

Dec. 14, 1965

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3,223,311

CONTAINER STRUCTURE AND CLOSURE MEANS

Filed Oct. 11, 1963

4 Sheets-Sheet 1

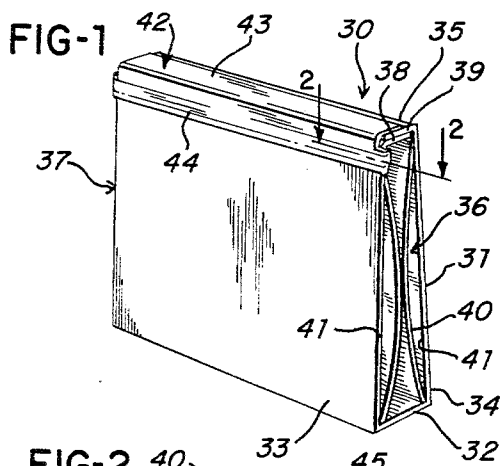
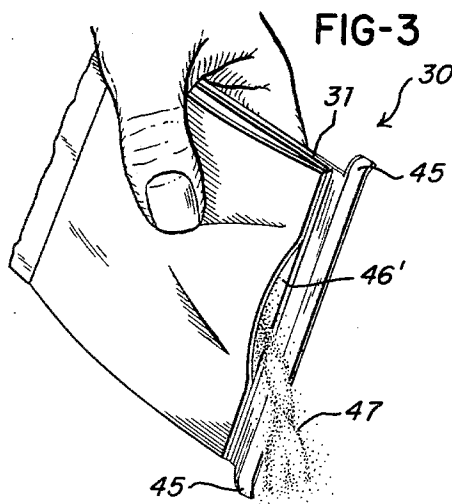
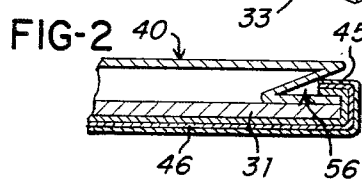
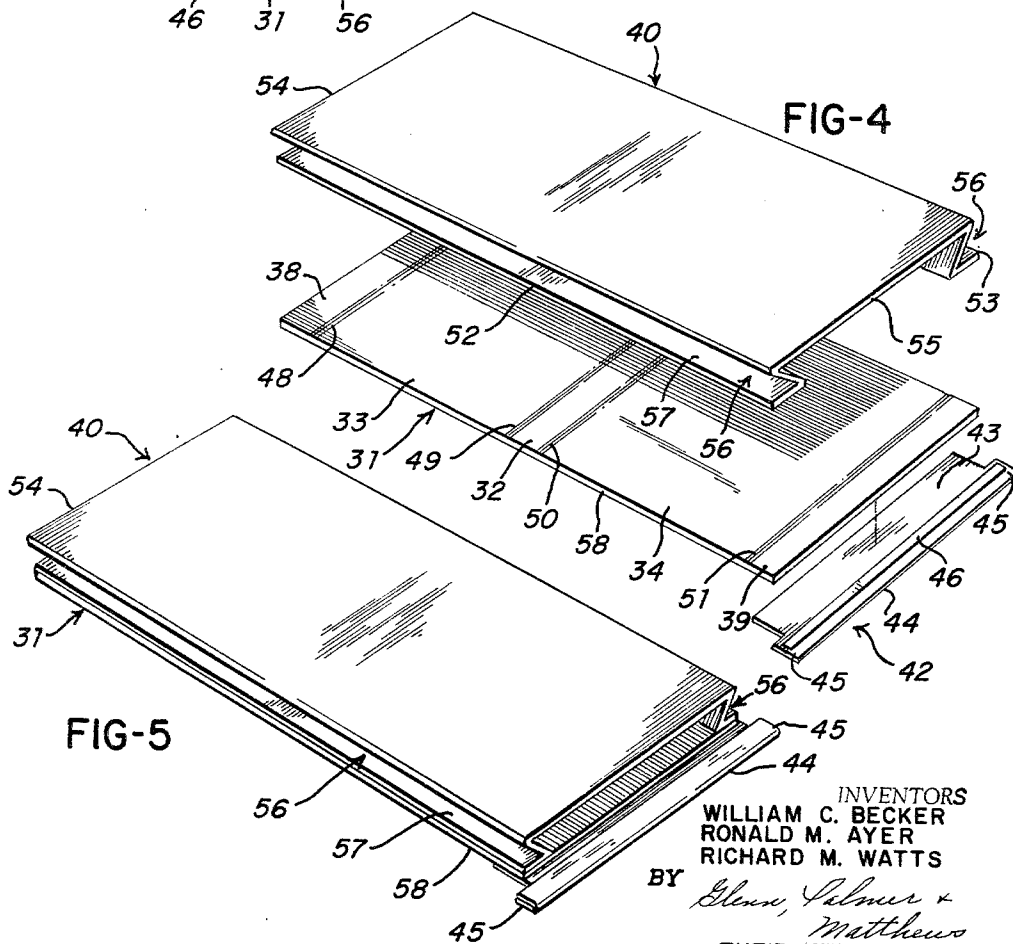
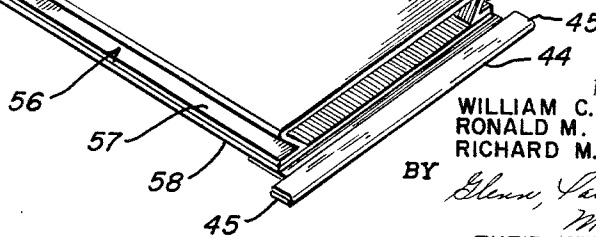


