Aug. 11, 1942. J. F. PETERS 2,292,403

METHOD OF PRODUCING FIBER CONTAINERS

Filed Jan. 18, 1939 3 Sheets-Sheet 1

Fig 1

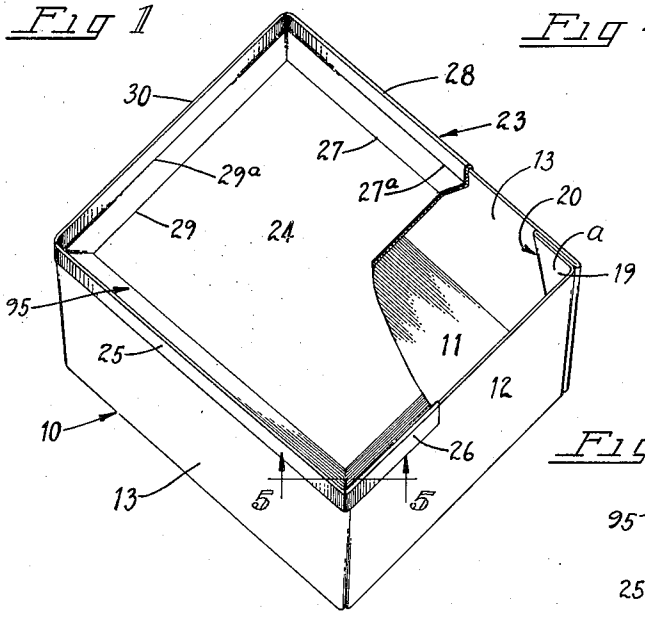


Fig 4

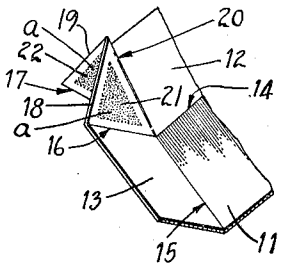


Fig 5

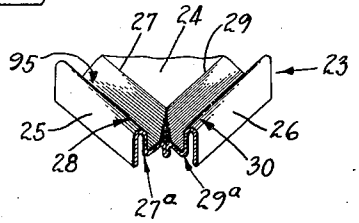


Fig 2

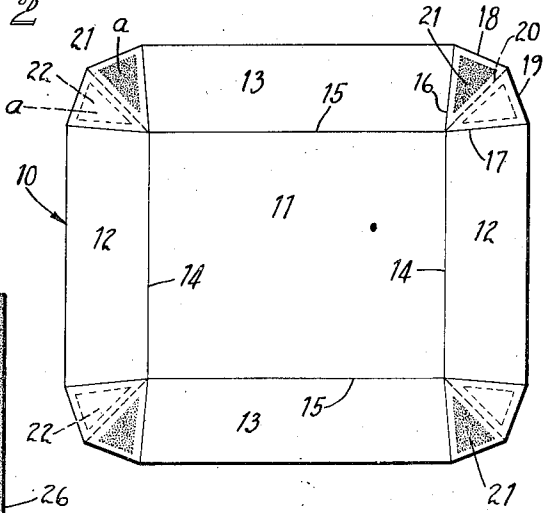
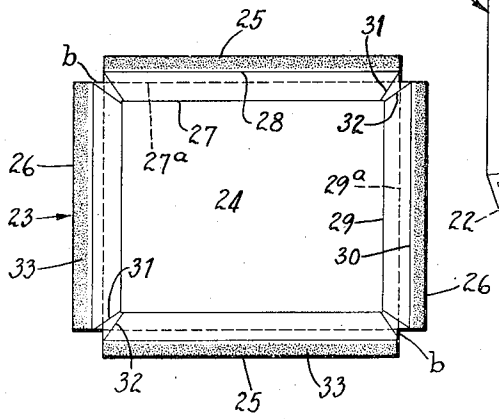


Fig 3



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METHOD OF PRODUCING FIBER CONTAINERS

