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E. J. BRUTSCHE

1,897,603

BURIAL VAULT MOLD

Filed June 6, 1931

3 Sheets-Sheet 1

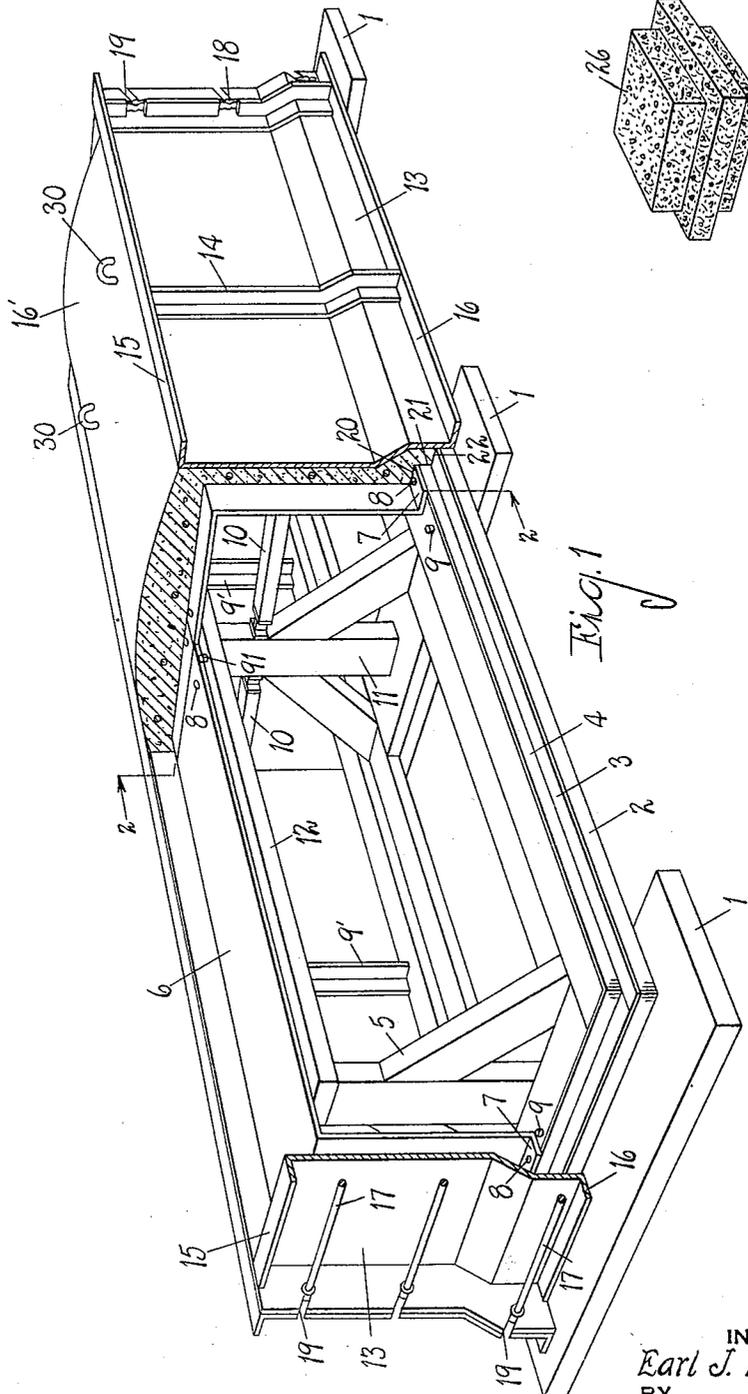


Fig. 6

Fig. 1

