June 22, 1965 A. S. CARLSON 3,190,039

GROUND VASE

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Fig. 1

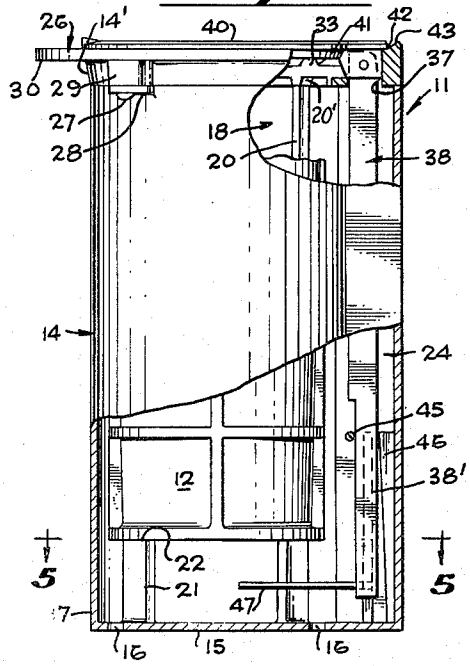
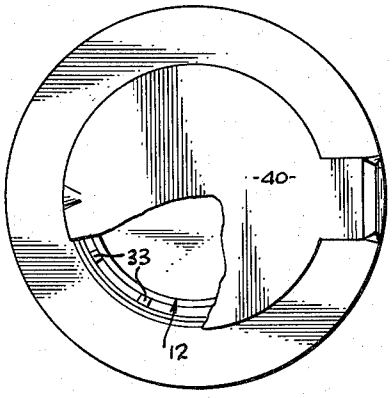



