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CAN WITH POURING SPOUT

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Fig. 2.

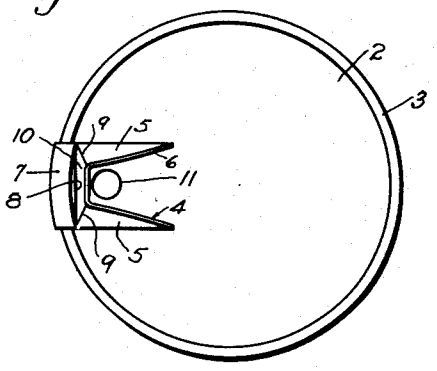



Fig. 3.

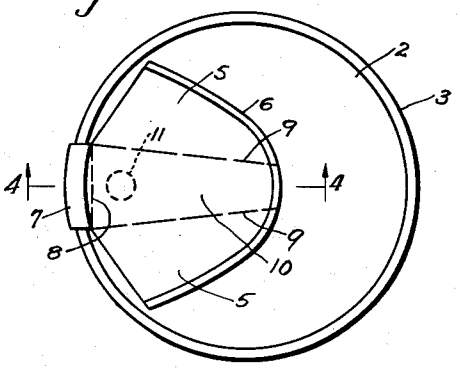



Fig. 1.

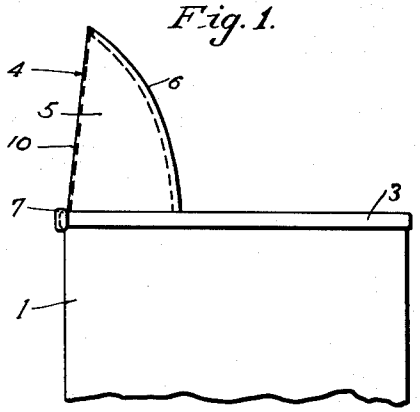
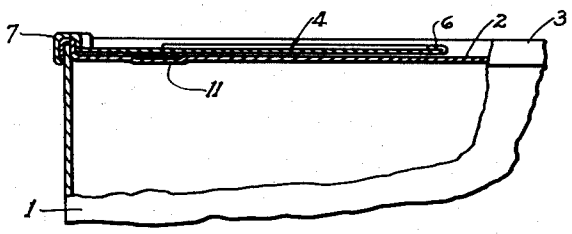



Fig. 4.




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# CAN WITH POURING SPOUT

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9 Claims. (Cl. 222—528)

This invention relates to a can having a pouring spout, suitable for pouring from the can into another container or for drinking directly from the can.

The prior art has disclosed many types of pouring spouts for cans or other containers, but in general these prior art devices either require special shapes of cans, or involve projections on the cans which require extra space in packing, or involve the use of rather complicated arrangements which are both difficult to employ and expensive to build.

It is an object of this invention to supply a can with a spout which is originally in the form of a small flap fitting snugly against the top of the can and therefore requiring no extra packing space.

It is a further object to supply a flap of such a type which is very simple to operate and easy to install, and is yet adapted for convenient use in pouring or in drinking from the can. Further objects will appear in the following discussion.

Briefly, the invention involves attaching to the top of the can near an outer edge thereof a flap which lies flat across a portion of the top of the can. At the central portion of the outer edge of the flap (i. e. the edge adjacent to the rim of the can) the flap is attached to the can top. In use, the inner edge of the flap may be lifted, the attached portion serving as a hinge. When the flap is in substantially vertical position, the wings or sides of the flap may be closed inwardly so as to form a spout. A hole is punched in the top of the can within the confines of the spout and, if desired, an air hole may be punched in the top of the can near the opposite edge thereof. The inner edge of the flap is preferably rolled so as to form an edge for the spout which is not likely to cause injury by scratching the hands or lips.

This invention may be better understood by reference to the attached drawing in which Figure 1 is an elevation view of the can with the flap in pouring position. Figure 2 is a plan view of the can of Figure 1. Figure 3 is a plan view of the can with the flap in its original closed position; and Figure 4 is an enlarged view in partial section through 4—4 of Figure 3. The same numbers are employed to designate the same parts of the invention in every figure.

Referring to the figures of the drawing, can **1** is shown with the usual recessed top **2** crimped to form a bead **3** fastening it to the walls of the can. In Figure 1 the spout **4** of the present invention is shown in the open position, exposing the sides **5** and the inner edge **6** which is preferably rolled to prevent cutting the lips when drinking from the spout. The spout **4** is fastened to the rim or bead **3** by means of tab **7** rolled and crimped over the rim.

Figure 2 shows the top of the can more clearly, with the spout folded along the hinge line **8** and the folding lines **9** to form the sides **5** and the bottom **10** of the spout. Within the spout is the depression **11** which is punched to open the can. Figures 3 and 4 show the spout



or flap **4** in its original closed position, flat against the top of the can, held in place by tab **7** rolled over the rim of the can.

In using the invention, the flap **4** is first lifted by its inner edge **6** so as to fold along hinge line **8**. The sides **5** are then folded inward along lines **9** to form a spout before or after punching a hole in the top of the can in a position such as **11** within the spout. If desired, an air hole may be punched near the opposite side of the top of the can.

