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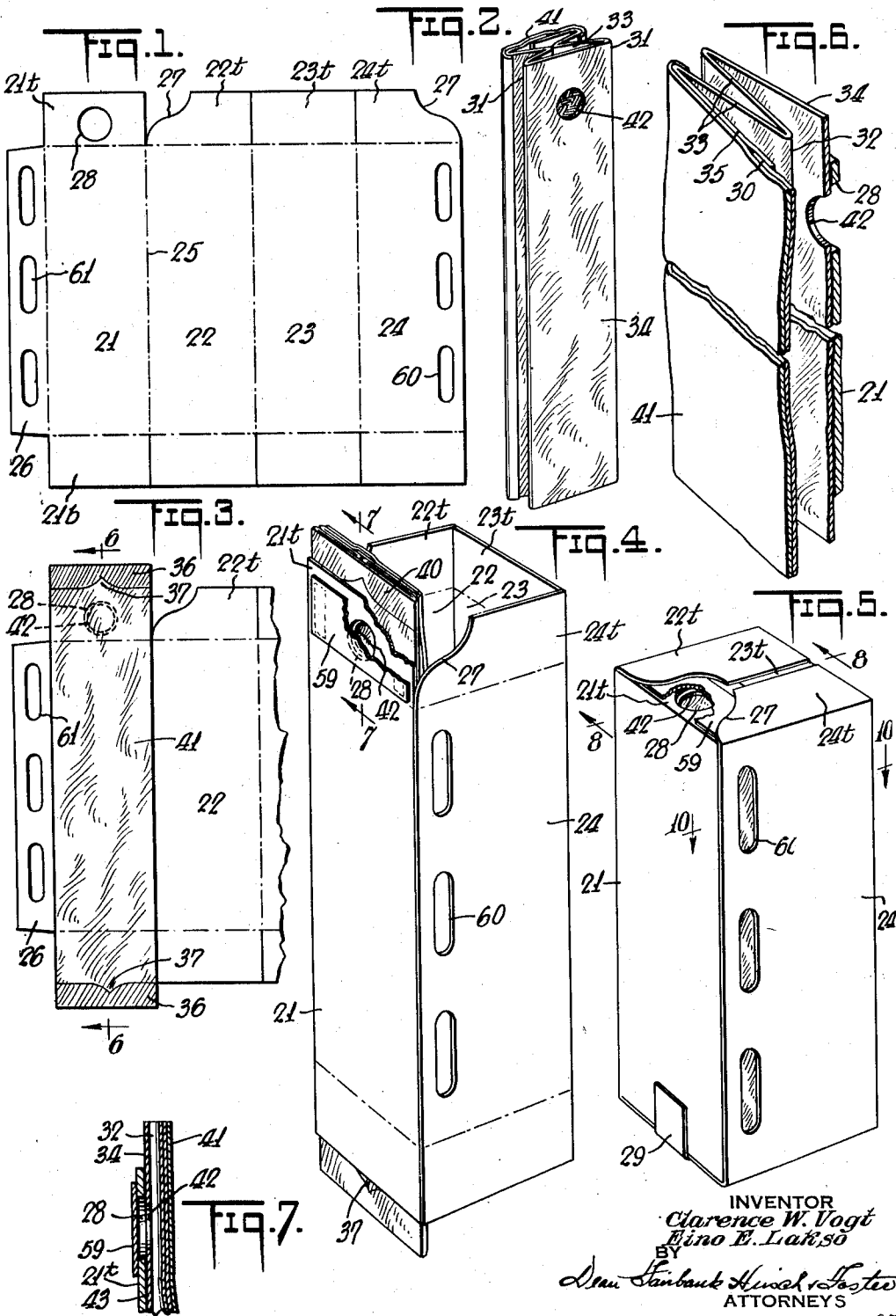
C. W. VOGT ET AL

