

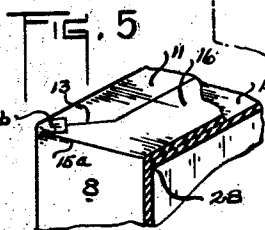
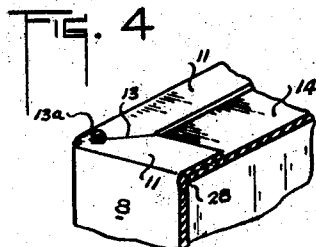
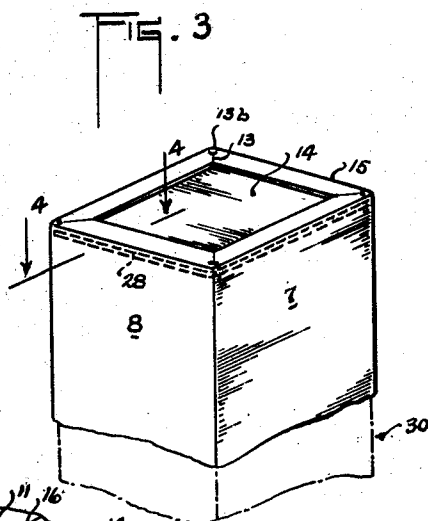
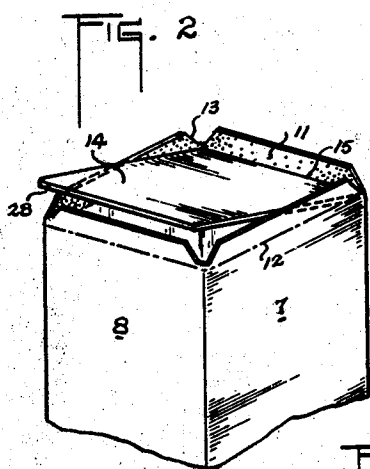
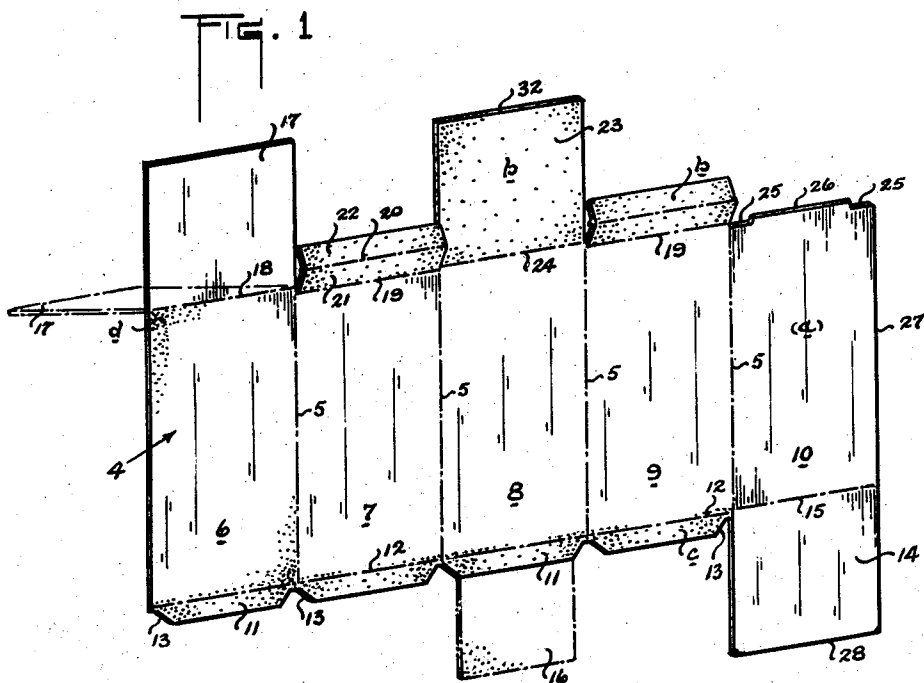
Sept. 1, 1959

