Dec. 8, 1964 A. C. HARRINGTON ETAL 3,159,901

FIBER GLASS BURIAL VAULT

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Fig. 1

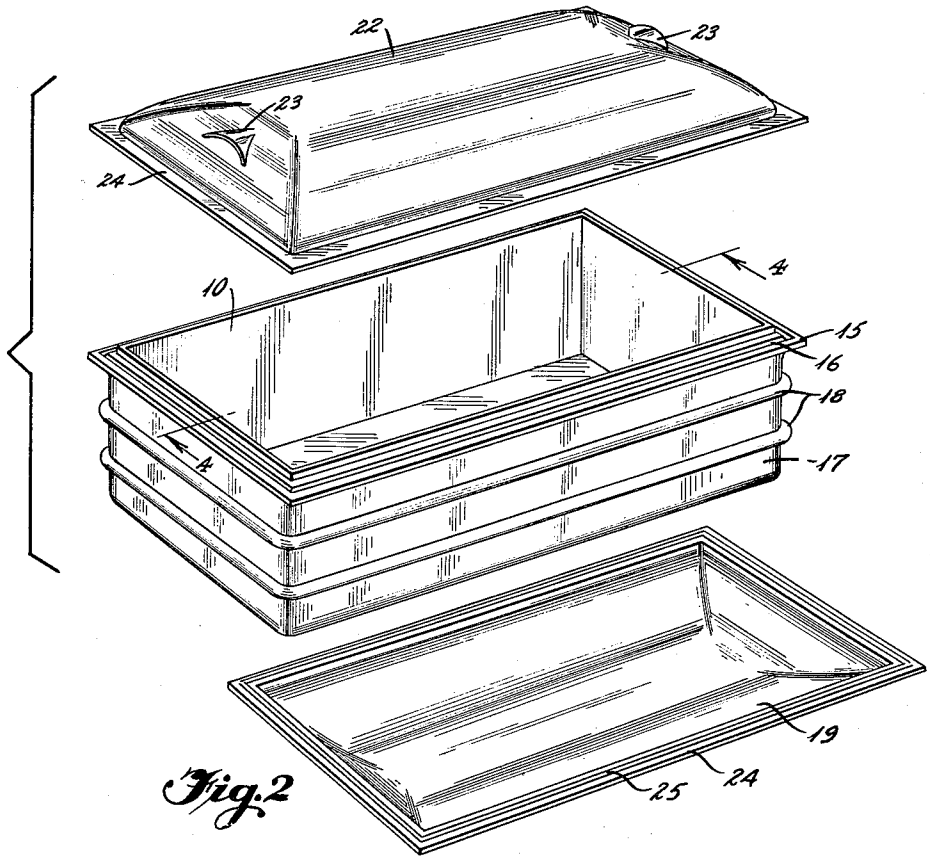


Fig. 2

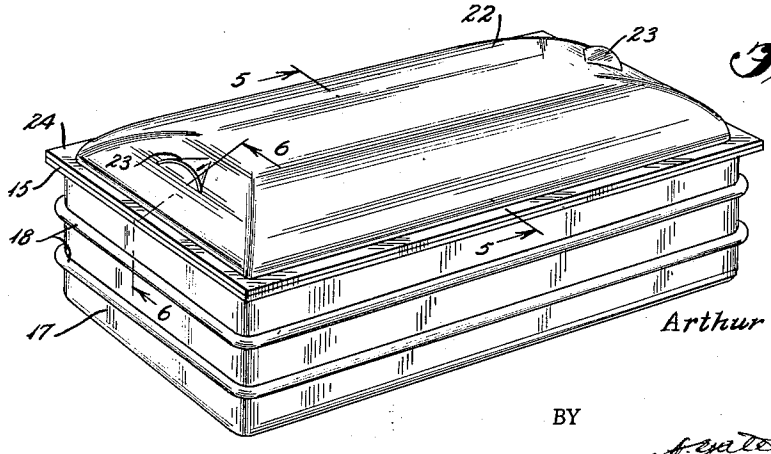


Fig. 3

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Fig. 4

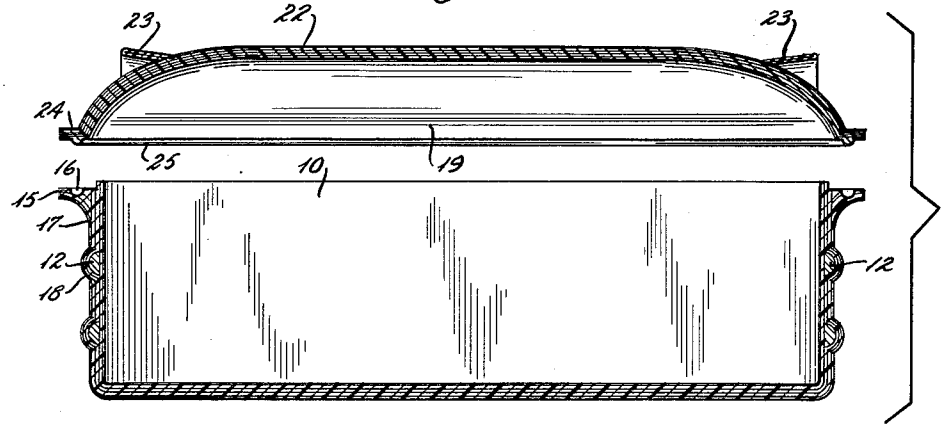


Fig. 5

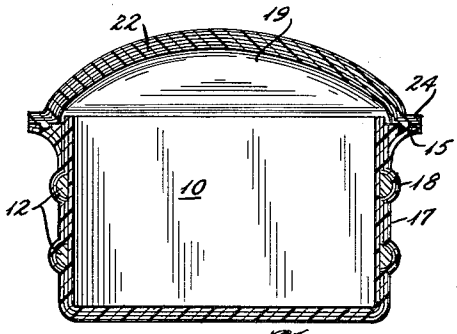
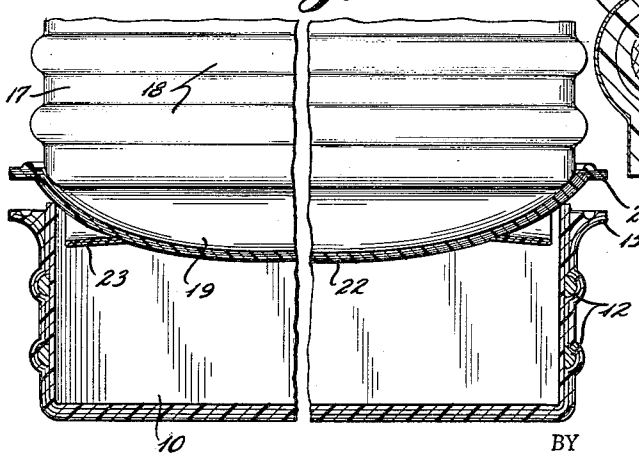


Fig. 7



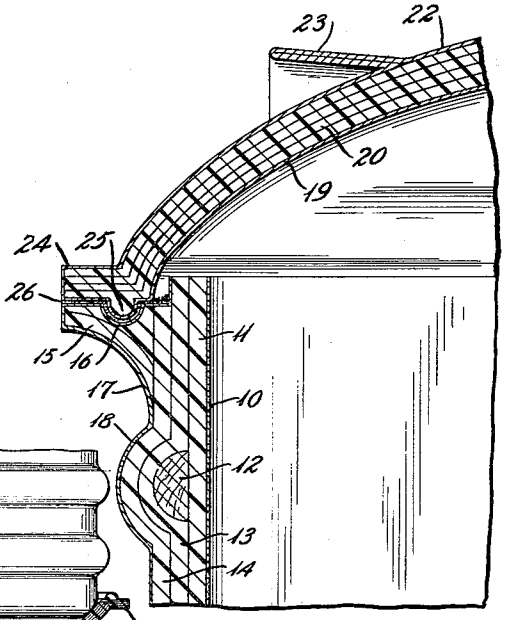


Fig. 6

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FIBER GLASS BURIAL VAULT

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4 Claims. (Cl. 27—7)

This invention relates to containers or receptacles of various kinds and composed of various materials, and more particularly to containers or receptacles which are capable of being sealed and made hermetically tight against surrounding influences both from within or without.

The invention relates further to containers or receptacles in which objects are placed and retained for protection against the elements and specifically to burial vaults in which caskets with persons therein are received and interred.

Burial vaults of various kinds and of a variety of materials have been produced including of wood, concrete, metal, and other materials and with covers of various kinds. These have been unsatisfactory because of excessive bulk, and weight, with consequent excessive transportation expense as a result of both their weight and size, and requiring that they be handled only with a large vehicle and requiring multiple personnel and energy. Also certain of the prior devices lacked effective sealing and durability.

