This is a design for a light weight sectional cemetery grave liner made of recycled plastic sheeting, which can be easily manufactured with simple tools. Its purpose is to prevent the collapse of graves in areas where larger cement grave liners or vaults cannot be used. It can be made in various sizes to accommodate limited grave space. The sections, all under 50 pounds, can be assembled in the grave by one person, without the need of heavy equipment. It also meets the traditional requirements of certain Orthodox religions that the body be interred directly in the soil.
FIGURE 4

CROSSECTION OF CASKET IN LINER

CASKET
SECTIONAL GRAVE LINER

BACKGROUND OF THE INVENTION

[0001] For many years we in the cemetery industry have been using cement grave liners, commonly referred to as "grave boxes" or "burial vaults" to prevent the collapse of graves in the newer cemeteries. Unfortunately, due to the size and weight of these grave boxes, (a one-piece box, approximately 3x8 feet and weighing one ton) we have been unable to use them in many of the older sections of the cemeteries, where lot size is severely limited.

[0002] This results in the unfortunate circumstance that these graves collapse when the woodenasket degrades, often leaving soil that appears to be solid ground, until someone steps on it and falls through into what can become a hole as much as three feet deep, and very dangerous, as well as being distressful to the family. It can also lead to health issues as the grave is open to the air, sometimes, right into the casket. This is also a maintenance headache for cemetery staff, who have to re-fill the sunken grave.

[0003] I have therefore developed a sectional liner that is lighter in weight, and can be carried into the cemetery by hand, and assembled in the grave, even in limited space. It does not require the heavy equipment necessary to install the Grave Boxes. Thus, we can protect the graves in the older cemeteries, as we now do in the newer ones.

BRIEF SUMMARY OF THE INVENTION

[0004] The newly designed sectional liner is made of recycled plastic compressed into sheets, three quarter inch thick for the sides and ends, and one inch thick for the covers. It is cut to size with simple carpentry tools. Small metal brackets are attached to the end sections to help with alignment when it is assembled in the grave. The cover, in two pieces, is then lowered onto the assembled sides and ends after the casket is lowered into the grave. The cover has small lips attached to aid the cover over the vertical sides.

[0005] The sectional liners can be made in various sizes to accommodate full size adult burials, burials in graves with restricted space, children's burials or even cremains. The heaviest piece of the liner weights only 50 pounds. Thus they can be hand-carried to the grave site, even in areas inaccessible to the heavy equipment needed to set a cement vault.

[0006] Additionally, this new liner actually conforms more closely to Orthodox religious burial tradition, because the bottom is completely open to the soil, unlike the one-piece Grave Boxes, which has a closed bottom. So when the casket is placed between the four walls and soil is backfilled around and over the top of it before the two-piece cover is placed on top, it will have been interred directly in the earth, as is Orthodox burial tradition. It provides another enhancement to Traditional burial as well. Jewish Tradition dictates that there should be a wall of earth between burials, of sufficient breadth to stand on its own. Unfortunately during burials in older cemeteries, when a grave is opened beside an existing burial, the older grave collapses into the open grave, often spilling casket parts into the open grave. This as well could be prevented by the use of the liners we have developed, as the sides would support the "wall of earth" that is supposed to separate the burials, thereby preserving the dignity of the previously buried individuals, as well as providing the safety of shoring the grave for the personnel digging the grave.

[0007] These are not intended to replace the full sized grave boxes we use in the more open areas, but will offer the same protection to burials in the older sections to prevent the graves collapsing. This will make the Cemetery safer for visitors, and will reduce future maintenance costs, because staff will not have to be constantly re-loaming and seeding graves, as they will not be sinking with liners installed.

DESCRIPTION OF VIEWS

[0008] FIG. 1 shows the sides and ends of the sectional liner assembled for use, and the 2-piece cover in a raised position over it. Note that the cover is 2 inches wider and longer than the "nominal" inner dimension of the liner, in order to allow the lips of the cover to slip over the sides and ends of the vertical walls of the liner. It also shows detail of the sheet-metal corner bracket, used to align the vertical walls of the liner.

[0009] FIG. 2 shows, at the top of the page, an explode view of the liner, looking down into the liner, and with the sides and ends also laid down, exposing the outside view of each. The bottom half of the page shows the top, side, and end views of the covers.

[0010] FIG. 3 shows detail of the corner with the aligning bracket, and shows how the various sections are assembled. FIG. 3A shows the bracket mounted onto the end and the side being inserted into the bracket. FIG. 3B shows the side and end assembled and the corner about to be lowered onto them. FIG. 3C shows the cover placed on the walls of the liner, closing it.

[0011] FIG. 4 shows a "cross-section" of the liner in the grave with a casket interred within and surrounded by soil as required in a Traditional Religious burial.

