No. 833,010. PATENTED OCT. 9, 1906.

H. THOMAS & C. E. DELINE.

APPARATUS FOR MAKING ARTIFICIAL BUILDING BLOCKS.

APPLICATION FILED MAR. 22, 1906.

2 SHEETS—SHEET 1.

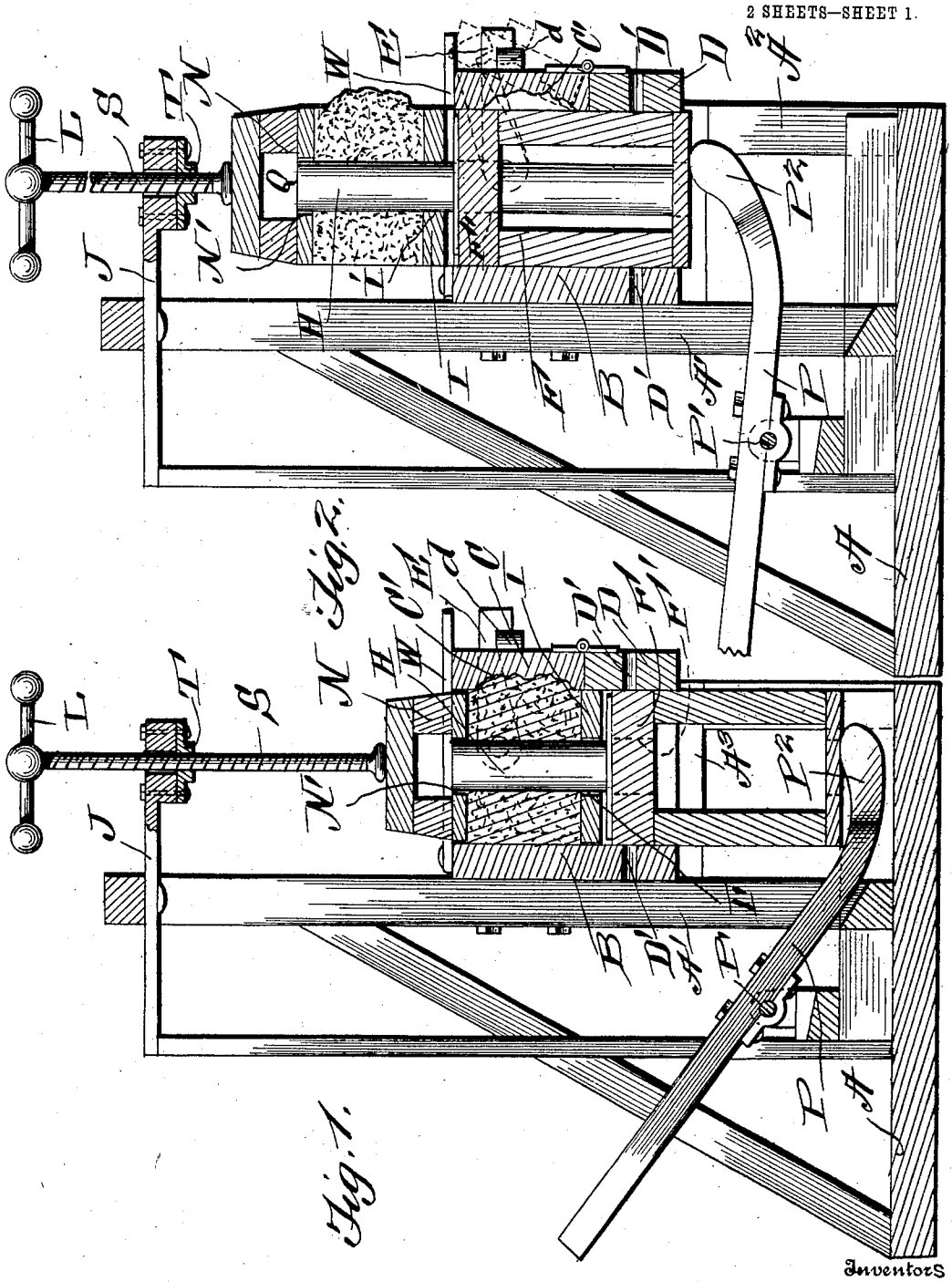


Fig. 1.

