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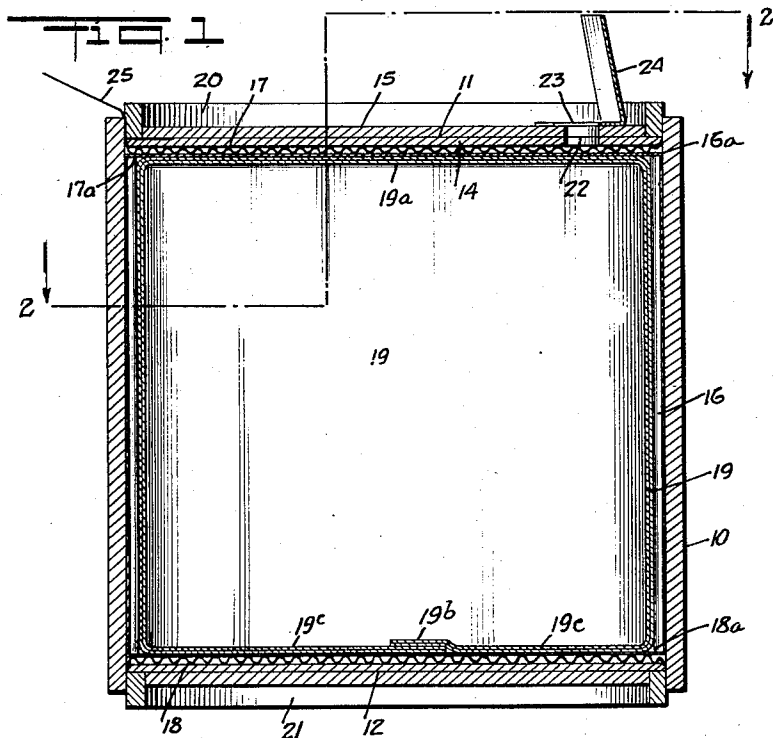
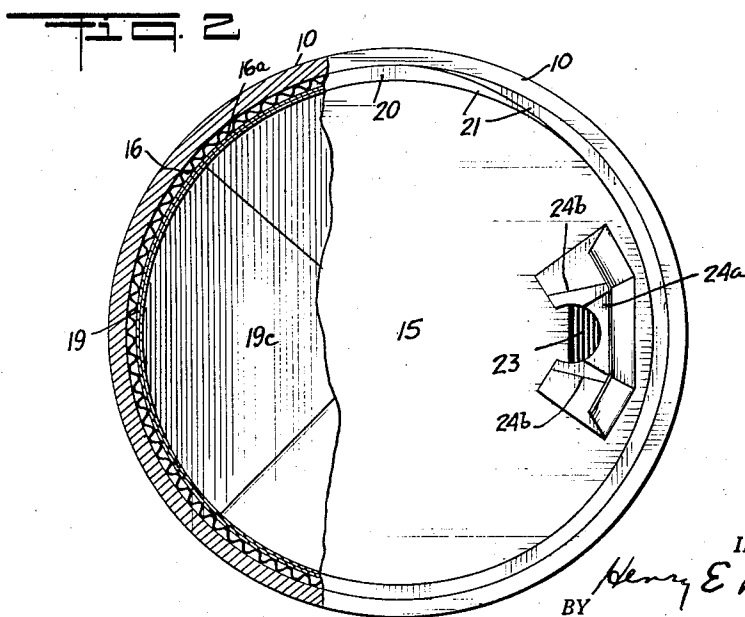
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2,369,013

