ABSTRACT: A unitary vegetation-retarding grave-marker protective structure having a horizontal base portion defining an opening, a vertical transition portion terminating in a horizontally outwardly directed stabilizing ground-engaging flange which resists sinking of the marker assembly into the earth. The transition portion having a lower substantially vertical portion and an upper portion which is upwardly and outwardly directed.

A rectangular rigid marker-supporting base in underlying face-to-face securement with an overlying grave marker. Drainage means between the marker-supporting base and receptacle for conducting water downwardly between the receptacle and marker base and out through an opening in the protective structure. Inwardly directed integral spacer means on the transition wall. Upwardly directed integral spacing means on the base portion.
GRAVE MARKER PROTECTIVE STRUCTURE

BACKGROUND OF THE INVENTION

1. Field of the Invention
This invention relates to a decorative, stabilizing vegetation-inhibiting grave marker receptacle and more specifically to such a receptacle having integral drainage means and stabilizers to prevent undesired displacement of the marker assembly.

2. Description of the Prior Art
Generally flat platelike grave markers which are placed in horizontal position close to ground level are finding increasing use. A suitable grave-identifying embossment is provided on the exposed upper surface of such markers. A rectangular marker-supporting base member of uniform thickness, generally made from precast concrete or granite, is placed within an opening in the earth. The marker is secured by suitable fasteners to the top of the base and is thereby maintained in the desired position. The marker is generally so secured in face-to-face contact with the upper surface of the base. One common means of effecting such a securement is by means of bolts having their heads recessed within the marker base and free ends extending upwardly through openings in the marker. Nuts are secured over the free ends. Alternatively, the bolts may be threaded securely to threaded bores depending from the lower surface of the marker and the heads secured to the base member.

These grave markers, which are generally made of a suitable metal such as bronze, provide an attractive uniform appearance to a cemetery as they eliminate the variations in height, size and appearance so frequently encountered with respect to cemeteries having tombstones.

Such markers frequently reduce the amount of hand maintenance of vegetation required to obtain the desired aesthetically pleasing cemetery appearance. As the markers are secured close to ground level, some installations may permit the passage of a power lawn mower thereover. Others, while not so installed, do permit simplified hand cutting as by scythe or sickle in a fashion not possible where a physical obstruction such as a tombstone extends upwardly a substantial distance above ground.

One of the main problems encountered in connection with the use of such markers is that with the passage of time, grass and other vegetation extend over and obscure the markers. In numerous instances the grass substantially completely covers the marker. Frequently, this process is accelerated by rain and snow eroding the surrounding soil and moving it down onto the marker. This provides a fertile soil foundation for root expansion of the surrounding grass. Thus, vegetation presents two hazards, i.e., elongation of the individual plants in a direction overlying and obscuring the marker and outer root expansion thereover. Removing the covering soil and vegetation which it supports is a time consuming and difficult task which can at best be expensive and imperfectly accomplished. In addition, the identifying embossments on the markers provide surface irregularities which entrap soil and present physical obstructions to proper cleaning.

A problem with such marker installations is the tendency for the marker and supporting member to sink into the ground as the ground becomes softened by rain or snow. Also contributing to this undesired movement are the alternate freeze-thaw cycle encountered during the winter. In addition, this sinking action may occur irregularly in such a fashion that portions of the marker may move upwardly to a substantial distance above ground. Such movement not only is aesthetically unpleasing, but also an obstruction which presents a physical hazard to both people and equipment. This produces a need for inefficient, time-consuming and expensive hand trimming.

An additional problem encountered with such markers is that the water and soil which impinge upon the marker are potentially corrosive materials which over an extended period of time may severely damage the marker.

Various forms of grave-marker-protective devices have been previously known. U. S. Pat. No. 2,383,787 discloses a ground-surface-positioned rectangular frame of tubular construction having an inwardly open portion which receives the larger edges of the marker. The frame material may be plastic and the frame may resiliently engage the marker.

U. S. Pat. No. 2,905,290 discloses a modified marker having drain holes communicating with underlying pipes which are cast into the concrete base. The vertical drainpipes connect with horizontal drainpipes which are also cast in the irregularly shaped base member. The base has a portion which extends upwardly to provide a rigid marker boarder above ground level.

U. S. Pat. No. 3,378,942 discloses an irregularly shaped protective channel frame into which a conforming concrete base is cast. An inwardly directed leg is disposed intermediate the outer portions of the marker underside and a portion of the base. The corners of the channel frame are provided with two V-shaped grooves for carrying water to the outer periphery. The assembly is set into the ground with the V-shaped drainage grooves disposed above ground. Water impinging upon the grooves intermediate the corners of the base must be caused to flow horizontally to a corner for discharge. U. S. Pat. No. 3,082,559 contains a similar disclosure of a surrounding grave marker into which an irregularly shaped concrete base is cast. The corners provide gaps for drainage of water to the outer periphery. The periphery has an upstanding raised rim which resists grass growth over the edge. The surround is of solid transverse cross section having an outer vertical face and top wall extending therefrom.

