METHOD OF PREPARING A DISPENSING CONTAINER
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It is a common expedient to package liquid products in hermetically sealed metal cans consisting of a body portion with ends double seamed thereto. The product marketed in such cans is not only protected from contact with the air, but the contents of the can cannot be changed without giving physical evidence of the can having been tampered with. Lubricating oil is being put up by the original dispensers in sealed cans and sold 5 at the filling stations where they are opened in the presence of the customers and emptied into the chamber where it is to be utilized for lubricating purposes. This insures that the customer obtains the original product. The present invention has to do with the method of preparing a sealed can of the above type to aid in the dispensing of the contents therefrom.

An object of the invention is to provide a method whereby an opening may be formed in a can end, and a portion of the metal of the can end adjacent the opening bent upwardly and outwardly over the double seam and shaped into a pouring spout for directing the contents flowing from said opening away from the body wall of the can.

In the drawing which shows by way of illustration the various steps in the carrying out of the method, and the completed article produced by the method—

Figure 1 is a perspective view showing a sealed can having the end thereof cut to form a dispensing opening and preparatory to the forming of a pouring spout from the end;

Fig. 2 is a vertical sectional view through the upper end of the can showing the section cut from the end, lifted in the preliminary step of forming the pouring spout;

Fig. 3 is a view similar to Fig. 2, but showing the lifted section of the end bent outward over the double seam and formed into a pouring spout;

Fig. 4 is a view similar to Fig. 3, but showing the side wall of the can beneath the spout as crushed inward and the angle of the spout shifted so as to better position the same for pouring from the can;

Fig. 5 is a perspective view of the can with the spout formed thereon ready for pouring, and

Fig. 6 is a plan view showing a portion only of the container and the formed spout.

In Fig. 1 of the drawing, there is shown a can which includes a body portion 1 having the lower end secured thereto by a double seam indicated at 2. The upper end 3 is secured to the can body by a double seam 4. This is the well-known form of metal can in which products are marketed, and further detail description of the can is not thought necessary. It may be stated that the ends while described as being secured to the can body by double seaming, may be otherwise secured to the can body for forming a hermetically sealed package. The usual practice is to fill the can with the product before the top end is attached and then close the can by seaming the end thereto. When a product is marketed in a can of the above type, it is not only protected from contact with the air, but the product cannot be changed or adulterated without rupturing the metal forming the end of the can, thus giving visible evidence of the can having been tampered with.

The present invention has to do with the method of preparing a can of the above type for the dispensing of the contents thereof. The can end is first penetrated at points 6 and 7 which are adjacent the seam joining the end to the can body. The end is severed along a curved line 20 extending inwardly from the double seam and passing through the point 6. The cutter which sever the can end is preferably so shaped that the cutting edge is adjacent the double seam, while the tapered edge is on the face of the cutter adjacent the center of the can end, and therefore, when the end is cut, the edge of the metal will be rolled downwardly as indicated at 8 in Figures 2 to 4 of the drawing. This produces a slot in the end of sufficient width so as to enable a lifting tool to be placed against the end at the point 6, and the end depressed so that the lifting tool may be slid underneath the cut out section 9 of the end. This cut out section 9 is formed by the severing of the end so as to form a blank from which the spout is to be produced. After the lifting tool has been inserted beneath the section 9 of the end, said section is then raised to the position shown in Fig. 2. It will be noted that the section 9 is attached to the double seam of the can from the point 5 to the point 7, and therefore, when it is forcibly raised to the position shown in Fig. 2, it will be curved along the base of the lifted portion so as to conform to the double seam. This results in the initial shaping of the pouring spout. The tip of the spout is at 10, while the curved side walls of the spout are indicated at 11 and 12. The spout is lifted to the position shown in Fig. 2, which causes the section which is lifted to take on the shaping of the spout, it is then bent outward as indicated in Fig. 3, so that it overhangs the double seam 4, joining the top end of the can to the body portion 1 thereof.

The wall of the can body beneath the spout is...
then bent inwardly as indicated at 13 in Fig. 4 of the drawing. This inward bending of the wall of the body of the can accomplishes two results. It rolls the double seam so that the spout is placed at a better angle for pouring. The spout now well overhangs the double seam, and inclines upwardly slightly toward its outer end. The other purpose accomplished by the bending of the wall of the can body is, in effect, to destroy the can body so that it cannot be re-used. It has been a common practice, when a can of the above type is opened by cutting out a portion of the end, to sever the body wall just below the double seam, flange the body wall, refill and secure an end to the body, thus producing a new package. Unscrupulous dealers have used this method in the sale of inferior oils. The empty cans at a filling station have been obtained, the body cut in the manner described above, the body re-flanged, and then the can filled with an inferior oil and a new end attached by seaming, and the product then sold under the trade name appearing on the original can. When the can wall is crushed or bent, as shown in Figures 4 and 5 of the drawing, then the end cannot be removed and the can re-used for this purpose, without there being clear evidence that it is a re-used can.

By the above method of preparing the can for the dispensing of the contents thereof, a dispensing can is produced wherein a pouring spout is formed as an integral part of the can end. This spout extends from one side of the pouring opening to the other side thereof, and over the double seam, and well out therefrom, so as to discharge the contents well away from the body wall of the can. It is also trough-shaped and directs the oil without spill.

While the specific way of cutting the end and the lifting and shaping of the spout has been illustrated and described, it is obvious that other ways may be employed. The essential features of the invention reside in the cutting of the end and the forming of the spout from the cut out section of the end, which spout extends over the double seam, and is shaped and positioned for receiving and directing the fluid as it passes from the opening formed in the end of the can.

Having thus described the invention, what I claim as new and desire to secure by Letters-Patent, is:

1. The method of preparing a sealed can for dispensing the liquid contents therefrom consisting in penetrating the can end adjacent the seam joining the end to the body portion and along a curved line extending inwardly from one penetrating point to the other, whereby a blank is cut from the end for forming the spout, lifting said blank, turning said blank about said seam for forming the same into a trough-shaped spout, and placing said spout so that it overhangs the double seam.

2. The method of preparing a sealed can for dispensing the liquid contents therefrom consisting in penetrating the can end adjacent the seam joining the end to the body portion and along a curved line extending inwardly from one penetrating point to the other, whereby a blank is cut from the end for forming the spout, lifting said blank, turning said blank about said seam for forming the same into a trough-shaped spout, placing said spout so that it overhangs the double seam, and bending the wall of the can body beneath the seam for changing the angle of the spout and destroying the curved cylindrical contour of said body.

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