CONTAINER AND METHOD OF MAKING THE SAME

Filed Aug. 26, 1942

2 Sheets-Sheet 1



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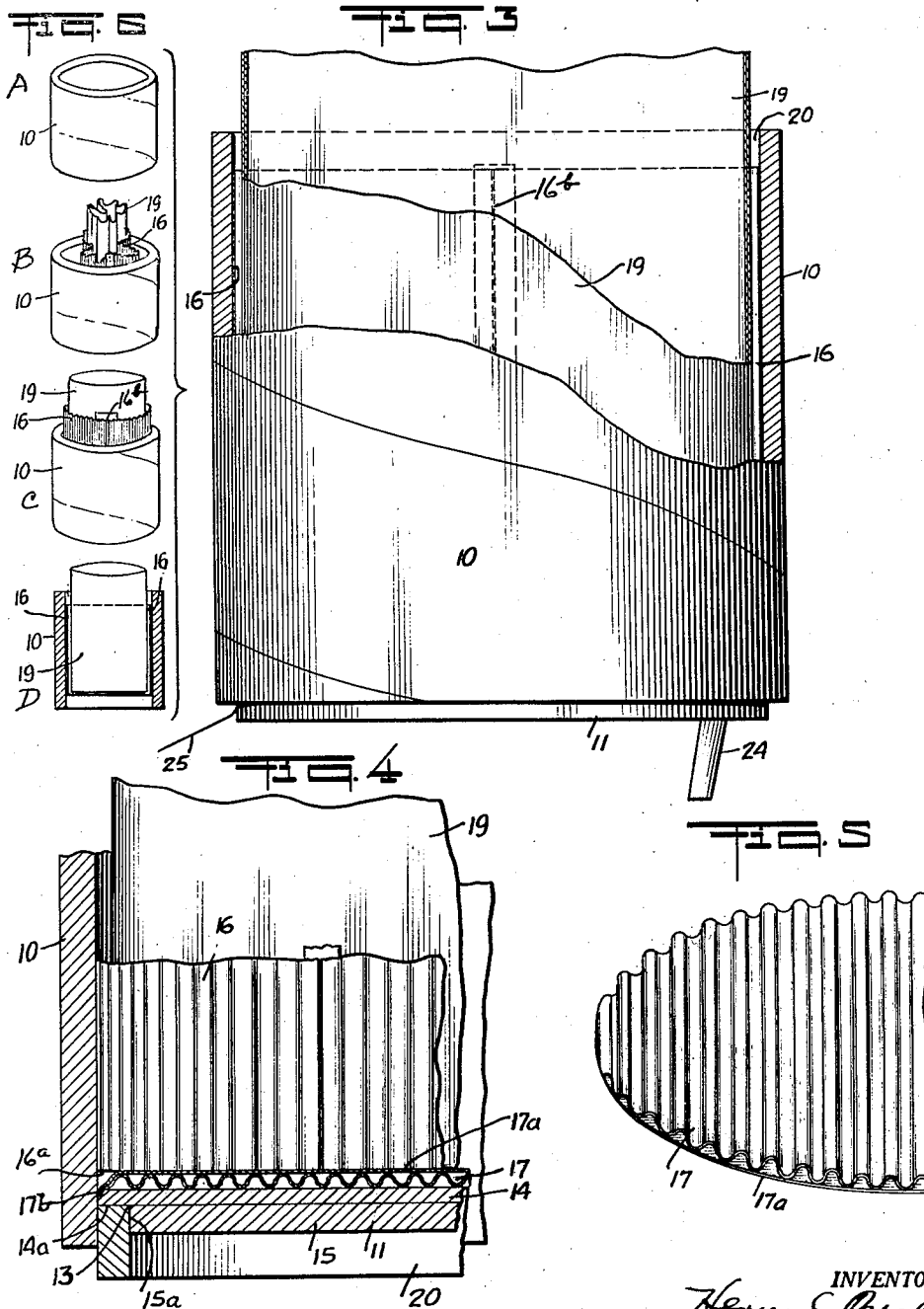
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CONTAINER AND METHOD OF MAKING THE SAME

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2 Sheets-Sheet 2



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CONTAINER AND METHOD OF MAKING
THE SAME

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14 Claims. (Cl. 229—14)

This invention relates generally to containers and is more particularly directed to a container composed of fibrous material, adapted to be utilized as an original package in dispensing various kinds of goods, and the method of producing the same.

As is well known, fiber containers of various forms are now available for marketing numerous products. However, in the distribution of many materials, especially those that are subject to rapid deterioration unless adequately protected against fluid penetration, the use of fiber containers has been more or less limited, largely because of the fact that heretofore it has not been possible to economically manufacture a fiber container that is not only durably leak-proof and impervious to moisture penetration, which are most essential, but light in weight and of a rugged construction. Manifestly, in the marketing of many products which are customarily put out in so-called bulk containers, the gross weight of the package and the capacity of the container to withstand rough handling in shipping are important factors.

Therefore, the primary object of this invention is to provide a fiber container of a simple and economical construction, which is rugged and relatively light in weight and effectively responds to the requirements for packaging those materials in the marketing of which containers that are leak-proof and impervious to fluid penetration are essential; my container being so constructed that it is feasible to store the packaged goods for long periods of time, without the constituent material of the container being detrimentally affected, with the resulting leakage and deterioration of the contained product, as is of common occurrence in the use of existing types of fiber containers.

An important object of this invention is to provide a container having an inner bag-like receptacle of flexible material, in which the contained product is packaged, and an outer rigid casing, including a tubular shell or body portion, the receptacle embodying an outer wall of resilient material and being adapted to be entered within the shell in a collapsed or semi-collapsed condition, for expansion into conforming engagement therewith, the resilient material reacting to frictionally adhere to the shell wall for locating the receptacle in an adjusted position with the shell relative to the ends thereof, and functioning to maintain the stability of the package within the casing, under shifting load conditions.

