May 28, 1968 N. J. PILGER 3,385,502

CONTAINER CONSTRUCTION AND BLANKS FOR MAKING THE SAME OR THE LIKE

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FIG.1

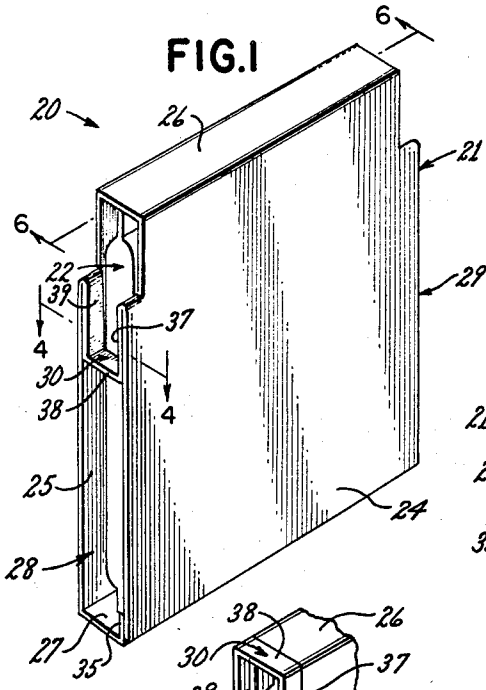
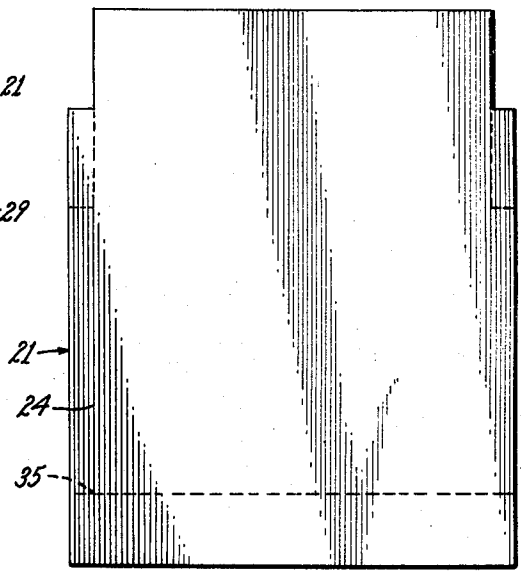


FIG.2



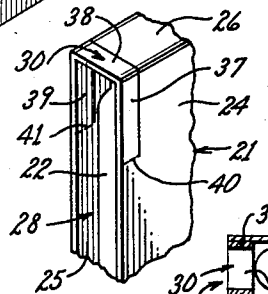


FIG.1A

FIG.3

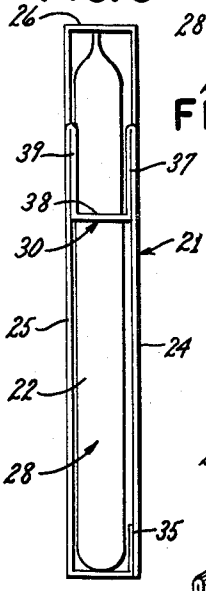


FIG.4

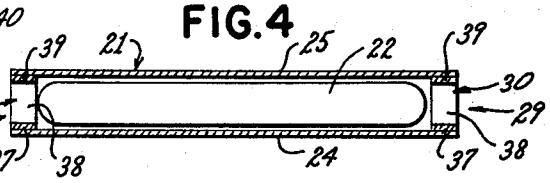
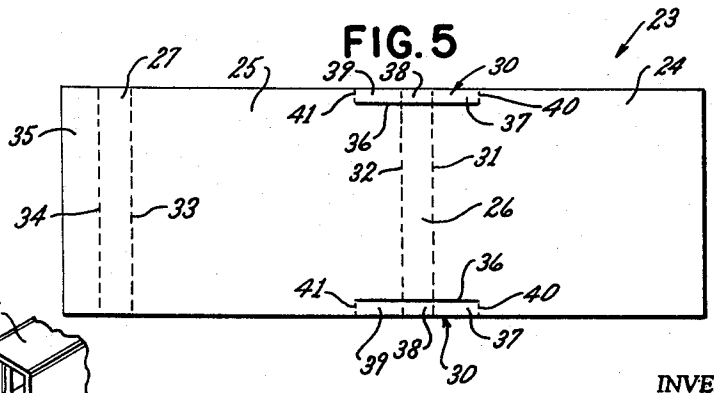


