An asparagus shipping container assembly and method of packing asparagus. The asparagus shipping container includes a body, preferably coated by a fluid impervious material, and a movably mounted access segment selectively disposable between opened and closed positions. The access segment, when moved to the open position defines an access opening in the body that is disposed, dimensioned and configured to facilitate both visual and physical access to the interior of the body as well as a laterally directed, rapid and space saving positioning of the asparagus therethrough into the interior of the body, while reducing the possibility of physical damage being done as with vertically directed placement and removal of the products through an open top of a conventional container. A closure assembly may then be disposed atop the body to maintain the access segment in its closed orientation for easy transport and if desired, passage through a spray wash. Once the filled asparagus container has arrived at an un-packing location, the closure assembly may be removed to permit easy movement of the access segment into its open position, and thereby to allow facilitated access to the asparagus contained inside the container.
ASPARAGUS SHIPPING CONTAINER ASSEMBLY
AND METHOD OF PACKING ASPARAGUS FOR
TRANSPORT

CLAIM OF PRIORITY

[0001] The present application is a continuation-in-part application of previously filed, now pending application Ser. No. 09/813,461 which was filed on Mar. 21, 2001 which is a continuation-in-part of now pending application Ser. No. 09/808,639 which was filed on Mar. 13, 2001, both incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention is directed to the field of produce containers, and in particular to an asparagus shipping container assembly structured for the containment of relatively fragile asparagus stalks during storage, transportation and display thereof. Moreover, the subject asparagus shipping container assembly facilitates asparagus placement into and out of the interior thereof in a manner which eliminates or reduces the possibility of physical damage being done to the asparagus. The present invention further relates to a method of packing asparagus for transport.

[0004] 2. Description of the Related Art

[0005] It is well known that the prior art is replete with containers of various sizes and configurations. Typically containers are used not only for the storage of an immense variety of different products and contents but also are used to protect the products during transport and in some instances, the display of the contained products. The physical characteristics of containers, including the material from which they are formed, is to a large extent, dependent on the products being contained therein. Perhaps the most common material utilized in the construction and formation of known containers is cardboard or cardboard, which in many instances includes a substantially corrugated formation to add strength and stability.

[0006] Also the construction of conventional containers normally involves a single blank or a plurality of interconnected blank sections secured together by fasteners, adhesive or the like and folded along predetermined seam lines so as to define a sidewall and a base. The sidewall and base collectively define the boundaries of a hollow interior in which the contents are placed. Further, the conventional structuring of containers may include the sidewall assembly comprising a plurality of planar, sidewall segments relatively oriented into a multi-sided configuration. The base portion of a typical container structure is folded in overlying, covering relation to a lower open end of the hollow interior and is secured in such covering position by conventional adhesives, fasteners, etc. of the type set forth above.

[0007] A common physical characteristic of the vast majority of known or conventional containers also includes an open top through which products are generally loaded into the container, and in some instances a top structure to cover that open top. As mentioned, when utilizing a conventional box or container structure, as described above, it is accepted practice to load and un-load the contents into and out of the interior of the container through the open top end. The products or contents are substantially vertically directed through the open top and into the hollow interior. Naturally, the precise method and technique of positioning the contents depend on the various characteristics of the contents themselves and more specifically on whether the contents are loosely filled or individually packed. If the product or contents are not particularly fragile, at least in terms of their positioning during packing or unpacking, the vertical passage of these products through the open top end is perfectly acceptable. These commonly applied techniques of packing through the open top end may be most commonly practiced due to the unavailability of alternative and more creative container designs and structures.

[0008] Specifically, it is noted that although certain varied box shapes and configurations may have been developed in a variety different fields of art, due in part to the needs to conform to the shape of a certain product, such modifications have not extensively entered the filed associated with the shipping of produce. For the most part, produce is shipped in standard type, open topped boxes, the articles being loaded through the top and stacked inside atop one another. While this loading and unloading through the open top end is acceptable for a large number of the more sturdy products, there exists a more fragile category of products which suffer from the commonly used, vertically directed positioning or passage into and out of the interior of the container. More specifically, asparagus is a fragile product that has a tendency to become physically damaged as they are vertically directed through the open upper end of a container due to the fact that they physically engage one another or adjacent disposed interior surface portions of the container, and more specifically, that the fragile tips engage one another or the container or a hand of the loader as they are lowered into a tightly packed container.

