

June 24, 1969

J. B. SWETT

3,451,328

CONTAINER FOR HEAD LETTUCE OR THE LIKE

Filed July 20, 1966

Sheet 1 of 3

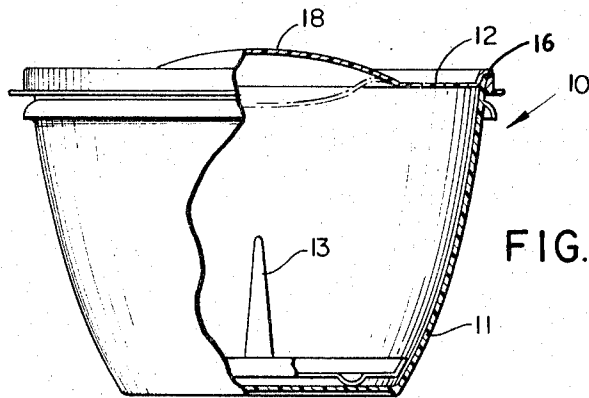


FIG. 1

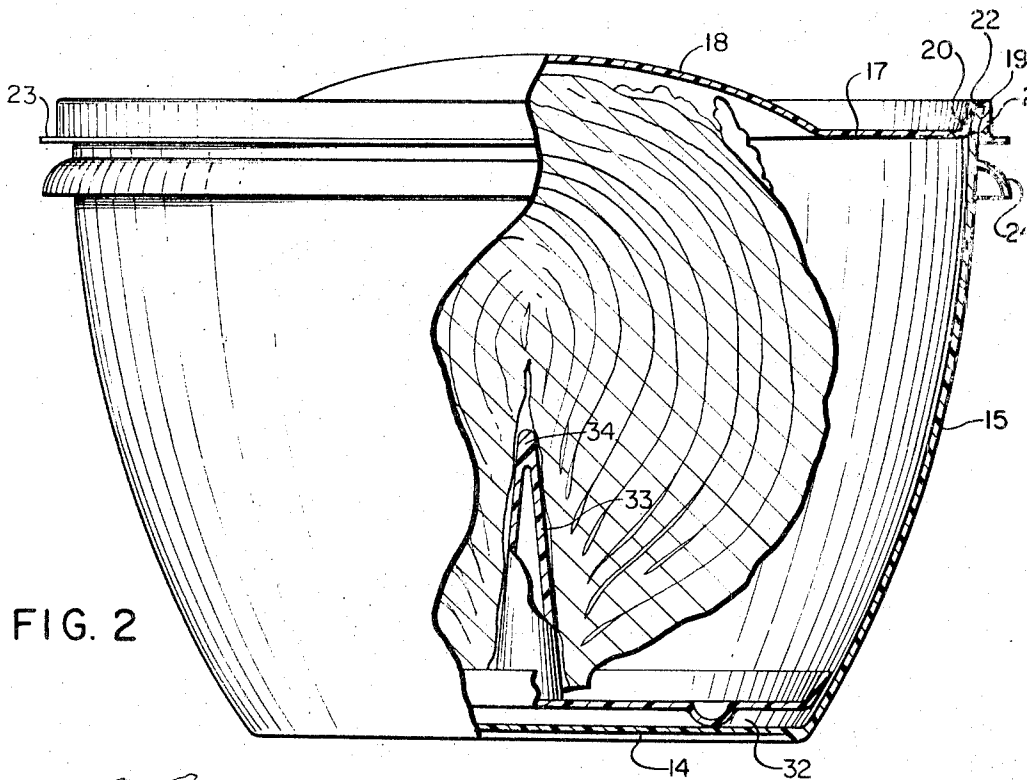


FIG. 2

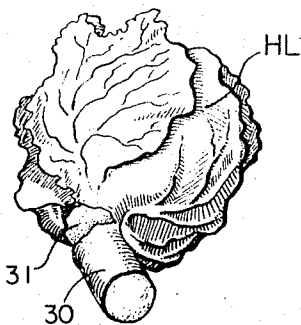


FIG. 3

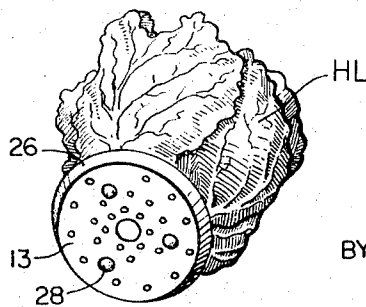


FIG. 4

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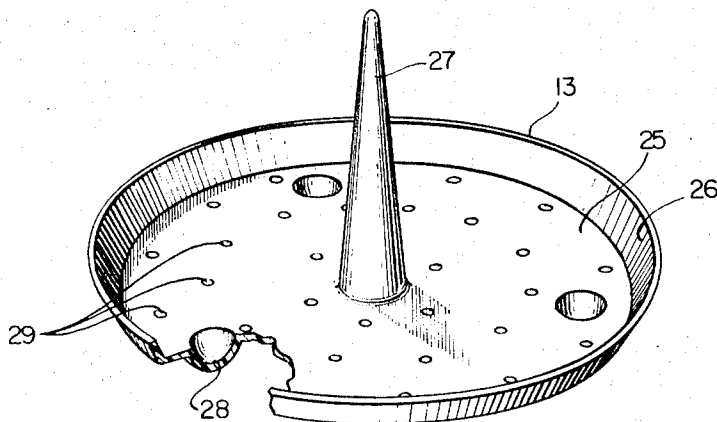