FIG-5



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4 Sheets-Sheet 2

FIG-6

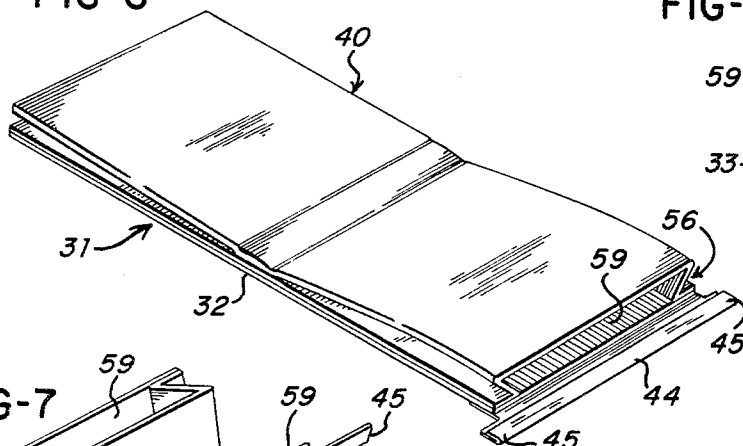


FIG-8

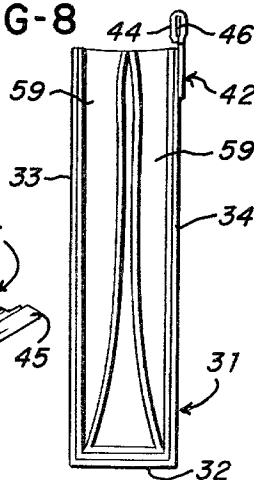


FIG-7

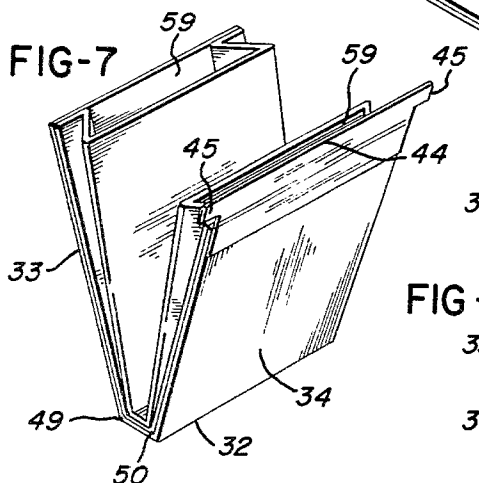


FIG-9

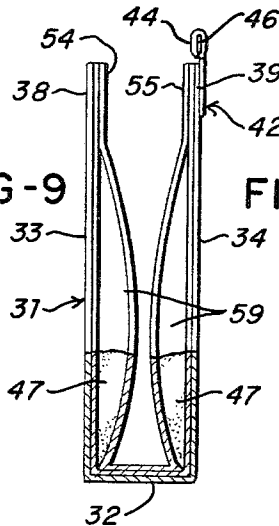


FIG-10

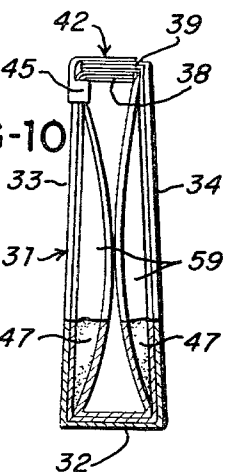
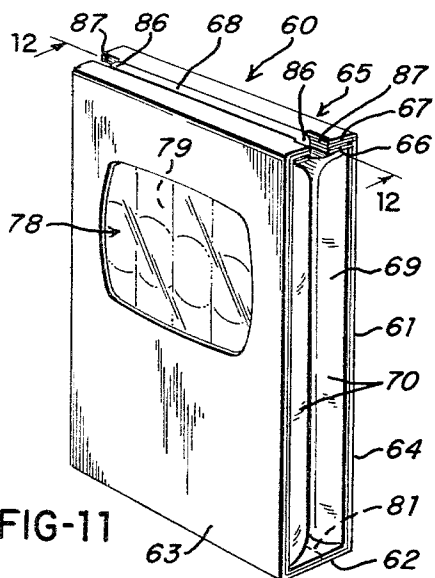
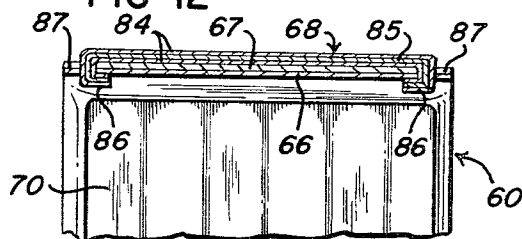


