

Dec. 14, 1965

W. C. BECKER ETAL
CONTAINER STRUCTURE

3,223,310

Filed Oct. 9, 1963

3 Sheets-Sheet 1

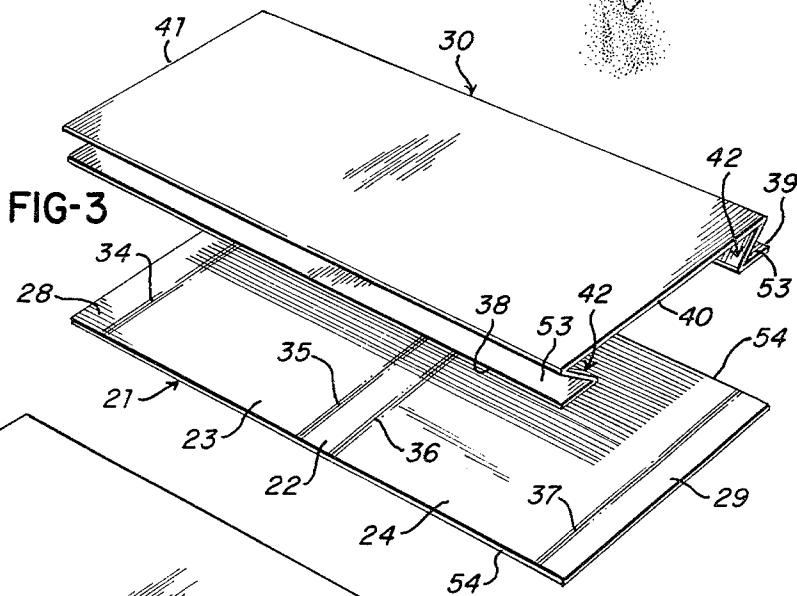
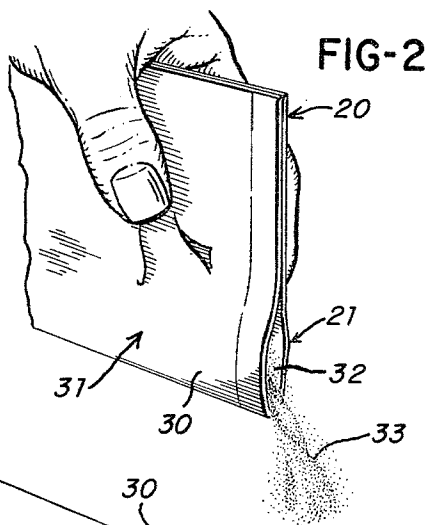
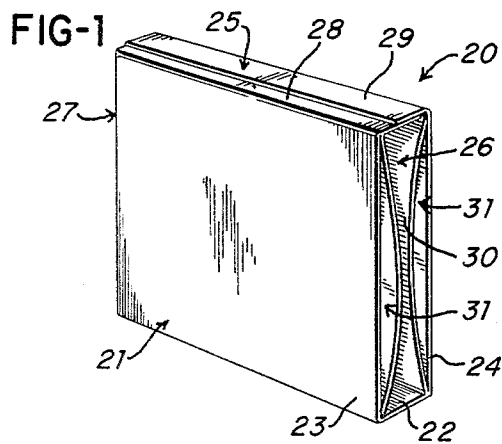
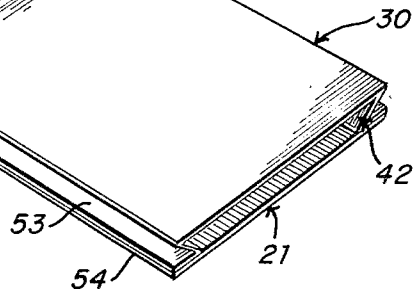


