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W. E. WRIGHT

1,982,602

CAN

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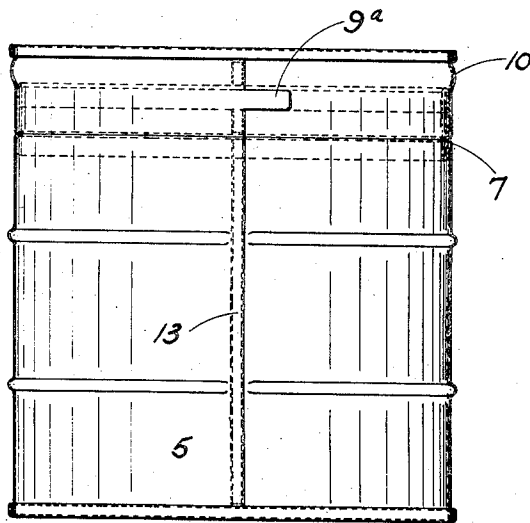


Fig. 4

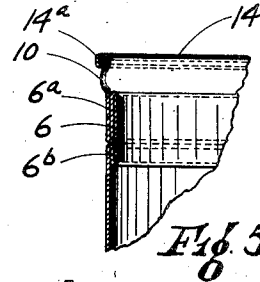


Fig. 5

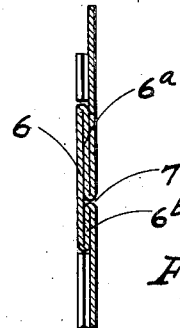


Fig. 2

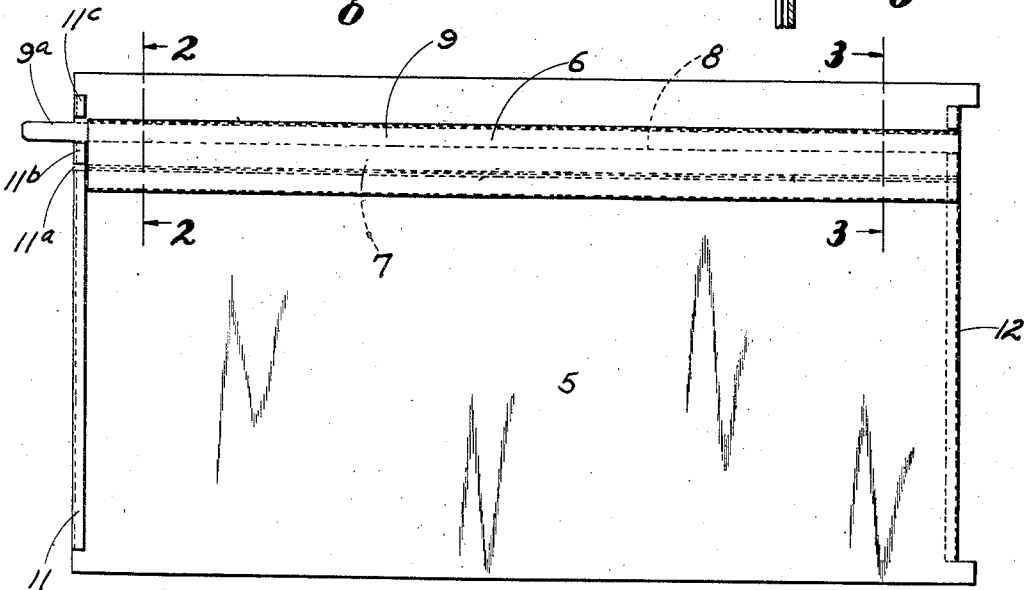


Fig. 1

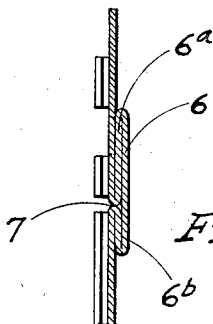


Fig. 3

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UNITED STATES PATENT OFFICE

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3 Claims. (Cl. 220—54)

This invention relates broadly to metal containers or cans and more particularly to that type of can wherein the blank which comprises the side wall thereof is folded upon itself to form a reinforcing band adjacent the end of the can and the folded portion scored to provide a tear strip so located that when the can is opened, the top of the can above the tear strip fits over the fold and provides a removable lid for the can.

An object of the present invention is to provide a can of the foregoing type, the side or body wall of which embodies a particularly advantageous form of folded reinforcing band and co-operating tear strip and locking joint construction, the band lying flat on the inner surface of the can and presenting a regular exterior surface contour, the fold being designed in such manner as to produce a band having considerable reinforcing strength and which also insures against leakage from the side walls of the can to the top of the fold when the can is opened.

Other objects and advantages will become apparent in view of the following description taken in conjunction with the drawing, wherein:—

Figure 1 is a view in plan of a folded blank with bent over interlocking edge or seam portions from which the body portion or side walls of the can is formed, the inner side of the blank being viewed by the observer.

