March 9, 1965 O. S. BUGG 3,172,183

BURIAL VAULT AND CASKET

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Fig. 1.

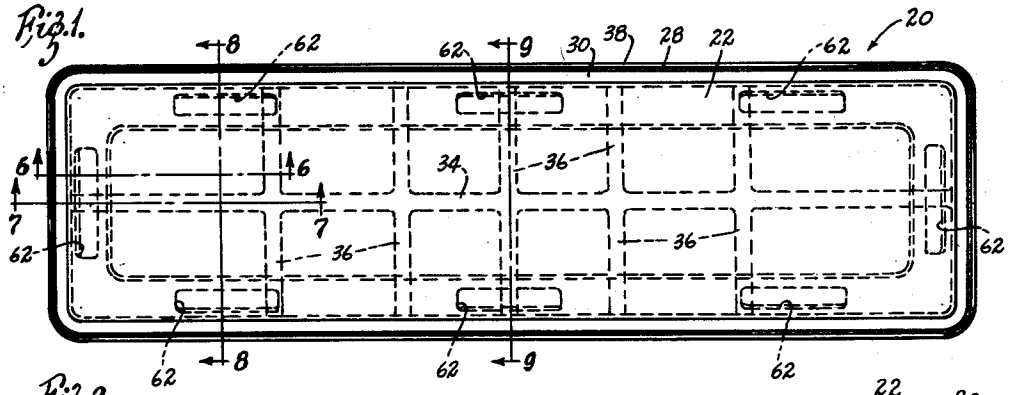


Fig. 2.

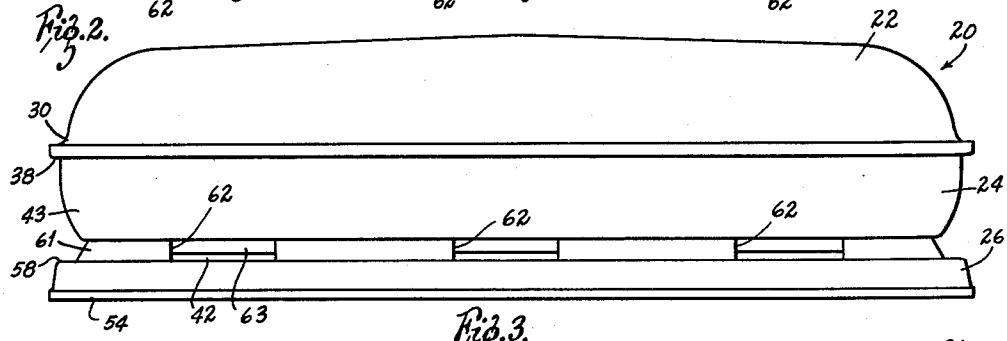


Fig. 3.

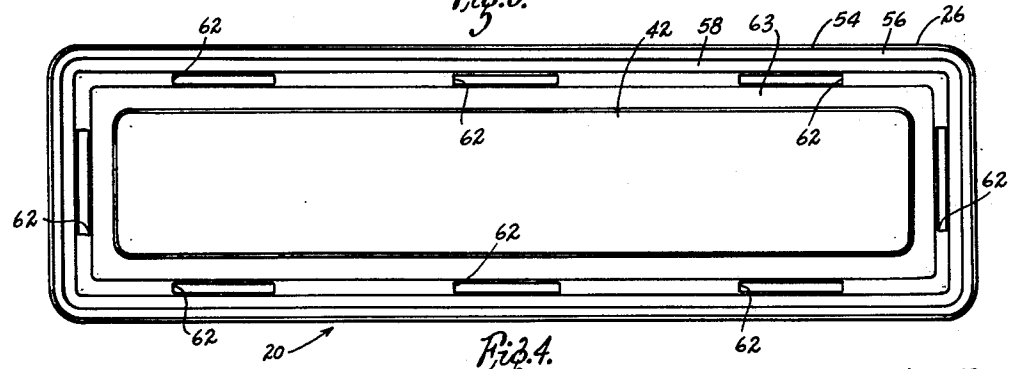
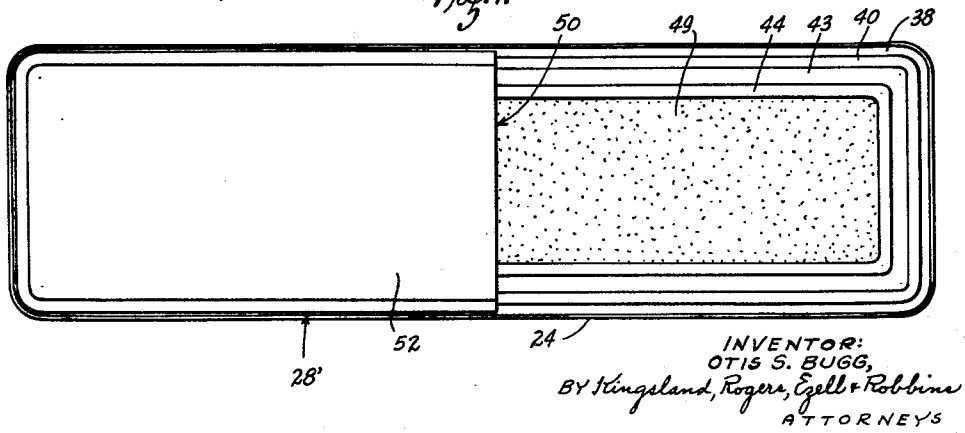