FIG-4



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3 Sheets-Sheet 2

FIG-5

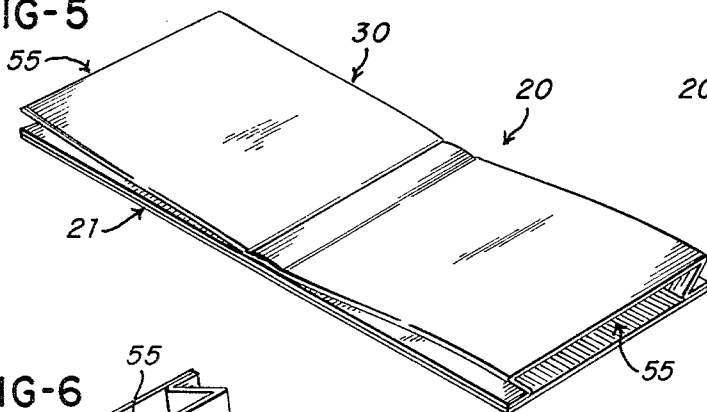


FIG-6

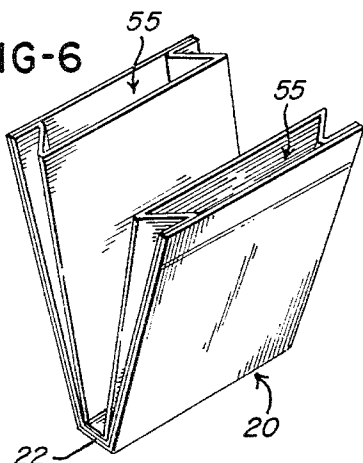


FIG-7

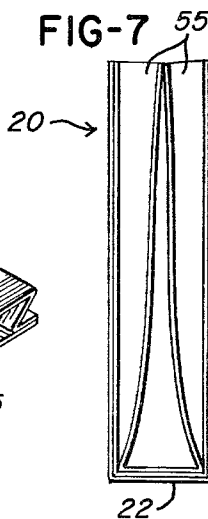


FIG-8

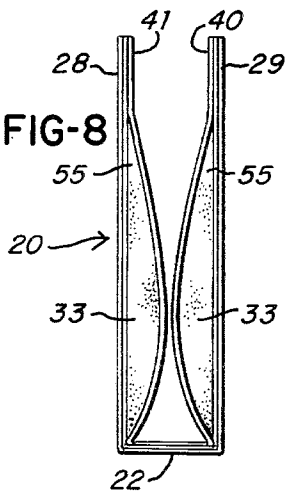


FIG-9

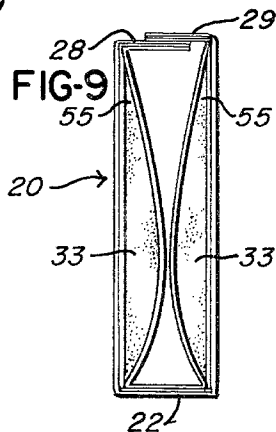


FIG-10

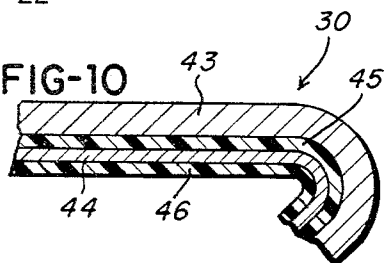


FIG-11

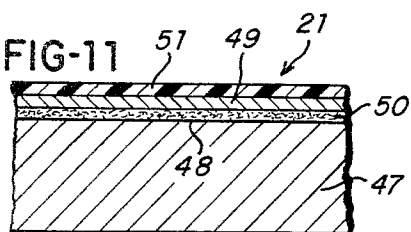
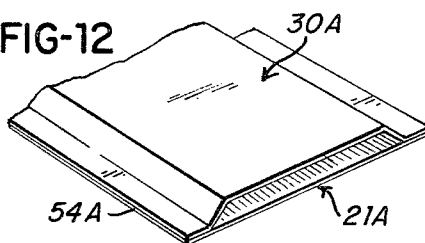


