Oct. 22, 1957 A. BRAUNSTEIN 2,810,508

SANITARY NON-REFILLABLE PAPER CONTAINER

Filed Sept. 6, 1955

FIG. 1.

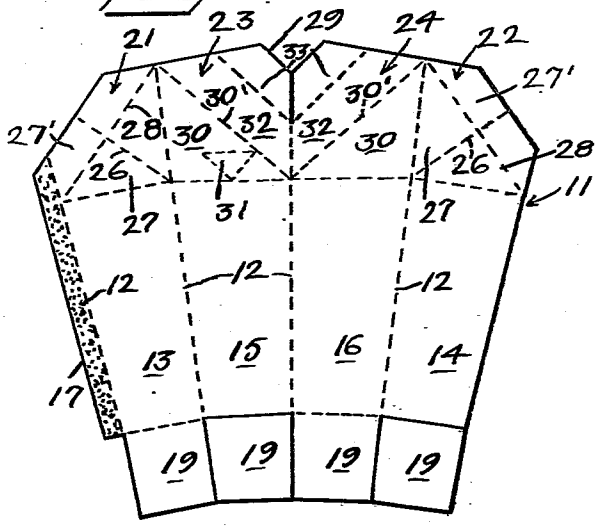


FIG. 2.

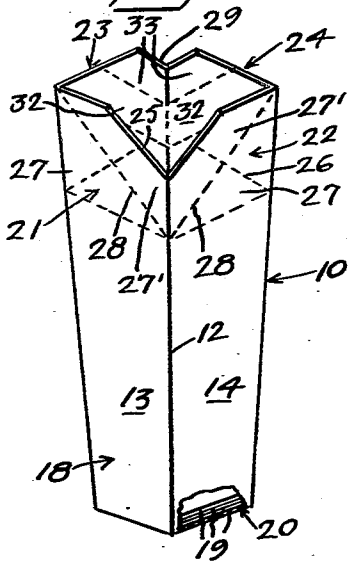


FIG. 3.

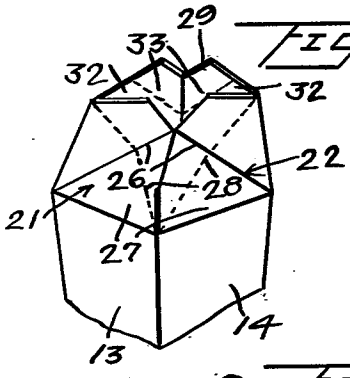


FIG. 4.

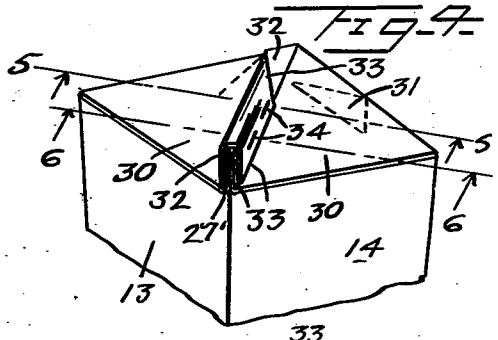
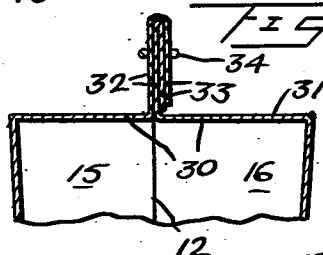


FIG. 5.



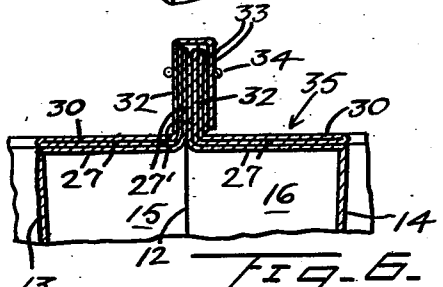
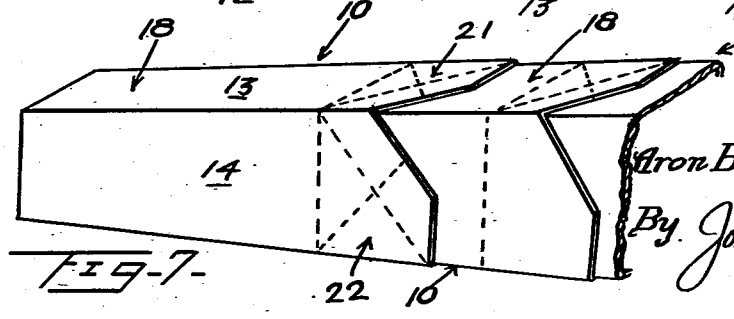


FIG. 6.