[0009] Specifically, the traditional technique for packing asparagus for shipping involves the “dropping” of bundled bunches of asparagus stalks in through the top of an open container, in a vertical orientation. This vertical orientation was seen as necessary to maximize the integrity of the fragile stalks as well as maximize box capacity, as mere stacking of bundles atop one another can lead to uneven packing and damage to underlying bundles. Unfortunately, even though such standard techniques are favorable over the alternatives, there still remained various drawbacks associated therewith. In particular, as the box becomes more and more full, it is very likely that a worker lowering a stalk into the partially full container will inadvertently contact the tips of other stalks in the container, either with the bases of the stalks being lowered and/or with their hands or gloves. This naturally can lead to the damaging of the most desirous portion of the asparagus stalk. In order to minimize this damage, workers must either go very slowly as the box becomes full, or must avoid filling the box to its true capacity. As can be appreciated, both such options can ultimately be quite costly as they relate to labor costs, shipping costs and materials costs, and perhaps even more costly than the damage to the actual product.

[0010] Based on the above, there is a significant and long recognized need for an asparagus shipping container assembly which is structured to eliminate the physical damage commonly suffered by asparagus during the loading and un-loading procedure, and which also maximizes the capacity of the container. Such an improved or preferred asparagus container assembly should also be capable of accom-
lishing efficient, safe and secured packing of the asparagus in a manner which is acceptable to mass production techniques and is not overly time consuming. Also, an improved container assembly of the type set forth above, while over-

coming the disadvantages and problems associated with vertically directing positioning of products into and out of the container, should be capable of being produced and manufactured at a competitive cost and should be structured to effectively protect the packaged products during storage, shipping, etc. Finally, an improved container assembly should be structured to enhance not only the physical access to the container interior and products contained therein, but the visual access as well.

**SUMMARY OF THE INVENTION**

[0011] The present invention is directed to an asparagus shipping container assembly which is structured to contain, during storage, transportation and display, a number of bunches of asparagus. However, it is emphasized that the container assembly of the present invention is readily adap-
able, with little or no structural modification, for the contain-
tainment of any number of relatively sturdy or fragile products. Therefore, the structural features incorporated in the subject container assembly, as will be explained in greater detail hereinafter, facilitate the safe, secure and efficient positioning of asparagus, especially during the loading and un-loading procedures. More specifically, the placement within and removal from the container interior is accomplished in a manner which eliminates or significantly reduces the possibility of physical damage being done to the asparagus, due to the their engagement or contact with one another or with interior surface portions of the asparagus shipping container assembly.

[0012] Accordingly, the asparagus shipping container assembly of the present invention comprises a body having a hollow interior portion. The body includes a base disposed in covering relation to one end of the interior. A sidewall assembly is disposed in substantially surrounding relation and, for the most part, defines the lateral boundaries of the hollow interior. The base and the sidewall assembly are integrally or otherwise physically secured to one another so that the base and sidewall assembly and can be respectively oriented into the preferred configuration when assembled.

[0013] The body may include an open top or upper end which is normally disposed in spaced, opposed relation to the base of the body. However, in certain embodiments of the container assembly of the present invention, to be described in greater detail hereinafter, the open top or upper end of the body may be limited or eliminated by the provision of a cover or lid type panel disposed in overlying and/or covering relation to the open upper end or top. The cover assembly is dimensioned and configured to be remov-
able disposed in covering relation to the open top or upper end. As also to be more specifically explained, the cover assembly comprises a panel or like structure disposed in overlying relation to the upper end and a peripheral portion which is connected about the periphery of the panel in depending relation thereto. Moreover, the peripheral portion defines a substantially depending flange having a multi-
sided configuration which corresponds to the overall trans-
verse cross-sectional configuration of the sidewall assembly. As such, the depending flange or peripheral portion extends in overlying substantially confronting engagement with the exterior surface of the sidewall assembly adjacent to the open top or upper end of the body.

[0014] Another feature of the present invention is particu-
larly directed to the structuring of the body, including the sidewall assembly and base, in such a manner as to facilitate positioning of asparagus bunches within and removal from the hollow interior thereof during packing and un-packing. Moreover, asparagus positioning may be easily and effi-
ciently performed in a manner which eliminates or signifi-
cantly reduces the possibility of physical damage being done to the asparagus.

[0015] In conventional box or container design it is gen-
erally accepted practice to load and remove the contents into and out of the interior through the open top end thereof. While such loading and un-loading procedures are accept-
able for a large number of products, when packing aspara-
gus, which have a tendency to become physically damaged as they are vertically directed through the open upper top or end of a container by physical contact or engagement with one another or with various interior surface portions of the container. A common characteristic of these fragile-type products is that they are typically maintained in an “up-
right” orientation and positioned or “packed” in such close proximity to one another that physical engagement between adjacently disposed products, during such vertically directed positioning is inevitable.

