

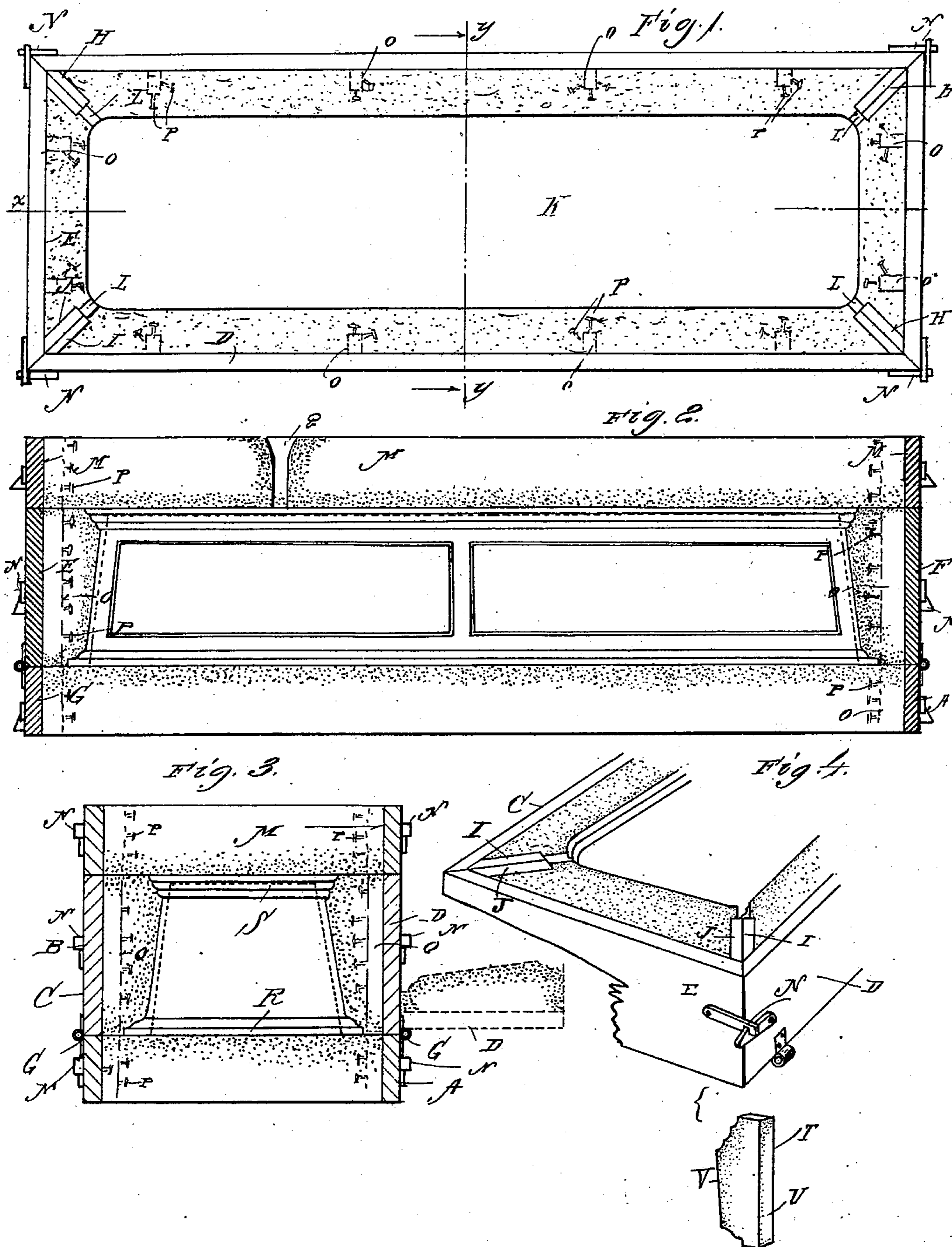
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W. E. KNOX.
MOLDING APPARATUS.

(Application filed July 28, 1900.)

(No Model.)



WITNESSES:

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MOLDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 669,308, dated March 5, 1901.

Application filed July 26, 1900. Serial No. 24,880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. KNOX, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Molding Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in molding apparatus for molding such articles as coffins or caskets having paneled sides, the body portion of which is molded in one piece.

15 The general object of this invention relates to improved means for parting the sand in the cheek where a three-part flask is used, although such sand-parting devices may be employed for the drag and cope as well.

20 Another object of my invention is to provide the sides and ends of at least one part of a flask with hinges, whereby the sides and ends may be thrown back after packing the sand in the flask about the pattern for the removal of the pattern, the sand held by the respective sides and ends being divided by the parting devices, so that the ends will hold the sand containing the print of the ends of the pattern, while the sides will hold and support the sand containing the print of the sides of the pattern.

30 My invention also relates to details of construction and arrangement hereinafter appearing, and particularly pointed out in the claims.

35 In the accompanying drawings, on which like reference-letters indicate corresponding parts, Figure 1 represents a plan view of a three-part flask containing my improvements; Fig. 2, a sectional view on the line x of Fig. 1; Fig. 3, a cross-sectional view on the line y of Fig. 1 looking in the direction of the arrows and showing one of the sides of the cheek turned down in dotted lines and the pattern removed; and Fig. 4, a detail perspective view showing the sides of the cheek brought together and one of the cores ready to be placed in position to break the corners, so as to mold a perfect corner.

