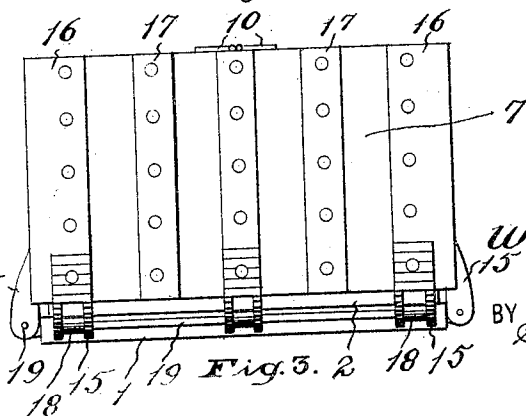
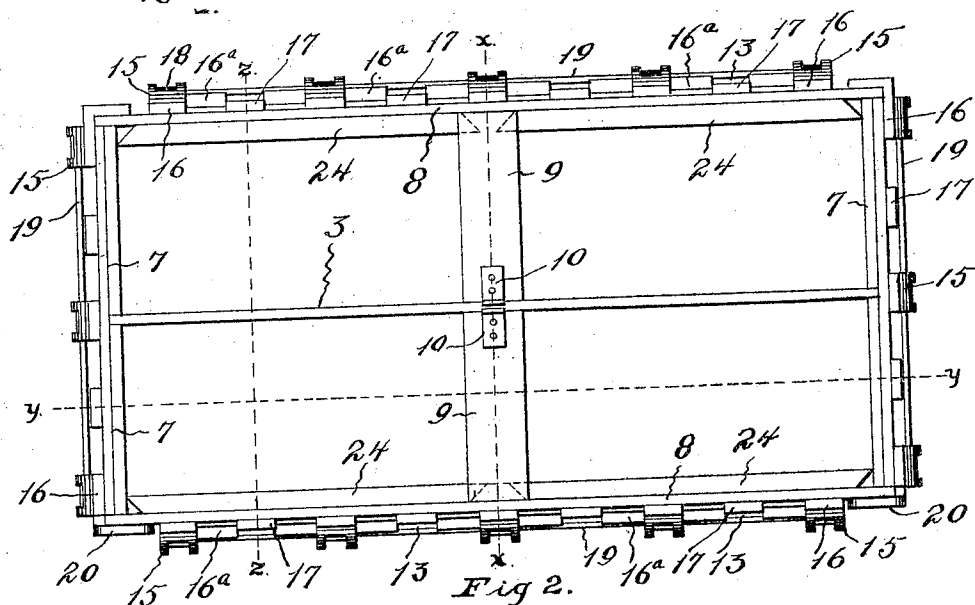
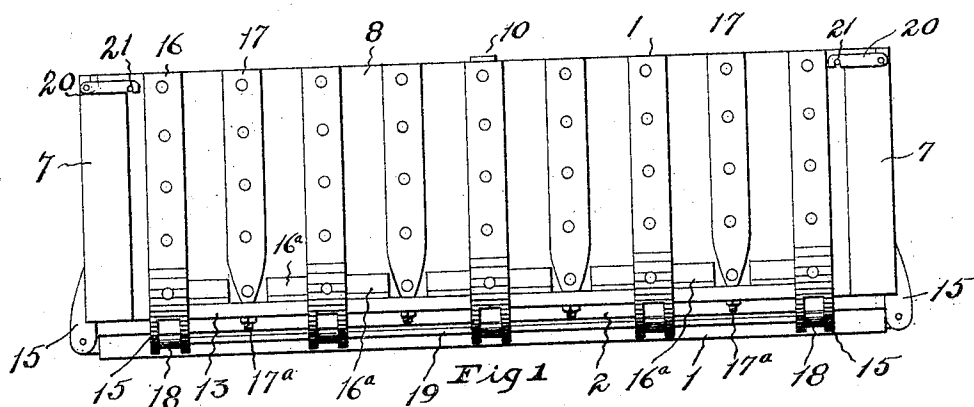


No. 801,976.

W. H. FISHER.
MOLD BOX.
APPLICATION FILED SEPT 17, 1904.

PATENTED OCT. 17. 1905.