[0016] Accordingly, the asparagus shipping container assembly of the present invention, comprises an access segment movably connected to or mounted on the body and selectivity positionable between an opened position and a closed position. In the opened position both visual and physical access to the hollow interior of the body, and the contents contained therein, are facilitated. Further, when the access segment is disposed at least partially or completely in the opened position, an access opening is created in the body. The creation or establishment of the access opening occurs upon displacement of the access segment, outwardly from the sidewall of the body or other portion thereof in which it is formed and with which it is aligned when in its closed position. Therefore, the periphery of the access opening substantially corresponds, along at least a significant portion thereof, to the peripheral edge of the access segment thereby facilitating re-alignment between the access segment and the access opening when the access segment is again disposed back into its closed position in a planar relation with the sidewall or other portion of the body from which the access segment is formed.

[0017] When established, the access opening is disposed, configured and dimensioned to facilitate laterally directed placement of individual products, or groupings of products, into and out of the hollow interior of the body. The referred to laterally directed placement is clearly distinguishable from the vertically directed placement, such as when the products or contents are placed within or removed from the hollow interior through a conventionally disposed opened top end of the body of the container. Further, the laterally directed placement of the contents is accomplished while the contents or products are disposed in a preferred up-right orientation.

[0018] More specifically, the asparagus stalks are capable of being placed within and removed from the hollow interior of the body in the same up-right orientation in which they
are maintained while they are being stored or transported within the body. Movable engagement such as physical sliding, rubbing or butting contact is eliminated or reduced, especially during the loading and un-loading procedure. When loaded or when it is desired to maintain the contents or products on the interior of the body in segregated relation from the exterior thereof, such as during storage or transport, the access segment is positioned into the aforementioned closed position. The cover assembly is then placed over the open top or upper end of the body in retaining relation to the upper end of the access segment.

[0019] As set forth above, a preferred embodiment of the cover assembly includes a depending flange. As such, the depending flange serves as a retaining structure such that it overlaps and is thereby disposed in confronting engagement with the exterior surface of the upper end of the sidewall assembly. In such a position the upper end of the access segment is also engaged and retained, when the access opening is disposed in the closed position.

[0020] Therefore, the container assembly of the present invention, including the various embodiments thereof, overcomes significant and long recognized problems existing in the storage, shipping and display of asparagus. In addition, physical damage to the products, especially during the loading and unloading procedures, is eliminated or significantly reduced by laterally directing, as versus vertically directing, the positioning of the products into and out of the hollow interior of the container.

[0021] It is emphasized that the terms “vertically directed” and “laterally directed” as used herein are meant to describe the direction of movement of the products, as they are disposed into and out of the container interior, in a manner more specifically disclosed in the accompanying drawings. These terms are not intended and should not be construed in a limiting sense, such as when either the container assembly or the products are disposed in an orientation other than that shown in the accompanying drawings.

[0022] From the preceding, it is also seen that the present invention a further directed towards a method of packing asparagus for transport. The method provides that a container be defined and that an access segment in a side wall of the container be hingedly moved into an open position so as to define an access opening that allows access to the open interior of the container through the side wall. Next one or more bunches of asparagus are laterally introduced, in a generally vertical orientation into the open interior of the container through the access opening. Once the container is sufficiently full with asparagus bunches, the access segment is hingedly moved to its closed position which covers the access opening and contains the asparagus inside the container. Subsequently, a lid is disposed atop the container so as to generally maintain the access segment in its closed orientation. With the asparagus packed in the container, the entire container may be passed through a spray wash or bath (not shown for clarity) for purposes of disinfecting and/or cleaning, the asparagus being effectively contained in the container throughout. The container is then shipped to a desired unpacking location. At the unpacking location, the lid is removed from the container, and the access segment is returned to its open position. The asparagus bunches are then removed from the opening interior of the container through the access opening, preferably still in their vertical orientation. Of course, it is noted that a bunch of asparagus may include one or more asparagus stalks similarly oriented and grouped together for facilitated manipulation.

[0023] These and other features and advantages of the present invention will become more clear when the drawings as well as the detailed description are taken into consideration.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] For a fuller understanding of the nature of the present invention, reference should be had to the following detailed description taken in connection with the accompanying drawings in which:

[0025] FIG. 1 is a perspective view in partial phantom of both interior and exterior portions of one embodiment of the asparagus shipping container assembly of the present invention.

[0026] FIG. 2 is a top perspective view of a cover assembly associated with the asparagus shipping container assembly of the present invention.

[0027] FIG. 3 is an exterior perspective view of the embodiment of the asparagus shipping container assembly of FIGS. 1 and 2 in a closed orientation.

[0028] FIG. 4 is front plan view of a blank from which the cover assembly of the embodiment of FIG. 2 is formed.

[0029] FIG. 5 is a perspective view showing both interior and exterior portions of another embodiment of the asparagus shipping container assembly of the present invention.