FIG. 7.



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SANITARY NON-REFILLABLE PAPER CONTAINER

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4 Claims. (Cl. 229—37)

This invention relates to certain new and useful improvements in a sanitary non-refilling paper container.

A primary object of the present invention is to provide a non-refillable paper container adapted to be filled through the top thereof and having top flaps by means of which the top of the filled container can be closed and sealed and so as to render the container nonrefillable.

Another object of the invention is to provide a container which is tapered from its upper end to its closed lower end so that a number of the containers can be nested one within the other, prior to closing and sealing the upper ends of the containers, for economical shipping and storage of the assembled containers.

A further object of the invention is to provide a container having a portion forming a part of the sealed top thereof and which must be opened for removing the contents of the container and the opening of which prevents re-use of the container.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a plan view of the blank from which the container is formed;

Figure 2 is a perspective view, partly in section, of the assembled container before closing and sealing of the top thereof;

Figure 3 is a fragmentary perspective view of the upper portion of the container and illustrating an initial step in the closing of the top flaps thereof;

Figure 4 is a view similar to Figure 3 but showing the top flaps closed and sealed;

Figure 5 is a sectional view taken through the upper portion of the container along the line 5—5 of Figure 4;

Figure 6 is a similar view taken along the line 6—6 of Figure 4, and

Figure 7 is a fragmentary perspective view showing several of the open containers in nested relation for shipping and storage.

Referring more specifically to the drawing, the sanitary nonrefillable paper container in its entirety is designated generally 10 and is constructed from a blank of paper, designated 11, as illustrated in Figure 1 and which is folded along the fold lines 12 to provide the walls 13, 14, 15 and 16. The wall 13 on its outer longitudinal edge is provided with an integral flap 17 which is connected to said wall 13 by one of the fold lines 12 and which is adhesively secured to the inner side of the outer longitudinal edge of the wall 14 to form the body portion 18 of the container 10, as illustrated in Figure 2. Said body portion 18 is composed of the walls 13, 14, 15 and 16 and as said walls taper in width toward their lower ends, the body portion 18, which is substantially square in cross section, tapers in cross sectional size from the upper end toward the lower end thereof. The folds 12 form the four corners of the body portion 18 and with the fold 12 of the flap 17 forming the corner of the walls 13 and 14. Said walls 13, 14, 15 and 16 have

flaps 19 extending from their lower ends and which are adhesively secured in overlapping relation to one another for forming the closed and sealed bottom 20 of the container 10.

Said walls 13, 14, 15 and 16 have top flaps 21, 22, 23 and 24, respectively, which form integral extensions of the upper ends thereof. As seen in Figure 2, the corners 12 of the body portion 18 extend to above the upper end of said body portion for integrally connecting the top flaps to one another. The top flaps 21 and 22 form a pair of flaps and are provided with a notch 25 in the upper end of the corner thereof. In closing and sealing the top of the container 10, said flaps 21 and 22 are folded diagonally thereof along the fold lines 26 and the corresponding portions 27 thereof, between the walls 13 and 14 and said fold lines 26, are pressed downwardly and inwardly so that the two portions 27 provide a triangular shaped top portion which covers one diagonal half of the upper end of the body portion 18. As the flap portions 27 are pressed downwardly toward coplanar positions, said portions 27 are again folded along fold lines 28. A part of the flaps 21 and 22, located between said fold lines 28 and a part of the notch 25 and a portion of the corner 12 of said flaps, forms an upstanding rib of two plies constituted by said two flap portions and which are designated 27', and best illustrated in Figure 6. Said rib plies 27' extend diagonally of the top of the container 10 from the corner 12 of the walls 13 and 14.

The flaps 23 and 24 form a second pair of flaps and which are provided with a notch 29 which is located in the upper portion of the corner thereof. The flaps 23 and 24 are folded diagonally along the lines 30' extending from the lower corner thereof to provide flap portions 30 which are folded downwardly and inwardly. The triangular flap portions 30 each covers one-half of the upper end of the body portion 18 and are disposed on opposite sides of the upstanding rib 27', 27'. One-half of each flap portion 30 overlies one of the flap portions 27. As the flaps 23 and 24 are folded downwardly, the other halves of the flap portions 27, disposed beyond the transverse fold lines 26, are folded downwardly and inwardly so that the two halves of each flap portion 27 are disposed one above the other and beneath a half of one of the flap portions 30, as seen in Figure 6, to provide a diagonal half of the top of the container 10 which is of three ply construction. The other diagonal half of the top of the container 10 is formed by the other halves of the flap portions 30 and accordingly is of a single ply construction, as seen in Figure 5. One of said last mentioned halves of one of the flap portions 30, as for example the one constituting a part of the top flap 23, is scored to provide a closure 31 which can be readily opened by tearing along two of the scored edges thereof.