Figs. 2 and 3 are enlarged views in section taken respectively on the lines 2—2 and 3—3, Figure 1. Fig. 4 is a view in elevation of a completed can.

Fig. 5 is a fragmentary sectional view of Fig. 1, showing the construction of the can at the welded seam adjacent the tongue of the tear strip.

Referring to the drawing, the body or side wall of the can is generally designated at 5. The blank from which this portion of the can is made is shown in Fig. 1. At its upper extremity the blank is formed with a double reversely folded portion, note particularly Figs. 2 and 3. This fold may be formed in the blank automatically by machines of any known type and pressed or rolled flat, the back wall of the fold forming a band as indicated at 6 in Fig. 1. The intermediate walls of the fold are turned down at 6a and up at 6b and then reversed, the edges formed by reversing these walls meeting or lying adjacent one another and forming the line at 7.

It is preferred to make the wall 6a of the fold wider than the wall 6b, and the wall of the can which faces the wall 6a is scored as indicated at 8 to provide a tear strip 9 terminating at one extremity in an extended portion or tongue 9a,

adapted to be engaged by a key or like device, as will be understood.

Beginning just at the upper score line of the tear strip 9 and terminating adjacent the top of the can is a bulged-out portion 10. This bulge 10 insures a telescoping fit of the top of the can over the body when these parts are separated by removal of the tear strip 9. As the upper edge of the tear strip is located at the beginning of the bulge 10, it will be seen that when the strip is removed, it will cause the lower portion of the bulge to flare outwardly so that the severed top of the can will readily telescope over the walls of the fold.

At its soldering seam, the edges of the blank are bent over in reverse order as at 11 and 12, forming interlocking joints. The bent over edge 11 is interrupted on both sides of the line 7 by a recess 11a and then continues to the tear-strip in the form of a tongue 11b and above the tear-strip terminates in a tongue 11c; while the edge 12 is reversely bent and recessed at 12a and formed with tongues 12b and 12c adapted to interlock with 11b and 11c.

When the blank is rolled into shape with the edges 11 and 12 and tongues 11b, 11c, and 12b, 12c interlocked and welded at the seam 13, the band 6 lies flat against the inner surface of the can while the folded walls 6a and 6b meet or lie adjacent one another at the line 7 and form a practically unbroken outer surface contour. When the tear-strip 9 is first removed, it naturally has a tendency to distort the folded over portions which comprise the band 6, or in other words, there is tendency to pull the wall 6a outwardly from the wall 6, but as these walls are locked together and soldered at the seam 13, the pulling force will be exerted on the wall 6 which is braced against outward displacement by the fold 6b, so that the band as a whole is braced against distortion. Furthermore, the band as a whole is strengthened by the double fold with the inner wall 6 of the band braced by the outer folded walls 6a and 6b. When the top of the can is separated from the remainder of the can by removal of the tear strip 9, the side wall 5 is held against leakage up to the top of the band 6.

The top edge of the can body is formed with a bent-over flange which interlocks with an interfitting flange on the lid or top 14, which flange may be lined with an impervious lining compound, thus forming an air-tight double seam 14a, or the lid or top 14 may be attached by soldering or other methods known in the art.

I claim:—

1. In a can of the class specified, a body wall comprised of a single thickness of sheet metal for the major portion of its height and having an in-turned reversely folded flattened portion forming an inside reinforcing band adjacent the top of the can, said band having an inner wall and outer reversely-bent walls which constitute upper and lower reinforcing folds with the outer wall of each fold forming a continuation of the body wall, the upper fold being of greater width than the lower fold, the outer can body wall of said upper fold being scored to provide a tear strip for opening the can and being also locked to said inner wall and reinforced against outward displacement by the latter.
2. In a can of the class specified, a body wall comprised of a single thickness of sheet metal for the major portion of its height and having an in-turned reversely folded flattened portion forming an inside reinforcing band adjacent the top of the can, said band having an inner wall and outer reversely-bent walls which constitute upper and lower reinforcing folds with the outer wall of each fold forming a continuation of the body wall of the can, the outer can body wall of one of said folds being scored to provide a tear strip for opening the can, said outer tear strip wall being locked to said inner band wall and reinforced against outward displacement when the tear strip is removed.
3. In a can of the class specified, a body wall comprised of a single thickness of sheet metal for the major portion of its height and having an in-turned reversely folded flattened portion forming an inside reinforcing band adjacent the top of the can, said band having an inner wall and outer reversely-bent walls which constitute upper and lower reinforcing folds with the outer wall of each fold forming a continuation of the body wall of the can, the outer can body wall of one of said folds being scored to provide a tear strip for opening the can, said body wall being joined by a longitudinal seam formed by reversely bending and interlocking the meeting edges of said wall, the said bent edges on each side of said tear strip being in the form of locking tongues, one of said tongues being bent over said band and locking the tear strip wall thereto to reinforce the latter against outward displacement when the tear strip is removed.
- WILLIAM E. WRIGHT.

30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150