[0030] FIG. 6 is a perspective view of one embodiment of the present invention wherein laterally directed placement and removal of asparagus, relative to the interior of the asparagus shipping container assembly of the present invention, is schematically demonstrated.

[0031] FIG. 7 is a front plan view of a blank from which the body of at least one of the embodiments of the asparagus shipping container assembly is formed.

[0032] FIG. 8 is a top perspective view of yet another embodiment of the asparagus shipping container assembly of the present invention.

[0033] FIG. 9 is a top perspective view of the embodiment of FIG. 8 with at least a portion of the access segment removed.

[0034] FIG. 10 is an exterior perspective view of the embodiment of FIGS. 8 and 9 including a closure for maintaining the container assembly of the present invention in a closed orientation.

[0035] FIG. 11 is a front plan view of a sidewall section of the body of the embodiment of FIGS. 8 through 10, with the access segment disposed in a closed position.

[0036] FIG. 12 is a sectional view in partial cutaway of the embodiments of FIGS. 8 through 11 with the access segment oriented in one of a plurality of open positions.

[0037] FIG. 13 is a sectional view in partial cutaway of the embodiments of FIGS. 1 through 11 with the access segment located in a different one of a plurality of open positions from that of FIG. 12.
Like reference numerals refer to like parts throughout the several views of the drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in the accompanying Figures, the asparagus shipping container assembly of the present invention is generally indicated as 10 and includes a body 12 comprising a base 14 and a sidewall assembly generally indicated as 16. The base 14 and the sidewall assembly 16 collectively and at least partially defining the boundaries of a hollow interior portion generally indicated as 18. In conventional fashion, the hollow interior 18 is provided for the containment of a variety of different products, but preferably asparagus, generally indicated as 20 in FIG. 6.

As disclosed in the various Figures, the sidewall assembly comprises a plurality of sidewall segments 22, 23, 24, and 25 which collectively comprise a multi-sided configuration. It is emphasized that the configuration of the sidewall assembly and accordingly the entire body 12 can of course vary and still be included within the spirit and scope of the present invention. The configurations of the body 12 may include a multi-sided configuration, having a plurality of side segments varying in number and being more or less than the four side segments 22 through 25 indicated in the various Figures. Alternatively, the sidewall assembly 12 can be structured to have a partially or completely continuous, substantially cylindrical configuration which would vary the overall configuration of the body 12 accordingly. Naturally, the base 14 is correspondingly dimensioned and configured to correspond to any of the possible plurality of multi-sided or cylindrical configurations which the side assembly 16 may assume. The bottom end of the body 12 would therefore be completely or at least partially closed such that the contents disposed within the hollow interior 18 are capable of being adequately supported in a preferred orientation.

As best shown in FIGS. 2 through 4, the asparagus shipping container assembly 10 of the present invention further comprises a cover assembly generally indicated as 30. The cover assembly 30 is removably disposed in overlying, covering relation to the open top end 34 so as to removably close the top end 34 during storage or shipment of the contents of the container assembly 10 or as otherwise desired. The cover assembly 30 includes a base panel 32 and at least one, but preferably a plurality of depending peripheral flanges or like structures 36 extending outwardly from the base panel 32. When the cover assembly 30 is disposed in covering relation to the open end 32, as disclosed in FIG. 3, the depending flanges 36 are positioned to overly and confrontedly engage the upper exterior portions of the sidewall assembly 16. More particularly, each of the upper exterior surfaces of the sidewall segments 22, 23, 24, and 25 are substantially covered. As such, the depending flange or flange segments 36 comprise a retaining structure, as will be explained in greater detail hereinafter.

With primary reference to FIG. 4, the cover assembly 30, including the cover panel 32 and the depending flange or flange segments 36, are preferably formed from a single blank of material of the type applicable in the construction of the container assembly 10. The formation of the cover assembly 30 into its operative configuration, as shown in FIG. 2, is accomplished by folding the various individual depending flange segments 36 about predetermined fold lines 39 integrally formed in the blank of FIG. 4. When folded into the desired configuration overlapping portions of the flange segments 36, such as at the perspective corners thereof, are secured to one another such as by adhesive commonly used in the container manufacturing industry. It is emphasized that with all of the preferred embodiments of the container assembly 10 of the present invention it is preferred that the blank from which the body and the cover assembly are formed are of an integral or one piece construction. As such the respective blanks may be folded into the desired, operative configuration by interlocking flaps or segments as will be explained in greater detail with regard to FIGS. 4, 7, and 14. The blanks from which the various structures are formed are therefore structured to eliminate where possible the use of staples or other potentially hazardous connectors or fasteners. It is well recognized in the container industry that such staples or sharpened connectors frequently cause injury during the loading and unloading procedures and particularly during repeated physical access to the interior as when the container products are displayed and frequently removed for physical examination, purchase, etc.