Filed Jan. 18, 1939 3 Sheets-Sheet 2

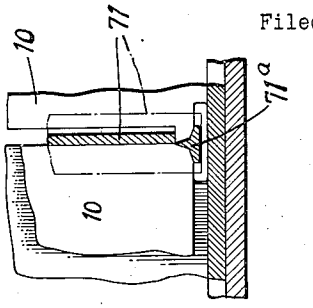

Fig 8

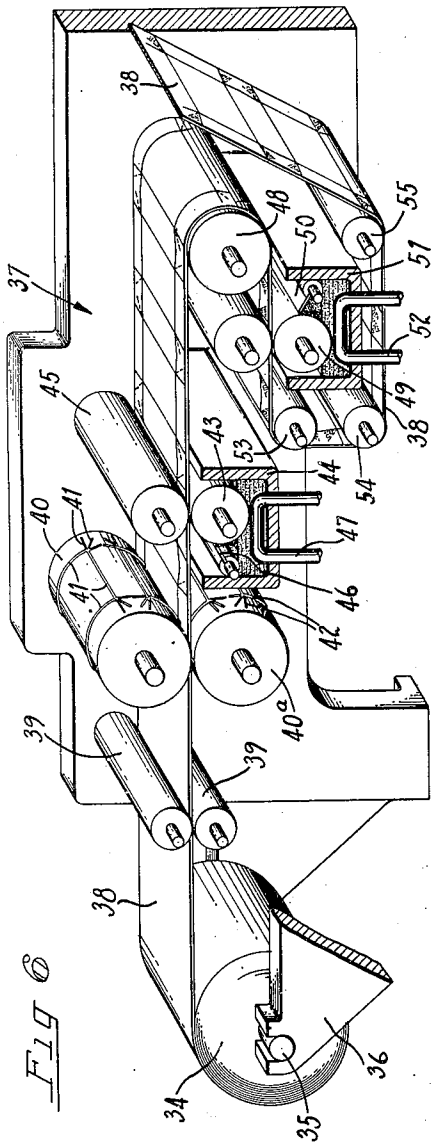

Fig 6

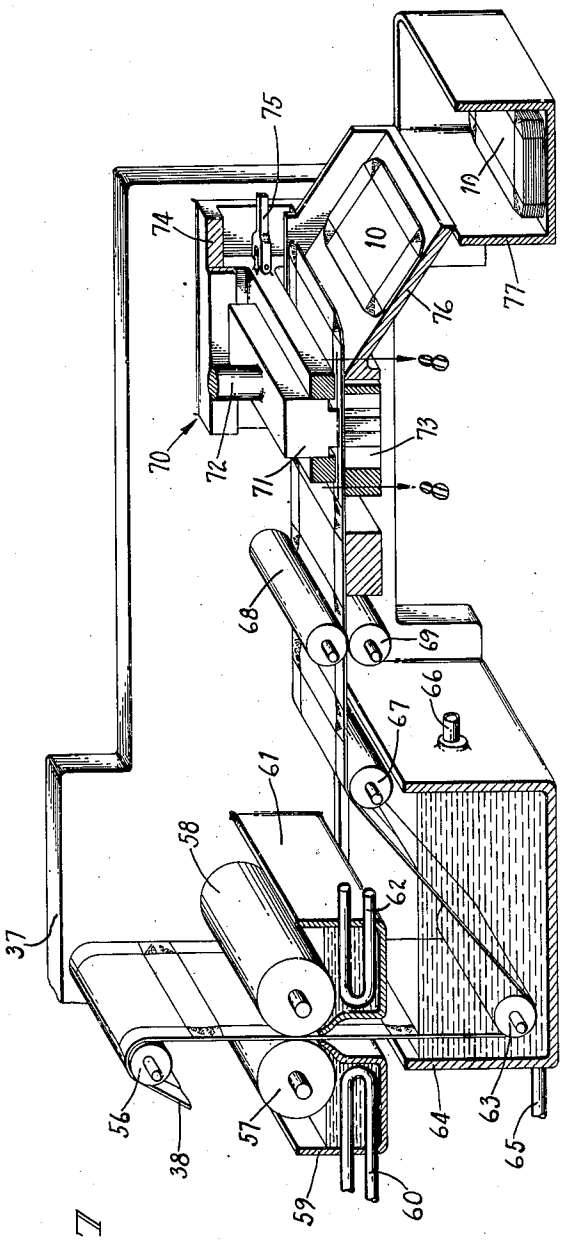

Fig 7

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METHOD OF PRODUCING FIBER CONTAINERS

