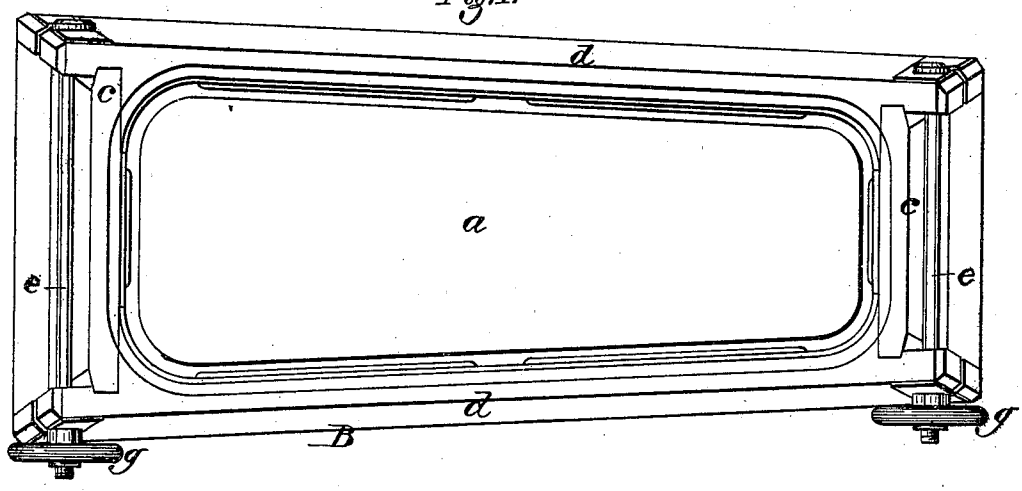
T. E. DANIELS.

ART OF MANUFACTURING ARTIFICIAL STONE COFFINS.

No. 177,101. Patented May 9, 1876.

Fig. 1.



B Fig. 2.

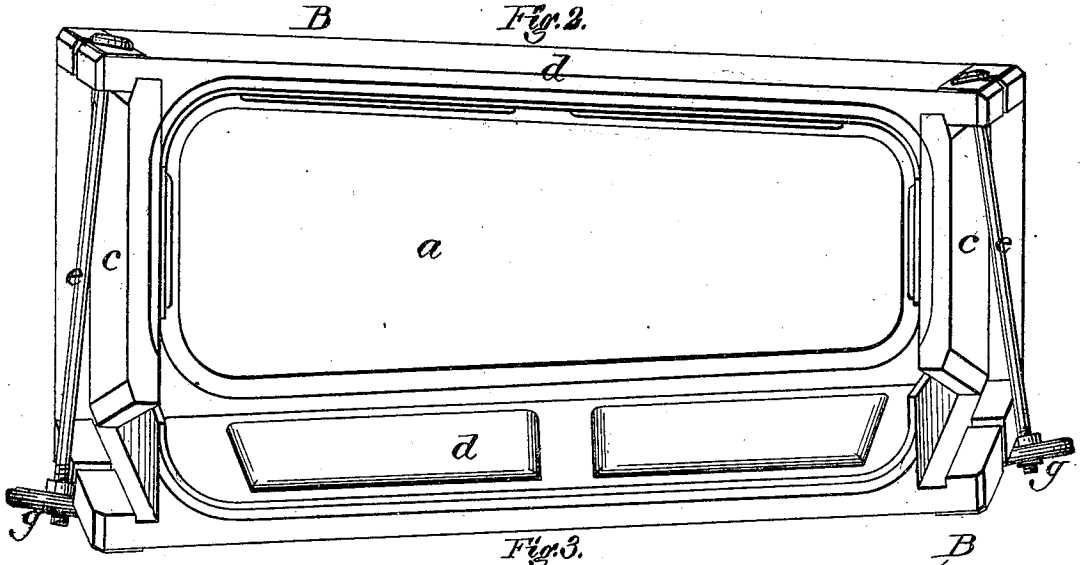
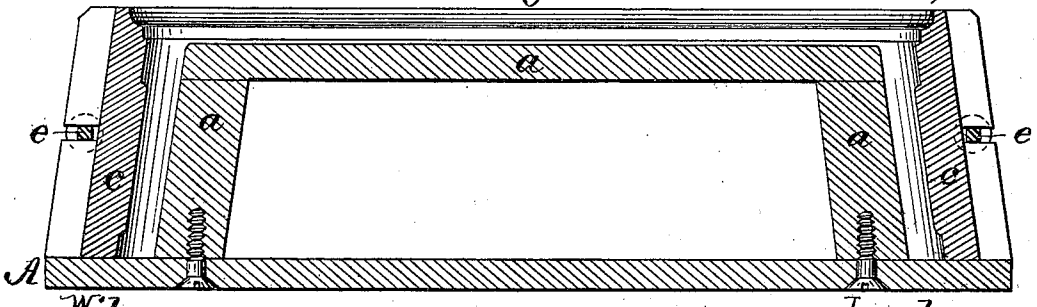


Fig. 3. B



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UNITED STATES PATENT OFFICE.

TAYLOR E. DANIELS, OF DETROIT, MICHIGAN.

IMPROVEMENT IN THE ART OF MANUFACTURING ARTIFICIAL-STONE COFFINS.

Specification forming part of Letters Patent No. **177,101**, dated May 9, 1876; application filed July 16, 1875.