Another structural feature of the present invention comprises the provision of an access segment generally indicated as 40 in the embodiment of FIGS. 1, 6, and 7. The access segment 40 preferably comprises a panel having a planar or other configuration which corresponds to the configuration of the individual sidewall segments, particularly the sidewall segment 25 with which it is more closely associated. By way of example, if the sidewall assembly 12 was defined by one or more cylindrical sidewall segments, the access segment 40 could also have a corresponding and substantially mating configuration for the reasons which may be best understood hereinafter.

Moreover, the access segment 40 is movably connected to the body 12 and in the embodiment of FIGS. 1, 3 and 6 the access segment 40 is pivotally or otherwise movably connected to a periphery of the base 14 such as along seam or fold line 42 which defines a movable connection. By virtue of this movable connection, the access segment 40 can be selectively disposed between an opened position, as clearly shown in FIG. 6 and partially represented in FIG. 1, and a closed position as shown in FIG. 3. Positioning of the access segment 40 between the opened and closed positions is schematically represented in FIG. 1 by directional arrow 44. Further, the fully opened position of the access segment 40 is represented by it being disposed in substantially coplanar relation to the base 14. However, the movable connection 42 is constructed to allow the access segment 40 to be oriented at various angles relative to the base 14. The access segment 40 may even be oriented so as to extend beyond or beneath the base 14. Therefore, the position of the access segment 40 may at least partially depend on the location and configuration of the support surface on which the body 12 is disposed, when the access segment 40 is in its opened position. It should also be noted that the movable connection 42 of the access segment 40 to the body 12 and in particular to the sidewall segment 25, may be located other than contiguous to the base 14 as disclosed on the preferred embodiment of FIGS. 8 through 13. Also, and by way of example only, a longitudinal peripheral edge 45 could define a hinged connection which
allows selective movement of the access segment 40 between its opened and closed positions.

[0045] Another embodiment of the present invention is shown in FIG. 5 wherein access segment 40 is also selectively positionable between an opened position, as shown, or a closed position defined by the access segment 40 being disposed in substantially coplanar relation to the sidewall assembly 16 and in particular the corresponding sidewall segment 25. As with the embodiment of FIG. 1, the access segment 40 is movably connected to the body such as along a movable connection 42. As such, the lower end of the access segment 40 is pivotally connected to the base 14 such that it may be selectively oriented between the aforementioned opened and closed positions.

[0046] The enhancement of both physical and visual access to the hollow interior 18 is accomplished by the creation or establishment of an access opening 50 or 50' in the respective embodiments of FIGS. 1 and 5. The establishment of the access opening 50 or 50' is of course accomplished by positioning the respective access segments 40 or 40' into the opened position. The existence of the access opening 50 or 50' allows direct communication with the hollow interior 18 from the exterior of the body 12, as should be evident. Positioning of the products 20 in a lateral direction into and out of the hollow interior 18 is thereby made possible as well as the displaying the contents within the interior 18.

[0047] The structural features which distinguish the embodiments of FIGS. 1 and 5 comprise the relative position and orientations of the longitudinal, peripheral edges or portions 45, 45' of FIG. 1 and 45, 45', of FIG. 5. More specifically, in the preferred embodiment of the container assembly 10 of FIGS. 1, 3, and 6, the longitudinal peripheral portions or edges 45 are disposed in substantially equally spaced apart and accordingly parallel relation to another. Similarly, the access opening 50, being correspondingly configured to that of the access segment 40, has its longitudinal peripheral portions or edges 52 also disposed in substantially parallel relation to one another along their length. Alternatively, in the embodiment of FIG. 6, the access segment 40' has its configuration defined at least in part by a relatively angled orientation of the longitudinal peripheral portions or edges 45'. Therefore, peripheral portions 45' substantially converge as they extend from an upper or outer most end 47 towards the movable connection 42'.

[0048] The variations in the structures between the embodiments of FIGS. 1 and 5 may be attributable to the dimension, configuration or even the type of product being loaded into the hollow interior portion 18. In addition, varying amounts of stability may be attributed to the different structures and configurations of the respective access segments 40 and 40' as well as the formed access opening 50 and 50', as described above.