Filed Jan. 18, 1939 3 Sheets-Sheet 3

Fig 10

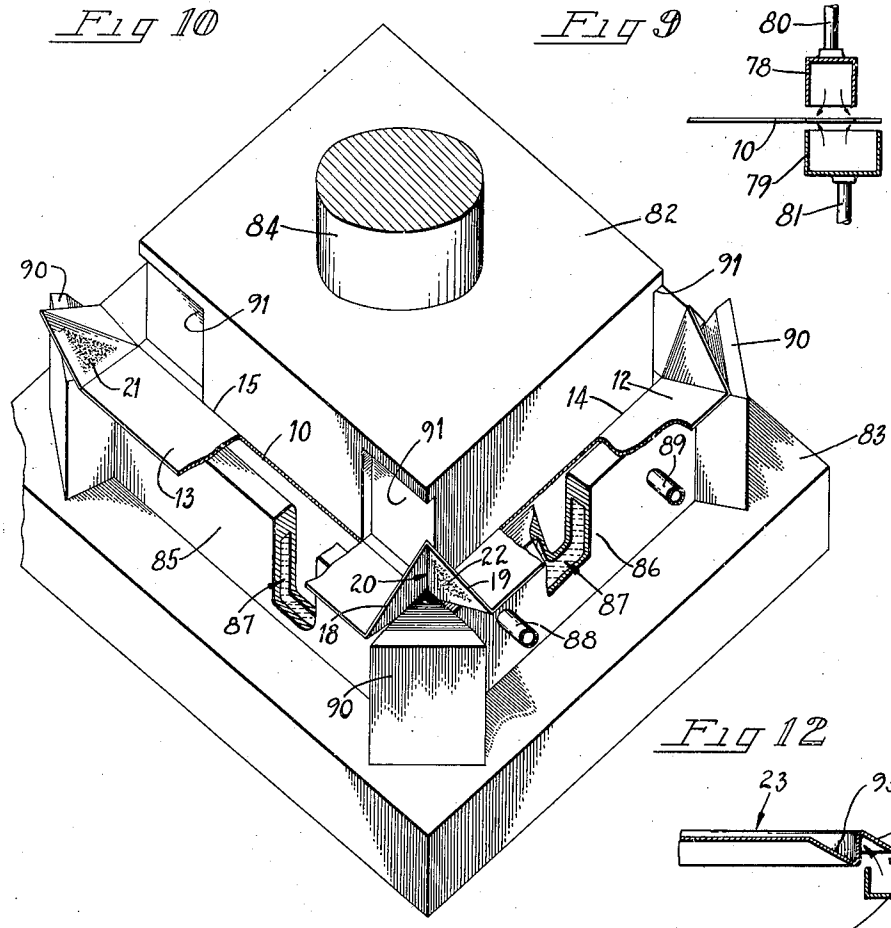


Fig 9

Fig 12

Fig 11

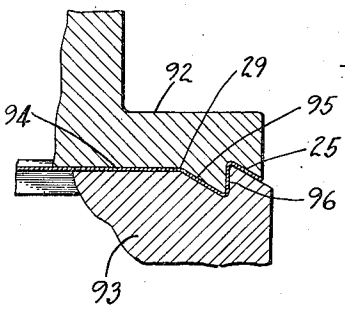
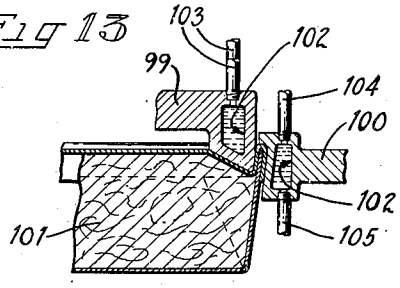


Fig 13



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Patented Aug. 11, 1942 2,292,403

UNITED STATES PATENT OFFICE

2,292,403

METHOD OF PRODUCING FIBER CONTAINERS

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Application January 18, 1939, Serial No. 251,621

9 Claims. (Cl. 93—47)

The invention relates to single service fiber containers for holding comestibles, such as frozen food products, and to the method of producing such a container.

An important object of the invention is to provide a single service fiber container which is composed of few parts and in which the body is of single or one-piece construction, with provision made for adequately reenforcing and adhesively securing together the corner portions of the container without the necessity of providing separate parts or open joint lines or seams.

A further object of the invention is to provide an improved method for creasing the container body blank and applying a thermo-plastic adhesive to predetermined areas of the same at localities where adhesive connections are desired in further forming the container from such a body blank by folding the same along such imparted predetermined fold or crease lines.

A still further object of the invention is to provide in a container of the character described means for applying melted paraffin or other wax-like material to opposite surfaces of a moving web from which successive container body blanks are cut or blanked. The method further includes novel means for immediately chilling the applied paraffin during movement of the web and without requiring separate or remote chilling or drying operations.

A still further object of the invention is to provide a method of forming one-piece single service fiber container blanks from a moving web of material after crease lines have been imparted to the web and after a thermo-plastic adhesive has been applied to localized portions only on opposite surfaces of the creased web.

A further object of the invention is to provide a novel method of forming a completed container body from a prepared body blank and by subjecting the latter to a simple die pressing operation.