2,177,918

CONTAINER FOR PACKAGING POURABLE MATERIALS

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2 Sheets-Sheet 1



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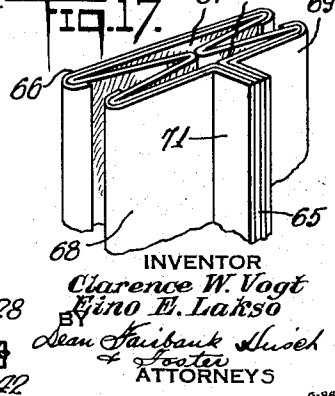
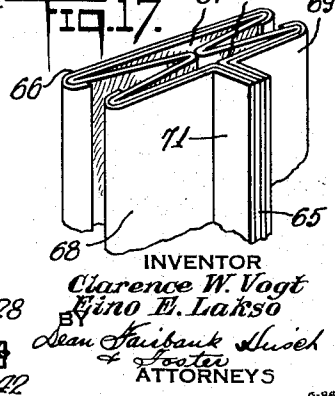
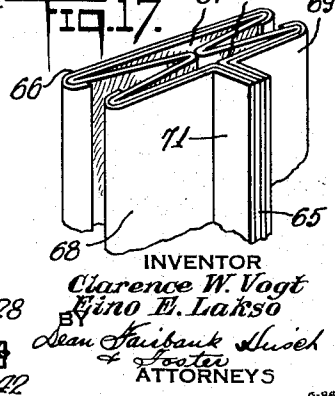
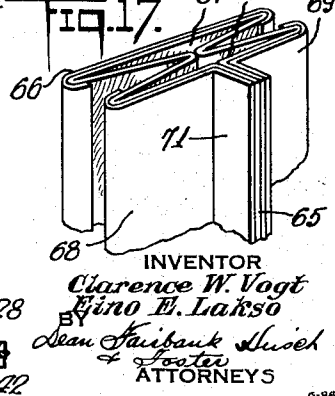
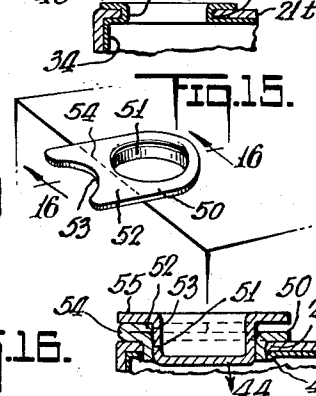
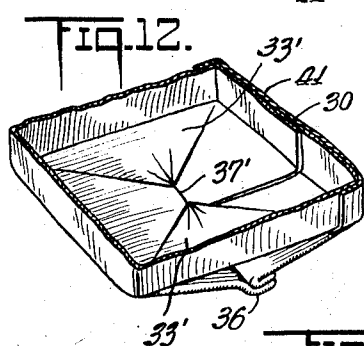
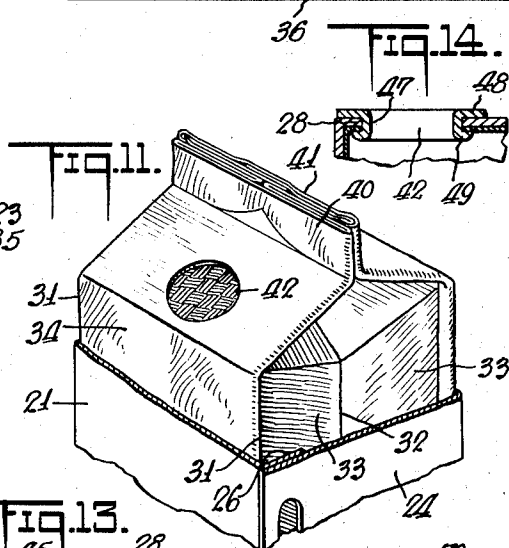
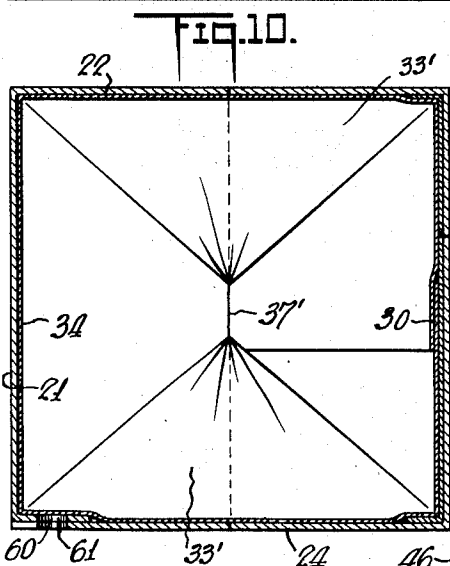
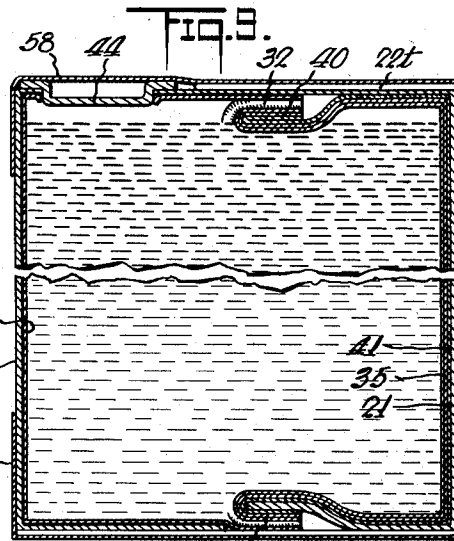
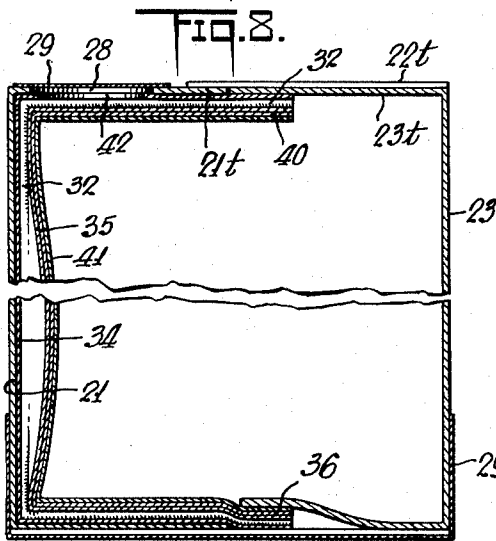
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CONTAINER FOR PACKAGING POURABLE MATERIALS

