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RESEALABLE CAN

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FIG. 1

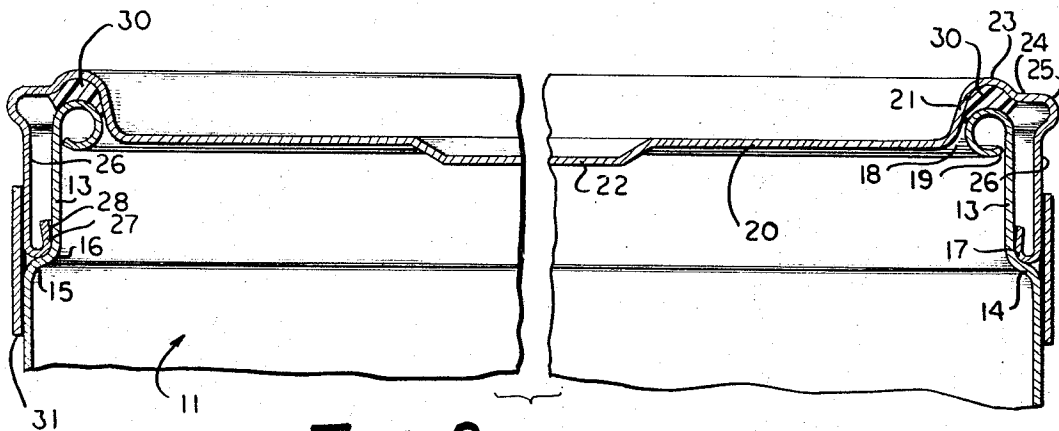
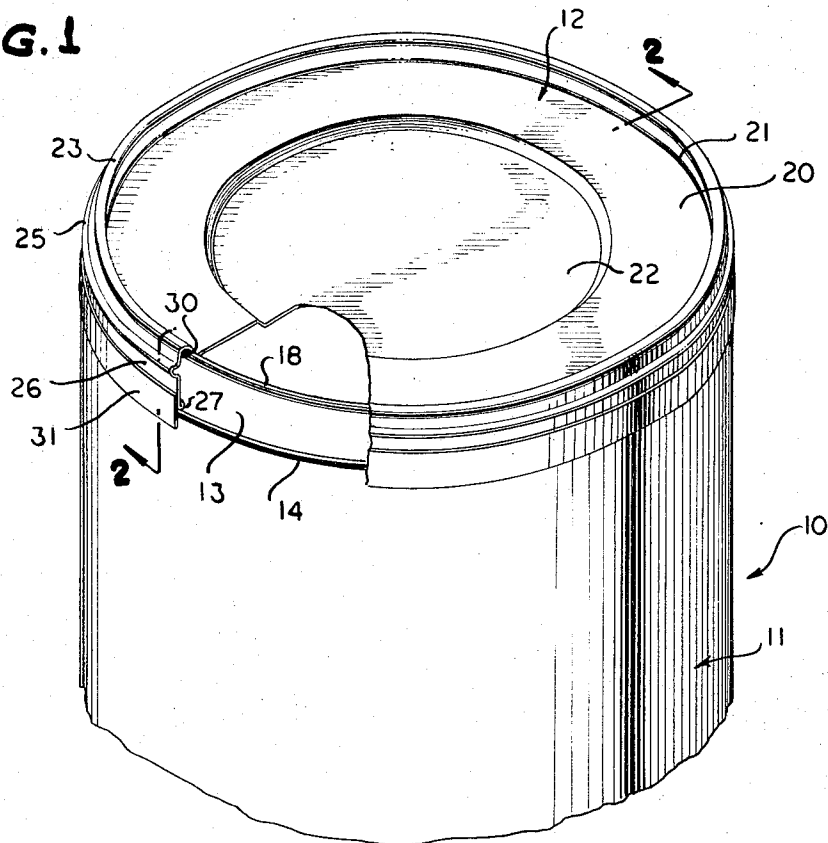


FIG. 2

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RESEALABLE CAN

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9 Claims. (Cl. 220-53)

This invention relates in general to new and useful improvements in containers, and more particularly to a readily resealable can which may be easily opened and which can be suitable for packaging of products either under a vacuum or under a gaseous pressure, such products including coffee, etc.

A primary object of this invention is to provide a novel can which is capable of being initially air tight sealed by means of a tape which may be readily torn from the can.