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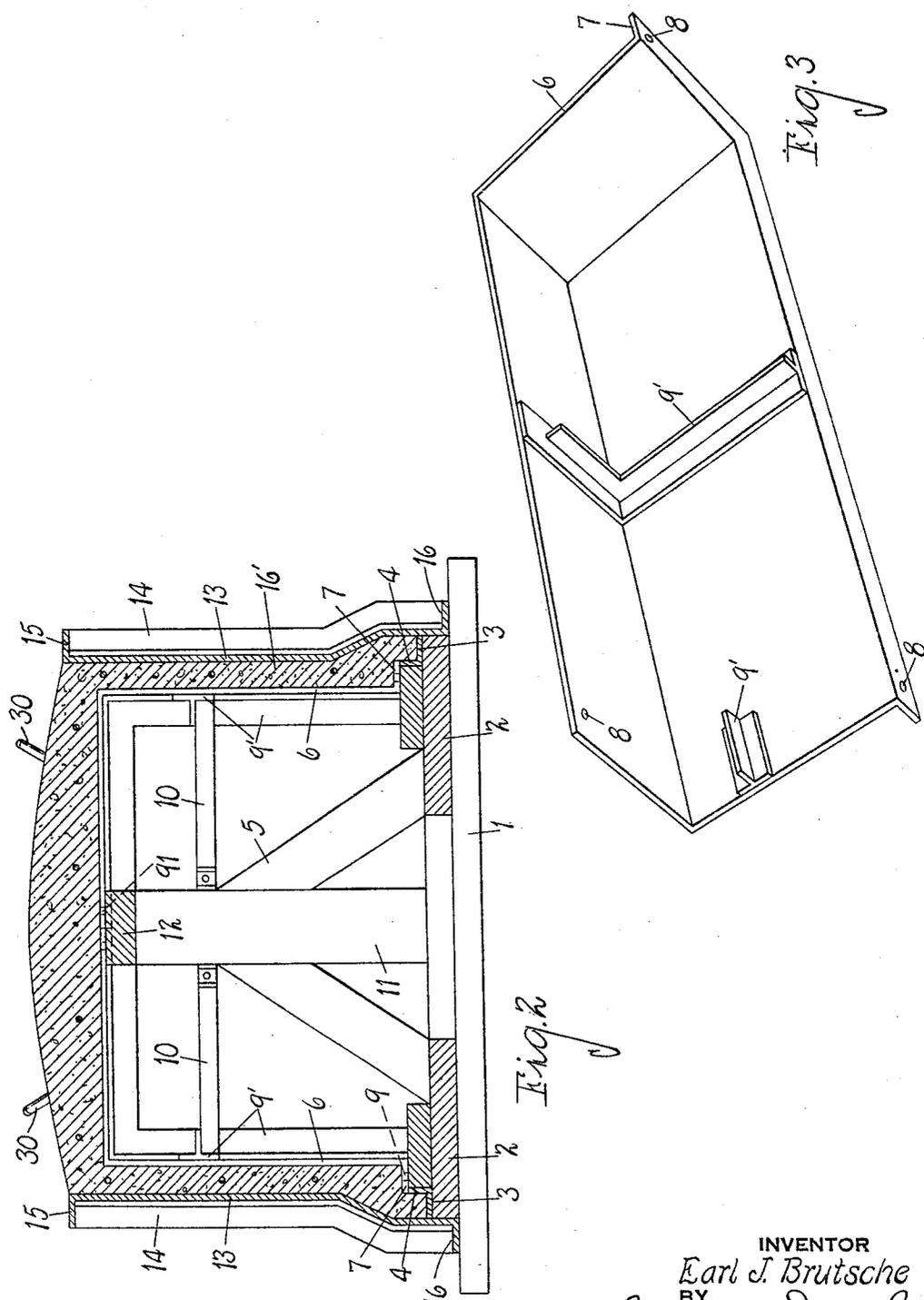
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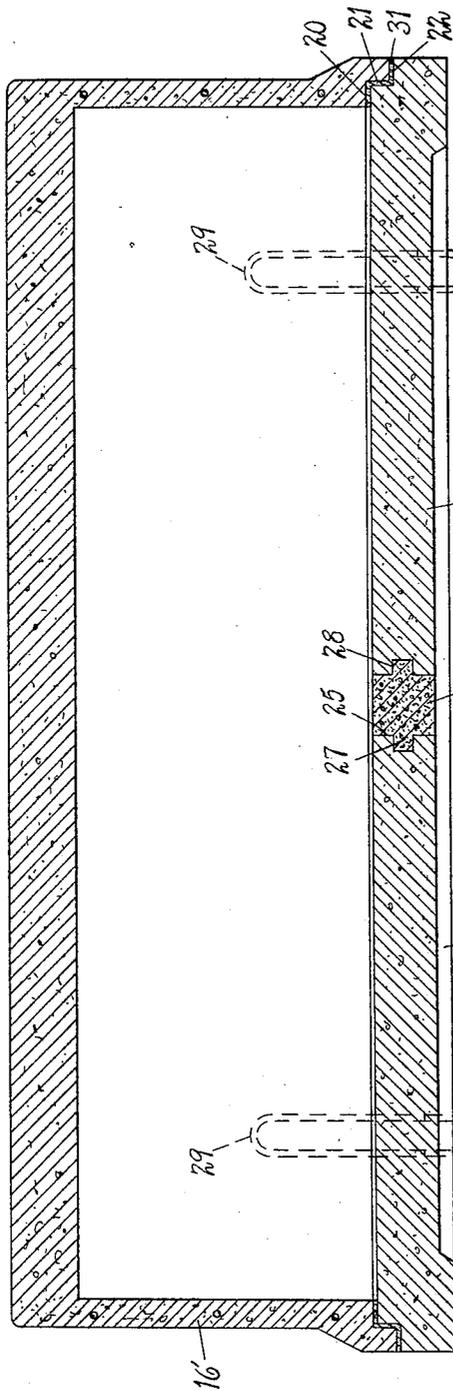


