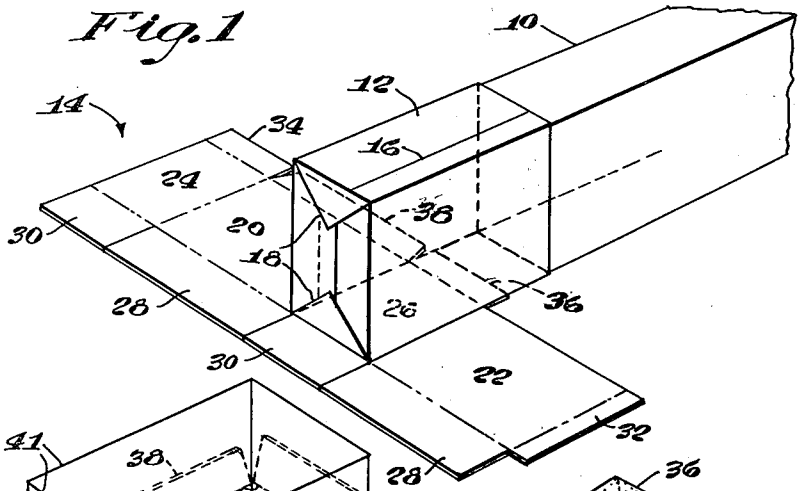
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MULTI-SECTIONAL CONTAINER

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Fig. 1



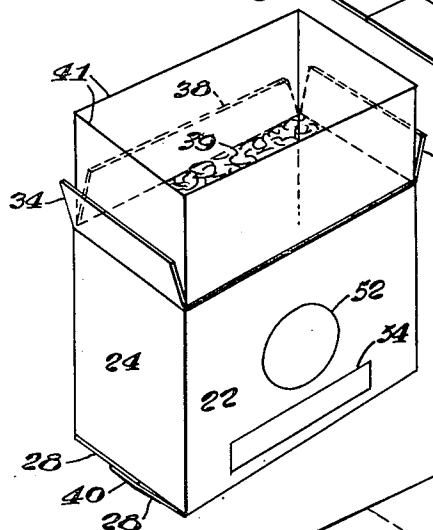




Fig. 2

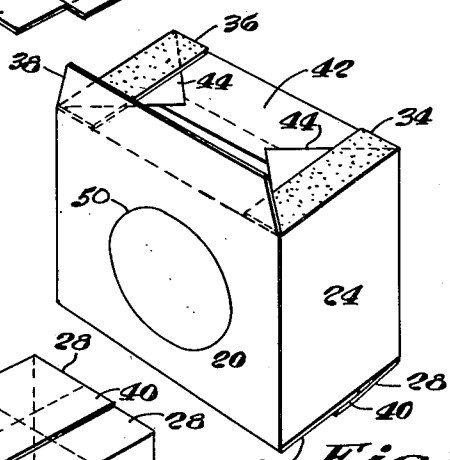



Fig. 3

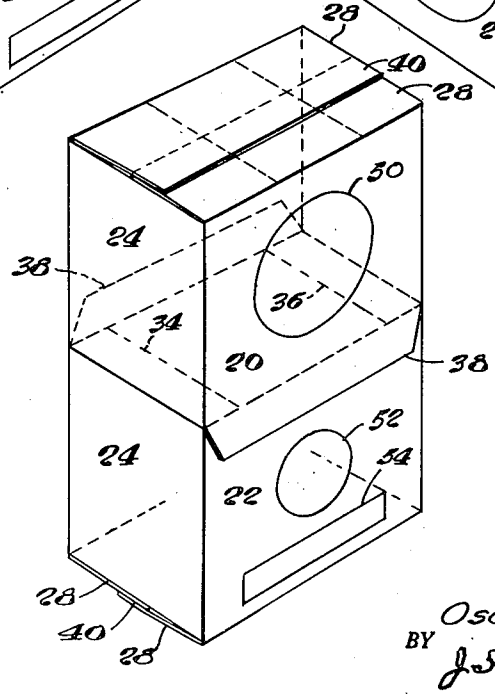



Fig. 4

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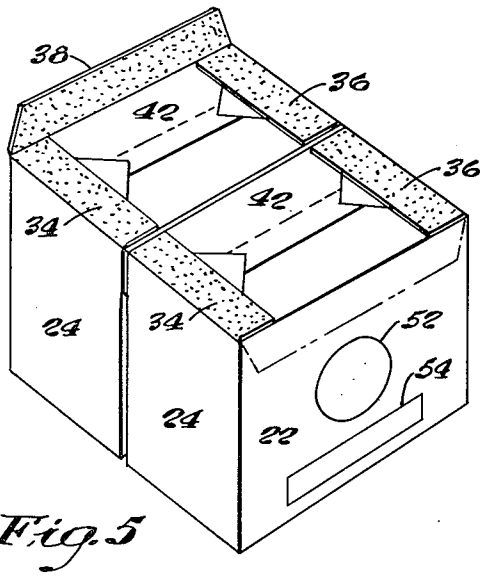