Another object of this invention is to provide a novel can construction wherein the upper portion of the can body is of a reduced diameter, and the associated can end has a skirt which is frictionally engageable with the can body upper end, the skirt having the same external diameter as the remainder of the can body.

Another object of this invention is to provide a novel can which includes a can body having a reduced upper end portion and a can end closing the upper end of the can body, the can end having a depending skirt which terminates at the lower edge thereof in a reversely and inwardly turned curl, and the curl being frictionally engageable with the exterior of the reduced upper portion so as to form a tight connection between the can body and the can end.

Another object of this invention is to provide a novel can construction wherein the upper end of the can body is provided with an inwardly and reversely turned curl, and the can end having an upstanding bead aligned with the curl of the can body, the can end further having a suitable sealing compound seated within the bead and being resiliently engageable with the curl of the can body to form a tight seal between the can end and the can body.

A further object of this invention is to provide a novel can end having a depending skirt with an external diameter equal to the external diameter of an axially adjacent portion of an associated can body, and the upper portion of the skirt having an outwardly projecting bead to form a gripping element whereby the necessary gripping of the can end to effect the removal thereof from the can body may be effected.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawing:

In the drawing:

FIGURE 1 is a fragmentary top perspective view of a can formed in accordance with this invention and shows the specific details thereof, a portion of the can end being broken away and shown in section.

FIGURE 2 is an enlarged fragmentary vertical sectional view taken along the line 2-2 of FIGURE 1 and shows more specifically the details of the can end and the can body and the relationship thereof, a central portion of the can being broken away.

Referring now to the drawing in detail, it will be seen that there is illustrated a can which is generally referred to by the numeral 10. The can 10 includes a can body, which is generally referred to by the numeral 11. The can body 11 has the lower end thereof closed in any desired conventional manner. The upper end of the can body 11

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is closed by means of a can end, which is generally referred to by the numeral 12, the can end 12 being readily removable from the can body 11 and being replaceable thereon for the purpose of resealing the can.

Referring now to FIGURE 2 in particular, it will be seen that the can body 11 includes an upper portion of a reduced diameter, the upper portion being referred to by the numeral 13. The upper portion 13 is connected to the remainder of the can body by an intermediate shoulder 14. The intermediate shoulder 14 is of a generally S-shaped configuration and includes a lower radius 15 connected to the lower portion of the can body and an upper radius 16 connected to the upper portion 13 of the can body. It is to be noted that the intermediate shoulder 14 defines an upwardly and outwardly facing shoulder 17 immediately below the lower edge of the upper portion 13 of the can body.

It is also to be noted that the upper portion 13 of the can body terminates at its upper edge in an inwardly and downwardly turned curl 18. The curl 18 terminates in a free edge 19 which is disposed closely adjacent the reduced diameter upper portion 13 inner surface so as to prevent the contents of the can 10 from entering into the curl 18. It is to be noted that the curl 18 seals the raw edge 19. It is further to be noted that the curl 18 has a certain degree of resiliency.

The can end 12 includes a recessed end panel 20 which is surrounded by an upstanding wall 21. The central portion of the end panel 20 is further recessed as at 22. The wall 21 terminates at its upper end in an upwardly directed bead 23 which surrounds the wall 21. A horizontal leg 24 of an outwardly directed bead 25 is connected directly to the bead 23. The bead 25 has extending downwardly therefrom a skirt 26 which has an external diameter substantially equal to the external diameter of the lower portion of the can body 11 so that the exterior surface of the skirt 26 is substantially flush with the exterior surface of the lower portion of the can body 11.

The skirt 26 terminates at its lower edge in an inwardly and reversely turned curl 27. It is to be noted that the curl 27 has an upstanding leg 28 which is disposed in slight angular relation to the axis of the can 10. It is to be noted that the exposed surface of the curl 27 has a curvature which is substantially equal to the external curvature of the radius 16. Thus, when the can end 12 is properly seated on the can body 11, the curl 27 will be fully seated on the shoulder 17 to form a further seal between the can body and the can end.

The primary seal between the can end and the can body is by means of sealing compound 30 disposed within the bead 23 and normally compressively engaging the curl 18. It is to be understood that the dimensions of the sealing compound 30, which is in the form of a ring, are such that an effective seal will be formed between the can end 12 and the curl 18 when the curl 27 is seated on the shoulder 17. It is also to be noted that the curl 27, together with the flange 28, effectively grips the upper portion 13 of the can body so as to frictionally retain the can end in place on the can body.