G. A. MOORE  
CONTAINER CLOSURE

2,902,204

Filed March 19, 1957

2 Sheets-Sheet 1



INVENTOR.  
*George Arlington Moore*

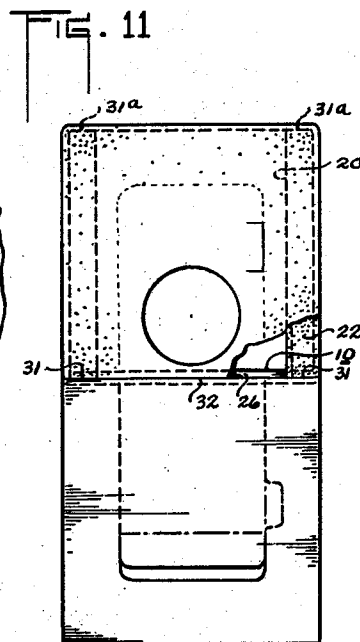
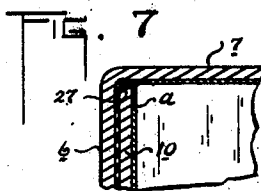
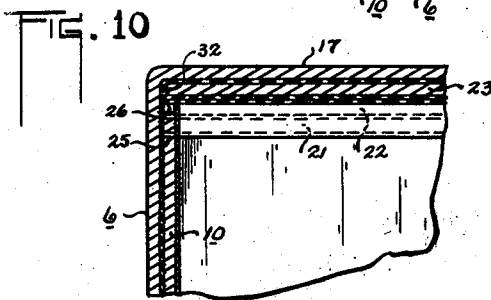
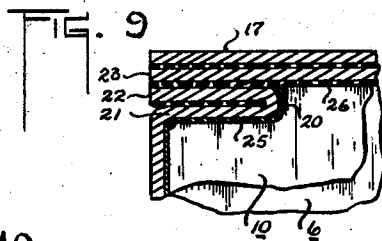
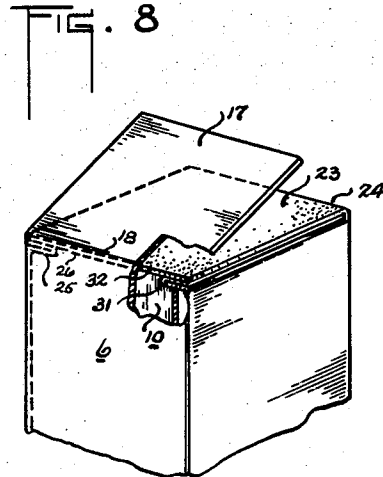
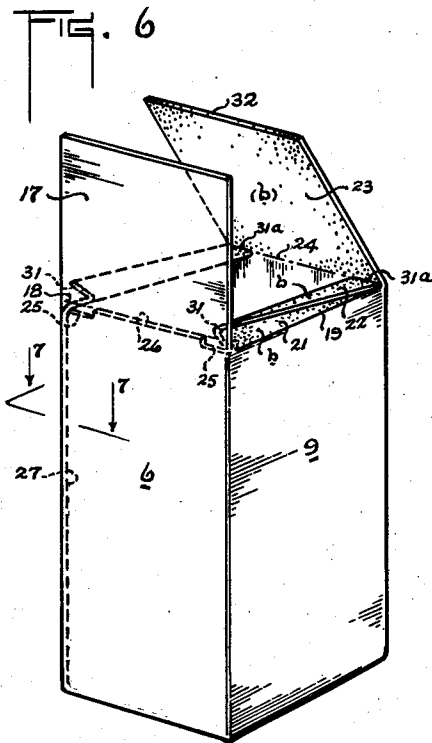
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2 Sheets-Sheet 2



INVENTOR.  
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2,902,204

## CONTAINER CLOSURE

George Arlington Moore, New York, N.Y.

Application March 19, 1957, Serial No. 646,986

2 Claims. (Cl. 229—37)

This invention relates to a generally improved container structure formed of paper board embodied with plastic film material having thermoplastic properties, and more particularly to novel means and method for constructing the body of the container with novel structural features that co-operate in the construction of opposite end closures of the body portion and adapted to be sealed liquid tight. The interior of the completed container being rendered free from having any raw edges of structural material exposed therein. The invention further contemplates the interior wall structure of the container being made substantially seamless by heat-fused junctive meeting edges and surfaces of the embodied plastic material effected during the construction and closing of the container, thus providing an economical substantially impervious container that may be hermetically sealed for efficient prolonged protection of its intended product.