FIG.5



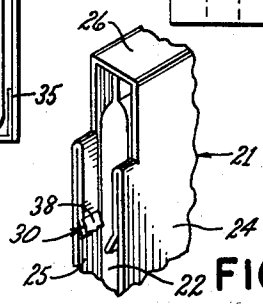


FIG.1B

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FIG.7

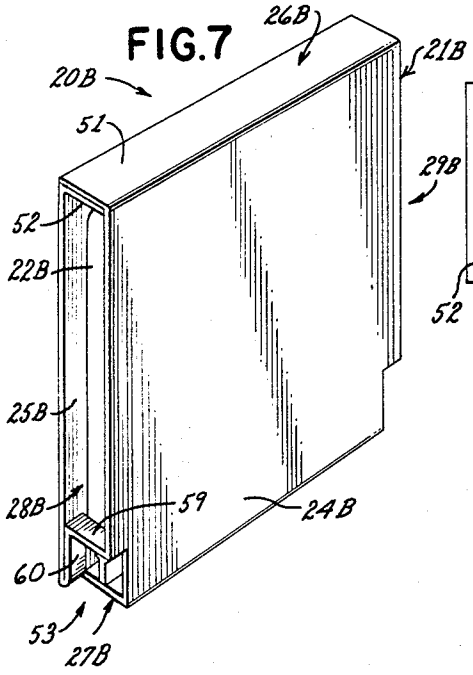


FIG.8

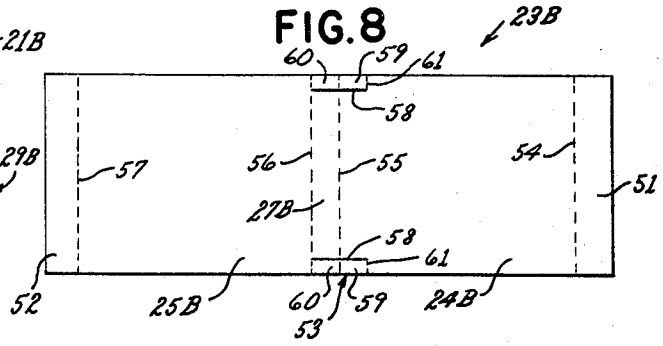


FIG.6

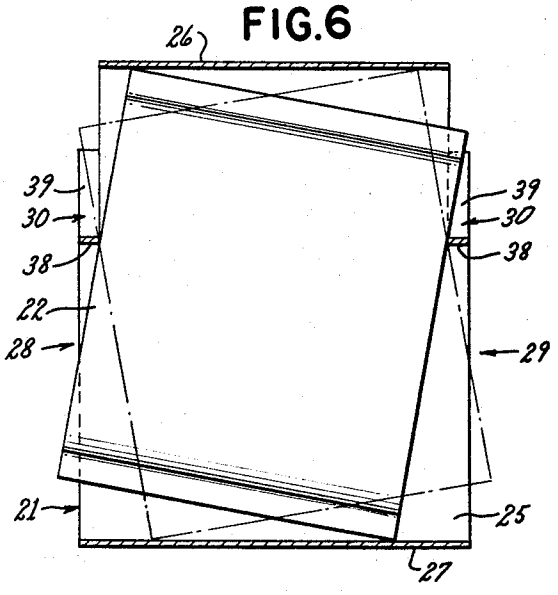


FIG.9

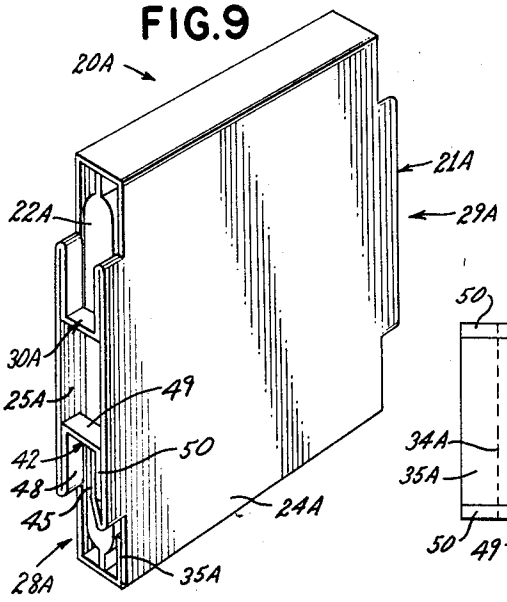
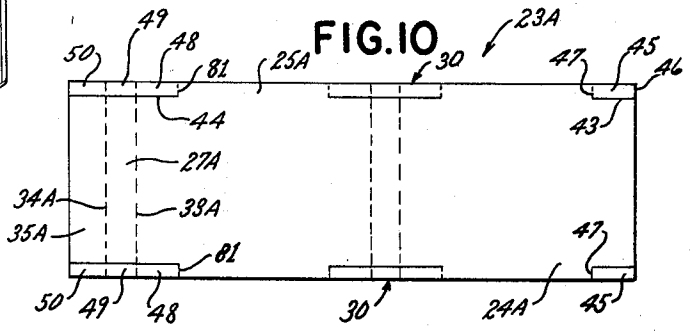