FIG-12



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FIG-13

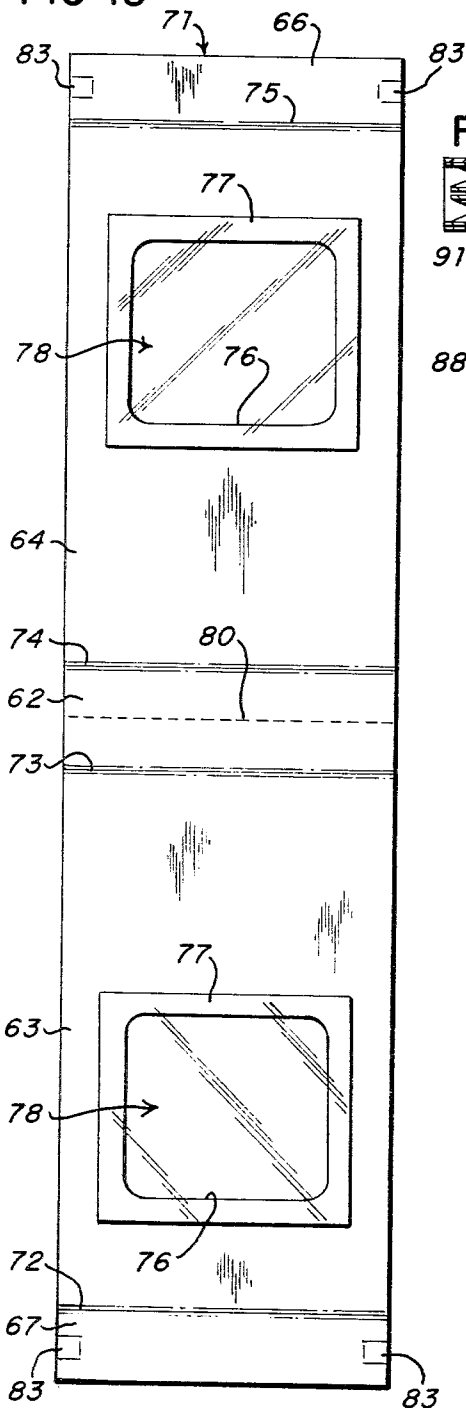


FIG-14



FIG-16

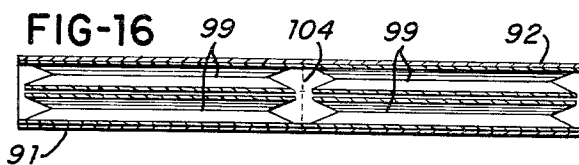
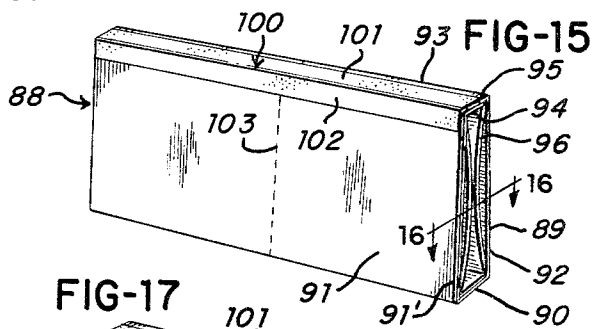
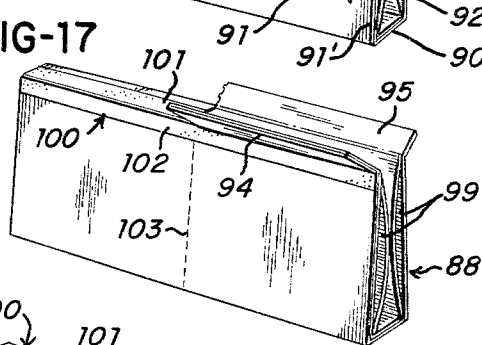
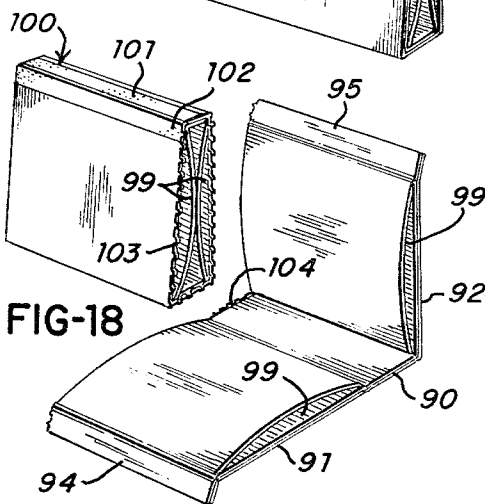


