July 25, 1950 M. L. SMITH 2,516,488

CASKET

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Fig. 1.

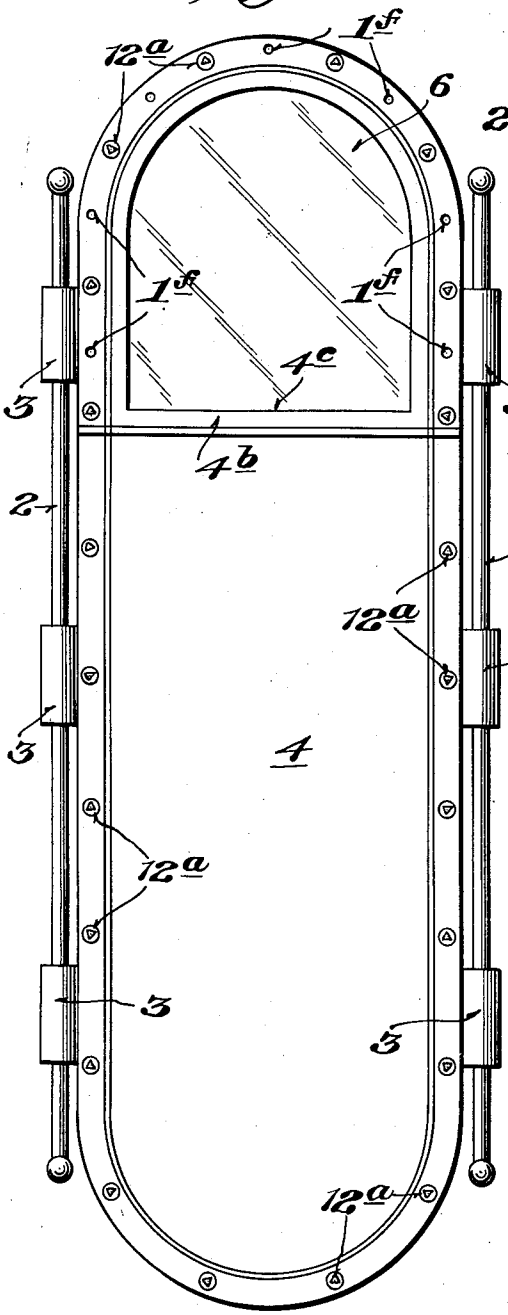


Fig. 2.

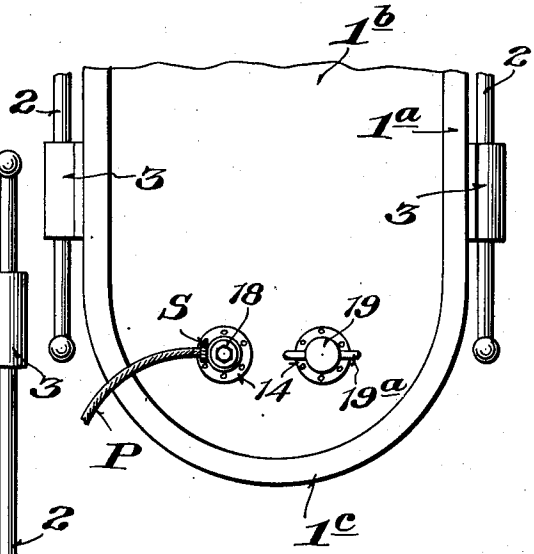
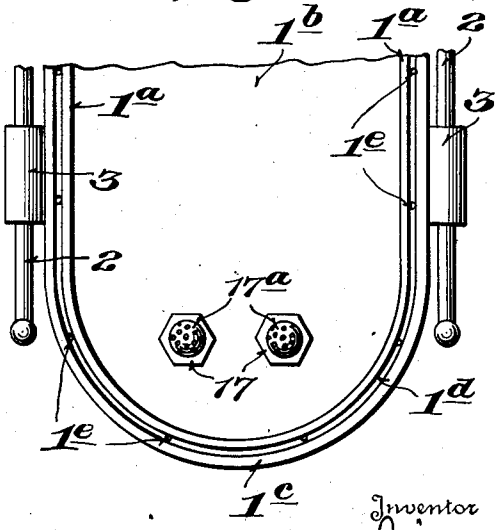


Fig. 3.