FIG.10



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FIG. 11

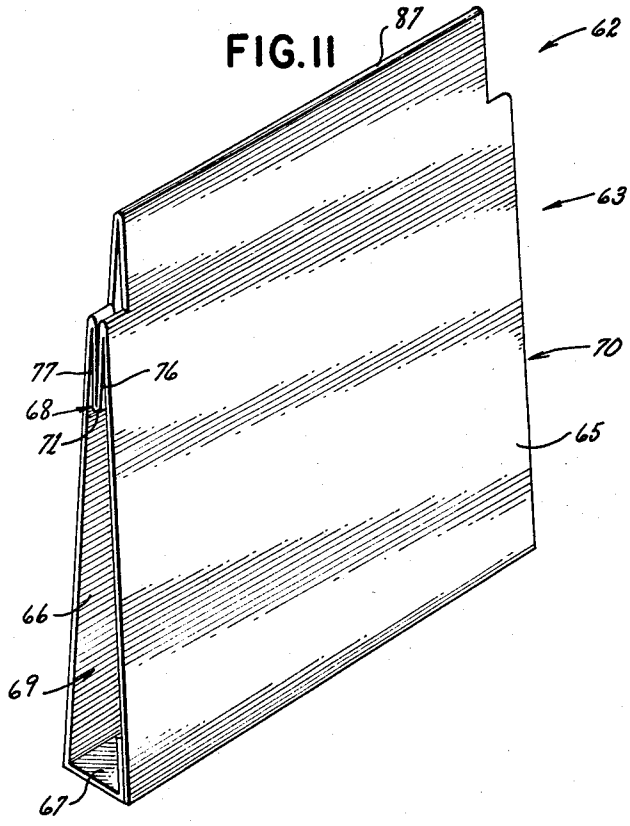
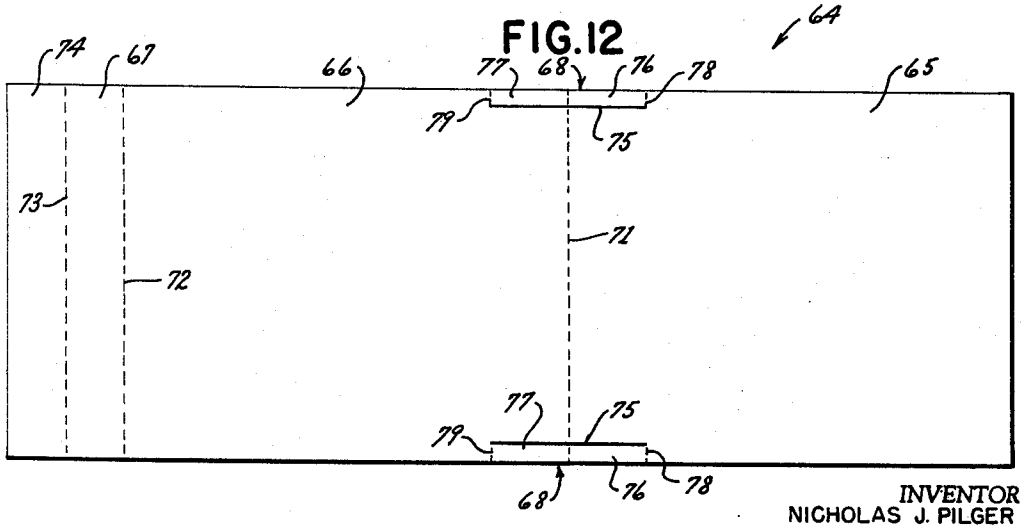


