cover and bead and resisting movement of said cover in a direction to destroy the air tight seal between said cover and bead.

In testimony whereof, I have subscribed my name.

CARL A. ANDERSON.