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Fig. 4.

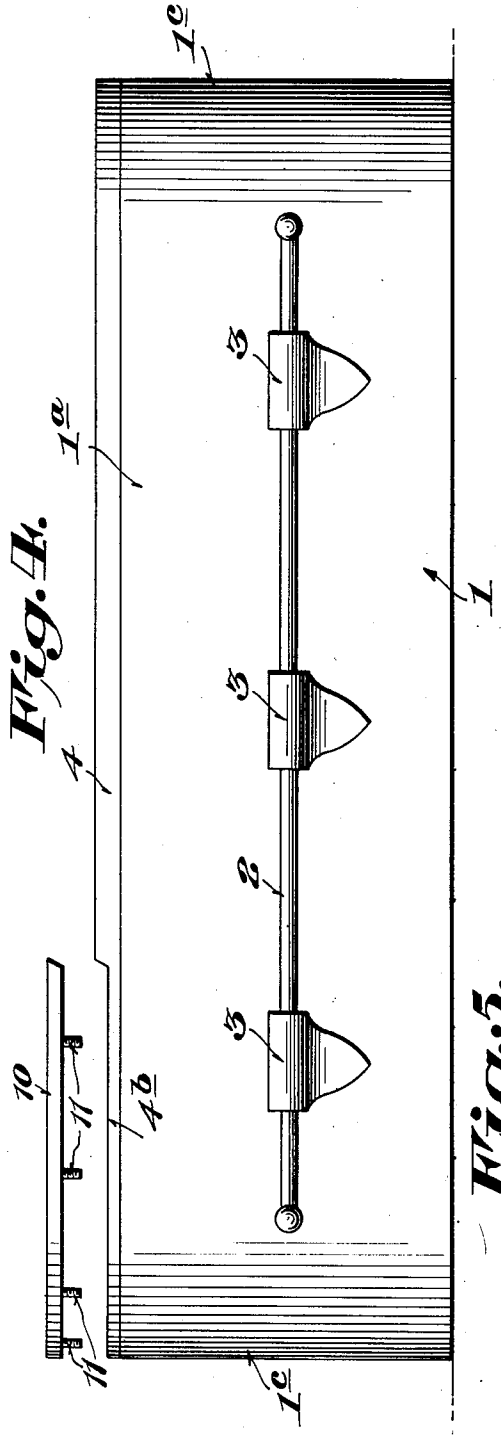


Fig. 7.



Fig. 6.

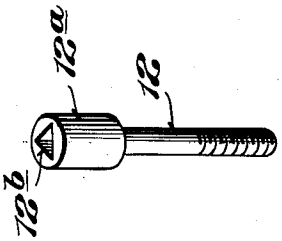
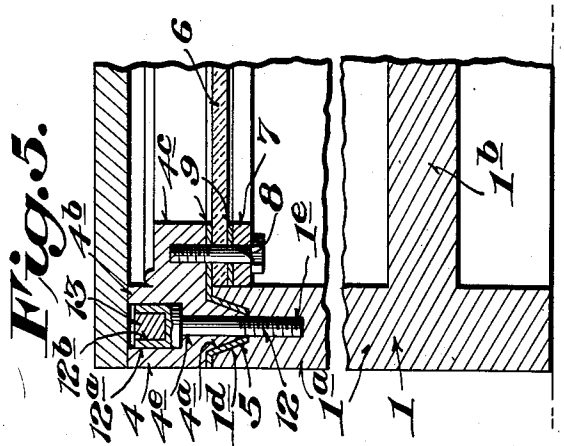


Fig. 5.



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Fig. 8.