FIG-17



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Filed Oct. 11, 1963

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FIG-19

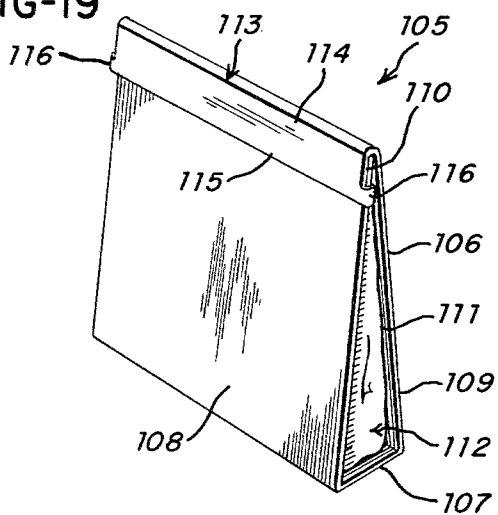
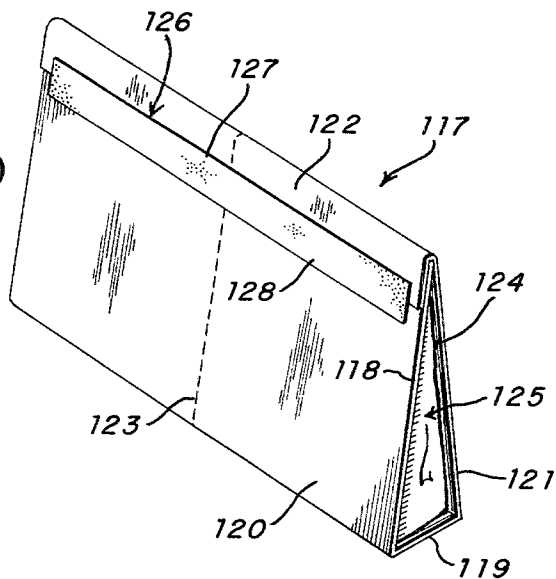


FIG-20



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CONTAINER STRUCTURE AND CLOSURE MEANS
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Filed Oct. 11, 1963, Ser. No. 315,590
2 Claims. (Cl. 229—56)

This invention relates to an improved container and to an improved method for making such a container or the like.

It is well known from the copending patent application, Serial No. 278,827, filed May 8, 1963, and entitled "Container Constructions and Blanks for Making the Same or the Like," that a protective container construction can be provided for one or more product-containing pouch means formed of flexible material, such as metallic foil or metallic foil laminations, the protective container comprising cardboard or the like suitably cut and scored so that the same forms a substantially rectangular or triangular construction to house the pouch means therein while the container has opposed opened ends.

It is also well known from the copending patent application, Reynolds Metals Company's Docket No. 4224-M, that each of the aforementioned product-containing pouch means can have one of the sides thereof formed in part by the rigid cardboard container whereby the resulting package construction utilizes less material than the container construction wherein the pouch means is formed entirely of flexible material.

However, the containers set forth in the aforementioned copending patent applications do not have adequate means for closing the top wall means thereof.

Further, such prior known containers do not have means for readily opening and reclosing the top wall means thereof when only part of the product is to be dispensed so that the container could be readily restored on the housewife's shelves or the like.

Accordingly, it is an object of this invention to provide an improved container having such closure means, the container of this invention having one or more of the novel features set forth above or hereinafter shown or described.

Another object of this invention is to provide an improved method for making such a container or the like.

Other objects, uses and advantages of this invention are apparent from a reading of this description which proceeds with reference to the accompanying drawings forming a part thereof and wherein:

FIGURE 1 is a perspective view illustrating one container of this invention.

FIGURE 2 is an enlarged, fragmentary, cross-sectional view taken on line 2—2 of FIGURE 1.

FIGURE 3 is a fragmentary, perspective view illustrating a method for dispensing the product from the container of FIGURE 1.

FIGURE 4 is an exploded, perspective view illustrating all of the parts required for making the container of FIGURE 1.

FIGURES 5, 6 and 7 are respectively perspective views illustrating the various steps in forming the container of FIGURE 1 from the parts of FIGURE 4.

FIGURES 8, 9 and 10 are respectively side views illustrating other steps in forming the container of FIGURE 1 from the parts illustrated in FIGURE 4.

FIGURE 11 is a perspective view illustrating another container of this invention.

FIGURE 12 is a fragmentary, cross-sectional view taken on line 12—12 of FIGURE 11.

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FIGURE 13 is a plan view of a blank for forming part of the container of FIGURE 11.

