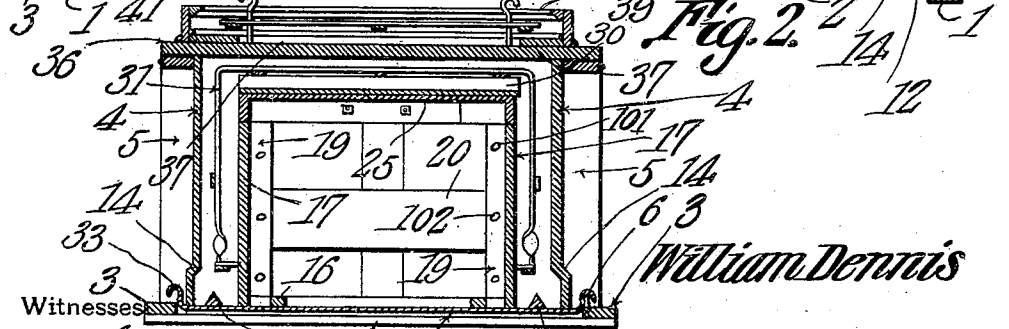
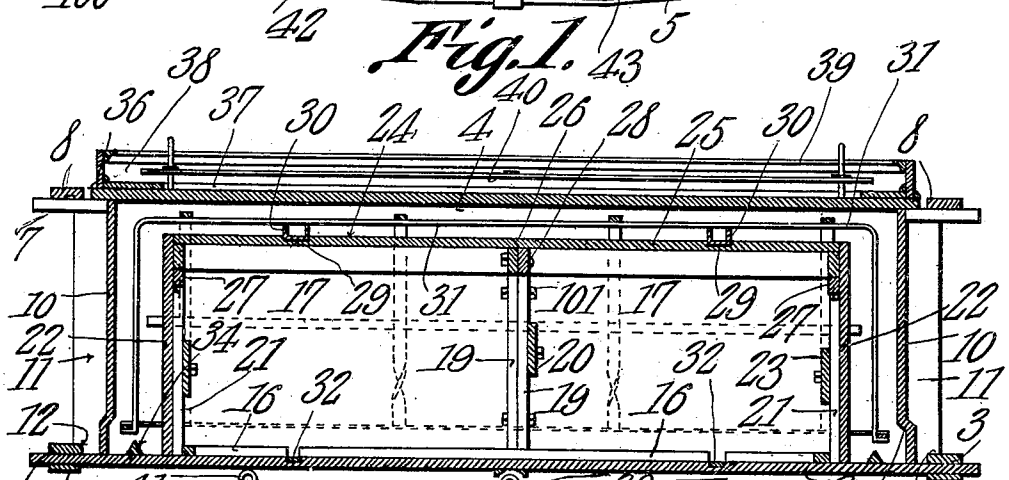
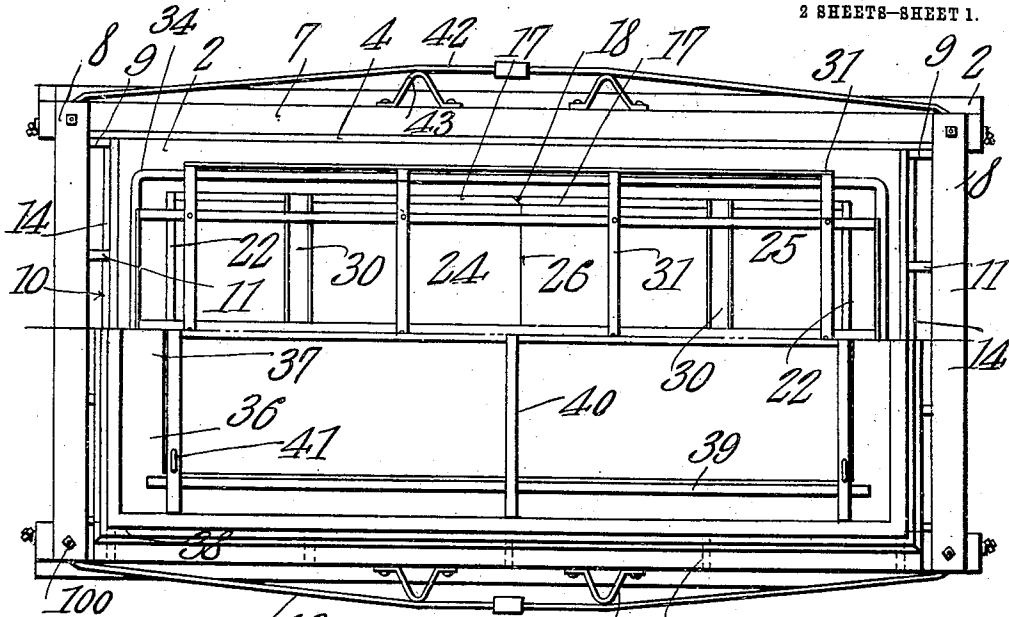