FIG. 5

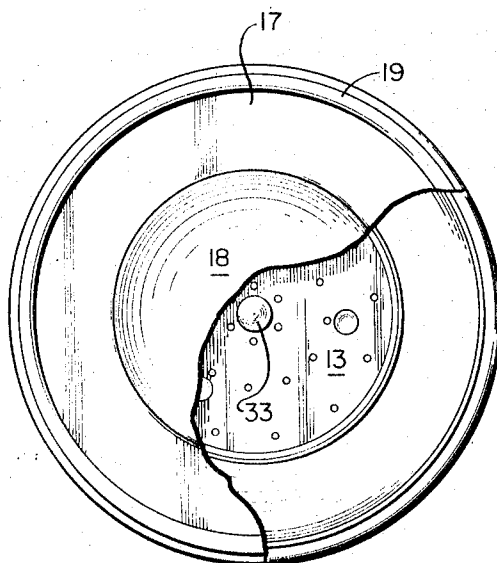


FIG. 6

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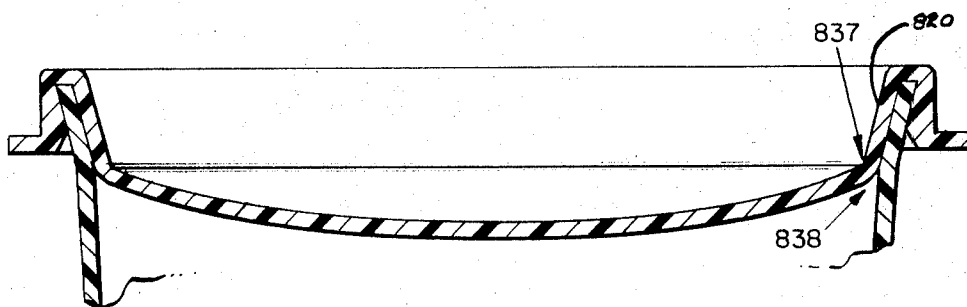
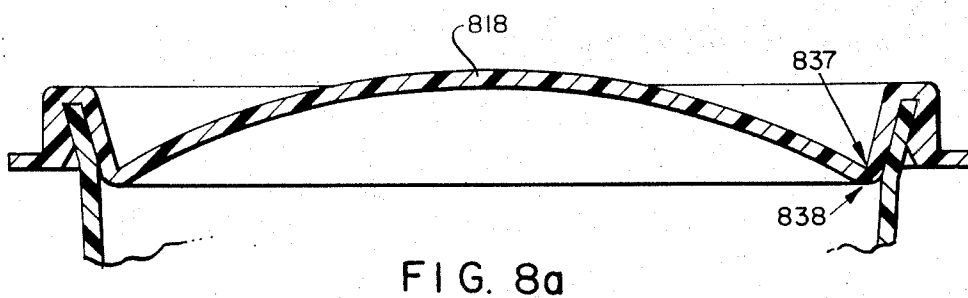
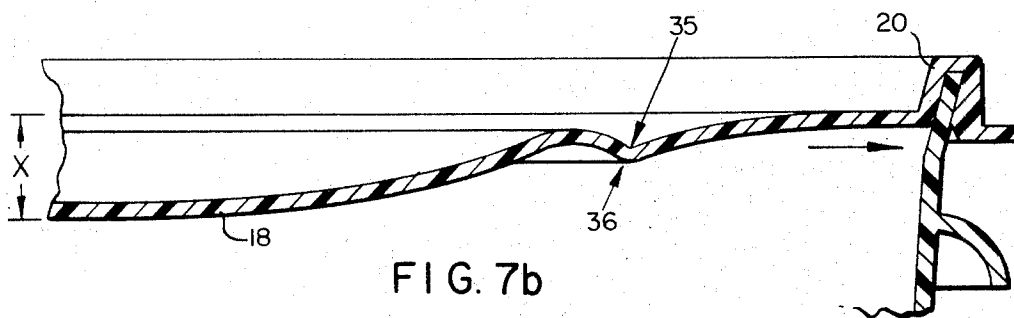
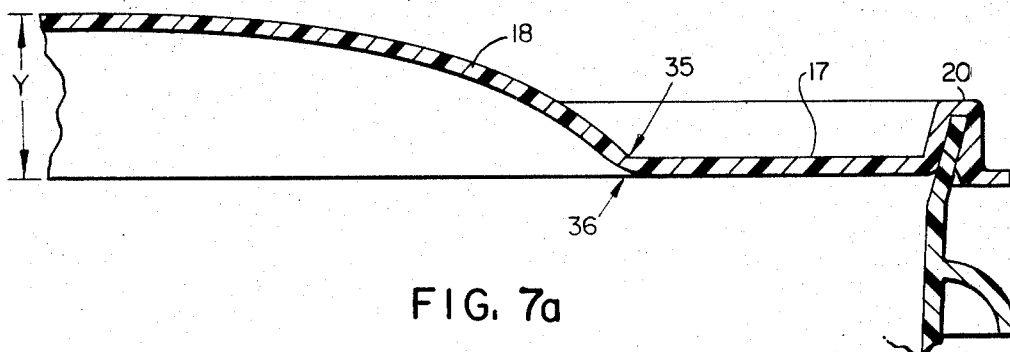
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CONTAINER FOR HEAD LETTUCE OR THE LIKE