Fig. 2



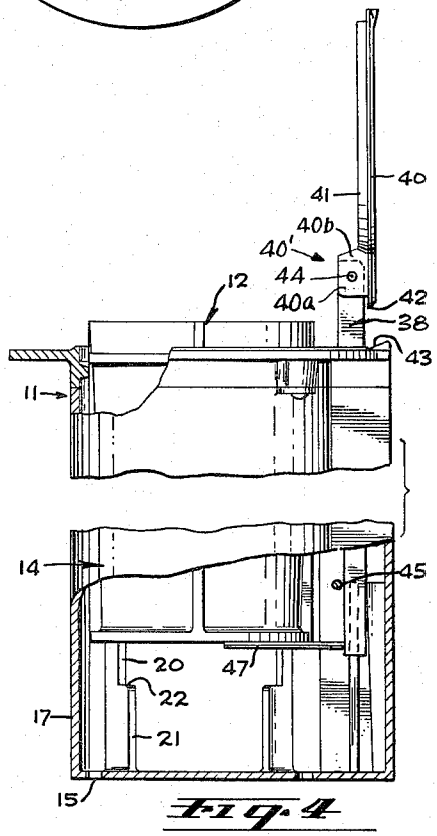




Fig. 4

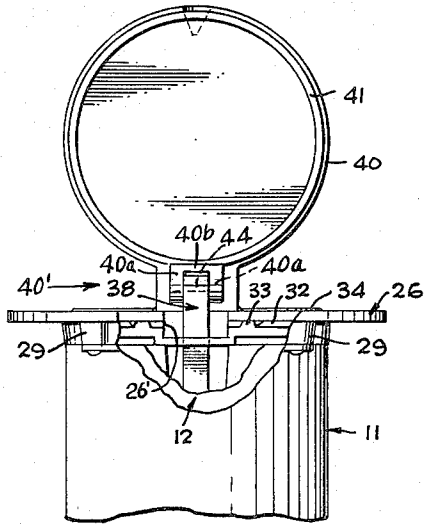



Fig. 3

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GROUND VASE

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Fig. 5

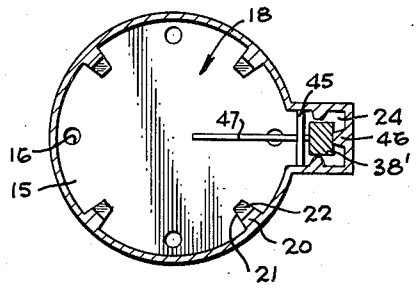



Fig. 6

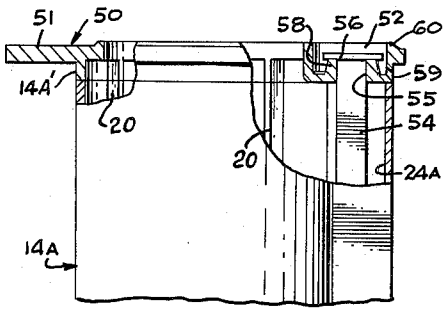
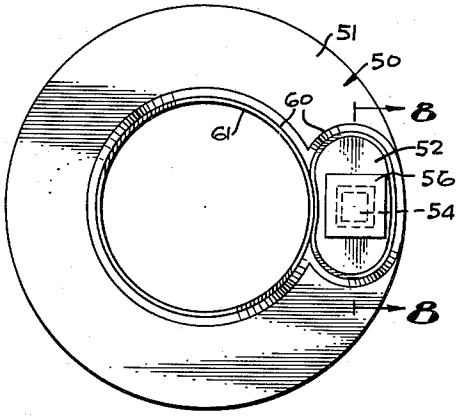



Fig. 7



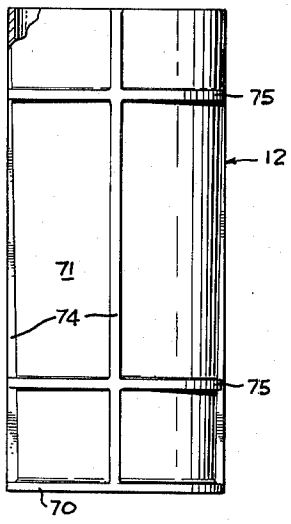




Fig. 9

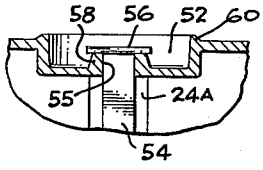



Fig. 8

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GROUND VASE

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FIG. 10.

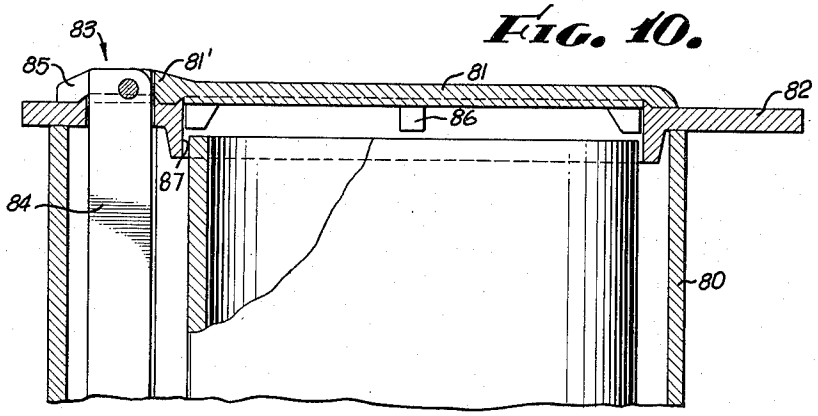



FIG. 11.