In my U.S. Patent 2,757,851 issued on August 7, 1956 for containers, a novel arrangement is disclosed whereby converging corner ends of the bottom and adjacent side walls of the container are rendered liquid tight by an arrangement of continuous flanges along side and bottom panels articulated thereto along continuous fold lines, the flanges of the bottom and side panels being mitred by a substantially right angle notch which bluntly terminates short of the adjacent articulated fold line. The present invention contemplates an embodiment of similar flange arrangements in conjunction with new additional features that forms a part of the present container. In my U.S. Patent 2,758,432 issued on August 14, 1956 for method of sealing closures for containers, a novel closure arrangement is disclosed whereby particular closure forming end elements are coated in a novel manner with activator adhesive to be used for securing the closures of the container in conjunction with a pair of folded resiliently active closure seating ledges. Highly desirable results are secured in these prior constructions. The latter patent disclosure providing novel means for applying adhesive upon closure forming elements including resilient means with which to firmly oppose the required pressure upon the closure that is necessary to effect a bonded union of the closure forming elements.

The present invention constitutes an improvement on the prior structural arrangements for the construction of containers and one of the prime objects herein is to provide the container with a side wall panel arrangement having novel feature embodiments associated with other improvements in structural arrangements that increases the overall efficiency of the entire container in general.

Another object of the invention is to provide a single blank of paper or other foldable sheet material and being prepared with plastic material in novel combination so that the blank, upon being folded and treated with heat and pressure, is capable of providing the substantially impervious hermetic container.

A further object of the invention is to provide a novel arrangement of side wall forming panels of the container

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so that the body seam thereof is effected in a manner that avoids raw edge exposure within the interior confines of the container structure.

A still further object of the invention is to provide additional novel arrangements of the above side wall forming panels that co-operate to co-act with closure forming end elements that are integral embodiments of the body portion of the container.

Another object of the invention is to provide a container of rectangular shape in cross section formed of a blank having five side wall forming panels and the fifth panel being provided with a full closure forming panel adapted to be secured by a novel arrangement of marginal flanges provided at an end of each of the other four side wall forming panels.

Yet another object of the invention is to provide the fifth side wall forming panel with means to constitute a rigid ledge upon which to seat end edges of closure forming elements when formed on the opposite end of the container body, the fifth panel being combined with the first panel of the four side walls of the container.

Still a major object of the invention is to provide a novel combination of substantially rigid sheet material with flexible plastic material, including dry adhesive, and structurally arranged so that upon treatment of the walls of the container structure by heat and pressure, the junctive corners thereof will heat-fuse together at all meeting edges and surfaces of the plastic material and thereby render the interior surfaces of the container to be substantially seamless.

Other objects and novel features of the invention will appear more fully hereinafter as a result of the following detailed description when considered in view and connection with the accompanying illustrated drawings, it is to be expressly understood that these drawings are utilized for purposes of illustration only, and are not to be construed as a complete definition of the limits of the invention, reference being had for this purpose to the appended claims.

In the drawings, wherein similar reference characters refer to similar parts throughout the several views:

Fig. 1 is a perspective view of a blank adapted to be formed into a container of the above type;

Fig. 2 is a partial perspective view of the container showing a step in the initial construction of the bottom end closure formed from the blank shown in Fig. 1;

Fig. 3 is a partial perspective view of the completed closure shown in Fig. 2, the body of the container being shown supported upon a mandrel form;

Fig. 4 is a partial perspective view of the closure in cross section taken along line 4—4 in Fig. 3, and showing a converging corner end of the closure as formed prior to being completed;

Fig. 5 is a partial perspective view of a modified closure shown in similar cross section and that may be formed by the modification shown in the blank of Fig. 1;

Fig. 6 is a perspective view of the container with the completed bottom end closure and the top end open but showing the initial step taken in folding the closure forming elements;

Fig. 7 is a fragmentary view in cross section taken at line 7—7 of Fig. 6 and showing the overlapped and secured side wall panel arrangement of the container body with the longitudinal end edge of the inner disposed panel enclosed and sealed by the heat-fused plastic material used in the construction of the container;

Fig. 8 is a partial perspective view of the container showing the top end closure partially formed and a fragmentary portion of walls thereof broken away;

Fig. 9 is a fragmentary view in cross section showing the completed top closure construction of the container with the initially resilient folded closure seating ledges

secured with the folded closure formed end elements shown in Fig. 8 and further showing the co-acting relationship of elements of the closure with the overlapping side wall panel portions of the container;

Fig. 10 is another fragmentary view in cross section of the top end closure taken transversely of the view shown in Fig. 9, and

Fig. 11 is a plan view of the top end closure modified to show an embodiment of container dispensing means, the closure forming top panel being shown in a position prior to folding to complete the dispensing closure arrangements.