FIG-12



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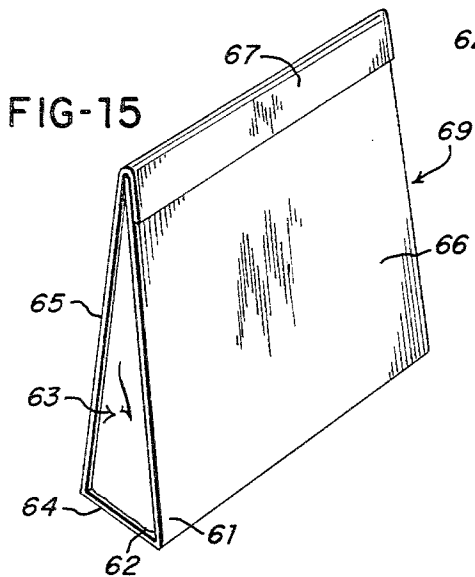
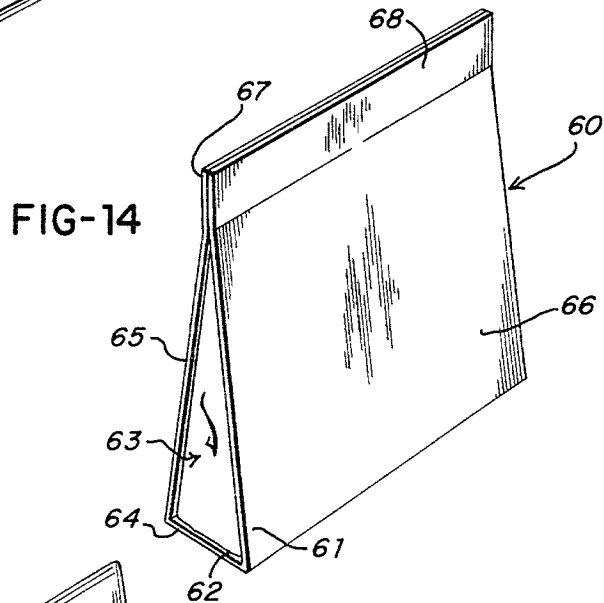
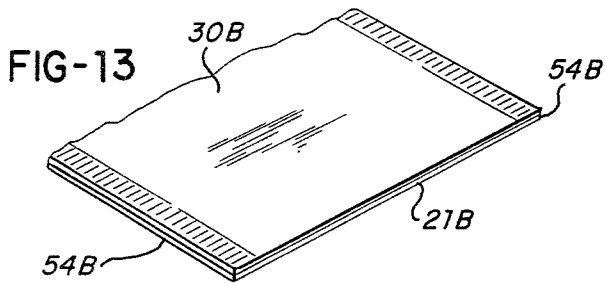
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Filed Oct. 9, 1963

3 Sheets-Sheet 3



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1

3,223,310

CONTAINER STRUCTURE

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Filed Oct. 9, 1963, Ser. No. 314,916
5 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 configuration to house the pouch means therein while the container has opposed open ends.

In this manner, the pouch means can be temporarily secured to the cardboard container or the like so that the resulting package construction is relatively sturdy in order to stand rough handling and abuse during shipment, storage and merchandising of the same as well as to provide a substantially pilfer proof container construction, the package construction being relatively simple to open by the ultimate consumer when desired.

However, it has been found, according to the teachings of this invention, that the aforementioned product-containing pouch means can each have one of the sides thereof formed in part by the rigid cardboard container whereby the resulting package construction of this invention utilizes less material than the prior known container construction and is substantially inexpensive to produce. In this manner, the overall cost of the package construction of this invention is substantially less than the package construction of the aforementioned patent application while still having all of the advantages thereof.

Accordingly, it is an object of this invention to provide an improved container or the like 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 embodiment of the improved container of this invention.

FIGURE 2 is a fragmentary perspective view illustrating one means for dispensing a desired quantity of the product from the container construction illustrated in FIGURE 1.

FIGURE 3 is a perspective view illustrating one of the initial steps in forming the container of FIGURE 1.

FIGURE 4 is a view similar to FIGURE 3 and illustrates another step in the method of this invention.