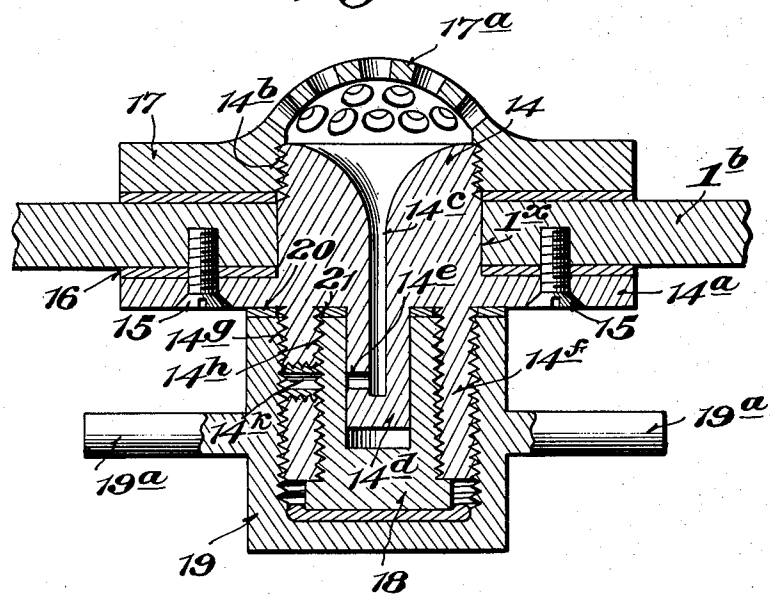
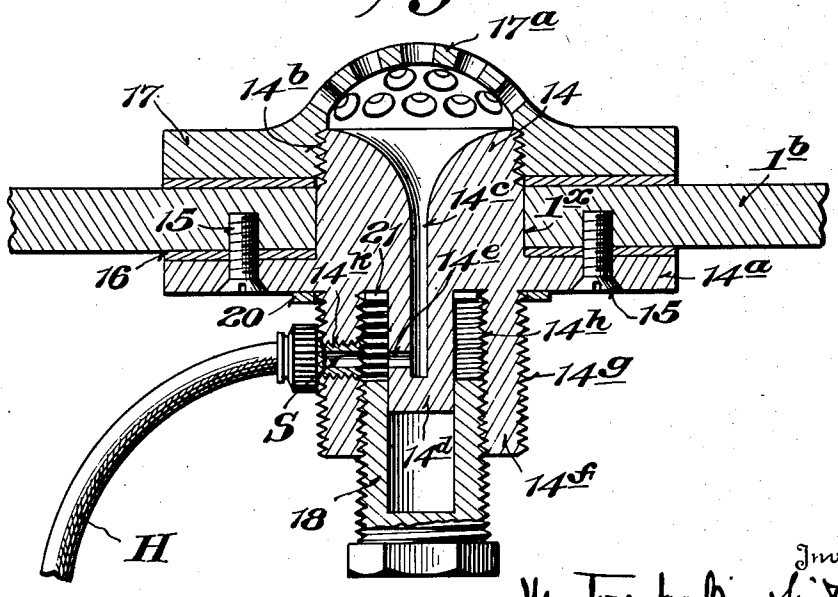


Fig. 9.



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Fig. 10.