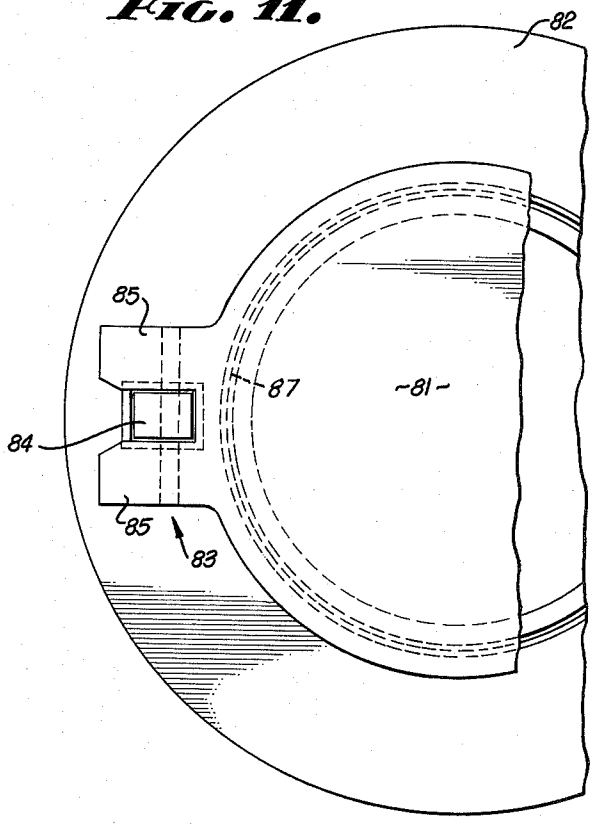
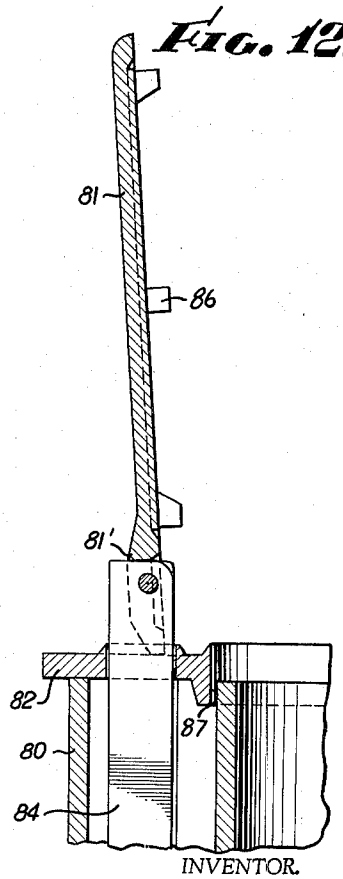



FIG. 12.




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United States Patent Office 3,190,039 Patented June 22, 1965



3,190,039

# GROUND VASE

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Filed July 9, 1962, Ser. No. 210,296
5 Claims. (Cl. 47—41.1)

The present invention relates to ground or memorial vases commonly used in cemeteries and memorial parks. The present invention represents a number of improvements over the ground vases disclosed by my United States Letters Patents, Nos. 2,438,802, 2,610,443, 2,676,434, 2,710,491, and 2,898,705, and is a continuation-in-part of my co-pending application Serial No. 166,627, filed January 16, 1962, now abandoned.

There are many objects in the present invention which clearly show the significant advance the present invention represents over the prior art. Consequently, only a few of the outstanding objects will be pointed out to illustrate the unexpected and unusual results attained by the present invention. One object of the present invention is a cover plate having a pivotal connection which prevents the cover from ever being lost and which permits the cover to be used in raising the vase from the housing. In addition, a lateral projection from the cover plate beyond the hinge connection in effect acts as a lock to prevent the cover from swinging open when unequal pressures are applied from above, such as when objects pass over it.

Another object of the invention is a combination of a base plate and a cover plate which prevents relative lateral movement between the cover plate and base plate and minimizes the contact points between them so that the cover plate will not freeze shut in cold weather. Also, it facilitates drainage and circulation of air between the cover plate and base plate.

Still another object of the present invention is a housing having a larger diameter than the outside diameter of the vase which is mounted therein so that the vase does not contact the inner wall of the housing but merely the guide ribs on the inner wall of the housing. Such guide ribs hold the vase in the center of the housing when installation of the ground vase is made on hilly ground so that the end of the vase is always mounted flush with the surrounding ground level and facilitates the insertion and removal of the vase since it floats on the ribs. Such rib construction permits dirt or silt which may get in the ground vase to fall down between the vase and the housing and thus eliminates any possibility of interference with the movement of the vase.

In general, the preferred embodiment of the present invention involves a base plate adapted to be mounted on a housing for receiving a vase, with the base plate having a vase aperture therethrough adapted to pass such vase and a lift rod aperture therethrough for slidably receiving a lift rod. A cover plate is seated on the base plate covering at least the vase aperture and a freely movable lift rod extends through the lift rod aperture into said housing with the lift rod having a hinge connection at its upper end with the cover plate. The cover plate and hinge connection are adapted to present a substantially flat surface flush with the surrounding ground and to inhibit the cover plate from opening when subjected to unequal loading from above.

In order to facilitate understanding of the device of the present invention, reference will now be made to the appended drawings of specific embodiments of the present invention. Such drawings should not be construed as limiting the invention which is properly set forth in the appended claims.

