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POURING SPOUT FOR CONTAINERS

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The invention relates to a pouring spout for containers and more particularly a spout for a paper or cardboard container of the type generally used for the packaging of cereals, soap flakes and other granular or flaky products.

An object of the invention is to provide a pouring spout for containers of foodstuffs, soap flakes, and the like, to enable the dispensing of the contents of the container without spilling.

Another object is to provide a pouring spout for a container which will also act as an efficient closure for the container and which may be readily placed in position for pouring the contents from, or for closing, the container. The closed container will, moreover, present a neat appearance, as there will be no loose torn parts protruding therefrom.

Another object of the invention is to provide a pouring spout which may be attached to the container blank in such a way that no change is necessary in the present equipment for folding or scoring the blank when assembling the container, and with which no change would have to be made in the machinery for filling the container with the product.

Further objects are to provide a construction of maximum simplicity, efficiency, economy, and ease of assembly and operation and such further objects, advantages and capabilities as will later more fully appear and are inherently possessed thereby.

The invention further resides in the construction, combination and arrangement of parts illustrated in the accompanying drawings, and while I have shown therein a preferred embodiment, it is to be understood that the same is susceptible of modification and change, and comprehends other details, arrangements of parts, features and constructions without departing from the spirit of the invention.

In the drawings:

Fig. 1 is a perspective view of a cardboard container to which a pouring spout, shown in dotted lines, embodying my invention is attached.

Fig. 2 is a fragmentary perspective view of the upper portion of the container shown in Fig. 1 but with the closure flaps in open position.

Fig. 3 is a vertical cross-sectional view of the container shown in Fig. 1, with the spout in pouring position.

Fig. 4 is a top plan view of the pouring spout blank prior to attachment to the container.

Fig. 5 is a top plan view of the container blank prior to the spout having been attached thereto and before folding.

Fig. 6 is a fragmentary vertical sectional view of the container shown in Fig. 1, but provided with an inner liner and with the pouring spout in closed position.

Fig. 7 is a perspective view showing a method of moving the pouring spout to open position.

Fig. 8 is a fragmentary perspective view of the upper top portion of a container showing an alternate method of sealing the spout.

Referring to the drawings showing a preferred embodiment of my invention, a container of the usual type employed for packaging cereals, soap flakes and similar products of a flaky or granular formation, is shown at 10. This container is made from blank 11, comprising front face 2, rear face 3, side panels 4 and 5, and end panels or flaps 6, 6', 7, 7', 8, 8', and 9, 9'. These parts are all adapted to be scored or cut on the lines separating them from each other by machinery known to the art, and then folded on the scored lines so that the side panels 5, 5 may be glued together to form a side and the upper flaps 6, 7, 8, and 9 and the lower flaps, 6', 7', 8', and 9' glued together to form the top and bottom respectively of the usual oblong container 10.

The novel pouring spout is formed from the blank 11 (see Fig. 4) which comprises a central rectangular portion 13 and side wing portions 14, 14 and lower extension 21 integrally attached thereto. The wing portions 14 are provided with outer edges 20 preferably curved and the blank is scored on the lines 15, 15 dividing the central portion 13 and the wings or flaps 14. These lines 15, 15 are shorter than the straight edges 16 of the wings or flaps for reasons to be afterward more fully described.

In assembling the container 10 the exterior is first perforated or printed with the interrupted lines 17 shown in Fig. 1 and the member 11 is then adhesively attached to the side wall 4 of the container on the shaded area indicated at 22 in Fig. 5. The member 11 and the container may be scored before or after this operation and are then ready to be folded and attached together in the manner explained above.

The contents of the container, which may be packaged in an inner liner or bag 24, are inserted into the container and the top flaps are then glued together, the container now being ready for shipment or sale.

It may be desirable to score the side 4 of the box on the line 18. This line 18 is opposite the line or scored portion 22 on the pouring spout which line divides the central portion 13 from the extension 21, forming the hinge for the pour-
ing spout. Extension 21 is provided to strengthen this hinge.

When desiring to remove the contents of the container, the purchaser will cut (or break the perforations of) the side wall 4 on the lines 11 and then move the pouring spout 11 to pouring position. If an inner liner or bag is used, it will then be necessary to make an opening in this bag adjacent the opening resulting from the removal of the spout. The spout is preferably opened by grasping the container in one hand and bringing it down sharply against the other hand at a point just below the line 18 (see Fig. 7), causing the spout to pivot about its hinge and open the amount required for pouring.

When the desired amount of the contents are poured from the container, the pouring spout is pushed inwardly to form an effective closure for the container until it is desired for further use. The side members or wings 14 of the pouring spout serve not only to prevent lateral spilling of the contents of the container as they are being poured, but act as an effective stop to prevent further outward movement of the spout after it has been opened the required amount. All will be seen from Figs. 4 and 6, the line or edge 18 of the spout is shorter than the edge 15 (see Fig. 6 where the dotted line A indicates an arc of a circle and in which the line 15 of Fig. 4 is a radius), so the spout can be opened only a certain amount and after that the curved edges 20 of the side flaps 14 will engage the top of the container and prevent it from further outward movement. This stop action may be accomplished in other ways as by providing side flaps having edges of different curvature in different parts. These wings are spaced apart the width of the container and will consequently frictionally engage the front and rear wall of the container and tend to hold the spout in either open or closed position. This action is effectively assisted when an inner liner is used because the wings will be positioned between the inner liner and the front and back of the container to pinch the wings therebetween.

In Fig. 8 is shown an alternate construction in which the lines 11' are cut by machinery and the opening closed by adhesive Cellophane or the like 25 which may be peeled off to permit the moving of the spout to open position.

It is apparent that the present invention may be applied to container blanks and the container formed in the usual manner and by the usual machinery without any change therein. Thus the added cost of the spout would be very little, as it is made of inexpensive material such as cardboard, and its attachment will require no change in and but little addition to the machinery now used for forming the container. It is also apparent that the invention comprises a pouring spout which will adequately protect the contents of the container from spilling when being poured therefrom, and that the spout will provide a closure for effectively sealing the container while it is being stored to prevent contamination of the contents by dirt, dust and the like. It is also apparent that I have provided a pouring spout which may be easily and quickly moved into and out of operative position.

Having thus disclosed the invention, I claim:

1. A pouring spout for a container comprising an elongated strip of material mounted in the uppermost portion of a side wall of the container and scored to provide a central substantially rectangular portion and two contiguous side portions, each side portion having one edge joined to the rectangular portion, a lower edge formed as an extension of the lower edge of the central portion and of a length greater than that of the other edge, and an arcuate edge joining the other two edges whereby when the spout is drawn out of the container the arcuate edges of the side portions of the spout will engage and cam against the undersurface of the top of the container when the spout has been opened a predetermined amount to thereby retain the spout in that opened position and prevent its being opened to a greater amount.

2. A pouring spout for a container comprising a member of cardboard or the like mounted in the extreme upper end of the container and hinged to a side wall adjacent its upper end, said member being scored to provide a centrally disposed rectangular portion, a contiguous part at each end of the rectangular portion, and a relatively narrow hinge part projecting from a side of the rectangular portion, each part having one edge joined to the rectangular portion, a lower edge formed as an extension of the lower edge of the central portion and of a length greater than that of the other edge, and an arcuate edge joining the other two edges whereby when the spout is drawn out of the container the arcuate edges of the end parts of the spout will engage and cam against the undersurface of the top of the container when the spout has been opened a predetermined amount to thereby retain the spout in that opened position and prevent its being opened to a greater amount.

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