2 SHEETS—SHEET 1.



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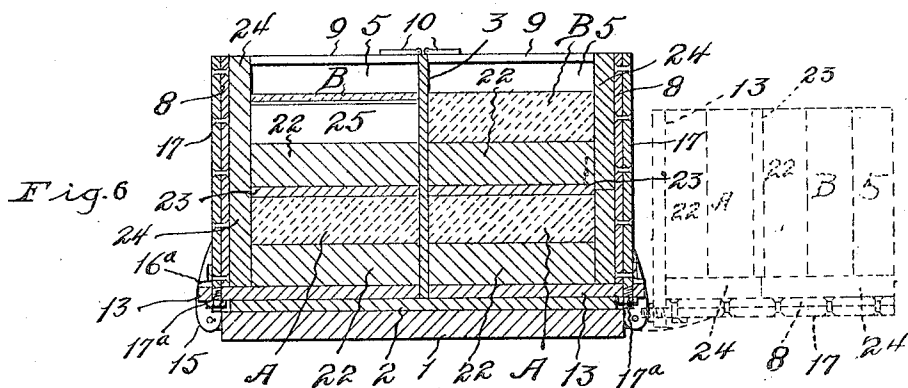
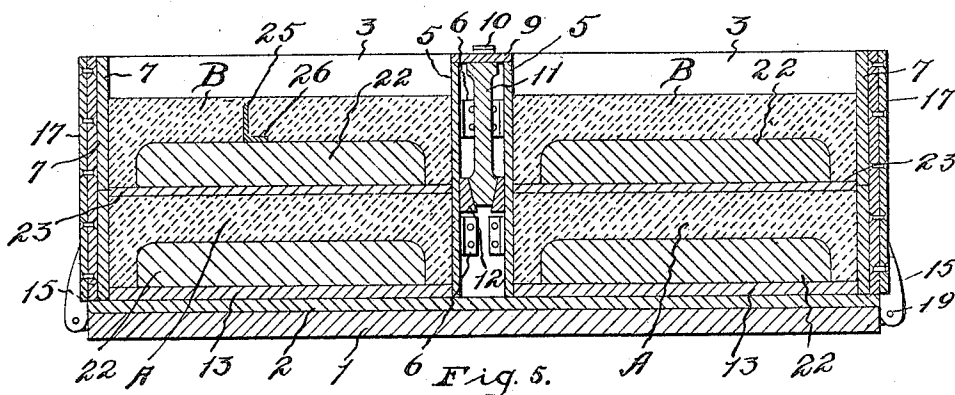
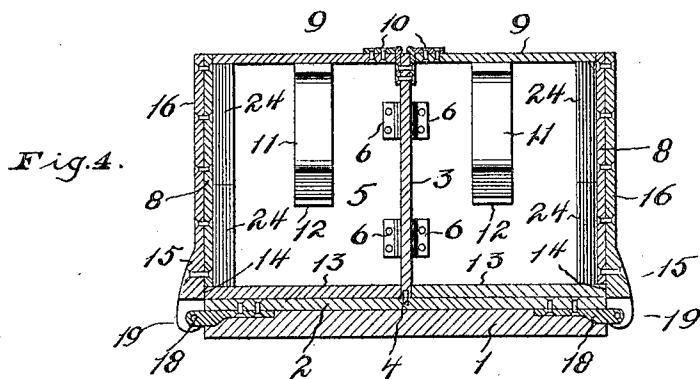
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2 SHEETS—SHEET 2



WITNESSES:
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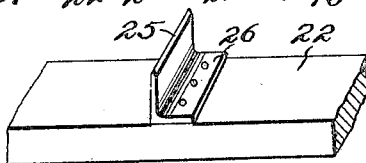


Fig. 7.

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UNITED STATES PATENT OFFICE.

WILLIS H. FISHER, OF MOUNT GILEAD, OHIO.

MOLD-BOX.

No. 801,976.

Specification of Letters Patent.

Patented Oct. 17, 1905.

Application filed September 17, 1904. Serial No. 224,905.

To all whom it may concern:

Be it known that I, WILLIS H. FISHER, a citizen of the United States, residing at Mount Gilead, in the county of Morrow and State of Ohio, have invented a certain new and useful Improvement in Mold-Boxes, of which the following is a specification.

My invention relates to a new and useful improvement in mold-boxes for hydraulic stone-machines.

The object of the invention is to provide a suitable shaping or forming mold-box wherein a plurality of blocks may be simultaneously formed.

Another object resides in means acting in conjunction with the wing-plates for delivering the blocks when the said plates are swung outward.