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8 Claims

ABSTRACT OF THE DISCLOSURE

A storage container for head lettuce comprising a container adapted to be sealed to prevent ingress or egress of moisture. The container has a support particularly adapted to position head lettuce above the moisture which will collect in the bottom of the container. The support positions the lettuce in stable non-rockable position. A method for maintaining and storing head lettuce in an evenly moist atmosphere.

This invention generally relates to a foodstuff container and more particularly to a container assembly adapted for the preparation and storage of head lettuce and the like.

It is known that leaf type foodstuffs such as head lettuce are more appetizing and present a more desirable appearance when such are maintained evenly moist and are in a crisp condition. It is also known that head lettuce will maintain such desirable appearance and condition for longer periods of time if cored prior to storage, that is the central hard pulp portion from which the stem emanates has been removed.

It is therefore an object of the present invention to provide means by which such head lettuce may be conveniently stored in a convenient manner which affords the attributes of the desirable aforementioned environmental conditions. It has been found that a container capable of being hermetically sealed which is generally shaped to conform to the shape and size of head lettuce, which container has been provided with a supporting and piercing element upon which the head may rest, forms such a convenient atmosphere. Thus, head lettuce may be so prepared and supported by the piercing element within a moist and hermetically controlled area and be maintained out of direct contact with any water which may collect at the bottom of the container, and accordingly be so stored under those conditions found to be most favorable to its preservation.

It is also an object of the present invention to provide a container and hermetic cover seal therefore wherein means are provided by such sealing cover to bring about alternate sealing positions with the container portion thereof wherein the relative tightness between the cover and container can be alternatively increased or decreased by manipulation or positioning of the top seal member.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawings.

In the drawings:

FIGURE 1 is a side view of the container of the present invention with parts broken away for clarity;

FIGURE 2 is a similar view of the container shown in FIGURE 1 but on a larger scale and shown supporting a head lettuce therein in the preferred manner;

FIGURE 3 is a perspective view of a head lettuce in one stage of its preparatory process;

FIGURE 4 is a perspective view of a head lettuce showing the supporting element in position therewith;

FIGURE 5 is a perspective view with portions broken

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away for clarity of the supporting element of the present invention;

FIGURE 6 is a plan view of the container shown in FIGURE 1 of the drawings wherein the cover portion has been broken away for ease in illustration;

FIGURES 7a and b are alternate showings of the cover portion of the present invention shown in normal and depressed attitudes; and

FIGURES 8a and b are sectional views similar to FIGURES 7a and 7b but of a modified form of the invention wherein the covers are substantially entirely domed.

