F. O. DOWNER.

CASKET MOLD.

APPLICATION FILED MAR. 31, 1920.

1,402,845. Patented Jan. 10, 1922.

3 SHEETS—SHEET 1.

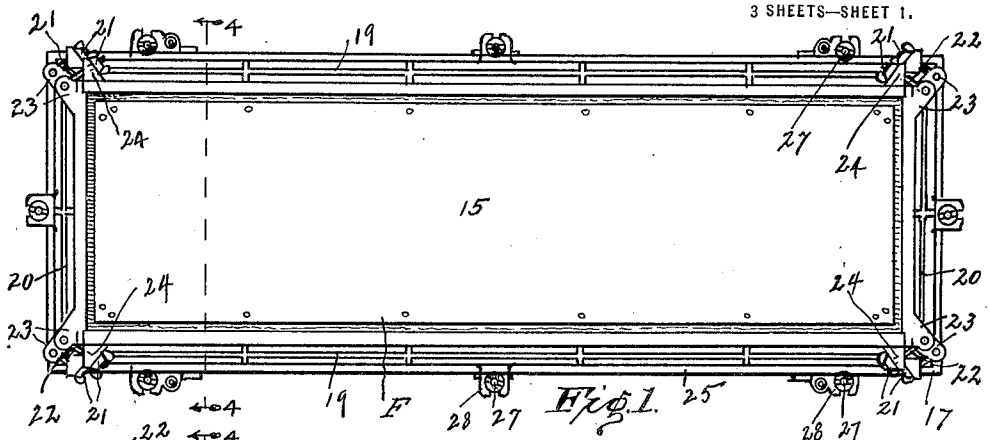

Fig. 1.

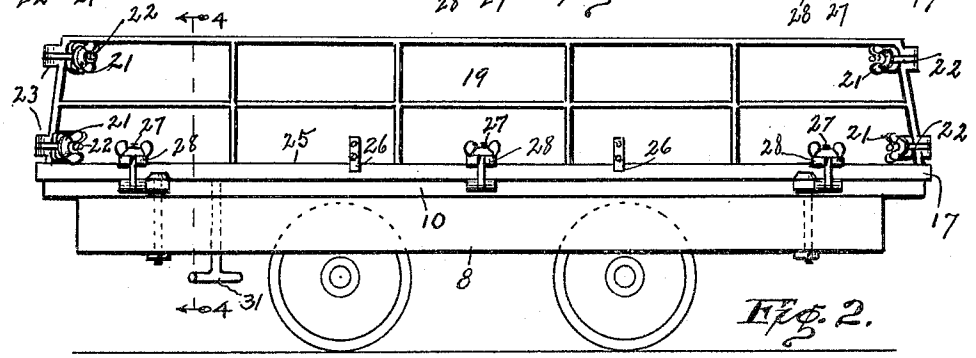

Fig. 2.

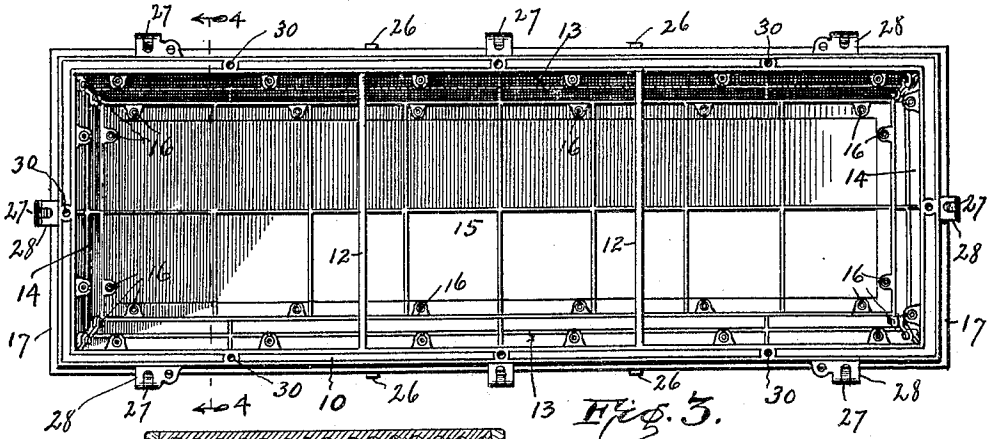

Fig. 3.