[0049] Yet another preferred embodiment of the present invention is shown in FIGS. 8 through 13 and comprises the asparagus shipping container assembly generally indicated as 10' having a body 12 which is similarly, while not identically structured, relative to the embodiments of FIGS. 1 through 7. More specifically, the body 12 includes a sidewall assembly comprising a plurality of sidewalls 22, 23, 24 and 25' as well as a hollow interior 18 and a base 14. The sidewall assembly 16 and the base 14 at least partially define the boundaries of the hollow interior 18 which is further characterized by having an opened upper or top end 34. As with the previous embodiments, a cover assembly 34 including a base panel 32 and one or more depending retaining flanges or segments 36 is selectively positionable in covering relation to the open end 34 and in an operative, retaining position, as will be described in greater detail hereinafter.

[0050] More specifically, the preferred embodiment of FIGS. 8 through 13 comprises an access segment 90 selectively disposable between a plurality of opened positions and a closed position. The closed position is shown in FIGS. 10 and 11, wherein the access segment 90 is disposed in co-planar relation to the sidewall assembly 16 and more particularly the sidewall segment 25'. In addition, the access segment 90 is disposable into anyone of a plurality of opened positions due to the provision of a plurality of movable connections 92 and 94. Each of the movable connections 92 and 94 are disposed in spaced relation to one another and each are disposed in spaced relation to the base 14. Further, as shown in FIGS. 8 through 10, the movable connections 92 and 94 are disposed in somewhat parallel orientation relative to the junction 14' between the base 14 and the sidewall as segment 25'.

[0051] By virtue of the provision of the plurality of movable connections 92 and 94 the access segment 90 is selectively movable outwardly from its normally co-planar relation to the sidewall segment 25', when in its closed position. Accordingly, either of the movable connections 92 and 94 may comprise an elongated seam, crease or fold line about which the remainder or upper portion of the access segment 50 may pivot or be folded as best shown in FIGS. 12 and 13. Accordingly, when the access segment 90 is folded about the movable connection 94 the resulting access opening 50' has a predetermined size and configuration which allows for the lateral positioning of an object or product 20 into and out of the hollow interior 18, as set forth above. However, the lower portion of the sidewall segment 25", indicated as 27, remains in its normally co-planar relation to the sidewall segment 25'. In such position, the lower sidewall portion 27 serves to aid in maintaining any number of products, such as the asparagus bunches 20 within the interior 18.

[0052] With reference to FIG. 13 another one of the plurality of opened positions in which the access segment 90 may be positioned is defined when the access segment 90 is folded about the movable connection 92. As such, the access opening 50" is somewhat enlarged from that shown in FIG. 12. However, a portion 27' of the sidewall segment 25" still remains in its normally co-planar position relative to the remainder of the sidewall section 25'. This remaining portion 27' is also of sufficient dimension to facilitate the maintenance or containment of any number of products within the hollow interior 18.

[0053] Another feature of the present invention is shown in FIG. 9 wherein at least one of the plurality of movable connections 92 and 94, and preferably the movable connection 94, is structured so as to facilitate detachment of at least a portion of the access segment 90 from the body 12. The detachable portion of the access segment 90 extends
between the movable connection 94 and the upper peripheral edge of the sidewall segment 25° contiguous to the perimeter of the open top end 34.

[0054] Accordingly, it is emphasized that the access segment 90 may be positioned between a plurality of different opened positions represented in FIGS. 12, 13 and 9. More specifically, when folded about the movable connection 94 the access segment 90 is in an opened position wherein the access opening 50° has somewhat of a smaller dimension. However, when the access segment 90 is in the opened position demonstrated in FIG. 13 the access opening 50° is somewhat enlarged from that of FIG. 12. Yet another opened position of the access segment 90 is shown in FIG. 9 wherein it may be completely detached along the movable connection 94.

[0055] In order facilitate such detachment, the movable connection 94 is structure to be separable such as by at least partially perforating or segmenting the elongated fold line defining the movable connection 94. A similar structure may be utilized to facilitate separation of the corresponding longitudinal peripheral edges of the access segment 90 such as at 96 from the corresponding peripheral edges 96 of the access opening 50°.

[0056] By virtue of the above noted structural features of the embodiment of FIGS. 8 through 13, the container assembly 10 is structured to store and transport fragile or other products 20 in a preferred up-right orientation. The laterally directed positioning of such products 20 into and out of the hollow interior 18 through the access opening 50° is also facilitated. However, another feature of this embodiment is the ability to effectively display any contents located within the hollow interior 18 through the access opening 50° by positioning the access segment 90 into anyone of the plurality of opened positions, which are best applicable to the particular circumstances surrounding the use of the container assembly 10°. By way of example in certain situations, it may be best to completely detach the access segment 90 from the remainder of the sidewall assembly 16. However, in other circumstances it may be best to position the access segment 90 in either one of the plurality of opened positions shown in FIGS. 12 and 13 so as to display the contents within the hollow interior 18 and at a later time completely enclose the contents by virtue of repositioning the access segment 90 back into the closed position as shown in FIG. 11.