The can 10, when initially closed, is provided with a removable seal in the form of a sealing tape 31. The sealing tape 31 extends circumferentially around the can 10 and is bonded in part to the can body 11 and in part to the skirt 26. This is clearly shown in FIGURE 2. The tape 31 is in the form of a rip strip which may be easily torn from the can 10 to effect the initial opening thereof. The tape 31 serves two purposes. In the first place, it prevents the accidental movement of the can end 12 with respect to the can body 11. In the second place, it provides an effective seal between the can end and the can body. The seal is of such a nature whereby products may

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be packaged within the can 10, preferably under a vacuum, but also under a slight pressure.

When it is desired to open the can 10, the tape 31 is torn therefrom. Then the can end 12 is gripped by engaging one's fingers with the skirt 26 below the bead 25, the bead 25 forming a gripping element. After the can end has been firmly gripped in the above-described manner, it may be moved axially off of the can body 11. Inasmuch as the sealing compound 30 is resilient, it will be readily apparent that the can 10 can be resealed by merely repositioning the can end on the can body.

Although only a preferred embodiment of the invention has been specifically illustrated and described herein, it is to be understood that minor variations may be made within the disclosed can construction without departing from the spirit and scope of the invention, as defined by the appended claims.

I claim:

1. A can comprising a can body having an open upper end portion of a reduced diameter connected to the remainder of said can body by an intermediate shoulder, and a can end closing said can body open upper end, said can end including an end panel and a depending skirt, said skirt having the same external diameter as the remainder of said can body and an inwardly reversely turned curl at the lower edge of said skirt closely fitting said can body upper end portion and frictionally retaining said can end on said can body.

2. The can of claim 1 wherein said intermediate shoulder in section is arcuate adjacent the juncture thereof with said can body upper end portion and forms a seat snugly receiving said skirt curl thereby forming a seal between said can end and said can body.

3. The can of claim 1 wherein said body upper end portion terminates at the upper end thereof in an inwardly and downwardly reversely turned curl, said can end having an upstanding bead aligned with said can body curl, a sealing compound disposed within said bead and forming a primary seal with said can body curl, and said intermediate shoulder in section being arcuate adjacent the juncture thereof with said can body upper end portion and forming a seat snugly receiving said skirt curl thereby forming a secondary seal between said can end and said can body.

4. The can of claim 1 wherein said skirt terminates at the upper edge thereof in an outwardly directed bead to facilitate the gripping of said can end to effect the removal thereof, said bead being disposed entirely above said end panel.

5. The can of claim 1 wherein said skirt terminates at the upper edge thereof in an outwardly directed bead to facilitate the gripping of said can end to effect the removal

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thereof, said body upper end portion terminates at the upper end thereof in an inwardly and downwardly reversely turned curl, said can end having an upstanding bead aligned with said can body curl, and a sealing compound disposed within said bead and forming a seal with said can body curl, said upstanding bead and said outwardly directed bead being in connected adjacent relation and generally defining a corner connecting said end panel to said skirt, said corner being disposed entirely above said end panel.

6. A can comprising a can body having an open upper end and a can end releasably secured to said can body and closing said can body open upper end; said can body having a major portion thereof of a constant diameter and an upper end portion of a reduced diameter connected to said major portion by an intermediate shoulder, said shoulder being arcuate adjacent the juncture thereof with said can body upper end portion to form a seat, and said can body upper end portion terminating at the upper end thereof in an inwardly and downwardly reversely turned curl; said can end including an end panel and a depending skirt connected to said end panel by a corner portion which includes an upstanding bead, sealing compound disposed in said bead, and said skirt terminating at the lower end thereof in an inwardly and reversely turned curl; said bead being aligned with said can body curl and said sealing compound engaging said can body curl and forming a primary seal therewith, said can end curl being seated on said seat and forming a secondary seal therewith, said skirt being of the same diameter as said can body major portion, and a sealing tape bridging between said can body and said skirt and forming a final seal therewith.

7. The can of claim 6 wherein said can end curl closely fits said can body upper end portion and frictionally retains said can end on said can body.

8. The can of claim 6 wherein said can end curl closely fits said can body upper end portion and frictionally retains said can end on said can body, and said can end curl terminates in an upwardly directed flange also frictionally engaging said can body upper end portion and aiding in the frictional retention of said can end on said can body.

9. The can of claim 6 wherein said can end curl and said seat have opposed surfaces having a common radius.

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