The instant invention is particularly directed to a means and method for positive sealing of the strongly reinforced closures constructed on the container generally formed of paper board and plastic materials initially prepared in blank form of which the entire container is constructed. More particularly, to improvements made in the structure of the container over my prior patents hereinbefore mentioned whereby, two segments of side wall forming panels of the container are arranged with structural features that co-act for the efficient construction of the opposite end closures thereof.

To this end, the blank provided for forming the complete container is arranged with five body forming panels. The fifth panel is provided with an integral foldable full end closing panel portion arranged in a manner to co-act in forming a bottom end closure with multiple marginal foldable flange securing portions, each flange being integral at the end of each of four other associated side wall forming panels. The inner face of the blank may be covered with adhered plastic film having thermoplastic properties and/or the closure forming end elements of the blank may be provided with a selective coating of dry thermoplastic adhesive. Also, the body forming fifth panel is arranged at the end opposite to its end closing panel portion with stepped edge portions to constitute a rigid seating ledge for engagement with end portions of a pair of initially resilient closure panel seating ledges transverse of the rigid ledge, and including a ledge seat for the end of the first folded closure forming panel that engages with the resilient ledges. For certain duty requirements of the container, the blank before or after being folded and secured for tubular form, may be handled to dip coat the end elements that constitutes the pair of resilient ledges and the adjacent intermediate panel with plastic activator adhesive. The closure forming panel that is constituted to form the exterior flat top of the closure is folded out of plane with respect to the elements that receive the coating of bath adhesive. The activator adhesive employed must have qualities compatible with other plastic material that may be provided on the interior surface of the blank for general protection. Hence, upon forming the tubular body of the container from the prepared blank and folding the bottom end closure thereof, the activator adhesive is caused to become thermally activated and upon application of suitable pressure to the exterior surface portions of the walls of the folded structure, there is effected a bonded union of the meeting edges and surfaces of the container structure. Prior to the folding of the end closing elements on the top end of the container, the plastic adhesive surfaces thereof may be subjected to radiant heat thereby activating the adhesive. The elements are then folded and pressed to form the end closure structure, the adhesive coated meeting edges and surfaces being bonded together in seam forming relationship. The action of the initially resilient closure seating ledges co-acting with the rigid seating ledge provided by the inner disposed side wall panel of the container producing results constituting a flatly disposed hermetic closure void of raw edge exposure within the confines of the interior of the formed closure.

Referring more particularly to Fig. 1, the present invention is primarily illustrated therein as including a container forming blank 4 which is defined with separate areas

by creased lines 5, into side wall forming panels 6, 7, 8, 9 and 10. Panels 6, 7, 8 and 9 are each provided with a marginal foldable flange 11 having mitred opposite ends and the flanges are defined as being extended outwardly of a longitudinal creased line 12 extending continuously along the bottom ends of the four panel areas. The mitred joint forming notches 13 partially separate the flanges each from the other. The notches are V-shaped at substantially 90 degrees and the base of the notch is blunt and short of the creased line 12. Panel 10 is provided with a foldable full end closing panel 14 defined as being projected outwardly of a creased hinging line 15 disposed slightly inwardly of the adjacent creased line 12. Panel 8 of the blank may be provided if desired with a similar foldable closure forming panel 16 as shown in dot and dash lines to be an integral part of the particular flange 11 that is provided on the end of the panel 8. The upper end of the panel 6 is provided with a foldable end closing panel 17 defined as being projected outwardly of a creased hinging line 18. Panels 7 and 9 are each provided with first foldable like end elements each adapted to be folded into self-superimposing like marginal portions and being defined with a base creased line 19 disposed slightly inward of the adjacent creased line 18, and another substantially central longitudinal creased line 20 that is substantially parallel with the base creased line 19 of the twin defined marginal portions 21 and 22. Panel 8 is also provided with a second foldable full end closing panel 23 defined with a creased hinging line 24, the hinge line being disposed outwardly of the adjacent pair of creased lines 19 but slightly inward of the hinge line 18 of the panel 17. The panel 10 is provided with stepped end edge portions 25 and 26 disposed opposite to its bottom panel portion 14. The panel's edge portion 27 defines a side end of the blank and this edge extends to the transverse end edge 28 of the foldable panel portion 14.