It is an object of the invention to overcome the difficulties enumerated and to provide a relatively simple, light weight, burial vault, of fiber glass, and which is of minimum bulk and consequently can be handled by a single individual including both during transportation and the lowering of the same into the earth, can be hauled in a small vehicle such as a pickup truck or the like, all of which one result in a substantial saving in material, manpower, space and transportation costs and which device is of maximum efficiency and durability.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawings wherein:

FIG. 1 is a perspective of a vault and cover;

FIG. 2, a perspective of the cover inverted;

FIG. 3, a perspective of the vault with the cover in place thereon;

FIG. 4, a longitudinal section on the line 4—4 of FIG. 1;

FIG. 5, a central transverse section on the line 5—5 of FIG. 3;

FIG. 6, an enlarged transverse detail section; and

FIG. 7, a fragmentary part elevational view illustrating how the articles can be stacked.

Briefly stated, the invention is a burial vault or hollow container or receptacle and a cover therefor, all of fiber glass and capable of being bonded together to provide a single hermetically sealed receptacle of maximum strength, resistance to chemical reaction and consequent durability, as well as a receptacle and cover which can have the cover inverted and stacked with other receptacles and covers, with the receptacles and covers longitudinally reinforced, by including reinforcing ribs in the uprights walls of the receptacle which serve to assist in resisting upward and lowering movement in the earth, the cover and upper rim of the receptacle being enlarged and providing a roof having an overhang and with interfitting tongue and groove portions and the relatively thin walls and cover whereby the overall device is relatively small and light and without excessive bulk and weight.

With continued reference to the drawings, in the manufacture of the device a suitable base or mold is provided having an external configuration rectangular or of the shape of the vault or device to be made and on which mold is applied a couple of layers of fiber glass with a waxed and polished exterior, the said fiber glass forming part of the mold.

On the waxed and polished surface of the mold is applied a brush coat or layer of resin sufficient to wet down the mold. After wetting down the mold a finishing layer **10** of fine spun glass fabric sometimes designated "1000 cloth" is applied. This finishing layer of fiber glass is thoroughtly wetted with a brush coat of resin and then a layer of roving cloth or coarser and heavier cloth **11** is stretched thereover and to which a brush coat of resin is applied.

In order to reinforce the upright walls of the vault one or more reinforcing rib strips **12** is added, such rib strip being generally in the form of a semi-circle or half round with its flat surface against the coarse cloth **11**, two of such rib strips being used along each of the upright walls in spaced parallel relation although any appropriate number may be utilized.

After the application of the rib strips **12** which extend completely around the vault, an additional coating of resin is applied and sealed to the first coarse layer **11**, the exterior surface of which heavy layer **13** is given a brush coat to wet it sufficiently to receive a final layer of coarse heavy roving cloth **14** which is supplemented along its upper portion to provide an upstanding flange or lip **27** and an outwardly extending flange **15** having a groove **16** for a purpose later to be described and over which a final finishing layer **17** is applied. With the construction shown there is provided a smooth bottom **28** and external ribs **18** on the exterior wall of the vault and these ribs serve not only to reinforce and increase the strength of the upright walls of the vault but also they serve to resist the raising of the vault in the earth in which it is buried.

After the last finishing cloth resin is applied for complete smoothness of the surface the mass is allowed to harden in accordance with conditions and which usually occurs in two or three hours. If desired, color may be incorporated in the first and last layers or in all layers if desired.

After the mass has been allowed to harden the receptacle thus formed on the mold, it may be removed in a conventional manner by compressed air supplied through openings in the bottom of the mold at spaced locations. In order to facilitate the separation of the vault from the mold, the exterior walls of the mold may be tapered slightly outwardly. Consequently when a blast of air is admitted through the bottom of the mold into the area between the mold and the vault in spaced locations, the latter will be freed from the mold and can be readily removed. The resulting taper of the walls, not shown, will also facilitate stacking of the vault and cover as described previously.

The cover is produced in a somewhat similar manner, it having been found that from four to six intermediate layers of the heavier roving cloth is desirable to give the necessary body to the structure. The material is applied to a mold of concrete or other material preferably having a fine and consequently dense textured surface which is waxed and polished. To the waxed surface of the mold is applied a sufficient resin coat to thoroughly wet the surface. Upon this is placed the first finishing layer **19**, the four to six layers of a relatively heavy body-giving roving cloth **20** and the final more closely woven finishing layer **22** with each of the layers coated with the resin so that it will be thoroughly wet as each additional layer is applied.

