Sept. 20, 1932. A. N. KETTNER 1,878,781

BURIAL VAULT

Filed March 15, 1929

Fig. 1.

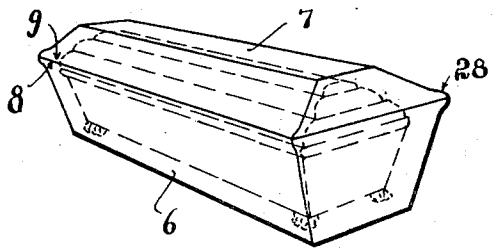


Fig. 3.

Fig. 2.

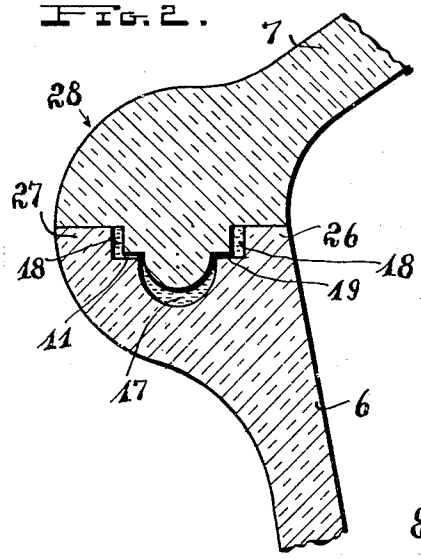
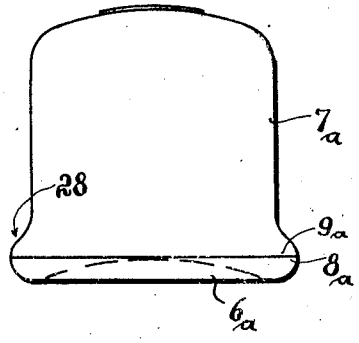


Fig. 4.



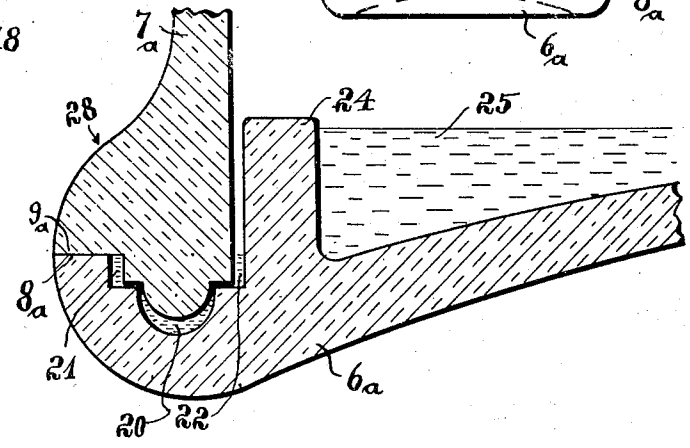
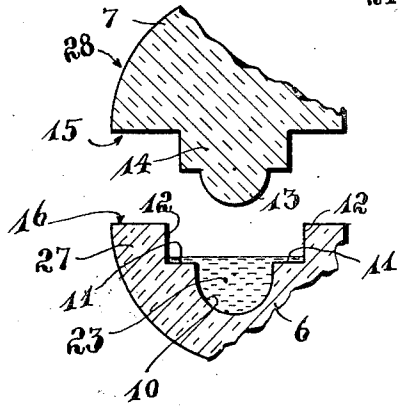


Fig. 5.



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UNITED STATES PATENT OFFICE

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BURIAL VAULT

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This invention relates to structures used for keeping or enclosing caskets hermetically sealed.

One of the objects of this invention is to provide an enclosure so designed that the casket can be retained therein hermetically sealed against any influences from the inside as well as from the outside.

Another object is to provide an enclosure by which any seepage from an enclosed casket will be prevented from coming into contact with the sealing material, so that the sealing material can not be attacked by any seepage regardless of whether the seepage would be of any consistency or nature that it might eventually attack this sealing material.

Another object is to provide an enclosure for a casket in sections so that the casket can be placed in a certain relation to one section before the other secton is placed in closing and sealing position in relation to the first section.

Another object is to provide an enclosure so designed that a sealing material can be deposited in one section preparatory to placing the other section into closing and sealing position whereby the sealing material will be forced in a certain manner around the joining seam or edges of the two sections of the enclosure.