FIG. 1 is a sectional elevational view of the preferred ground vase assembly embodying the present invention.

FIG. 2 is a plan view of the device of FIG. 1 with the cover partially broken away.



FIG. 3 is a sectional elevation of the upper portion of the ground vase of FIG. 1 turned 90 degrees counterclockwise showing the cover in an open position.

FIG. 4 is a fragmentary sectional elevational view of the device of FIG. 1, but showing the cover and associated mechanism in a partially raised position.

FIG. 5 is a sectional view taken along the line 5—5 of FIG. 1.

FIG. 6 is a fragmentary view similar to the upper portion of FIG. 1 showing a modified construction.

FIG. 7 is a plan view of the device shown in FIG. 6.

FIG. 8 is a fragmentary sectional view on the line 8—8 of FIG. 7.

FIG. 9 is a side elevational view of an improved vase with a portion thereof shown in section.

FIG. 10 is a fragmentary view similar to the upper portion of FIG. 1 showing another modified construction.

FIG. 11 is a plan view of the device of FIG. 10.

FIG. 12 is a fragmentary view of FIG. 10 showing the cover plate in the raised position.

As shown in FIGS. 1–5, the ground vase assembly of the present invention involves a housing adapted to receive a removable vase 12 which is supported therein in either an upward or inverted position, a vertically disposed lift rod 38 slidably mounted in said housing for limited vertical movement, a base plate 26 adapted to be mounted on the housing 11, and a cover plate 40 covering the open end of the housing and having a hinge connection with the upper end of said lift rod.

Housing 11 includes a lower housing portion 14 which is open at the top, is hollow, and is generally circular in cross section; however, such cross section may be of any convenient shape, such as square, rectangular, hexagonal and etc. The lower housing portion 14 tapers gradually from the top to bottom, both internally and externally, to facilitate drawing the same from a mold, although this taper or draft may not be apparent from the drawings. Lower housing portion 14 includes a bottom wall 15 which has several openings 16 for drainage and a main upright wall 17. The housing member 14 defines a well 18 for the reception of the aforementioned vase 12. In order to center the vase in the well and support it somewhat above the bottom wall 15, I provide a plurality of circumferentially spaced vertical guide ribs 20 on the inner surface of wall 17 which extend radially into the well for a limited distance and are adapted to slidably receive the vase 12. Such guide ribs 20 around the vase 12 contact the vase 12 so that if any silt should enter the housing it would fall to the bottom of the housing and leave the vase clean. Furthermore, the guide ribs 20 position the vase with a minimum of friction so that it may be moved up or down easily. Also, such guide ribs hold the vase so that the upper end is always level with the base plate in cases where the installation is made on hilly ground. These guide ribs 20 have enlarged lower portions 21 which form a step or a shoulder 22 upon which the vase rests and provide means to support the vase above the bottom of the housing adjacent the lower end of the vase. In one side of the housing 14 is a vertical channel 24 which also extends radially of the well 18. Channel 24 is conveniently made substantially rectangular in cross section.

Mounted on the upper end of the lower housing portion 14 is a base plate 26 formed as an extension of upper housing portion 14′ which is detachably secured to upper end of housing 14 by screws 27 extending through lugs 28 and into bosses 29. Such construction permits the various embodiments of the base plate and cover plate of the present invention to fit a standard lower housing portion 14 by making changes only in the upper housing portion 14′. For example, in both FIG. 1 and FIG. 6 the lower end of upper housing portion 14′ conforms to lower housing

portion 14, e.g. it has the same diameter and its guide ribs 20' are aligned with guide ribs 20 of lower housing portion 14. However, the upper housing portion 14' of FIG. 1 has a substantial height to permit the hinge connection 40' to be received in recess 26' of base plate 26. On the other hand, the upper housing portion 14' of FIG. 6 has a small height to permit upper end of vase 12 to be flush with the top surface of base plate 26. Note that in FIG. 1 the upper end of the vase is substantially below the top surface of base plate 26. Such construction also permits the ground vase assembly to be separated, if desired; however, if preferred, the base plate and upper and lower housing portions may be permanently connected to form an integral unit. The base plate 26 is generally annular and includes a peripheral flange or plate portion 30. In the particular form of the invention illustrated, the plate portion 30 is relatively narrow, but it is contemplated that in some instances base plate 26 may be formed as part of a memorial plaque or plate and would extend over a substantial area, very likely being in the form of a large rectangular plate.