Another object of this invention is to provide

a container having an inner receptacle and an outer protective casing as aforesaid, in which the shell or body portion of the casing is sealable by end-forming members frictionally entered therein, the ends of the resilient outer wall of the packaging receptacle, when located within the shell functioning as internal shoulders for defining the disposition of the end-forming members inwardly of the shell ends with which they are associated; other resilient elements being interposable between the end-forming members of the outer casing and the contiguous end surfaces of the inner receptacle to cooperate with the resilient wall of the receptacle in stabilizing the inner load and cushioning the receptacle, in the completion of the container.

It is also an important object of this invention to provide a fiber container, possessing the characteristics and advantages hereinbefore set forth, which may be conveniently hermetically sealed by the packer of the contained product, for the subsequent removal of the contents in bulk, or by dispensing them from the container in such quantities as may be desired, at the option of the purveyor or user of the product, as the case may be. To this end, my invention contemplates hermetic sealing means which may be readily applied to the outer casing shell and bodily removed therefrom in a replaceable condition, to admit of bulk removal of the container contents, the sealing means embodying a rupturable area with which a collapsible spout-forming element is associated, for doling out the contents, where it is desired to maintain the seal otherwise intact, as in dispensing the contained product in small amounts.

A further object of my invention is to provide an all fiber container including an outer casing having a tubular shell and end-forming members insertable therein of a composition and so assembled in the completion of the outer casing of the container that the entire structure is reinforced against bending forces, the end-forming elements being interlocked with the wall of the shell in cooperation with the end edges of the resilient wall of the inner receptacle, in a fluid-proof jointure and highly resistant to separation under constant and shifting loads.

My invention also comprehends a container possessing the aforementioned advantages and characteristics and a method of producing the same in a manner which may be expeditiously practiced, so that a container conforming to my invention may be most economically manufac-

tured and thereby provide for more extensive use of fiber containers in those fields in which the employment of existing types of fiber containers has been found to be impracticable, because of their high cost, apart from their lack of dependability under the conditions that prevail in commercial operations involving the marketing of the packaged products. Also, as will be evident, by utilizing the inner resiliently supported receptacle, as a package, in conjunction with the outer rigid protective casing, I am enabled to produce a much lighter construction than otherwise, without sacrificing strength or durability.

Other objects and advantages flowing from the practicing of my invention will become evident as the description proceeds.

In the accompanying drawings, I have shown a preferred form of container, conforming to my invention, as it may be produced by my simple and economical method of manufacture.

In the drawings:

Figure 1 is a vertical cross-sectional view of a container produced in accordance with my invention.

Figure 2 is a top plan view, partly in section, of the container shown in Figure 1, on the line 2-2 thereof.

Figure 3 is an elevational view, partly in section, illustrative of the mode of assembly of the inner receptacle in association with other components of the container.

Figure 4 is an enlarged fragment of Figure 3, partly in section.

Figure 5 is a fragmentary perspective of an end-liner section adapted for association with an end-forming member of the outer casing and the resilient wall of the inner receptacle; and

Figure 6 is a collective showing, in perspective and section, to illustrate the sequence of steps in the assembly of certain of the container components.

Referring now to the drawings in detail, in which like characters of reference are employed to designate similar parts in the several views, 10 indicates the shell or body-portion of the outer casing of the container, which is of a tubular shape and produced from pressed chipboard, or other suitable material, in the appropriate length. Preferably, the chipboard, in the production of the shell 10, is spirally wound, the convolutions or windings forming each of the constituent laminations mating in butt joints and being bonded by an appropriate adhesive to the convolutions upon which they are superposed to build up a wall section of the requisite thickness. Silicate of soda has been found to be a highly satisfactory agent for use in uniting the spiral windings, to produce a strong, rigid shell.

End-forming members 11 and 12, each of the so-called diaphragm type, are insertable within the respective ends of the shell 10, in the completion of the structure of the outer casing, as herein after described. Since both of these end-forming members are identical in structure and mode of functioning, the description of one thereof, will suffice for the purpose of this disclosure.

Taking the end-forming member 11, as an example, it will be observed that it embodies a stepped marginal portion 13, formed by superimposed concentric discs 14 and 15 of different diameters, composed of pressed fiber and cemented together throughout the area of their opposed surfaces, the disc 14 of major diameter

having a circumferential area corresponding to that of the interior of the shell or body-portion 10, in which it is adapted to be seated, under axially applied pressure. If desired, the end-forming members may embody an embedded layer of moisture-proof material, or may be otherwise rendered impervious to moisture penetration, though this is not essential to the practicing of my invention as herein shown.