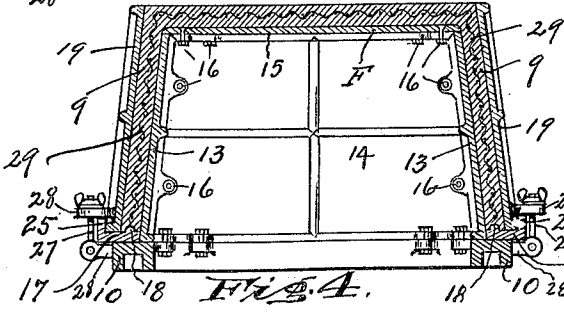

Fig. 4.

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3 SHEETS—SHEET 2.

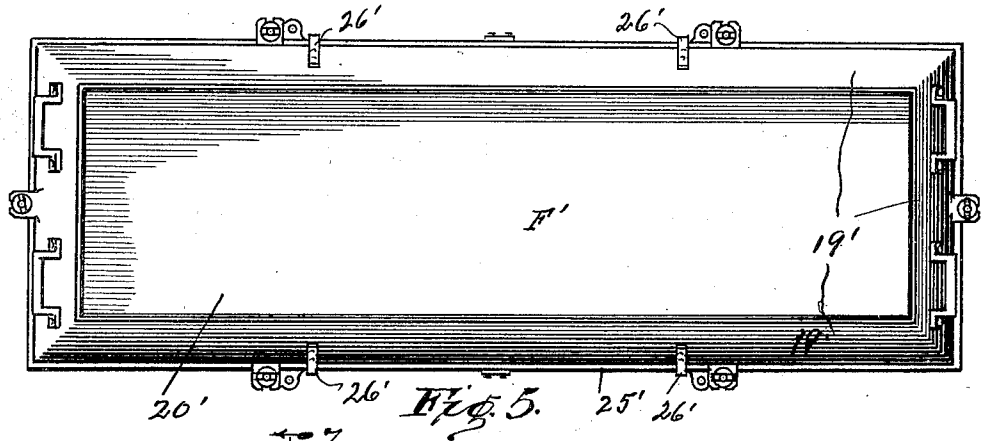

Fig. 5.

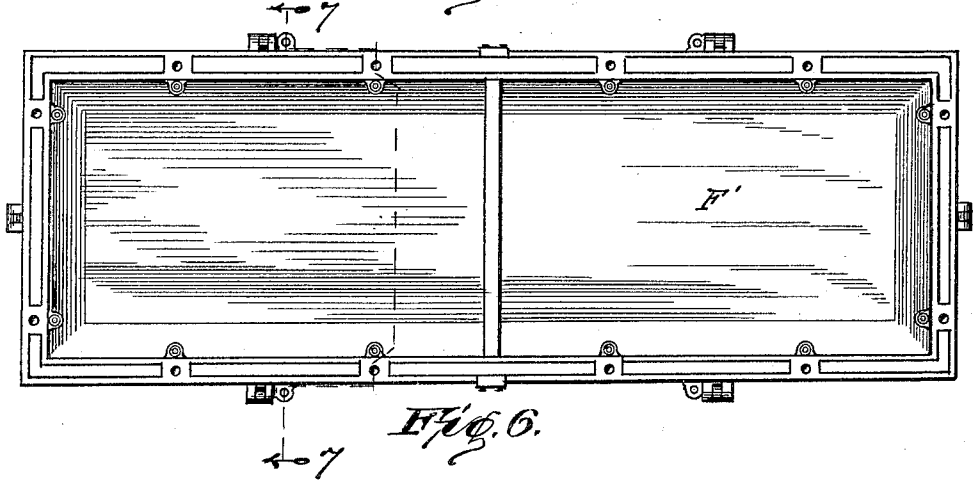

Fig. 6.

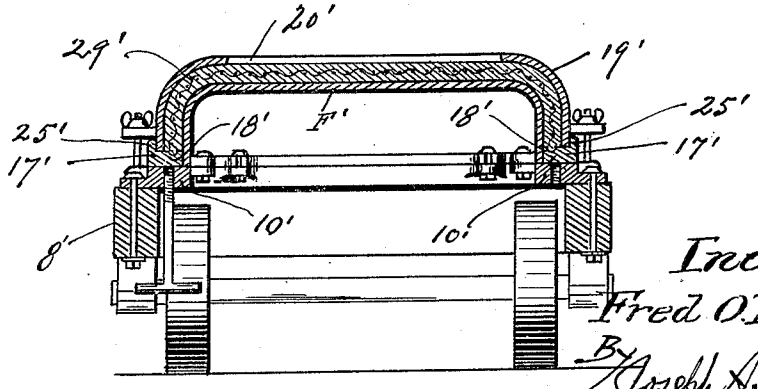

Fig. 7.