The flaps 23 and 24 include diagonal strips 32, disposed immediately above the flap portions 30 and which assume positions on opposite sides of the upstanding diagonal rib, formed by the flap portions 27', when the flap portions 30 are disposed in closed positions, as seen in Figures 4, 5 and 6. The part 27' of each flap 21 and 22 is of two ply as a result of said flaps being folded on the diagonal lines 26 so that the center rib for one-half of its length and between the flap portions 27 includes four plies 27' disposed between the two plies 32, as seen in Figure 6, while the other end of the rib includes the two plies 32 without the plies 27'. The flaps 23 and 24 additionally include corresponding diagonal upper portions 33 which are disposed above the portions 32 and which are folded over and down against one of the rib forming portions 32 and secured thereto in any suitable manner, as by staples 34. The staples 34 also secure

the plies 27' and 32 together, as seen in Figures 5 and 6. With the flaps 21, 22, 23 and 24 folded as heretofore described and as illustrated in Figures 4, 5 and 6 and with the staples 34 applied, the top 35 of the container 10 is completed and constitutes a closed and sealed upper end of said container.

When it is desired to remove the contents of the container 10 and which is applied through the open top thereof, while the container 10 was open as seen in Figure 2, the closure 31 is torn along two of its scored lines so that the contents of the container, not shown, can be poured through the opening in the flap 23 formed by bending said closure 31 out of the plane of the flap portion 30, in which said closure is formed. When the closure 31 is thus opened, the container 10 is destroyed so that it cannot be resealed and thus cannot be re-used.

Various modifications and changes are contemplated and may be resorted to, without departing from the function or scope of the invention as hereinafter defined by the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A nonrefillable paper container for liquids, comprising a rectangular body portion including four walls, flaps extending inwardly from the lower ends of said walls and secured to one another in overlapping relation to form the sealed container bottom, said walls having top flaps forming extensions of the upper ends thereof, the longitudinal edges of said walls being integrally joined to form longitudinally extending corners of the body portion, said corners extending beyond the upper ends of the body portion for integrally connecting the top flaps to one another, two adjacently disposed top flaps, forming a first pair of said flaps, being folded diagonally thereof to provide a triangular shaped top portion covering a diagonal half of the upper end of the body portion and including parts forming upstanding rib portions rising from said triangular shaped top portion and disposed crosswise thereof, said other two top flaps forming a second pair of flaps and being folded diagonally from adjacent the bottom corners thereof to provide triangular shaped top wall portions each covering one half of the upper end of the body portion and combining with the first mentioned pair of top flaps to form a top wall portion having a single ply diagonal half and a multi-ply diagonal half, said flaps of the second pair of top flaps including upstanding rib portions straddling the rib portions of the first pair of top flaps and including parts extending above said first mentioned rib portions and folded over and secured against one side of the flap portions forming said upstanding top wall rib for sealing the upper end of the container.

2. A container as in claim 1, said upstanding diagonal rib of the top wall providing a carrying handle and including portions formed by each of said top flaps.

3. A container as in claim 1, a single ply part of said top wall having a readily removable portion forming a dispensing opening and for breaking the seal of the top wall in a manner to prevent resealing of the container.

4. A nonrefillable paper container for liquids comprising a rectangular body portion including four side walls, flaps extending inwardly from the lower ends of said side walls and secured to one another in overlapping relation to form the sealed container bottom, top flaps forming extensions of the upper ends of said walls, said top flaps being folded inwardly to form the top wall of the container and an upstanding sealing rib for closing and sealing said top wall, said sealing rib having portions formed by each of the top flaps, said rib portions being secured together for closing and sealing the upper end of the container, said top wall rib extending diagonally across the top wall, and said top wall including triangular portions disposed on each side of the rib and each including a single ply portion formed by a part of one of the top flaps and a three-ply portion formed by parts of two of said top flaps.

References Cited in the file of this patent

UNITED STATES PATENTS

657,047	Wagnitz	Aug. 28, 1900
1,084,944	Leonard	Jan. 20, 1914
1,559,834	Zalkind	Nov. 3, 1925
2,000,210	Bayless	May 7, 1935
2,390,909	Zinn	Dec. 11, 1945