W. DENNIS.
GRAVE VAULT MOLD.
APPLICATION FILED APR. 2, 1910.

979,062.

Patented Dec. 20, 1910.

2 SHEETS—SHEET 1.



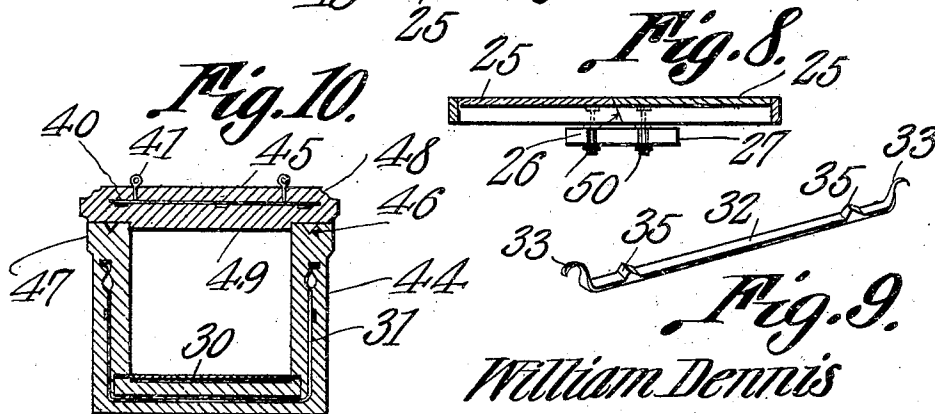
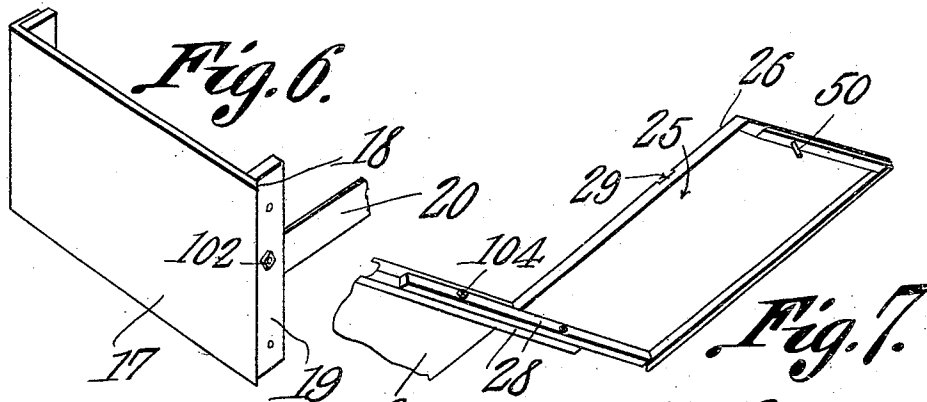
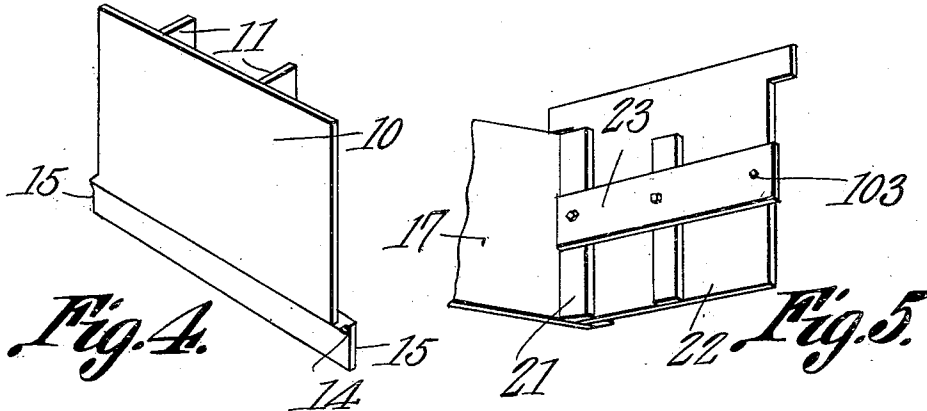
Witnesses
Mason B. Kerton
by *Chas. H. Lee*
INVENTORS
Attorneys