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,177,918

CONTAINER FOR PACKAGING POURABLE MATERIALS

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30 Claims. (Cl. 229-14)

Our invention relates to containers, packages and the constituent elements thereof, for pourable materials including especially liquids such as milk, cream and other beverages, and solid material in pulverulent or granular form such as salt, talcum and the like.

Among the objects of the invention are to provide a container unit of the flat collapsed type which is inexpensive in construction, which permits ready set-up for use, which may be charged with pourable material with substantially the same or even greater facility than conventional constructions, and which, in the completed package, presents a secure liquid-tight structure, the contents of which are at all times kept out of contact with the exterior wall of the unit.

Among other objects are to provide a container of the above type which lends itself to being charged by the use of any of various conventional types of filler devices, and which, when charged, presents a uniform measured volume, which container may be readily opened without destruction thereof for access to the contents, which container remains effective to store and protect the usual residue, and affords the further utility of facilitating visual inspection of the contents as for instance in order to determine the volume remaining, or the level of the cream line.

Another object is to provide a package of the above type which is proof against contamination of the contents by paraffin or other waterproofing medium, and which, though of thin stock may present window openings therein without appreciably weakening the structure.

Another object is to provide a container of inexpensive thin stock not subjected to spinning, stretching or drawing, which need not be treated to render it tasteless or sterile, and which, though equipped with window openings, presents adequate rigidity and mechanical strength to support, out of direct contact therewith, a sealed inner vessel containing the liquid or other pourable contents.

The package is made of two primary elements, an outer supporting structure, preferably a collapsible cardboard box, and an inner liquid-tight distensible bag structure having a single opening secured about a corresponding spout opening in the carton and otherwise hermetically sealed. After the collapsible box has been set up, a puff of air causes the bag to distend and become adapted to the inner wall of the enclosing box. The novelty resides not only in the box per se and the bag per se, but in the correlation between the two elements.

In the accompanying drawings in which are

shown one or more of the various possible embodiments of the several features of the invention,

Fig. 1 is a plan view of the blank from which the outer collapsible carton is made,

Fig. 2 is a perspective view, with the thickness shown exaggerated, of the tube construction from which the bag is fabricated,

Fig. 3 is a fragmentary plan view showing the correlation of the tube and collapsible box,

Fig. 4 is a perspective view showing one step in setting up the package for use,

Fig. 5 is a perspective view of the completely set up package, parts being shown broken away,

Fig. 6 is a perspective view on a larger scale, showing the mode of attachment of the bag to the box wall, and taken on the line 6-6 of Fig. 3,

Fig. 7 is a detailed sectional view taken on the line 7-7 of Fig. 4,

Fig. 8 is a longitudinal sectional view of an empty package on a larger scale, with parts broken away, and taken on the line 8-8 of Fig. 5, and before the bag has been distended,

Fig. 9 is a view in longitudinal cross-section, similar to Fig. 8, showing the completed filled package,

Fig. 10 is a view in transverse cross-section, taken on the line 10-10 of Fig. 5,

Fig. 11 is a fragmentary perspective view showing the upper end of the bag in partially distended position, the carton being shown partially broken away to better reveal the construction,

Fig. 12 is a fragmentary perspective view showing the form of the bag bottom distended in the condition of use,

Fig. 13 is a detailed sectional view of an alternative embodiment of spout,

Fig. 14 is a view similar to Fig. 13, of another modification thereof,

Fig. 15 is a perspective view of an alternative pouring spout and lip,

Fig. 16 is a cross-sectional view taken on the line 16-16 of Fig. 15, but with the lip bent back and the cap in place, and

Fig. 17 is a fragmentary perspective view of an alternative embodiment of liquid-tight bag.

