June 12, 1962 E. G. WEAN 3,038,232

BURIAL UNITS

Filed June 12, 1959 2 Sheets-Sheet 1

Fig. 1.

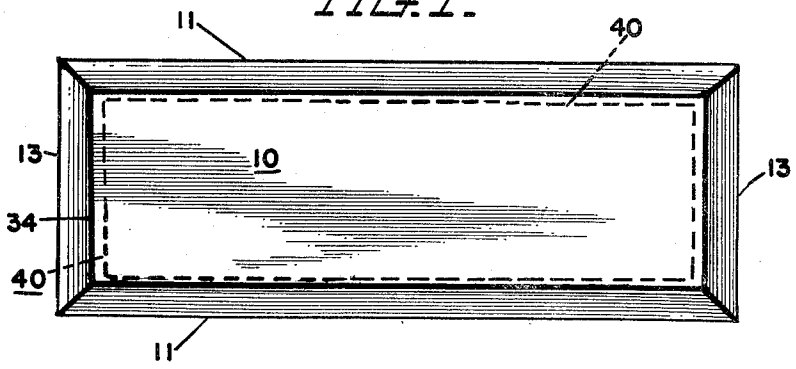


Fig. 2.

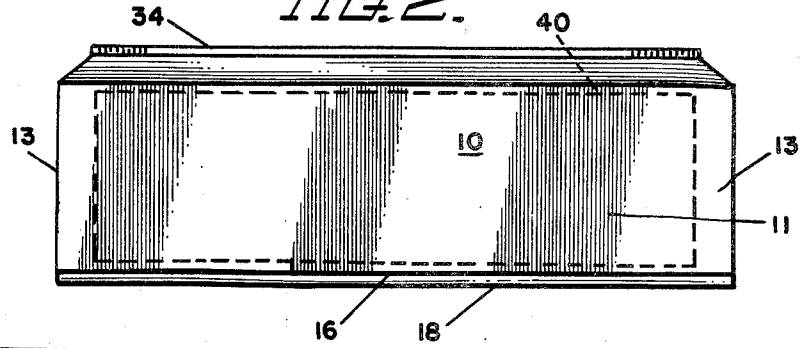


Fig. 3.

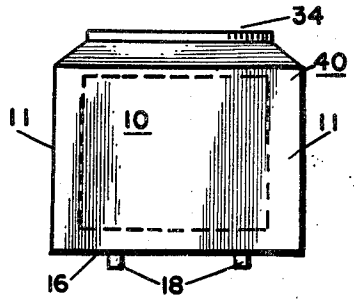
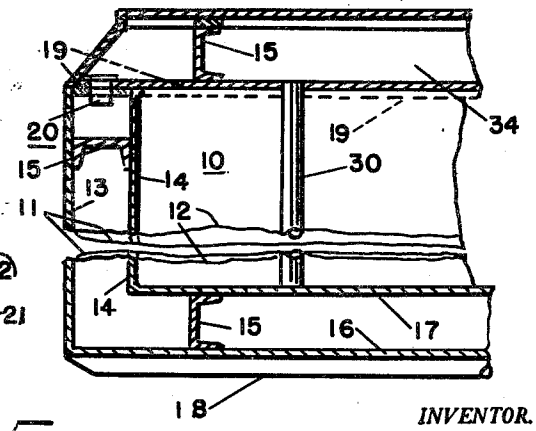


Fig. 4.



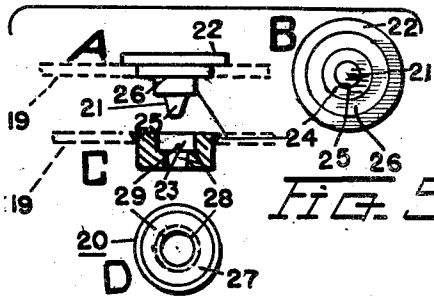


Fig. 5.

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Fig. 6.