Fig. 4.



INVENTOR:
OTIS S. BUGG,
BY Kingsland, Rogers, Ezell & Robbins
ATTORNEYS

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Fig. 5.

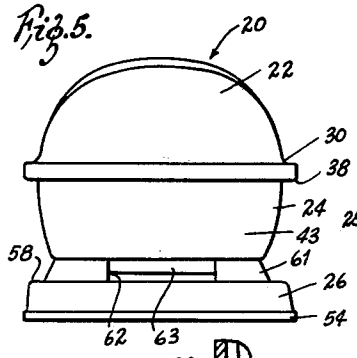


Fig. 6.

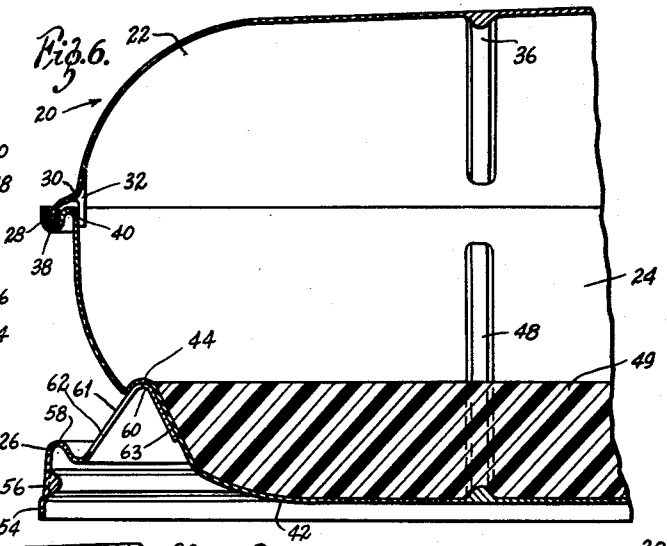


Fig. 10.

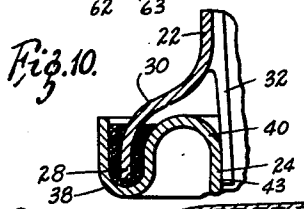


Fig. 7.

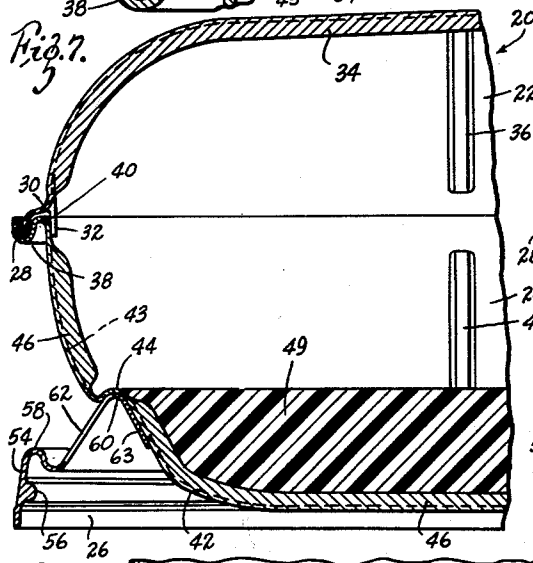


Fig. 8.