Referring now to the drawings, the blank of the collapsible box shown in Fig. 1, presents a series, preferably of four, rectangular panels 21, 22, 23 and 24 connected by fold lines 25, and an extension flap 26 at one end of the blank, adhesively or otherwise connected under the face of the opposite panel 24.

The respective panels have corresponding top extensions 21', 22', 23', and 24' infolded to form the upper wall of the container. Extensions 22' 55

and 24^a are cut away at 27, at those lateral edges facing forwardly, thereby to expose a central spout aperture 28 in extension 21^a. The four infolded top extensions are secured together by adhesive, staples or the like, applied in manner well understood, by insertion of a plunger or anvil (not shown) through the open bottom of the carton. The carton blank also has bottom extension flaps 21^b on the respective panels, which are folded inwardly and secured by an adhesive strip 29 across the bottom of the carton.

The liquid-tight bag construction is preferably made up primarily of a strip of liquid-tight, extremely thin, flexible, transparent, membrane-like material. Although various materials may be employed for the purpose, we prefer a material recently placed on the market under the name "Pliofilm", which is made from a rubberoid base and possesses the characteristic of being readily vulcanized or sealed at a temperature of approximately 115° C., and which possesses the further property of admitting of such vulcanization or sealing together, even though the surfaces thereof have been previously wetted by contact with liquid or with moisture-carrying plastic material. Another material which may be satisfactorily used in some constructions, is a moisture-proof material of the type sold under the trade name "Heat sealing Cellophane".

The strip of membranous material has its lateral edges preferably superposed and autogenously bonded together in a lap seam 30. The tube presents two pairs of parallel longitudinal creases 31, and a pair of median longitudinal creases 32 to afford infolded side walls 33, connected to parallel rectangular faces 34 and 35, affording the general cross-section of a collapsed bag.

The bottom of the bag is formed by application of pressure and heat to the material of the superposed faces 34 and 35 with the interposed infolded side walls 33, along a narrow strip 36, to cause said elements to be autogenously bonded together in the case of "Pliofilm" or other similar material, or such result can be accomplished by resort to rubber or other waterproof cement or binder along such narrow strip 36.

The single rectilinear bottom seam set forth affords an adequate square or rectangular bottom for the bag, when the latter is filled. That is apparent from the fact that the infolded side wall portions 33' distend immediately above the bottom seam 36, so that the bag will conform to the walls and bottom of the rectangular box or carton.

The bond afforded at the narrow strip 36 just described, results in a bottom structure sufficiently secure in all cases when the charged bag bottom is adequately sustained by the bottom of the containing carton. The security of this seam might, however, prove insufficient, if the bag be but partially supported by the carton (as where the carton bottom has been injured). This is accounted for by the fact that the strain incurred when the bag is charged, is transmitted along the central line of the infolded side walls 33', and localized at the intervening portion of the seam, that is at the center of the bonded strip 36, at which separation and leak might occur under the exceptional circumstances just pointed out. By the simple expedient of indenting the upper edge of the heating and pressure platen (not shown) by which the seam is produced, so as to provide a central V-shaped depression 37 in the upper edge of said seam, an

extra length of non-bonded material is afforded thereat, which spreads or straightens out to bring about effective distribution of strain, as best suggested at 37' in Figs. 10 and 12.

The transverse bottom seam 36 of uniform width, but preferably with a central V-shaped indentation 37 described, is duplicated at the upper edge or top of the bag as shown at 40.

While the tube may be made entirely of "Pliofilm" or similar thin membranous material, as thus far described, that practice involves difficulty in handling prior to assembly, due to the flimsiness of the material, and also difficulty in effecting the end seal since the material is likely to become bonded or to stick to the heated platen by which the bonding pressure is applied. To obviate both of these difficulties, it is preferred to cover one or, if desired, both faces of the bag with a layer or layers of paper 41 which preferably extend over the entire area of the face or faces and are secured in position by suitable adhesive.

