

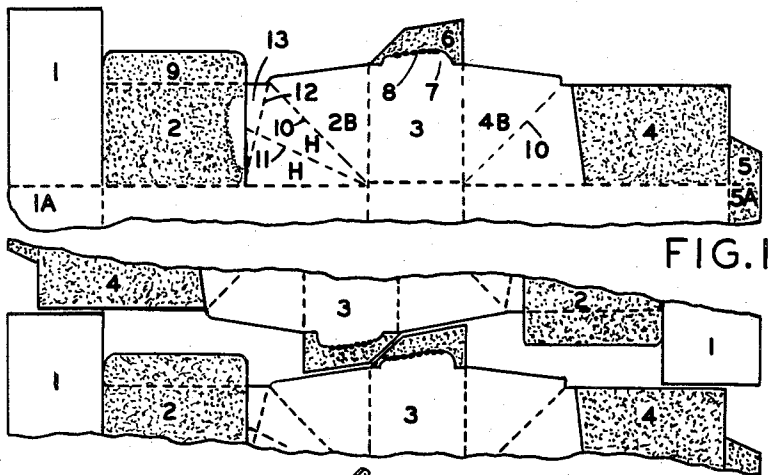
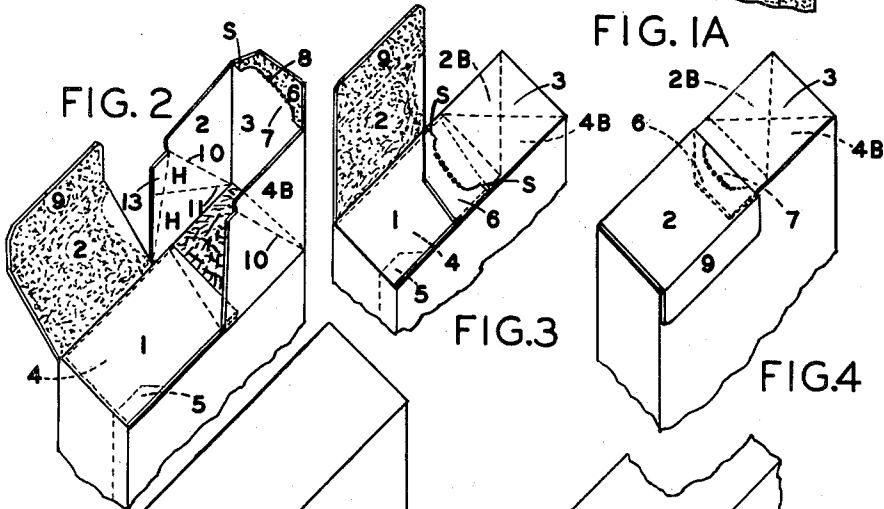
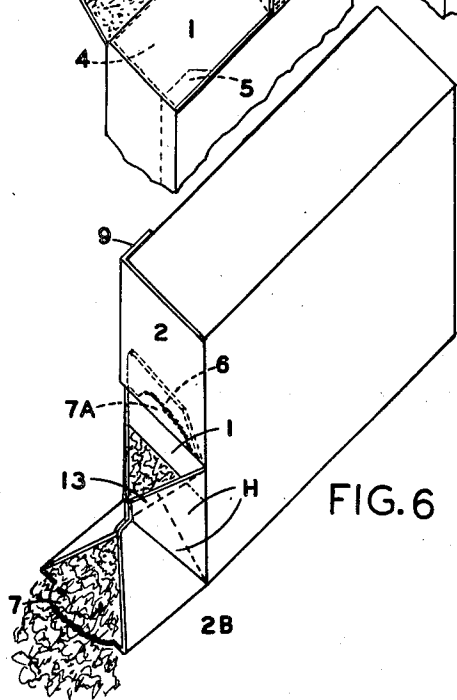
March 15, 1960

P. J. GRAYBILL

2,928,579

RECLOSABLE FOLDING SPOUT CONTAINERS WITH TEAR-FLAP

Filed April 1, 1957



INVENTOR.

Paul J. Graybill

1

2,928,579

RECLOSABLE FOLDING SPOUT CONTAINERS WITH TEAR-FLAP

Paul J. Graybill, New Haven, Conn.

Application April 1, 1957, Serial No. 649,743

1 Claim. (Cl. 229—17)

The present invention relates to reclosable folding spout containers particularly to such containers having a tear-flap for securing and subsequently releasing said spout, said tear-flap to also automatically provide a partial shoulder on the permanent end closure of said container as well as a tuck slot therein for inserting a tuck-tab.