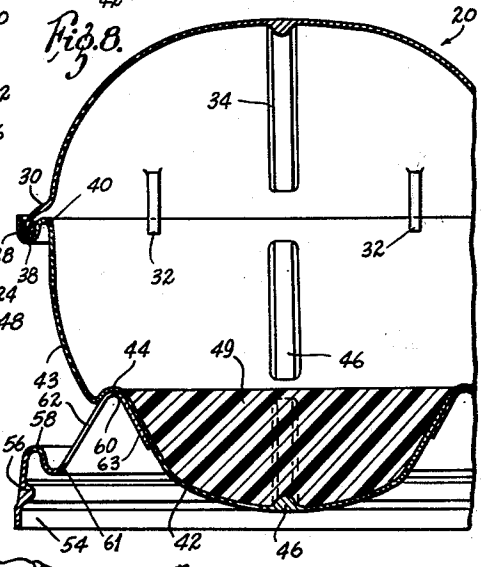


Fig. 9.

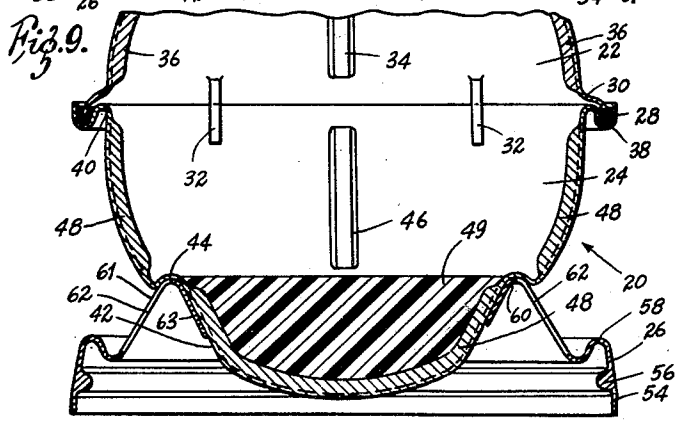
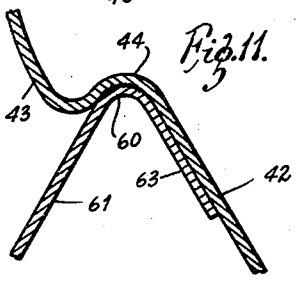


Fig. 11.



INVENTOR:
OTIS S. BUGG,
BY Kingsland, Rogers,
Ezell & Robbins
ATTORNEYS

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3,172,183

BURIAL VAULT AND CASKET

Otis S. Bugg, Oakland City, Ind., assignor to Sentinel Fiberglass Casket Company, Inc., St. Louis, Mo., a corporation of Missouri

Filed Dec. 18, 1961, Ser. No. 159,905
1 Claim. (Cl. 27—7)

This invention relates to improvements in burial vaults and in particular concerns a burial vault made of fiberglass that can also be employed as the casket.

In the past, burial vaults have been conventionally employed that have been of rather massive construction and have employed burial caskets placed inside the burial vault. Where it has been desired to use just the single burial vault without the casket, there has been a problem in making this of a light enough weight so that it may be carried by pallbearers and yet of sufficient strength such that it can be used as a burial vault under a ground load for interment in the cemetery.

By means of this invention there has been provided a burial vault of fiberglass employing a top shell half used as a lid and a bottom shell half used to support the body of the deceased, and a cradle used to support the burial vault shell member. The burial vault construction, through the use of fiberglass, is quite strong, rigid, and yet light in weight.

Essentially the burial vault shell members have means provided for automatic fitting of the two parts together and sealing them. This is provided by a tongue and groove sealing means working in conjunction with a guide means whereby the top shell may be very simply fitted over and against the top edges of the bottom shell and sealed. The cradle member is also so constructed that it receives the bottom shell in nested relation and can be simply bonded thereto. Further, the cradle has a spring-like construction so that it can resist sudden impact that may occur from sudden loads placed upon the top of the grave. The cradle also has handle members in order that the entire burial vault may be simply carried by pallbearers from one place to another.

The entire construction of the burial vault is such that the shell members may be joined very simply by technically unskilled individuals in a minimum of time. The structure is strong yet relatively light and relatively inexpensive in cost, which are decided advantages in this field.

The above features are objects of this invention and further objects will appear in the detailed description which follows and will otherwise be apparent to those skilled in the art.

For the purpose of illustration, there is shown in the accompanying drawings a preferred embodiment of this invention. It is to be understood that these drawings are for the purpose of example only and that the invention is not limited thereto.