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3 SHEETS—SHEET 3.

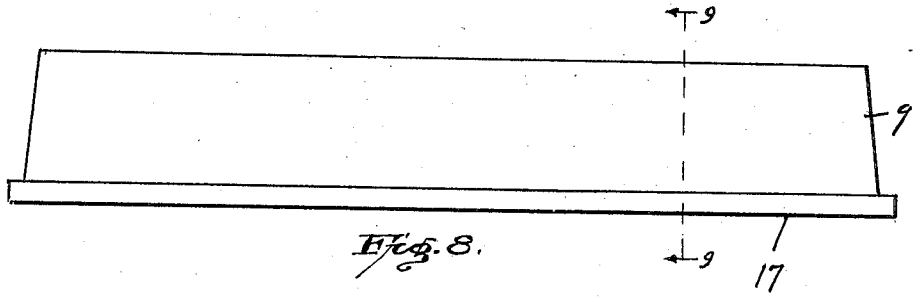

Fig. 8.

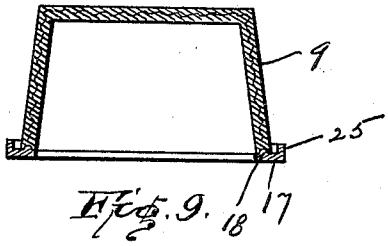

Fig. 9.

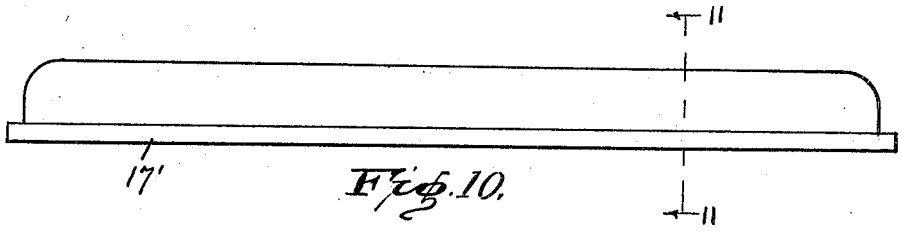

Fig. 10.

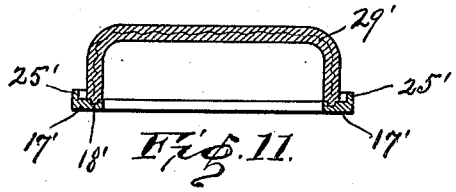

Fig. 11.

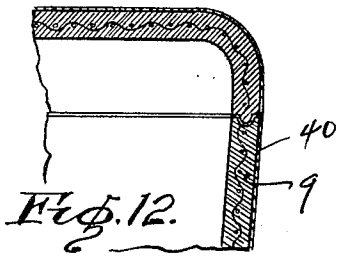

Fig. 12.

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UNITED STATES PATENT OFFICE.

FRED O. DOWNER, OF BATTLE CREEK, MICHIGAN, ASSIGNOR TO SHIRLEY BROTHERS COMPANY, INCORPORATED, OF INDIANAPOLIS, INDIANA.

CASKET MOLD.

1,402,845. Specification of Letters Patent. **Patented Jan. 10, 1922.**

Application filed March 31, 1920. Serial No. 370,148.

To all whom it may concern:

Be it known that I, FRED O. DOWNER, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented a new and useful Casket Mold, of which the following is a specification.

The object of this invention is to provide a mold in which cement caskets may be conveniently and speedily formed in any desired size and style, and easily and quickly removed therefrom without danger of collapse or breakage and without the usual loss of time in waiting for the product to set and dry.

The object, also, is to provide a mold that will produce a mechanically true and uniform product with a smooth surface finish.

I accomplish the above, and other objects which will hereinafter appear, by the mechanism illustrated in the accompanying drawings in which,—

Fig. 1. is a top plan view of my improved mold, assembled ready for use in forming the body of a casket. Fig. 2. is a view of same in side elevation, mounted on a truck. Fig. 3. is an under or inside plan view of the mold shown in Figs. 1 and 2. Fig. 4 is a cross section on the lines 4—4 of Figs. 1, 2, and 3. Fig. 5, is a top plan view of the mold in which the lid of the casket is formed. Fig. 6 is an under and inside plan view of same. Fig. 7 is a cross section on the line 7—7 of Fig. 6, showing a truck on which the mold is preferably mounted for convenience. Fig. 8, is a view in side elevation of a casket-body removed from the mold and resting on a pallet. Fig. 9 is a cross section on the line 9—9 of Fig. 8. Fig. 10, is a view in side elevation of a casket-cover removed from the mold and supported by a pallet. Fig. 11 is a cross section on the line 11—11 of Fig. 10, and Fig. 12 is a section of a portion of a casket and cover.