None of the known systems is adapted for use with conventional rectangular substantially rigid concrete or precast marker-supporting bases. Also, these structures fail to provide positive means for resisting sinking or tilting of the marker assembly. In addition, no effective means of preventing vegetation expansion, while simultaneously providing no significant obstacle to the use of power mowers, in connection with assemblies having the above-named features is provided. This is particularly important as an increasing number of memorial parks are requiring installation of memorial markers at or below ground surface. These systems also provide no means for effectively draining undesired moisture from a structure employing a conventional marker base to a substantially flat ground-engaging portion. Also, these known structures fail to provide a way of employing a marker-supporting base of greater size than the marker to provide a decorative boarder therefor, as is desired in a great number of conventional installations.

SUMMARY OF THE INVENTION

This invention has solved the above-described problems by providing a protective structure which has a receptacle for receipt of a marker-supporting base, which may be a conventional granite or precast concrete base, which is secured in underlying disposition with respect to a substantially flat conventional grave marker bearing a suitable informational legend.

The receptacle of this invention has a base, an upstanding transitional wall and an outwardly directed substantially horizontal ground-engaging portion. The base portion and transition portion cooperate to define an upwardly open receptacle which is positioned within a recess in the ground and into which a marker-supporting base is received.

The horizontal receptacle base may have one or more openings which cooperate with a vertical channel means defined between the transition wall and the marker-supporting base to provide a continuous water discharge for transporting water away from the marker and into the underlying earth. A water-permeable material may be placed within or under the receptacle to facilitate the rapid discharge of water.

The transition portion has a lower first section which is substantially vertical and an integrally formed second section extending upwardly and outwardly from the first section. Inwardly directed spacing means serve to maintain the desired gap between the transition portion and the lateral wall of the marker-supporting base.
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The ground-engaging flange extends horizontally outwardly on the ground surface to provide a continuous ground-contacting flange which inhibits growth of vegetation and inhibits erosion of soil onto the marker assembly. The ground-engaging flange also serves to resist any sinking of the marker-supporting base and marker as a result of soft soil conditions. It also resists any tendency for the marker assembly to list or sink unevenly. This stabilization is accomplished by transmitting the downwardly directed load applied to the receptacle base through the transition portion to the circumferentially continuous ground-contacting portion.

It is an object of this invention to provide a ground-recessed receptacle for receiving a grave marker assembly in order to resist undesired physical displacement of the assembly as well as resisting physical obliteraton thereof by encroachment of surrounding vegetation and soil.

It is another object of this invention to provide such a structure wherein an integral channel discharges water and other foreign materials from the receptacle to the underlying soil.

It is a further object of this invention to provide such a structure which can be economically manufactured and installed and is adapted for use with conventional substantially rectangular marker-supporting base members and conventional grave markers.

It is another object of this invention to provide a receptacle having ground-surface-engaging portions which establish uniform peripheral resistance to undesired displacement of the marker-supporting base.

These and other objects of this invention will be understood from the following description of the invention on reference to the illustrations appended hereto.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of the grave marker installation provided with a protective structure of this invention.

FIG. 2 is a sectional elevation of the structure of FIG. 1 taken along 2—2.

FIG. 3 is a sectional elevation similar to that of FIG. 2, illustrating a modified form of structure.

FIG. 4 is a fragmentary sectional view in plan showing a form of drainage channel of this invention.

FIG. 5 is a fragmentary sectional view through 5—5 of FIG. 4.

FIG. 6 is a sectional elevational view of another form of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now more specifically to the drawings, with particular reference to FIGS. 1 and 2, a conventional substantially flat grave marker 2 bearing a suitable informational legend 4 is shown. A substantially rectangular rigid marker-supporting base 6 of uniform thickness is positioned in underlying supporting relationship with respect to the marker 2. In the form illustrated, the upper surface 8 is larger than the marker and a decorative marginal frame portion 10 is exposed. In the form shown in FIG. 3, the grave marker 2 and marker-supporting base 6 are substantially coextensive with the top portion of the marker-supporting base 6 not exposed.

The marker-supporting base 6, which is generally made of precast concrete, has its upper surface 8 in face-to-face contact with the lower surface of marker 2. Conventional fastener means (not shown), such as bolts having their heads recessed in the base 6 and free ends directed upwardly with a retaining nut affixed thereto, are employed to secure the marker 2 to the marker-supporting base 6.

The receptacle shown in FIGS. 1 and 2 is substantially rectangular and has web portions of substantially uniform thickness. It is of substantially uniform transverse cross section throughout its circumference. The receptacle has a substantially horizontal base portion 20, a generally vertical transition portion 22 and an outwardly directed generally horizontal ground-engaging portion 24.