In the drawings:

FIGURE 1 is a top plan of the burial vault showing reinforcing rib construction and handle holes in dotted lines;

FIGURE 2 is a view in front elevation of the burial vault;

FIGURE 3 is a bottom plan view of the burial vault;

FIGURE 4 is a top plan view of the burial vault with the top half of the burial vault shell removed and showing a removable half lid that may be placed on top of the bottom shell to cover one-half of the bottom shell;

FIGURE 5 is an end view of the burial vault;

FIGURE 6 is an enlarged view in section taken on the line 6—6 of FIGURE 1;

FIGURE 7 is an enlarged view taken in section on line 7—7 of FIGURE 1;

FIGURE 8 is an enlarged view in section taken on line 8—8 of FIGURE 1;

FIGURE 9 is an enlarged view taken on the line 9—9 of FIGURE 1;

FIGURE 10 is an enlarged view in vertical section taken on the mating edges of the bottom and top shells showing the tongue and groove and guide means for sealing the shells together; and

FIGURE 11 is an enlarged view in section showing the nesting arrangement and bonding together of the bottom shell with the cradle.

Referring now to the drawings, FIGURES 1, 2 and 5 show the burial vault in its assembled form and shows the main elements of the burial vault generally indicated by the reference numeral 20 as including a top shell 22, a bottom shell 24, and a cradle 26.

The top shell 22 is of a generally elongated dome-like structure which structure aids in resisting heavy earth loads placed upon it when the burial vault is interred. The bottom edges of the top shell member are indicated by the reference numeral 28 and extend exteriorly of the dome member and are separated therefrom by an extension member 30. The bottom edge 28 forms the tongue in the tongue and groove sealing means for connecting the top and bottom shells as will be further described.

The top shell is further provided with guide members 32 which essentially form continuations of the side walls of the top shell member but are inclined inwardly to a slight degree to provide a self-centering and guide feature for locating the top shell properly upon the bottom shell.

The top shell is further provided with a longitudinally running reinforcing rib 34 and a series of transverse ribs 36 which may conveniently be made of the same fiberglass construction as the remainder of the shell and cradle construction of the burial vault.

The bottom shell 24 has a groove member 38 connected to its top edge and spaced laterally from the sides of the shell members as best shown in FIGURE 10. The groove member is in the general form of a trough extending around the periphery of the bottom shell member and receive the tongue member 28 of the bottom shell in the relationship shown in FIGURE 10.

The trough member 38 is connected to the side walls of the dome member by a concave or bowed section 40, as best shown in FIGURE 10. By means of this bowed section, the tongue member 28 and the guide member 32 of the top shell can be guided along the sides thereof to provide the proper fitting action and relationship shown in FIGURE 10 when the top shell is placed upon the bottom shell.

The groove member 38 of the bottom shell is further adapted to be filled with a fast setting mastic or the like whereby the tongue and groove members can be sealed or cemented together when the shell members are fitted one upon the other. This relationship will further be described below.

The bottom shell is also of an elongated inverted dome-like construction and has a generally rounded bottom section 42, which, as shown in the drawings, is offset from side wall portions 43 by a detent groove 44 in which the cradle is received as will be further described. The bottom section is also provided with a longitudinal strengthening rib 46 and transverse strengthening ribs 48 of fiberglass construction in much the same nature as the strengthening ribs for the top shell.

The bottom shell is further provided with a polyester foam or similar material section 49 which is filled at the bottom to the detent groove 44. The section 49 is leveled out on the top to form a flat uniform surface in order that the body of the deceased may be laid to rest thereupon.

As shown in FIGURE 4, a half lid member **50** is provided which is adapted to cover one-half the top of the bottom shell. This member may be provided with a tongue **28'** and a flat or shallow dome intermediate portion **52** to cover half of the top portion of the bottom shell. The lid is used when the body of the deceased is placed in the bottom shell of the casket to cover the lower portion of the body, generally from the waist on down. Thus, when so used, only the top portion of the body of the deceased is presented to persons viewing the casket.

The cradle member **26** is best shown in FIGURES 2, 7, 8, 9 and 11. As there shown, it is comprised of a base member **54** having an internal rib **56** used for strengthening purposes. At the top of the base member is a convex section **58** which is connected to an inverted V-shaped nesting member **60**. The apex of the V-shaped member **60** is rounded and nests within the groove detent portion **44** of the bottom shell. The V-shaped member **60** is further provided on its outside leg **61** with a series of cut-out portions **62** around the periphery of the cradle. These cut-out portions **62** serve as hand holes whereby a pallbearer may insert his hand therethrough with the fingers extending upwardly into the concave member **58** with the palm resting against the side of the cutout portion. Thus, a firm section is provided for grasping the cradle. The V-shaped member **60**, through its connection with the concave member **58**, also serves not only to provide a nested and self-guiding relation for the fitting of the bottom shell upon the cradle member, but also acts as a spring member. Thus, when the shell is fitted upon the V-shaped member, sudden impact upon the top of the burial vault shell will be resisted by the spring action inherent in the construction of the V-shaped member and its connection with the concave member **58** and the base of the cradle.