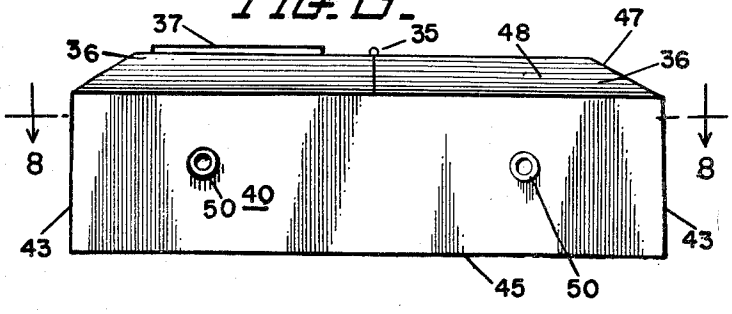


Fig. 12.

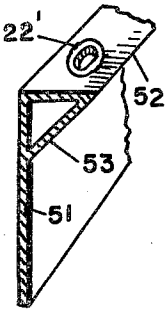


Fig. 7.

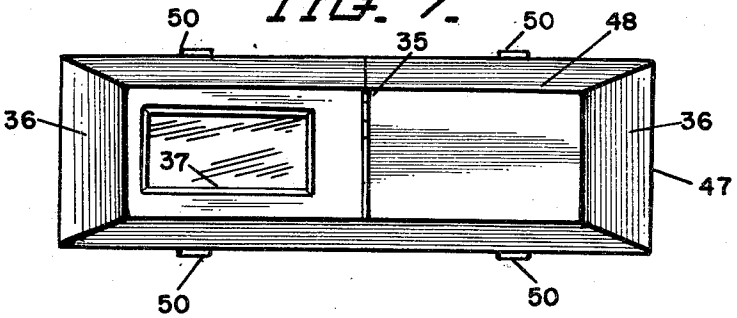


Fig. 8.

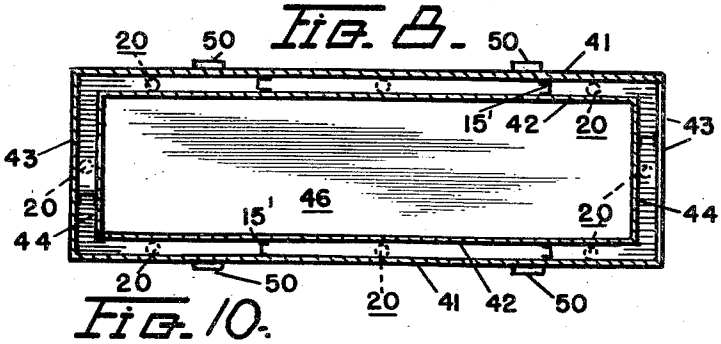


Fig. 9.

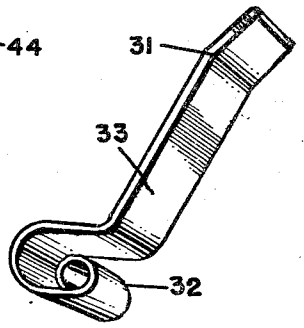


Fig. 10.

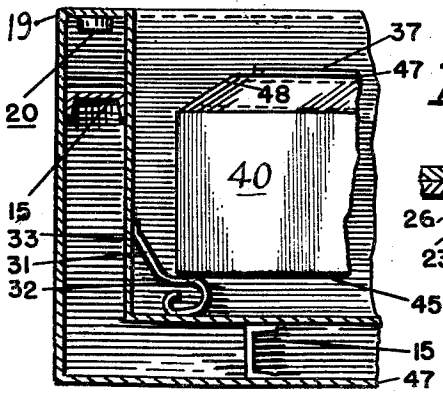
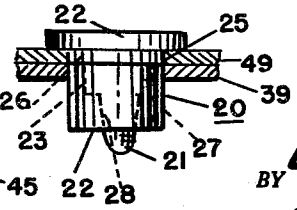


Fig. 11.



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United States Patent Office 3,038,232 Patented June 12, 1962

3,038,232

BURIAL UNITS

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3 Claims. (Cl. 27—35)

This invention relates to burial units and more particularly to a combined arrangement of a casket in an outer shell termed a vault herein; the latter being employed to protect the casket from damage of all sorts.

