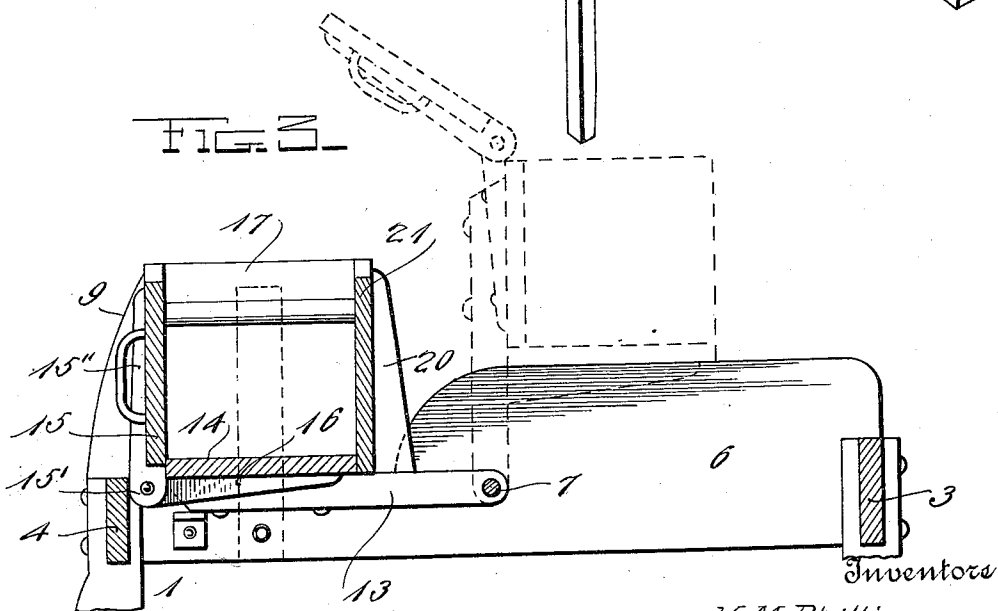
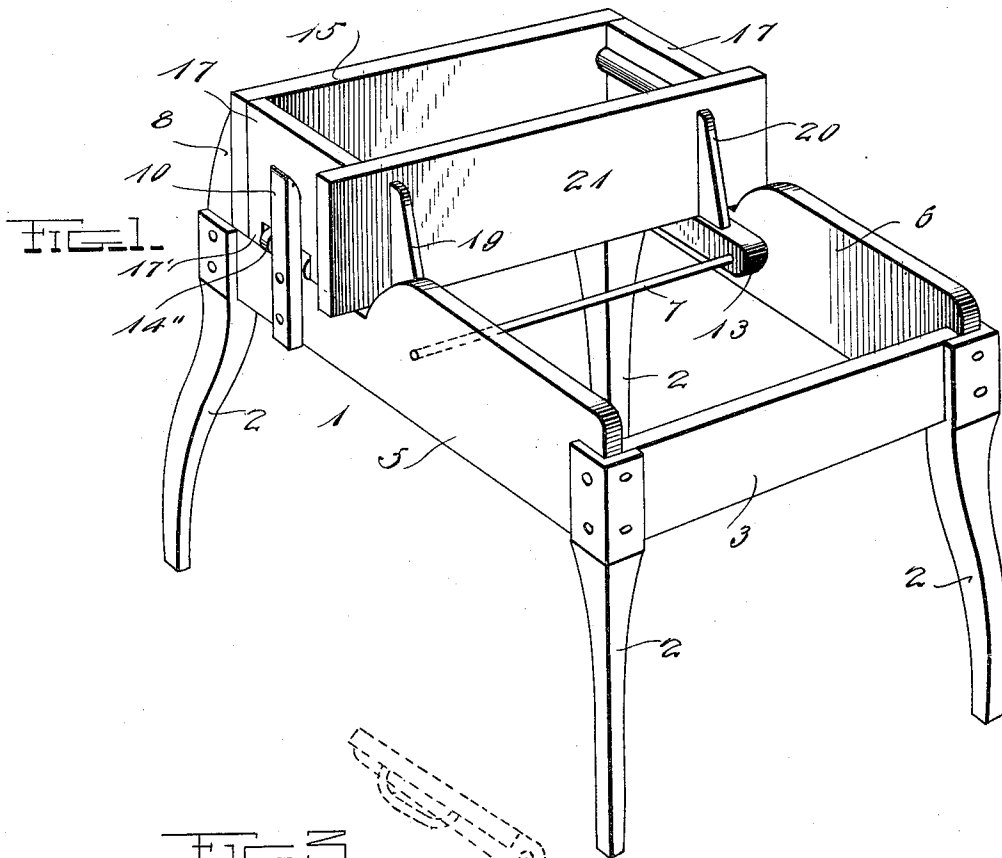


H. M. PHILLIPS & N. FOLKEDAL.  
CEMENT BLOCK MOLDING MACHINE.  
APPLICATION FILED MAR. 14, 1911.

1,052,688.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.