A further object of the invention is to provide a novel and economical method of forming a container cover from a previously creased and notched cover blank on which adhesive has been applied at localized areas thereof, and applying such a formed cover to a filled container body of the character contemplated by the invention.

The invention further includes novel and improved means for rendering the cold adhesive moist and tacky for sealing purposes, and immediately thereafter chilling and setting the adhesive so that there will be no tendency of the container body parts to separate nor of the adhesively applied cover being loosened or separated from the container body.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

In said drawings,

Fig. 1 is a perspective view of the completed fiber container with cover applied, said view being partially broken away to better illustrate the container body construction.

Fig. 2 is a plan view of the completed fiber body blank in the flat, the same being in readiness to be folded and die shaped into final form illustrated in Fig. 1.

Fig. 3 is a plan view of the cover blank in the flat and prior to being die-shaped and applied to the upper open end of the container body.

Fig. 4 is a detail view in perspective illustrating the manner of tucking in one of the corner portions of the body blank.

Fig. 5 is a detail perspective view of a corner of the applied cover, said view being taken on line 5—5 of Fig. 1.

Fig. 6 is a schematic perspective view, partially in vertical section, illustrating the entrance end of the apparatus for preparing the body blank illustrated in Fig. 2.

Fig. 7 is a similar view of the discharge end of the apparatus illustrated in Fig. 6, it being understood that Fig. 7 when placed at the right of Fig. 6 illustrates the complete apparatus for preparing the body blank from a fiber or paper web.

Fig. 8 is a detail fragmentary horizontal section also somewhat schematic in character, said figure being taken on line 8—8 of Fig. 7.

Fig. 9 is a detail view in side elevation, partially in vertical section, illustrating the manner of heating the pre-applied thermo-plastic adhesive of the flat body blank preparatory to folding the same into completed body formation.

Fig. 10 is a perspective view of a portion of the forming device for tucking in the four corners of the body blank of Fig. 2 and for shaping the same into final form illustrated in Fig. 1.

Fig. 11 is a detail verical sectional view showing the manner of die-shaping the cover from the flat blank illustrated in Fig. 3.

Fig. 12 is a similar view showing the manner of heating the pre-applied cold thermo-plastic adhesive on the marginal edges of the cover.

Fig. 13 is a similar view illustrating the man-

ner of die-pressing and squeezing the cover in position on a container body filled with the commodity to be packed and enclosed therein.

Referring to the drawings, and with particular reference to Figs. 1 to 5 inclusive, **10** indicates generally a one-piece body blank of oblong or rectangular configuration, preferably coated on both sides with paraffin, and including a bottom panel or wall **11**, integrally formed opposite end walls **12** and side walls **13**. The end walls are set off from the bottom wall by score or fold lines **14**, while the side walls are similarly set off from the bottom as by fold or crease lines **15**. The corner portions of the body blank are each set off from the side and end walls by crease or fold lines **16**, **17** respectively, and constitute two identical triangular pleat or corner wall portions **18** and **19** separated by a score, crease or fold line **20**. The companion triangular portions **18**, **19** integrally formed with the side, end and body wall portions of the blank, when folded or tucked inwardly along the lines **16**, **17** and **20** constitute body reenforcing corner pleat walls of double thickness, as best seen at *a* in Fig. 1, and disposed at each corner of the container body.

Each triangular portion **18** of the body blank is provided on one side thereof with a chilled or dried area **21** of thermo-plastic adhesive, while the companion triangular portions **19** are similarly provided with such an area **22** of thermo-plastic adhesive, but on the opposite surface of such triangular portion of the blank. The configuration of the flat body blank of Fig. 2 is made by die cutting a fiber web after successive portions of the latter have been creased and provided with adhesive on localized opposite surfaces thereof and otherwise prepared to constitute the finished container body as hereinabove explained.

The cover blank is indicated generally at **23** and is of the same configuration as the body blank so as to snugly fit into engagement with the latter when the container is sealed. The cover blank includes a top wall portion **24** and oppositely disposed side and end flanges **25** and **26** respectively set off by rectangular cut-away or notched corner portions indicated at *b*. The cover blank is preferably creased or scored in the flat at its side, end and corner portions respectively to provide side fold lines **27**, **27***a* and **28**, end fold lines **29**, **29***a* and **30**, and corner fold lines **31**, **32**, at the described portions of the cover blank. The marginal side and end flanges of the cover are also preferably provided with co-extensive continuous areas indicated at **33** of pre-applied thermo-plastic adhesive, such as a vinyl acetate cement or the like.

The method and procedure for preparing and constructing the body blank illustrated in Fig. 2 will now be described, and for this purpose reference is made to Figs. 6 to 10 inclusive.