As seen in FIG. 2, the base 20 defines an opening 26 which is generally smaller than the marker and permits drainage water to flow out of the receptacle and into the underlying earth, as will be described in greater detail below. The periphery or transition portion 22 extends upwardly from the outer periphery of the base 20. The periphery or transition portion 22 has a first or lower portion 30 which extends substantially vertically upwardly and an integrally formed upper or second section 32 which extends outwardly therefrom to an elevation near the surface 36 of earth 38. The ground-engaging portion 24 is connected with the upper extremity of second portion 32 and extends outwardly along the ground surface 36 to the outer periphery of the protective structure. The protective structure has its undersurface from the outer periphery 40 down to the base opening 26 in substantially continuous contact with the surrounding earth.

The base portion 20 and the peripheral wall portion 22 combine to define the upwardly open receptacle into which the marker supporting member 6 and grave marker 2 are received. The receptacle is in substantially complete noncontacting position with respect to the marker 2. The top surface of the grave marker 2 may extend a slight distance above the ground, but it is preferably positioned at ground level 36. This preferential placement results in the highest portion of grave marker 2, generally the legend 4, being positioned substantially at ground level.

The ground-engaging flange 24 is in overlying contact with the earth surface 36 and prevents the growth of vegetation thereover. In addition, it resists inward spread of grass 52 and other vegetation toward the grave marker 2. The flange 24 also serves to resist erosion of the soil which could bring about not only destruction of the aesthetically pleasing appearance, but also physically destructive corrosion of the marker 2.

The ground-engaging flange 24 serves an important stabilizing function. As has been stated above, a substantial problem in connection with grave markers is the sinking and undesired shifting of position resulting from soft supporting soil, particularly after rain, snow and during freeze-thaw cycles. The conventional marker-supporting base generally is either a granite or precast concrete member which contributes to stable support. They are quite heavy and over a period of time tend to become displaced with changes in soil condition. As a result of the substantial size and weight, once sinking or tilting movement has occurred, they are difficult to reposition. With my structure the downwardly directed load imposed upon base portion 20 is transmitted through lateral portion 22 to ground-engaging portion 24 which is in firm surface-to-surface contact with the earth surface 36 around the periphery of the receptacle. Thus, the downwardly directed load is firmly borne by the circumferential support provided by ground-engaging portion 24.

In FIG. 2 it is seen that the receptacle is slightly enlarged with respect to the marker-supporting base 6 in order to provide spaces 50 which serve as vertical drainage channels. A water-permeable material 54 is positioned intermediate the marker-supporting base 6 and receptacle base portion 20. As used herein, the term "water-permeable material" refers to a material having a superior capacity for permitting the flow of water therethrough and includes, for example, such materials as gravel, sand, cinders, stone chips and mixtures thereof. The spaces 50 need not be circumferentially continuous, but should be present over a substantial portion of the circumference. Water entering the receptacle will be effectively prevented from accumulating to any meaningful depth adjacent to the marker. The water will flow away by gravity through space 50 and then through water-permeable material 54 to be harmlessly discharged into the earth below the marker.

In the preferred form of the invention, drainage channels of uniform depth and frequency are provided. As shown in FIGS. 3 and 4, integral spacing means 60 extend inwardly from the lower or first section 30 of lateral wall 22. These spacing means 60 which are present circumferentially around
the peripheral wall 22 contact the lateral surface of marker-supporting base 6 and define a plurality of vertical drainage channels 62. Water flowing into the receptacle will, therefore, be discharged to the underlying earth through a plurality of discharge channels 62 which surround the marker-supporting base 6. The water and soil will not accumulate in an unsightly and potentially corrosive position. The spacers are preferably elongated upstanding stiffener ribs, but bosses or rib segments and other spacing structures may be provided in lieu of or in addition thereto.

In the form shown in FIG. 5 and indicated by dotted lines in FIG. 4, upwardly directed spacing elements 64 are provided within the base portion 20. These define channels 66 which direct the water toward opening 26 in base portion 60 and thereby facilitate efficient discharge to the surrounding earth.

It should be noted that by varying the depth of water-permeable material 54 positioned within the receptacle, the same size receptacle may be employed with marker supporting bases 6 of different heights. Such variations in material 54 may also be employed to precisely position upper surface of grave marker 2 with respect to ground surface 36.

In the form illustrated in FIG. 6, the marker-supporting base 6 rests directly upon spacer elements 64. Spacer elements 64 define channel 66 (FIG. 4) to facilitate discharge flow of water received from vertical channels 62. In the form illustrated, a number of supplemental discharge openings 68 are provided in lateral wall 22 to discharge water into the earth surrounding the receptacle. Water-permeable material has been positioned adjacent the openings 68 to improve the efficiency of discharge flow. If desired, spacer elements 64 may be eliminated and openings 68 may be employed as the principal or sole drainage openings in this form of invention or in other forms thereof.