The present invention is an improvement and variation on the applicant's invention Serial Number 392,559 filed November 17, 1953, and now Patent No. 2,789,747. The improvements relate (1) to the addition of a tear-flap releasably attached to the terminal end of the tuck-tab protruding from the bottom wall of the folding spout, and (2) also to exact structure of the permanent end closure claimed in general in the previous patent application.

Broad objective

The broad objective of my present invention is to provide a container having a tear-flap on the terminal end of the spout bottom wall, which tear-flap is releasably attached thereto and provides a means of securing said spout in a closed position, said tear-flap to be retained as an integral part of the permanent end closure portion of said container end when torn loose therefrom and become a partial shoulder as well as to form a tuck-slot on said permanent end closure, said slot being positioned immediately beneath the shoulder already provided as previously claimed.

Specific objectives

The more specific objectives of my invention are as follows:

(1) To provide a container having a folding spout with a tear-flap on the spout bottom wall, said tear-tab being so dimensioned and disposed and adhered as to secure said folding spout in a closed position when said container end-closure has been effected.

(2) To provide a container having a folding spout with said tear-flap so constructed as to be torn free from said spout wall and tuck-tab in the normal opening process allowing the spout to open and the tear-flap to be retained as a permanent part of the permanent end closure portion of said container, said tear-flap to be positioned between two courses of said permanent end closure.

(3) To provide a container having a folding spout with tear-flap, said tear-flap so constructed as to form a tuck-tab on the terminal end of the bottom wall of said spout when said tear-flap is torn free, said tuck-tab to be positioned beneath the adjacent edge of the outer course of the permanent end closure portion and form a pocket therein when said tear-tab has been torn free and withdrawn.

(4) To provide a container having a folding spout with tear-flap and a permanent end closure so constructed as to afford a ledge and a shoulder as well as a tuck-slot on said permanent end closure.

(5) To provide such a container in which one of the partial end glue-flaps is folded in firstly and the narrow end glue-flap is folded in and adhered secondly to form

2

the ledge member and be supported from below by the said partial glue-flap and thirdly the folding spout to be interfolded and brought to bear thereon with the tear-flap being adhered to the narrow glue-flap, finally the second partial glue-flap to be folded inwardly and adhered to the narrow glue-flap and the tear-flap, thus completing the end closure of said container.

Designation of illustrations

10 These and other objectives will become apparent as the following detailed description proceeds when reference is made to the accompanying drawings; wherein for the purpose of illustration is shown the essential embodiment of my invention.

15 Fig. 1 is a view of the inside of a partial blank of my invention showing the complete end-closure, with glue areas shown in shade.

Fig. 1A shows the nesting of two blanks for stock economy,

20 Fig. 2 is a perspective view of the end closure of the container of Fig. 1 showing the spout in an extended position and one partial side glue-flap folded inwardly with the narrow end glue-flap superimposed and adhered thereon,

25 Fig. 3 is likewise a perspective view, showing the spout completely interfolded and the tear-tab superimposed on and adhered to the narrow glue-flap,

Fig. 4 is also a perspective showing the completed end-closure with the final partial side glue-flap folded inwardly 30 and adhered to said narrow glue-flap and said tear tab,

Fig. 5 is a perspective view of the end-closure of the completed container of Fig. 4, with the spout torn loose from the tear-flap and the tuck-tab withdrawn from the tuck-slot,

35 Fig. 6 is a perspective of said container with the spout completely open in a pouring position.

Description and manufacturing procedure

Referring then to the drawings, in which the same or similar parts in the several drawings are indicated by the same number for ease in identification, Figs. 1 to 6 illustrate the specific embodiment of my invention.

Fig. 1 shows part of the inside of the blank of my invention with the narrow glue-flap 1, the partial glue-flap 2, with side ear 9, the narrow glue-flap, or spout bottom wall 3 with its tuck-tab 7 and its releasably attached tear-flap 6 at perforation 8 and its bellows like side-walls 2B and 4B articulated thereto and also to the adjacent side-walls of said container, said bellows-like side walls 2B and 4B being bisected from the inner corners by creases 10; also shown are the partial glue-flap 4 and the partial glue-flap 5. All glue areas are shown in shade. Also shown are bisecting crease 11 which provides hinge panels H in side wall 2B and crease 12 which provides release flap 13.