Like characters of reference indicate like parts in the several views of the drawings.

The mold, for lightness and convenience in handling, is mounted upon a wheeled truck 8 of any suitable construction. As a result fewer men are required to operate it. Also, for lightness, the main parts of the mold are formed out of aluminium. The casket 9 is molded bottom-side up over a form of the exact size and shape of the casket interior. This form rests upon a frame 10, to which it is secured by bolts 11. Spreaders 12 brace the side members of the frame. The sides 13, 13, and ends 14, 14, and top 15, of the form are separate pieces which are very accurately fitted together at their meeting edges and are secured by bolts 16.

The frame 10 projects outwardly of said form sufficiently to provide an ample bearing-surface for a pallet 17. The latter is a frame with a middle opening to receive said form with a close fit so the cement mixture will not penetrate the joints. The upper edge of the casket is molded against the pallet in the manner shown in Fig. 4, and a groove required in said edge to secure a tongue in the casket cover is formed by a half-round flange 18.

The thickness and smoothness of outside finish of the casket walls are determined by the sides 19, 19, and ends 20, 20, of the mold. These members are all separable from each other, but are drawn tightly together where they meet at the corners by wing-nuts 21, and bolts 22. The bolts have eyes that are pivoted in slots in lugs 23, cast on the ends 20, and are adapted to be swung into corresponding slots in lugs 24, on sides 19, and the members 19 and 20 are brought together by tightening nuts 21, on the bolts, against the lugs 24.

The sides 19, 19, and ends 20, 20, are assembled for use upon the pallet 17 in the manner shown in Fig. 4, and, to more permanently seat said members, the pallet is provided at its outer edge with an upward flange 25. To hold the lower edge from buckling away from the flange, fingers 26, fastened to the sides 19, 19, extend down against the outer side of the flange.

Eye-bolts 27, pivoted to lugs from the pallet 17, swing up into slots in lugs 28 projected from the side and end members 19 and 20. Wing-nuts on the bolts, when screwed down against lugs 28, draw said sides and ends into close contact with the pallet.

The sides 19, 19, and the ends 20, 20, project above the form 17, for a distance equal to the desired thickness of the bottom of the casket; and the cement for the bottom is levelled off by passing a scraper-bar resting on the sides 19, 19, over that part before the cement is set.

The mold assembled as shown and as above described, has a suitably prepared wire reinforcement 29, inserted where the bottom and sides of the casket are to be formed, after which a liquid mixture of Portland cement, or the like, is poured unto the mold until all of the casket-forming recesses are full. After the cement has set and is no longer fluid, the sides and ends are removed by first loosening the nuts and swinging the bolts free that hold them. Then the product, resting upon the pallet, is loosened from the form which shapes the casket interior by gently raising the pallet away from the frame 10, on which it has been supported. To this end the frame 10 is provided with vertical screw-threaded holes 30, extending entirely through the frame. Into these successively a threaded bolt 31 is screwed until it projects through into contact with the pallet and slightly lifts the latter.

When properly loosened all around, the pallet and green casket are lifted carefully away together from the mold as shown in Figures 8 and 9, and are taken to a suitable drying and curing place. That pallet remains with the product until the casket is firm and solid; but the parts of the mold are reassembled in connection with another pallet, and the casket-molding operations may thus be repeated, with little loss of time, indefinitely with the same mold.

The cover for the casket is formed in a mold only changed from that for the casket-body by the special requirements due to the difference in shape of the two products. This comprises a frame 10′, which like frame 10, is bolted to a wheeled truck. Resting on said frame 10′, and bolted to it is a form F preferably cast in one piece with rounded upper corners to impart an arch construction to the cover which is necessary to bear the load that may come upon it from a settling of the earth above in the course of time. A pallet 17′, rests upon the frame 10′, and has an outside flange 25′, to engage the edges of a one-piece outside plate 19′.

The plate 19′, conforms to the shape of form F, but is enough larger to provide a space between the two in which the casket-cover is molded. The top of the plate 19′, is preferably open as shown at 20′, for the introduction of liquid cement, and this surface may be levelled and finished with a trowel, or the like. The pallet also, has a channel 18′, in which a bead is formed to fit the groove made in the sides of the casket. See assembly Fig. 12.

A wire reinforcement 29′, is placed in the mold before the liquid cement is poured in.