The bag structure of Figs. 2 to 12 is hermetically sealed at both ends and shown covered with paper 41 only at face 35, while the infolded side walls 33 remain uncovered and present a simple membranous structure. While the bag so far described is itself useful for hermetically sealing liquid materials, to which access may be had by mutilation, the bag finds its preferred utility in association with the collapsible carton above described. For that purpose, that face 34 of the bag which is devoid of the paper sheet backing 41 is provided with a circular opening 42 which is brought into registry with and secured to the inner face of the pouring spout 28 on the cover extension 21^a of the carton. The attachment may be effected as illustrated in Fig. 7 by applying rubber cement 43 between the underface of the extension 21^a and the face 34 of the bag. In one of the many possible ways of connecting the carton and the bag, the opening 42 of the latter is slightly smaller than the spout opening 28 of the carton, to cause the rim of said bag opening to protrude inwardly from the rim of the spout. Accordingly, when the conventional cup shown at 44 in Fig. 9 is plugged in, the protruding rim of the bag opening is pressed inwardly, thereby to encircle the cup.

In Fig. 13 is shown a modification of the correlation of carton and bag. In this case, the material of the bag 34 is turned through the spout opening 28 of the carton to line the same as at 45, and the exposed rim 46 is lapped over the outer face of the extension 21^a. The plug thus engages solely the liner 45 which is integral with the bag and does not engage the carton.

In Fig. 14 is shown another alternative construction in which the spout opening 28 in the carton and the opening 42 in the bag are firmly secured together by an appropriate rivet or ferule 47, lining said openings and presenting an outer flange 48 and an inner crimped-over end 49.

In Figs. 15 and 16 is shown another embodiment including an auxiliary spout piece 50 of paraffin-impregnated cardboard with a spout opening having an inturned rim 51 which extends into the opening 28 of the carton and the corresponding opening 42 of the bag. This spout piece presents a protruding lip 52 with a scalloped edge 53 which facilitates pouring, and precludes the possibility of the contents wetting the carton. In the closed and assembled package, the lip 52 is turned inwardly about fold line 54 as shown in Fig. 15, to avoid any protrusion, and

is clamped down by the flange 55 of the closure cup 44', which snugly fits the spout piece, thus protecting the pouring surface.

While it is sufficient to secure the bag to the carton solely about the spout opening, in any of the illustrative ways above described, it is preferred to attach substantially the entire area of one bag face 34 to the inner face of the corresponding panel 21 of the carton, as best shown in Figs. 3 and 4, with the extremities of the flattened bag protruding slightly beyond the extensions 21^a and 21^b.

It is seen that in collapsed condition for shipment, the bag is lodged in protected position between the walls of the collapsed carton and the device is extremely compact, taking up perhaps five percent of the volume of a corresponding receptacle of non-collapsed construction.

The bag being attached as described, to only one of the panels of the collapsed box, it is immediately apparent that the box can be set up for use as shown in Figs. 4 and 5 and as previously described, without the least interference from the bag. The latter, after the box has been distended and assembled will remain lodged in collapsed condition against the wall 21 and along the bottom as shown in Fig. 8. The device is filled with milk, cream or other beverage or pourable material, with the same facility as are other well known preformed rigid containers now in use. Either a gravity or a "shot" or metering type of filler may be used.

It is preferable with the "shot" type of filler to cause a puff of air to be applied through the spout 28 to distend the bag somewhat before introducing the liquid or other flowable material. As the bag becomes charged, it distends and conforms to the lateral, top and bottom walls of the carton until it finally assumes the position best shown in Figs. 9, 10 and 12, in snug contact with the carton walls. With the gravity type of filler, the puff of air may be and preferably is dispensed with, since the bag readily becomes distended under the gravity head. No air being introduced into the bag, the problem of oxidation, contamination and/or foaming incurred with some substances, such as milk and cream, is thus obviated. After the container has been filled, the plug 44 or 44' is simply inserted in the filling opening and the assembly is complete.

Preferably, the walls 22 and 24 are held under pressure during the charging operation, to flex inward slightly, so that after the bag has been charged clear to the spout 28, the release of the flexing pressure will cause the walls 22 and 24 to return to flattened state and the effective volume will increase correspondingly to depress the level of the liquid somewhat below the spout 28 to afford room for plugging in the cup 44 or 44', without waste of liquid or wetting the exterior of the carton over adjacent spout 28. Even though the outer carton may have paraffin or other brittle coating, the flexing set forth would not entail contamination of the contents with particles broken off from the carton.

It is preferable to adhesively or otherwise to apply over the closure cup 44 or 44' a strip 58 with appropriate legend or markings (not shown), the intact condition of which will evidence that the contents have not been tampered with.

Insofar as the interior of the bag is concerned, with which alone the milk or other liquid comes into contact, the container in collapsed condition remains in prophylactic condition during

shipment, as no air can enter. As a further safeguard, however, if desired a strip 59 may be adhesively attached over the spout 28 thereof, which strip may be readily torn off immediately prior to filling, as shown in Fig. 5.