In the drawings the component portions of the container means 10 include a container 11, a cover seal 12 therefor, and a supporting element or support 13. The container 11 is generally formed with a substantially flat base 14 having peripheral and integral side walls 15 upstanding therefrom. Such side walls 15 terminate in an open upper end defined by upper terminal edge portions 16.

The cover seal 12 on the other hand is comprised of a top wall portion 17 having a centrally domed area provided therein for a dual purpose which will hereinafter be more clearly brought out. The periphery of the top wall 17 is provided with an inverted groove 19 for receipt of the terminal edge portion 16 of the container so as to form a hermetic seal therewith. Such inverted groove 19 is comprised of an inner wall 20, an outer wall 21 and a connecting wall 22. The cover seal may be further provided with a horizontally extending lip 23 dependent from the outer wall 21. A combination stiffening and grasping means 24 is positioned slightly below the upper terminal portions of the container.

Turning now to FIGURE 5 of the drawings in particular, the construction of the support 13 is more clearly shown. Such support is comprised of a tray portion 25 having an upstanding peripheral lip 26 and a holding or piercing element 27 of spike form integrally formed with the tray portion 25 and generally centrally located thereof. The tray portion 25 of the support 13 is further provided with a plurality of rounded feet 28 so as to maintain the tray portion in spaced relationship from the base 14 of the container upon which it is adapted to rest. The peripheral lip 26 of the tray portion 25 is further dimensioned so as to supportingly contact the inner portions of the container side walls 15 when positioned relative to the base 14 thereof as shown in FIGURE 2 of the drawings, and in this manner positions the support 13 centrally thereof. The surface of the tray portion 25 is further provided with a plurality of openings 29 throughout so that moisture either draining from the foodstuff itself or condensing upon the side walls of the container will not collect upon the tray and undesirably directly contact the foodstuff such as head lettuce supported thereon.

The preparation of the head lettuce for storage in the container of the present invention is shown best by reference to FIGURES 3 and 4 of the drawings wherein FIGURE 3 shows the stalk portion 30 of the foodstuff being removed. Removal of the stalk portion may be accomplished by a sharp blow upon the edge of a table or the like. The dense core 31 of the lettuce HL located therebelow may then be removed such as by scooping such substance therefrom by a spoon or the like. The head lettuce may then be thoroughly cleansed by the application of a cleansing water stream directly into the opening formed by the above described coring procedure and generally about the leaf portion thereof. The head lettuce support 13 is then inserted into the opening caused by the removal of the core matter as best shown by FIGURES 2 and 4. Accordingly, the head lettuce as sup-

ported upon and held by the spikeform element 27 is placed within the container 11 as shown in FIGURE 2 and the cover seal 12 applied so as to hermetically seal the container.

It should be noted that excess moisture is thus permitted to drain from the head lettuce. Thus stored, the atmosphere within the container becomes moisture laden and it is able to reach substantially all portions of the head lettuce including the interior portions thereof so as to render such in an evenly moist and crisp condition for lasting storage. Excess moisture may drain from the side walls and from the head lettuce itself onto the tray portion 25 of the support and thereupon through the openings 29 into the space 32 provided downwardly thereof. In this manner then the head lettuce is not permitted to sit in direct contact with the water while stored in a desirable conditioning moist atmosphere.

The spike-form holding element 27 has been shown preferably as hollow in cross section and as formed with side walls 33 and an imperforate piercing head 34. Alternatively such spike-form holder may be formed as a solid element. Also the piercing head 34 thereof may be provided with an opening therethrough so as to further allow the uniform distribution of moisturized air through the central portions of the head lettuce in those cases wherein the remaining core portions of the foodstuff sealingly engage the side walls 33 of the spike-form holding element.