When the shell 10 has been formed, it is ready for the reception of the inner package-forming receptacle of flexible material, having an outer and supplementally applied surface of resilient material, constituting the external wall of the receptacle. Preferably, the receptacle and the outer wall-forming material are independently produced and the resilient material adhesively secured to the external surface of the receptacle, to produce a composite wall construction of unitary characteristics.

In the present showing, the inner receptacle takes the form of a paper bag, as indicated at 19, which is formed in the usual manner to embody a closed end or bottom 19a. The bag is then positioned on a mandrel or otherwise supported in expanded condition, and a sheet of corrugated paper or light-weight paper board of a width less than the height of the bag is adhesively united to the outer surface of the bag, with the web-portion 16a of the corrugated sheet 16 in engagement therewith, to insure a complete and inseparable bond. The length of the corrugated sheet is such as to provide for the meeting of the opposed edges of the sheet in surrounding engagement with the bag wall, in a butt jointure, as indicated at 16b, or if preferred, they may marginally overlap in the registration of mateable opposite end corrugations, to provide a uniform wall thickness in the zone of jointure of the edges.

The composite construction thus produced, possesses a relatively thin flexible inner wall-forming surface and an external wall-forming surface having resilient characteristics, imparted by the corrugations coacting with the web-portion 16a of the external wall-forming surface, with multiple advantages in the assembly and use of the container, as will become apparent.

The composite inner receptacle, including the bag 19 and the external resilient wall 16, which hereinafter will be referred to simply as the receptacle 19 for the sake of brevity, except where specific reference is to be made to the external wall and its functions, is inserted in the tubular shell 10, as shown in view A of Figure 6, in a collapsed or partially collapsed condition, as illustrated in view B of said figure. The receptacle is then expanded by internally applied pressure, as by the hands, in conformation with the inner wall of the shell 10, as in view C of Figure 6, the hill surfaces of the corrugations of the external wall 16 of the receptacle frictionally adhering to the shell surface, in the reaction of the corrugated material to the receptacle-conforming step. The frictional pressure generated between the external wall of the receptacle and the shell wall is sufficient to support the receptacle in suspension between the open ends of the shell 10, in any position to which it may be adjusted to locate the bottom 19a of the bag 19 in predetermined vertically spaced relation to one end of the shell for the entry of the end-forming member therein, the edge of the external wall 16 of the receptacle surrounding the bag bottom 19a functioning as an internal shoulder in the seating of the end member, as hereinafter described, and as shown

in view D of Figure 6, the open end of the bag extending above the other end of the shell, to facilitate loading.

The end-forming member 11 may now be entered in the end of the shell 10 in juxtaposition to the bottom of the bag 19, an end-liner 17 of corrugated material or cardboard, or other suitable resilient material, appropriately shaped, being first located upon the bottom 19a of the bag with its web-portion 17a disposed in bag-engaging position. As will be observed, especially from Figure 4, the circumferential area of the end-liner 17, conforms to that of the inside of the shell 10; so that the peripheral edge of said end-liner will be disposed in contact throughout its area with the opposed shell surface.

In the application of the end-forming member 11 to the shell, the disc 14 thereof, is entered in the end of the shell contiguous to the bottom of the bag 19, as stated, and pressed into close association with the opposed corrugated surface of the end-liner 17, urging the latter toward and into engagement with the bottom of the bag, with the marginal surface of the end-liner engaging the opposed end surface of the resilient wall 16 of the receptacle, the latter surface functioning as a shoulder for locating the end-forming member 11 in the appropriate spaced relation to the end surface of the shell, it being apparent that the smaller disc 15 of the end member becomes the outer surface thereof. The diameter of the disc 14 of the end member, relative to the internal diameter of the shell, is such as to provide for the entry of the disc into position within the shell under pressure, in a so-called force fit, so as to attain those advantages which flow from the close frictional association of the opposed surfaces of the disc and shell, throughout the contacting areas.

When the end member 11 has been located in functioning position, as just described, a retaining ring 20, preferably of the split type, the meeting ends being overlapped, as at 21 in Figure 2, is then inserted in the end of the shell and urged into position in peripheral engagement therewith, the bottom of the ring abutting upon the opposed surface of the disc 14 of the end member, as at 14a, with the inner periphery of the ring in frictional engagement with the opposed periphery 15a of the smaller disc 15 of the end member 11. The cross-sectional dimension of the wall of the ring 20, obviously corresponds to the width of the base of the stepped edge 13 of the end-forming member 11, so as to insure a tight fit and form a virtually hermetic jointure between the end-closure and the shell or body portion 10.

