June 11, 1935. E. W. WILSON 2,004,454

BURIAL VAULT

Original Filed April 28, 1930

Fig. 1.

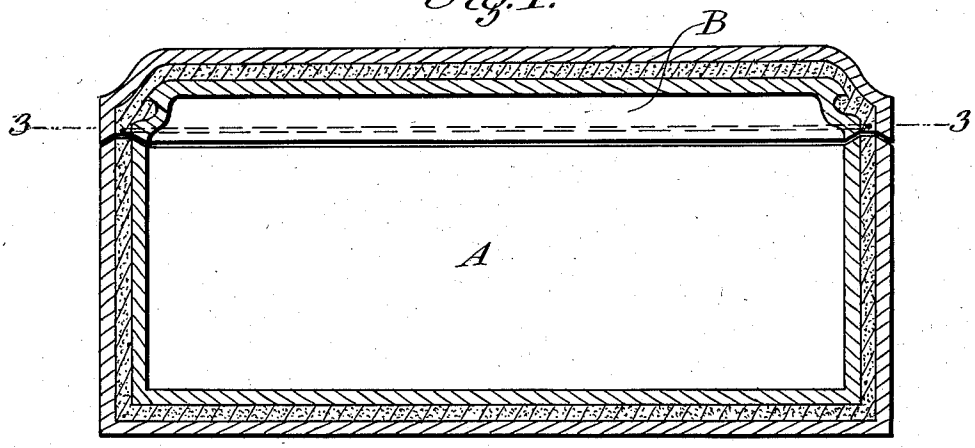
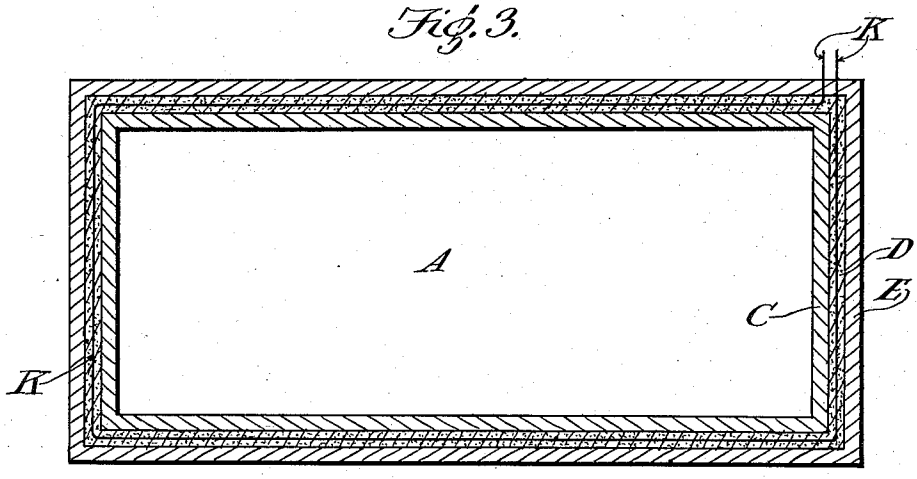


Fig. 3.



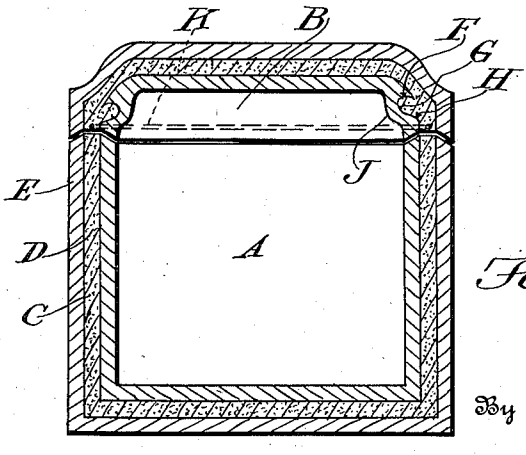


Fig. 2.

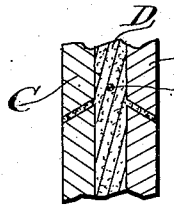


Fig. 4.

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Patented June 11, 1935 2,004,454

UNITED STATES PATENT OFFICE

2,004,454

BURIAL VAULT

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Application April 28, 1930, Serial No. 448,019
Renewed November 3, 1934

6 Claims. (Cl. 27—35)

My invention relates to burial vaults, and more particularly to means for protecting the same from water and vermin in the soil, and my main object is to construct the novel vault with a wall which is impervious to the destructive agencies mentioned.

A further object of the invention is to design the novel vault with an internal wall which is capable of being sealed where joined to form a seamless casing.

A still further object of the invention is to treat the special wall of the novel vault in a manner to melt or fuse its sections into a homogeneous body.

Another object of the invention is to build the vault with a reservoir pocket for the material of the special wall, the function of this pocket being to supply such material to the wall as it may need to effect a fusion along its joints.

An additional object of the invention is to design the pocket aforesaid for a spare supply of material to supplement that of the special wall in case the latter is severed and then again joined.

A significant object of the invention is to introduce a fusing agent, such as electricity, heat or chemical influence to accomplish the sealing of the special wall aforesaid.

A final but nevertheless important object of the invention is to design the novel vault on lines of simplicity and economy.

With the above objects in view and any others that may suggest themselves from the specification and claims to follow, a better understanding of the invention may be had by reference to the accompanying drawing, in which—

Figure 1 is a longitudinal section of the novel vault, in process of assembly;

Fig. 2 is a cross section;

Fig. 3 is a section on the line **3—3** of Figure 1; and Fig. 4 is a detail section on an enlarged scale.

