No. 845,945. PATENTED MAR. 5, 1907.

V. W. GRUMMAN.

MACHINE FOR MAKING ARTIFICIAL STONE BLOCKS.

APPLICATION FILED MAY 10, 1906.

2 SHEETS—SHEET 1.

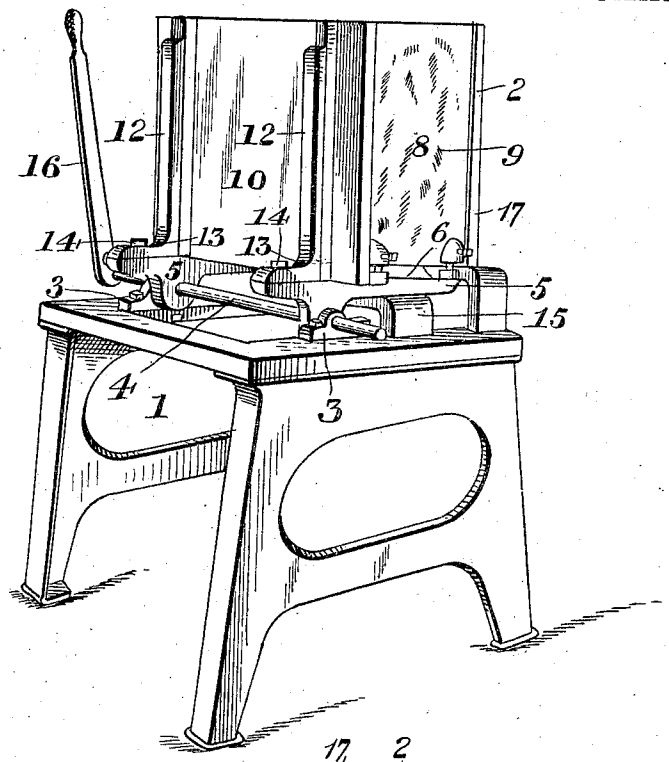


Fig. 1

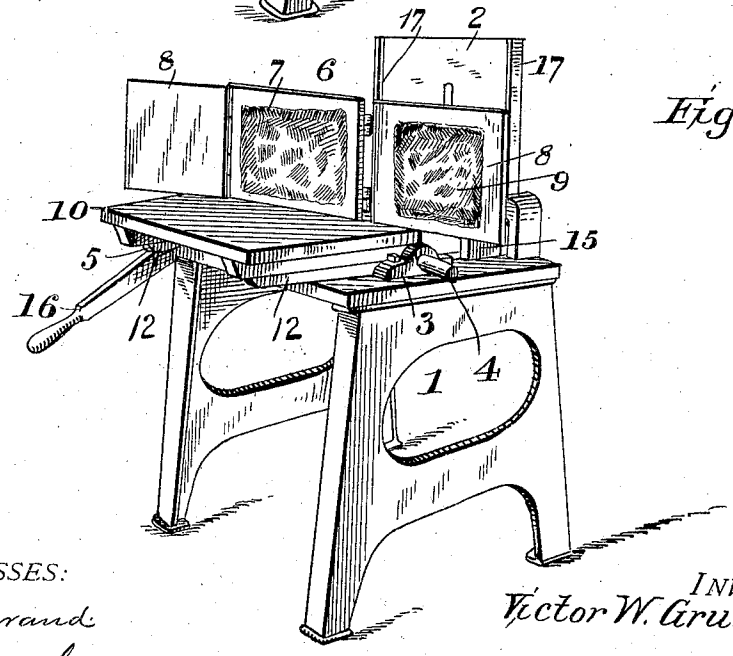


Fig. 2

WITNESSES:

F. L. Ourand.

C. N. Griesbauer.

INVENTOR

Victor W. Grumman.

BY

H. B. Willson & Co.

Attorneys

No. 845,945. PATENTED MAR. 5, 1907.