For the loading process, the end member 11 and its retaining ring function as the base of the assembly, the material to be packaged being introduced into the receptacle through the distended mouth thereof. When the bag has been loaded to the appropriate level, the free portion of the wall is folded upon itself to the level of the contained material, with the sections forming the fold in overlapping engagement, as at 19b in Figure 1, to form a continuous or uninterrupted end-forming surface, indicated at 19c. The overlapping receptacle sections, if preferred, may be cemented together or otherwise sealed in association to enhance the integrity of the closure.

A second end liner 18 is now superimposed upon the closed mouth of the bag 19, in the manner previously described, with reference to the

end liner 17, for similarly cooperating with the engaging disc of the end-member 12 which is next entered in the open end of the shell to press the end liner 18 into close association with the opposed surface of the bag and the opposed edge of the corrugated external wall 16 of the receptacle, the marginal portions of the two end liners 17 and 18 being deformed under pressure of the engaging end surfaces of the corrugated wall of the receptacle, as indicated at 17b in Figure 4 opposed to the counter-pressure of the end-forming members, increase the security of the inner end seals. The entry of the retaining ring 21 in frictional engagement with the major and minor discs of the end-member 12 and the opposed surface of the shell completes the sealing of the container.

In use, the container is inverted from the position in which it is loaded, as just described, the end-forming member 11 and its retaining ring functioning as the top of the outer protective case. In the embodiment herein shown, the end member 11, therefore, is preferably apertured, as at 22, the aperture being sealed by a sheet or blank of heavy paper, or other suitable material, indicated at 23, cemented to the outer surface of the smaller disc 15 of said member. A collapsible spout-forming element 24, appropriately shaped, having its base portion 24a, is cemented to the disc 15, in juxtaposition to said aperture 22, said element being scored along lines, as at 24b, for folding, in the formation of the spout. As will be obvious, by simultaneously puncturing the paper 23 and the bottom 19a of the bag, and shaping the spout, the contents may be poured from the container. The aperture 22, is sealable thereafter as desired.

For the removal of the contents, with the receptacle intact, or for removing the contents from the receptacle in bulk, the split ring 20 is removable by separating its overlapped ends to strip it from its functioning position in a contracting movement of the ring out of engagement with the shell and end-member surfaces, to afford access to the interior of the shell, or the ring may be pried upward out of functioning position, without separating its ends.

To facilitate unseating of the end member 11, when the retaining ring 20 has been removed, a flexible tab 25 is provided, one end of which is entered between the discs 14 and 15 of said member, when they are cemented together, to virtually become unitary therewith, the free end of the tab being disposable above the ring 20 and the surrounding edge of the shell 10, in the sealing of the container, so that it may be grasped to unseat said end member in an upward dislocating movement. Manifestly, the tab 25 may also be used to simultaneously dislocate both the end member 11 and the retaining ring 20, from container-sealing position, if desired; the mode of its use being optional.

In lieu of depending solely upon the frictional engagement of the respective rings 20 and 21 with the opposed and coacting surfaces of the end members 11 and 12 and the inner wall of the shell, the seal may be reinforced by applying an adhesive agent, or adhesive material, to one or the other of the opposed engaged surfaces, or the retaining rings may be mechanically locked to the surrounding wall of the shell by stapling or other means, the rings being composed of vulcanized fiber, wood or other suitable material.

As will be noted, especially from Figures 1, 3 and 4, the depth of the retaining rings 20, 21,

provides for their projection beyond the ends of the shell 10, with which they are respectively associated, either ring thereby being adapted to function as the base element and to take the vertical load, as directly transmitted from the filled receptacle to the end-member with which the ring is associated. Thus there is no possibility of movement of the end member relative to the shell, under load, with a resulting impairment of the end seal, as might occur were the ring positioned inwardly of the end of the shell, with the shell end serving as the supporting surface or base.

