W. W. HAASE.

SELF SEALING VAULT OR RECEPTACLE.

APPLICATION FILED MAR. 27, 1916.

1,191,964.

Patented July 25, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

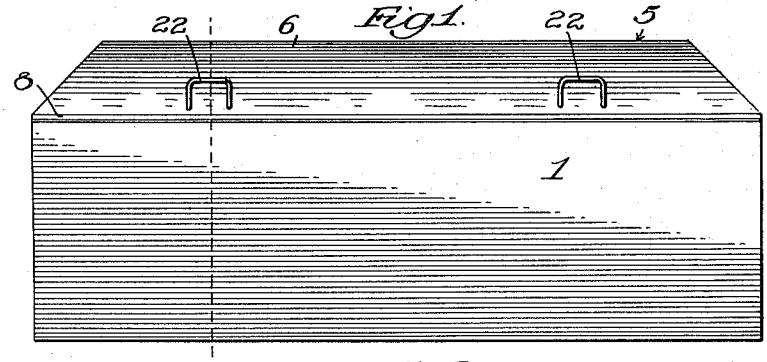


Fig. 2.

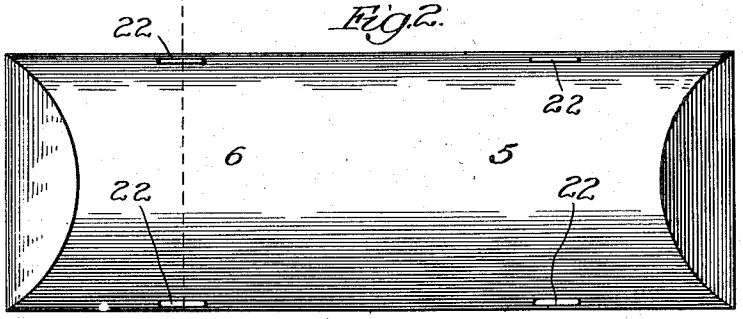


Fig. 3.

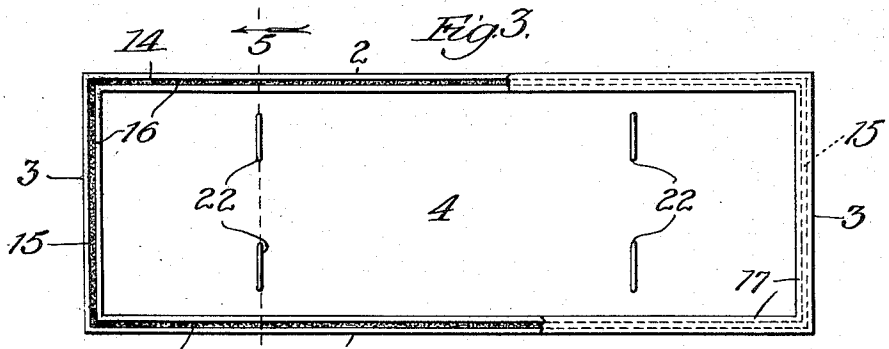
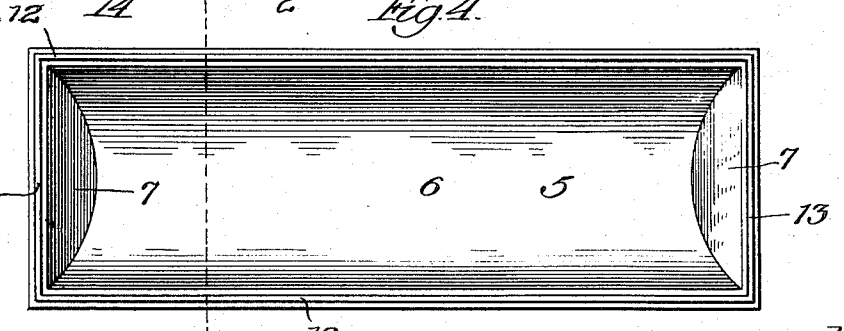