FIGURES 5 and 6 are respectively perspective views illustrating other steps in the method of this invention for forming the container of FIGURE 1.

FIGURES 7, 8 and 9 are side views illustrating further steps in forming the completed container construction of FIGURE 1.

FIGURE 10 is a fragmentary cross-sectional view illustrating one embodiment of the lamination which forms part of the product-containing pouch means of this invention.

2

FIGURE 11 is a view similar to FIGURE 10 and illustrates one embodiment for the board material of the container of this invention.

FIGURE 12 is a fragmentary, perspective view similar to FIGURE 5 and illustrates another embodiment of this invention.

FIGURE 13 is a view similar to FIGURE 5 and illustrates still another embodiment of this invention.

FIGURE 14 is a perspective view and illustrates a triangular container of this invention.

FIGURE 15 is a view similar to FIGURE 14 and illustrates another triangular container of this invention.

While the various features of this invention are herein-after described and illustrated 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 the 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 only to 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 20 and comprises a substantially rigid board means 21 forming the exterior wall means of the container 20, the board means 21 being suitably folded in a manner hereinafter described to provide a bottom wall means 22, opposed side wall means 23 and 24 and top wall means 25 whereby the container 20 has opposed open end walls 26 and 27 in a manner similar to the containers disclosed in the aforementioned copending patent application.

The top wall means 25 of the container 20 is provided by a pair of top flaps 28 and 29 respectively interconnected to the side walls 23 and 24 and temporarily secured in overlapping relation to close the container 20 in the configuration illustrated in FIGURE 1.

The board means 21 of the container 20 of this invention cooperates with a flexible liner means 30 disposed in the container 20 in the manner hereinafter described to define a pair of product-containing pouch means whereby the product disposed in the pouch means 31 is fully protected by the rigid board means 21 in substantially the same manner as set forth in the aforementioned copending patent application.

When the ultimate consumer desires to open the container 20 to dispense some of the products from at least one of the pouch means 31, the ultimate consumer merely separates the overlapping top flaps 29 and 28 by breaking the securement therebetween and folding out the board means 21 whereby the upper end of one of the pouch means 31 can be opened by separating the liner means 30 from the board means 21 in the manner illustrated by the reference numeral 32 in FIGURE 2 and pours the product 33 out through the opening 32 in the manner illustrated in FIGURE 2.

If only one of the pouch means 31 is emptied or partially emptied in the above manner, the ultimate consumer can refold the container 20 back into the configuration illustrated in FIGURE 1 for storage of the product 33 until it is desired to utilize the same again in the above manner.

Therefore, it can be seen that this invention provides an improved container having many of the novel features of the container constructions set forth in the aforementioned copending patent application while utilizing less material because the product-containing pouch means 31 of this invention are formed partly by the liner means 30 and partly by the board means 21 whereby separate, individual product-containing pouch means are not required by this invention.

The method for forming the container 20 of this invention will now be described.

Referring now to FIGURE 3, the rigid board means 21 of this invention can be supplied in substantially rectangular flat blank form or in roll form as set forth in the aforementioned copending patent application.

As illustrated in FIGURE 3, the board means 21 of this invention is transversely scored by score or fold lines 34, 35, 36 and 37 to respectively divide the board means 21 into the top flap 28, side wall means 23, bottom wall means 22, side wall means 24 and top flap 29.

The flexible liner means 30 of this invention is illustrated in FIGURE 3 and is formed from a substantially rectangular sheet of material having opposed side edges 38 and 39 and opposed end edges 40 and 41. Alternatively, the liner means 30 could be supplied from a supply roll thereof.

In the embodiment illustrated in FIGURE 3, the sheet of material 30 is substantially wider than the board means 21 whereby the opposed sides of the sheet of material 30 can be reversely folded to form gussets 42 at the opposed side edges 38 and 39 thereof for a purpose hereinafter described.

While the board means 21 and liner means 30 can be formed of any suitable material and in any suitable manner, the embodiments thereof illustrated in the drawings are formed of laminations in the manner illustrated in FIGURES 10 and 11.