FIGURE 14 is a plan view illustrating a blank for forming another part of the container of FIGURE 11.

FIGURE 15 is a perspective view illustrating still another container of this invention.

FIGURE 16 is an enlarged, cross-sectional view taken on line 16—16 of FIGURE 15.

FIGURE 17 is a view similar to FIGURE 15 and illustrates one of the steps for initially opening the container of FIGURE 15.

FIGURE 18 is a perspective view illustrating the method of separating the container of FIGURE 15 into two smaller containers.

FIGURE 19 is a perspective view illustrating still another container.

FIGURE 20 is a view similar to FIGURE 19 and illustrates another embodiment of this invention.

While the various features of this invention are herein after described as being particularly adaptable for providing a container for merchandising a desired product or products, it is to be understood that the various features of this invention can be utilized singly or in any combination thereof to provide containers for other purposes as desired.

Therefore, this invention is not to be limited to only the embodiments illustrated in the drawings, because the drawings are merely utilized to illustrate one of the wide variety of uses of this invention.

Referring now to FIGURE 1, an improved container of this invention is generally indicated by the reference numeral 30 and comprises a substantially rigid board means 31 forming the exterior wall means of the container 30, the board means 31 being suitably folded in a manner hereinafter described to provide a bottom wall means 32, opposed side wall means 33 and 34 and top wall means 35 whereby the container 30 has opposed opened end walls 36 and 37 in a manner similar to the containers disclosed in the aforementioned copending patent applications.

The top wall means 35 of the container 30 is provided by a pair of top flaps 38 and 39 respectively interconnected to the side walls 33 and 34 and temporarily secured in overlapping relation to close the container 30 in the configuration illustrated in FIGURE 1.

The rigid board means 31 of the container 30 of this invention cooperates with a flexible liner or sheet means 40 disposed in the container 30 in a manner hereinafter described to define a pair of product-containing pouch means 41 whereby the product disposed in the pouch means 41 is fully protected by the rigid board means 31 in substantially the same manner as set forth in the second aforementioned patent application.

However, it is to be understood that the product-containing pouch means for the container of this invention could be formed of all flexible material in the manner set forth in the first aforementioned patent application.

In addition to the securement between the overlapping top flaps 38 and 39 of the container 30, a tape means 42 is provided and has one edge means 43 secured to the outer top flap 39 in the manner illustrated in FIGURE 1 whereby the opposed edge means 44 of the tape means 42 is adapted to have opposed end portions 45 thereof folded around the opposed end edges of the side wall means 33 in the manner illustrated in FIGURES 1 and 2 to firmly hold the overlapping flap means 39 and 38 in their closed positions, the edge means 44 of the tape means 42 being reinforced by a flexible metal wire or band 46 in a manner hereinafter described.

When the ultimate consumer desires to open the container 30 to dispense some of the product from at least

one of the pouch means 41 thereof, the ultimate consumer merely unfolds the end portions 45 of the tape means 42 from around the end edge portions of the side wall means 33 until the edge means 44 is free from the side wall means 33.

Thereafter, the ultimate consumer lifts upwardly on the free edge means 44 of the tape means 42 whereby upward movement of the tape means 42 causes the flap means 38 and 39 to separate to open the container 30 so that the same can be opened out in substantially the manner illustrated in FIGURE 3.

Subsequently, the ultimate consumer peels apart part of the securement of the flexible sheet means 40 from the board means 31 adjacent the upper edge of one of the product-containing pouch means 41 in the manner illustrated in FIGURE 3 to provide an opening 46' through which the product 47 can be dispensed in the manner illustrated in FIGURE 3.

Should the opened product-containing pouch means 40 still contain product therein or the other product-containing pouch means 41 contain the product therein and it be desired to store the container 30, the ultimate consumer merely refolds the container 30 back into the position illustrated in FIGURE 1 and bends the end portions 45 of the edge means 44 of the tape means 42 around the end edges of the side wall means 33 of the container 30 in the manner illustrated in FIGURE 2 to hold the container 30 in its reclosed position as illustrated in FIGURE 1 for storage purposes and the like.

Therefore, it can be seen that the tape means 42 of this invention provides a unique means for readily opening and reclosing the container 30 when desired.

Further, while the container 30 has been previously described as being initially formed with the securement between the top flaps 38 and 39 of the container 30 to make the same substantially pilfer proof, it is to be understood that the adhesive securement between the top flaps 38 and 39 could be eliminated so that the tape means 42 serves the sole purpose for holding the container 30 in its closed position during merchandising of the same, if desired.

The method for forming the container 30 of this invention will now be described.

Referring now to FIGURE 4, the rigid board means 31 of this invention can be supplied in substantially rectangular flat blank form or in roll form as set forth in the aforementioned copending patent applications.