Fig. 5

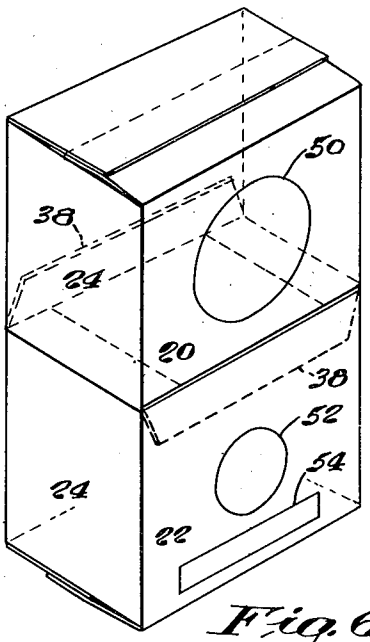



Fig. 6

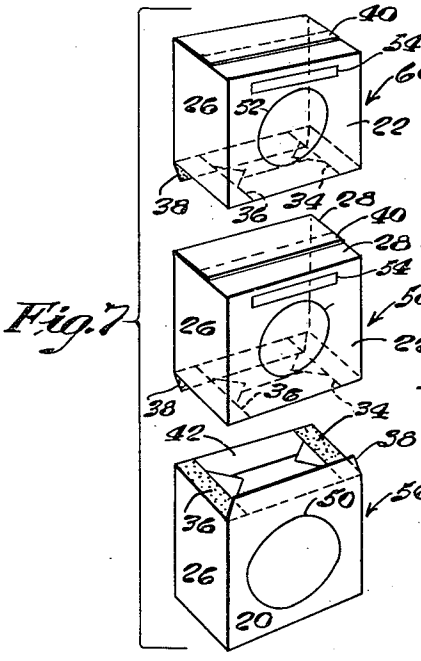



Fig. 7

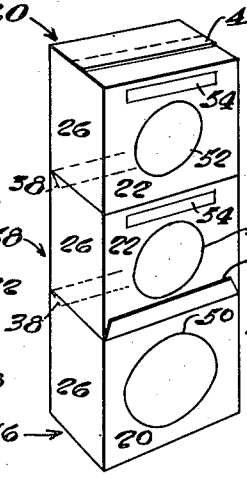



Fig. 8

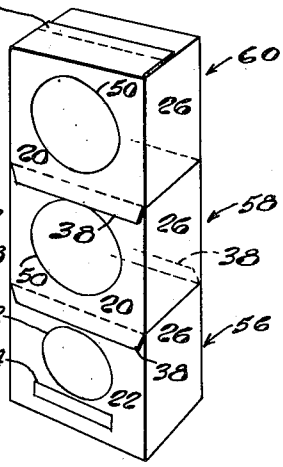



Fig. 9

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2,771,234

# MULTI-SECTIONAL CONTAINER

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Application March 8, 1952, Serial No. 275,545

7 Claims. (Cl. 229—15)

This invention relates to a multi-sectional container.

One object of the invention is to provide a novel multi-sectional container, such as a duplex package, which may be used with particular advantage for the packaging of food products, such as cereals, crackers and the like, and wherein it is desirable that the duplex package be capable of being readily opened, and to permit the food product to be used from either section of the package and thereafter the package to be reclosed.

A further and more specific object of the invention is to provide a novel structure of multi-sectional container wherein each section may be manufactured with minimum waste of material and in a simple, rapid and practical manner.

A still further object of the invention is to provide a lined multi-sectional container of the character above referred to wherein the lining of each section is closed to retain the material within each section during the process of opening and closing the package. These and other features of the invention will be hereinafter described and particularly pointed out in the claims at the end of this specification.

In the drawings, illustrating the preferred embodiment of the invention, Fig. 1 is a perspective view illustrating the preferred method of forming the sections of the present multi-sectional container; Fig. 2 is a perspective view of a section filled with a commodity; Fig. 3 is a perspective view of a filled section showing the extended lining portions folded down to form a top closure; Fig. 4 is a perspective view of a duplex container comprising two identical sections connected together to form a unitary package having separate compartments; Fig. 5 is a perspective view of the duplex container in its opened condition; Fig. 6 is another view of the duplex package in its reclosed condition; Fig. 7 is an exploded perspective view of a multi-sectional container embodying three sections; and Figs. 8 and 9 are perspective views of the three-section container as seen from the front and back respectively.