In particular, the liner material 30 is illustrated in FIGURE 10 and comprises a sheet of flexible paper 43 or the like laminated to a sheet of metallic foil 44, such as aluminum-containing metallic foil or the like, by an interposed layer of polyethylene 45 or other suitable adhesive. The outer surface of the lamination 30 is preferably provided with a heat sealing medium, such as a coating of polyethylene 46 in the manner illustrated in FIGURE 10.

Since the foil side of the paper 30 is to be subsequently disposed against the board means 21, it can be seen that not only does the sheet of metallic foil 44 provide a moisture barrier for the interior of the pouch means 31, but also the polyethylene layers 45 and 46 provide such moisture barriers.

The board means 21 is illustrated in FIGURE 11 and comprises a substantially rigid member 47 formed of suitable cardboard or the like laminated on the inner surface 48 thereof to a strip of metallic foil 49, such as aluminum containing metallic foil or the like by a suitable layer of adhesive 50 or the like. The inner surface means of the board means 21 is preferably provided with a heat sealing means, such as a coating of polyethylene 51.

Therefore, it can be seen that since the inner surface means of the board means 21 includes the metallic foil 49 as well as the polyethylene layer 51, the same will provide a moisture barrier which will cooperate with the moisture barrier of the liner means 30 to provide a moisture barrier completely surrounding the product 33 disposed in the pouch means 31 formed in a manner hereinafter described.

If desired, the outer surface 52 of the board means 21 can also be provided with a decorative layer, such as a sheet of metallic foil or the like, in order to enhance the exterior surface of the container 20 and thereby increase the sales appeal of the container 20.

However, it is to be understood that the containers of this invention could 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.

When it is desired to make the container 20 of FIGURE 1 from the strip of lining material 30 and board means 21 illustrated in FIGURE 3, the foil side of the liner means 30 is disposed against the foil side of the board means 21 in the manner illustrated in FIGURE 4 whereby the

flat portions 53 of the liner means 30 are adapted to be heat sealed to the peripheral edges 54 of the board means 21 in the manner illustrated in FIGURE 4 whereby the gussets 42 of the liner means 30 permit the sealed liner means 30 and board means 21 to define a sleeve-like structure as illustrated in FIGURE 4.

Thereafter, the transverse medial portion of the liner means 30 is heat sealed to the bottom wall means 22 of the board means 21 in the manner illustrated in FIGURE 5 to define two opposed pockets 55 separated from each other at the bottom wall means 22 of the board means 21.

Subsequently, the interconnected liner means 30 and board means 21 are folded on the fold lines 35 and 36 of the board means 21 in the manner illustrated in FIGURE 6 whereby the open ends of the pocket portions 55 are disposed substantially vertically upwardly in the manner illustrated in FIGURES 6 and 7.

Thereafter, the desired product 33 can be disposed in the pockets 55 through the upper open ends thereof whereby the upper open ends of the pockets 55 can be sealed closed by heat sealing the end portions 40 and 41 of the liner means 30 to the top flaps 29 and 28 of the board means 21 in the manner illustrated in FIGURE 8. In this manner, the pouch means 31 have been completely formed to contain the product 33 therein.

In order to close the structure illustrated in FIGURE 8, the top flap 28 is first folded over the open end of the container 20 and, thereafter, the top flap 29 is folded over the top flap 28 in the manner illustrated in FIGURE 9 and is temporarily secured thereto in any suitable manner, such as by a suitable adhesive or the like, whereby the container 20 of this invention is now complete.

Therefore, it can be seen that it is a relatively simple process to form the container 20 of this invention from the board means 21 and liner means 30 while still providing two product-containing pouch means 31 that are fully protected by the board means 21 without requiring the pouch means 31 to be completely surrounded by the flexible lining material 30 as in the aforementioned copending patent application.