Base plate 26 includes a recessed substantially annular ledge 33 in its upper surface around the vase aperture. Such annular ledge 33 preferably has spaced notches 32 formed therein. However, the lugs formed by the spaced notches 32 may project from cover plate 40, if desired. On the upper surface of the plate portion 30 a raised silt ring 34 is provided to prevent silt and other debris from flowing over the plate portion 30 into the well 18. Base plate 26 has a recess 26' in its upper surface around the lift rod aperture 37 which slidably receives the lift rod 38 which in turn is mounted for vertical movement within the housing recess 24. Recess 26' is adapted to receive the hinge connection 40' and the cover plate 40 covers recess 26 and hinge connection 40' when it is closed. Cover plate 40 includes a downwardly projecting ridge 41 projecting from its bottom surface which is adapted to be received by said recessed ledge 33 and rests upon the lugs 33 formed by the spaced notches 32 when the cover plate 40 is closed. In this way lateral movement of the cover plate 40 is prevented if pressure is applied laterally and the possibility of the cover plate becoming frozen to the base plate in cold weather is minimized. The cover plate 40 extends outwardly over the silt ring 34 and is spaced slightly above it. Also, cover plate 40 includes a laterally projecting portion 42 which extends beyond the hinge connection 40' with respect to the vase aperture. Portion 42 rests upon base plate 26 and is adapted to engage the upper surface 43 of base plate 26 so that when the cover plate 40 is pivoted from closed position of FIG. 1 to the open position of FIG. 3 the edge of the portion 42 will ride upon surface 43 and serve to raise the lift rod 38 sufficiently to permit the cover to be swung open.

The pivoted connection or hinge connection 40' between the cover plate 40 and the lift rod 38 is shown as comprising a pair of aperture ears 40*a* on the cover with a pin 44 extending through said apertures and through the lift rod 38. A web 40*b* connects the ears 40*a* and serves to protect the hinge connection against entrance of foreign matter in an upright position.

Lift rod 38 is stepped to provide a section 38' of reduced size which extends behind a cross pin 45. The guide rib 46 is shown behind the lift rod 38. The lower end of the lift rod 38 has mounted thereon a laterally extending lift member 47 which extends under the lower end of the vase 12 when the vase is in the housing and resting upon the shoulders 22. The lift member 47 is adapted to raise vase 12 and is preferably a pin as shown since such construction is economical and will not collect dirt. It will be apparent that by opening the cover plate 40 and moving the same from the position of FIG. 1 to that of FIG. 3 the cover plate may then be readily grasped to raise it and the lift rod 38 which in turn raises the vase 12 part way out of the housing 14 thus making it easy to grasp for removal. Cross pin 45 insures that the cover plate 40 and lift rod 38 remain with the housing 14 and are not lost, since cross pin 45 limits the upward movement of lift member 47.

When the cover plate 40 is closed it will be apparent that the portion 42 beyond the hinge axis in conjunction with the remainder of the base plate 26 prevents the cover plate 40 from opening when subjected to unequal loading from above as by a lawn mower wheel passing over it. Also, the cover plate 40 is held down by the weight of the lift rod 38 since the latter is necessarily raised by the pivotal movement of the cover from the closed position of FIG. 1 to the open position of FIG. 3. Further, the hinge construction of the cover plate 40 and the lift rod 38 is such that the cover can tilt at least slightly from the position shown in FIG. 4 to any desired angle depending on the hinge construction to rest on the surface 43 and remain open until closed, as by a slight tap to move it past the vertical position. Such arrangement permits insertion of flowers into the vase without the necessity of holding the cover plate 40 open. Also, the raised position of cover plate 40 permits it to be easily closed and prevents it from being overlooked by maintenance people.