Fig. 5

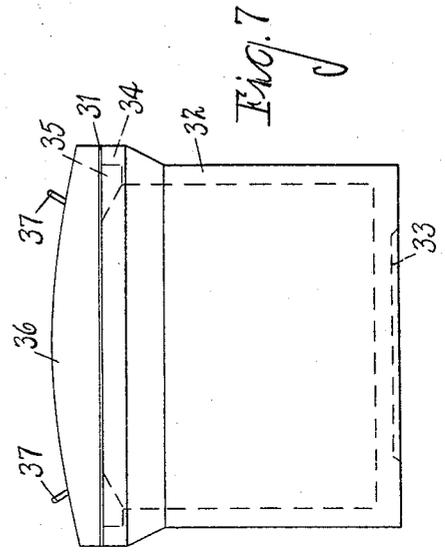


Fig. 7

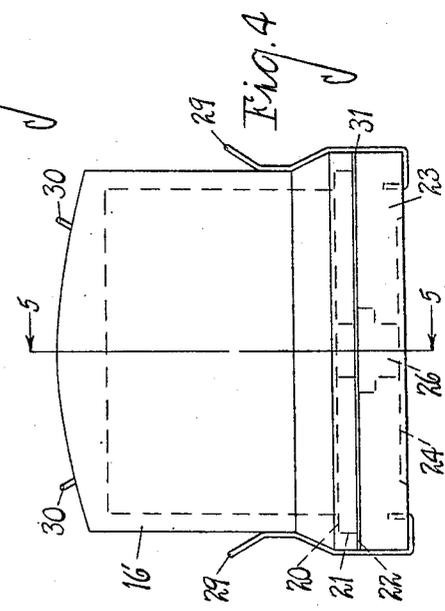


Fig. 4

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# UNITED STATES PATENT OFFICE

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## BURIAL VAULT MOLD

Application filed June 6, 1931. Serial No. 542,486.

The main object of this invention is to provide a burial vault of concrete or the like and a mold for making the same in an efficient and inexpensive manner.

Another object of my invention is to provide a burial vault which is not only air tight but one which will permit the drainage liquid to be expelled therefrom.

Another and a very important object of my invention is to provide a burial vault having means associated therewith for providing an automatic seal when the upper part of the vault is inserted in proper position on the lower part thereof.

A still further object of my invention is to provide a burial vault of box-like construction, the part above the bottom of which is made air tight to form what may be termed an inverted seal for preventing air from leaking into the interior of the vault.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view partially broken away illustrating a preferred embodiment of my invention.