It is general practice in the United States of America to provide a rough outer box of wood to line a grave in the grounds of a cemetery, so that the casket when lowered therein will be surrounded by the rigid walls of a casing open at the top and out of direct contact with the earth. After the casket is placed in this box, a wooden cover is placed on the open top of the open box and nailed or screwed down. The earth is then shoveled on to this box and the grave closed. Usually the wood of the box is attacked by the moisture in the ground and in a relatively short time, reduced to pulp. When this occurs, the crumbling box allows the earth surrounding it to fall in on the casket. After this the casket quickly deteriorates and also crumbles away. Periodically, occasions arise that require that the grave be reopened and the casket disinterred. If deterioration has completely occurred, the removal of the remains is a difficult task and the purpose of the disinterment defeated.

This invention provides for a burial unit that offers a number of advantages. In the first place, its components are made of aluminum or its compounds, or other metallic materials that are light, strong and highly resistant to corrosion. Since such can be made of thin sheets, they may be readily formed, stamped out and contoured to a large number of designs, either of a conventional type or those of special techniques. This material enables a dual wall construction to be made, providing an air space sealed in hermetically all around. The air chamber affords protection from sudden changes of temperature and other variations in conditions in the surrounding ground. The double wall construction obviously gives exceptional life to the components. The casket component and the vault component are structurally similar, with the former telescoped in the latter but spaced therefrom to allow an air space inbetween. The contents of the casket are thereby protected by a threefold air wall, between the walls of the shell, between the walls of the casket, and the intervening air space between the vault and the casket. The vault used in this arrangement forms an outer shell that can be placed in the grave beforehand with the cover lifted off for the time being. The casket is lowered into the vault and by reason of the guides installed in it, guides the casket to a central position in the vault and spaced from the walls. The casket when closed with its lid down, is kept locked by permanent magnetic fastening means. This locking arrangement permits quick and effective fastening of these parts, yet also allows easy detachment without injury, when desirable. The same type of magnetic locking arrangement is used for the vault component. When occasion arises for the exhuming of the casket, the personnel involved snake ropes or straps under the casket (which is raised above the floor of the vault) and lift it to the surface. As it is protected so effectively by the double-walled vault, the casket comes out intact, even though the grave has been closed for many years. The vault may be removed also if the conditions require it, with the casket in it. The method of lifting the vault can use conventional ways or hooks (attached to ropes) worked under it. The cover is readily lifted

off the vault because of the ease with which the magnetic locks are detached. The casket can then be removed from the vault. The lid of the casket is removed similarly by prying it until the adherence of the magnetic contact is overcome. In raising the cover and the lid, no nails or mechanical fasteners have to be detached, and thus no damage to the components is necessary, and no appreciable amount of time is required. Magnetic fastening means is permanent, whereas nails and screws loosen in time.

The use of the aluminum material permits coloring by the anodizing process be made integral with it, by processes well known to the trade. This coloring avoids the necessity for painting and keeps the appearance of the components attractive. Other features are provided to render the unit more practical and suitable for the uses intended for it.

Therefore it is an object of this invention to provide a new and improved burial unit that will avoid one or more of the limitations and objections of the prior art, yet provide advantages that are desirable.

Another object of the invention is to provide a new and improved burial unit that will be substantial in design and structure, yet light, strong and attractive.

A further object of this invention is to provide a new and improved type of burial unit, that will combine a vault and casket together, and permit its structure to be plurally walled and sealed to include air chambers within it, and protection against water seepage.

Still an additional object of the invention is to provide a new and improved burial unit that avoids the use of nails or other mechanical fasteners to retain the cover or lid in place, by employing magnetic means to hold same locked effectively in position, by the attractive influence thereof. Yet this means can be loosened ready for removal of the cover or releasing air pressure, if it should develop.

Other objects will become apparent as the invention is more fully described.

For a better understanding of the invention, the objects, and the principles that govern it, reference is made to the accompanying drawings wherein a preferred form of structure thereof is indicated. These drawings illustrate the novel features which the invention has, while the specification describes the details of construction, the function and operation thereof, claims being appended to point out the scope of the invention.