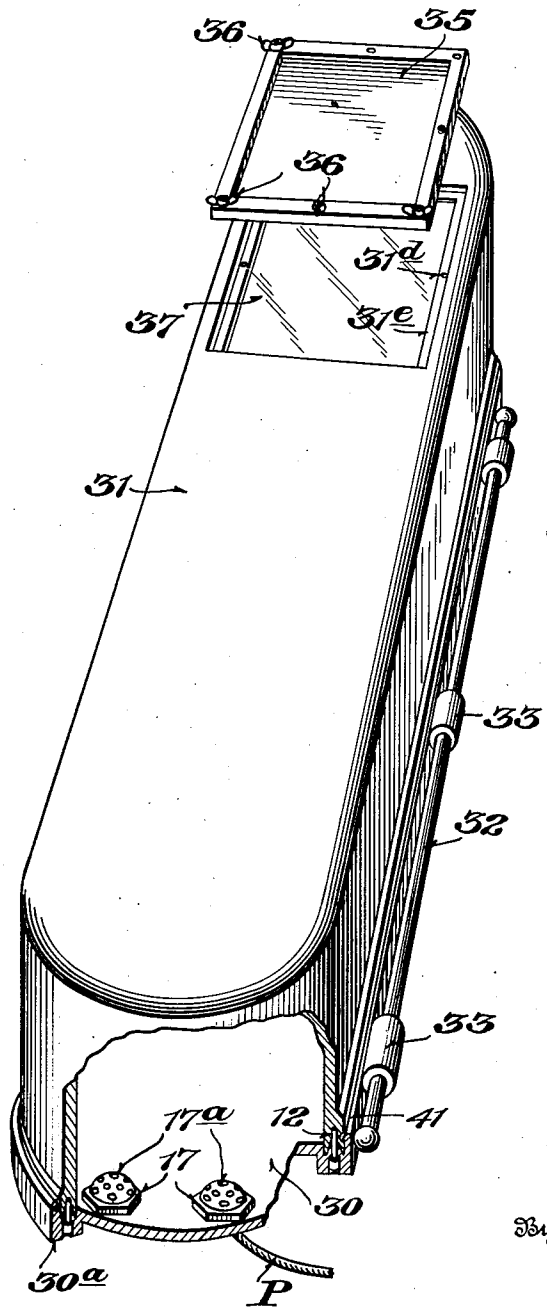


Fig. 11.

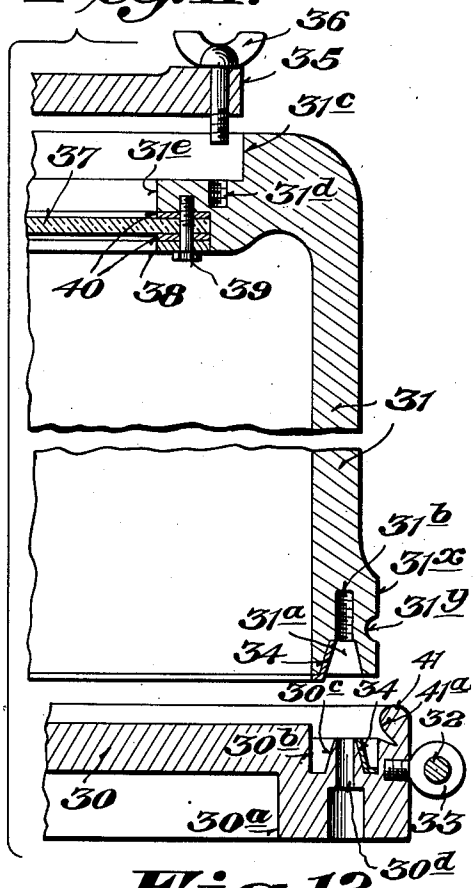
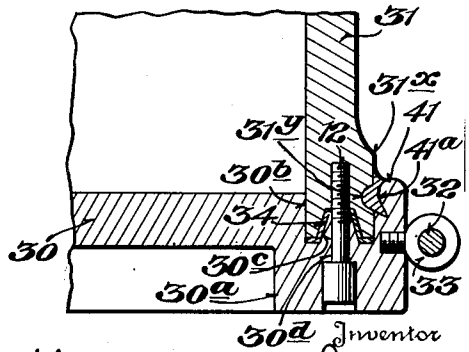


Fig. 12.