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

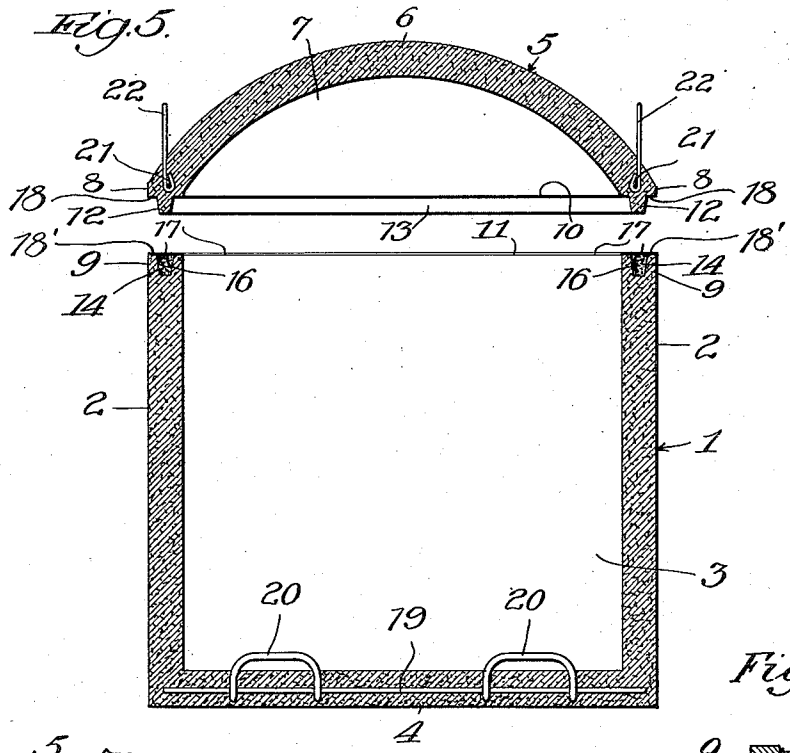
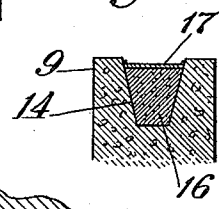


Fig. 8.



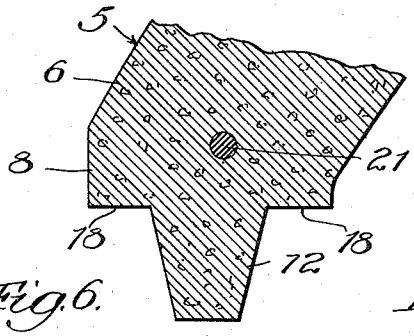
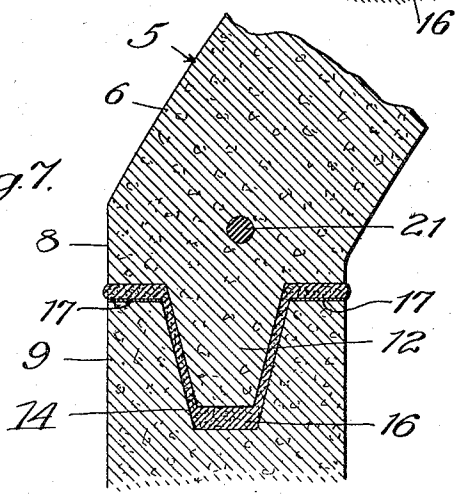
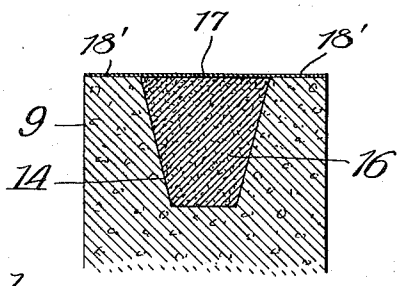


Fig. 6.

Fig. 7.





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UNITED STATES PATENT OFFICE.

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SELF-SEALING VAULT OR RECEPTACLE.

1,191,964. Specification of Letters Patent. Patented July 25, 1916.

Application filed March 27, 1916. Serial No. 86,964.

To all whom it may concern:

Be it known that I, WILBERT W. HAASE, a citizen of the United States, residing in Forest Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Self-Sealing Vaults or Receptacles, of which the following is a specification.

This invention relates to that class of self-sealing vaults or receptacles comprising a box body member, and a cover member, one of said members having a marginal tongue or flange portion, and the other of said members having a grooved marginal portion adapted to admit and engage such tongue portion and to contain cement or adhesive material for sealing the tongue and grooved marginal portions, and provided with means for covering such groove and its contents before the cover is placed in vault-closing position.

The principal object of the invention is to provide a simple, economical, and efficient self-sealing vault or receptacle comprising a box body member and a cover member adapted to be hermetically sealed automatically by means of cement, or adhesive material contained in a covered tongue-engaging groove in one of said members, when the cover member is lowered into or placed in operative position upon the box body member.

Other and further objects of the invention will appear from the following description and claims, and from an inspection of the accompanying drawings, which are made a part of this specification.

My invention consists in the features, combinations, and details of construction herein described and claimed.