In its broader aspects the invention contemplates a multi-sectional package adapted to be used in the packaging of food materials, such as cereals, crackers and the like, in each section. The sections are arranged to be readily opened to expose the packaged commodity for consumption and to be thereafter reclosed in an efficient manner. In its preferred form, the invention contemplates a duplex package in which each section is preferably lined and the liner closed to retain the commodity within each section during the opening and closing of the package, as will be described. Preferably, each section is a duplicate of the other and may be individually manufactured and subsequently assembled and secured together by adhesively affixing the flap portions of one section to the body portion of the other section. In order to minimize the amount of carton-forming material utilized in the package, it is preferred to construct each section by folding a carton blank on a forming block



in a manner such as to provide each section with relatively short bottom closing flaps, the opposed outer or last-folded flaps extended from the side wall panels being of a length substantially less than the thickness of the package so as to provide a relatively small overlap of the ends of the last-folded flaps. The top flaps of each section may include two inwardly extended short flaps extended from the narrower side or end panels and which are arranged to overlie the lining closure in the assembled package.

One of the side wall panels of each section is extended to form a short flap across the entire width of the section, and the two sections are assembled together with this flap on one section secured to the unflapped portion of the body of the second section, preferably by adhesive or otherwise. In this manner, when it is desired to open the duplex package, one of these flaps may be readily detached leaving the other flap to serve as a hinge and permitting the other section of the duplex package to be swung down into a position to dispose upwardly the top of each section. Thereafter, the sections may be swung back into their initial position, and the package may be reclosed by tucking the detached flap of one section between the body portion and the liner of the other section. Preferably, in practice, the two opposed inwardly extended short flaps of each section overlying their respective lining closures may also be adhesively secured together face to face in the assembled duplex package.

In a modified form of the invention, the multi-sectional package may embody three sections, as illustrated in Figs. 6, 7 and 8 wherein the third section may be secured to one end of a duplex section by adhesively affixing the extended flap portion to the body portion of the duplex section and by adhesively affixing the two short inwardly folded end panel flaps to the end of the duplex section.

Referring now to the drawings, the present multi-sectional container may and preferably will be formed by a plurality of identical package sections secured together to form a unitary package. Each package section preferably comprises a lined container, as illustrated in Fig. 2, adapted to be produced in an automatic packaging machine wherein a lining blank is first wrapped about a forming block **10**, in the manner illustrated in Fig. 1, to form the lining bag **12**, and thereafter a carton blank **14** may be wrapped about the lining bag on the forming block to form the outer carton, the lined package then being removed from the forming block and filled with the commodity being packaged, as shown in Fig. 2

In practice, the lining material is wrapped about the forming block to form a rectangular tube, the longitudinal edges of the lining material being adhesively or otherwise secured in overlapping relation to form a side seam **16**, and thereafter the portions of the lining material extended beyond the block are folded inwardly over the end of the forming block to provide triangular end folds **18** and forming the bottom closure for the lining bag.

As illustrated in Fig. 1, the carton blank **14** may be of a heavier material, such as cardboard, and is provided with score lines defining side wall panels **20**, **22** and end wall panels **24**, **26** provided with bottom closure flaps **28**, **30** extended from the side and end wall panels respectively, and the side wall panel **22** is also provided with the usual longitudinal flap **32** for forming the side seam in the assembled package. The top flaps comprise two relatively short end flaps **34**, **36** extended from the end wall panels **24**, **26**, and a relatively short side flap **38** is extended from the side wall panel **20** across the entire width of the panel, as illustrated, the remaining side wall panel **22** having no top flap.

The carton blank **14**, when wrapped about the lining bag on the forming block is sealed longitudinally by adhesively securing the side wall panel **24** in overlapping relation to the longitudinal flap **32**, and the bottom of the carton is then closed by first folding the end flaps **30** inwardly against the end of the forming block and then folding the side flaps **28** in overlapping relation and adhesively securing the same. It will be observed that the last-folded flaps **28** are preferably of less length than the thickness of the carton providing a relatively short overlap, as indicated at **40**.

After being removed from the forming block, the lined carton is filled with a commodity **39**, and the upwardly extended portions **41** of the lining bag are then folded inwardly to form a top closure **42** for the lining bag, the top closure being formed with the usual triangular end flaps **44**, and thereafter the relatively short top flaps **34**, **36** may be folded inwardly to overlie portions of the lining closure, as illustrated in Fig. 3. The upper surfaces of the top flaps **34**, **36** and the inner surface of the upstanding short side flap **38** are then provided with a film of adhesive, as indicated, and the carton section is then in readiness to be assembled with an identical or duplicate section to form the duplex container.

The carton sections are assembled by placing the open ends of the sections together end to end with the extended flap **38** of one section adhesively secured to the exterior of the unflapped side wall panel **22** of the other section, and with the inwardly turned flaps **34**, **36** in sealing engagement, as illustrated in Fig. 4, to form a unitary package having two separate compartments.