Witnesses

R. A. Boswell

A. L. Hough

Inventors

H. Thomas and Chas. E. Deline,

By Franklin A. Hough

Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 3.

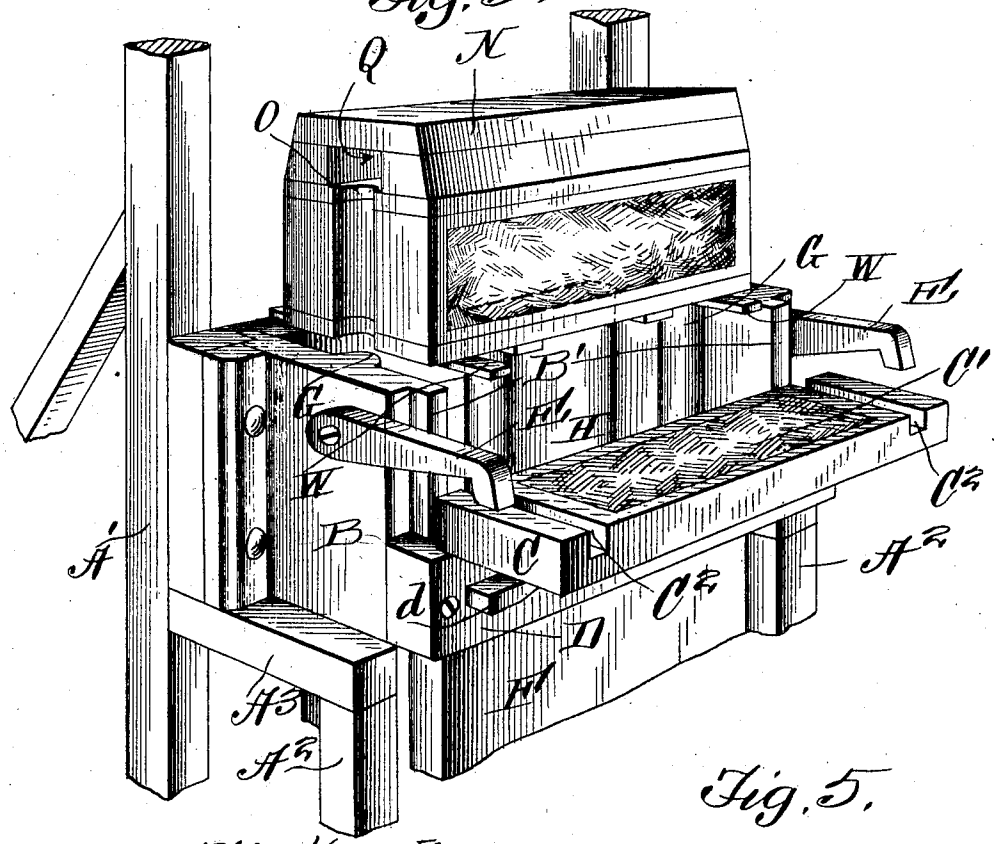


Fig. 4.

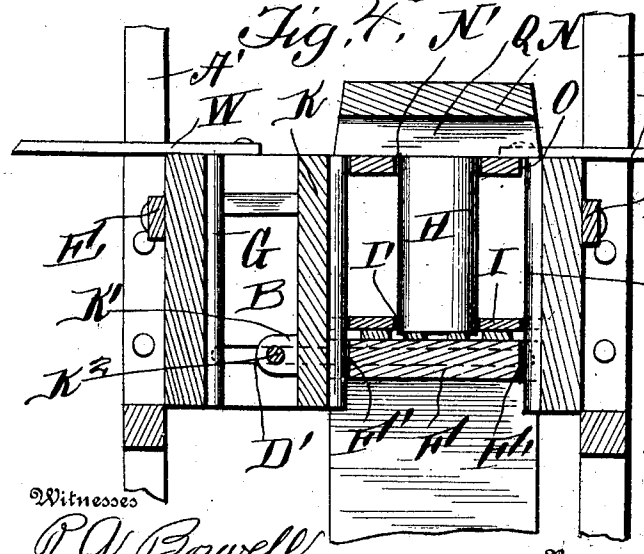
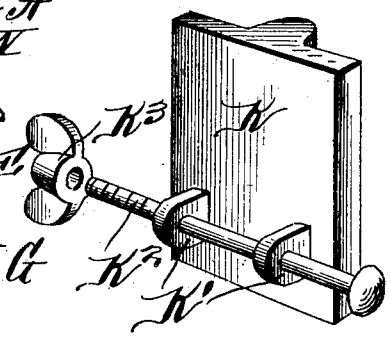


Fig. 5.