FIG. 12



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3,385,502

CONTAINER CONSTRUCTION AND BLANKS FOR MAKING THE SAME OR THE LIKE

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Filed Jan. 27, 1967, Ser. No. 612,206
4 Claims. (Cl. 229—14)

ABSTRACT OF THE DISCLOSURE

This disclosure relates to a container means formed from a single sheet of rigid board means, such as cardboard or the like, suitably cut, scored and folded to define a pair of opposed side walls of a container means and a pair of opposed top and bottom walls thereof so that the container means has opposed open end walls, the container means receiving flexible product-containing pouch construction means therein with certain of the wall means of the rigid board being carved to define portions adapted to be extended across the open end walls to retain the pouch construction within the container means whereby the flexible pouch construction is fully protected by the rigid board means while being held therein.

This invention relates to an improved container construction for flexible product-containing pouch construction means or the like as well as to improved blanks for forming such container means or the like.

It is well known that flexible product-containing pouch constructions can be formed of sheets of metallic foil, such as aluminum-containing metallic foil or the like, either by themselves or laminated to other material, such as sheets of heat sealable material and the like, to provide such pouch construction means for hermetically sealing desired product means therein, such as food products and the like, whereby such hermetically sealed product means is fully protected by the moisture barrier characteristics of the flexible material.

However, in shipping, storing and merchandising such flexible product-containing pouch construction means, some container means must be provided for protecting the flexible product-containing pouch constructions until the product means is to be utilized by the ultimate consumer.

Therefore, it is one of the features of this invention to provide a protective container means for such flexible product-containing pouch constructions wherein the container means is relatively simple to manufacture and utilizes a minimum amount of material while still fully protecting such flexible product-containing pouch construction means for the reasons set forth above.

In particular, the container means of this invention can comprise a substantially rectangular flat blank of rigid board means suitably cut and scored so that the same can be subsequently folded to only define a pair of opposed side wall means and a pair of opposed top and bottom wall means whereby the resulting container means has opposed open end wall means. The flexible product-containing pouch construction means is adapted to be disposed within such container means and be retained therein by portion means of the wall means of the container means, such portion means having been carved from the wall means and having been so constructed and arranged that the same extend across the opposed open end wall means of the container means to fully hold the flexible product-containing pouch construction means therein until the ultimate consumer either moves such portion means to a pouch removal position or tears through the same as will be apparent hereinafter.

Therefore, it is an object of this invention to provide

an improved container construction means 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 blank for forming a container means for a flexible product-containing pouch construction or the like, the blank of this invention having one or more of the novel features set forth above or hereinafter shown or described.

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 top perspective view of one container construction means of this invention.

FIGURES 1A and 1B are respectively fragmentary views of the container construction means of FIGURE 1 and respectively illustrate two different methods for removing the pouch construction means therefrom.

FIGURE 2 is an enlarged front view of the container construction means of FIGURE 1.

FIGURE 3 is an end view of the container construction means of FIGURE 2.

FIGURE 4 is a cross-sectional view taken substantially on line 4—4 of FIGURE 1.

FIGURE 5 is a reduced plan view of a blank of this invention for forming the container means of the container construction means of FIGURE 1.

FIGURE 6 is a cross-sectional view taken on line 6—6 of FIGURE 1 and illustrates the pouch retaining function of the container means of FIGURE 1.

FIGURE 7 is a view similar to FIGURE 1 and illustrates another container construction means of this invention.

FIGURE 8 is a reduced plan view of a blank of this invention for forming the container means of FIGURE 7.

FIGURE 9 is a view similar to FIGURE 1 and illustrates another container construction means of this invention.

FIGURE 10 is a reduced plan view of a blank of this invention for forming the container means of FIGURE 9.

FIGURE 11 is a view similar to FIGURE 1 and illustrates another container construction means of this invention.

FIGURE 12 is a plan view of a blank of this invention for forming the container means of FIGURE 11.

While the various features of this invention are hereinafter described and illustrated as being particularly adaptable for protecting flexible product-containing pouch construction means, it is to be understood that the various features of this invention can be utilized singly or in any combination thereof to provide container means for protecting and retaining other types of devices 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 some of the wide variety of uses in this invention.

Referring now to FIGURE 1, the improved container construction means of this invention is generally indicated by the reference numeral **20** and comprises a container means **21** for protecting and containing a flexible product-containing pouch construction means **22** therein during the shipping, storing and merchandising of the pouch construction means **22** as will be apparent hereinafter.