In Fig. 6 there is shown a roll **34** of fiber, removably mounted as by trunnions **35** in a suitable bearing or bracket portion **36** of a machine frame, generally designated by the reference character **37**. The web **38** of the roll is passed between suitable feed rollers **39** disposed on opposite sides of the web and driven by any suitable power source or inter-geared rolls, such gearing or driving mechanism not being illustrated and which may be of any preferred or desired character. From the feed rolls **39**, the web passes between oppositely disposed creasing rollers **40**, **40***a*, one of said rolls such as **40** having creasing ridges **41** thereon and the other of said rolls having similarly disposed creasing recesses **42** into which latter desired portions of the web are pressed by the ridges **41**, to impart to such web the desired side, end and corner crease lines hereinabove described, and which are best seen in the flat body blank illustrated in Fig. 2. In other words, the roll **40** may be regarded as a male die member and the roll **40***a* a female die member driven in timed synchronization with one another so that the crease forming ridges **41** will accurately register with the creasing recesses **42** during the operation of the apparatus. The creasing rolls **40**, **40***a* may be of any desired size so as to impart to the web **38** sufficient crease or fold lines at each revolution of the rolls to define one or a plurality of body blank sections to be subsequently severed and separated from the web.

After the web is creased, it is passed between an adhesive applying roller **43** partially submerged in a suitable bath **44** containing a liquid thermo-plastic adhesive, and a backing-up roller **45**, both of said rollers being journaled in the frame of the apparatus. The adhesive applying roll **43** may be provided with a suitable doctor blade **46** to remove surplus adhesive from the surface of the rotating roll, and a heating coil is schematically indicated at **47** through which hot oil, steam or hot water may be circulated in the tank or bath, to maintain the thermo-plastic adhesive in a fluid condition. The adhesive applying roll is suitably etched at localized portions of its periphery so as to apply adhesive to the moving web only at the triangular portions on one side of the latter indicated for example at **21** in Fig. 2.

The creased web with adhesive applied to localized portions of its lower surface is then passed over a suitable feed or guiding roller **48** suitably journaled in the frame of the machine, and is thence passed between a second adhesive applying roller **49** having a doctor blade **50** and partially submerged in a tank or bath **51** of fluid thermo-plastic adhesive and similar in all respects to the bath **44**. A heating coil **52**, similar to the coil **47**, is provided in the bath **51** for the circulation therethrough of a heating medium to maintain the adhesive at a relatively high temperature and in fluid condition. The adhesive applying roll **49** of course is also suitably journaled in the frame of the machine and, like the roll **43**, is etched at localized spaced portions of its periphery so as to apply the triangular portions of adhesive to the opposite side of the web, such triangular portions for example being indicated at **22** in Fig. 2.

The moving creased web **38** having localized areas of adhesive applied on opposite surfaces thereof is passed over suitable guide or feed rollers **53**, **54** and **55**, suitably journaled in the machine frame, and is thence passed upwardly over a feeding and guiding roll **56** (Fig. 7) suitably journaled in the frame **37** of the apparatus. From the roll **56** the web is passed downwardly between companion paraffin coating rolls **57**, **58**, which apply melted paraffin or other suitable wax-like material to opposite surfaces of the web. To this end the roll **57** may be partially submerged in a tank or bath **59** of melted paraffin, which is maintained in a fluid condition by means of a heating coil schematically indicated at **60**, and through which a heating medium such as steam, hot water or hot oil is circulated for this purpose. Similarly the paraffin applying and coating roll **58** is

suitably journaled in the machine frame and is partially submerged in a bath 61 of melted paraffin and also including a schematically illustrated heating coil 62, through which such a described heating medium is circulated.

The paraffin coated web is passed from the rolls 57 and 58 over a feeding and guiding roll 63 suitably journaled in the machine frame and preferably submerged in a tank 64 containing a cooling medium, for example cold water, which serves to immediately chill and set the applied paraffin on opposite surfaces of the web. The continuous circulation of the cooling medium in the tank 64 may be insured by cold water entrance and exit pipes 65 and 66 leading to and from the water cooling tank 64.

The cooled web is passed over a guide roller 67 and thence between upper and lower feed rollers 68, 69 to a vertically and horizontally reciprocating punching and blanking die mechanism generally indicated by the reference character 70. Said mechanism comprises a vertically reciprocating blanking punch or head 71 movable between suitable guide members, said punch head being reciprocated toward and away from the web by a mechanism, not shown, and which imparts movement to the head through a vertically extending stem member 72. The punch cooperates with a lower companion die member 73 and moves in timed relation with the movement of the web to successively separate and sever from the web the flat body blank members 10.