The entire inner surface of the blank 4 may be provided with plastic film (a) such as polyethylene, vinyls, saran, treated mylar or other suitable plastic material, and may be in the form of extrusions, laminates or coating, such materials to have thermoplastic properties for seam forming purposes. For certain heavy duty requirements of the constructed container, the blank may be otherwise treated with plastic material for protection of its surfaces, and before or after it is folded into collapsed or tubular body form, panel 17 may be folded outwardly of the plane with respect to the end elements 21, 22 including the panel 23 so that these last mentioned closure forming elements may be dip coated into a bath of thermoplastic adhesive by a process similar to the method disclosed in my U.S. Patent 2,758,432. Hence, the end elements 21, 22, 23 may be coated over all surfaces and edges thereof with activator adhesive (b) in dry film form to be utilized in forming the final hermetic closure of the container. The activator adhesive (c) may be applied upon the inner surfaces of the foldable marginal flanges 11 of the blank in any suitable manner that may be desired and the adhesive coating is to extend slightly inward of the continuous creased fold line 12 of the flanges.

The prepared blank 4 may be folded on conventional carton folding body forming equipment whereby the inner surface of the panel 6 will be brought into overlapping engagement with the exterior surface of the panel 10. The edge portion 27 of the inner disposed latter panel being disposed in registered alignment with the crease line 5 of the overlapping panel 6. Alternatively if desired, the blank may be folded over the surfaces of a mandrel or other suitable form so that the alternate panels 6 or 10 may not be required to fold on their respective crease line 5 more than 90 degrees and therefore lessen the bend of material. The end edge 27 of the inner disposed folded panel 10 can be brought into firm registered abutment into the creased corner line 5 of the folded panel 6 during the overlapping of the panels. The related panels are

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then adhesively bonded together by application of heat and pressure in surface to surface seam forming relationship including the abutted edge 27, and thereby form and secure the body portion of the container into tubular form. The adhesive for bonding the body panel surfaces together may be provided by the plastic material initially processed upon the inner surface of the blank 4 or alternatively, a pattern of thermoplastic material (d) may be initially applied upon the inner surface of the panel 6 of the blank. When applying heat and pressure upon surfaces of the overlapping panels 6 and 10, the particular marginal flange portion 11 of the panel 6 is preferably arranged so that it will not adhere as yet to a corresponding marginal portion of the end element 14 of the panel 10.

Referring now to Figs. 2 and 3 it will be noted that the container blank has been folded and secured to be shaped into tubular body form of rectangular cross section as shown. Fig. 2 serves to illustrate the first step taken in folding the end closing panel element 14 supported from the bottom end of the secured body panel portion 10. The end panel is folded inwardly and downwardly from the hinge line 15. The side edges of the folding panel are disposed inside of the adhesive coated surfaces of the adjacent up-standing marginal flanges 11 of the container body. As shown in Fig. 3, the body of the container is disposed over a mandrel form 30, the flat end thereof providing a rigid support for the folded panel 14 to register in proper depth position with respect to the corner fold line 12 of the adhesive coated multiple flange portions 11 that are shown as being folded in marginal overlapping engagements upon the corresponding marginal surface portions of the folded end closing panel. It is to be noted that one of the flanges 11 is folded inwardly and downwardly over the hinge corner edge 15 of the folded panel 14. The mitre end edges 13 of the folded flanges are brought into mitre forming joints with the edges disposed in abutted relation and the blunt base of the closed notch being puckered outwardly at each converging corner end of the construction closure as shown in Fig. 4. Heat and pressure is applied upon the exterior surfaces of the inwardly and downwardly folded marginal flanges, the activated adhesive (c) upon the surfaces thereof effecting a firmly bonded union of the flanges upon continuous marginal surface sides of the folded panel 14. The three side edges of the inner disposed end closing panel are firmly abutted and sealed upon the corresponding interior surface portions of the opposing side walls 7, 8 and 9 of the container body. The heat and pressure that is applied to secure the folded flanges of the closure compresses the puckered material portions 13a at each converging corner end adjacent the base ends of the mitred joints thereby flatly pressing these puckered portions into substantially coplanar surface relationship with the exterior surfaces of the pressed flanges as shown at 13b in Fig. 5. Thus, the bottom closure of the container is rendered structurally liquid tight and the continuous flanged border around four sides of the constructed closure effects a strong reinforcement embodied into the base of the container structure void of raw edge exposure within its interior surface.

