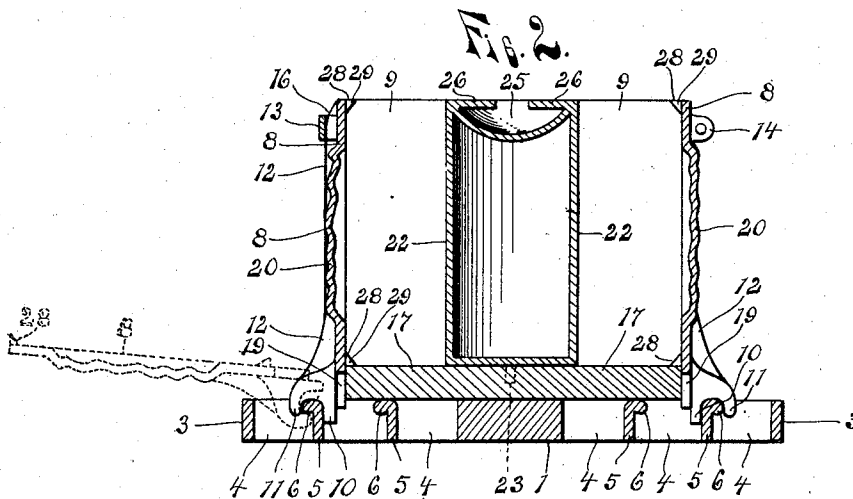
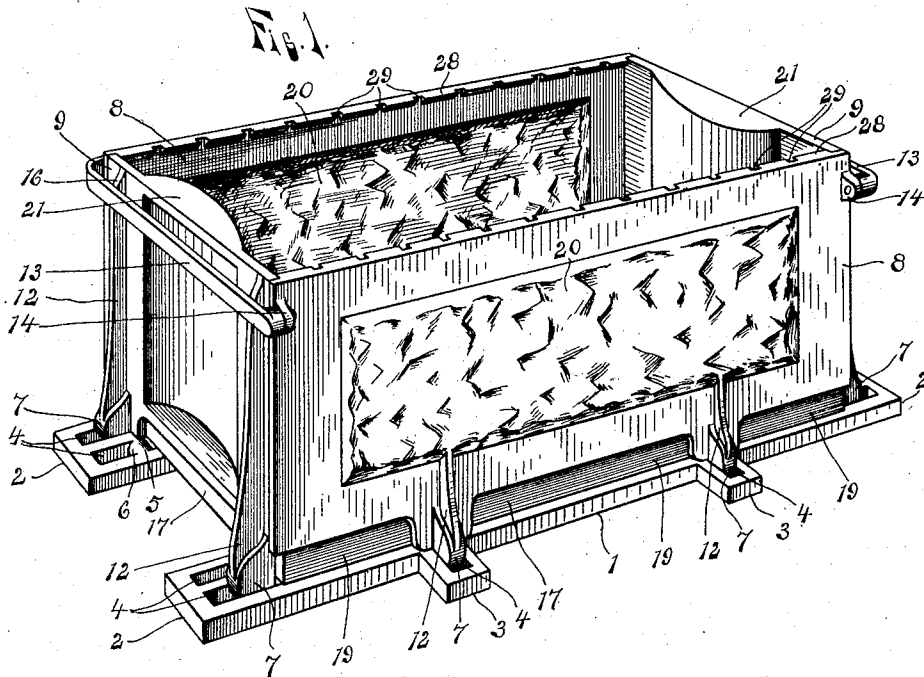


No. 789,996.

PATENTED MAY 16, 1905.

E. B. McCULLOUGH.
MOLD FOR BUILDING BLOCKS.
APPLICATION FILED SEPT. 23, 1904.

3 SHEETS—SHEET 1.



WITNESSES.