DETAILED DESCRIPTION OF THE INVENTION

[0012] The sectional liners are made from recycled plastic sheeting which can be purchased from lumber suppliers in 4x8 sheets. 1" thick material is used for the covers, and ¾" material for the sides and ends. ¼" material is used to form the lips on the covers. (see FIG. 2).

[0013] The sides and ends are made by cutting the 4x8 sheets in half lengthwise to form two 24" sheets, which are cut into 30" wide pieces to form the end pieces and 87" pieces to form the sides. These are the sizes for a standard size 30 inch burial liner. (Sections may be cut smaller to form smaller burial containers, if a smaller liner is required. The width of the ends determines the "width" of the liner. Because the end is between the sides when assembled, as can be seen in the views attached, the inside length of the liner is actually 1.5 inches less than the cut length of the sides) All cutting may be done on a table saw, an electric circular saw or any other saw that is normally used for wood.

[0014] The covers are formed by cutting the 1" material into pieces 32" by 44" pieces, each of which is one half of a standard size 30" liner cover. Three such pieces will be obtained from each 4x8 sheet. The ¾" plastic should then be cut into 1.5x24" strips and fastened to the edges of the covers with 1.25" drywall screws to form lips which will fit over the sides and help to align the covers when they are placed on the liner during interment. One strip should be centered on the outer end, and one centered on each side of
each half cover. (Covers may be cut smaller to form smaller burial containers, if a smaller liner is required however, it is important that the covers be cut 2" wider than the ends and 1" longer than the sides so that they will fit properly in place.)

0015 Metal brackets (FIGS. 1, 2 & 3) are attached to the end sections, 2 on either side, 4" from the top and bottom. These may be attached with sheet-metal screws or heavy duty adhesive. These will help to align the sides to the ends when assembling the liner in the grave.

0016 The Sectional Liner is light in weight and can be carried and assembled by hand. Various component sections of the liner weigh from 12 pounds to 50 pounds, (as opposed to one piece cement graveliners weighing nearly a ton, which need heavy power equipment for installation.)

0017 To assemble the liner in the grave, lower the sides and ends into the grave and fit them together (FIGS. 1 & 3): the brackets on the end sections should slip over the ends of the side sections, so that the four sections form a rectangle. Then backfill behind the corners enough to support the liner. (see FIG. 1) (Do not overfill at this time as the weight of the soil may bow the sides and narrow the liner to less than 30" wide, making it difficult to lower the casket.)

0018 Once the Funeral committal service has concluded, lower the casket into the liner, then lower the two cover pieces onto the liner, being certain that the lips go outside the sides and ends of the walls of the liner. They can be lowered with hand straps, or simply by hand if the grave is single depth.

0019 If the interment is an Orthodox Religion whose traditions require that the casket be surrounded in soil, the liner may be filled with soil before the covers are put in place (FIG. 4). However it is critical at this point that the sides be supported, or that outside the liner be backfilled before the liner is filled with soil, or the sides may bow outward so that the covers will not be properly supported by the sides of the liner. (FIG. 3) If the sides bow inward after the casket is installed, it is not a problem.

0020 Sectional liners are easy to store, as the components are virtually flat pieces (FIG. 2) which can be stacked in limited space, roughly 32" by 88" by 3.25", or 4.07 cubic feet each, (as opposed to one piece cement graveboxes which measure roughly 3' by 8' by 3' high, occupying roughly 2.5 cubic yards of space each.)

0021 Sectional Liners will prevent the collapse of graves in older cemeteries where cement liners cannot be used, by creating a permanent, non-degradable container around and over the wooden casket which would otherwise rot out and cause the grave to sink. (Note that this does NOT claim to prevent the casket from disintegrating over time, but WILL support the soil above it, preventing collapse of the gravesite when it does.) It will also prevent the grave collapsing into the open grave when you dig the grave next to it.

0022 The sectional liner meets the needs of Orthodox Religious Burial Traditions which require that the casket be buried directly in the soil, thus allowing the mortal remains to return to the soil. There is NO BOTTOM in the liner, and it may be filled with soil before the cover is installed so that the casket is completely encased in soil before the liner is closed.

What I claim as my invention is:
1. A sectional cemetery grave liner, used to prevent the collapse of graves, made of recycled plastic lumber;
2. A sectional grave liner which is designed in various sizes to fit in graves with limited space and can be easily resized on site with simple hand tools;
3. A sectional grave liner which is lightweight enough to be assembled in the grave without the need for heavy equipment;
4. A sectional grave liner which requires minimal storage space; and
5. A sectional grave liner which is bottomless to conform to Orthodox religious burial tradition, that the casket be buried directly in soil.

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