To all whom it may concern:

Be it known that I, TAYLOR E. DANIELS, of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in the Art of Manufacturing Artificial-Stone Coffins, of which the following is a specification:

My invention consists in an improved method of forming thin artificial-stone coffins, to take the place of the wooden and metal ones now in general use; and it consists in casting the coffin in an inverted position, in a mold having a fixed core and removable side walls, as hereinafter fully explained. Many attempts have hitherto been made to devise a practical mode of forming artificial-stone coffins or burial-cases; but, owing to the peculiar nature of the material to be dealt with and the peculiar requirements of the case, all such attempts have resulted in failure, and consequently artificial-stone coffins are not to be found in the market, although, when properly made, they possess many and decided advantages over those of wood and metal. My cases are intended and adapted to take the place of the usual coffins or cases, and not merely as a case to inclose the same, and hence, in their manufacture, several requirements must be fulfilled: the case must be smooth and regular inside and out; the walls must be thin, in order to render the coffin light, but at the same time of a uniform thickness, so that the coffin will have no weak points; the corners, angles, and edges must be sharp, clean, and true; provision must be made for paneling, molding, or otherwise ornamenting the exterior of the coffin; provision must be made for the introduction of a skeleton metal frame into the walls when they are being formed, to give them the requisite strength when made very thin; provision must also be made for the application of a trimming or edging to the upper edges of the walls, for the purpose of giving the same a finish and affording a means of securing the lining material in place; and, finally, provision must be made for removing the outside walls of the mold and exposing the soft, damp coffin to the air without danger of fracturing or marring it in so doing. Two methods of forming the coffins have been tried without success—one in which the material was plastered by hand upon the inside of a mold, and another in which the coffins were cast in an upright position in a mold, in which they necessarily remained until well hardened and set. The first plan was slow, laborious, and expensive, resulted in the production of crude and imperfect coffins, and did not permit the application of the frame or the edging. The second plan required the use of the mold for a great length of time, and necessitated the employment of many molds in order to produce the coffins rapidly; it failed to produce sharp angles and corners; it often left flaws in the walls, and it did not permit the accurate adjustment of either the strengthening-frame or the edging. After long and tedious experiments, I have found that I can overcome all the evils above enumerated, and produce the coffins cheaply and in such form as to answer all requirements, by casting them in an inverted position, bottom upward, in a mold having a fixed core corresponding with the interior of the required coffin, and outside walls which are removable, as represented in the accompanying drawings, in which—

Figure 1 represents a plan view of my mold complete and ready for use; Fig. 2, a plan view of the same with one side loosened and thrown back; Fig. 3, a longitudinal vertical section of the same.

It will be seen that the mold has a base or bottom board, A, upon which there is firmly secured, bottom side up, a core, *a*, made of the precise form and size of the interior of the required coffin. Upon the base, around and parallel with the sides of the core, there are arranged end walls *c* and side walls *d*, a space being left between the walls and the core equal to the thickness of the required coffin-walls, and the walls being carried above the core a distance equal to the thickness of the coffin-bottom. The end walls *c* are set in grooves in the side walls, which latter are held up in place by transverse rods *e*, seated in notches in the sides, and provided on their ends with nuts for tightening them up, as clearly shown in the drawing. The walls are provided on their inner faces with panels, beading, molding, or other equivalents, for giving the re-

quired ornamentation to the exterior of the coffin.

When the mold is to be filled, the walls are secured firmly and tightly upon the base by screws or other devices which will admit of their being readily released when desired. After the mold is properly adjusted, the material is filled into the space around the core and on top of the same, packed or settled down, so as to fill all the corners and angles, and then leveled off flush with the top of the walls. As soon as the material has set or hardened sufficiently to permit it, the rods are released and the walls of the mold removed, and the exterior of the coffin thereby exposed to the air, by which it will be caused to harden very rapidly.

As the coffin-walls lean inward upon and are sustained by the core, the walls of the mold can be removed very soon after the material is cast therein. This early removal of the walls is attended with two advantages—first, that it permits the coffin to be hardened and finished quickly, and, second, that it permits the mold-walls, which, with their ornamentations, are quite expensive, to be used in connection with different cores quite frequently, thus saving the expense of extra walls, which would otherwise be required to do the same amount of work.

When the coffin is to be provided with the edging around the top of its walls, the edging is placed in the bottom of the empty mold between the core and the walls, which hold it securely and accurately in place, and insure a smooth, flush finish where it joins the coffin walls.

When the strengthening-frame is to be used it is also placed in the empty mold over the core, and rested at its edge on the base of the mold or on the edging therein. By using the inverted mold I am enabled to readily adjust and secure the frame accurately in position, so that it will be embedded and concealed in the walls and bottom of the coffin.

By my method of casting coffins I am enabled to produce them rapidly, cheaply, and of such finish, strength, and lightness as to render their manufacture both practicable and profitable in competition with those made of wood and iron.

I am aware that sectional molds are old, and, also, that it is old to cast articles in various positions; but, so far as I know, no one has hitherto produced an artificial-stone coffin in the manner above described, and by extensive practical use I have demonstrated my method to be far preferable to all others, and to be a great improvement in the art to which it appertains.

Having thus described my invention, what I claim is—

As an improvement in the art of manufacturing artificial-stone coffins, casting them in an inverted position in a sectional mold, substantially as described and shown.

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