Prior to the application of the final finishing layer a handle mold is placed on the end of the cover and is covered by the fiber glass fabric and the finishing layer which provides the finished handles by which the cover can be moved.

Around the lower edge of the cover there is provided a flanged portion **24** with a depending rib **25** which is adapted to be received within the groove **16** of the flange **15** and be sealed thereto by sealing means which may be the resin employed or it may be asphalt, bostic or other substance. The sealing means **26** is applied after the casket has been placed in the vault and just before the cover is put in place to form a permanent and water-tight seal between the vault and the cover.

In the application of the handles care is taken to make sure that the handles are sufficiently distant from the end of the cover that the cover may nest in the body of the receptacle when the cover is inverted, thus to allow the compact stacking of the receptacles and covers with others of like character and size and with the exterior of the smaller vaults of an overall dimension permit their being received within the larger vaults which is not the case where cumbersome vaults of bulky compositions are employed.

It will be apparent from the foregoing that a burial vault is provided which utilizes a minimum of material bulk and weight, which can be readily handled and transported with a minimum of manpower and equipment, is capable of being stacked, and when used will provide a permanent sealed structure.

It will be obvious to one skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is illustrated in the drawing and described in the specification, but only as indicated in the accompanying claims.

What is claimed is:

1. A burial vault comprising a receptacle of layers of fiber glass bonded together with interposed spaced reinforcing ribs along and in the sides of the receptacle which also resist the upward movement of the vault in the earth, a cover, said receptacle and cover having enlarged contacting edge portions and an upstanding flange fitting within the cover and an interfitting groove on the receptacle and a tongue on the cover, said receptacle being relatively small and light without excessive bulk and weight, of maximum strength, the upper portion of the receptacle being adapted to receive a portion of the cover when inverted, and the cover being adapted to receive a portion of the exterior of the bottom of the receptacle whereby a group of receptacles and covers may be stacked, the cover having a handle located inwardly from the edge to permit the cover when inverted to nest in the body of the receptacle, and the receptacles and covers being of a size and configuration to be compactly stacked with others of like character and size.

2. A burial vault comprising a receptacle of layers of fiber glass bonded together with interposed spaced reinforcing ribs in the sides of the receptacle of a configuration to resist the upward movement of the vault in the earth, a cover, said receptacle and cover having contacting edge portions and an upstanding flange located to fit within the cover and with an interfitting groove on the receptacle and a tongue on the cover, said receptacle being of relatively small bulk and weight, and of maximum strength, and with its sides slightly inclined the upper

portion of the receptacle being adapted to receive a portion of the cover when inverted, and the cover being adapted to receive a portion of the exterior of the bottom of the receptacle whereby a group of receptacles and covers may be stacked, the cover having a handle located inwardly from each end to permit the cover when inverted to nest in the body of the receptacle.

3. A fiber glass burial vault comprising a receptacle and cover fitted thereto with an upstanding flange on the receptacle adapted to be received in said cover and to locate the same on said receptacle, said receptacle having a groove entirely along its upper edge and said cover having a depending tongue entirely along its edge complementary to and receivable in said groove, the upper portion of the receptacle being of a configuration and size to receive the cover when inverted and said cover being of a configuration and size to receive the exterior of the bottom of a similar receptacle of corresponding size whereby a series of receptacles and covers can be assembled in stacked relation.

4. A fiber glass burial vault comprising a receptacle and a cover each constructed of multiple layers of fiber glass bonded together, said receptacle having side and bottom walls, a flange extending entirely around said receptacle adjacent to the upper edge, an upstanding lip located around the inner periphery of said receptacle, said flange having a groove extending entirely around said receptacle, a portion of said cover being arcuate in cross section and extending over said lip, a flange entirely around said cover for cooperative engagement with said receptacle flange, a depending tongue projecting downwardly from said cover flange for complementary engagement with the groove in said receptacle flange, said arcuate portion being wider than the width of the bottom wall of said receptacle, a portion of said cover having a configuration and size receivable within the upper portion of receptacle when inverted and a second receptacle having a configuration and size receivable within the arcuate portion of said inverted cover whereby multiple receptacles and covers can be nested in stacked relation.

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