No. 733,396. PATENTED JULY 14, 1903.

E. B. JARVIS.

MOLD FOR ARTIFICIAL STONE.

APPLICATION FILED APR. 8, 1903.

NO MODEL.

Fig. 1.

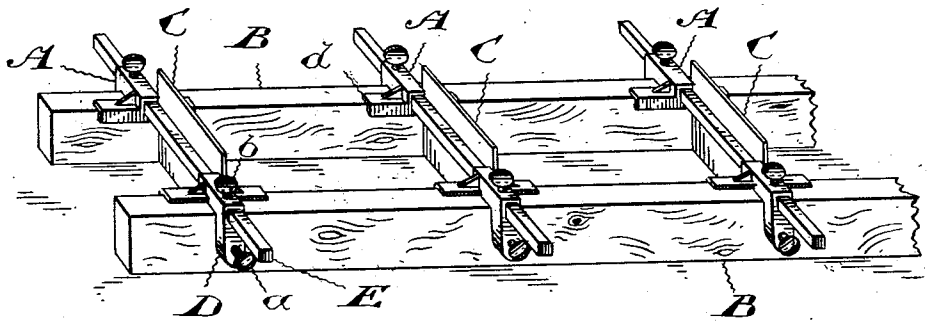


Fig. 4.

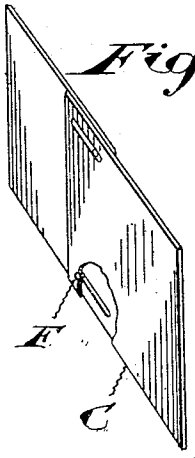
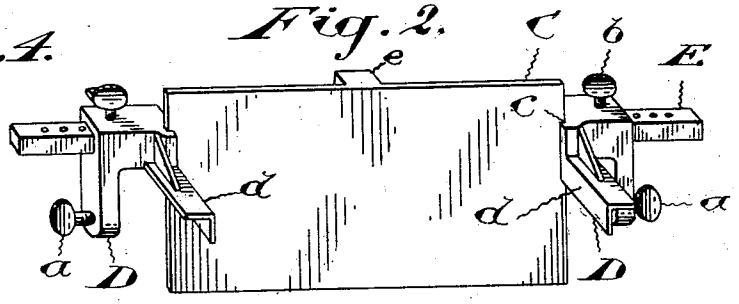


Fig. 2.



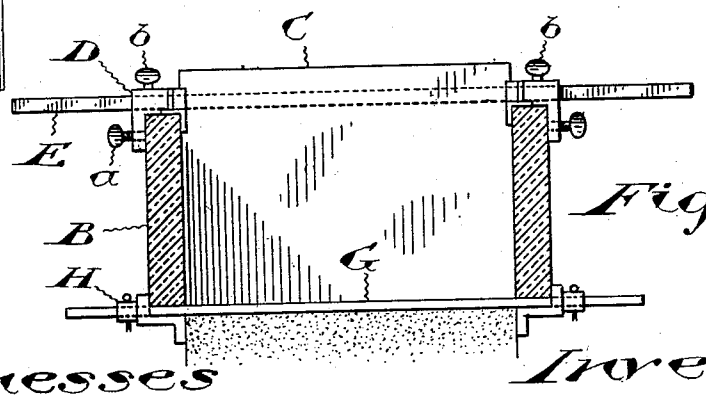


Fig. 3.

Witnesses

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No. 733,396. Patented July 14, 1903.

UNITED STATES PATENT OFFICE.

EDGAR BEAUMONT JARVIS, OF TORONTO, CANADA.

MOLD FOR ARTIFICIAL STONE.

SPECIFICATION forming part of Letters Patent No. 733,396, dated July 14, 1903.

Application filed April 8, 1903. Serial No. 151,616. (No model.)

To all whom it may concern:

Be it known that I, EDGAR BEAUMONT JARVIS, of the city of Toronto, county of York, Province of Ontario, Canada, have invented certain new and useful Improvements in Molds for Artificial Stone, of which the following is a specification.

The object of my invention is to devise means for molding blocks of artificial stone, either separately or *in situ* and of varying size and shape; and it consists, essentially, of side walls detachably connected to a cross-frame, the said cross-frame carrying a vertically-movable plate. I further make the cross-frame extensible for the purpose of adjusting the width apart of the side walls and provide a similar adjustment for the plates, substantially as hereinafter more specifically described and then definitely claimed.

Figure 1 is a perspective view showing the method of using the apparatus. Fig. 2 is a perspective view, on a larger scale, showing a single frame with plate in position therein. Fig 3 is a cross-section showing the method of building a wall with my apparatus. Fig. 4 is a perspective view of an adjustable plate.

In the drawings like letters of reference indicate corresponding parts in the different figures.

In its essential features my apparatus comprises a frame A, adapted to be clamped to scantlings or planks B, forming the side walls of a mold. This frame is adapted to carry a vertical transverse plate C. The frame comprises clamps or jaws D, adapted to engage the scantlings or planks, as shown particularly in Fig. 3. A set-screw *a* may be provided in each clamp for the purpose of securely holding it in position on the side walls.