While the container 20 of this invention has been previously described as having the pouch means 31 formed by heat sealing the liner means 30 to the board means 21, it is to be understood that the container 20 of this invention can also be formed by utilizing conventional adhesive or the like without requiring the aforementioned heat sealing steps.

Further, while the container 20 of this invention previously described has the liner 30 secured to the board means 21 in the manner illustrated in FIGURE 4 to provide gussets 42 in the liner means 30 in order to permit the formation of the pockets 55 previously described, it is to be understood that the liner means 30 of this invention could be secured to the board means 21 in a fin-like manner.

In particular, reference is made to FIGURE 12 wherein another embodiment of this invention has parts thereof similar to the parts of the container 20 indicated by like reference numerals followed by the reference letter A.

As illustrated in FIGURE 12, the board means 21A is formed in the same manner as the board means 21 while the liner means 30A does not have the gussets 42 formed therein but is merely fin-sealed to the outer peripheral edges 54A of the board means 21A to define a sleeve-like structure with the board means 21A, the liner means 30A being wider than the board means 21A to permit the resulting sleeve-like structure in FIGURE 12.

However, the fin-sealed construction could be made when the liner means has the same width as the board means if desired.

For example, reference is made to FIGURE 13 wherein the board means 21B is formed in the same manner as the board means 21 while the liner means 30B has the same width as the board means 21B and has the outer

5

edges thereof fin-sealed to the outer peripheral edges 54B of the board means 21B whereby the desired product can be forced between the secured together board means 21B and the liner means 30B in the area where the same are not secured together.

While the various containers of this invention have been previously described as having rectangular cross-sectional configurations, it is to be understood that containers could be formed according to the teachings of this invention and have triangular cross-sectional configurations in any of the manners set forth in the aforementioned copending patent application.

For example, reference is made to FIGURE 14 wherein another container of this invention is generally indicated by the reference numeral 60 and comprises a relatively rigid board means 61 and a relatively flexible liner means 62 cooperating together to define a product-containing pouch means 63.

In particular, the board means 61 is suitably scored to define a bottom wall means 64, a pair of opposed side wall means 65 and 66 and a pair of top flaps 67 and 68 respectively interconnected to said side wall means 65 and 66 and joined together to close the container 60.

The liner means 62 is so constructed and arranged that the same cooperates with the inner surface means of the side wall means 65 to define the product-containing pouch means 63 in the manner previously described.

The container 69 illustrated in FIGURE 15 is identical to the container 60 except that the top flap 68 has been eliminated and the top flap 67 is folded over the side wall means 66 to close the top of the container 69.

Therefore, it can be seen that substantially triangular containers can be formed according to the teachings of this invention and have all of the advantages of the other containers of this invention.

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

Accordingly, 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 construction comprising a rigid board means having opposed end edges and opposed side edges and having opposed sides, said board means being transversely foldable to define a pair of opposed top flaps which

6

include said end edges, a pair of opposed side walls and a bottom wall, and a flexible liner means disposed adjacent one side of said board means and being wider than said board means, said liner means having peripheral edges secured to said side and end edges of said board means, said liner means having a transverse portion secured across substantially the middle of said board means to said bottom wall of said board means to define two separate opposed sealed closed product-containing pouch means each having the interior thereof defined partly by said liner means and partly by said one side of said board means, said board means and said liner means being folded to define a container construction having top wall means defined by said top flaps of said board means being secured together in overlapping relation with said liner means therebetween and being folded at right angles to said side walls of said board means, opposed side wall means defined by said side walls and bottom wall means defined by said bottom wall so that the other side of said board means forms the exterior of said container construction and said liner means is disposed inside said container construction whereby said container construction has opposed opened end walls.

2. A container construction as set forth in claim 1 wherein said top wall means and said bottom wall means are of the same width whereby said container construction has a substantially rectangular cross-sectional configuration.

3. A container construction as set forth in claim 1 wherein said rigid board means is rectangular.

4. A container construction as set forth in claim 1 wherein said liner means is rectangular.

5. A container construction as set forth in claim 1 wherein said liner means forms gussets at the sides of said pouch means.

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