The container means **21** is formed from a substantially rectangular flat blank **23**, FIGURE 5, formed of cardboard or the like and being suitably cut, scored, folded and secured together in a manner hereinafter described to define a pair of opposed spaced side wall means **24** and **25** and a pair of opposed spaced top and bottom wall means **26** and **27** of the container means **21** whereby the container means **21** has a pair of opposed open end wall

means 28 and 29 extending throughout the height of the container means 21.

The flexible product-containing construction means 22 is so constructed and arranged that the same is adapted to be inserted into and removed from the container means 21 through either open end wall means 28 and 29 without opening the top, bottom or side wall means 26, 27, 24 and 25 of the container means 21 as will be apparent hereinafter.

The container means 21 of this invention is so constructed and arranged that the same has portion means 30 carved from certain of the main wall means thereof in a manner hereinafter described to extend across the opposed open end wall means 28 and 29 of the container means 21 to fully retain the flexible product-containing pouch construction means 22 therein and inboard of the main outer peripheral side edge means that define the open end wall means 28 and 29 until the ultimate consumer desires to remove such pouch construction means 22.

For example, the ultimate consumer can remove the product-containing pouch construction means 22 through the open end wall means 28 of the container means 21 either by moving the respective portion means 30 of the container means 21 from its pouch retaining position illustrated in FIGURE 1 to its pouch removing position illustrated in FIGURE 1A wherein the open end wall means 28 is fully opened so that the product-containing pouch construction means 22 can be removed therefrom or by tearing through the portion means 30 at the open end wall means 28 in the manner illustrated in FIGURE 1B to completely open the end wall 28 so that the pouch construction means 22 can be removed therefrom.

Therefore, it can be seen that the container means 21 of this invention fully protects the flexible pouch construction means 22 as the rigid board means 23 is completely disposed around the pouch construction means 22 and the portion means 30 of the container means 21 fully retain the pouch construction means 22 within the container means 21 and inboard of the open end wall means 28 and 29 until the ultimate consumer desires to remove such pouch construction means 22 in the manner illustrated in FIGURE 1A or in the manner illustrated in FIGURE 1B. Of course, the ultimate consumer can tear through one or more of the walls 24, 25, 26 and 27 of the container means 21 to remove such pouch construction means 22 therefrom. However, by utilizing the pouch removing methods of FIGURES 1A and 1B, the ultimate consumer can utilize the container means 21 over and over again for storage purposes of other items or partially used pouch construction 22 as desired.

The blank 23 for forming the container means 21 is substantially rectanglar and is transversely scored by score or fold lines 31, 32, 33 and 34 to respectively define the side wall means 24, top wall means 26, side wall means 25, bottom wall means 27 and an interconnecting flap 35 adapted to be folded against and be secured by a suitable adhesive or the like to the inside surface of the bottom portion of the wall means 24 to produce the erected container means 21 of FIGURE 1.

The blank 22 has a pair of die cuts 36 passing therethrough with each die cut 36, in effect, carving a portion means 30 from the wall means 24, 26 and 25 of the blank 23.

In particular, each die cut 36 carves a side part 37 from the top end edge means of the wall 24, a top part 38 from the end edge means of the top wall means 26 and a side part 39 from the top end edge means of the side wall means 25 whereby the side parts 27 and 39 are respectively interconnected and hinged to the side wall means 24 and 25 by score or fold lines 40 and 41 while being integrally interconnected to the top part 38 at the score or fold lines 31 and 32.

When the cut and scored blank 23 of FIGURE 5 is erected and assembled to form the container means of FIGURE 1, it can be seen that the interconnecting flap 35 is adapted to be secured to the inside surface of the side wall means 24 at the bottom portion thereof to form the container means 21 with a substantially rectangular transverse cross-sectional configuration.

Thereafter, one or more product-containing pouch constructions 22 can be disposed within the container means 21 through either opposed open end wall means 28 and 29 thereof and be retained therein by moving the portion means 30 thereof from the position illustrated in FIGURE 1 whereby the side parts 37 and 39 of each portion means 30 are respectively reversely folded at the score lines 40 and 41 to be disposed against the inside surfaces of their respective side wall means 24 and 25 to suspend the respective top part 38 across the respective end wall means 28 or 29 in spaced relation below the top wall means 26 in such a manner that regardless of the movement of the pouch construction means 22 within the container means 21, the suspended parts 38 of the portion means 30 will prevent removal of the pouch construction means 22 in the manner illustrated in FIGURES 4 and 6.