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Patented July 25, 1950

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UNITED STATES PATENT OFFICE

2,516,488

CASKET

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Application November 25, 1946, Serial No. 712,133

2 Claims. (Cl. 27—17)

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This invention is a novel vacuum casket, and the principal objects thereof are to provide a casket that will not rot or rust, and which can be manufactured by casting the material in molds, the casket being made of aluminum, plastic, glass, or any other suitable material; also to provide a casket that will be airtight, and provided with valves or other means of withdrawing the air from the casket and for admitting gases thereinto after the same has been sealed.

I will explain the invention with reference to the accompanying drawings, which illustrate several practical embodiments thereof, to enable others familiar with the art to adopt and use the same; and will summarize in the claims, the novel features of construction, and novel combinations of parts, for which protection is desired.

In said drawings:

Figure 1 is a top plan view of the casket showing the lid and the countersunk bolts used to screw the lid down in an airtight manner.

Fig. 2 is a bottom plan view of an end portion of the casket showing the two valves, one of which is used to withdraw the air from the casket, the other valve being used to inject gas or the like into the casket after the lid has been sealed thereon.

Fig. 3 is a top plan view of the end portion of the casket shown in Fig. 2, with lid removed, showing the groove in the rim which receives the correspondingly ribbed lid; also showing the two valves.

Fig. 4 is a side elevation of the casket showing the separate cover portion of the lid that fits over the glazed top portion thereof separated therefrom.

Fig. 5 is an enlarged vertical section through the lid and side of the casket, with parts in assembled relation.

Figs. 6 and 7 are perspective views of the bolt and filler, detached.

Fig. 8 is a vertical section through the valve showing same.

Fig. 9 is a vertical section through the valve showing the same open, with a hose which may be connected with any suitable means of withdrawing the air from the casket or for injecting gas thereinto.

Fig. 10 shows another modification of the casket.

Fig. 11 is a vertical section through one side of the casket shown in Fig. 10.

Fig. 12 is a section showing the top and bottom

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portions of the casket shown in Fig. 10 bolted together.

As shown in Figs. 1 to 5, the casket comprises a body 1, having sides 1*a*, bottom 1*b*, and rounded ends 1*c*, said body being open at the top. Body 1 is preferably made of rot- and rust-proof material, preferably cast in a mold, the material being aluminum, plastic, glass, or any other suitable material. As shown in Fig. 5, the sides and ends 1*a* preferably extend below the bottom 1*b* to enhance the appearance of the casket. Around the top of the sides 1*a* and ends 1*c* is a groove 1*d* of truncated triangular cross section, the groove being narrowest at its bottom. In the bottom of the groove at spaced intervals are tapped bores 1*e*, as shown more particularly in Figs. 3 and 5, for the reception of the bolts 12 which secure the lid 4 to the casket body 1. Along the sides 1*a* are handles 2, secured in brackets 3 for lifting purposes.

As shown more particularly in Figs. 1, 4 and 5, lid 4 is of the same shape and size as the body 1, and is preferably cast or formed of the same material as body 1, the lid being provided on its lower face with a rib 4*a* of shape and size corresponding with the groove 1*d* in the top of the casket body, the rib extending entirely around the lid and being adapted to seat squarely in the groove 1*d*, as shown in Fig. 5, an asbestos or other gasket 5 (Fig. 5) being interposed between the lid 4 and body 1 to render the casket gastight. Instead of utilizing an asbestos gasket, any other suitable material may be used.

Lid 4 is provided at one end with a recess 4*b* in its top (Figs. 1, 4 and 5), and within the recess 4*b* is an opening 4*c* of substantial area, the opening 4*c* conforming with the general shape of the recess 4*b* as shown in Fig. 1, and a glass or other transparent pane 6 is disposed below the opening 4*c*, the same being secured to the under side of the lid 4 around the sides of the opening by means of an open frame 7 (Fig. 5) having holes for the reception of screws or bolts 8 which pass upwardly through the frame 7 into the under side of lid 4, gasket 9 being of any suitable material being interposed below the frame and pane, and between the pane and lid to render the connection gastight. The frame 7 is disposed entirely within the inner faces of the walls 1*a* of the casket, as shown in Fig. 5. A separate cover 10 for the recess 4*b* is provided on the lid 4 of shape to fit the said recess 4*b*, said cover 10 being adapted to overlie the transparent pane 6, said cover 10 being provided with screws 11 adapted to engage tapped bores 1*f* (Fig. 1) in the top of

the lid 4, in way of the recessed portion 4b, said bores 1f alternating with the tapped bores 1e for the lid hold-down bolts 12.