The vault is constructed with the customary receptacle A and lid B, and for the purposes of my invention is made of 3-ply walls. Thus, the inner wall C and the outer wall E may be of wood, concrete, fibre, metal or any other suitable material. The intermediate wall D, however, is of asphaltum or material having similar properties.

The cross-sectional view shows an arch-shaped joint between the lid and the receptacle, the arch being angular or semi-hexagonal. While any design of joint may suit the purpose of the invention, it is my preference to employ one wherein the sides extend inclinedly in outward direction from the intermediate wall D, for a purpose to be explained.

The inner wall of the lid is formed with an inwardly projecting bead or bulge F, which forms a pocket G facing the intermediate wall D. This pocket is preferably made with a floor which gradually slopes in the direction of the intermediate wall as indicated at H.

In the formation of the lid or receptacle of the novel vault, suitable molds of conventional construction may be employed for the formation of the intermediate wall D by the pouring of the asphaltum or like material in a molten state. In the case of the lid, the filling will extend into the pocket G to form a continuous rib J along the inner side of the wall D. When this wall is molded, I prefer to lay an electrical resistance wire K in the mold for the wall D and at a point near the outlet thereof, the ends of the wire issuing from the vault as indicated in Figure 3. Thus, when the lid and receptacle have been finished and are ready to be assembled, the electrical wire K will lie somewhat above the meeting or joint line of the vault components.

When a vault constructed in accordance with the above description is ready for interment, all that is necessary to seal it is to apply current to the electrical resistance wire K by way of its projecting ends, the nature of the current and wire being such that the latter will become heated to such a degree as to melt the asphaltum or other medium in which it is located. The heat will, of course, extend entirely along the course of the electrical wire K and thus affect the joint of the vault to the extent that the asphaltum or like medium will fill the same to an overflowing extent. This extent will be manifested externally by the overflow, as particularly induced by the sloping sides of the joint, indicating that the crack or fissure between the lid and the receptacle is filled with the flowing material as shown in Fig. 4. The material in both sections of the mold will thus become fused at the joint into a homogeneous and seamless mass, and the heat generated by the electrical wire K will be sufficient to melt the pocketed rib J of the wall D to the extent of yielding a sufficient amount of the material into the fusing zone in order to assure the filling thereof, and the absence of air pockets, bubbles or passages tending to perforate or weaken the wall D. While the method of electrical resistance wire is preferable because effective and simple, I do not limit myself to this form of treatment for the material of the wall D, as non-electrical means may be feasible to produce the heat required, or a chemi-

cal may be possible of introduction into the wall at the joint to produce a fusion by heat or chemical reaction. I prefer to place the heating unit K above, rather than below, the joint of the lid with the receptacle, because of securing a gravity flow of the asphaltum in the lid to engage the asphaltum in the receptacle, and so transfer the heat of fusion with more facility.

It will be evident that a vault constructed and sealed as aforesaid embodies a seamless casing or envelope of material impervious to water and vermin, and with the proper material and workmanship applied, the vault may be expected to protect its contents from the effects of the soil indefinitely.

Should it become necessary to disinter the vault and open the same, it may be sawed apart along the joint, and when in a condition to be reassembled, the sealing may be done precisely as before, the spare material in the pocketed rib J being ample to supply the necessary amount for the filling and overflow of the joint. It will be understood that either in the first or the second case, the joint is not so spacious or open as to require a considerable filling; on the other hand, the space only permits a film of the liquid material to show itself all around the vault as an evidence that the material in the zone of the wall D is active and is becoming fused into a desirable integral mass, so that waste through the joint may be considered a negligible factor.

In conclusion, it may be said that a vault of the above description is not only a structure of simplicity but also one of marked economy, since the asphaltum or similar material is relatively inexpensive, and the preparation and labor in connection therewith involve no accurate or unusual skill.

I claim:

1. A container comprising a receptacle and lid therefor, said container having a wall ply of fusible material, means for producing heat in the latter along the joint of the lid with the receptacle whereby to fuse the material in the affected zone into a homogeneous mass, and an enlargement of said wall ply of the lid and encircling the container at a level immediately over the heated zone, said enlargement serving as a reservoir to supply additional fused material in lieu of departure thereof along said joint.

2. A container comprising a receptacle and lid therefor, said container having a wall ply of fusible material, an electric resistance wire embedded in the lid along the meeting line of the lid with the receptacle whereby to fuse the material in the affected zone into a homogeneous mass, and an enlargement of said wall ply of the lid and encircling the container at a level immediately over the heated zone, said enlargement serving as a reservoir to supply additional fused material along the meeting line of the lid with the receptacle.

3. A burial vault comprising a receptacle and lid therefor, said receptacle and lid having inner and outer walls, and an intermediate wall of fusible material, an electric resistance wire embedded in the material near the joint of the lid with the receptacle whereby to fuse the material in the affected zone into a homogeneous mass, and a marginal pocketed rib carried by said lid for serving as a reservoir to supply additional material along the joint of the lid with the receptacle.

4. The structure of claim 3, said pocketed rib having a floor sloping in the direction of the intermediate wall.

5. A container comprising a receptacle and lid therefor, said container having a wall ply of fusible material, an electric resistance wire embedded in the fusible material near the joint of the lid with the receptacle whereby to fuse the material in the affected zone into a homogeneous mass, and a marginal pocketed rib carried by said lid above the resistance wire, said rib serving as a reservoir to supply additional fused material along the joint of the lid with the receptacle.

6. The structure of claim 3, said joint being inclined laterally of the intermediate wall.

EUGENE W. WILSON.