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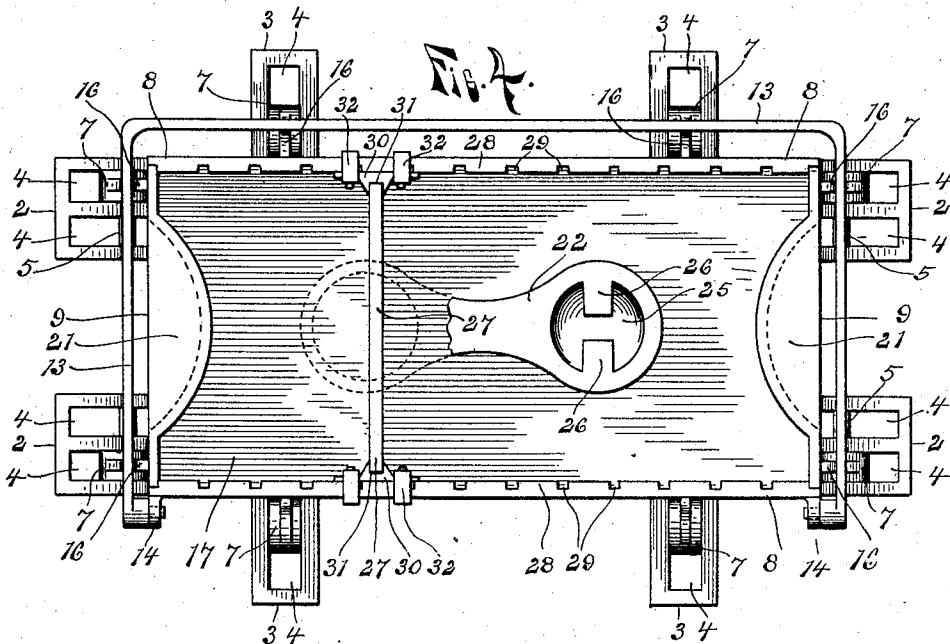
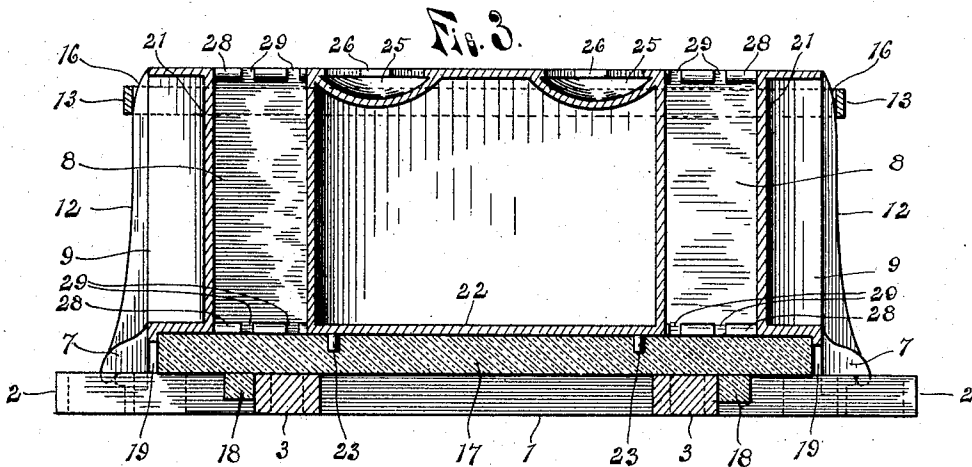
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3 SHEETS—SHEET 2.



WITNESSES.