In the accompanying drawings Figure 1 is a view in side elevation of a vault comprising a cover member and main body member in sealed engagement with each other and constructed in accordance with my invention and improvements; Fig. 2, a plan view of the vault or receptacle shown in Fig. 1; Fig. 3, a plan view of the box body member shown in Fig. 1 with a portion of the cover or sheet of relatively fragile or brittle material for covering the cement or adhesive material in the marginal groove broken away, or omitted, so as to show the cement-containing groove which is adapted to receive the depending marginal tongue or flange portion of the vault cover member. Fig. 4, a plan view of the vault cover member shown in inverted position showing the marginal tongue or flange portion, which is adapted to extend into the marginal cement-containing groove of the box body member, and to break the covering for such groove when the vault cover member is placed in position. Fig. 5, an enlarged view in transverse vertical section of the vault shown in Figs. 1 and 2 taken on line 5 of Fig. 2 looking in the direction of the arrow. Fig. 6, an enlarged view in transverse vertical section showing the covered cement-containing grooved marginal portion or wall of the main box body member and a corresponding tongue or flanged portion of the cover member adapted to extend into such cement-containing groove and to break through the cover for such groove, when the cover is placed in position, and Fig. 7, a similar enlarged detail view of the parts shown in Fig. 6 showing the tongued and grooved margins of the vault cover member and main box body member in sealed engagement with each other as they are throughout the entire length of the side and end walls of the box body and the corresponding marginal portions of the cover, when the cover is in position upon the box body member; and Fig. 8 cross-sectional view of a modified form of concrete cover for the cement-containing member.

In constructing a vault, or receptacle, in accordance with my invention and improvements, I provide a box body or main vault body member 1, comprising side walls 2, end walls 3, and a bottom 4, and vault cover 5. The vault or box body and cover are, by preference, formed of or comprise in their construction concrete containing sand and hydraulic or Portland cement intermixed in suitable proportions and formed or molded into the desired shape and dimensions while in a plastic condition, and allowed to harden. The cover member 5, comprises a top wall, or main cover portion 6, and end walls 7. The top wall, or cover portion 6, is, by preference, in the form of an arch. The side marginal portions 8 of the cover member extend in parallel relation to the corresponding upper or side marginal portions 9 of the main box body 1, and the end marginal portions 10 of the cover member extending in parallel relation to the corre-

sponding upper or end marginal portions 11 of the main box body member 1. The cover member 5 is provided with a depending tongue comprising tongue portions, or marginal flanges 12 which extend along and throughout the entire length of the longitudinal marginal portions of the cover member, and similar end marginal tongue or depending flange portions 13 which extend along and throughout the entire length of the respective end wall portions 7 of the cover member, and are connected at their opposite ends with the corresponding extremities of the tongue or flange portions 12. The tongue or flange portions 12 and 13 thus form a continuous unbroken or endless depending tongue or flange which extends entirely around the lower marginal portion or rim of the cover but between the inner and outer edges of the rim, and in position to extend downward into a corresponding endless marginal groove in the adjacent or corresponding marginal portions in the main box body member 1. This continuous or endless groove in the upper marginal portions or edges of the main box body is adapted to admit and to be secured in sealed engagement with the tongue of the cover member above described, and comprises longitudinal marginal groove portions 14 in the longitudinal marginal portions or edges 9 of the walls 2 respectively, and marginal groove portions 15 in the upper marginal portions or edges 11 of the end walls 3, respectively, of the box body member. The groove portions 14 and 15, thus form a continuous or endless marginal groove which extends entirely around the upper marginal portion or rim of the main box body member, but, preferably, between the inner and outer edges of the rim, or walls in which this groove is formed, and in position to admit the depending tongue or marginal flange portions, 12 and 13, of the cover member, when the cover member is placed in position upon the box body member. A quantity of cement or adhesive material 16, in plastic condition, is provided, which is by preference, adapted to continue or remain in plastic condition for a very long time when covered or inclosed within a compartment adapted to exclude air and moisture, as it is when in the covered groove herein described and shown, and which cement may be of any desired ordinary and well known form suitable for sealing the marginal portions of the cover member and box body member of a concrete vault together when the cement is automatically pressed into sealed or sealing engagement with the adjacent marginal portions to be sealed and into position to extend into the marginal groove above described, comprising groove portions 14 and 15. And a cover or a cap 17 of comparatively thin sheet-like form is laid upon, and, by preference, in air tight engagement with the grooved marginal portions of the box body member in position to extend across and form a covering for the cement-containing groove. This cover or cap portion 17 is, by preference, made of concrete containing sand and Portland or hydraulic cement in such proportions as to form a thin sheet having sufficient strength to cover and protect the cement contained in the groove, but is sufficiently fragile or brittle to be readily crushed or broken or torn asunder by the depending tongue or flange of the cover member as such tongue is forced downward through the groove cover or sheet 17, and into the corresponding groove portions 14 and 15 of the main box body member by the weight of the vault cover member. The cement 16 contained in the covered groove is thus, in part, forced or squeezed outward, some remaining in the groove and some being squeezed outward into position between and in sealed engagement with the marginal surface portions 18 and 18′ of the cover member and main box body member, respectively, and also in adhesive sealed engagement with the tongue and groove portions located between the marginal surface portions 18 and 18′. The cap portion or sheet 17, thus, by preference made of concrete, may be made integral with the concrete walls of the vault or main box body and is adapted to cover and conceal the cement contained in the groove. The margins or upper wall portions or rim of the main vault or box body thus have the neat and natural appearance of being formed of solid concrete. The cover or sheet-like cap 17 is broken by the tongue on the cover member when the cover is lowered into position, as already suggested, and the vault is thus automatically sealed without the necessity of an attendant climbing onto the vault to seal it or to prepare the seal.