Another object is to provide a casket enclosure or vault made in sections of glass or the like material designed so that it may be hermetically sealed when a casket is deposited in this enclosure.

Other objects will appear from the following description and appended claims as well as from the accompanying drawing, in which—

Fig. 1 is a perspective outline of a simple enclosure made in two sections with the joining edges close to the top, and having a casket dimly outlined within the enclosure according to this invention.

Fig. 2 is a fragmentary enlarged cross-section through adjoining edges of a top and bottom section of an enclosure or vault with the adjoining edges so designed that it can hold a sealing material according to this invention.

Fig. 3 is an end elevation of an enclosure or vault of a slightly modified form wherein the joining edges are close to the bottom of the enclosure.

Fig. 4 is a fragmentary detail enlarged cross-section through adjoining edges of the type required in the enclosure of the slightly modified form illustrated in Fig. 3.

Fig. 5 is a fragmentary cross-section in which the adjoining edges are shown in separated position, illustrating how the sealing material of liquid or semi-liquid form can be contained in the lower edge before the upper edge is forced into sealing and closing position.

Considering that sanitation and health requirements of a city make it necessary that burial grounds are conditioned so that not only the air but also the soil and ground is maintained as unaffected as possible by the presence of such burial grounds, it has become an important question to provide a vault or enclosure or some means by which desired results may be obtained.

A plain wood casket, of course, will decay and plain concrete is unsatisfactorily porous. However, by adding an enclosure for the casket of suitable material that prevents corroding or shuts off air or the outside elements from the casket. a desirable preservation can be obtained and maintained.

This invention has for one of its principal objects to provide an enclosure or vault by which an individual casket can be hermetically sealed within the enclosure.

The preferred construction of such an enclosure is of glass or the like material which will prevent a seeping from the inside as well as assure a keeping of air or dampness from

the outside from reaching the casket inside of the enclosure.

Another important feature of this invention is to provide a structure whereby a casket can be deposited in a desired certain relation to one section of the enclosure and whereby another section can be placed over the casket and so as to hermetically seal the casket within the enclosure.

As illustrated, the enclosure is designed of certain sections in Fig. 1, of the comparatively larger lower section 6 and the somewhat smaller top section 7 with joining edges 8 and 9 close to the top of the whole structure.

In Fig. 3 a slightly modified enclosure is illustrated in which the lower section 6_a is comparatively smaller than the top section 7_a.

However, either of the forms illustrated in Figs. 1 or 3 are provided with certain interengaging edges, of which the lower edge is of a certain hollow or recessed form so that sealing material can be deposited in this lower edge preparatory to a depositing of the upper edge in a sealing or closing relation to the lower edge.

As illustrated in Fig. 5 the lower edge is provided with a central recess 10 shouldered at 11 and continuing upwardly as indicated at 12 to form a wider recess above the central recess 10.

The upper edge is provided with a central bead 13 with an enlarged upper portion 14 below the main edge surface 15. The engaging edges are designed so that when the engaging surface 15 of the upper edge rests on the upper surface 16 of the lower edge, there remains a suitable space below the central bead 13 above and within the central recess 10, as indicated at 17, and there also remain certain spaces between the enlarged edge portion 14 and the walls 12 in the enlarged recess of the lower edge, as indicated at 18. Furthermore, there is a slight space 19 below the enlarged edge portion 14 of the upper edge structure and above the shoulder 11 of the lower edge structure, so that any sealing material deposited in the hollow of the lower edge structure will easily flow and pass around the several curvatures of the upper edge when deposited and forced into the hollow of the lower edge in the manner indicated at 20, 21 and 22 in Fig. 4.

In Fig. 5 sealing material is indicated at 23 in a condition before the upper edge is forced into the hollow of the lower edge.

For sealing the sections of the enclosure any suitable material may be used though I prefer a semi-liquid mixture of a zinc and silicate of soda formula, known under the name of "German Cement", inasmuch as this material is of a suitable liquid form that it will be in this condition for a suitable length of time, so that the lower section with a casket can be placed properly in a grave or a desired place of resting before the top section is placed over the casket and over the lower section into closing and sealing position. This material is also of a suitable form in so far that it will quickly settle and harden to a desirable great hardness after the top section has been lowered over the bottom section of this vault structure over an enclosed casket.