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2 SHEETS—SHEET 2.



William Dennis

Witnesses

E. J. Lantop
Mason B. Lantop.

Inventors

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM DENNIS, OF PEN ARGYL, PENNSYLVANIA.

GRAVE-VAULT MOLD.

979,062.

Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed April 2, 1910. Serial No. 553,022.

To all whom it may concern:

Be it known that I, WILLIAM DENNIS, a citizen of the United States, residing at Pen Argyl, in the county of Northampton and State of Pennsylvania, have invented a new and useful Grave-Vault Mold, of which the following is a specification.

The device forming the subject matter of this application is adapted to be employed for molding plastic materials into the form of a vault, of the character within which coffins are commonly inclosed.

It is the object of this invention to provide a mold of this character which may readily be separated or knocked down, without marring or otherwise injuring the vault which has been fashioned in the mold.

Another object of the invention is to provide a core of novel and improved form; to provide an outer shell or casing within which the core is adapted to be inclosed; to provide novel means for molding the lid of the vault; to provide novel means for positioning reinforcing elements in the mold, so that they may properly enter into the finished structure; and to provide novel means for removably connecting the several component parts of the mold so that they may readily be separated at will.

In the drawings;—Figure 1 is a top plan, parts being broken away; Fig. 2 is a vertical longitudinal section; Fig. 3 is a vertical transverse section; Fig. 4 is a detail perspective of one of the end walls of the outer shell; Fig. 5 is a perspective showing a portion of the core; Fig. 6 is a perspective showing one of the constituent parts of the side walls of the core; Fig. 7 is a perspective showing one of the elements which go to make up the lid of the core; and to delineate the manner in which said element is connected with a similar, diagonally disposed one; Fig. 8 is a transverse section of the lid of the core; Fig. 9 is a perspective of one of the bars whereby the outer shell and the core are lifted from the bottom of the mold; and Fig. 10 is a transverse section showing the completed vault which the mold herein described is adapted to produce.

The invention includes an outer case, the same comprising a base including transverse sills 1, to which the bottom 2 is attached. Secured to the bottom 2, about the periphery thereof, is a frame 3. An outer shell rests upon the bottom 2 to complete the case.

The side walls 4 of this shell are provided upon their exterior with upright posts 5, these posts being notched as shown at 6, to fit upon and extend within the frame 3. Side strips 7 extend along the upper edges of the side walls 4 upon their exterior, and the ends of these side strips 7 are connected by bolts 100 or the like, to the extremities of the braces 8, the braces 8 serving to maintain the side walls at a fixed distance apart. Upon the inner faces of the side walls 4 of the shell, adjacent their ends, are upright cleats 9, against which the end walls 10 of the shell are adapted to abut. Upon the outer faces of the end walls 10, are supports 11, which, at their ends, are notched, as shown at 12, to engage the end portions of the frame 3.

It is to be noted that adjacent the bottom 2, the side walls 4 and the end walls 10 of the outer shell are offset, as denoted by the numeral 14. At its bottom, the end wall 10 is provided with outstanding shoulders 15, and the shoulders are adapted to fit in the offset portions 14 of the side walls 4.