Witnesses
R. A. Boswell,
A. L. Young

Inventors
H. Thomas and
Chas. E. Deline,
By Franklin H. Hough
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HOWEL THOMAS AND CHARLES E. DELINE, OF WATERTOWN, NEW YORK.

APPARATUS FOR MAKING ARTIFICIAL BUILDING-BLOCKS.

No. 833,010. Specification of Letters Patent. Patented Oct. 9, 1906.

Application filed March 22, 1906. Serial No. 307,509.

To all whom it may concern:

Be it known that we, HOWEL THOMAS and CHARLES E. DELINE, citizens of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Apparatus for Making Artificial Building-Blocks; and we do hereby 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in apparatus for making blocks of artificial stone, and comprises various details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

Our invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view through the apparatus, showing parts in elevation and illustrating the plunger in its lowest position. Fig. 2 is a similar view showing the plunger raised. Fig. 3 is a perspective view of the apparatus, showing a block which has been formed and in readiness to be removed from the apparatus. Fig. 4 is a view of a slight modification, showing means for varying the size of the mold; and Fig. 5 is a detail view of a division-block forming a part of the invention.

Reference now being had to the details of the drawings by letter, A designates the base of the apparatus, from which standards A′ and A^2 rise, and A^3 is a cross-piece supported by said standards and upon which the mold-box B is mounted. Said box has its top and bottom open and is provided with a swinging side C, which is hinged to the slotted strip D, forming a portion of one side of the box, said strip having an elongated slot D′ therein provided for a purpose which will presently be described. Said swinging side is provided with lugs *d*, projecting beyond the ends thereof and adapted to be engaged by the pivotal hooks E, which are mounted upon the ends of the box, thereby affording means for holding the swinging side closed. It will be noted that the inner surface of said swinging side is irregular, as at C′, adapted to imitate the rough-hewn surface of a stone to give the same appearance to the block when molded, and the inner face of said swinging side has two transverse slots C^2, which are adapted to receive the tongues B′, which are formed upon the ends of said box, thereby making, when the swinging side is closed, tight joints. The opposite side of the box from that to which the swinging side is pivoted, it will be noted, is also provided with an elongated slot D′.

F designates a plunger which carries a central oblong core H upon its upper surface, and said plunger is of a size to fit and move snugly through the mold-box. Each end of said plunger is grooved, as at F′, to receive the end guide-pieces G, which project from the inner surfaces of the ends of the mold-box. Said guide-pieces G, which form end cores, are convexed upon their outer faces.

I designates a plate or board which is adapted to rest upon the upper surface of the plunger and is provided with an oblong aperture I′, conforming to the shape of the core H, which plate is adapted to telescope over said core and rest upon the top of the plunger and forming a bottom for the block to be molded. N designates a follower having an oblong aperture N′ therein adapted to receive the core H, and said follower is provided with recesses O at the ends thereof adapted to receive the end cores of the mold-box. Said follower has a central recess Q running its entire length, and against the top of the follower a screw S is adapted to bear, said screw being mounted in threaded apertures in the plates T and the overhanging portion J of the frame of the apparatus, and a cross-bar L, with weighted ends, is fixed to said screw whereby the same may be turned. P designates a lever which is fulcrumed upon a pivot-pin P′, mounted upon a cross-piece of the frame of the apparatus, and one end of said lever is widened, as at P^2, and is positioned underneath said plunger, whereby as the outer end of the lever is tilted said plunger and the block which may have been formed in the box may be raised so that the bottom of the block will be upon a plane coincident with the top of the box.

W W designate two strips which are pivotally connected to the top of the box and are adapted to swing underneath the base-plate I to support the same after a block has been raised by the plunger.

