

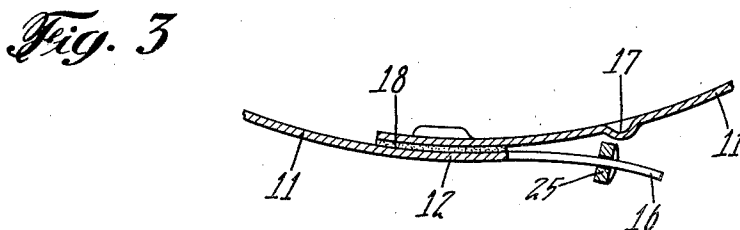
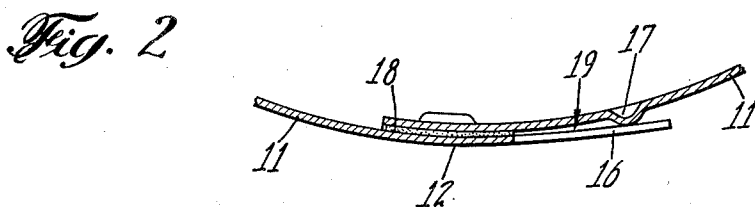
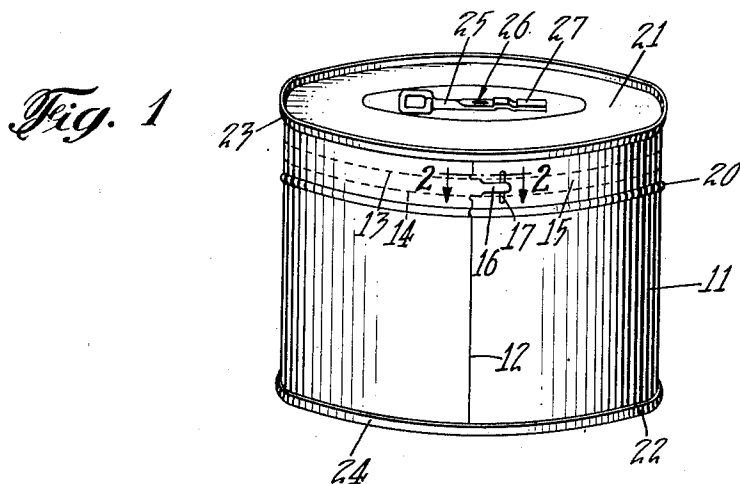
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CONTAINER WITH RAISED TEARING STRIP TONGUE

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CONTAINER WITH RAISED TEARING
STRIP TONGUE

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1 Claim. (Cl. 220—54)

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This invention relates to a container having a tearing strip which is removable by a key or other instrumentality engageable with a projecting tongue on the strip for opening the container, and more specifically relates to an outwardly projecting bead or projection formed in the container and disposed adjacent the tongue to keep the latter spaced from the container body wall, thereby preventing the bonding of the tongue to the container.

In the manufacture of containers having tearing strips defined by score lines, the body is usually formed by joining overlapped or interfolded marginal body material in a side seam. To make the structure hermetic or leakproof the side seam portions are bonded with solder or other suitable adhesive substance. A tongue or tab is provided at the side seam area of the scored section of the container to serve as a free starting point for removing the tearing strip by means of a key or other device. Frequently, the tongue is secured inadvertently to the body wall by the bonding material, thus making it difficult to start the tearing action.

An object of the invention is the provision of a tearing strip container having an outward projection or bead in the end section of the tearing strip or body wall located beneath the starting section of the strip or tongue so that the tongue is spaced away from the adjacent body wall and does not adhere to the body wall during the side seam bonding operation.

Another object is the provision of such a spacer bead or projection beneath the tongue of a tearing strip container which can be produced economically and without interfering with the other blank and body forming operations.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a container embodying the instant invention and showing a transverse bead or outward projection thereon adjacent the tongue or tab of a scored tearing strip.

Fig. 2 is an enlarged fragmentary section taken substantially along the line 2—2 in Fig. 1, and showing the bonded portion of the side seam and the spacing of the tongue away from the body wall by the transverse bead, and

Fig. 3 is a view similar to Fig. 2 and showing

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the tongue inserted into a slot of an opening key.