Upon the bottom 2 there is a frame 16. This frame 16 is adapted to fit within, and to retain in place, a box-like, closed-top core. The side walls of this core are fashioned in two sections 17, the abutting edges of which are beveled as denoted by the numeral 18. Upright cleats 19 are mounted upon the portions 17 adjacent the beveled edges 18 thereof, and these cleats 19 are preferably connected by bolts 101, to hold the sections 17 in place to fashion the sides of the core. A tie 20 may be provided, having its ends removably secured to the cleats 19, by means of bolts 102, the tie extending transversely of the core, to prevent the sides of the core from spreading apart.

Upon the inner faces of the portions 17, adjacent their ends, are upright braces 21. The end walls 22 of the core fit against the exterior faces of these braces. By means of bolts 103, a cleat 23 is united with the end wall 22, the cleat bearing against the inner faces of the upright braces 21.

A lid 24 rests upon the core. This lid 24 comprises, preferably, four sections 25, the edges of which are beveled, as at 26, so that the sections may be readily separated when desired. Bolts 50 are extended downwardly through the remote ends of the sections 25 at one end of the lid, and these bolts are

adapted to engage a notched button or securing device, seen most clearly in Fig. 8, thus holding together those sections which go to make up one end of the lid. Transverse cleats 28 upon the inner edges of diagonally disposed sections 25 overlap each other at their inner ends, as seen to best advantage in Fig. 7. These cleats are secured together by means of bolts 104. There are transverse channels 29 in the upper faces of the sections 25 which form the lid 24. These channels 29 are adapted to receive cross strips 30, cross strips protruding beyond the upper face of the lid 24. The cross strips may be fashioned from channel members, as shown.

When the core, with its lid 24 in place, is mounted within the outer case, a box-like crate 31, preferably fashioned from strap metal and constituting a reinforcing element, is inverted over the core, and made to rest upon the channel irons 30, as seen most clearly in Fig. 2.

Bars 32 are disposed transversely upon the bottom 2, which is channeled to receive them, the frame 16 being cut away for their reception. These bars 32 terminate in hooks 33, which are located upon the outside of the side walls 4 of the shell. Upon the bottom 1, and located between the core and the outer walls of the outer case, is an upstanding bead 34. This bead 34 is preferably triangular in shape, and there are projections 35 upon the bars 32, adapted to form a continuation of the bead 35. By referring to Fig. 3, it will be seen that hooks 33 are adapted to abut against the frame 3. This abutment between the hooks 33 and the frame 3 serves to aline the projections 35 with the bead 34.

A flat top 36 is adapted to rest upon the side strips 7. Secured to the upper face of the top 36 is a frame 37. The internal dimensions of this frame 37 are the same as the external dimensions of the core. A removable frame 38 is adapted to be fitted around the frame 37, to upstand above the same, and at the upper edge of the frame 38 there is a finishing strip 39. A flat reinforcing frame 40 is adapted to be disposed within the removable frame 38. In this reinforcing frame 40 which is preferably fashioned from strap metal, there are four or more eye-bolts denoted by the numeral 41. These eye-bolts are extended through the frame 40 and rest at their lower ends, upon the top 36, thus maintaining the reinforcing frame apart from said top. Turn buckles 42 are removably secured at their ends to the ends of the side strips 7, and brackets 43, outstanding from the side strips 7, serve to dispose the turn buckles 42 that an effective truss may be formed. The tightening elements of the turn buckle structures operate between the brackets 43, and thus the turn

buckles are made to exert an even reinforcing effect upon the outer shell of the structure.