[0057] Regardless of the specific embodiments utilized, the provision of an access segment 40, 40° or 90° and its selective positioning from a closed to an opened position, thereby clearly facilitates the visual access of the hollow interior 18 and any products 20 contained therein. More importantly, physical positioning of the products 20 through the access opening 50, 50° or 50°, in a manner which eliminates or significantly reduces the possibility of damage being done thereto is made possible, during the loading and un-loading procedure. More specifically, as demonstrated in FIG. 6, each of the access openings 50, 50° and 50° are sufficiently configured, dimensioned and disposed to facilitate a laterally directed movement or positioning of the product 20 either into the hollow interior 18 or outwardly therefrom as schematically represented by the directional arrows 60. Further, such lateral directed positioning can be accomplished while the product 20 is oriented in a preferred orientation, such as the substantially up-right orientation as also demonstrated in FIG. 6.

[0058] It is emphasized that the product 20 can represent one of a plurality of "bunches" of asparagus. It is universally recognized that when dealing with a produce product such as asparagus, the tips or upper ends thereof, as at 20°, are more valued because of an increased flavor and tenderness. However, the asparagus product is extremely fragile and most likely to be physically damaged during the packaging and un-packaging procedure. Utilizing conventional techniques, asparagus or any of the more fragile products represented as 20 are loaded and unloaded through the open upper end of a conventional container. As such, the products are vertically directed into and out of the container. However, because of the unique structural features of the present invention the individual products 20, whether in the form of asparagus or any other product, may be laterally directed, as indicated by directional arrows 60, into and out of the hollow interior 18 through the access opening 50, 50° or 50° when the respective ones of the access segments 40, 40° or 90° are in the opened position. As also demonstrated in FIGS. 6, 9, 12, and 13 it may be desirable to display a plurality of products as they are packed within the hollow interior 18 prior to removing the products 20 individually. Therefore, the access segment 40, 40° and 90° when disposed in the opened position, allows clear viewing and thereby facilitates visual access to the hollow interior 18 and more particularly to the products contained therein.

[0059] In order to maintain the access segment 40, 40° or 90° in the closed position the cover assembly 30 includes the one or more flange segments 36 defining the aforementioned retaining portion as best pictured in FIG. 3. The retaining portion or flanges 36 are disposed in overlapping substantially confronting engagement with the exterior surface of the upper ends of the sidewall segments 22, 23, 24 and 25. The exterior surface adjacent the upper end 47 and 47 of the access segments 40 and 40° are also retained by the corresponding portion of the peripheral flange or flanges 36 due to the aforementioned overlapping confronting disposition thereof. In the closed position the cover assembly 40 thereby maintains either of the access segment 40 and 40° in substantially coplanar relation with the correspondingly positioned sidewall segment 25 and 25° as demonstrated in FIG. 3.

[0060] Another structural feature of the present invention is the formation of the body 12 from either a single blank or a plurality of fixedly attached blank segments. The various sidewall segments 22, 23, 24, and 25 are thereby interconnected to one another as also shown in FIG. 7 and foldable into the multi-sided configuration of FIGS. 1 and 5, along normally vertically oriented fold lines 65, overlapping or mating flaps or portions 67 may be affixed to one another by adhesive or may be integrally formed into a one piece, unitary construction. Also as shown in FIG. 7, the base 14 may be formed by interlocking base segments 69 once being folded relative to an attached, corresponding sidewall segment 23 through 25, along normally horizontally oriented fold lines 71. Engagement of the various base segments 69 may occur by interlocking connecting apertures and tabs as at 73 and 75.

[0061] Yet another structural feature of the present invention is the provision of a plurality of openings or apertures
as at 80 formed in adjacent or oppositely spaced apart segments of the sidewall assembly 16. Similarly, a plurality of openings or apertures are formed in the base 14 as at 82 and in the cover assembly 30 as at 84. These openings or apertures are provided to facilitate ventilation of the hollow interior 18 as well as the products or contents 20 contained therein. In addition, when the products or contents 20 are produced or a variety of other products, it may be common practice to pass such products, while contained within the hollow interior 18, through a spray wash or bath for purposes of disinfecting and/or cleaning. Therefore the plurality of apertures, 80, 82, 84, etc. serve to allow fluid flow of both liquid and air through the interior, as well as provide proper drainage or passage of the fluid from the interior and from the products or contents 20 contained therein.