Referring to the drawings:

FIG. 1 is a plan view of a burial unit embodying this invention, dotted outline indicating the position of the casket therein;

FIG. 2 is a side elevation of the burial unit shown in FIG. 1 with the casket in dotted outline;

FIG. 3 is an end elevation of the burial unit shown in FIG. 1 with the dotted outline as aforesaid;

FIG. 4 is a section on an enlarged scale of the vault indicating the general form of the construction;

FIG. 5 is details of the magnetic lock used with the vault to fasten the cover to the shell;

FIG. 6 is a side elevation of the casket to be emplace in the vault, shown in FIG. 1;

FIG. 7, is a plan view of the casket FIG. 6;

FIG. 8 is a sectional view in plan taken along the line 8—8 of FIG. 6;

FIG. 9 is a perspective view of a guide employed in the vault to centralize the casket while being lowered therein;

FIG. 10 is a sectional elevation in partial detail, towards one end of the casket;

FIG. 11 is a side elevation of the magnetic lock assembly used with the casket and similar to that employed for the vault; and

FIG. 12 is a perspective view of a modified form of

wall structure for the vault and casket, having single wall.

Similar parts are designated by similar reference characters throughout the drawings.

The burial vault unit consists of a vault and casket, the latter being placeable in the first. The vault consists of a shell of aluminum material (in sheet form) bent or formed into a shell **10** having double-walled construction. The outer side walls **11** are spaced from the inner side walls **12**; and the outer end walls **13** from the inner end walls **14**. Structural spacing elements **15** are used to space them apart and provide ample strength and stiffness to the walls. The bottom exterior wall **16** is spaced from the inner wall **17** by similar elements. The bottom **17** is reinforced with runners **18** running longitudinally and secured in place by welding or other suitable manner. The bottom **17** serves as a floor to the vault. These runners are especially valuable during the lifting or lowering of the shell as they tend to prevent sagging during the proceedings. The double walls are closed at the top by a flange **19** to create air spaces and are made water tight. In this flange are arranged magnetic members **20** at spaced intervals. They form the socket for magnetic dowels **21** (on the cover) that fit in them. The members are tapered to fit. A circular collar is integral with the dowel **21** and makes contact in the recess **23** in the socket member **20**, so that magnetic attraction and adherence is made at the faces **24, 25, 26** with the faces **27, 28, 29** respectively.

In FIG. 5, the portion A indicates a side elevation of the magnetic dowel used, while B is a bottom plan of same. The portion C is a sectional elevation through the socket of the lock assembly and D is a bottom plan view of the socket.

Upright circular tubing or corrugations **30** extend up the interior surface of the walls **12** to reinforce them and also serve as bumpers to take up the wear and roughening as the casket **40** is placed in the vault. Guides **31** of the form indicated in FIGS. 9 and 10 attached (in any conventional manner) to the inner walls of the shell have flat resilient scrolls **32** to serve as rests for the casket. They are located at sides and ends. The arms **33** guide the casket towards the central area of the vault. This provides a cushioning effect and holds the casket localized. The cover **34** is used to close the vault, and is fastened in place by the magnetic lock assembly. The casket **40** is constructed like the vault. Also with outer and inner end walls **43** and **44** respectively. It has double walls **41** and **42** at the sides. The bottom walls **45** and **46** are likewise the base of the casket. All walls are braced by the spacers **15'** used in the shell. They are closed in by the flange **39**. A lid **48** is employed to cover the casket and is double-walled as indicated at **47** and **49**. The lid **48** is divided into two sections and hinged at **35** together. One section has a transparent window **37** to allow inspection of the interior. There is bevel formation **36** along the peripheral portion. The lid can be swung back to expose the interior.

A series of magnetic members **20** (like those for the vault) are arranged on the flange **39** and underside **49** of the lid, in a suitable spaced arrangement, and fasten the latter in place. The dowels project from the lid and are guided into the tapered holes to align the lid **48** and casket properly. When the assembly is accomplished the magnetism locks the components together, but in a detachable manner.

A similar magnetic lock is provided in the modified form shown in FIG. 12. This construction is used when a single walled construction is preferred for both vault and casket. Its walls **51** have a triangular structure with a flange on top and pieces **53** forming a bracket. The socket **22'** for the lock assembly is installed in the flange **52**. Thus the magnetic assembly serves as a dowel arrangement and magnetic lock simultaneously. The magnetic elements are of the type commercially available with a permanent magnetization. One component of the assembly may be of soft magnetizable iron and the other of permanent magnets, or both of the latter material. They are swaged in place to provide flush surfaces where the contacting faces **24, 25, 26, 27, 28** and **29** meet. The exterior side walls **41** have sockets **50** arranged in them so that handles may be located and held thereby. These handles are used by the pallbearers while carrying the casket.