A modified closure construction is illustrated in Fig. 5 whereby a second folded panel 16 that may be provided with surface adhesive forms an integral extension of one flange of the side wall 8 having its hinge 15a opposite to the hinge 15 of panel 14. The folded panel 16 overlaps the first folded panel 14. The extended side and end edges of the second folded panel are substantially mortised into and against the inner disposed elongated edges of three of the folded marginal flanges of side walls 6, 7 and 9, thus filling the recess formed at the end of the completed closure that is shown in Fig. 3. The exterior surface of the second folded panel is brought into coplanar surface relationship with the exterior face

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of the bordering marginal flanges that secures the closure. Hence, a two-ply walled closure is formed in the manner hereinbefore described that may be employed to further augment the strong reinforcements at the base of the container structure. The above novel arrangement of the overlapping closure forming panels afford facilities for an embodiment therein of container dispensing arrangements within this closure if desired.

The body and base end closure structure of the completed container is illustrated in Fig. 6, and showing the top end open through which the container may be filled with the intended product prior to closing and hermetic sealing. It will be noted that the side wall 6 of double thickness, the panel 10 portion being disposed in the interior of the body in order to serve its purpose. The longitudinal edge 27 of panel portion 10 is abutted upon upon the plastic material (a) of the adjacent converging corner end of the container body walls 6 and 7 as shown in Fig. 7. The interior plastic surface (a) at this corner end is heat-fused together along the adjacent end edge 27 thereby enclosing and sealing this edge from being exposed within the interior confines of the container. It is to be still noted that the inner side wall panel 10 is integral with the bottom closure panel 14 and is hinged inwardly of an overlapping marginal flange 11 bent on a corner formed hinge line 12. The top end of the inner side wall panel provides a stepped rigid ledge having a pair of opposed lower edge portions 25 and a central upper edge portion 26 registered in position as shown in Fig. 6. The primary purpose of the edges 25 is to provide a rigid seat for the adjacent ends 31 of the pair of resilient closure seating ledges 21, 22 when being folded in superimposed relationship in position as shown in Fig. 8. The central edge portion 26 provides a rigid seat for the end edge 32 of the full end closing panel 23 when being folded in position as illustrated in Fig. 8. The surface of the edges 31 and 32 of these closure forming elements are disposed in coplanar surface relationship and are firmly registered into abutment upon the corresponding upper interior surface portions of the opposing side wall 6. Hence, this novel structural arrangement provides a substantially rigid corner defined junction over which to fold the closure panel 17 to complete the structure of the closure.

Due to the fact that the inner disposed side wall panel 10 provides the rigid seating ledge 25, 26, for the ends 31, 32, of the closure forming elements, and the resiliency initially effected by the marginal folded superimposed ledges 21, 22, provides the desired co-acting effects that insures the construction of a hermetic and strong closure structure. These effects are produced and made positive by first folding the resiliently active ledges into their respective marginal relationship as shown at the ends 31. Then the opposite ends of the superimposing margins of the ledges that are adjacent to the folding hinge line 24 of the panel 23 are flattened downwardly in order to initially bend the panel 23 sharply over the abutted edges 31a as illustrated in Fig. 6. The panel is folded inwardly and downwardly from its hinge line 24 so that marginal portions of the inner face of the folded panel engages upon the flexible up-turned faces 22 of the pair of resilient ledges. The pressure imposed downwardly by the folding panel 23 is resisted by the resilience and progressive firmness of the opposing progressive superimposing ledges thus bringing the adhesive surfaces of the folded elements into flat and intimate surface to surface contact. Upon pressing panel 23 downwardly against the firm resistance imposed upwardly by the ledges, the opposite ends 31 thereof are brought into register and firmly seated into and upon the lower ledge portions 25 and simultaneously, the end 32 of the folded panel 23 is registered and seated upon the edge portion 26 of the rigid ledge. Thus, the end edge each of the pair of initially flexible ledges are firmly abutted

upon the upper interior corresponding surface of the opposing side wall panel portion 6. The pair of compressed ledges forms a pair of strong trusses between the opposing side walls 6 and 8. The panel 17 is folded on its hinge line 18 sharply over the upper corner edge 32 of the previously folded panel 23 and inwardly, downwardly upon the upper face of the folded panel 23 and completes the structure of the closure. The rigid ledge portions of the inner side wall panel 10 co-acting with the ends of the folded closure formed elements provides a rigidly constructed corner edge over which to squarely bend the closure panel 17 as illustrated in Fig. 8.