Since the bag as above described, presents a water-tight vessel, no part of the contents of which can wet the outer container, the latter, preferably the collapsible carton described, may be of relatively thin inexpensive stock which need not be paraffined or otherwise treated to render it leak-tight, and which moreover need not be treated in any way to avoid imparting a taste or flavor to the contents.

The carton serves solely as a mechanical support and enclosure for the liquid-tight, liquid-filled bag contained therein, and serves also to compose the generally rectangular form, when the bag is charged, and to relieve the latter of substantial strain on the seams due to the weight of the contents, although as above noted, the bonds are amply strong enough to prevent leak even in the absence of such auxiliary support.

Preferably, the carton is so made as to afford facility for visual inspection of the contents. For that purpose the carton wall 24 is provided with a series of window openings 60 cut thereinto. Were these openings applied in the usual manner, they would materially weaken the stock of the carton or necessitate corresponding reinforcement. According to the present invention, the window openings are applied at that region of the box at which the attachment flap 26 is attached in making up the box, said flap having corresponding window openings 61. Accordingly, the windows are located at that portion of the carton where the stock is double-ply, so that reinforcement is inherently afforded thereat. To assure the proper registry of the window apertures 60 in the panel, and of apertures 61 in the attachment 26, the latter apertures are made slightly larger than the former.

The paper backings 41 of the bag extending along walls 21 and 23 in the filled package, and the windows 60 being in the intermediate wall 24, it is seen that a portion of the transparent side wall 33 of the bag is exposed by said windows, and the contents are visible therethrough.

The package is opened by merely removing the closure cup 44, and in the embodiment of Figs. 15 and 16, removing the cup 44' and turning outward the spout lip 52. The contents will pour freely even though the spout aperture 28 be much smaller than that of conventional dispensing vessels. This is due to the fact that the distensible bag, subjected to atmospheric pressure through the windows 60, will automatically collapse as the contents are withdrawn, and at no time does any partial vacuum form therein, so that no return of air through the pouring spout is required to facilitate the discharge which occurs in a continuous unimpeded flow. Moreover, upon reapplying the closure cup 44 or 44', the remaining contents are protected not only from extraneous air but from contamination by air in the bag.

While the collapsible carton set forth is preferred as a protecting enclosure, it is understood that a frame or carrier of other construction might be employed for the purpose.

In Fig. 17 is shown a modification of the bag structure of Fig. 2. Here a slightly greater width of "Pliofilm" or equivalent material is used, and the longitudinal seam is formed as a fin 65 projecting from the middle of one of the panels. The

paper cover 66 extends over the continuous face 67 as in the embodiment of Fig. 2, and two distinct narrow paper covers 68 and 69 extend over and are adhesively connected to the corresponding segments of the bag, making up the other face 70 thereof, said paper covers extending over and being attached at their ends 71 to the respective faces of the fin 65.

It will thus be seen that there is herein described an article in which the several features of this invention are embodied, and which attains the various objects of the invention and is well suited to meet the requirements of practical use.

As many changes could be made in the above construction, and many apparently widely different embodiments of this invention would be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A collapsible container including a rectangular collapsible carton having end flaps and a liquid-tight bag of flexible material within said carton and secured to one wall thereof, said bag being of greater length than said wall when in collapsed condition against said wall, and said bag having a filling opening intermediate of the ends thereof.

2. A container including a substantially rectangular collapsible carton having end flaps, and a substantially rectangular collapsed tube secured within and to one wall of said carton, the length of said tube being greater than the length of said carton, the opposite sides of said tube being sealed together at opposite ends.

3. A container including a rectangular collapsible carton and a normally flat distensible liquid-tight bag comprising a tube of thin, pliable material folded to form two rectangular faces and infolded side walls, the superposed faces and infolded side walls being sealed together at each end of the bag, and one of said rectangular faces being of substantially the same width as and secured to one wall of said carton.

4. A container for liquids, comprising a collapsible rectangular carton including side walls and cover flaps, one of said flaps having a pouring opening therein, and a waterproof normally flat bag extending the height of the carton along the inner face of one wall thereof, said bag being closed top and bottom and having a single aperture in one wall thereof secured about said pouring opening.

5. A container for liquids, comprising a collapsible rectangular carton including side walls and cover flaps, one of said flaps having a pouring opening therein, and a waterproof normally flat bag extending the height of the carton along the inner face of one wall thereof, said bag being closed top and bottom and having a single aperture in one wall thereof secured about said pouring opening, said bag being secured along the height of one face thereof to the corresponding wall of the collapsible carton.