It is to be noted that the air spaces between the double walls and bottom of the vault and casket components are to be maintained as chambers, sealed in permanently. The spacers **15**, as can be seen, divide the chambers, reinforce the walls and prevent material from being filled in. In the previous art, it has been a custom to fill in such spaces with cement and make the vault a solid mass of concrete. The lime in the cement tends to corrode the metal form of the vault, makes the latter very heavy, and in case of proposed disinterment, necessary to break it up and destroy it.

The purpose of the magnetic dowel lock assemblies is to give a "breather" function to the components. Under air or gas pressure, arising from any cause, the cover is raised, the air escapes and the cover lowers back in place; and is again held tightly. The magnetic action enables this to be done, and the dowels serve to keep the cover in alignment.

The main cause of the variation in pressure is due to atmospheric pressure and temperature. The magnetism of the assemblies is quasi-resilient and in cooperation with gravity, pulls the covers of the components down tightly when the pressure in the components is lessened, but allows them to be raised when higher than the external atmospheric pressure, until the pressures balance. Then gravity and magnetism and the guidance of the dowels pull the covers down on the components, and in positive alignment.

While but one form of the invention is illustrated herein, it is not intended to limit the structure of the invention to such, since it is appreciated that other designs could be developed and made, that would employ the same principles and come within the scope of the appended claims.

Having thus described the invention, what is claimed is:

1. A burial unit comprising a vault component containing a removable casket component, said vault and casket components being formed of sheet material into double wall structures throughout of box-like contour open at the top; the upper portion of the walls being arranged with flanges to hermetically seal off the double walls into chambers; magnetic lock assemblies mounted on said flanges and of socket form set flush with the outer face thereof; covers for the said components of double wall construction having their lower faces coacting with said flanges respectively and fitting closely thereon, dowel magnetic means projecting downwardly from said covers tapered and designed to fit and align in their respective sockets of the magnetic lock assemblies and fasten quasi-resiliently and removably thereto, whereby the covers may have a raise and lower action as the internal pressure within the closed components varies and balances with the external atmospheric pressure.

2. A burial unit comprosing a vault component containing a removable casket component; the vault component having dual wall construction with an outer wall spaced from an inner wall to provide a continuous air chamber at the sides and bottom, the walls at the top including a flange for sealing in the chamber and forming a surface for a cover to rest evenly thereon; a magnetic member mounted flush on said flange and having a socket extending inwardly from the outer face of said flange; the chamber and walls being arranged to encompass a medial compartment for containing said casket component removably accessible therein; the casket component also having dual wall construction similar to that

of the vault component and a magnetic fastening member with socket therein; a cover for the vault component adapted to rest tightly on said flange thereof and of dual wall construction; dowel magnetic means with portions extending down from the lower surface of the cover and tapered to enter and align with a corresponding socket and magnetic member in the vault component and fasten magnetically therein; whereby the said cover can lift and lower under varying atmospheric air pressure in the compartment; spacers in and across the chambers of the components to separate them into parts and scroll guides attached to the inner surface of the inner wall of the vault component for resiliently supporting the casket component and centralizing it in the vault compartment whereby an air space is provided at the sides and bottom thereof.

3. A burial unit comprising a vault component containing and including a removable casket component, all of light and slowly-corrosive material; said vault component having walls spaced apart to provide an air space in between at the sides and bottom; the walls at the sides including flat flanges along the top thereof to provide hermetically sealed-in chambers in said walls; the walls at the sides and bottom encompassing a compartment for the placement of the casket component therein; a hollow cover for closing over the vault component and the compartment thereof; said cover having its underside adapted to fit closely against the flanges and make a tight joint therewith; channel spacers disposed at intervals in said chambers to reinforce the walls and separate the chambers into plural hermetically sealed-in parts thereof; said casket component having walls at

sides and bottom similar to those of the vault component and including the flanges, the casket component being smaller than the said compartment and allowing an air space on all sides and the top when disposed therein, a hollow cover for the last mentioned component, adapted to fit closely thereon, magnetic assemblies for the covers having components coacting to align the flanges and covers to guide the covers into place as well as magnetically secure them to each other, yet allow them to lift slightly under internal pressure above that of the external atmosphere until balanced therewith; and scroll means attached to the interior wall surface of the vault component to guide and support the casket component and maintain an air space around it.

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