March 8, 1960 J. A. PATTERSON ET AL 2,927,453

TRIPLE ELECTRICAL SEAL VAULT

Filed March 5, 1958

FIG. 1.

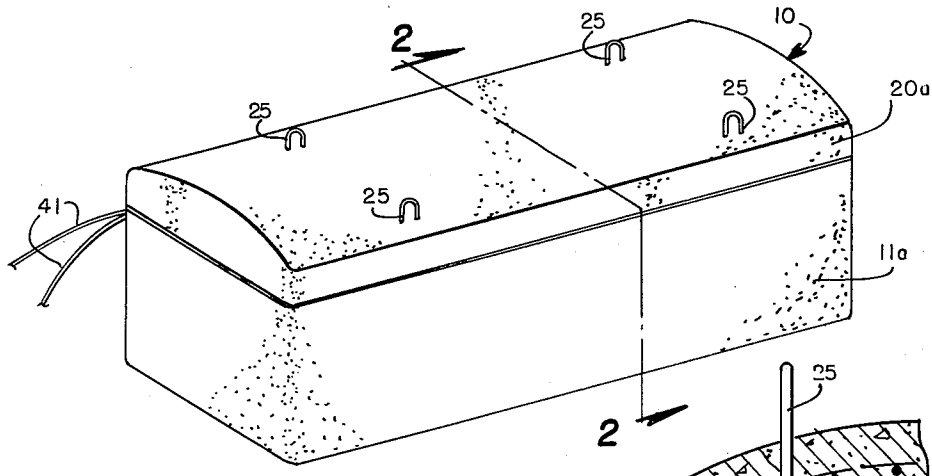


FIG. 2.

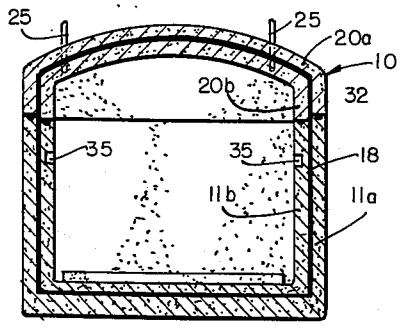


FIG. 3.

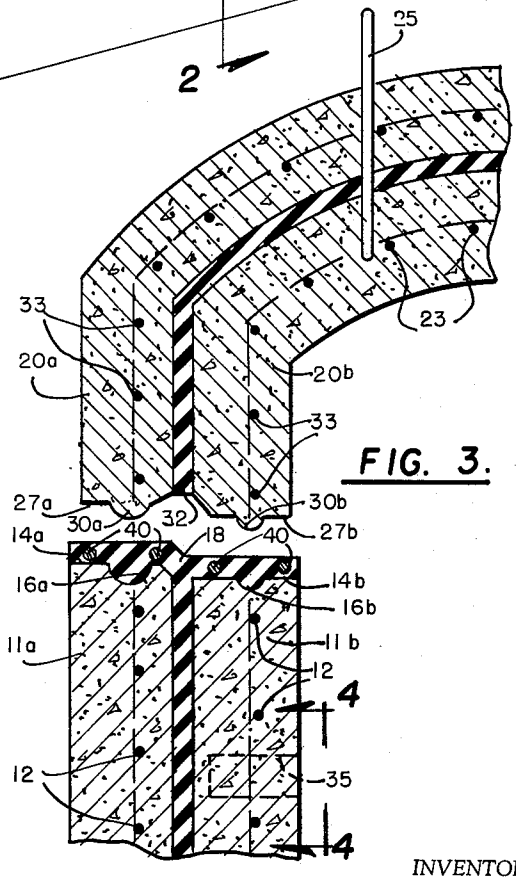
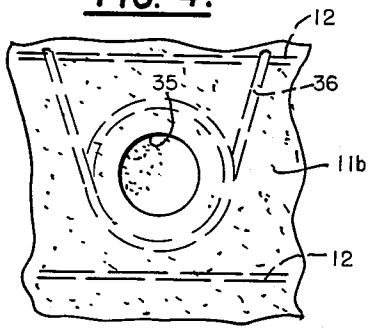


FIG. 4.



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TRIPLE ELECTRICAL SEAL VAULT

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1 Claim. (Cl. 72—7)

This invention relates to burial vaults and more particularly to a moisture proof burial vault.

It is an object of the present invention to provide a completely air tight, moisture proof and vermin proof grave vault which has an integral waterproof layer sandwiched between inner and outer concrete shells.

Another object of the present invention is to provide a hermetical seal between the base of and the closure lid of a concrete grave burial vault that is electrically sealed at the top at the time that the closure lid is applied to the vault in the grave, so as to provide a positive barrier against the entry of air, moisture, and insects after the grave has been closed.