45 The container as shown in Figs. 2 to 6 is formed in the usual way by attaching the narrow glue-flap 5 and 5A to the glue-flap 1 and the container side-wall 1A, thus forming the tubular body of the container with the various glue-flaps extending outwardly. The end closure is then effected after glue is applied on shaded areas, by rotating partial glue-flap 4 inwardly to 90° to the side wall, and bringing narrow glue-flap 1 downwardly and adhering it thereon as shown in Fig. 2. The bellow side-walls 2B and 4B are then interfolded and the spout bottom wall 3 is brought inwardly to essentially 90° to the container side-wall with the tear-flap 6 being adhered to the glue-flap 1 holding said spout in a closed position as in Fig. 3. Partial glue-flap 2, with its side ear 9, is then rotated about and adhered thereon and the container side-wall as shown in Fig. 4, which completes the container end-closure.

The container is then ready to be filled with product

3

from the opposite end, which is also subsequently sealed.

When the container is to be opened the bottom wall of the folding spout is drawn outwardly from the container, tearing perforation 8 as shown in Fig. 5. Said spout bottom-wall is drawn outwardly to its limit as in Fig. 6 which, with the articulated side walls 2B—4B form a V shaped pouring spout, from which the contents may be dispensed as shown in Figure 6.

When the spout is to be closed after dispensing, the bottom wall 3 is tapped rather vigorously and the spout automatically refolds as in Fig. 5, and is in position to be completely reclosed by tucking tuck-tab 7 into pocket P as in Fig. 4, which completely reseals the container as before.

Subsequent openings are accomplished by merely pulling the spout bottom wall 3 outwardly, drawing tuck-tab 7 out of a pocket P. Tear-flap 6 is retained at all times as an integral part of the permanent end closure of the container forming the pocket P and the shoulder S which shoulder retains the folding spout in a partial quick closure position at is prevents the forward creeping of the bellows side wall 2B as in Fig. 5. Release flap 13 allows the disengagement of the side wall 2B without damage as it hinges about at crease 12, Fig. 5.

Fig. 1A shows two of said blanks nested for single line cuts to save stock in manufacturing.

The container as shown provides a convenient package for dispensing products; the tear-flap adds materially to the security of the package before opening, as well also it provides a partial shoulder to retain the spout in its quick closure position even though the pocket is open, and also provides this pocket or tuck-slot for the tuck-tab in reclosing. The instant design of the permanent end closure is essential to these features.

The need for an inexpensive container with such features is currently urgent, since such a package would preclude the necessity of expensive inner wraps by offering this reclosable feature that is virtually air tight.

The features embodied herein are new and constitute a decided advance in the art of container design and

4

it is understood that the present embodiment presents only an example of my invention and that various changes in shape, size or arrangements of parts may be resorted to without departing from the spirit of my invention or the scope of the sub-joined claim.

I claim:

A container made of foldable stock having a spout with inter-folding side walls articulated on three sides of a dispensing opening, said opening being the full width of the container end in its narrow direction and extending partially across the container end the other direction, the remainder of the container end consisting of a permanent end-closure member, said member being formed from portions of side glue-flaps and a narrow end glue-flap, said narrow end glue-flap protruding inwardly beyond the margins of said side glue-flaps extending ostensibly into said dispensing aperture, forming a ledge member, one of said glue-flaps being adhered outwardly of the narrow end glue-flap, said spout having a bottom-wall, said wall having a tuck-tab protruding outwardly from its terminal end, said tuck-tab having releasably articulated thereto a tear-flap, said tear-flap being adhered between said narrow glue-flap and said outer side glue-flap retaining said tuck-tab in a closed position, and forming a tuck-slot between said two glue-flaps when said articulation is severed and said container is opened and said tuck-tab is withdrawn, said tuck-slot then having been formed by the withdrawal of said tuck-tab, said tuck-slot coincidentally being so dimensioned to receive exactly said tuck-tab when said tuck-tab is reinserted in reclosing said container.

References Cited in the file of this patent

UNITED STATES PATENTS

35	1,286,038	Lowy	Nov. 26, 1918
	2,064,029	Murray	Dec. 15, 1936
	2,105,547	Mergentheim	Jan. 18, 1938
	2,205,068	Potter	June 18, 1940
	2,288,042	Spilman	June 30, 1942
40	2,565,182	Maxon	Aug. 21, 1951