The dome 18 of the cover seal 12 permits a container of smaller overall dimensions to be utilized in storage of a given size head of lettuce and further and more importantly serves to, in conjunction with the peripheral lip 26 of the platform 25, position the head lettuce within the container and to reduce unnecessary movement of such during the transportation of such from one place to another. This dome portion 18 furthermore, as may be seen by reference to FIGURES 7a and 7b of the drawing, serves to permit the cover seal to be placed upon the container in varying degrees of tightness. Accordingly, as shown by FIGURE 7a of the drawing, an abrupt delineation between the dome 18 and the top wall 17 is effected at the top or upper surface thereof so as to form a sharp curvilinear line and hinge point 35 therearound. On the other hand, the lower side of such area of delineation is smooth or rounded in configuration so as to form an area 36 resistant to bending. Thus by constructing the juncture in the aforementioned manner and by molding the cover portion of a elastomeric flexible plastic material, such as low density polyethylene, the dome 18 may be, with a forceable downward pressure on the central portions thereof, buckled or placed in inverted position as shown by FIGURE 7b of the drawings. Thus by molding in the dome 18 in its uppermost non-inverted position as shown in FIGURE 7a and by forming the delineation between the dome 18 and the top cover portion 17 sharply so as to form hinge point 35 on one side thereof and an area 36 which is resistant to bending on the opposite side, the depth to which the dome may be inverted and remain in stable equilibrium is reduced as compared to the height to which such assume in its natural non-inverted position. Accordingly by comparing the distances Y and X as shown in FIGURES 7a and 7b of the drawings respectively, it is seen that the distance Y is substantially greater than X. Thus it may be seen that the top wall 17 assumes a more radially outward position to take up the, so to speak, excess material available because of the lessened dome depth in the inverted position. This brings about stress forces which are set up in the top wall 17 which tend to move such radially outwardly in the direction of the arrow depicted in FIGURE 7b. The actual outward movement of the top wall segment 17 is, however, prevented by the abutment of the inner wall 20 against the inner portions of the terminal container edge 16.

Normally, portions of a top seal 12 which was not engaged with the container terminal edge portions would be

free to move outwardly towards the outer wall 21 or tend to lift the entire peripheral groove 19 outwardly, or a combination of both effects when the dome 18 was inverted. In effect then, as shown by FIGURE 7b of the drawings, a condition is set up by the downward inversion of the dome 18 so as to increase the force with which the inner wall 20 engages the inner portions of the terminal edge portion 16 of the container. The slight tendency to upward bowing of the top wall in such inverted position affords a resilience to the pressure effect brought about upon the inside portions of the terminal edge portion.

An alternate embodiment of a similar construction as explained conjunction with FIGURES 7a and 7b of the drawings above is shown in FIGURES 8a and 8b of the drawings, wherein the dome portion of the cover seal is depicted as extending over the entire portion of the top wall thereof, that is, inwardly from the groove wall 20. In this modification the reference numeral 837 refers to the hinge point formed by the sharp delineation between the dome portion 818 and the inner groove wall 820 and reference numeral 838 to the area of bend resistance wherein the dome 818 and the inner groove wall 820 meet in a smooth rounded lower surface. Accordingly, the same pivot and non-pivot or hinge effect brought about previously in the description of FIGURES 7a and 7b is present.

It will be apparent from the foregoing description that novel and advantageous provisions have been made for carrying out the desired objects of the invention. However, attention is directed to the fact that variations other than those above disclosed may be made in the example form of the invention disclosed herein without departing from the spirit and scope thereof as defined in the appended claims.

I claim:

1. A device for preparing and storing foodstuffs such as head lettuce and the like including a container, a foodstuff support and a sealing cover for said container, said container having a base and integral peripheral side walls upstanding therefrom, said cover having peripheral sealing means in contact with the free terminal peripheral portions of said upstanding side walls so as to hermetically seal said container, said support having a generally planar tray portion, an upstanding spike-form element disposed centrally of said tray portion, and supporting protuberances on the underside of said tray portion for spacing said tray portion from the base of said container, said tray portion being further provided with a plurality of drainage openings therethrough so as to prevent the collection of fluids thereon.

2. The device as set forth in claim 1 wherein said tray portion is of similar planar shape as the cross-sectional configuration of the container and wherein said tray is provided with an upstanding peripheral lip adapted for contact with the lower side wall surfaces of said container so as to centrally position said tray in relationship to said container bottom.