Such movement of the portion means 30 from the position illustrated in FIGURE 1A to the position illustrated in FIGURE 1 causes the respective portion means 30 to, in effect, snap over center so that the portion means 30 is held in its pouch retaining position of FIGURE 1 by the natural resiliency of the material forming the board means 23. Likewise, when the ultimate consumer moves one of the portion means 30 from its product retaining position of FIGURE 1 to its product removing position of FIGURE 1A, the particular portion means 30, in effect, snaps over center to be retained in its product removing position of FIGURE 1A by the natural resiliency of the material forming the board means 23.

Therefore, it can be seen that the portion means 30 need not be secured in their product retaining position of FIGURE 1 by auxiliary means, such as by adhesive means or the like, unless desired. Also, the blank 23 can be formed into the resulting container means 21 around the pouch construction means 22, as desired.

As previously stated, the ultimate consumer can tear through the suspending part 38 of a particular portion means 30 in the manner illustrated in FIGURE 1B to effect removal of the product-containing pouch construction means 22 if desired, such removing operation being relatively simple as the board means 23 can be readily torn through at the part 38 of the portion means 30 so that if it is desired to have the side parts 37 and 39 respectively secured to the side wall means 24 and 25, the opening method of FIGURE 1B can be utilized.

While the portion means 30 of the container means 21 of FIGURE 1 have been illustrated as being formed at the top thereof, it is to be understood that such portion means 30 could be formed at the bottom thereof or at both the top and bottom thereof, if desired.

For example, another container construction means of this invention is generally indicated by the reference numeral 20A in FIGURE 9 and is formed from a substantially rectangular flat blank 23A of FIGURE 10 wherein parts of the construction means 20A and blank 23A that are similar to the construction means 20 and blank 23 of FIGURES 1 and 5 are indicated by like reference numerals followed by the reference letter "A."

As illustrated in FIGURE 9, the container construction means 20A comprises a container means 21A substantially identical to the container means 21 previously described except that in addition to the product retaining portion means 30A at the top thereof, the container means 21A also has like portion means 42 at the bottom thereof.

In particular, the bottom portion means 42 of the container means 21A are each defined by a pair of die cuts 43 and 44 in the blank 23A with each die cut 43, in effect, carving a part 45 from the bottom end edge means of the wall means 24A, each part 45 having its outer end 46

free of the wall 24A while its inner end is integral with the end wall 24A and is foldable relative thereto by a score or fold line 47. Each die cut 44 carves a part 48 from the bottom end edge means of the wall 25A, a part 49 from the end edge means of the bottom wall means 27A and a part 50 from the end edge means of the interconnecting flap 35A, the bottom part 49 being integrally interconnected at the fold lines 33A and 34A to the parts 48 and 50 while the part 48 is foldably connected to the wall 25A by a fold or score line 81.

When the cut and scored blank 23A of FIGURE 10 is folded and erected into the container means 21A of FIGURE 9, not only is the interconnecting flap 35A secured to the inside surface of the side wall means 24A at the bottom thereof, but also the parts 50 of the interconnecting flap 35A are respectively secured to the inside surfaces of the parts 45 of the side wall means 24A whereby the respective interconnecting parts 45 and 50 are adapted to be reversely folded against the inside surface of the side wall means 24A while the respective parts 48 of the side wall means 25A are adapted to be folded against the inside surface of the wall 25A to support the bottom parts 49 across the respective open end wall means 28A and 29A in the manner illustrated in FIGURE 9 for a pouch retaining function of the portion means 42 in substantially the same manner as the portion means 30A previously described.

Therefore, it can be seen that in any embodiment of the container means of this invention, the product retaining portion means can be formed either at the top or bottom thereof or at both the top and bottom thereof in the manner illustrated in FIGURE 9 while each portion means of the container means of this invention will function in substantially the same manner as the portion means 30 previously described to be movable between its pouch retaining position and its pouch removing position.

Another container construction of this invention is generally indicated by the reference numeral 20B in FIGURE 7 and comprises a container means 21B protecting and retaining a flexible product-containing pouch construction means 22*b* and being formed from a substantially rectangular flat blank 23B of FIGURE 8 whereby the parts of the container means 21B and blank 23B that are similar to the container means 21 and blank 23 of FIGURES 1 and 5 are indicated by like reference numerals followed by the reference letter "B."