6. A liquid container comprising a rectangular collapsible carton having cover flaps, one of said flaps having a pouring opening therein, a liquid-tight bag of membranous material having a rectangular contour in normal undistended condition, of substantially the same width as one wall

of said carton, said bag being sealed top and bottom and having a single aperture substantially registering with and attached about said pouring opening.

7. In a liquid container, the combination of a distensible liquid-tight bag comprising a tube of water-tight membranous material normally in flat condition, having its opposite ends hermetically sealed and having a single filling and pouring opening at one face and near one end thereof.

8. In a liquid container, a liquid-tight bag comprising a tube of membranous material normally infolded laterally in flat condition, the respective ends of said tube and the infolded portions thereof being bonded together for a liquid-tight seal, top and bottom, said bag having a circular aperture in one face and near one end thereof to serve for filling and emptying.

9. In a liquid container, the combination of a liquid-tight bag of thin membranous material, comprising a tube laterally infolded in normally flat rectangular form, a paper backing covering and adhesively secured to one face of said bag at the exterior thereof, the ends and corresponding intumed sides at the respective ends of the bag being adhesively bonded together for liquid-tight closure thereof, one face of the membranous bag having a filling and pouring aperture near one end thereof.

10. In a liquid container, a normally flat distensible liquid-tight bag comprising a tube of thin pliable membranous material folded with two rectangular faces and infolded side walls, the superposed faces and the intumed sides at one end of said bag being bonded together for a liquid-tight bottom, the line of bonding at the interior of the bag being depressed in a general V-conformation near the middle of its length for distribution of the strain of the liquid contents of the bag.

11. A container for liquids, comprising a tube of thin limber liquid-tight membranous fabric, said tube being laterally infolded to present two generally rectangular parallel faces, the faces and infolded sides at one end of said tube being adhesively bonded together to form a liquid-tight tube end and an outer collapsible casing having rectangular side walls, one of said side walls being of substantially the same width as and secured to one of said parallel faces.

12. In an individual container for liquids, a bag comprising a tube of thin limber liquid-tight membranous construction, said tube being laterally infolded to present two generally rectangular parallel faces, the faces and infolded sides at the respective ends of said tube being adhesively bonded together to form a liquid-tight top and bottom, both the top and the bottom bond being narrowed in width toward the middle of the lengths thereof, to increase the effective length of bond line on contact with the liquid contents of the bag.

13. In an individual liquid container, a liquid-tight bag, comprising a composite structure including a tube of thin translucent limber membranous material laterally infolded to present rectangular parallel faces, one of said faces having a paper backing covering and adhesively connected thereto, leaving the main areas of the infolded side walls substantially exposed, the respective ends of said membranous tube and the corresponding infolded side walls being bonded together in liquid-tight bottom and top closures.

14. In an individual liquid container, a liquid-

tight bag, comprising a composite structure including a tube of thin translucent limber membranous material laterally infolded to present rectangular parallel faces, and a paper backing covering and adhesively connected to one of said faces, leaving the main areas of the infolded side walls substantially exposed, the respective ends of said membranous tube and the corresponding infolded side walls being bonded together in liquid-tight bottom and top closures, the bonded width at the top and bottom being centrally narrowed in a generally V-shaped formation with the concavity thereof facing the contents of the bag.

15. A liquid receptacle comprising a collapsible angular outer structure having an upper portion presenting a pouring opening, a bag having a single opening attached about said pouring opening, said bag being of membranous material having opposite flat faces and infolded side walls, one of said faces being secured to the outer structure, the lower ends of the faces and infolded sides of the bag being bonded together to form a liquid-tight bottom, the line of bonding having a V-conformation near its middle the concavity of which faces the contents, whereby in service the bag will be distended to conform laterally to the outer structure, with the bottom conforming to the bottom of the latter and the V-shaped conformation spread to distribute the strain due to the weight of the contents.

16. A package for liquids comprising a collapsible cardboard container having rectangular side wall portions and bottom and top structures, the former having an aperture therein to serve as a pouring opening, one of said side walls presenting window openings along the height thereof, and a water-tight limber bag of substantially the height of said container, sealed top and bottom and presenting an aperture secured about said pouring aperture, said bag being translucent along that portion thereof exposed to view by said window openings in the container.

17. A liquid package comprising a collapsible rectangular carton having extension flaps at its upper and lower ends to form top and bottom structures, one of the top flaps having a pouring aperture therein, a liquid-tight bag of translucent thin limber membranous material having parallel faces and infolded side walls, one of said faces secured along the wall of the carton carrying that flap with the pouring aperture, one of the contiguous walls of said container having window openings along the length thereof exposing to view the contents of the charged bag, a transparent side wall of which will extend across said wall and said window openings in use.