Containers made from sheet metal may have overlapped or interfolded side seams which are usually secured with solder or other suitable bonding material. During the soldering operation the bodies pass against a roll which rotates in molten solder and deposits the fluid bonding metal onto the side seam. The liquid solder flows into the seam by capillary action, after which the excess solder, while still in the fluid state, is wiped from the container. In this series of operations it is not possible to restrict the solder flow to the side seam alone, and, as a result, the can has a solder margin on each side of the seam. It is difficult to wipe away any solder that may flow under the tongue. Thus, if the tongue presents a bare metal surface to the solder, and if it is pressure closed to the body wall, a bond is or may be formed which secures the tongue firmly against the body.

In containers which have side seams secured by material other than solder such as adhesives of the plastic and resin type, such materials are preferably deposited onto the seam portions before final assembly of the container, after which the seam is subjected to pressure to make certain that the container parts containing the adhesive are in contact with each other before the adhesive sets. It is extremely difficult to adjust both the pressure and amount of adhesive to prevent exuding of adhesive past the side seams. This holds true for both metallic and non-metallic containers. The adhesive that exudes past the side seam in the tongue area often bonds the tongue to the body wall.

As a preferred embodiment of the invention, the drawing discloses a sheet metal body or body member 11 having a side seam 12. At its upper portion the body 11 is provided with a pair of parallel score lines 13, 14 defining or setting off a tearing strip 15 which preferably extends entirely around the body and which merges into and is usually integral with a tongue extension, tongue member, or tab 16. Tongue 16 extends across the side seam and overlaps the opposite end section of the tearing strip. Adjacent the tongue 16 and intermediate the ends thereof, preferably at a point outside of or beyond the solder margin, the container body is provided a vertical bead or projection 17 projecting outwardly from the body wall and transversely of the tearing strip so as to function as a spacer between the tongue and the body wall, i. e. beneath the tongue. With the bead disposed be-

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yond the solder margin the solder will never reach the bead. The bead, however, engages and supports the tongue in spaced relation to the body. The bead 17 extends across and slightly beyond each side of the tearing strip and is preferably parallel with the side seam. A bead of shorter dimensions is satisfactory, but the longer bead provides or compensates for minor displacements of the tongue tip by accidental bending, or the like.

For sheet metal containers the bonding material 18, Figs. 2 and 3, is preferably solder. A space or gap 19 is provided between the unbeaded portion of the body wall and the tongue 16 when the tongue lies over and touches bead 17. In round containers this space increases in dimensions with an increase in distance from the side seam. However, regardless of the geometric configuration of the container, the space 19 is great enough to arrest the capillary action of the bonding material, such as molten solder. Thus, the tongue is always spaced away from the body wall and is free to be drawn away from the bead 17 to provide a starting point to which an opening device, such as a slotted key 25 (Fig. 3), may be attached.

The container may have a circumferential bead 20 disposed below the tearing strip for holding an inside collar (not shown), the structure of which is well known in the art. Top and bottom ends 21, 22, respectively, are secured to the body in end seams 23, 24. Said opening key 25 having a slot 26 into which the tearing strip tongue 16 is inserted to remove the scored tearing strip from the body, is preferably secured to one of the aforesaid container ends by solder, adhesive, or by means of a weld indicated at 27 in Fig. 1.

It is thought that the invention and many of its attendant advantages will be understood from

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the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

A container comprising a tubular body member provided with a bonded side seam, said body member having score lines setting off a tearing strip starting at said side seam, a tongue member constituting an integral extension of said tearing strip and projecting from said side seam for a length sufficient to pass through and wind around the slot of a conventional opening key, said tongue member for substantially its entire length overlapping and being spaced away from said body member, and an integral bead in said body member projecting between said members and located adjacent the free end of said tongue member, said bead being peripherally spaced away from said side seam a distance sufficient to support said tongue member in radially spaced relation to said body member so as to provide a non-bonded clearance space between the side seam and said bead and also between said bead and the outer terminal end of the tongue member, thereby freeing said tongue end for engagement with said key and preventing the free end of the tongue member from being bonded to said body member.

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