USE

The burial vault comprising the cradle, the bottom shell, and the top shell are adapted for use in a minimum of time and with a minimum of inconvenience. The bottom shell may be very simply emplaced upon the cradle by means of the self-centering action afforded by the inside leg **63** of the V-shaped member of the cradle, which mates with the bottom of the shell to nest the V-shaped member against the detent groove **44** of the bottom shell. The two mating surfaces may be simply bonded by coating the surface of the cradle at the apex of the V-shaped member with an epoxy resin which will bond the detent section of the bottom shell there-against. Other conventional adhesives that are compatible with fiberglass may also be employed.

The shell and the cradle may be very simply carried from one spot to another by pallbearers who grasp the cradle through inserting their hands through the hand holes **62**. It will be understood that the body of the deceased will be laid flat within the bottom shell of the cradle resting upon the flat surface of the section **49**. Also, the half lid section **50** may be very simply placed upon the top groove member of the bottom shell for the length of time necessary during the funeral ceremony.

When the casket is ready for interment, the bottom lid **50** is removed and the groove may be filled with an air-drying mastic. It will also be understood that where desired this mastic may already be inserted in the groove and a lid may be used which does not have an edge member settling within the groove member of the bottom shell.

When the burial vault and casket is ready for sealing, the half lid is removed and the top shell is emplaced over the bottom shell. This is accomplished by slowly lowering the top shell in registry with the bottom shell. The guide members **32** act to properly position the tongue member **28** within the groove member of the bottom shell as the lowering operation is effected. As registry is accomplished, the tongue member will move down into the mastic provided in the groove member and eventually an air tight seal will be provided between the bottom and the top shell members. It will also be understood that straps may be used extending transversely over the bottom and the top shell sections and may be inserted through the hand holes **62** and drawn tight to insure that the two shell members are drawn tightly together. This enhances not only the sealing action within the tongue and groove members but also the sealing action between the bottom shell and the cradle between the detent member and the V-shaped member by the bottom shell and the cradle respectively.

The burial vault may then be transported to the cemetery grounds for interment. It may be very easily carried, as aforementioned, by the pallbearers inserting their hands through the hand holes **62** in the V-shaped member **60**, and the concave member **58** serves as a hand grip for this carrying operaion. The burial vault may be lowered into the grave in the conventional fashion and covered with earth.

The burial vault and casket of this invention by virtue of its construction has been found to resist quite heavy impact loads. This is necessary as it will be understood that the earth load over the casket is quite substantial. The spring action of the cradle member, and also the construction of the vault with the reinforcing ribs and the dome-like configuration, insures that resistance to severe loads can be effected to high degree. Test loads of 4300 pounds per square foot are successfully withstood. Accordingly, the combined burial vault and casket provides the dual purpose of providing a light-weight burial casket and a subsequent burial vault for interment without the necessity of using a separate casket and a separate vault.

Various changes and modifications may be made within this invention as will be readily apparent to those skilled in the art. Such changes and modifications and the use of different materials and different construction design are within the scope and teaching of this invention as defined by the claim appended hereto.

What is claimed is:

A burial vault and casket of fiberglass comprising a base, an elongated dome-like bottom shell supported upon said base and an elongated dome-like top shell fitted upon the bottom shell, said top and bottom shell being provided with sealing means, said sealing means comprising a V-shaped groove member connected to the top edge of the bottom shell by a web having an inverted V-shaped cross-section and extending around the outer periphery of said shell and a tongue member extending downwardly and outwardly from the bottom edge of the upper shell and receivable within said groove member, said sealing means further including an air-drying mastic in said groove sealingly engaging said tongue, and guide means for accurate alignment of the shells comprising a guide member extending downwardly and inwardly from the bottom edge of the upper shell and adapted to nest on the interior side wall of the bottom shell, said base including a base member connected to a convex section which in turn is connected to a cradle member, said cradle member being comprised of upwardly tapering inner and outer side wall sections defining an inverted V-shaped cross-section receivable at the top portion thereof within a groove formed in the outside of the bottom shell, the outer side wall section being connected to the base and being provided with a series of openings serving to receive a hand of a pallbearer which can be inserted therethrough to grasp the aforementioned convex section as a hand support, the inner side wall having a free end spaced above the base and nesting with a downwardly tapering mating side wall surface of the bottom shell.

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RICHARD A. GAUDET, *Primary Examiner.*

M. HENSON WOOD, JR., *Examiner.*