Referring now to FIGS. 6–8, the modified form of the invention is illustrated wherein a housing member 14*a*, which may be substantially similar to housing member previously described, is fitted with a modified base plate 50. The base plate 50 is generally annular and includes the upper surface 51 with a recess 52 having an aperture therethrough over the housing channel here indicated as 24*a*. In this form of the invention, the lift rod 54 extends through the aperture 55 and is provided with a laterally extending plate-like top or enlargement 56 which is adapted to be grasped by hand and which is supported above the bottom of the recess by a spacer means consisting of a raised wall 58. Thus, no cover is provided; however, the vase when inverted serves to form a plug-type closure or cover and should be so proportioned that its bottom wall is flush with the silt ring 60. The vase may be removed merely by grasping the upper end 56 of the lift rod 54 and raising the same. A drainage hole 59 is formed for the recess 52 and the silt ring or raised portion 60 encircles the opening 61 and recess 52.

In FIGS. 10–12 another modification of the present invention is shown wherein a housing 80 similar to the housing 14 is shown fitted with a modified cover plate 81 on the base plate 82 with bosses 86 extending downwardly from the cover plate 81 into the vase aperture 87 of the base plate 82. In the embodiments shown in FIGS. 10–12 the hinge connection 83 connecting the lift rod 84 and the cover plate 81 rests on the upper surface of the base plate 82. The extension 85 of the cover plate 81 serves the same function as the extension 42 of the cover plate 40 in FIGS. 1–5 so that the cover plate 81 is prevented from flipping open when loaded by sudden unequal pressures from above. Also, the edge 81' of cover plate 81 adjacent lift rod 84 is adapted to contact the top of lift rod 84 when the cover plate 81 is raised past the vertical position so that it remains open in such position. By utilizing a hinge connection 83 which rests on the base plate 82, the construction of the present invention is simplified by eliminating the need for a recess in the base plate 82.

The vase 12 may be of any desired shape; however, I prefer to provide a vase having a bottom wall 70 and a main wall 71, the latter being circular in cross section but preferably tapering somewhat from top to bottom. A plurality, such as three or more external axial ribs 74 are formed on wall 71 and these intersect with a plurality of circumferential ribs 75 having a diameter substantially the same as the exterior of the top of the vase. The ribs 75 cooperate with the vertical ribs 20 of the housing 14 to center and guide the vase in the housing

thus making the vase easy to handle during insertion and removal of the same.

Still another feature of the present invention is a ground vase assembly of simple construction but which is easy to operate, which can be readily fabricated, and which is relatively economical.

Still another feature of the present invention is a ground vase that may be used without a cover in such a manner that when the vase is inverted, the bottom of the vase closes the ground opening and the vase remains easily removable from its surrounding housing.

Still another feature of the present invention is a vase housing having a vertically extending recess to receive a lift rod for the vase and means to guide and limit the longitudinal movement of the lift rod.

It will be understood that the foregoing description and drawings are only illustrative of the present invention and it is not intended that the invention be limited thereto. Many other specific embodiments of the present invention will be obvious to one skilled in the art in view of this disclosure. All substitutions, alterations, and modifications of the present invention which come within the scope of the following claims or to which the present invention is readily susceptible without reparting from the spirit and scope of this disclosure are considered part of the present invention.

I claim:

1. In a ground vase assembly:

(a) a base plate adapted to be mounted on a housing for receiving a vase, said base plate having a vase aperture therethrough adapted to pass a vase and a lift rod aperture therethrough for slidably receiving a lift rod;

(b) means seating a cover plate on said base plate without mechanical connection therewith and covering at least said vase aperture; and

(c) a freely movable lift rod extending through said lift rod aperture, said lift rod having a hinge connection at its upper end with said cover plate beneath the top surface of said cover plate, said cover plate extending beyond said seating means and said hinge construction with respect to said vase aperture and resting on said base plate, said cover plate extension being adapted to raise said lift rod when said cover plate is raised and inhibit the cover plate from opening when subjected to unequal loading from above.

2. In a ground vase assembly as stated in claim 1 wherein said base plate has a recess in its upper surface around said lift rod aperture, said recess being adapted to receive said hinge connection, and said cover plate covering said recess and hinge connection when it is closed.

3. In a ground vase assembly as stated in claim 1 wherein said hinge connection rests on the upper surface of said base plate.

4. In a ground vase assembly as stated in claim 1 wherein said base plate has a recessed shelf in its upper surface around said vase aperture and said cover plate has a ridge projecting from its bottom surface adapted to be received by said recessed shelf.

5. In a ground vase assembly as stated in claim 4 wherein said recessed shelf has spaced notches formed therein.


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