Fig. 2 is a cross sectional view of the device illustrated in Fig. 1 taken on line 2—2 thereof.

Fig. 3 is a perspective view of a portion of the inside box core.

Fig. 4 is an end elevational view of the concrete vault formed by the molds illustrated in Figs. 1 to 3 inclusive.

Fig. 5 is a longitudinal cross sectional view of the vault taken on line 5—5 of Fig. 4.

Fig. 6 is a perspective view of a block of porous material for insertion in an opening in the bottom of the vault, and

Fig. 7 is a view in end elevation of another modification of the vault of my invention.

Referring to the drawings, reference numeral 1 indicates three spaced supports of wood on which is mounted a wood frame 2 of rectangular shape. The frame 2 is provided with a shoulder 3 surrounding its upper edge.

The horizontal and vertical surfaces of the shoulder 3 are finished by a metal angle member 4 secured thereto.

A saddle form 5 is constructed on the inside of the frame 2 for supporting an inside box core 6 of sheet metal having a horizontal flange 7 which rests on the upper edge of the frame 2.

The flange 7 is provided with vertical openings 8 which are adapted to register with and be engaged by studs 9 mounted in the frame 2 and projecting above the upper surface thereof.

The inside box core 6 is preferably made in four sections which are adapted to register with each other as indicated by Fig. 1. The sections of the core 6 are reinforced by angle iron members 9' preferably of T-shape mounted on the inside thereof.

Bracing arms 10 are hinged to the central stud 11 of the saddle 5 for supporting the sides of the core 6 at their central vertical joint. The horizontal member 12 of the saddle 5 is provided with studs 91 which are adapted to register with the openings 8 and hold the core 6 in position as indicated above in connection with the frame and the lower flange of the core.

The saddle form 5 is preferably constructed of wood, but it will be understood that any other suitable material may be used.

Mounted on the supports 1 around the periphery of the frame 2 is an outside form 13 which is preferably made of suitably shaped side and end members of pressed steel or the like. The members 13 are preferably reinforced by metal angle members 14 secured by welding or other suitable means to the outside thereof.

The side and end members 13 are provided with upper and lower flanges 15 and 16, the bottom flanges for resting firmly on the supports 1 and the upper flanges for providing a finishing edge for the top of the reinforced concrete vault box 16' that is molded therein.

The side and end members 13 are preferably held together in assembled relation by means of tie rods 17 which extend between the side members of the outside form and terminate in thumb screws 18. The outer ends

of the side members and the coacting flanges of the end members may be conveniently slotted as indicated by the numeral 19 so that the rod 17 may be readily inserted or removed without having to turn the thumb pieces 18 more than a small amount.

After the inside box core and the outside form have been assembled on the saddle form, concrete is poured in the space between the core and the outside form. Any suitable type of reinforcing may be embedded in the wet concrete at this stage. The concrete is preferably made of a mixture which will make it substantially air tight when cured. The top of the vault 16' may be finished as indicated by Fig. 1; that is, with the upper surface slightly curved, or it may be finished flat, as desired. In case it is desired to finish the top flat, the concrete when still wet may be screeded off by a screed drawn across the surface of the upper flange 15.

The concrete is allowed to cure in the mold and then the mold is removed by loosening the thumb screws 18 and stripping the side and end members 13 away from the vault.

In the embodiment illustrated in Figs. 1, 4 and 5, the vault is made in the form of an inverted open box which is substantially air tight therein above its bottom edge. When the vault is lowered in the ground this construction prevents air from entering or leaking into it for the reason that it is already full of air. This function may be likened to an inverted air and water tight box placed on the surface of a liquid. When the box is pressed down below the surface of the liquid, none will flow or leak into its interior.