From the foregoing, it will be apparent that I have devised a simple and highly efficient construction, in which the material packed within the receptacle is amply protected against deterioration, by a plurality of seals at each end, the inner receptacle, as pointed out, being resiliently supported by the corrugated external wall thereof. This not only protects the relatively light wall of the bag against rupture, which might occur in the absence of such resilient and protective support, but enables me to provide an unusually light-weight construction, compared to its structural rigidity, that is leak-proof and impervious to moisture penetration, the hermetic qualities of the seal that is afforded in the closure of the receptacle being augmented by the manner in which the end members of pressure diaphragm properties are interlocked with the body portion and engage the peripheral edges of the respective opposed corrugated end liners, to conformingly press them into sealing position, as described. Obviously, the inner wall of the composite receptacle 19 may be constituted of material suitable to the characteristics of the material to be packed therein. For example, in some instances, the receptacle may be composed of Cellophane, while in others it may be of paper of the desired weight, waterproofed, or otherwise, or a fabric bag-like receptacle may be used, the protective resilient material 16 being united thereto, as set forth. In some instances, as will be evident, the corrugated material 16 may be separate from the bag and independently inserted in the shell in conforming engagement therewith and the bag then introduced into the expanded corrugated sheet and dilated to conform thereto, the corrugated material thus functioning as a liner, interposed between the bag and the shell wall. Also, as will be evident, a lesser quantity of material than that for which a bag is designed may be packed therein and the container sealed as stated, the corrugated external wall, as pointed out, providing for the location of the receptacle external the shell in properly spaced relation to the ends thereof, for the insertion of the end-forming members, in the position to which the receptacle may have been adjusted for the desired loading, the top and bottom edges of the corrugated material, defining the positions of the end-forming members of the outer casing relative to the respective ends of the closed inner receptacle.

When desired, as will be clear from the disclosure, the contents of the container may be extracted conjointly with the removal of the receptacle therefrom in packaged condition, as set forth, when the nature of the product permits of this procedure. Thus a container is rendered reusable, merely by inserting another receptacle in the outer casing assembly and resealing it with the removed end-member and retaining ring or new counterparts installed, in the manner de-

scribed, following the receptacle-filling operation.

While I have described my invention more or less specifically, with reference to the embodiment shown, it will be understood that it may take other forms, as to structural details; also that the sequence of the steps of assembly and loading may be varied, to suit convenience in the production and packaging operations, within the spirit and scope of this disclosure.

I claim:

1. A container comprising an outer casing including a tubular shell and end-forming members entered in said shell in frictional engagement therewith, an inner product-receiving receptacle of flexible material resilient means adheringly surrounding said inner receptacle to form an external wall therefor, said wall frictionally engaging the inner wall of the shell to support the inner receptacle therein between said end-forming members, and separate resilient means interposed between the inner surfaces of the respective end-forming members of the outer casing and the contiguous parts of said receptacle in engagement with the resilient means surrounding said receptacle.

2. A container comprising an outer casing, including a tubular shell and end-forming members adapted to be separately entered in the opposite ends of said shell in sealing engagement therewith, a receptacle of flexible material embodying a closed bottom supported internally of said shell, with the bottom thereof in superposed relation to one of said end-forming members entered in said shell, a part of said receptacle being adapted to be manipulated into a closure by folding it upon itself in a plane substantially parallel to that of the adjacent end-forming member, when such member is entered in the shell in juxtaposition to the fold-formed closure, and resilient means adheringly surrounding said receptacle to form an external wall therefor, said wall frictionally engaging the inner surface of the shell to suspend the receptacle therein, and being capable of reacting to shifting internal pressures within the receptacle, when loaded, to protectively cushion the receptacle wall against rupture.

3. A container comprising an outer casing of fibrous material, including a tubular shell and end-forming members adapted to be successively entered in the opposite ends of said shell, in frictional sealing engagement therewith, a bag-like receptacle insertable within said shell with its bottom in superposed relation to one end of said shell, said receptacle having an external wall of resilient material frictionally engageable with the inner wall of said shell, in the expansion of said receptacle within said shell, to locate said external wall of the receptacle in conforming frictional engagement with the shell wall, a liner of resilient material interposed between the bottom of said receptacle and an end-forming member entered in the adjacent end of said shell, said receptacle, when loaded, being adapted to be folded upon itself to seal the open end thereof inwardly of the contiguous end of the shell, and a liner of resilient material superimposed upon the fold-formed closure of said receptacle, the remaining end-forming member being frictionally entered in the end of the shell in superimposed relation to said latter liner and in engagement therewith, to complete the container.

4. A container comprising an outer casing of fibrous material, including a tubular shell and end-forming members adapted to be successively

entered in the opposite ends of said shell, in frictional sealing engagement therewith, a bag-like receptacle insertable within said shell with its bottom in superposed relation to one end of said shell, said receptacle having an external wall of resilient material frictionally engageable with the inner wall of said shell, in the expansion of said receptacle within said shell, to locate said external wall of the receptacle in conforming frictional engagement with the shell wall, a liner of resilient material interposed between the bottom of said receptacle and an end-forming member entered in the adjacent end of said shell, said receptacle, when loaded, being adapted to be folded upon itself to seal the open end thereof inwardly of the contiguous end of the shell, and a liner of resilient material superimposed upon the fold-formed closure of said receptacle, the remaining end-forming member being frictionally entered in the end of the shell in superimposed relation to said latter liner and in engagement therewith, to complete the container; the first applied end-forming member being adapted to function as the top of the container in response to the inversion of the container when loaded, and means embodied in such latter end-forming member for optionally discharging the contents of the container from the receptacle, without separating the end-forming member from the shell.