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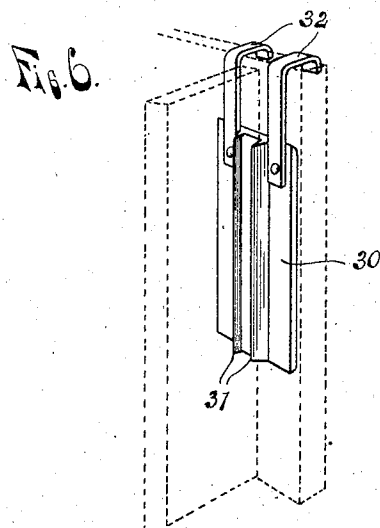
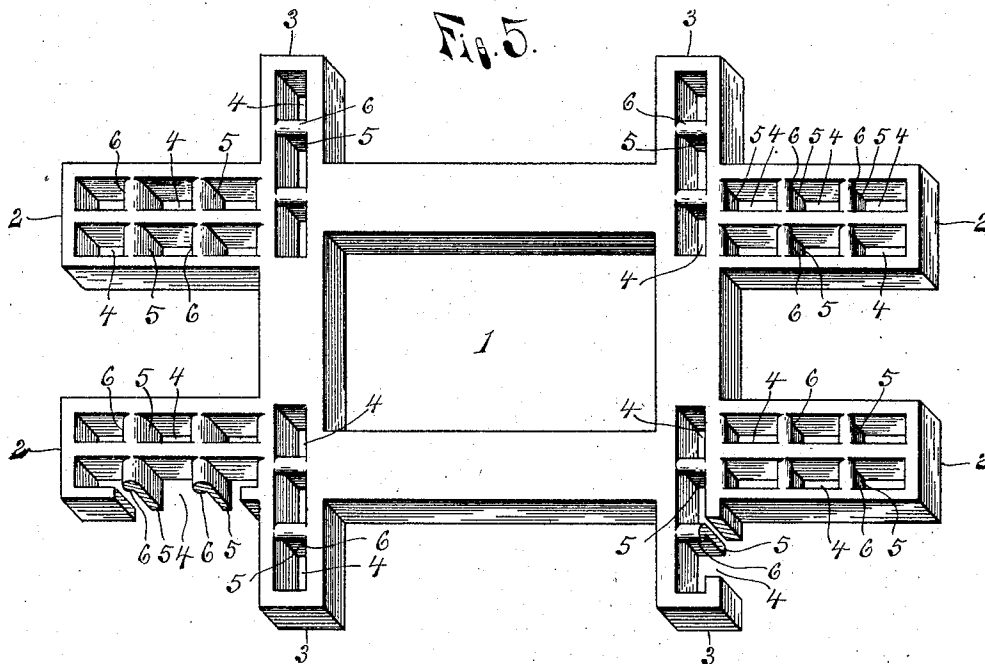
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

ELMER B. McCULLOUGH, OF YPSILANTI, MICHIGAN.

MOLD FOR BUILDING-BLOCKS.

SPECIFICATION forming part of Letters Patent No. 789,996, dated May 16, 1905.

Application filed September 23, 1904. Serial No. 225,584.

To all whom it may concern:

Be it known that I, ELMER B. McCULLOUGH, a citizen of the United States of America, residing at Ypsilanti, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Molds for Building-Blocks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in molds for building-blocks; and its objects are to provide a mold which may be made entirely of cast-iron without the necessity of machining, thus making a very cheap and durable device, and to provide a base for the support of the bottom board having a series of hinge members, the engaging hinge members being formed on the side boards, whereby the mold is made adjustable.

It is also an object of the invention to provide the particular construction of hinge members which permit the ready removal of the sides and at the same time will hold the same in position for use when it is not desirable to detach the sides, and to provide interlocking means for the sides and means for holding the same interlocked in position for use.

A further object of the invention is to provide means for holding an adjustable division-wall for dividing the space within the mold to make any desired size of block and to provide a mold having the advantages of the particular construction, arrangement, and combination of parts, all as hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a device embodying the invention; Fig. 2, a transverse vertical section of the same; Fig. 3, a longitudinal vertical section of the device; Fig. 4, a plan view showing the division-wall in place; Fig. 5, a perspective view of the base-frame with parts broken away to show the construction; and Fig. 6, a detail showing one of the division-wall guides in perspective.