During the punching operation the blanking head and its lower die are also preferably moved or reciprocated horizontally in time with the movement of the web to facilitate the punching operation and to speed up production without necessitating temporarily holding the web stationary as the formed body blank is stamped therefrom. To this end the blank punch 71 and its lower die member 73 may be reciprocated or oscillated horizontally within a slideway 74 by means of a rod 75 secured at one end to the blanking punch assembly and secured at its opposite end to a suitable crank or other reciprocating mechanism not shown. The severed body blanks 10 pass successively by gravity down an inclined chute 76 and thence are stacked as illustrated in a container or holder 77 from whence they may be removed as they accumulate to any desired place of deposit for the subsequent container body forming operation.

As best seen in Fig. 8, the blanking punch and die members are such as to form the corner portions of the body blank in a single operation at meeting edges of successive blanks without waste of material. For this purpose the corner forming die member 73 is of roughly triangular configuration to receive a mating portion of the punch member indicated at 71*a* in Fig. 8.

Prior to forming the blank into body shape, both surfaces of the blank are heated so that the triangular adhesive areas 21 and 22 will be made tacky. To this end and as best seen in Fig. 9, the web of material or punched out body blank is passed between a pair of upper and lower spaced chambers 78, 79, schematically illustrated in cross section in said figure, and through which chambers hot air or other heating medium is circulated by means of connecting pipes or conduits 80, 81. The heat imparted to opposite surfaces of the web or blank softens the adhesive areas 21 and 22 and renders the body blank capable of being immediately thereafter formed into the completed container body illustrated in Fig. 1.

Fig. 10 illustrates a portion of a body forming mechanism for folding upwardly the end and side walls of the flat blank 10, and also tucking in the corner portions *a* thereof into an inwardly extending pleated wall of double thickness adhesively secured together and to one of the container walls at each corner of the container body. The body forming device comprises an upper vertically reciprocating die member 82 and a lower stationary companion die member, indicated at 83. The upper die member is reciprocated from any source of power, not shown, as by means of a centrally disposed vertical stem 84. The lower stationary die member 83 includes oppositely disposed side walls 85 and end walls 86, each of double thickness, so as to provide for the circulation therethrough of a cooling medium 87, such as cold water, within such end and side forming walls of the lower die member. Cooling fluid entrance and exit pipes 88 and 89 may be provided to conduct the cooling fluid to and from the closed water jacket embodied in said die wall members of the stationary lower die.

The forming device further includes triangularly shaped corner die parts or sections 90, which operate to tuck in the corners of the container as the flat body blank of the latter is forced downwardly thereagainst by the upper die member 82.

It will be observed that the end die walls 86 are higher than the side die walls 85 with the result that when the container blank is positioned on the lower die member and engaged by the upper die member, the end walls 12 of the body blank are folded or wiped upwardly and inwardly on the fold lines 14 before the upper die carries the blank into engagement with the side walls 85, which latter thereafter fold or wipe upwardly and inwardly along the fold lines 15 the side wall members 13 of the container body. Prior to these side and end wall forming operations, the triangular corner die parts 90 engage the fold or crease lines 20 at the corner portion of the blank, and tuck the same inwardly. This takes place immediately prior to the end and side walls being folded or wiped upwardly, as clearly seen from an inspection of Fig. 10. This is due to the corner die parts being of somewhat higher elevation than the end die walls 86, thereby initially bringing into operation the tucking in function of such corner die parts.

Further downward movement of the upper die member 82 presses the nearly completed folded body blank out of the path of and below the engaging area of the corner die parts, thereby permitting the inwardly tucked corner pleats to be brought closely together as seen at *a* in Fig. 1. The adhesive areas being at such time warm and tacky results in the companion triangular corner wall portions 18 and 19 being securely bonded together and the moist adhesive area 21 or 22 on the opposite surface of the blank securely bonded to the adjacent side wall member 13 of the formed container body. The upper die member 82 is suitably cut away as shown at 91 adjacent its corner portions to provide sufficient clearance at this locality to accommodate the pleat of double thickness at the corner portions of the body when the same is pressed and adhesively secured together and to an adjacent side or end body wall of the container.

The cooling action of the cold water within the die walls serves to immediately chill and set the tacky adhesive so that there will be no tendency of the adhesively secured corner wall portions

of the blank to separate after the formed body is removed from between the forming die members.