The lid 4 with or without the cover 10 may be secured in a gastight manner to the casket body 1 by means of bolts 12, shown more particularly in Figs. 5 and 6, having enlarged cylindrical heads 12a provided with non-circular bores 12b in their upper ends, adapted to be engaged by a suitable driving device, the screws 12 entering the tapped bores 1e in the top of the side 1a and ends 1c of the casket, as shown in Fig. 5, the bores being disposed around the entire periphery of the body 1, the shanks of bolts 12 passing through corresponding bores 4e provided therefor in the lid, the bores 4e having enlarged upper ends to receive the heads 12a of bolts 12 which are housed entirely within the bores. After the bolts 12 are thus applied, plugs 13 (Fig. 7) of metal or other material are secured in the bores 12b in the bolt heads to fill same and to enhance the appearance of the top of the casket, plugs 13 being of the same shape and depth as the non-circular bores 12b, the plugs 13 and bores 12b being shown as of triangular cross section. By the above construction the casket will be gastight, irrespective of whether or not cover 10 is or is not applied to the lid 4, the supplemental cover being removed in Fig. 1.

In the bottom 1b of the casket are a pair of valves, shown more particularly in Figs. 8 and 9, each valve consisting of a body 14 extending upwardly through a hole 1x provided therefor in the bottom 1b and having an annular flange 14a at its lower end through which screws 15 are passed to secure the body 14 to the bottom 1b, a gasket 16 of suitable material being interposed between the lower face of the bottom 1b and the flange 14a. The body 14 above the bottom 1b is exteriorly threaded as at 14b, and a perforated shield 17 is threaded thereon to prevent any bulky material within the casket from closing the valve, the perforated center of shield 17a being disposed over the duct 14c of the body 14 which extends downwardly therethrough into a central extension 14d at the lower end of body 14, the duct 14c having a lateral port 14e through extension 14d, as shown in Figs. 8 and 9. The body 14 is also provided with an annular depending extension 14f, which is threaded externally as at 14g and internally as at 14h, said extension 14f being concentric with the central extension 14d and having a tapped bore 14k extending therethrough opposite port 14e as shown.

An exteriorly threaded cap 18, closed at its lower end, engages the internal threads 14h of the annular extension 14f, and is adapted to be shifted from its upper position shown in Fig. 8 to its lower position shown in Fig. 9 to cover or uncover the lateral port 14e of the valve, the port 14e being uncovered when it is desired to introduce gas into the casket or to remove air therefrom. An outer cap 19 having radial arms 19a engages the external threads 14g of the extension 14f, the cap being closed at its lower end and adapted when in the position shown in Fig. 8, to seal the port 14k of the valve, and when removed to permit the valve stem S on the hose H leading from a pressure or suction pump (not shown) to be applied to the tapped port 14k so that gas under pressure may be introduced into the casket, or the atmosphere within the casket to be withdrawn therefrom by suction when the parts are in the position shown in Fig. 9. After removing the valve stem S and applying the internal cap 18, and outer cap 19 in the manner shown in Fig. 8, the casket will be hermetically sealed. The upper ends of the caps 18 and 19 preferably engage gaskets 20—21 respectively in order to assist in rendering the valves, when closed, gastight, the gaskets being shown in Figs. 8 and 9. Instead of utilizing the specific valves shown in Figs. 8 and 9, however, any other types of valve or the like which are suitable for the purpose may be utilized or substituted therefor.