The structure of this invention provides for positioning the grave marker 2 substantially at ground surface and no interfering upstanding portions are provided to obstruct the normal passage of a power mower or other equipment. The ground engaging portion 24 is preferably flat, of uniform thickness and in overlying contact with the ground surface. As seen in FIG. 6, the mower 70 may readily pass over the marker installation without either the guard 72 or the blade 74 contacting the marker or the protective structure of this invention. As these blades are generally set at about 1 to 2 inches above the earth, this clearance is very important. The wheels may readily pass over the ground-engaging portions 24 without interference and without damage to portions 24. Maintenance by power means is thereby facilitated and also potential damage to the marker, protective structure and mower are avoided.

The protective structure of this invention may be made of any suitable material which possesses sufficient strength to bear the loads that are encountered in service. The material should also resist corrosive deterioration in use. A suitable material for this purpose is a substantially rigid plastic material having some resiliency such as vinyl or a polyester resin such as polyethylene, for example. A high-density polyethylene is a preferred material.

The structure may conveniently be assembled from extruded sections which are cut to length and joined. It may also be conveniently integrally molded as a unit. While the protective structure could be made from metal, with or without a protective coating, the use of such a material may not be as economically advantageous as the use of a plastic material.

It will be appreciated that the protective structure of this invention provides a receptacle for receiving a marker-supporting base in underlying securement with respect to a substantially flat grave marker which is advantageously positioned generally at the earth's surface or lower, but may be slightly higher. Integral means are provided for effective drainage of potentially corrosive and aesthetically undesirable water and soil around the marker-supporting base, with discharge into the surrounding earth. Sinking and undesired displacement of the assembly is resisted by the face-to-face engagement between the ground-engaging means and the earth surface. The ground-engaging means also serve to inhibit the spread of vegetation through elongation as well as through cultivation in eroded soil which might otherwise be present on the marker surface. The marker is maintained in such position and the ground-engaging means are of such configuration that power mowing of surrounding vegetation may be effected without damage to either the mower or the marker-protective assembly. All of this may be accomplished by an aesthetically pleasing structure which will provide the desired appearance to the grave marker site. In addition, the structure may be economically manufactured and installed. Installation is accomplished by merely providing a ground opening slightly larger than the marker-supporting base. The ground-engaging means, however, create a pleasant appearance of a frame which is substantially larger than the ground opening.

Whereas particular embodiments of the invention have been described above for purposes of illustration, it will be apparent to those skilled in the art that numerous variations of the details may be made without departing from the appended claims.

1. A grave marker assembly comprising a protective structure comprising a generally horizontal base wall, a transition portion and an outwardly directed horizontal ground-engaging portion, said base portion defining at least one opening, said transition portion having a first section extending generally vertically upwardly from said base and a continuous generally straight second section extending outwardly and upwardly, said ground-engaging portion extending outwardly from said second section of said transition portion, said base portion and said transition portion defining a unitary marker-supporting-base-receiving receptacle, at least a major portion of said receptacle disposed within an opening in the earth, said ground-engaging portion disposed above ground in overlying contact with the earth surrounding said opening in the earth, a rectangular rigid marker-supporting base disposed within said receptacle overlying said base portion, said grave marker secured to the upper surface of said rectangular marker-supporting base, drainage means defined between said first section of said transition portion and said marker-supporting base for conducting water downwardly toward the earth, and the exterior of said receptacle and the underside of said ground-engaging portion in contact with the earth.

2. The grave marker assembly of claim 1 wherein said ground-engaging portion is of uniform width and terminates in a substantially rectangular outer periphery, a water-permeable material is disposed within said receptacle intermediate said marker-supporting base and said receptacle base, and said drainage means has a plurality of inwardly directed spacing ribs contacting said marker-supporting base and maintaining open spaces between said transition section and said marker base whereby a plurality of vertically disposed drainage channels is provided.

3. The grave marker assembly of claim 2 wherein said base defines an opening of smaller area than the area of said grave marker, and said drainage means has continuous channels for permitting the flow of water downwardly between said transition section and said marker-supporting base into said water-permeable material and then into the earth underlying said opening in said receptacle base.

4. The grave marker assembly of claim 2 wherein said marker-supporting base has a top surface area not less than that of said grave marker, said marker-supporting base is substantially of uniform thickness, said grave marker is secured in face-to-face overlying engagement with said marker-supporting base,
said transition section and said ground-engaging portion are circumferentially continuous, said protective member is in noncontacting position with respect to said marker, and said marker is retained in noncontacting position with respect to the surrounding earth by said protective member.