The contact surfaces of the interengaging edges are preferably roughened as by sand blasting in order to assure adhesion of the sealing material.

When making the two sections according to the slightly modified form illustrated in Fig. 3, a bead or nosing indicated at 24 is provided on the lower section alongside of the recessed edge as illustrated in Fig. 4 so that any seepage from the casket, indicated by dotted lines at 25, is prevented from contacting with the sealing material.

Along the hollow or recessed edge of the lower section of the enclosure or vault there is then always a bead or higher edge along the inside of the enclosure, in the form of Figs. 1, 2 and 5 it being the inner edge 26 and in the modified form of Figs. 3 and 4 it being the nosing or bead 24, so that any seepage from the casket is retained in the bottom section of any enclosure or vault.

The sealing material is then preferably poured into the hollow or recessed channel or edge of the lower section of the enclosure with due care that the sealing material settles or attains the same level all around or along the edge of the lower section before the top section is placed into sealing and closing position.

The top section is then gently let or lowered into place so that its weight compresses the sealing material between the central portion of the lower section and the central recess in the edge of the lower section until the surplus is forced between the shoulder 11 of the lower section and the enlarged portion 14 of the upper section and until the sealing material rises into the spaces 18 in the manner illustrated in Figs. 2 and 4 whereby the sealing material is made to encircle the whole vault or enclosure along the interengaging edges. In this manner there are three distinct seals, at least, that is if the shoulder 11 should be designed to support the enlarged portion 14 equally with the contacting between the surfaces 15 and 16.

The three distinct seals are below the central portion 13 of the upper edge and the central recessed portion 10 in the lower edge in the first place; and between the enlarged portion 14 of the upper edge and the outer upwardly projecting edge portion 27 in the lower edge as the second occurrence; and between the enlarged portion 14 of the upper edge and the inner edge portion 26 of the lower edge as the third occurrence. The first seal is practically a compression seal in the

rounded channel while the other two seals are in form of gravity seals.

On the other hand, if the whole structure is designed so that the surfaces 15 and 16 alone are to contact in the engaging and closing position while spaces, even if ever so narrow, are intended between the shoulder 11 in the lower edge and the lower surface of the enlarged portion 14 of the upper edge, there are then additional seals provided in these spaces.

The surfaces 15 and 16 along and around the front edges, however, are preferably always designed to form the contacting means between the lower and upper section of this vault so that the outside not only in appearance but as concerns the actual structure is closed as far as possible in such a manner that dirt or any other matter is kept away from the sealing joint. Especially it must be kept in mind that if a vault of this type is lowered into the ground so that earth may fall on it from the top, such earth will fall on the upper, on the outside rounded, edge 28 by which this earth or matter is supported rather than that the earth will in any material way rest on the sealing material or eventually even come into contact with the sealing material as long as the joint between the surfaces 15 and 16 is fitted reasonably accurately or smoothly.

Having thus described my invention, I claim:

1. A vault made in upper and lower sections, the lower section having a recessed edge, and the upper section having a bead-like projection along the underside of the contacting main edge surface, the recess in the lower section-edge forming substantial upright sides opposite one another and a rounded portion along the center spaced from the sides and forming substantially horizontal shoulders thereby, and the said bead-like projection in the contactng edge-surface of the upper section embodying a larger portion with substantial upright sides and a rounded narrower portion along the center and below the larger portion thereby forming also substantially horizontal shoulders, there being substantially larger spaces between the upright sides and the rounded portions of the upper and lower sections when the said main contacting surfaces and shoulders approach one another.

2. A burial vault made in upper and lower sections, the lower section having a channel below its main contacting edge-surface of substantially upright sides opposite each other and a rounded portion along the center spaced from the sides and forming substantially horizontal shoulders thereby, and the upper section having a bead-like portion projecting below its main contacting edge-surface embodying a larger portion with substantially upright sides and a rounded narrower portion along the center and below the larger portion and also forming substantially horizontal shoulders thereby, the thereby formed interengaging edges being designed to form three distinct seals of wider dimensions between said sides and between said rounded portions of the upper and lower sections than between said shoulders and said main contacting edge-surfaces as well as between the lateral corners of the rounded portions.

In testimony that I claim the foregoing as my invention I have signed my name.

ALFRED N. KETTNER.