V. W. GRUMMAN.

MACHINE FOR MAKING ARTIFICIAL STONE BLOCKS.

APPLICATION FILED MAY 10, 1906.

2 SHEETS—SHEET 2.

Fig. 3.

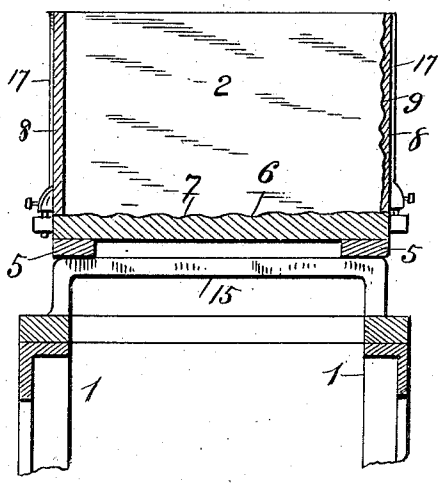
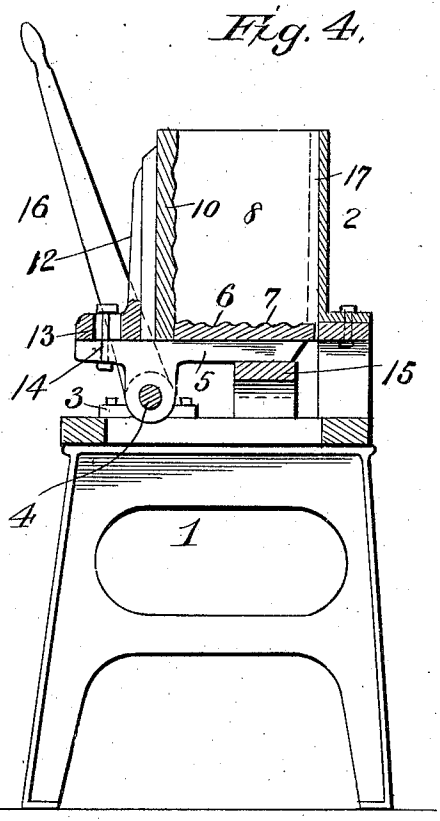


Fig. 4.



WITNESSES:
F. L. Ourand.
C. N. Griesbauer.

INVENTOR
Victor W. Grumman.

BY
A. B. Willson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

VICTOR W. GRUMMAN, OF ZANESVILLE, OHIO.

MACHINE FOR MAKING ARTIFICIAL-STONE BLOCKS.

No. 845,945. Specification of Letters Patent. Patented March 5, 1907.

Application filed May 10, 1906. Serial No. 316,173.

To all whom it may concern:

Be it known that I, VICTOR W. GRUMMAN, a citizen of the United States, residing at Zanesville, in the county of Muskingum and State of Ohio, have invented certain new and useful Improvements in Machines for Making Artificial-Stone Blocks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in machines for making artificial-stone blocks.

The object of the invention is to provide a device of this character having means whereby the mold-box may be quickly and easily opened to facilitate the removal of the molded block.

A further object is to provide an artificial-stone-block machine one side of the mold of which is formed by a pallet-board which when the mold is opened is adapted to be removed, together with the molded block, and a new pallet-board quickly arranged for use in the mold, means being provided whereby the supports for the pallet-board may be adjusted laterally, thereby providing for the molding of different widths of blocks.

With the above and other objects in view, the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the machine, showing the same closed and in position for molding a block. Fig. 2 is a similar view showing the mold open and the finished block removed therefrom. Fig. 3 is a vertical longitudinal sectional view; and Fig. 4 is a vertical cross-sectional view of the same, showing the manner of opening the mold.