Witnesses  
J. R. Pierce  
S. M. McCall.

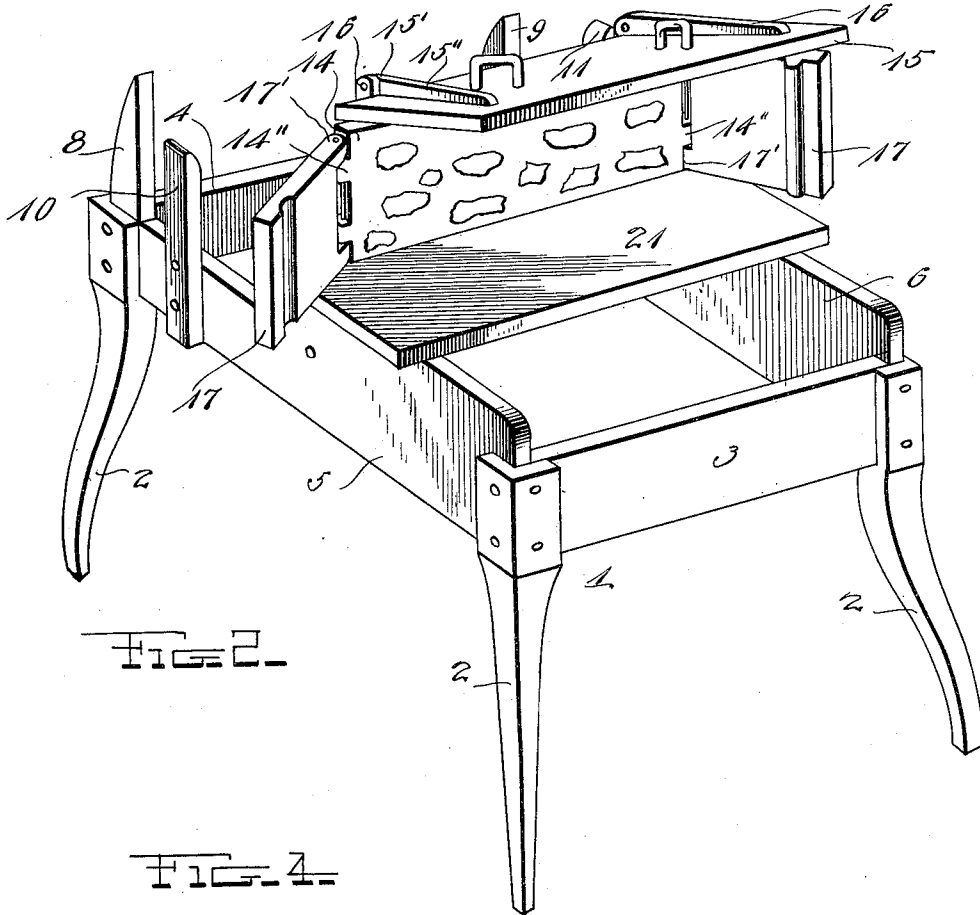
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# UNITED STATES PATENT OFFICE.

HOLLISTER M. PHILLIPS AND NILS FOLKEDAL, OF GALESVILLE, WISCONSIN; SAID FOLKEDAL ASSIGNOR TO ARTHURE J. HENDERSON, OF LA CROSSE, WISCONSIN.

CEMENT-BLOCK-MOLDING MACHINE.

1,052,688.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed March 14, 1911. Serial No. 614,513.

*To all whom it may concern:*

Be it known that we, HOLLISTER MILTON PHILLIPS and NILS FOLKEDAL, of Galesville, in the county of Trempealeau and State of Wisconsin, have invented certain new and useful Improvements in Cement-Block-Molding Machines, of which the following is a specification.

This invention relates to improvements in cement block molding apparatus.

The principal object of the invention is to provide an apparatus of this character in which the ends and sides of the mold automatically open to release the completed block when said mold is turned in one direction, and automatically assume an operative position ready for filling when the mold is turned in the other direction.

Another object is to provide a mold in which no locks or latches are required to hold the parts in operative position.

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

In the accompanying drawings: Figure 1 is a perspective view of a molding machine constructed in accordance with this invention, showing the mold closed and in position ready to receive the cement; Fig. 2 is a similar view showing the mold open and the finished block removed therefrom; Fig. 3 is a vertical longitudinal section thereof; Fig. 4 is a vertical cross sectional view.

In the embodiment illustrated, a suitable support is provided here shown in the form of a skeleton stand 1, comprising four legs 2, connected by end cross bars 3 and 4, and side members 5 and 6. These side members at one end are reduced in height for a distance substantially equal to the width of the mold to be described and this reduced portion forms a seat for the mold when in normal position, the ends of the mold resting on the upper edges of said reduced portion of the side members.

A shaft 7 is revolvably mounted in the side members 5 and 6 intermediately of the ends thereof and is designed to be connected with the mold, as will be hereinafter described.