As shown in the drawings, 1 is the base-frame, consisting of two longitudinal members 2 and two transverse members 3, each end of each of which members projects beyond the adjacent member crossing it and is formed

with openings 4, separated by walls 5, each formed with a rounded upper edge having a rounded flange or overhang 6, projecting outward therefrom and forming a hinge member adapted to be engaged by hooks 7 on the side walls 8 and end walls 9 of the mold forming the other members of the hinges, the rounded upper edge and flange 6 forming the pintle of the hinge upon which the member 7 turns. These hooks 7 are each formed to fit the upper rounded surface of the wall when in their vertical position and provided with a downwardly-extending portion or lug 10 to engage the inner side of the wall and a rounded and curved point 11, adapted to engage beneath the flange 6 when the wall is lowered to the position shown in dotted lines in Fig. 2 to support the wall in such a position that it may be handily grasped by the operator and turned to its vertical position again, the strengthening-ribs 12 engaging the adjacent outer walls of the openings when so lowered.

In each end of the transverse members 2 of the frame 1 is a row of the openings 4, so that the side walls may be adjusted toward and from each other to make blocks of the desired thickness, end walls of lengths to correspond to the several adjustments being provided, and each end of the longitudinal members 2 is provided with two sets of openings 4, arranged side by side and forming two series of hinge members, so that when the shortest end walls are used their hooks 7, which must necessarily be closer together than those of the longer ends, will engage one of the hinge members of each of the two sets which are nearest together.

To hold the side and end walls in position to receive the material to make the block, a bail 13 is pivoted to ears 14 on one side wall by pins on the bail engaging openings in the ears and is adapted to swing downward into engagement with the opposite side wall to clamp said side walls against the ends of the end walls. On the side wall engaged by the bail and also the end walls are the strengthening-ribs 12, provided with inclines 16, with which the bail is forced into contact to clamp the side and end walls together.

17 is a bottom board of a size to just fit be-

tween the side and end walls when they are in their raised position, and cleats 18 on said board engage the base-frame 1 and hold the board in place thereon. To prevent the sand, &c., from getting between the edges of the bottom board and the walls and preventing the walls from being turned up against the board, the lower edges of the walls are cut away at 19 to nearly the upper edge of the board, thus allowing all sand, &c., to pass through, and as the walls turning on their hinges move away from the board when lowered the walls are freed from the board each time and any cement which may adhere thereto or fall down will not interfere with their operation.

The side walls may be formed with panels 20 to form blocks representing cut stone and the end walls may be formed with inwardly-extending curved portions 21 to form spaces between the ends of the blocks when they are laid in the wall to receive the mortar or other binder and more firmly hold the blocks in place. To form hollow blocks, a core 22 of any desired form having pins 23 in its bottom to engage openings in the bottom board is provided, and in the top of the core at each end thereof is formed a concave 25, having lugs 26, projecting inwardly from its upper edges and adapted to be engaged by any suitable lifter inserted in the concave for lifting the core from the mold after the block has been formed.

Adjacent to windows at the corners of the building, &c., it is always necessary to provide short blocks, and to make these blocks of any desired length an adjustable or temporary partition-wall 27 (shown in Fig. 4) is provided. At the upper and lower edges of each side wall is provided an inwardly-projecting beveled ledge 28, which ledges form beveled edges on the block formed in the mold, and notches 29 are provided at intervals in these ledges to receive the partition 27 and hold the same in place when the sides are brought up and clamped in position by the bail. If the desired length of block cannot be made by engaging the partition-wall with the notches, an adjustable grooved plate 30 is provided, consisting of a plate formed with ribs 31, having inclined outer sides and forming between them a groove to receive the end of the partition. Hooks 32 are secured to one end of the plate at each side of the groove and extend upward to engage the upper edge of the side wall of the mold and support and hold the plate at any desired distance from the end of the mold to form any desired length of block.

By making the supporting-base in the form of a frame the bottom board is firmly supported and held thereby, and at the same time but little surface is presented to catch the sand, &c., and hinder the operation of the mold, and by forming the hinges as described, so that

no parts project below the base-frame, said frame may be placed directly upon the ground without the necessity of providing legs or other supports therefor. The lugs 10 of the hinge members 7 are held by the points 11 in contact with the inner flat surface of the walls 5, and therefore there can be no variation in the width of the mold, the sides resting and turning upon the rounded upper edge of said walls at all times.