Finally, the object of the invention is to provide a device of the character described that will be strong, durable, and efficient, simple to make, and one in which the several parts will not be liable to get out of working order.

With the above and other objects in view the invention consists of the novel details of construction and operation, a preferable embodiment of which is described in the specification and illustrated in the drawings, wherein—

Figure 1 is a front elevation. Fig. 2 is a plan view. Fig. 3 is an end elevation. Fig. 4 is a transverse vertical sectional view taken on the line *xx* of Fig. 2. Fig. 5 is a longitudinal vertical sectional view taken on the line *yy* of Fig. 2. Fig. 6 is a transverse vertical sectional view taken on the line *zz* of Fig. 2 and illustrating in dotted lines one of the wing-plates in its lowered position; and Fig. 7 is a partial perspective view of one of the cores, showing a cutter mounted thereon employed for severing the blocks.

The mold-box is designed to be used in connection with a suitable truck, which truck is provided with braces for supporting the wing-plates when they are lowered.

In the drawings, the numeral 1 designates the top or platform of the truck, on which is disposed the bottom plate 2 of the mold-box. The mold-box is divided centrally of its length by a division-plate 3, supported upon the bottom plate 2 and secured thereto by dowel-pins 4. Projecting at right angles from the division-plate, at the center thereof, are partition-plates 5, arranged in pairs on each side. The partition-plates are spaced apart and are secured to the division-plate 3 by means of

hinges 6, which are disposed within the space formed between the partition-plates, as clearly shown in the drawings. It will readily be seen that the mold-box is divided into four compartments, which are surrounded by the end doors 7 and wing or side plates 8. By forming the space between the partition-plates 5 and disposing the hinges therein the molding-compartments are provided with smooth walls, and when it is desired to remove the blocks the said partition-plates are allowed to collapse or swing toward each other, and thus readily release the molded blocks. For the purpose of normally holding the partition-plates in position and also to protect the space between the said plates from falling sand, &c., I provide the cover-plates 9, which are secured to the division-plate by the hinges 10 and extend from each side thereof to the wing-plates 8. These plates each support from their center a downwardly-projecting wedge 11, which contacts with the wedge-bosses 12, arranged upon the adjacent faces of the partition-plates 5, and thus securely holding the said plates in position. It is apparent that by simply swinging the cover-plates 9 upward the wedge 11 is withdrawn from the bosses 12 and the partition-plates allowed to collapse, as hereinbefore stated. In each of the compartments I dispose a false bottom or delivery-plate 13, which are provided along their front edges with recesses 14. The plates 13 project beyond the outer faces of the wing-plates which rest thereon. The recesses 14 receive the bifurcated hinge members 15, which are formed integrally with the straps 16. I preferably provide five of these hinge members upon each wing-plate, and disposed between the strap members 16 are straps 17, which, together with the said strap members 16, are riveted to the wing-plates, so as to securely brace the same. The straps 17 are merged into bolts 17^a at their lower ends, which pass through the projecting portions of the false bottoms 13. For bracing the wing-plates and the false bottoms together angle-irons 16^a are suitably disposed between the straps and the strap members in the angles formed by the projecting portions of the said false bottoms and the wing-plates. The end doors are also provided with straps 17 and strap members 16, which carry at their lower ends the hinge members 15. However, there are no end lugs or projections from the false bottoms 13, which engage with the straps of the end doors. Hinge-leaves 18, securely fastened to the bot-

tom plate 2 of the mold-box, rest in recesses formed in the truck and project beyond the bottom plate between the furcations of the bifurcated hinge members 16. Pintle-rods 5 19, passing through the said parts, pivotally connect them, so that the wing-plates and doors may be readily swung outward. It will be observed that when the wing-plates are swung outward the false bottoms, being 10 rigidly connected thereto by the bolts 17^a and angle-irons 16^a, are caused to follow and to be swung upward and outward simultaneously with the wing-plates, thereby delivering the blocks upon the wing-plates, from which they 15 may be readily removed. For the purpose of holding the end doors and the wing-plates together I pivot upon the end doors latches 20, which engage over pins 21, projecting from the outer face of the wing-plate.