Two uprights or standards 8 and 9 project upward from the corners of the stand

1 and similar standards 10 and 11 extend upward from the side members. These standards are designed to perform the double function of closing devices and bracing means for the hinged ends and one side member of the mold to be described. The standards 8 and 9 preferably have straight inner faces for engaging and supporting the hinged side member of the mold in normal position, and the standards 10 and 11 are preferably beveled on the inner faces of their free ends to facilitate the closing of the end plates of the mold.

A pair of bracket arms 12 and 13 are mounted on the shaft 7 and are secured to the bottom plate 14 of the mold by any suitable means. A side plate 15 is hingedly connected at the outer side of the bottom plate 14 and is here shown as provided with laterally extending apertured lugs 15' arranged in transverse alinement with said plate on the lower edge thereof and which are pivotally connected with the apertured ends of bars 16 secured to the lower face of the bottom plate and which project beyond the outer side edge thereof. By this connection, the hinged side plate 15 when in operative position will be limited in its inward movement by the engagement of the inner faces of the lugs 15' thereof with the outer edge of the bottom plate. The lugs 15' may be integral with the side plate or they may be connected therewith as shown in the accompanying drawings by means of arms 15'' which extend transversely across the outer face of the hinged side plate 15 and are secured thereto by any suitable fastening means and form additional bracing means for said plate.

Hingedly connected to each end of the bottom plate 14 are end plates 17 which are so hinged that when swung upward into operative position, the lower ends thereof will engage the end edges of the bottom plate 14 and are thereby held in position at right angles to said bottom plate and limited thereby in their inward movement. As shown these end plates are provided with spaced apertured lugs 17' extending in longitudinal alinement from the edges of their lower ends and are pivotally connected with similar lugs 14'' on the end of the bottom plate 14 by pintles 18. When constructed as above described, the inner faces of the lugs 17' abut against the end

edges of the plate 14 when the mold is in normal operative position.

Standards 19 and 20 extend upwardly from the bracket arms 12 and 13 at points spaced from the inner edge of the bottom plate 14, the space between said standards and said bottom plate being sufficient to permit the insertion and removal of a pallet board or plate 21 which forms one side of the mold and is designed to be removed with the completed block resting thereon and another plate inserted in its place, the standards 19 and 20 serving to hold said plate in operative position and to brace it laterally. Suitable handles 22 may be secured to the hinged side plate 15 and may be of any suitable construction capable of use in swinging the mold in an upturned position for the removal of the block when completed. It is to be understood that the inner faces of the mold plates may be equipped with any suitable design or may be smooth if desired.

In the operation of this apparatus the mold is normally in the position shown in Fig. 1, the hinged side 15 and the end members 17 being held against outward movement by the standards 8 and 9 and 10 and 11 and the removable side plate 21 being held by the standards 19 and 20. When in this position the cement is poured into the mold until the latter is filled and the top thereof has been smoothed off in the usual manner. After the cement has become sufficiently set, the mold is tilted into the position shown in Fig. 2, with the plate 21 resting on the upper edges of the projecting portions of the side members of the stand 1. When tilted in this position, the hinged side plate 15 and the end plates 17 will swing outwardly and the pallet 21 with the molded block thereon may then be removed and a new pallet board placed on the standards 19 and 20 and the mold swung back into operative position. When the mold is swung back the hinged side and end plates will engage the standards 8 and 9, and 10 and 11, and be forced automatically thereby into closed position ready for the reception of the cement for forming a new block.

It will thus be obvious that no locks, latches of any kind are required to hold the members of the mold in closed position, and when the block is to be removed the swinging or tilting of the mold into the position

shown in Fig. 2, as above described will operate to disengage the hinged plates thereof from the block and permit of its ready removal and the simple swinging back of the mold into normal position will close these hinged members automatically.

I claim as my invention:

1. In a molding apparatus, a supporting structure, a mold mounted for tilting movement on said structure and having hinged side and end members, cooperating means on said members and the bottom plate of said mold for limiting the inward movement of said members, and means on said supporting structure for limiting the outward movement of said members when in open position, and for automatically closing them when the mold is swung to normal position, and for holding them in closed position.

2. In a molding apparatus, a supporting structure, a mold mounted for tilting movement thereon and comprising a bottom and end plates, and a side plate hingedly connected to said bottom a removable plate forming the other side member, means for holding said removable plate in operative position, cooperating means on said hinged plates and said bottom for limiting the inward movement of said plates, and means on said supporting structure for automatically closing said hinged plates and for holding them in closed position.

3. In a molding apparatus, a supporting structure, comprising a skeleton stand composed of side members and end cross bars, said side members being reduced in height for a distance substantially equal to the width of the mold to be supported and to form a seat for the mold when in normal position, legs engaged with said side and end members, uprights fixed to the reduced portion of said side members and to the adjacent end member, a mold mounted for tilting movement in the higher part of said side members, said mold having hinged side and end members adapted to be engaged by said uprights when swung into normal position, whereby they are held in said position.

H. M. PHILLIPS.  
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In presence of—  
J. A. BERG,  
G. O. SAGEN.