Having thus fully described my invention, what I claim is—

1. In a mold for building-blocks, the combination of a base consisting of longitudinal and transverse members having openings near each end and walls separating said openings formed with rounded upper edges, side and end mold-walls, hinge members on said walls adapted to engage the rounded upper edge of the walls between the openings in the base and support the mold-walls, and means for securing the mold-walls in place.

2. In a mold for building-blocks, the combination of a base-frame consisting of longitudinal and transverse members intersecting each other intermediate their ends, said transverse members being provided with a series of openings at each end and said longitudinal members each with two series of openings arranged side by side, the walls between the openings being rounded at their upper edges to form hinge members; side and end walls for the mold; hinge members on said mold-walls adapted to engage the hinge members on the base and turn thereon; and means for holding the said walls of the mold.

3. In a mold for building-blocks, the combination with a base provided with hinge members, of a bottom board supported by said base, side and end walls cut away at their lower edges less than the thickness of said board, hinge members on said walls engaging the hinge members on the base to turn thereon and guide the walls into contact with the sides and ends of the bottom board when said walls are turned to their vertical position and to cause the same to move from said board when turned from their vertical position.

4. In a mold for building-blocks, the combination of a base provided with openings, walls between the openings having rounded upper edges and forming hinge members, side and end mold-walls, downwardly-extending hooks forming hinge members on said mold-walls and having open ends to engage the upper rounded edges of the hinge members on the base and provided with curved points to engage the said members when the mold-walls are turned from their vertical position.

5. In a mold for building-blocks, the combination of a base provided with openings, walls between said openings forming hinge members and each having a rounded upper edge and a flange forming an overhang at the outer side of the wall, side and end mold-

walls, hinge members extending downward from said mold-walls and consisting of open hooks to engage the upper rounded edges of the walls forming the hinge members on the base and provided with lugs to engage the inner sides of said members and curved outer points to engage beneath the overhang of the said hinge members when the mold-walls are turned from their vertical position.

6. In a mold for building-blocks, the combination with a base, of side walls hinge-connected to the base and provided with inwardly-projecting ledges at their upper and lower edges provided with notches to receive an adjustable wall, an adjustable wall to engage the notches, and means for securing the side walls against the ends of the adjustable wall.

7. In a mold for building-blocks, the combination with a base and side and end mold-walls hinge-connected to the base, of a division-wall, plates provided with grooves to receive the ends of said division-wall and detachably suspended from the upper edges of the mold-walls, and means for securing the mold-walls to clamp the division-wall and plates between.

8. In a mold for building-blocks, the combination with a base and side and end mold-walls hinge-connected to the base, of a division-wall, plates provided with ribs forming grooves to receive the ends of the division-wall, hooks on said plates adapted to engage

the upper edges of the mold-walls and detachably support the plates, and a bail hinged to one mold-wall and adapted to embrace and clamp the walls together.

9. In a mold for building-blocks, the combination of a base-frame consisting of longitudinal and transverse members intersecting each other intermediate their ends, openings in the ends of said members, walls forming hinge members on the base between the openings, having rounded upper edges and an overhang at the outer sides, a bottom board, side and end mold-walls cutaway at their lower edges a distance less than the thickness of the board, open hooks forming hinge members extending downward from the lower edges of the mold-walls and adapted to engage the hinge members on the base and turn thereon, ears on one of the side walls having openings, a bail having pins to engage the openings in the ears, ribs on the opposite side wall forming inclines adapted to be engaged by said bail, a division-wall and beveled ledges on the upper and lower edges of the side walls and having notches adapted to be engaged by the division-wall.

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

ELMER B. McCULLOUGH.

Witnesses:

OTTO F. BARTHEL,
JOSEPH A. NOECKLE.