5. A container comprising an outer rigid casing and an inner flexible receptacle, conformable within the casing to the contour of the inner wall thereof and foldable upon itself for packaging the goods within the casing, the receptacle comprising a flexible bag-like member and a sheet of resilient material united to the outer surface of said bag-like member to form a resilient outer wall therefor, said outer wall reacting to pressure applied internally of the receptacle to frictionally adhere to the inner wall of the casing, in conforming engagement therewith, to maintain the stability of the package within the casing under shifting load conditions.

6. A container comprising an outer rigid casing, including a tubular shell and end-forming members adapted to be successively entered in the opposite ends of said shell in frictional sealing engagement therewith, each of said end-forming members being composed of a pair of concentric discs of unlike diameter, united in superposed relation to impart to the end-forming member pressure diaphragm characteristics, a retaining ring for maintaining each of said end-forming members in sealing position, in association with said shell, a bag-like receptacle insertable within said shell with its bottom in superposed relation to one end of said shell, said receptacle having an external wall of resilient material frictionally engageable with the inner wall of said shell, in the expansion of said receptacle within said shell, to locate said external wall of the receptacle in conforming frictional engagement with the shell wall, a liner of resilient material interposed between the bottom of said receptacle and an end-forming member entered in the adjacent end of said shell, said receptacle, when loaded, being adapted to be folded upon itself to seal the open end thereof inwardly of the contiguous end of the shell, and a liner of resilient material superimposed upon the fold-formed closure of said receptacle, the remaining end-forming member being frictionally entered in the end of the shell in superimposed relation

to said latter liner and in engagement therewith, to complete the container.

7. A container comprising an outer casing including a tubular shell and end-forming members successively entered in said shell, in frictional engagement therewith, to complete the formation of said casing, a flexible receptacle having a closed bottom and embodying an external wall of resilient material, said receptacle being entered in said shell in a collapsed condition and expanded by internally applied pressure for conformation to the contour of the wall of the shell, the external wall of the receptacle engaging the wall of the shell in frictional adherence therewith to support the receptacle within the shell with its bottom in predetermined spaced relation to one end of the shell, the open end of the receptacle extending in the direction of the opposite end of the shell, the end surface of the external wall of said receptacle contiguous to the bottom of the receptacle forming a shoulder internally of the shell to define the inward location of an end-forming member when entered in the shell to support the receptacle under load therein.

8. A container comprising an outer casing including a tubular shell and end-forming members adapted to be successively entered in said shell, in frictional engagement therewith, to complete the formation of said casing, a flexible receptacle having a closed bottom and embodying an external wall of resilient material adapted to be entered in said shell in a collapsed condition and expanded by internally applied pressure for conformation to the contour of the wall of the shell, the external wall of the receptacle engaging the wall of the shell in frictional adherence therewith to support the receptacle within the shell with its bottom in predetermined spaced relation to one end of the shell, the open end of the receptacle extending in the direction of the opposite end of the shell, whereby the end surface of the external wall of said receptacle contiguous to the bottom of the receptacle will form a shoulder internally of the shell to define the inward location of an end-forming member when entered in the shell to support the receptacle under load therein; and a resilient element interposable between the bottom of the receptacle and the juxtaposed end-forming member of a circumferential area corresponding to the inner circumferential area of the shell, for engagement by the bottom of said receptacle and the opposed surface of said end-forming member, and the end-defining surface of the resilient external wall of said receptacle surrounding the bottom of said receptacle.

9. A container comprising an outer casing including a tubular shell and end-forming members adapted to be successively entered in said shell, in frictional engagement therewith, to complete the formation of said casing, a flexible receptacle having a closed bottom and embodying an external wall of resilient material adapted to be entered in said shell in a collapsed condition and expanded by internally applied pressure for conformation to the contour of the wall of the shell, the external wall of the receptacle engaging the wall of the shell in frictional adherence therewith to support the receptacle within the shell with its bottom in predetermined spaced relation to one end of the shell, the open end of the receptacle extending in the direction of the opposite end of the shell, whereby the end surface of the external wall of said receptacle contiguous to the bottom of the receptacle will form