As hereinbefore described, the blank of the container may be provided with thermoplastic film material in the form of being extruded, laminated or a coating. Alternatively, the blank may be provided with a pattern applied dry activator adhesive upon selective surfaces thereof and augmented by other suitable coating material that may be desired suitable for the duty requirements of the container to be formed of the blank. In the first instance, the proposed thermoplastic film upon the inner surface of the blank provides both surface protection and seam bonding adhesive required for thermally sealing the entire structure of the container. However, in certain instances according to the duty requirements of the container it is preferred that the plastic film on the interior surfaces of the blank be augmented with an application of activator adhesive upon the exterior surfaces of the margins of the ledges 21, 22 for reasons hereinafter to be described. In the second instance, the end elements 21, 22 and 23 being dip coated with activator adhesive provides adhesive body dry solids that may be applied up to any degree of film thickness desired for thermally securing the seam structure of the hermetic closure of the container. In this respect, all of the vulnerable sections of the structure has present a liberal body of adhesive material that positively seals these sections.

The activator dry adhesive on the closure forming elements (Fig. 6) may be activated by radiant heat just prior to being folded and form the structure of the closure. The heat rays will condition the adhesive over all surfaces of the elements to become semi-fluid or viscous so that upon folding the elements as hereinbefore described, the pressure applied upon the adhesive free outer surface of the folded panel 17 effects almost instantly a secured bonded union of engaging surfaces and edges of the closure structure in seam forming relationship. When final pressure is imposed downwardly upon the closure folds, the prior progressive resilient activity of the folded and compressed ledges 21, 22 prepares a flat and uniform register of surface to surface contact of the activated adhesive during the stage of compressing the ledges into their respective seats provided by the top of the panel 10. The constant intermediate up-springing action of the ledges during the progressive compressing action thereof co-acts to bring the up faced margins 22 flatly in parallel relationship with and upon the corresponding marginal faces of the opposing panel 23. The lower margin 21 of the ledges moves downwardly in angular relationship until both margins are finally compressed into parallel and bonded relationship. This novel function of the initially resilient ledges insures the construction of a positive union of the engaging surfaces of the relatively narrow width margins 22 with the panel 23 that constitutes the major securing seams of the closure.

The folded structure of the closure may be effectively sealed in another simple manner if desired by moving the closed container into engagement with moving steel tape belts that are pre-heated and maintained at the desired temperature. The belts engage and press downwardly upon the surfaces of the folded closure over the

region of the compressed ledges. The heat from the belts is conducted through the panel 17, panel 23 and the ledge margins 22 thereby activating the adhesive on these elements and effect a secured bonded union of the closure. The container engaging belts may be of any length required to provide the time necessary to effect the proper heat exchange to the closure for effecting the bonded union. The container may then be further moved across a chill to set the adhesive before releasing the pressure imposed upon the closure.

The completed closure is illustrated in cross sectional views shown in Figs. 9 and 10. The interior structure of the container is completely void of raw edge exposure of structural material and the plastic surfaces in contact with each other are heat-fused together including the regions of all converging corner junctions of the structure. Thus, the interior surfaces of the container structure is rendered substantially impervious within the merits of the plastic material selected for embodiment into the structure of the container. The panel 10 employed in the structure has novel function in providing its integrally related closure forming panel, provides strong reinforcements to the side wall of the container body from which both top and bottom closure forming panels are folded, and further provides a novel seating ledge for engagements with the essential closure forming elements of the final top end closure. Thus, insuring the formation of strong and uniformly flat hermetic closures at both top and bottom ends of the container body.

Fig. 9 illustrates in cross section a fragmentary portion of the top constructed closure and transversely across the marginal width of the initially resilient panel seating ledges. The rigid seating ledges on the top end of the side wall panel 10 provides a rigid foundation for the fixed support of the most important parts of the closure forming elements. It is to be especially noted that in the function of the progressive compressing action of the ledges 21, 22, the final parallel relationship of the related superimposed marginal portions will invariably establish a right angular relationship with its depending side wall and thereby produce a positive bonded union with the engaging closure forming panel. This is further augmented by the function of the ledge seats 25, 26 of the panel 10. Fig. 10 illustrates in cross section a portion of the bonded closure that is transverse of that shown in Fig. 9, and showing the relationship of the structural elements with respect to a portion of the side wall panel 10.