The vault, when made in the form shown in the drawings, is, by preference, provided with suitable transverse rods or metallic members 19, embedded in and extending transversely with respect to the bottom of the box body at suitable distances from each other and from the ends of the vault to which rods, or reinforcing members, suitable metal loops, or staples 20 are secured. These members 20 project upward from the bottom of the box body on the inside of the vault, and are spaced apart and located in position to form suitable supports for a casket, and to enable straps or cables to be removably connected with such loops or supporting members 20, for lifting or moving the box body, or main vault body. The cover member is provided with metallic horizontal rods, or reinforcing members 21 on opposite sides of the longitudinal center of the cover member to which are secured metallic lifting members, loops or handles

22, which are adapted to enable the cover to be raised or lowered, or handled with facility.

I claim:

1. A vault comprising in its construction a main body member and a vault cover member, one of said members having a groove adapted to contain cement, cement in said groove, and a groove cover extending across said groove and adapted to be opened by the other of said vault members, to permit the latter to come into contact and sealed engagement with the grooved member and the cement.

2. A vault comprising in its construction a main body member and a vault cover member, one of said members having a groove adapted to contain plastic cement, cement in said groove, and a groove cover normally extending across said groove and its contents, and the other of said vault members having a marginal portion adapted to be mounted in contact with said cement and in sealed engagement with the grooved member and across said groove when the groove cover is open.

3. A vault comprising in its construction a main body member and a vault cover member, one of said members having a cement-containing marginal groove, and a groove cover extending normally across said groove and its contents, and a tongue on the other of said vault members adapted to be inserted through the groove cover and into said groove and in sealed engagement with the grooved member.

4. A vault comprising in its construction a main body member and a vault cover member, one of said vault members having a cement-containing marginal groove, and a groove cover normally extending across said groove and its contents, and the other of said vault members having a marginal portion adapted to engage and break said groove cover and extend in sealed engagement with the grooved member and the cement when the vault cover member is in position upon the main body member.

5. A vault comprising in its construction a main box body member having side and end walls provided with a groove in the upper edges thereof adapted to contain plastic cement, cement in said groove, a groove cover normally extending across said groove and its contents and in sealed engagement with the grooved main box body member, and a vault cover member provided with a marginal portion adapted to engage said groove cover and extend into and in sealed engagement with the cement-containing groove.

6. A vault comprising in its construction a main box body member provided with side and end walls having a groove in the upper edges thereof adapted to contain plastic cement, cement in said groove, a groove cover normally extending across said groove and its contents and in sealed engagement with the main box body member along the opposite edges of the groove, a vault cover member, and a depending tongue extending around the bottom marginal portion of the vault cover member and adapted to be inserted through the groove cover and into and in sealed engagement with the cement-containing groove.

7. A vault comprising in its construction a main body member having concrete side and end wall portions provided with a groove in the upper edges thereof adapted to contain plastic cement, plastic cement in said groove, a concrete groove cover integral with the concrete main vault body member and normally extending across said groove and its contents and adapted to be broken, to permit the cement to engage the surfaces of the vault members to be sealed thereby, and a vault cover member having a depending marginal portion formed of concrete and adapted to be inserted through the groove cover and into and in sealed engagement with the cement-containing groove.

8. A vault comprising in its construction a box body member having concrete side and end wall portions provided with a groove in the upper edges thereof adapted to contain plastic cement, cement in said groove, and a groove cover formed of a layer of concrete integral with the grooved concrete wall portions of the body member, and extending across said groove and its contents and adapted to be broken to permit the cement to come into sealing engagement with the adjacent surfaces of said box body member and a vault cover member to be secured in sealed engagement with said body member.

Signed at Chicago, Illinois, March 15, 1916.

WILBERT W. HAASE.

Witnesses:
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W. HARDING.