Referring to Fig. 4 of the drawings will be seen the means for regulating the size of the mold-box, whereby blocks of different sizes may be molded, and in which figure a division-block K is provided, which is of a width equal to the width of the mold-box and is provided with two lugs K′, which are apertured to receive a rod K^2, one end of which rod is provided with a head and its opposite end threaded to receive a winged nut K^3. In adjusting the division-block the latter is placed within the mold-box in any position intermediate the ends of the box according to the size of the block wished to be made, and the rod K^2 is placed through the two slots D′, formed in the opposite sides of the box, and also through the apertures in the lugs K′, and said block is held in an adjusted position by tightening the nut upon the rod. It will be understood that when blocks of different sizes are to be made in the mold-box a plunger of corresponding size is utilized to raise the block after the same has been molded.

In operation, the bottom plate I being placed over the central core upon the plunger and the swinging side closed, the mold-box is filled with material to be molded, after which the follower is placed over the core and into the top of the box, and by turning the screw against the follower the latter may be forced down, thoroughly compacting the material within the box, and after the composition forming the block has set the hooks E are released from the lugs upon the swinging side and the latter turned down, which will free the face of the block, which has been made in imitation of the hewn surface of a stone. The screw is raised, after which the lever is tilted, which will cause the plunger to be elevated and the block upon the plunger to be raised out of the mold-box. This being done, the swinging side is closed and locked and the strips L, which are pivoted on the top of the box, are swung around across the top of the box and form a support for the plate I upon which the molded block rests. When adjusting the apparatus to make different-sized blocks, the plunger K is adjusted in any desired position within the mold-box and held by means of the threaded rod and nut, while a plunger of a suitable size is utilized for raising the block from the mold.

What we claim is—

1. An apparatus for making blocks of artificial stone, comprising a mold-box, a hinged side to said box adapted to contain a suitable design for the face of a block, a strip fastened to said side and projecting beyond the ends thereof, said side having transverse grooves therein adapted to receive flanges upon the ends of the mold-box, pivotal hooks mounted upon the ends of the box and adapted to engage over the ends of said strip to hold the side closed, a movable partition within the box, lugs on one side of said partition, a screw passing through registering apertures in said lugs and extending through slots in the walls of the box, a plunger mounted within the box, and a pivotal lever adapted to raise the plunger within the box, as set forth.

2. An apparatus for making blocks of artificial stone, comprising a mold-box, a hinged side to said box adapted to contain a suitable design for the face of a block, a strip fastened to said side and projecting beyond the ends thereof, said side having transverse grooves therein adapted to receive flanges upon the ends of the mold-box, pivotal hooks mounted upon the ends of the box and adapted to engage over the ends of said strip to hold the side closed, a movable partition within the box, lugs on one side of said partition, a screw passing through registering apertures in said lugs and extending through slots in the walls of the box, a plunger mounted within the box, and a pivotal lever adapted to raise the plunger within the box, a core projecting from the upper surface of the plunger, a follower, and a threaded screw adapted to bear against said follower, as set forth.

3. An apparatus for making blocks of artificial stone, comprising a mold-box, a hinged side to said box adapted to contain a suitable design for the face of a block, a strip fastened to said side and projecting beyond the ends thereof, said side having transverse grooves therein adapted to receive flanges upon the ends of the mold-box, pivotal hooks mounted upon the ends of the box and adapted to engage over the ends of said strip to hold the side closed, a movable partition within the box, lugs on one side of said partition, a screw passing through registering apertures in said lugs and extending through slots in the walls of the box, a plunger mounted within the box, a pivotal lever adapted to raise the plunger within the box, a core projecting from the upper surface of the plunger, a follower, a threaded screw adapted to bear against said follower, and pivotal block-supporting arms mounted upon the box and adapted to swing across the box and form a support for the molded block, as set forth.

In testimony whereof we hereunto affix our signatures in the presence of witnesses.

his
HOWEL × THOMAS.
mark
CHARLES E. DELINE.

Witnesses:
GEORGE N. DELINE,
PERLEY TOWLE.
Witnesses to mark of Thomas:
A. D. ANTHONY,
C. R. WISE.