Substantially the same size flap may be used on any can for drinking purposes, though for pouring purposes on larger cans, larger flaps may be used. A convenient size for drinking is one in which the hinge line **8** is about ½ inch long, and the folding lines **9** are about 1¼ inches long.

Although the flap **4** is preferably fastened to the can by means of tab **7** rolled over the rim as shown, it may also be soldered or otherwise fastened to the top of the can near the edge. Of course it should be fastened along the central portion of its outer edge, leaving the extremities loose so as to be folded up to form the sides of the spout. It is also preferable to indent or otherwise weaken the flap along the folding lines **8** and **9** so as to assure a neat fold. However, it has been found that neither this nor the indentation of the can top at **11** is essential, if care is exercised in the folding and punching.

The flap is preferably prepared from the same metal used in the can itself. It has been found that such metal is generally sufficiently rigid to provide a firm spout and yet is sufficiently flexible to simplify the necessary folding. The invention is especially well adapted for use on the beer cans in common use today, as well as the cans used for other beverages, fruit juices, and other liquid products. It is also applicable to oil cans, water cans, milk cans and other containers used for holding liquids. The flap is preferably fastened very close to the outer edge of the can, since this permits the most complete drainage of the can. However, in some cases it may be convenient to fasten it at a point slightly removed from the edge of the can, but in no case beyond the center of the can. The shape of the flap may be altered in any desired manner so as to provide an efficient spout which is still adapted for the pouring or drinking use intended. It is essential, however, that there should always be flaps at the side to hold the spout in its vertical position and to maintain the liquid withdrawn from the can within the confines of the spout. The spout may be made of any suitable material other than the metal of the can top, as long as it is of adequate rigidity to form a stable spout and yet of sufficient flexibility to provide for the required folding. Of course it may be prepared of different materials. The sides and bottom of the spout may be formed of rigid material such as plastic, wood, etc., and the portion to be folded attached thereto and made of flexible material.

It will be noted that by the above instruction, a perfect seal is maintained, since the can top need not be altered in any way. The flap is simply attached thereto, and the top is punched in the usual manner when the liquid is to be poured from it. Although the invention has been described with reference to round cans having crimped tops, it is clearly also applicable to cans of any other shape, whether the tops are crimped, recessed or not.

Other modifications of the invention which would occur to one skilled in the art are to be included in the scope of the invention as defined in the following claims.

We claim:

1. A can which comprises a substantially flat can top and a substantially flat flap attached to the top thereof,

the periphery of said flap comprising an outer edge adjacent the periphery of the can top, and an inner edge adjacent the center of the can top, said outer edge of the flap having a straight central hinge line portion and a straight side portion on each side of the central hinge line portion, said flap being fastened to said can top only adjacent said straight central hinge line portion, and said flap being adapted to be lifted by its inner edge so as to fold along said central hinge line portion of its outer edge, and when so lifted, to be folded along straight lines extending from each end of said central hinge line portion of the outer edge to the inner edge of the flap, so as to form a pouring spout in which the entire side portions of the outer edge of said flap bear against the can top.

2. A can according to claim 1 in which the flap is attached to the can top by means of a tab which is crimped to the edge of the can.

3. A can according to claim 1 in which the inner edge of the flap is rolled.

4. A can according to claim 1 in which the flap is made of the same material as the can top.

5. A can according to claim 1 in which indentations are made in the flap along the lines on which it is to be folded.

6. A can according to claim 1 in which an indentation is made in the can top near the point of attachment of the flap so as to provide a spot for punching the can top within the spout.

7. A can according to claim 1 in which the can top is recessed sufficiently to contain the entire thickness of the flap.

8. A can and collapsible pouring spout therefor, which comprises a flat can top and a flap fastened thereto, said flap comprising two side sections, a bottom section and a tab section, the bottom section being separated from the side sections by folding lines, and the bottom section being separated from the tab section by a hinge line, said folding lines and said hinge lines being straight lines, said tab section being the only portion of the flap which is fastened to said can top and said tab section being fastened to the can top at a point near the periphery of the can top, so that the bottom and side sections of the flap may be lifted from the can top by folding the flap along said hinge line, and the lifted portion of the flap may then be folded along the folding lines so as to form a pouring spout having a bottom section and side sections corresponding to said bottom section and side sections of the flap, and said side sections having straight edges which bear against the can top when the flap is in the lifted and folded position.



9. A can and collapsible pouring spout therefor, which comprises a flat circular can top and flat flap fastened thereto so as not to extend beyond the boundaries of the can top when lying flat against it, said flap comprising two side sections, a bottom section, and a tab section, said bottom section being bounded on each side by folding lines between it and said side sections, on one end by the inner edge of said flap and on the other end by a straight hinge line between it and said tab section, each of said side sections being bounded on one side by said folding line between it and said bottom section, on another side by the inner edge of said flap and on the other side by a straight edge constituting part of the outer edge of said flap, and said tab section being bounded on one side by said straight hinge line between it and said bottom section and on all other sides by the outer edge of said flap, said flap being fastened to said can top solely by means of said tab section and at a point near the periphery of said can top, and being adapted to be lifted by the inner edge so as to fold along said hinge line and when lifted, to be folded along each of said folding lines so as to form a pouring spout in which said straight edges of said side sections bear against the can top.

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