Also a number of other apertures 80' and 84' are located in the sidewall assembly 12 and the cover assembly 30 and may be provided to facilitate the aforementioned passage of fluid flow through the hollow interior 18 as well as provide means to handle and/or lift the body 12 with the cover assembly 30 thereon. These apertures or others may be strategically located to facilitate viewing of the products 20, to further facilitate display thereof. Naturally, the number, size, configuration and location of the aforementioned apertures may vary and/or be non-existent, depend upon a number of different factors including a type of products or content being maintained within the hollow interior 18. Also the material from which both the body 12 and the cover assembly 30 is formed may be at least partially liquid impervious or “water proof” so as to resist damage to the material and the integrity of the container assembly 10 and 10' if subjected to the aforementioned water spray or bath. For example, a wax type coating may be applied to the exterior of the container.

Since many modifications, variations and changes in detail can be made to the described preferred embodiment of the invention, it is intended that all matters in the foregoing description and shown in the accompanying drawings be interpreted as illustrative and not in a limiting sense. Thus, the scope of the invention should be determined by the appended claims and their legal equivalents.

Now that the invention has been described,

What is claimed is:

1. An asparagus shipping container assembly comprising:
   a) a body having a hollow interior and including a sidewall assembly disposed in at least partially surrounding relation to said hollow interior;
   b) said sidewall assembly including a plurality of sidewalls;
   c) said body further including a base connected to said sidewall assembly and disposed in covering relation to one end of said hollow interior;
   d) an access segment defined in one of said side walls, said access segment hindgely connected to said body and structured to be disposable between an opened position and a closed position;
   e) said access segment defining an access opening in said side wall which communicates with an open interior of said body;
   f) said access opening disposed and dimensioned to facilitate lateral positioning of an asparagus stalk into and out of said hollow interior therethrough; and
   g) a cover assembly structured to be disposed atop said body, said cover assembly segment including at least one downwardly depending flange structured to overlap said sidewall in which said access segment is defined and at least a portion of said access segment so as to maintain said access segment disposed in said closed position.

2. An asparagus shipping container assembly as recited in claim 1 wherein said access segment includes a pair of peripheral edges, said peripheral edges being angled so as to at least partially taper said access segment towards said base.

3. An asparagus shipping container assembly as recited in claim 2 wherein said access segment is hingedly connected to said base.

4. An asparagus shipping container assembly as recited in claim 3 wherein said body and said cover assembly are coated by a fluid impervious material.

5. An asparagus shipping container assembly as recited in claim 4 wherein said body comprises a plurality of apertures defined therein and structured to permit fluid flow therethrough into and out of said hollow interior.

6. An asparagus shipping container assembly as recited in claim 5 wherein said cover assembly comprises a plurality of apertures defined therein and structured to permit fluid flow therethrough into said hollow interior.

7. An asparagus shipping container assembly comprising:
   a) a body having a hollow interior and including a sidewall assembly disposed in at least partially surrounding relation to said hollow interior;
   b) said sidewall assembly including a plurality of sidewalls;
   c) said body further including a base connected to said sidewall assembly and disposed in covering relation to one end of said hollow interior;
   d) an access segment defined in one of said side walls, said access segment hindgely connected to said body and structured to be disposable between an opened position and a closed position;
   e) said access segment defining an access opening in said side wall which communicates with an open interior of said body;
   f) said access opening disposed and dimensioned to facilitate lateral positioning of an asparagus stalk into and out of said hollow interior therethrough;
   g) said access segment structured to be maintain in said closed position subsequent to position of said asparagus stalk into said hollow interior through said access opening;
   h) said body coated by an at least temporarily fluid impervious material; and
   i) said body including a plurality of apertures defined therein and structured to permit fluid flow therethrough into and out of said hollow interior.

8. A method of packing asparagus for transport comprising:
a) hingedly moving an access segment on a side wall of an asparagus container into an open position to define an access opening;

b) laterally introducing at least one bunch of asparagus into a hollow interior of the container through said access opening;

c) vertically positioning said asparagus bunch in said hollow interior of said container;

d) moving said access segment into a closed position which contains said asparagus bunch in said hollow interior of said container;

e) securing said access segment in said closed position;

f) transporting said asparagus container containing said asparagus bunch to an unpacking location;

g) un-securing said access segment from its closed position;

h) moving said access segment to expose said access opening; and

i) accessing said asparagus bunch through said access opening and removing said asparagus bunch from said asparagus container.

9. The method of claim 8 further comprising passing said asparagus container containing said asparagus bunch through a spray wash after said access segment is secured in said closed position.

10. The method of claim 8 wherein securing said access segment in said closed position comprises positioning a closure assembly atop said container to secure said access segment in said closed position.

11. The method of claim 10 wherein un-securing said access segment from said closed position comprises removing said closure assembly from atop said container to release said access segment from said closed position.

12. The method of claim 10 further comprising passing said asparagus container containing said asparagus bunch through a spray wash after said closure assembly is positioned atop said container.