As illustrated in FIGURE 4, the rigid board means 31 of this invention is transversely scored by score or fold lines 48, 49, 50, and 51 to respectively divide the board means 31 into the top flap 38, side wall means 33, bottom wall means 32, side wall means 34 and top flap 39.

The flexible liner or sheet means 40 of this invention is illustrated in FIGURE 4 and is formed from a substantially rectangular sheet of material having opposed side edges 52 and 53 and opposed end edges 54 and 55. Alternately, the liner means 40 could be supplied from a supply roll thereof.

In the embodiment illustrated in FIGURE 4, the sheet of material 40 is substantially wider than the rigid board means 31 whereby the opposed sides of the sheet of material 40 can be reversely folded to form gussets 56 at the opposed side edges 52 and 53 thereof for a purpose hereinafter described.

However, it is to be understood that the gussets 56 could be eliminated from the sheet means 40 and the sheet means 40 could be so constructed and arranged that the same is adapted to be fin-sealed to the rigid board means 31 in the manner set forth in the second aforementioned copending patent application.

While the rigid board means 31 and the flexible liner means 40 can be formed of any suitable material and in any suitable manner, the embodiments thereof illustrated in the drawings are formed of metallic foil laminations

in the manner set forth in the aforementioned copending patent application.

However, it is to be understood that the containers of this invention can be formed without metallic foil. For example, the board means could be polycoated board or plain board and the liner means could be polycoated paper or plain paper, if desired.

The tape means 42 illustrated in FIGURE 4 can be formed of paper, plastic or any other suitable material and has the width of the edge means 43 thereof substantially the same as the width of the rigid board means 31 while the width of the edge means 44 thereof is substantially bigger than the width of the board means 31 to permit the end portions 45 thereof to be folded around the end edges of the board means 31 in the manner illustrated in FIGURE 2.

The flexible metal wire or band 46 is adapted to be disposed on the edge means 44 of the tape means 42 and be secured thereto in any suitable manner to reinforce the edge means 44, the edge means 44 being folded around the reinforcing and flexible band 46 in the manner illustrated in FIGURE 5.

While the tape means 42 can be assembled together with the board means 31 and sheet means 40 in a manner now to be described, it is to be understood that the tape means 42 could be assembled to the container 30 after the container 30 has been completely formed, if desired.

When it is desired to make the container 30 of FIGURE 1 from the material 40, 31 and 42 illustrated in FIGURE 4, the flat portions 57 of the liner sheet means 40 are adapted to be heat sealed or otherwise secured to the peripheral edges 58 of the rigid board means 31 in the manner illustrated in FIGURE 5 whereby the gussets 56 of the liner means 40 permit the sealed liner means 40 and board means 31 to define a sleeve-like structure as illustrated in FIGURE 5.

Subsequently, or thereafter, the edge means 43 of the tape means 42 is secured to the exterior surface of the top flat means 39 of the rigid board means 31 in the manner illustrated in FIGURE 5.

Thereafter, the transverse medial portion of the liner means 40 is heat sealed or otherwise secured to the bottom wall means 32 of the board means 31 in the manner illustrated in FIGURE 6 to define two opposed pockets 59 separated from each other at the bottom wall means 32 of the rigid board means 31.

Subsequently, the interconnected liner means 40 and board means 31 are folded on the fold lines 49 and 50 in the manner illustrated in FIGURE 7 whereby the open ends of the pocket portions 59 are disposed substantially upwardly in the manner illustrated in FIGURES 7 and 8.

Thereafter, the desired product 47 can be disposed in the pockets 59 through the upper open ends thereof whereby the upper open end of the pockets 59 can be sealed closed by heat sealing or otherwise securing the end portions 54 and 55 of the liner means 40 to the top flaps 39 and 38 of the board means 31 in the manner illustrated in FIGURE 9. In this manner, the product-containing pouch means 41 have been completely formed to contain the product 47 therein.

In order to close the structure illustrated in FIGURE 9 the top flap 38 is first folded over the open end of the container 30 and, thereafter, the top flap 39 is folded over the top flap 38 in the manner illustrated in FIGURE 10 and is temporarily secured thereto in any suitable manner, such as by suitable adhesive or the like whereby the container 30 of this invention is now substantially complete.

Thereafter, the free edge means 44 of the tape means 42 has the end portions 45 thereof folded around the end edges of the side wall means 33 of the container 30 in the manner illustrated in FIGURES 2 and 10 to hold the closure flaps 38 and 39 in their closed position.

Therefore, it can be seen that it is a relatively simple process to form the container 30 of this invention from the

board means 31 and liner means 40 while still having means to open and reclose the container 30 in a manner not provided by the containers set forth in the aforementioned copending patent applications.

Another container of this invention having the opening reclosing tape means features of this invention is generally indicated by the reference numeral 60 in FIGURE 11 and comprises a rigid board means 61 suitably scored in a manner hereinafter described to define a bottom wall means 62, opposed side wall means 63 and 64 and top wall means 65, the top wall means 65 comprising top flaps 66 and 67 respectively disposed in overlapping relation and held in their closed position by a tape means 68 of this invention in a manner hereinafter described.