Referring to Fig. 5, the shoulder 3 on the bottom of the frame 2 forms a corresponding shoulder on the lower edge of the vault box 16'. This shoulder or flange has a horizontal surface 20, a vertical surface 21 and a second horizontal surface 22. These surfaces are adapted to register with corresponding surfaces formed on a bottom 23 for the vault box 16'. The bottom 23 is preferably made of concrete or other cementitious material and is provided with a recess 24 forming a paneled surface on the bottom of the bottom 23 for preventing the breakage thereof by rollers. The bottom may be provided with reinforcing if desired. The bottom 23 is also provided with a central opening 25 for draining liquid from the interior of the vault. The opening 25 is filled with a block 26 of porous material consisting of a dry mixture of suitable parts of oak sawdust, cedar sawdust and cement which latter hardens in place in the opening 25. The block 26 is preferably provided with a projection 27 which extends into a suitably shaped recess 28 in the bottom 23 extending around the periphery of the opening 25. The recess and the projection coact to hold the plug in place. Any liquid accumulating in the bottom of the vault seeps

out through the porous plug 26. The bottom 23 is also provided with rollers 29 by which the bottom may be lowered into a grave and which also form guards for the box 16 when it is lowered into position on the bottom 23. The upper part of the handles 29 are bent outwardly as indicated by Fig. 4 to facilitate the centering of the box 16 as it is lowered into position. The box 16 is also provided with handles 30 for lowering it into a grave or the like. Just before the box 16 is lowered on the bottom 23 dry sealing powder 31 of any suitable make is distributed so as to lie between the registering shoulders around the top and bottom 23 and the lower edge of the box 16, respectively. After this, when the box is lowered in place, the coacting shoulders and the sealing powder form a three-way air tight seal which successfully prevents the leakage of moisture or air into the interior of the vault.

In the modification illustrated in Fig. 7, the vault comprises an open box 32 having a panel 33 in its bottom to prevent breakage by rollers and having a shoulder 34 provided around the inside of its upper edge. The shoulder 34 is adapted to register with a correspondingly-shaped shoulder 35 formed around the lower edge of a cover 36. The cover 36 is provided with handles 37 for lowering it. The bottom of the box 32 may be provided with drainage means as described above in connection with Fig. 5. The shoulders 34 and 35 coact to form a three-way seal between which is disposed dry sealing powder as described above. This three-way seal is not only automatic when the cover is placed in position, but it positively prevents the leakage of any moisture, air, or liquid from the outside to the interior of the vault.

Preferably, the vault and cover are placed in the grave in one operation. The cover of the vault is then raised so as to rest in an upright position where it is locked by the triple seal flange. It is not necessary for a vault dealer to stay near the grave in order to raise or lower the vault within the grave. The dry sealing powder is then placed on the triple seal flange and requires no more attention. The sexton may close the cover with a knob or chain hooked in the handles thereof.

The porous block 26 may consist of the mixture mentioned above or alternatively a mixture of white pine sawdust, oak sawdust, crushed cinders and cement. These materials are mixed dry and tamped into the opening 25 previously formed in the bottom of the vault. The block subsequently hardens in the opening, but remains porous.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A burial vault mold comprising a substantially horizontal rigid rectangular base

frame having a shoulder surrounding its upper and outer edge, a saddle form mounted on the inside of said frame for supporting an inverted hollow core, spaced vertical relatively short studs on said saddle form and frame, a hollow inverted inner core consisting exclusively of four corner sections mounted on said saddle form and frame and having a base flange and holes receiving said studs, whereby the sections are held in place on said base and are collapsible by merely raising them clear of said studs, said sections being arranged to form smooth butt joints on the molding side thereof, and bracing arms hinged to said saddle form for engaging and supporting the sides of the core at their central vertical joint.

2. A burial vault mold comprising a substantially horizontal rigid rectangular base frame, a saddle form mounted on the inside of said frame for supporting an inverted hollow core, spaced vertical relatively short studs on said saddle form and frame, and a hollow inverted inner core consisting exclusively of four corner sections mounted on said saddle form and frame and having a base flange and holes receiving said studs, whereby the sections are held in place on said base and are collapsible by merely raising them clear of said studs.

In witness whereof I have hereunto set my hand.

EARL J. BRUTSCHE.

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