a shoulder internally of the shell to define the inward location of an end-forming member when entered in the shell to support the receptacle under load therein, a resilient end element interposable between the bottom of the receptacle and the juxtaposed end-forming member co-extensive in circumferential area with the inner surface of said member, for engagement with the bottom of said receptacle and the opposed surface of said end-forming member and the end-defining surface of the resilient external wall surrounding the bottom of the receptacle, the open end of said receptacle being foldable upon itself to form a closure in proximity to the opposite end of the shell, a resilient end element corresponding to the first resilient end element being disposed upon the fold-formed closure of said receptacle, the remaining end-forming member being frictionally entered in said shell in engagement with said second resilient end element to press said latter end element into deformable contact with the opposed internal shoulder-forming edge of the resilient external wall of said receptacle.

10. The method of producing an inner receptacle for a container having a rigid outer protective casing, which consists in forming a bag with a closed bottom of paper, supporting the bag in distended condition and cementing to the outer surface of the bag in surrounding engagement therewith, a sheet of corrugated paper board with the opposite ends of the corrugated board, that are disposed longitudinally of the bag, mated in a butt jointure, one of the transverse edges of the corrugated paper board surrounding the bottom of the bag with the other parallel transverse edge of the corrugated paper board spaced inwardly of the edge of the mouth of the bag.

11. The method of producing an inner receptacle for insertion in a rigid outer casing of a container, which consists in forming a paper bag with a sealed bottom-forming end, supporting the bag in distended condition, cutting a sheet of corrugated paper board to provide parallel end edges and parallel side edges for such sheet, cementing the corrugated sheet to the outer surface of the paper bag throughout its area, with the end edges of the sheet mated in a butt jointure upon said bag wall, one side edge of the sheet surrounding the bottom of the bag, the other side edge of the sheet surrounding the wall of the bag in vertically spaced relation to the bottom thereof and below the mouth of the bag.

12. A method of producing a container having a rigid outer casing comprising a tubular shell with end members entered therein to seal the same, and an inner receptacle for the contained product supported within the casing, which comprises the steps of forming a paper bag with a sealed bottom-forming end, supporting the bag in distended condition, adhesively uniting to the outer surface of the bag a sheet of corrugated paper board to form an external wall for the bag extending from the bottom-forming end of the bag to a point on the wall thereof below the mouth, collapsing the bag and entering the same into the shell of the container, dilating the bag

when entered in the shell to conform to the contour of the shell and to cause the corrugated external wall of the bag to frictionally adhere to the opposed wall surface of the shell to support the expanded bag within the shell for relative axial adjustment, for the performance of a subsequent assembly step in entering an end-forming member in the shell.

13. A method of assembling components of a container having a rigid outer casing, including a tubular shell and end-forming members entered therein, and a receptacle of flexible material for the contained product adapted to be supported within the outer casing, which consists in distending a paper bag having a sealed bottom, and cementing to the outer surface thereof a sheet of corrugated paper board, with the web of the corrugated sheet opposed to the bag surface, to form an external surrounding wall for the bag extending from the bottom thereof to a point below the mouth of the bag, to form a bag assembly, then collapsing the bag assembly and inserting the collapsed bag assembly within the tubular shell which is to form a part of the outer casing of the container, and dilating the bag to simultaneously expand the external corrugated wall thereof into conforming frictional adherence with the inner wall of the shell, and then adjusting the expanded bag assembly axially in frictional engagement with the shell to locate the bottom surface of the bag in predetermined inwardly spaced relation to the adjacent end of the shell.

14. A method of assembling components of a container having a rigid outer casing, including a tubular shell and end-forming members entered therein, and a receptacle of flexible material for the contained product adapted to be supported within the outer casing, which consists in distending a paper bag having a sealed bottom, and cementing to the outer surface thereof a sheet of corrugated paper board, with the web of the corrugated sheet opposed to the bag surface, to form an external surrounding wall for the bag extending from the bottom thereof to a point below the mouth of the bag, to form a bag assembly, then collapsing the bag assembly and inserting the collapsed bag assembly within the tubular shell which is to form a part of the outer casing of the container, and dilating the bag to simultaneously expand the external corrugated wall thereof into conforming frictional adherence with the inner wall of the shell, and then adjusting the expanded bag assembly axially in frictional engagement with the shell, to locate the bottom of the bag and the surrounding edge of the external corrugated wall of the bag assembly in predetermined inwardly spaced relation to the adjacent end of the shell for the performance of a subsequent operation for frictionally entering an end-forming member in said shell in an amount fixed by the spacing of the opposed edge of the external wall of the bag assembly inwardly of the end of the shell and in abutment with such opposed edge.

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