A flexible sheet 69 is disposed in the container 60 and cooperates with the inside surfaces of the side wall means 63 and 64 to define product-containing pouch means 70 in the manner previously described.

While the rigid board means 61 of the container 60 of this invention can be formed in any suitable manner, the embodiment thereof illustrated in the drawings is formed from a blank 71 of this invention as illustrated in FIGURE 13.

As illustrated in FIGURE 13, the substantially rectangular blank 71 can be supplied in flat form or in roll form as desired and is provided with score or fold lines 72, 73, 74 and 75 respectively dividing the blank 71 into the top flap 67, side wall means 63, bottom wall means 62, side wall means 64 and top flap 66.

The side wall means 63 and 64 respectively have openings 76 formed therethrough and respectively covered by transparent film 77 in the manner illustrated by FIGURE 13 to provide window means 78 in the side wall means 63 and 64 in the manner illustrated in FIGURE 11 to permit the ultimate consumer to view the product 79 disposed therein, such as the cigars illustrated in FIGURE 11.

Further, the bottom wall means 62 of the blank 71 is transversely perforated at 80 to permit the container 60 to be divided into two individual packages when desired, the flexible sheet means 69 also being transversely perforated at 81 in the manner illustrated in FIGURE 11 to permit the separation of the container 60 into two individual packages.

The top flaps 66 and 67 of the blank 71 are respectively provided with die cut flaps 83 which respectively extend to the end edges of the top flaps 66 and 67 and are adapted to be aligned with the die cut flaps 83 in the other top flaps 66 or 67 in the manner illustrated in FIGURE 11.

The tape means 68 of the container 60 is formed from a substantially flat blank 84 in the manner illustrated in FIGURE 14, the blank 84 comprising paper or the like and being reinforced by a flexible metal wire or band 85 so that when the tape 84 is formed into a substantially flat tubular structure, the metal band 85 is encased therein.

The folded tape means 84 is adapted to be secured on top of the outer flap 67 in the manner illustrated in FIGURE 11 whereby the opposed end portions 86 of the tape means 68 are adapted to be folded downwardly into notches 87 defined by the die cut flaps 83 in the top flaps 66 and 67 in the manner illustrated in FIGURES 11 and 12 whereby the end portions 86 of the tape means 68 can extend under the overlapping top flaps 67 and 66 to hold the same together in overlapping relation, the tape means 68 locking in the notches 87 to prevent the top flaps 66 and 67 from separating from each other.

Therefore, it can be seen that the container 60 of this invention can have the top flaps 66 and 67 thereof initially and temporarily secured together by adhesive means to render the same pilfer proof while the tape means 68 can be utilized to lock the top flaps 66 and 67 in their closed position.

Thereafter, when the ultimate consumer desires to open one of the product-containing pouch means 70 thereof,

the ultimate consumer merely unfolds the end portions 86 of the tape means 68 from the notches 87 in the top flaps 66 and 67 so that the top flaps 66 and 67 can be opened in order to permit entrance to the pouch means 70 in the manner previously described in regard to the container 30.

Subsequently, the ultimate consumer can reclose the container 60 with the tape means 68 in the manner illustrated in FIGURES 11 and 12 to provide a compact package construction.

Also, should it be desired to separate the container 60 of this invention into two separate containers, such as when one of the product-containing pouch means 70 has been emptied of its product 79, the ultimate consumer can open the top flaps 66 and 67 thereof in the manner previously described and divide the container into two parts by tearing the same on the superimposed perforated lines 80 and 81 of the rigid board means 61 and flexible sheet means 69.

Another container of this invention is generally indicated by the reference numeral 88 in FIGURE 15 and comprises a rigid board means 89 suitably scored to define a bottom wall means 90, opposed side wall means 91 and 92 and top wall means 93, the top wall means 93 comprising top flaps 94 and 95 respectively secured to the side wall means 91 and 92 and disposed in overlapping relation.

A relatively flexible sheet or liner means 96 is disposed in the rigid board means 89 in the manner previously described and cooperates therewith to define four product-containing pouch means 99 in the manner illustrated in FIGURE 16 whereby two pairs of product-containing pouch means 99 are respectively disposed in side by side relation and respectively cooperate with the inside surface of the respective side wall means 91 and 92 in the manner previously described.

The top closure flaps 94 and 95 of the container 88 are held in their closed position in the manner illustrated in FIGURE 16 by a tape means 100 having one edge portion 101 secured to the outer top flap 95 and the opposed edge portion 102 thereof secured to the side wall means 91 as illustrated in FIGURE 15.

The board means 89 and flexible sheet 96 are respectively perforated at 103 and 104 so that the container 88 can be divided into two smaller containers each containing two facing product-containing pouch means 99 in the manner hereinafter described.