18. In a cardboard container of the character described, a box-like structure comprising a blank presenting side walls and end walls, one extreme side wall having an extension flap for adhesive connection to the opposite side wall in the assembled construction, and window apertures through the extension flap and the corresponding registering portion of the wall to which it is secured.

19. A collapsible cardboard box for a fluid container, comprising a blank presenting a series of panels with fold line connections, one lateral extremity of the blank presenting an end flap adhesively connected under the lateral edge of the opposite extremity of the blank, and window apertures through said extension flap and the panel portion superposed thereover.

20. A collapsible cardboard box for a fluid con-

tainer, comprising a blank presenting a series of panels with fold line connections, one lateral extremity of the blank presenting an end flap adhesively connected under the lateral edge of the opposite extremity of the blank, and window apertures through said extension flap and the panel portion superposed thereover, the apertures in the extension flap being slightly larger than the corresponding apertures in the panel.

21. The combination of a collapsible box having a pouring opening, a distensible liquid-tight bag therein having an opening registering with said pouring opening, said bag being rigidly connected to said carton in the area encircling said opening, the material of said bag being exposed at said opening for permitting contact therewith of a removable closure plug for the opening.

22. The combination of a collapsible box having a pouring opening, a distensible liquid-tight bag therein having an opening registering with said pouring opening, the wall of said bag and the wall of said box being secured together in the area encircling said registering openings, the material of the bag being extended through said opening to afford a lining for said opening to be contacted by a removable closure plug, the material of said bag being lapped at its rim over the exposed face of the box.

23. The combination of a collapsible box having a pouring opening, a distensible liquid-tight bag therein having an opening registering with said pouring opening, the wall of said bag and the wall of said box being secured together in the area encircling said registering openings, and a ferrule structure lining said opening and clamping the rim of said bag opening against the inner face of the pouring opening.

24. A package comprising an outer box having an opening in its cover, an inner liquid-weight, liquid-filled bag conformed to the inner walls of said box and having an opening registering with said cover opening, and a removable plug for said registering openings, said bag comprising a tube with flat faces contacting opposite walls of the box, and flat end walls contacting corresponding walls of the box, and infolded tops and bottoms sealed respectively along a single strip and conformed respectively to the top and bottom of the box.

25. A package comprising a generally rectangular cardboard container of the collapsible type presenting a pouring opening, window openings in one side of said box, a liquid-tight liquid-filled bag conforming in filled condition to the walls, bottom and top of said container, said bag exposing a transparent membranous portion at said windows, said bag having an opening registering with the pouring opening of the box, and a removable closure plug for said registering openings.

26. A water-tight bag comprising a strip of liquid-tight thin limber membranous material bonded together at the lateral edges thereof to form a tubular body with a double-ply fin, the walls of said body being infolded laterally and presenting parallel rectangular faces from one of which said fin projects, and strips of paper covering and adhesively connected to the respective faces of said tube and to cover the two faces of said fin.

27. A collapsed receptacle adapted to be set up for storage and shipment of liquids, comprising a carton including a collapsed rectangular tube having top flaps, an opening in one of said flaps serving for pouring, a flat distensible membranous bag formed of water-impervious material and at-

tached to the same side of said tube as said apertured top flap, said bag presenting an opening bordering said pouring opening, and a protective strip attached over said opening to prevent entry
5 of foreign matter into the bag, said strip being readily torn away to expose the filling opening immediately prior to charging the set-up package.

28. A container for liquids, including an outer enclosure, an inner thin flexible membranous bag, and a relatively small pouring opening in
10 the enclosure and in the bag, said openings being in registry with each other, the exterior wall of said bag having its major portion unattached to the wall of said outer enclosure, whereby the bag
15 will distend as liquid is introduced and will collapse as liquid is poured through the opening.

29. A container for liquids including the combination of a collapsible carton having a tubular body portion with flaps carried thereby and
20 adapted to form a closure, a collapsed bag within

said carton and having a tubular body portion sealed at its ends, said carton and said bag having registering openings, and a closure for said bag opening.

30. A collapsible receptacle for packaging liquids, comprising a collapsible carton tube formed
5 from a cardboard blank having panels connected by fold lines, and having its opposite edges adhesively connected, said panels presenting end flaps foldable to form carton ends, and a collapsed bag within said tube and formed of thin,
10 flexible, impervious material, with opposite faces and infolded sides sealed together at opposite ends, one of the flaps having a pouring opening, and the corresponding end of said collapsed bag
15 having an opening in registry with said pouring opening, said flap and said bag face being secured together around said openings.

CLARENCE W. VOGT.

EINO E. LAKSO.