E is a cross-bar, which may be integral with the clamps D, though I prefer to sleeve the clamps on the cross-bar, as shown, and secure them in position by means of set-screws *b* or other retaining devices.

Each plate C is made vertically movable on the frame, preferably by being made to slide in vertical grooves *c*, formed on the clamps D. By making the plate vertically movable, as shown, one plate may be caused to accommodate itself to different depths of side walls, so that blocks of stone of varying thickness may be made with the same set of plates. The length of the block of stone is of course regulated by the distance apart at which the frames A and their plates C may be set. Different widths for the block are obtained by adjusting the clamps D on the cross-bars E, and this necessitates, of course, providing plates C of different widths. Instead, however, of providing plates of different widths I may make an adjustable plate, such as shown in Fig. 4, in which the plate is formed in two parts longitudinally adjustable on one another and provided with rivets F, working in suitable slots in the parts of the plates, so that the halves may be held when extended to the desired length.

While any suitable form for the clamps D might be employed, yet I prefer to make the inner jaw *d* L-shaped in section to engage the top and inner side of the side wall. This inner jaw being shaped as shown and extended laterally insures the plate C being plumb and also that it will be exactly at right angles to the side walls.

For molding blocks of stone such as used in building operations the apparatus will be set up in the manner indicated in Fig. 1. The side walls in this case may extend ten or twelve feet or more, and a sufficient number of frames and plates are used to give the desired number of blocks of the desired length. After the molds so formed have been filled with the artificial-stone material and the latter has set the frames and plates are removed and the blocks are then ready for use. In casting the blocks *in situ* the planks or scantlings forming the side walls may have a greater depth, as indicated in Fig. 3. In this case it becomes necessary to hold the lower edges of the planks as well as the upper, and for this purpose I provide one or more rods G, on which are sleeved a pair of Z-shaped clamps H. These clamps may be adjusted to different positions on the rods G by means of set-screws or cotter-pins, as shown. The lower parts of the clamps H rest against the faces of the first course of the wall, while the rods G rest on top. The upper parts of the Z-shaped clamps engage the planks or scantlings forming the side walls B, and thus retain them in position and insure the new

course being in exact alinement with the course below; otherwise the apparatus is set up in place exactly as shown in Fig. 1.

When the apparatus is used in building a wall as described, holes are of course left, from which the rods G are drawn when the material is hardened; but such holes are easily grouted or their outer ends pointed. The same applies to the narrow cracks left by the plates C. Where they reach the outer face of the wall, they are easily pointed and afterward grouted. If necessary, a rib or projection *e* can be formed at the center of each plate C to form a hole of sufficient size to enable the grouting material to be readily poured in.

It will be seen that my apparatus is very convenient and simple. All that is necessary for the contractor to take with him is a sufficient number of the frames and plates. Scantlings or planks to form the side walls are readily obtained any place where the apparatus is to be used. It will be further seen that the various adjustments provided enable me to form blocks of any desired size at a minimum expense for the mold.

While it is preferable to use the frames and plates to form the extreme ends of the mold, yet the ends might be formed of blocks of wood and the plates used merely as dividers to cut up the long mold to make the blocks of convenient size for handling.

What I claim as my invention is—

1. In a mold the combination of side walls; a vertical transverse plate; and a frame carrying the plate, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls, substantially as described.

2. In a mold the combination of side walls; a transverse frame, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls; and a transverse plate vertically movable on the said frame, substantially as described.

3. In a mold the combination of side walls; a transverse frame, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls, the said clamps being longitudinally adjustable on the said cross-bar; and a transverse plate vertically movable on the said frame, substantially as described.

4. In a mold the combination of side walls; a transverse frame, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls, the said clamps being longitudinally adjustable on the said cross-bar; and a transverse plate vertically movable on the said frame, the said plate being formed of two parts longitudinally adjustable upon one another, substantially as described.

5. In a mold the combination of side walls; a transverse frame, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls, the said clamps being longitudinally adjustable on the said cross-bar; and a transverse plate, the said plate being formed of two parts longitudinally adjustable upon one another, substantially as described.

6. In a mold the combination of side walls; a vertical transverse plate; a frame carrying the plate, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls; a tie-rod; and clamps on the tie-rod adapted to engage the lower edges of the side walls of the mold and the sides of a course, substantially as described.

7. In a mold the combination of side walls; a vertical transverse plate; a frame carrying the plate, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls; a tie-rod; and clamps longitudinally adjustable on the tie-rod and adapted to engage the lower edges of the side walls of the mold and the sides of a course, substantially as described.

8. In a mold the combination of side walls; a vertical transverse plate; a vertical rib formed on the said plate; and a frame carrying the plate, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls, substantially as described.

9. In a mold the combination of side walls; a vertical transverse plate; and a frame carrying the plate, comprising a cross-bar and clamps adapted to detachably connect the frame with the side walls, the inner jaw of each clamp being extended laterally as shown and L-shaped in section to engage the top and inner side of the side walls, substantially as described.

Toronto, March 27, 1903.

E. BEAUMONT JARVIS.

In presence of—

JOHN G. RIDOUT,

J. EDW. MAYBEE.