From the foregoing, it will be seen that the invention contemplates novel and efficient means for preparing and producing a fiber container body of one-piece construction, wherein provision is made for adequately reenforcing the corners of the container, without requiring the provision of separate parts or non-integral joints which, if present, might have a tendency to leak or detract from the desired rigidity and strength of the container body at its corner portions.

The manner of forming the container cover from the prepared blank illustrated in Fig. 3, and which blank is also preferably coated on both sides with paraffin or other suitable wax-like material, and of securely applying the same to the open end of the filled container, is illustrated in Figs. 11 to 13 inclusive.

It will be understood that the container cover blank of Fig. 3 is notched at its corners, appropriately creased as indicated and described, and provided with a thermo-plastic adhesive along its marginal flanges, by the same method which has been illustrated and described with reference to preparing the body blank member. Therefore it is not deemed necessary to illustrate or further describe the preparation of the container cover blank. Minor variations in the creasing and adhesive applying rollers, as illustrated in Figs. 6 and 7 will be sufficient to enable the cover blanks to be prepared from a continuously moving web, as in the instance of the preparation of the container body blank illustrated in Fig. 2.

The creased cover blank with a cold adhesive applied to the marginal portions thereof is engaged between upper and lower die members **92** and **93** (Fig. 11) which serve to hold the marginal portions of the cover along the previously applied and described crease or fold lines, thereby providing in said cover a central panel portion **94** defined by an annular recess **95** having an upstanding wall portion **96** disposed between said recess and the adhesively coated marginal portions or flanges **25**, **26** of the cover. This construction serves to reenforce and rigidify the cover and also render the same in readiness for application to the filled container.

Referring to Fig. 12, the formed cover is passed in proximity to a suitably disposed heating chamber **97** into which a heating medium, such as hot air, is conducted as through a pipe connection **98**. Hot air from said chamber impinges against the lower adhesively coated surface of the cover flanges **25** and **26**, thereby softening said adhesive and rendering the same in a moist or tacky condition. Immediately thereafter the cover is applied to the filled container as illustrated in Fig. 13, and subjected to the action of companion forming and squeezing dies. An inner die member **99** enters into the annular recess **95** of the formed cover, substantially filling the same, while an outer die member **100** is moved inwardly against the cover flange to press the latter downwardly and tightly against the container body wall adjacent the open end of the latter. The adhesive firmly secures said flanged portions of the cover to the body wall entirely around the container periphery to hermetically seal the receptacle and its contained product, such for example as a frozen comestible **101**.

A cooling fluid, preferably cold water, is circulated as by pipes **103**, **104** and **105** through marginal chambers or portions **102** of the companion die members **99** and **100**, thereby serving to immediately chill and set the adhesive as soon as the desired union between the cover and body parts has been effected and obtained.

From the foregoing it will be apparent that the invention contemplates the provision of an economical single service package for comestibles, such as frozen food products and the like, and also an improved method for preparing and sealing such package with its enclosed product. The entire package is composed of two parts since the body is of integral reenforced one-piece construction. The paraffin coating on the inner and outer walls of the container and its cover results in a highly sterile container for the reception of a food product, since the temperature at which the melted paraffin is applied is sufficient to completely sterilize the fiber or paper of which the container is formed. The provision of such paraffin coating also materially augments the heat seal formed between the adhesively connected parts, thereby tending to render the filled container completely sterile, as well as resistant to moisture and entrance of atmosphere.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction, and arrangement of parts mentioned herein and in the steps and their order of accomplishment of the method described herein, without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the container and method hereinbefore described being merely a preferred embodiment of the invention.

I claim:

1. The method of producing one-piece fiber container bodies from a moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof, successively applying localized areas of thermoplastic adhesive to said web on opposite surfaces thereof, blanking out successive portions of said moving web into flat body blanks of one-piece construction, and then folding inwardly portions of said body blank along said formed crease lines to provide a fiber container having end and side walls adhesively secured together.

2. The method of producing fiber containers from a continuously moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof, successively applying localized areas of thermoplastic adhesive to said web on opposite surfaces thereof, coating said web with a molten wax-like material, chilling and setting said wax-like coating by passing said web through a bath of cooling medium, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide a container having end and side walls, and tucking in corner portions of said body blank to provide inwardly extending reenforcing pleats of double thickness at said corner portions.

3. The method of producing one-piece single service fiber containers, which consists in first creasing a moving web of fibrous material to form fold lines at predetermined portions thereof, successively applying localized areas of thermoplastic adhesive to said web on opposite surfaces thereof, maintaining said adhesive in a fluent condition during application thereof, coating both sides of said web with molten paraffin,

maintaining by heat said paraffin in a molten condition to sterilize the fiber web, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide container end and side walls, and tucking in creased corner portions of said body blank to provide inwardly extending adhesively coated reenforcing pleats of double thickness at said corner portions, heating said adhesive on said body blank at said corner portions to secure such portions firmly together in a completed container body of one-piece construction.