Other objects of the invention are to provide a triple electrical seal vault bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

Figure 1 is a perspective view of a burial vault made in accordance with the present invention;

Figure 2 is a transverse cross sectional view taken along line 2—2 of Figure 1;

Figure 3 is an enlarged fragmentary cross sectional view showing certain parts of the apparatus shown in Figure 2; and

Figure 4 is an enlarged fragmentary side elevational view of certain parts of the inner wall of the vault.

Referring now more in detail to the drawing, a burial vault **10** made in accordance with the present invention is shown to include a main body portion having an outer shell **11***a* and an inner shell **11***b* constructed of reinforced concrete having reinforcing wires **12** extending independently therethrough. The upper edges of the side walls of the outer shell **11***a* and inner liner **11***b* have surfaces **14***a*, *b* at different levels, each of which is provided with an indent **16***a*, *b*, respectively, for purposes hereinafter described. A layer of asphalt **18** extends between the exterior shell and interior liner of the main body portion, thus providing a moisture barrier therebetween.

The lid of the vault is also constructed of an exterior concrete layer **20***a* and an interior concrete layer **20***b*, having reinforcing wires **23** extending therethrough, and being secured together by means of a layer **32** of asphalt that defines a similar moisture barrier. The peripheral edges of the exterior and interior layers of the closure lid define surfaces **27***a*, *b* each of which has a protruding rib or detent **30***a*, *b*, respectively, as is clearly shown in Figure 3. When the lid is applied to the main body portion of the vault, the detents **30***a*, *b* are received within the indents **16***a*, *b* of the side walls of the main body portion, and the asphalt layer **18** forms a seal between the facing surfaces **14***a*, *b*; **27***a*, *b* of the respective portions.

A plurality of upwardly extending bails **25** embedded within the concrete of the closure lid provide means for raising and lowering the heavy lid during use. In addition, recesses **35** are provided on the inside of the liner **11***b* of the main body portion for raising and lowering it during the handling thereof. In order to prevent the weight of the unit from fracturing the recessed defining portions of the vault, additional reinforcing wires **36** are embedded therewithin, as shown in Figure 4, to provide additional strength.

A plurality of electrical resistance elements **40** are embedded within the asphalt **18** that is disposed between the abutting surfaces of the main body portion and lid surfaces. The terminals **41** of these resistance wires extend outwardly from the vault for attachment to a source of electrical energy at the grave. Thus, after the vault has been lowered into place and the closure lid applied thereto, a supply of a suitable quantity of electrical current to the resistance wires **40** will effect the heating of the apshalt between the respective surfaces, so as to enable the closure lid to seat in sealing engagement with the upper edges of the main body portion. Upon removing the source of electrical energy from the resistance wires, the asphalt will set, thus providing integral bond between the respective parts. It will be noted that the joint is of Z-shaped cross sectional configuration, such shape providing a large number of baffles which positively prevent the passage of air and moisture therethrough as well as preventing the entry of insects into the interior of the vault.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

What we claim as new and desire to protect by Letters Patent of the United States is:

A burial vault which comprises a main body portion including an exterior shell of reinforced concrete and an inner liner of reinforced concrete, a layer of asphalt forming an asphalt shell lying between said exterior shell and inner liner and joining them, the upper edge of said exterior shell having a horizontal surface extending around its periphery and outwardly of said asphalt shell and having a first indent around its entire periphery containing asphalt, the upper edge of said inner liner of concrete having a horizontal surface extending around its periphery and positioned inwardly of said asphalt shell and positioned at a level below the level of said upper edge surface of said exterior shell and having a second indent around its entire periphery and containing asphalt; and a cover lid for said main body portion including an exterior cover shell of reinforced concrete and an inner cover liner of reinforced concrete, a layer of asphalt forming an asphalt cover shell intermediate said exterior cover shell and inner cover liner, the lower edge of said exterior cover shell having a horizontal surface extending around its periphery and having a detent around its entire periphery registering with and fitting into said first indent, the lower edge of said inner cover liner having a horizontal surface extending around said inner cover liner and positioned inwardly of said asphalt intermediate cover shell and positioned at a level below the level of said lower edge of said exterior cover shell and having a second detent around its entire periphery registering with and fitting into said second indent, an asphalt layer between said surfaces, electrical resistance wires imbedded in the asphalt layer between said surfaces, said resistance wires being adapted to be heated by an electric current to soften and melt said asphalt at the juncture of said lid and body portion whereby to fuse together in situ the intermediate asphalt shell in said cover lid with the intermediate asphalt shell in said main body portion and to soften and melt the aspsalt contained in said indents to provide, on cioling of said

softened asphalt, a water-proof, hermetically-sealed burial vault.

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