The container means 21B of FIGURE 7 has a substantially rectangular transverse cross-sectional configuration defined by a pair of opposed side wall means 24B and 25B and a pair of opposed top and bottom wall means 26B and 27B except that top wall means 26B is defined by a pair of top flaps 51 and 52 secured together in overlapping relation. In addition, the container means 21B has portion means 53 carved therefrom in a manner hereinafter described at the bottom thereof to retain the pouch construction means 22B inwardly of the opposed open end wall means 28B and 29B of the container means 21B for the purposes previously described.

The blank 23B of FIGURE 8 is transversely scored by score or fold lines 54, 55, 56, and 57 to respectively define the top flap 51, side wall means 24B, bottom wall means 27B, side wall means 25B and top flap 52. A pair of die cuts 58 are formed through the blank 23B to respectively define or carve parts 59 from the bottom end edge means of the side wall means 24B and parts 60 from the end edge means of the bottom wall means 27B with each part 60 being foldably connected to the bottom edge of the side wall means 25B at the score or fold line 56 while being foldably connected to its respective part 59 at the score or fold line 55. Each part 59 is foldably connected to the side wall means 24B by a score or fold line 61.

When it is desired to fold and erect the blank 23B of FIGURE 8 to form the container means 21B of FIGURE 7, the blank 23B is folded at the fold lines 54, 55, 56 and 57 and the top flap 51 is secured over the top flap 52 by a suitable adhesive or the like to hold the blank 23B in its erected condition. Thereafter, one or more flexible product containing pouch construction means 22B are disposed within the container means 21B through the opposed open end wall means 28B or 29B and the portion means 53 of the container means 21B are moved from their product removing positions to their product retaining positions.

In particular, the part 60 of each portion means 53 is reversely folded against the inside surface of the side wall means 25B about the fold line 56 to fold and hold its respective part 59 of the side wall means 24B across the respective open end wall means 28B or 29B in the manner illustrated in FIGURE 7. Should it be found that the natural resiliency of the material forming the board means 23B of this invention is not sufficient to retain the portion means 53 in the position illustrated in FIGURE 7, auxiliary fastening means, such as adhesive means or the like, can be utilized to hold the part 60 against the inside surface of the side wall means 25B.

Therefore, it can be seen that the container means 21B of FIGURE 7 has the portion means 53 thereof performing the same function as the portion means 30 previously described with the portion means 53 of the container means 21B being moved to their product removing positions in substantially the same manner as illustrated in FIGURE 1A or being broken or torn in substantially the same manner as illustrated in FIGURE 1B for a desired pouch removing operation.

While the various container means of this invention have been previously described as having a substantially rectangular transverse cross-sectional configuration, it is to be understood that the container means of this invention can have other configurations, as desired, while still performing the unique features of this invention.

For example, another container construction means of this invention is generally indicated by the reference numeral 62 in FIGURE 11 and comprises a container means 63 formed from a substantially rectangular flat blank 64, FIGURE 12, of suitable rigid board means, such as cardboard or the like, the container means 63 being utilized to retain and protect one or more flexible product-containing pouch constructions of the type previously described.

The container means 63 has a substantially triangular transverse cross-sectional configuration defined by a pair of opposed side wall means 65 and 66 respectively joined together at their top edges to define a top wall means 87 at such juncture which defines the apex of the transverse cross-sectional triangular configuration thereof, the container 63 having a bottom wall means 67 defining the base of such transverse triangular cross-sectional configuration.

The container 63 has portion means 68 for extending across the opposed open end wall means 69 and 70 thereof to perform the pouch retaining and pouch removing functions previously described for the portion means 30 of the container means 21 of FIGURE 1.

The blank 64 for forming the container means 63 of FIGURE 11 is transversely scored by score or fold lines 71, 72 and 73 to respectively define the side wall means 65, side wall means 66, bottom wall means 67 and an interconnecting flap 74 adapted to be secured to the inside surface of the side wall means 65 at the bottom thereof by suitable adhesive or the like when the blank 64 is folded and erected into the configuration illustrated in FIGURE 11.

The blank 64 has a pair of die cuts 75 passing therethrough with each die cut 75 carving a part 76 from the top end edge of the side wall means 65 and a part 77 from the top end edge of the side wall means 66 whereby each pair of parts 76 and 77 are respectively interconnected together at the top fold line 71 while being respectively foldably connected to the side wall means 65 and 66 at score or fold line means 78 and 79.