Fig. 11 shows the above described relationship of the structural elements in plan view, and further illustrates a modification that may be made to the closure forming panels to provide a dispensing closure for the container. The arrangements of the closure being similar to a closure arrangement disclosed in my U.S. Patent 2,766,922 issued Oct. 16, 1956. The rigid support provided by the end of the inner side wall panel 10 for the end edge 32 of the folded panel when modified to have embodied therein a dispensing orifice as shown constitutes an improvement on the prior patent. The rigid supporting edges 25, 26 of panel 10 coacting with the ledges 21, 22 keeps the surface of the orifice panel uniformly in flat plane at all times during use of the dispensing closure. A further improvement is constituted whereby the end edge of the orifice panel may be firmly seated upon the ledge provided by the panel 10 and the edge of the orifice panel be sealed to a corresponding interior face margin of the opposing side wall at right angles to the face of the ledge. The seating ledge prevents any distortion taking place in the panel along its end meeting engagements. The upper surfaces of the compressed ledges 22 and the top face of the rigid ledge portion 26 are disposed in coplanar surface relationship. There-

fore, the meeting inner surface of the folded panel 23 is also coplanar with these surfaces.

In conclusion, the structural means provided by the folded blank forms the container with a substantially seamless and impervious interior wherein cut raw edges of the structural material are abutted against corresponding interior surface portions of the thermoplastic film component provided on the inner surface of the folded blank whereby, the bi-secting cut edges of the film material in the abutments are blended together by imposed heat and pressure applied upon the adjacent surface regions of the structure. Therefore, all meeting surfaces and edges of the plastic film component are substantially heat-fused together within the confines of the constructed container.

While several modifications of the instant invention have been illustrated and described, it will be understood, by many of those skilled in the art, that various changes may be embodied therein without departing from the spirit of the disclosure made of the invention.

What is claimed is:

1. An end closure construction for a container made of foldable sheet material and having four side walls arranged in opposing pairs, one of said side walls being formed of an inner and outer panel disposed in surface secured overlapped relationship, an end of said inner panel portion being provided with a full end closing panel and an end of the outer panel portion provided with a marginal flange having its opposite ends mitred in part so that a portion of the flange is joined longitudinally and continuously with like flanges that are provided on an end each of the other three side walls of the container, the interior surface of said marginal flanges being adapted to overlap and be secured upon the corresponding exterior surface portions on four border sides of said full end closing panel when folded, said end closure comprising the full end closing panel being first folded inwardly and downwardly whereby its three side edges initially exposed are disposed in edge to face secured abutments upon the corresponding interior surface of each opposing side wall, the marginal flange of said outer panel side wall portion being folded inwardly and downwardly over the exterior surface of the corner hinge of the first folded closure panel and the marginal flanges of the other three side walls being folded inwardly and downwardly upon the corresponding exterior surface portions of said closure panel, said mitred end portions of each folded flange each being brought into edge to edge abutment with the like end edge portion of the adjacent flange, said abutments each being initiated in spaced relation inwardly from each of the four converging corner ends of the closure and body side walls of the container whereby said flanges are disposed in seam forming and coplanar sur-

face relationship continuously surrounding four outer border surface sides of the first folded end closing panel.

2. An end closure construction for a container made of foldable sheet material and having four side walls arranged in opposing pairs, one of said side walls being formed of an inner and outer panel disposed in surface secured overlapped relationship, an end of the inner panel portion being provided with a full end closing panel and an end of the outer panel portion provided with a marginal flange having its opposite ends mitred in part so that said flange is joined continuously with like flanges provided on each end of the three other side walls of the container, the flange of the side wall opposite to the side wall having said full end closing panel being extended with a panel portion thereof, said full end closing panel being first folded inwardly and downwardly whereby its initially exposed side edges are disposed in edge to face secured abutments upon the corresponding interior surface of each edge opposing side wall, the marginal flange of said outer panel side wall portion being folded inwardly and downwardly over the corner hinge of said first folded panel and said flanges of the other three side walls including said extended panel portion being folded inwardly and downwardly upon the exterior surface of the first folded panel and in surface to surface secured relationship, said mitred end portions of each folded flange being brought into edge to edge abutment with the mitred edge portion of the adjacent flange, said abutments each being initiated at a terminal point spaced inwardly from each of the four converging corner ends of the closure and body side walls of the container, the three outer end edges of said extended panel portion of the one flange being disposed substantially in edge to edge abutments with the longitudinal end edges of the other three related marginal flanges thereby providing a reinforced end closure having a uniform coplanar exterior surface constructed in seam forming relationship.

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