45 I am aware that it is old to hinge the sides of a cheek in such a manner that they may be thrown backward with the sand held in posi-

tion thereon; but in all of said old organizations no one has been able to employ hinged ends as well as hinged sides, as there has been 55 no way of parting the sand between the sides and ends, and consequently the ends required a separate core of the size of the article to be molded at the ends of the size of the pattern. I am also aware that it is old to form panels in 60 articles such as coffins or caskets; but in such instances the ends and sides were each cast separately and secured together by means of rivets or bolts, while with my improvements I am enabled to accomplish the result of pro- 65 ducing a perfect casket the entire body portion of which is molded in one piece, while the sides and ends are variously paneled. Where such sides sloped downward and were perfectly plain, the body portion of the cas- 70 ket could be molded in one piece; but where the sides and ends are paneled they must be treated differently.

The letter A represents a frame structure forming the bottom portion of a mold and 75 commonly called the "drag." Upon this drag is mounted what is usually called a "cheek" B, having sides and ends C, D, E, and F. In my invention to the respective ends as well as the sides are secured hinges G, which unite 80 such sides and ends with the drag. Preferably at each corner, between the sides and ends, are mounted parting devices H. As illustrated in the drawings, these parting devices consist of a pair of boards or other suit- 85 able material I and J, respectively. The portion I projects inward from the side, while the portion J projects inward from the end, and are so arranged that when the sides and ends are brought together in an upright po- 90 sition the portions J and I of the parting devices are brought with their faces adjacent to each other. From near each corner of the casket-pattern K extend projections L from the top to the bottom of the pattern. These 95 projections fit snugly against the inner ends of the parting devices and practically form a portion of said parting devices, as they act to separate the sand at the end of the casket from the sand at the side of the casket in a 100 manner similar to the parting devices H, as will hereinafter appear. Upon the cheek is mounted a cope M of the usual or any approved construction.

In practice the drag is place upon the floor or in any other suitable place and is filled full of sand. The parts of the cheek are then brought together and secured in position by means of fastening devices or latches N, located at each corner of the cheek for holding the respective sides and ends together. The casket-pattern K is then placed in position, with the projections L abutting against the parting devices H. Sand is thrown in the space between the pattern and the sides and also between the pattern and the ends and rammed down in the usual manner, after which the cope M is placed on the drag and it, too, is filled with sand, which is rammed down upon the pattern. From each of the sides and ends of the parts of the flask a number of short blocks project inward, as shown at O. Each of these blocks has a number of nails driven therein, as indicated at P. These blocks and nails form an additional support for the sand and are commonly employed in molding. After the sand has been rammed sufficiently in the cope such cope is removed and the latches holding the sides and ends of the cheek together are released and such sides and ends thrown away from the pattern, after which the pattern is removed. It will be observed that the two projections located one at each end of each side and end approach each other as they recede from the part to which they are attached, thus forming what may be termed a "dovetail" space, within which the sand is firmly held between said projections and the part to which they are attached. A core is then placed in position upon the drag A, as shown in dotted lines in Fig. 3, and forms the interior of the coffin. After the core has been properly placed the sides and ends of the cheek are brought together again in their upright position and are secured in place by means of the latches above mentioned. The cope is then placed upon the cheek and the metal is poured through one or more of the usual sprue-holes, as indicated at Q, and fills all around the core within the sand mold, thereby constituting a solid casket having top and bottom moldings R and S, respectively. With my improved mold the casket may be variously decorated, as desired, either by forming plain raised panels or depressed panels, such latter being indicated in Fig. 2.

Before the sides and ends of the cheek are secured together in their upright position after forming the mold in the sand and after the core forming the interior of the casket is placed in position it will be understood that I also place in position at the corners a core, such as illustrated at T, the plain edge of

which, as represented at U, abuts against one of the parting devices, while its forward edge, as represented at V, is conformed to the shape of the corner of the casket. Thus the spaces left by the projections L are filled by the cores T, and consequently the corners are formed perfectly instead of having fins of iron running out between the sand carried by the sides and the sand carried by the ends.

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

1. In a molding-flask, the combination, with a drag, of a cheek having its sides and ends hinged thereto, and vertically-arranged parting devices extending inward from the corners of the cheek and serving to separate the sand supported by the sides of the cheek from the sand supported by the ends of the cheek, substantially as described.

2. In a molding-flask, the combination with a drag, of a cheek having its sides and ends hinged to the drag, and parting devices consisting of a pair of projections extending inward from the respective sides and ends, adjacent to each other, at each corner of said cheek and projecting inward and acting to support the sand in the respective sides and ends, and also to separate the sand in said sides and ends, all substantially as shown and described.

3. In a molding-flask, the combination with a drag, of a cheek mounted thereon and having its respective sides and ends hinged to said drag, a pair of projections extending inward from each of said ends and forming a dovetail space between them, and a pair of projections also extending inward from each of the ends of the sides of said cheek and also forming a dovetail space between them, the end projections and the side projections fitting adjacent to each other at the meeting ends of the sides and ends, all substantially as shown and described.

4. In a molding-flask, the combination with a drag, of a cheek having its sides and ends hinged thereto, means for holding said sides together and also for releasing them, said sides and ends projecting inward, a pattern, and projections extending from said pattern and projecting against the respective parting devices to form core-receiving openings, all substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. KNOX.

Witnesses:

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