3. The device as set forth in claim 1 wherein said container cover is molded of a flexible plastic material and wherein said cover peripheral sealing means comprises a bottom opening generally U-shaped groove, said groove having an inner wall, an outer wall and a top connecting wall, the cover being further comprised of a top wall integral with said groove and bounded thereby, said top wall provided centrally thereof with an upwardly raised dome section, said dome being downwardly deflectable to a stable slightly concave alternate position by the application of finger pressure thereto so as to outwardly force said inner groove wall into closer sealing engagement with said container peripheral rim, said dome section being integrally connected to surrounding portions of said closure along a hinged delineation, said dome section joined to said remaining closure portions along the upper surface thereof by an abrupt convex connection configuration at

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said delineation and by a contrasting smooth rounded surface at the underside of said delineation.

4. A storage means for head lettuce or the like comprising a container and lettuce positioning means therefor, and a cover:

said container having a base and outwardly bowed side walls terminating in an opening and a head lettuce positioning support including means projecting inwardly of the container with respect to the base and side walls for securing said head of lettuce in position against lateral displacement and in symmetrical spaced relationship with the container walls and further in fixed spaced relationship above the base thereof, said support having opened portions positioned thereon to permit liquid draining from said head of lettuce to pass said support and collect below said head of lettuce; and,

said cover being adapted to form a seal with said opening to prevent moisture ingress and egress.

5. A storage means for head lettuce or the like comprising a container and lettuce positioning means therefor, and a cover,

said container having a base and outwardly bowed side walls terminating in a peripheral edge portion adapted to form a moisture tight seal with a cover therefore and a head lettuce positioning support including means projecting inwardly of the container with respect to the base and side walls for securing said head of lettuce in position against lateral displacement and in symmetrical spaced relationship with the container walls and further in fixed spaced relationship above the base thereof, said support having opened portions positioned thereon to permit liquid draining from said head of lettuce to pass said support and collect below said head of lettuce; and,

said cover having a peripheral sealing edge portion adapted to form a moisture tight seal with said peripheral edge portion, said cover further having a top wall including an upwardly raised dome section.

6. A storage means for head lettuce or the like comprising a container and lettuce positioning means therefor, and a cover:

said container having a base and outwardly bowed side walls terminating in a peripheral edge portion adapted to form a moisture tight seal with a cover therefor, and a head lettuce positioning support including means projecting inwardly of the container with respect to the base and side walls for securing said head of lettuce in position against lateral displacement and in symmetrical spaced relationship with the container walls and further in fixed spaced relationship above the base thereof, said support having opened portions positioned thereon to permit liquid draining from said head of lettuce to pass said support and collect below said head of lettuce; and said cover having a peripheral sealing edge portion adapted to form a moisture tight seal with said peripheral edge portion, said cover having a top wall including an annular flat section adjacent said peripheral seal edge portion and a central upwardly raised dome section, said container, including said base, side walls, cover and support being sized to an individual head of lettuce.

7. A storage means for head lettuce or the like comprising a container and lettuce positioning means therefor, and a cover:

said container having a base and outwardly bowed side walls terminating in an outwardly flared periph-

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eral flange and a head lettuce positioning support including means projecting inwardly of the container with respect to the base and side walls for securing said head of lettuce in position against lateral displacement and in symmetrical spaced relationship with the container walls and further in fixed spaced relationship above the base thereof, said support having opened portions positioned thereon to permit liquid draining from said head of lettuce to pass said support and collect below said head of lettuce; and, said cover having a peripheral edge portion formed as a downwardly extending peripheral U-shaped groove adapted to fit over said outwardly flared flange to form a moisture tight seal therewith, said cover having a top wall including an annular flat section adjacent said peripheral U-shaped groove and a central upwardly raised dome section, said container, including said base, side walls, cover and support being sized to an individual head of lettuce.

8. A storage means for head lettuce or the like comprising a container and lettuce positioning means therefor, and a cover:

said container having a base and outwardly bowed side walls of circular cross section, said side walls being outwardly bowed and terminating in an outwardly flared peripheral flange and including means projecting inwardly of the container with respect to the base and side walls for securing said head of lettuce in position against lateral displacement and in symmetrical spaced relationship with the container walls and further in fixed spaced relationship above the base thereof, said support having opened portions positioned thereon to permit liquid draining from said head of lettuce to pass said support and collect below said head of lettuce; and,

said cover having a downwardly extending peripheral U-shaped groove adapted to fit over said peripheral edge portion to form a moisture tight seal therewith, said cover having an annular flat section adjacent said downwardly extending peripheral U-shaped groove and a central upwardly raised dome section, said container, including said base, side walls, cover, and support being sized to an individual head of lettuce.

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U.S. Cl. X.R.