When the blank 64 is folded and secured together in the manner illustrated in FIGURE 11 to form the container means 63, one or more product-containing pouch constructions can be disposed therein through the open end wall means 69 or 70 and the portion means 68 can be moved to the pouch retaining positions by being, in effect, snapped over center so that the parts 76 and 77 of each portion means 68 have their junction line 71 extending downwardly toward the bottom wall means 67 to define a substantially V-shaped structure extending across the respective end wall means 69 or 70 to retain the pouch construction means in the same manner as the portion means 30 previously described.

Therefore, the ultimate consumer can subsequently remove such retained pouch construction means by either snapping the portion means 68 over center back into the planes of the side wall means 65 and 66 in substantially the same manner as illustrated in FIGURE 1A or tear through the portion means 68 in substantially the same manner as illustrated in FIGURE 1B.

In view of the above, it can be seen that this invention provides improved container construction means wherein a relatively rigid container means fully protects flexible product-containing pouch construction means or the like while the container means can be formed of a minimum of material and in a simple and economic manner without requiring the pouch construction means to be secured within the container means as in the past, this invention also providing improved blanks for forming such container means 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. In combination, a substantially rigid board means only defining a pair of opposed side wall means and a pair of opposed top and bottom wall means of a container means whereby said container means has opposed open ends, and substantially flexible product-containing pouch construction means disposed in said container means, said wall means having portion means thereof disposed across said opposed open ends to retain such pouch construction means within said container means whereby said rigid board means protects said pouch construction means, at least one portion means comprising a part carved from the respective end edge means of said top wall means and a pair of parts respectively carved from the respective top end edge means of said opposed side wall means with said top part being integral with said side parts, said side parts being reversely folded against their respective side wall means at the inside surfaces thereof and suspending said top part across the respective open end in a spaced relation below said top wall means.

2. In combination, a substantially rigid board means only defining a pair of opposed side wall means and a pair of opposed top and bottom wall means of a container means whereby said container means has opposed open ends, and substantially flexible product-containing pouch construction means disposed in said container means, said wall means having portion means thereof disposed across said opposed open ends to retain said pouch construction means within said container means whereby said rigid board means protects said pouch construction means, at least one portion means comprising a part carved from the respective end edge means of said bottom wall means and a pair of parts respectively carved from the bottom end edge means of said opposed side wall means with said bottom part being integral with said side parts, said side parts being reversely folded against their respective side wall means at the inside surfaces thereof and supporting said bottom part across the respective open end in a spaced relation above said bottom wall means.

3. A blank for forming a resulting container means for containing substantially flexible product-containing pouch construction means, said blank being suitably cut and scored to define a plurality of foldably connected wall means which when erected to form the resulting container means will define only a pair of opposed side wall means and a pair of opposed top and bottom wall means for said resulting container means whereby said resulting container means will have opposed open ends, said wall means having portion means thereof adapted to be disposed across said pair of opposed opened ends of the resulting container means to retain said pouch construction means within the container means so that said wall means will protect said pouch construction means, at least one portion means comprising a part carved from the respective end edge means of said top wall means and a pair of parts respectively carved from the respective top end edge means of said opposed side wall means with said top part being integral with said side parts, said side parts being adapted to be reversely folded against their respective side wall means at the inside surfaces thereof to suspend said interconnected top part across the respective open end in spaced relation below said top wall means when said blank forms said resulting container means.

4. A blank for forming a resulting container means for containing substantially flexible product-containing pouch construction means, said blank being suitably cut and scored to define a plurality of foldably connected wall means which when erected to form the resulting container means will define only a pair of opposed side wall means and a pair of opposed top and bottom wall means for said resulting container means whereby said resulting container means will have opposed open ends, said wall means having portion means thereof adapted to be disposed across said pair of opposed open ends of the resulting container means to retain said pouch construction means within the container means so that said wall means will protect said pouch construction means, at least one portion means comprising a part carved from the respective end edge means of said bottom wall means and a pair of parts respectively carved from their respective bottom edge means of said opposed side wall means with said bottom part being integral with said side parts, said side parts being adapted to be reversely folded against their respective side wall means at the inside surfaces thereof and support said bottom part across the respective open end in a spaced relation above said bottom wall means when said blank forms said resulting container means.

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DAVID M. BOCKENEK, *Primary Examiner.*