The operation of the device is as follows:—The bottom 2 is properly positioned, and the bars 32 are mounted in place transversely of the same, the projections 35 upon the bars 32 being properly alined with the bead 34. The end walls 10 of the outer shell are then mounted in place. The side wall forming portions 17 of the core having been connected with the end walls 22 thereof, the core is mounted in place within the outer shell, to surround the frame 16. The several constituent portions 25 of the lid of the core having been assembled, the lid is mounted in place upon the side walls 17 and the end walls 22 of the core, to close the upper portion thereof. The channel irons 30 are then mounted in place within the channels 29 and the reinforcing element 31 is inverted over the core, and made to rest upon the channel irons 30. The concrete may then be shoveled in place between the core and the outer shell and tamped down between the shell and the top of the core. It is not necessary to trowel off the top of this mass of cement. A straight edge may merely be slid along the upper edges of the side walls 4 of the shell, thus leveling off the top of the mass of concrete. The top 36 is then rested upon the side strips 7. The removable frame 38 is then seated in place upon the fixed frame 37, the flat reinforcing frame 40 being located within the removable frame 38, the eye-bolts 41 engaging the top 36 and serving to space the reinforcing frame 40 away from the top. Concrete may then be placed within the frame 38 and struck off with a straight edge.

In Fig. 10 of the drawings, the completed vault 44 is shown. It will be seen that the core and the outer shell form the body portion of the vault, while the lid 45 thereof has been fashioned within the frame 38 upon the top 36. The bead 34 results in the formation of a groove 46 in the upper edge of the body of the vault. This groove is adapted to receive cement or the like, so that the lid 45 of the vault may be hermetically sealed. That portion of the concrete which is tamped in place within the fixed frame 30, results in an extension 49 upon the lower face of the lid 45, adapted to register closely within the body of the vault, to hold the lid 45 in place against sliding about. The offsets 14 in the mold give rise to a rib 47 outstanding from the body of the vault adjacent its top. The finishing strip 39 gives to the lid 45 the molding, denoted by the numeral 48.

It will be seen that the reinforcing crate 31 becomes securely embedded in the body of the vault 44, the flat reinforcing frame 40 being embedded in the lid 45, the eye-

bolts 41 outstanding above the upper surface of the lid, to provide a means for raising and lowering the lid. The channel irons 30 will be embedded in the bottom of the vault, to upstand slightly above the same. By this construction, the coffin will be spaced slightly apart from the bottom of the vault, and the straps whereby the coffin is lowered into place, may be readily withdrawn, without being pinched against the bottom of the vault by the weight of the coffin.

After the body of the vault 44 has set sufficiently, a lifting device of any sort may be connected with the hooks 33 at the ends of the bars 32. Thus, the entire concrete structure may be lifted off the bottom 1 and raised to any desired height in the air; then, if the concrete has set sufficiently, by removing the several bolts 100, 101, 102, 103 and 104, the core and the lid thereof may be taken apart and removed from the interior of the completed vault, thus allowing the same to become thoroughly dried, and permitting not only the core, but the surrounding shell as well, to be removed, for use in fashioning another vault.

The turn buckles 42 serve to strengthen the mold against bulging, without interfering in any way with the passage of a straight edge along the side strips 7.

The device is so constructed that the vault may be fashioned upside down, and thus, the core may be mounted in place within the outer shell before the concrete is placed in position. Thus there is no interruption in placing the concrete, the operation being carried steadily forward until the entire core is covered and surrounded. By this construction, plastic concrete does not have to be united with concrete which has already taken an initial set.

Any of the common materials of construction may be employed for fashioning the

mold. When a light inexpensive structure is desired, wood may be employed; or the device may be fashioned in cast iron, in those cases where durability and not portability, is desired.

Having described the invention what is claimed is:—

1. In a device of the class described, a bottom; an outer shell resting upon the bottom; bars extended transversely of the bottom between the bottom and the shell and provided upon the outside of the shell, with upstanding means for engaging a lifting device; a core resting upon the bottom within the shell; a bead upstanding from the bottom between the core and the shell, there being projections upon the bars forming continuations of the bead; and a frame secured to the bottom and constituting an abutment for said means to aline the projections and the bead.

2. In a device of the class described, a core consisting of collapsible side walls; a lid resting upon the side walls and consisting of a plurality of sections; overlapping cleats secured to the adjacent edges of diagonally disposed sections, transversely of the lid; retaining elements removably connecting the cleats; retaining elements extending through the outer ends of adjacent sections at the ends of the lid; and a securing device connecting the last named retaining elements to hold together those sections through which the last named retaining elements extend.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WM. DENNIS.

Witnesses:

J. S. VANCE,
J. B. QUILLIN.