For example, when the ultimate consumer desires to open the container 88 illustrated in FIGURE 15, he lifts upwardly on the top flap 95 at one end of the container 88 to tear through the tape means 100 until the top flap 95 tears at the perforation 103 in the manner illustrated in FIGURE 17.

Thereafter, he opens the adjacent half of the top flap 94 in the manner illustrated in FIGURE 17 so that the right half of the container 88 can be torn from the remainder thereof in the manner illustrated in FIGURE 18 whereby two separate smaller containers are provided from the container 88, each smaller container containing two product-containing pouch means 99 as illustrated.

Thus, it can be seen that the remaining left half of the container 88 can be stored in the compact closed condition until the same is adapted to be utilized while the right half of the container 88 can be opened to have the pouch means 99 thereof opened to dispense the product in the manner previously described.

Therefore, it can be seen that this invention provides improved containers as well as improved methods for making the same or the like.

While the various containers of this invention have been previously described as having substantially rectangular cross-sectional configurations, it is to be understood that the novel features of this invention can be utilized to provide containers having substantially triangular cross-sectional configurations in any of the manners set forth in the aforementioned co-pending patent applications.

For example, reference is made to FIGURE 19 wherein another container of this invention is generally indicated by the reference numeral 105 and comprises a rigid board means 106 suitably scored to define a bottom wall means 107, opposed side wall means 108 and 109 and a top closure flap 110 respectively foldably connected to the side wall means 109 and folded over the upper edge of the side wall means 108 to close the container 105 in a manner that the same has a substantially triangular cross-sectional configuration.

A flexible sheet means 111 is disposed in the container 105 and cooperates with the inner surface means of the side wall means 108 to define a product-containing pouch means 112 in the manner previously described.

A tape means 113 for opening and reclosing the container 105 is provided and has an upper edge means 114 thereof secured to the top flap 110 while an opposed free edge portion 115 of the tape means 113 provided with opposed ends 116 adapted to be folded around the opposed edge means of the side wall means 108 to secure the top flap 110 in its closed position in substantially the same manner as the tape means 42 previously described.

Thus, it can be seen that the tape means 113 of this invention will function in the same manner as the tape means 42 previously described to provide means for closing and reclosing the container 105 even though the same has a substantially triangular cross-sectional configuration.

Similarly, the tape means 100 of the container 88 previously described can be utilized to close a substantially triangular container in the same manner that the same is utilized to close a substantially rectangular container 88.

In particular, reference is made to FIGURE 20 wherein another container of this invention is generally indicated by the reference numeral 117 and comprises a rigid wall means 118 suitably scored to define a bottom wall means 119, opposed side wall means 120 and 121 and a top flap 122 foldably connected to the side wall means 121 and disposed over the upper edge portion of the side wall means 120 to close the container 117 and form a substantially triangular configuration.

The rigid board means 118 of the container 117 is provided with perforations 123 so that the same can be divided into two like smaller containers in the same manner as the container 88 previously described.

A relatively flexible sheet means 124 is disposed in the container 117 and cooperates with the inside surface of the side wall means 120 in the manner previously described to define two side by side product-containing pouch means 125 whereby each product-containing pouch means will remain with its respective half of the container 117 when the same is divided into two parts in the manner previously described.

In order to hold the top flap 122 of the container 117 in its closed position, a tape means 126 is provided and has the upper edge means 127 thereof secured to the top flap 122 while the lower edge means 128 thereof is secured to the side wall means 120 of the container 117 in the same manner as the tape means 100 previously described.

Thus, it can be seen that the tape means 126 of the container 117 functions in the same manner as the tape means 100 of the container 88 previously described.

Accordingly, it can be seen that variations can be made in the structure of the containers of this invention while the resulting containers and methods still fall within the scope of the appended claims.

Thus, it can be seen that not only does this invention provide improved containers or the like, but also this invention provides improved methods for making such containers or the like.

While the form of the invention now preferred has been disclosed as required by the statutes, other forms may be used, all coming within the scope of the claims which follow.

What is claimed is:

1. A container comprising a relatively rigid board means forming top, bottom and opposed side wall means of said container, said top wall means including two flaps respectively interconnected to said side wall means and disposed in overlapping relation to close said container, a relatively flexible sheet means disposed in said container and at least partly defining initially sealed closed product containing pouch means in said container, and a tape means having one edge means secured to the outer overlapping top flap and having an opposed edge means folded around one of said side wall means to hold said top wall means in its closed position, said tape means being unfoldable from around said one side wall means to permit opening of said top wall means to provide access for initially opening said pouch means, said tape means, thereafter, being adapted to be again folded around said one side wall means to not only reclose said top wall means but also to reclose said pouch means, said opposed edge means of said tape means being reinforced by a flexible metal member.

2. A container as set forth in claim 1 wherein said opposed edge means of said tape means is folded around both end edges of said one side wall means.

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