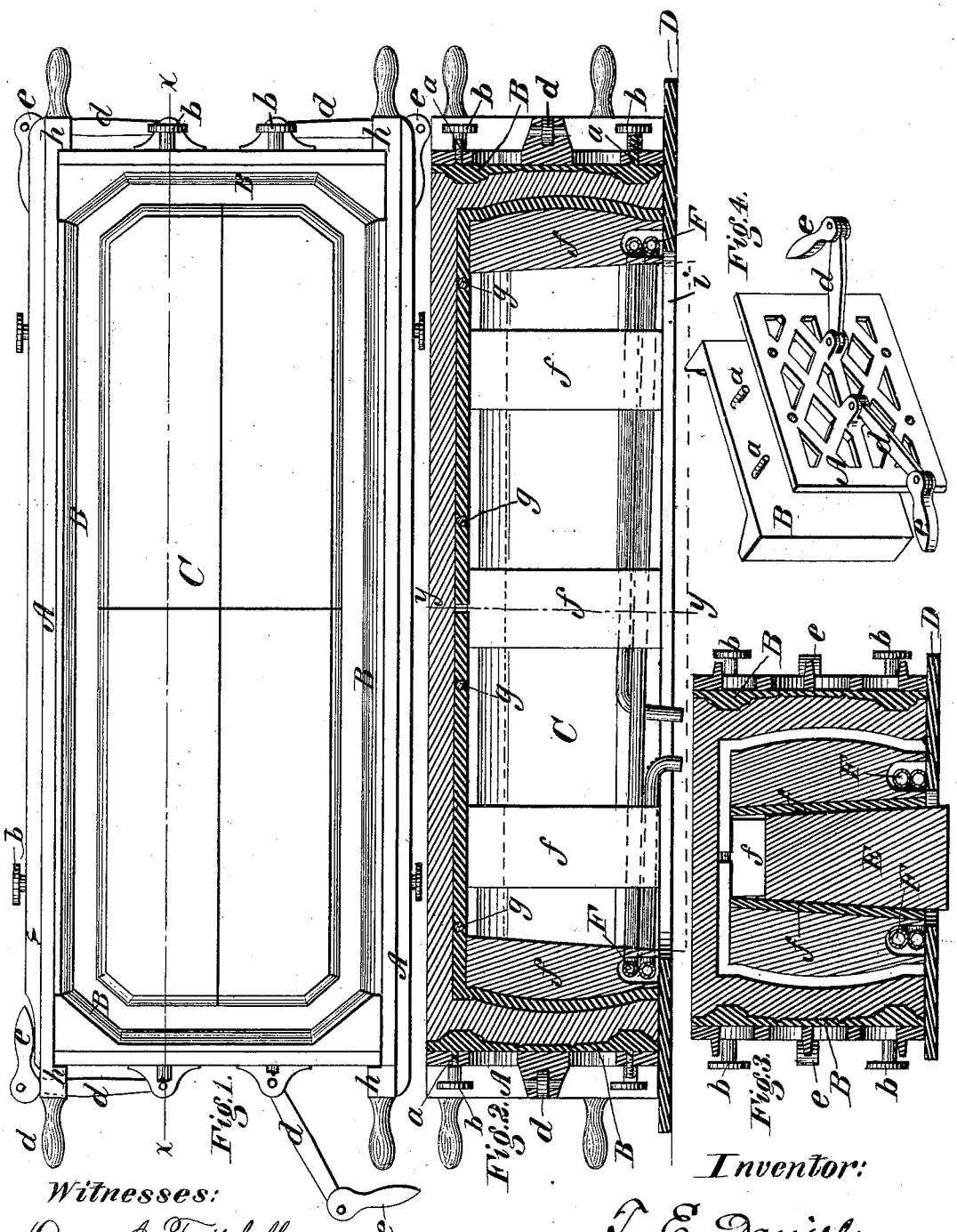
T. E. DANIELS.

Mold for Artificial Stone Coffins.

No. 205,732. Patented July 9, 1878.



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IMPROVEMENT IN MOLDS FOR ARTIFICIAL-STONE COFFINS.

Specification forming part of Letters Patent No. **205,732**, dated July 9, 1878; application filed December 21, 1877.

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 Improvements in Molds for Artificial-Stone Coffins, of which the following is a specification:

My invention relates to the construction of sectional molds for the manufacture of burial-caskets from cement and other plastic materials; and the improvements consist in a sectional frame, either constituting or inclosing the mold, and locked together by means of hinged bars, the ends of which are furnished with eccentric clamping-levers; in the employment of detachable face-plates which may be readily attached to or removed from the sections of the frame, whereby the frame is adapted for use in connection with molds of varying sizes and designs; in the use of face-plates constructed in whole or in part of celluloid; in the construction and employment of a sectional and expansible core, and suitable devices for expanding the same, whereby the material in the mold may be compressed and rendered compact and free from air-holes, blisters, &c.; and in the arrangement within the core of a steam-coil, to facilitate the drying of the material within the mold, all as hereinafter more fully explained.