Referring more particularly to the drawings, 1 denotes a supporting framework or stand adjacent to one side of which is secured a vertically-disposed plate 2, adapted to form one side of the mold when the latter is in close position. Journaled in suitable bearings 3, near the opposite side of the plate, is an oppositely-disposed shaft 4, on which is mounted a pair of bracket-arms 5, to which are secured the bottom plate 6 of the mold, said plate being here shown as having a roughened or irregular surface 7, by means of which the face of the block molded by said plate will simulate a rough or broken stone surface. Hingedly connected to each end of the bottom plate 6 are end plates 8, one of said end plates having a roughened or irregular surface 9 similar to that of the bottom plate 6, whereby the end of the stone formed by said roughened end plate will have a rough or broken stone finish.

The side of the mold opposite to the fixed plate 2 is formed by a pallet-board 10, said board being adapted to rest on one edge on the bracket-arms 5, adjacent to the edges of the bottom and end plates 6 and 8. The pallet-board 10 is supported in position by means of angle bars or braces 12, the lower right-angularly formed ends of which are provided with slots 13, through which are passed fastening-bolts 14, by means of which said brace-bars are adjustably connected to the outwardly-projecting ends of the bracket-arms 5, thereby providing means for adjusting the pallet-board to enable blocks of different widths to be formed. On the stand 1, between the shaft 4 and the support for the plate 2, is arranged a cross-bar 15, upon which the bracket-arms 5 are adapted to rest when the mold is in a closed or operative position, said cross-bar taking the strain occasioned by the tamping of the cement or other material in the mold from the shaft 4 in the bearings 3. Adapted to be secured upon one end or the other of the shaft 4 is an operating arm or lever 16, by means of which the movable parts of the mold are turned to operative or inoperative position. The plate 2 is provided with laterally-projecting flanges 17, which when the mold is in a closed position are adpted to engage the adjacent outer side edges of the end plates 8, thereby securely holding said plates in closed position.

In using the device the mold is closed, as shown in Fig. 1 of the drawings, after which cement is tamped into the same until the mold is partly filled, when a core-block is placed in the latter on the cement therein. After the core has thus been placed in the box in the mold more cement is placed therein until the latter is filled. After the cement has become sufficiently set the lever 16 is operated to turn the shaft 4 in the proper direction to tilt the bracket-arms 5 and the parts of the mold carried thereby outwardly away from the plate 2 to the position shown in Fig. 2 of the drawings. When the mold has been brought to this position, the end plates 8 are swung outwardly from over the pallet-board, after which the latter, together

with the molded block thereon, may be removed and a new pallet-board placed on the brace-bars 12, when the mold is again closed and a new block formed thereon.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claims.

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

1. In a machine of the character described, the combination of a supporting-stand having a stationary vertical plate forming one side of a mold and provided with stop-flanges at its ends, a shaft mounted in bearings on said frame, bracket-arms on said shaft, a bottom mold-plate on said arms, end plates hinged to the ends of said bottom plate, a pallet-board supported on said bracket-arms to form the side of the mold opposite the stationary plate, supporting means for said pallet-board, means to adjustably connect said supporting means with said bracket-arms, means to operate said bracket-arms and the pallet-board, bottom plate and end plate carried thereby, and means independent of the said shaft to support the bottom plate when in operative position.

2. In a machine of the character described, the combination with a supporting stand or frame having a stationary plate arranged thereon to form one side of a mold, of a shaft pivotally mounted in bearings on said frame, bracket-arms secured on said shaft, a bottom mold-plate arranged on said arms, end plates hingedly connected to the end of said bottom plate, a pallet-board supported on said bracket-arms to form the side of the mold opposite the stationary plate on said frame, supporting-bars to hold said pallet-board in place, means to adjustably connect said supporting-bars with said bracket-arms, a lever connected to said shaft whereby the bracket-arms and the parts of the mold carried thereby may be tilted into and out of an operative position, and a cross-bar arranged on said stand to support said bracket-arms when the mold is in a closed or operative position, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

VICTOR W. GRUMMAN.

Witnesses:
J. H. WHARTENBY,
A. A. GEORGE.