The frame has a series of pivoted bolts which swing up into slots and lugs on the plate 19′, and wing-nuts on the bolts are tightened against the lugs to draw the plate 19′, tightly against the pallet.

The frame 10′, has threaded vertical holes for the introduction of hand bolts against the pallet therethrough, to loosen the casket-cover after the outer plate 19′, has been taken off. The plate 19′, has fingers 26′, bearing against the outside of the pallet to prevent displacement of the plate. The plate also has handles at each end for easier handling. The casket-cover is removed from the mold on the pallet as shown in Figs. 10 and 11. The metal parts of both body and top molds are preferably made of aluminium for greater lightness in handling, but also because it receives a smooth surface finish readily and imparts a like smooth surface to the product. This is necessary because the caskets are frequently finished with broadcloth and other material which are glued to the surface and through which all surface defects in the casket show very prominently.

While I have here shown and described my invention more or less minutely and in detail it will be understood that various changes in form, proportion, material, and minor details are possible without departing from the spirit of my invention. I therefore do not desire to be limited in the scope of my invention any more than is required by the appended claims.

I claim—

1. In a mold for molding cement caskets, a base, a form attached to said base for shaping the hollow interior of the casket, a removable pallet-frame supported by the base and surrounding the form, removable mold members supported on the pallet-frame to shape the outside of the casket and means to loosen the product by lifting the pallet-frame.

2. In a mold for molding cement caskets, a base, a form on said base for shaping the hollow interior of the casket, a removable pallet-frame supported by the base and surrounding the form, removable mold members supported on the pallet-frame to shape the outside of the casket, said removable mold members being in a plurality of separable parts and means to loosen the product by lifting the pallet-frame.

3. In a casket-mold a base-frame, an interior form for molding the interior of the casket, said form being mounted on the base frame, a pallet-frame removably mounted on the outside of said interior form, removable outside mold-plates spaced a distance equal to the thickness of the casket walls from said interior form and mounted on the pallet-frame, and mechanical means for lifting the pallet to loosen and remove the product from the interior form after the outside mold plates are removed.

4. In a casket mold, a base-frame; an interior form for molding the interior of the casket removably secured upon the base-

frame; a pallet-frame surrounding said interior frame and supported by the base-frame, said pallet-frame having an outer edge superimposed flange, mold-plates spaced the distance of the desired thickness of the walls of the casket from the interior form and supported against said flange upon the pallet-frame, said mold-plates being independently removable whereupon the pallet is removable from the rest of the mold with the product, and means to raise the pallet-frame and product after the mold-plates are removed.

5. In a casket mold, a base-frame; an interior form for molding the interior of the casket removably secured upon the base-frame; a pallet-frame making a close fit around the interior-form and having an upper outside marginal flange and a second flange between said first one and the interior form; mold-plates resting upon the pallet-frame against the marginal flange, adjustable means connecting the base-frame and mold-plates to tightly impinge the pallet-frame between them, said pallet frame being removable with the product after the mold plates are removed, and means to raise the pallet-frame and product after the mold-plates are removed.

6. In a casket mold, a base-frame having a plurality of vertical screw-threaded holes; an interior form for molding the interior of the casket removably secured upon the base-frame; a pallet-frame making a close fit around the interior form and supported on the base-frame; a mold for the outside of the product supported on the pallet-frame; means for impinging the pallet-frame between the base-frame and the last mold, and hand-bolts to screw through the holes on the base-frame against the pallet-frame to loosen the pallet-frame and product.

7. The combination, of a base-frame, an interior form, a pallet-frame surrounding said frame, an outside independently removable mold, means to impinge the pallet-frame between the outside mold and the base-frame, and means to lift the pallet-frame and product simultaneously from the interior form after the outside mold is removed.

8. In a casket-mold, a base-frame; a form for molding the interior of the casket removably secured upon the base-frame; a pallet-frame making a close fit around the interior form and supported on the base-frame; and means acting from the base-frame against the pallet-frame to loosen the pallet-frame and product.

9. In a casket-mold, a base-frame; a form for molding the interior of the casket removably secured upon the base-frame; a pallet-frame making a close fit around the interior form and supported on the base-frame; a form for molding the exterior of the casket removably supported upon the pallet-frame; means for impinging the pallet-frame between the base-frame and last mold; and means acting from the base-frame against the pallet-frame to loosen the pallet-frame and product.

In witness whereof I have hereunto affixed my signature at Indianapolis, Indiana, this 19th day of March, 1920.

FRED O. DOWNER.