With this construction it will be seen that in use the consumer may detach one of the extended flap portions **38** from its side wall panel **22**, and after breaking the adhesive seal between the top flap portions **34**, **36**, the other adhesively secured flap portion **38** may be employed as a hinge to open the duplex package and permit access to both half sections, as illustrated in Fig. 5. After the consumer has removed a portion of the contents of one or both sections, the lining portions may be again closed and the duplex package may be reclosed by swinging the sections together into their initially assembled position and then tucking the detached flap portion **38** between the lining bag and the side wall panel **22**, as illustrated in Fig. 6.

While the preferred form of the duplex package above described may embody lined package sections for enclosing the commodity in each section, it will be apparent that where the commodity to be packaged is of a kind which will not escape or flow out when the sections are swung open, the lining may be eliminated. Also, in some instances it may be preferred to omit the adhesive on the top flaps **34**, **36** either in the lined or unlined package, thus facilitating opening of the package. While the bottom flaps are described as being preferably shorter than the thickness of the package for the purpose of economy in the use of carton-forming material, it will be apparent that other bottom closures may be used. While the top closure for each section is herein defined as comprising the top closure of a lined carton it will be apparent that other means may be employed for closing the top of an unlined carton to retain the commodity in each section.

In practice, each identical section of the duplex container may be printed or provided with other indicia to read or appear right side up on one side of the section and upside down on the other side of the section so that when the sections are assembled as described the indicia on the upper section will conform to the indicia on the lower section on both sides of the duplex container. Thus, in Fig. 4 the indicia represented by the circle **50** on the panel **20** and the indicia represented by the small circle **52** and bar **54** on the panel **22** will read right side up while the indicia on the other side will read upside down, thus permitting identical sections to be assembled end to end as described with conforming indicia on both sides.



Referring now to Figs. 6, 7 and 8, a modified form of the multi-sectional container may comprise a three section package which may include three identical sections two of which sections as indicated at **56**, **58** may be assembled in the same manner as the duplex container as described, and the third section indicated at **60** may be connected to one end of the duplex container by adhesively securing the inwardly extended flaps **34**, **36** to the bottom closing flaps at one end of the duplex container and by adhesively securing the extended flap **38** to the adjacent side wall panel, as illustrated.

From the above description it will be seen that the present multi-sectional container may be economically produced from identical sections secured together in a simple and practical manner to form a unitary package which may be readily opened and thereafter reclosed.

While the preferred embodiment of the invention has been herein illustrated and described, it will be understood that the invention may be embodied in other forms within the scope of the following claims.

Having thus described the invention, what is claimed is:

1. A package comprising a multi-sectional container comprising a plurality of duplicate sections, each section comprising a carton having two side panels, two end panels and a bottom closure, each of said end panels having inwardly folded short top flaps and one side panel only being extended beyond the top of the section to form a securing flap, two of such sections being assembled with the inwardly folded short end panel flaps of one section engaging and adhesively secured face to face with the corresponding flaps of the second section, each section being filled with a commodity and having a top closure to retain the commodity within each section, the side panel flap of each section being adhesively affixed to the exterior of the body of its opposing section, and the securing flap of one section forming a hinge upon which the opposed section may be swung to open the tops of both sections after the securing flap of the other section has been completely severed between the two sections.

2. A package as defined in claim 1 wherein each section is provided with a lining which projects above the body portion of its section and being adapted to be folded to form the top closure for retaining the commodity within its section.

3. A package comprising a multi-sectional container as defined in claim 1 wherein each section is lined and the lining folded to form a top closure, said inwardly folded flaps overlying portions of the top closure and adapted to retain the commodity within each section of the carton.

4. A package comprising a multi-sectional container comprising a plurality of duplicate sections, each section comprising a carton having two side panels, two end panels and a bottom closure, each of said end panels having inwardly folded short top flaps and one side panel only being extended beyond the top of the section to form a securing flap, two of such sections being assembled top to top with the side panel flap of each section adhesively affixed to the exterior of the body of its opposing section, and the securing flap of one section forming a hinge upon which the opposed section may be swung to open the tops of both sections after the securing flap of the other section has been completely severed between the two sections.

5. A package comprising a multi-sectional container as defined in claim 4 wherein each section is lined and the lining folded to form a top closure, said inwardly folded flaps overlying portions of the top closure and adapted to retain a commodity within its respective section.

6. A package comprising a multi-sectional container as defined in claim 4 wherein one of said securing flaps in the assembled container is adapted to be detached

from the body of the second section, the other securing flap forming a hinge to permit opening of the container, said detached flap being inserted interiorly of the body of the second section to effect reclosing of the container.

7. A package comprising a multi-sectional container as defined in claim 1 wherein a third duplicate section is affixed to one end of the assembled sections with the inwardly folded flaps adhesively secured to said one end and the securing flap adhesively affixed to the exterior of the body adjacent said one end.


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