In the accompanying drawings, Figure 1 represents a top-plan view of the frame, mold, and core, ready to receive the material to be molded; Fig. 2, a longitudinal section of the same on the line *x x* of Fig. 1, showing the core slightly expanded; Fig. 3, a transverse vertical section on the line *y y* of Fig. 2, and Fig. 4 a perspective view of one section of the frame and facing or mold detached.

In the drawings, A represents a metal frame, composed of two side and two end sections, locked together by means of bars *d*, hinged at one end to the end pieces of the frame, and arranged to extend outward beyond the side pieces through suitable notches therein, said bars being furnished at their outer ends with eccentric clamping-levers *e*, whereby the parts of the frame are drawn and locked firmly together, the side pieces being formed with suitable shoulders *h*, against which the end sections of the frame bear, as shown in Fig. 1.

If desired, the inner faces of the frame-sections may be suitably fashioned to form the mold when the sections are placed together; but in practice I prefer to furnish said frame with detachable face-plates B, preferably corresponding in number with the parts of the frame, as shown in Fig. 1. These face-plates may be secured to the frame in any suitable manner, a convenient means to this end being shown in Figs. 2 and 4, the face-plates being furnished with projecting screw-stems *a*, which extend through the sections of the frame, and are furnished upon their outer ends with thumb-nuts *b*. By this means the plates may be readily attached to or removed from the frame-sections, thus permitting the ready substitution of plates of one pattern or size for those of another.

In this way, it will be seen, a single frame is adapted for use in connection with molds of various designs or sizes.

It will be seen that various other means may be employed for the attachment of the face-plates, or that, instead of fastening them rigidly together, one may be suitably recessed to receive projections formed upon the other, in which case miter or bevel joints should be made at the points where the sections of the mold meet, in order to sustain each other and prevent falling inward, though in practice the former arrangement is preferred.

The face-plates B may be of any suitable material or composition capable of receiving a smooth surface; but I prefer to use celluloid, as this material, besides being susceptible of a very high finish, is readily molded, and capable of receiving and retaining sharp and well-defined angles and lines, and is not injuriously acted upon by the materials ordinarily used in the construction of the articles for which the mold is employed.

When the frame and mold are thus locked together the whole is placed in a horizontal position upon a base-plate, D, upon which is also placed, within the mold, a core, C, of such size as to leave a sufficient space between it and the interior of the mold for the reception of the material to be molded, as shown in Figs. 1, 2, and 3. This core consists of four sections of corresponding form and size, be-

ing divided longitudinally and transversely through the center, as shown in Figs. 1, 2, and 3.

The core may be of any suitable material, though metal is preferred, and is made hollow, its sides being inclined inward toward the top as the core stands when in use, the casket being molded in an inverted position. The inner walls of the core are furnished with plates or bearing-surfaces *f*, both at the sides and at the ends, as clearly shown in Fig. 2, one of said plates being so placed as to cover and extend each side of each joint, and being attached to but one section of the core, respectively.

The base-plate D is formed with an opening, *i*, through it, to permit the insertion of a wedge or expanding-block, E, as shown in dotted lines in Fig. 3, said wedge being of a proper size to bear against the plates or bearing-faces *f* and force the sections of the core to which they are attached apart as the wedge is forced upward into the core. This, it will be seen, causes the core to expand longitudinally and transversely, and produces thereby a firm compression of the material contained in the mold around the core. This operation has the effect not only to compress the material, and thus render it more compact and solid, but also to press out all air-holes and blisters, as well as producing a more perfect union of all the particles. In this way a much stronger and better finished article may be produced than without the compression.

It is obvious that other means may be employed to expand the core—as, for instance, double or right and left hand screws, an arrangement of levers or toggles, or a series of wedges; but the simple wedge is considered very efficient, and is extremely cheap and simple. The arrangement of the facings or plates *f* is such that the wedge bears upon them all simultaneously, and thereby causes a uniform pressure upon all parts of the core.

In order to maintain the proper relative positions of the parts of the core, pins or stems *g* are arranged to project from one section into a corresponding socket or recess in the adjoining one, as shown in Figs. 2 and 3.

For the purpose of facilitating the drying of the casket while on the core, a steam coil or pipe, F, may be introduced into and carried around the core in any suitable manner, a convenient arrangement being to carry the pipes through the blocks or bearings *f*, sufficient space being left to permit the expansion of the mold without bearing upon the pipes, as shown in Figs. 2 and 3. While this arrangement is preferred, it is obvious that the coil may be placed within the wedge, or arranged in any other convenient manner.

Having thus described my invention, I claim—

1. The coffin-mold consisting of the notched side pieces and the end pieces provided with the swinging arms *d*, having the eccentrics *e* attached thereto, as shown.

2. The sectional mold-frame A, provided with the internal detachable face-plates B, as shown and described, whereby the single frame is adapted for use in molding coffins of different sizes and forms.

3. In a coffin-mold, the combination of an outside frame and an internal sectional expansible core, whereby the material may be compressed and the air expelled therefrom, substantially as shown and described.

4. The coffin-mold having a hollow core containing the internal heating-pipe, substantially as shown.

5. A mold for artificial-stone coffins provided with a facing or surfacing of celluloid, substantially as described.

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