In the modification shown in Figs. 10 and 12, the casket comprises a bottom 30 having short depending sides 30a and having a peripheral recess 30b in its upper side edges adapted to receive the body 31 which is open at its lower end and closed at its top and adapted to seat within the recess 30b. In this modification the handles 32 are applied along the sides of the bottom 30, same passing through brackets 33. The bottom is equipped with suction and pressure valves which may be of same type as those shown in Figs. 8 and 9, and hence same need no particular description herein.

At the bottom of the recess 30b is a raised rib 30c of truncated triangular cross section, narrowest at its top, as shown, adapted to engage a correspondingly shaped groove 31a in the bottom of the body 31, tapped bores 31b being provided in the groove 31a for receiving the bolt 12 which are identical with those shown in the preceding modification, the same passing through bores 30d in the bottom 30 in the same manner as described in connection with the preceding modification, the screws 12 however entering the bores 30d from the under side of bottom 30, suitable gaskets 34 being interposed between the bottom 30 and cover 31 corresponding with the shape of the ribs 30c and grooves 31a.

In the top of body 31 is a cut-out portion 31c adapted to receive a cover 35 provided with thumb screws 36 adapted to enter tapped bores 31d in the cut-out portion 31c to retain the cover 35 in position. Within the cut-out portion 31c is an opening 31e, preferably of rectangular shape, under which is disposed a transparent pane 37 which is secured to the under side of the body around the opening 31e by means of a frame 38 and screws 39 similar to the frame and screws 7—8 shown in Fig. 5, gaskets 40 being interposed between the pane and frame and pane and body to render the casket gastight.

In this modification, at the outer periphery of the bottom 30 around the outer face of the body 31 is an upstanding lip 41 having an undercut inner face 41a, as shown more particularly in Figs. 11 and 12, and the lower edge of the sides of the cover 31 are thickened as at 31x and provided with a recess 31y of substantially circular shape opposite the inclined edge 41a of the ridge 41, thereby providing an undercut recess between the bottom 30 and the lower edge of the body 31 extending entirely around the casket, which recess may be filled with molten lead or plastic or any other material which will seal the casket.

In both modifications the valves may be installed in the bottom, sides, ends or in the lid instead of in the position shown, and in place of the valve any other device may be used through which air can be withdrawn and then sealed, leaving a vacuum or partial vacuum within the casket.

I do not limit my invention to the exact forms shown in the drawings, for obviously changes may be made therein within the scope of the claims.

I claim:

1. A vacuum casket, comprising a body member

open at one face; a cover member for said open face; means for applying the cover member to the body in a gas-tight manner; means for setting up a partial vacuum in the casket and for injecting gas thereinto after the cover member has been applied to the body member; said body member having a top, side, and end walls; and said cover member comprising a bottom for the body and having a peripheral recess adjacent its upper outer edge receiving the sides of the body; and said applying means comprising a continuous ridge of truncated triangular cross-section around the recess engaging a correspondingly shaped groove in the lower end of the body; a correspondingly shaped gasket in said groove; a series of bolts having heads seated within bores in the bottom and having reduced shanks entenring tapped bores in the base of the groove; an upstanding lip around the outer side of the recess in the bottom offset from the outer wall of the body, said lip having an undercut inner wall; and said body having a peripheral groove therein opposite the lip, thereby providing a sealing medium receiving recess.

2. A vacuum casket, comprising a body member open at one face; a cover member for said open face; a continuous ridge of truncated-triangular cross-section around one member engaging a correspondingly shaped groove in the other member; a correspondingly shaped gasket interposed between the ridge and groove; and a series

of bolts having heads seated within bores in the first member and having reduced shanks entering tapped bores in the base of the groove; said cover member having a peripheral recess adjacent its outer edge receiving the sides of the body; an upstanding lip around the outer side of the recess offset from the outer wall of the body, said lip having an undercut inner wall; and said body having a peripheral groove therein opposite the lip, thereby providing an undercut recess between the lip and body for receiving a sealing medium.

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