4. The method of producing fiber containers from a continuously moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof, successively applying localized areas of thermo-plastic adhesive to said web on opposite surfaces thereof, maintaining said adhesive in a fluent conditions during application thereof, coating both sides of said web with molten paraffin, maintaining said paraffin in a molten condition to sterilize the fiber web, chilling and setting said paraffin by passing said web through a bath of cooling medium, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide container end and side walls, folding and tucking inwardly the corner portions of said body blank along other of said crease lines to provide inwardly extending adhesively coated reenforcing pleats of double thickness at said corner portions, heating said adhesive on said body blank at said corner portions and pressing such portions firmly together to adhesively secure the same to a container wall to provide a completed container body of one-piece construction.

5. The method of producing one-piece fiber container body blanks from a continuously moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof including corner portions of the body blank, successively applying localized areas of thermo-plastic adhesive to said web on opposite surfaces thereof at said corner portions, maintaining said adhesive in a fluent condition during application thereof, coating said web with a molten wax-like material, maintaining by heat said wax-like material in a molten condition to sterilize the fiber web, chilling and setting said wax-like coating by passing said web through a bath of cooling medium, and blanking out successive portions of said moving web into flat body blank of one-piece construction having crease lines for subsequent folding of the same into completed container bodies of one-piece construction adhesively secured together at the corner portions thereof.

6. The method of producing one-piece fiber container bodies from a moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof, successively applying localized areas of thermo-plastic adhesive to said web on opposite surfaces thereof, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide a fiber container having end and side walls adhesively secured together, notching, creasing and applying adhesive to localized portions of a fiber container closure blank, forming said closure blank into a completed container cover, rendering said cover adhesive tacky by the application of heat, and applying said cover to the filled container by a die-squeezing action to adhesively secure marginal portions of the cover to the open end of the container body.

7. The method of producing fiber containers from a continuously moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof, successively applying localized areas of thermo-plastic adhesive to said web on opposite surfaces thereof, coating said web with a molten wax-like material, chilling and setting said wax-like coating by passing said web through a bath of cooling medium, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide a container having end and side walls, tucking in corner portions of said body blank to provide inwardly extending reenforcing pleats of double thickness at said corner portions, notching, creasing and applying adhesive to localized portions of a fiber container closure blank, die-pressing said closure blank into a completed container cover, rendering said cover adhesive tacky by the application of heat, and applying said cover to the filled container by a die-squeezing action to adhesively secure marginal portions of the cover to the open end of the container body.

8. The method of producing one-piece single service fiber containers, which consists in first creasing a moving web of fibrous material to form fold lines at predetermined portions thereof, successively applying localized areas of thermo-plastic adhesive to said web on opposite surfaces thereof, maintaining said adhesive in a fluent condition during application thereof, coating both sides of said web with molten paraffin, maintaining said paraffin in a molten condition to sterilize the fiber web, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide container end and side walls, tucking in creased corner portions of said body blank to provide inwardly extending adhesively coated reenforcing pleats of double thickness at said corner portions, heating said adhesive on said body blank at said corner portions to secure such portions firmly together in a completed container body of one-piece construction, notching, creasing and applying adhesive to localized portions of a fiber container closure blank, forming said closure blank into a completed container cover, rendering said cover adhesive tacky by the application of heat, and applying said cover to the filled container by a die-squeezing action to adhesively secure marginal portions of the cover to the open end of the container body.

9. The method of producing fiber containers from a continuously moving web of material, which consists in first creasing said web to form fold lines at predetermined portions thereof, successively applying localized areas of thermo-plastic adhesive to said web on opposite surfaces thereof, maintaining said adhesive in a fluent condition during application thereof, coating both sides of said web with molten paraffin, maintaining said paraffin by heat in a molten condition to sterilize the fiber web, chilling and setting said paraffin by passing said web through

a bath of cooling medium, blanking out successive portions of said moving web into flat body blanks of one-piece construction, folding inwardly portions of said body blank along said formed crease lines to provide container end and side walls, folding and tucking inwardly the corner portions of said body blank along other of said crease lines to provide inwardly extending adhesively coated reenforcing pleats of double thickness at said corner portions, heating said adhesive on said body blank at said corner portions and pressing such portions firmly together to adhesively secure the same and to a container wall to provide a completed container body of one-piece construction.

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