It is to be understood that several sizes and shapes of blocks may be molded or formed in my mold-box, and in my drawings I have shown means for forming one of the various species which consists of suitable cores 22, 25 mounted upon the false bottoms over which the plastic material from which the blocks or stones A are to be formed, is placed. Division-boards 23, also carrying cores 22, are then placed upon the above-mentioned material, over which is spread a second batch of 30 plastic material for forming the blocks B. By observing the drawings it will be seen that two blocks may thus be formed in each compartment, and by providing four compartments eight blocks may be formed or shaped at a single operation. Pallets 24 are placed in each compartment against the wing-plates 16, so that when the same are swung outward to the position indicated in Fig. 6 40 the blocks will rest upon the pallets, and thus may be easily removed from the wing-plates without injury.

In some instances it is desirable to mold blocks of intermediate lengths, and for expeditiously and efficiently accomplishing this 45 end I provide a cutter 25, having a right-angular flanged base 26, by which it may be readily secured to the face of one of the cores 22. This cutter is of such a height as not to 50 project through the upper surface of the compressed block, thus obviating the liability of its injuring or defacing the compression-head. The portion left unsevered, however, is so slight that the parts of the block may be 55 readily severed when they are removed from the cores.

My improved mold or forming box is operated as follows: The wing-plates 8 and the end doors 7 being closed and the cover-plates 60 9 being swung down over the partition-plates 5, which are thus forced into position by the wedges 11 and the bosses 12, and the parts being otherwise adjusted as desired, a plastic material from which the blocks are to be 65 formed is spread over the lower cores 22.

The division-boards 23, bearing the cores 22, are then placed upon the plastic material, and a second batch of plastic material is then spread over the said last-named parts. Enough material is placed in each layer to allow the 70 same to be compressed to form blocks of the desired thickness, which varies according to the style of block desired. The box, as before stated, being mounted upon a suitable truck, is now run into the press. The compression-head of the press is forced down 75 upon the plastic material and pressure applied thereto until the said material is compressed and the blocks formed. The compression-head now being raised, the mold-box is removed from the press and the cover-plates 9 80 swung upward, so as to withdraw their wedges 11 and allow the partition-plates 5 to collapse or swing toward each other. The latches 20 then being raised, the end doors 7 are allowed 85 to swing downward. The molded blocks are now ready to be delivered upon the wing-plates, which is accomplished by swinging the said wing-plates outwardly and downwardly until they lie substantially parallel with the 90 bottom 2 of the mold-box. As before stated, when the wing-plates are swung downward the delivery-plates or false bottoms 13 are swung upward, which carries the blocks therewith and causes the same to rest upon their 95 sides upon the pallets 24, which position they occupy when the wing-plates are brought to the position shown in dotted lines in Fig. 6. The blocks may now be readily removed and the operation repeated. It is to be understood that several of these mold-boxes may be used, which greatly expedites the making of artificial stone. 100

Having now fully described my invention, what I claim, and desire to secure by Letters 105 Patent, is—

1. In a mold-box, the combination with hinged wing-plates, of delivery-plates having projections connected to the wing-plates and adapted to be moved simultaneously therewith. 110

2. In a mold-box, the combination with hinged wing-plates having projections, of delivery-plates having projections in engagement with the projections of the wing-plates. 115

3. In a mold-box, the combination with hinged wing-plates and end doors, of a division-plate, partition-plates mounted to swing toward each other, and a cover-plate movably supported from the division-plate, and a wedge 120 projecting from the cover-plate between the partition-plates for normally holding the same apart.

4. In a mold-box, the combination with hinged wing-plates and end doors, of a division-plate and partition-plates dividing the box into compartments, delivery-plates connected to and operated by the wing-plates arranged in each compartment. 125

5. In a mold-box, the combination with 130

hinged wing-plates and end doors, of a division-plate and partition-plates dividing the box into compartments, cores arranged in the compartments, and a cutter disposed upon
5 one of the cores.

6. In a mold-box, the combination with hinged wing-plates and end doors, of delivery-plates secured to the wing-plates, and reinforcing means arranged on the outside of the
10 wing-plates and end doors, and a part of said reinforcing means passing through the false bottoms for securing the same to the wing-plates.

7. In a mold-box, the combination with
15 hinged wing-plates and hinged end doors open-

ing outwardly, of delivery-plates secured to and adapted to be moved by the wing-plates, a division-plate disposed longitudinally of the box and contacting with the end doors, partition-plates associated with the division-plate to
20 divide the mold-box into compartments, means for holding the partition-plates in position, covering means arranged over the partition-plates, and cores arranged in the compartments.

WILLIS H. FISHER.

In presence of—

F. B. McMILLIN,

M. B. SCHLEY.