No. 856,866. PATENTED JUNE 11, 1907.

W. L. HART.

PORTABLE MOLD.

APPLICATION FILED OCT. 22, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

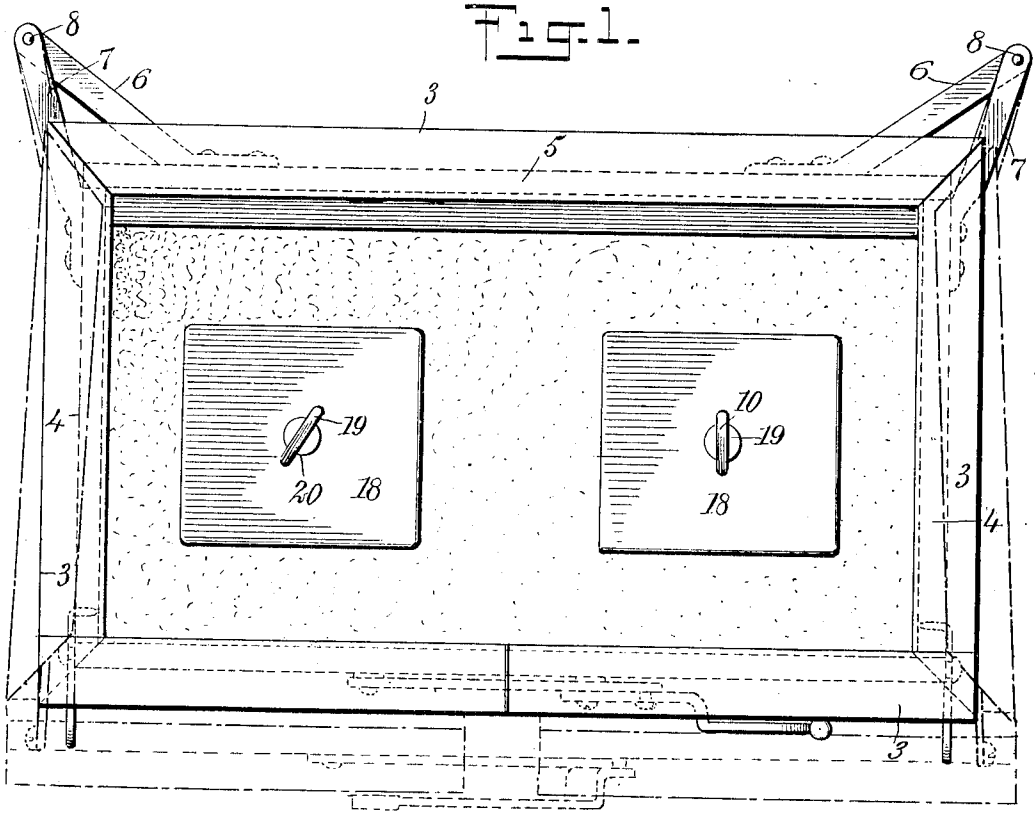
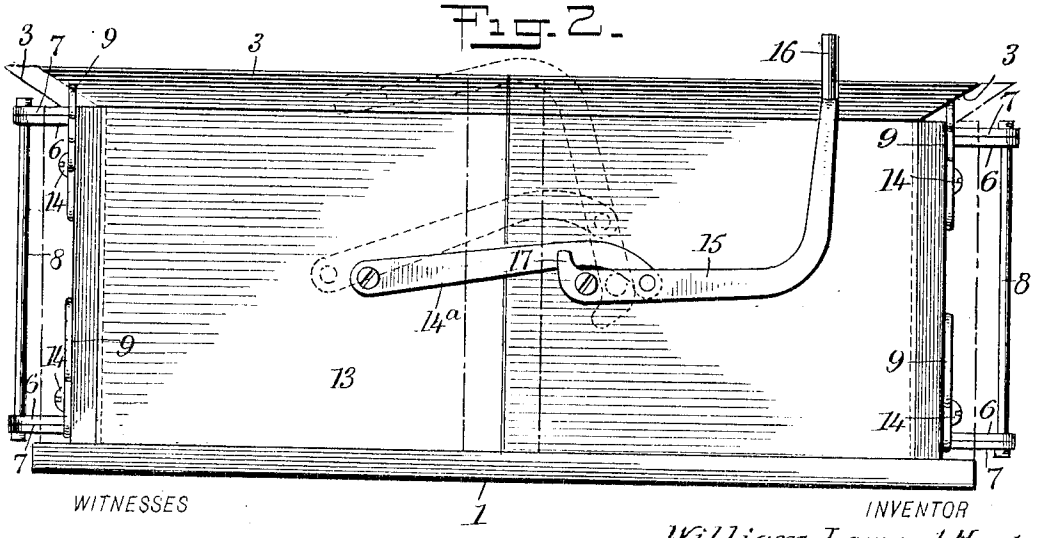


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

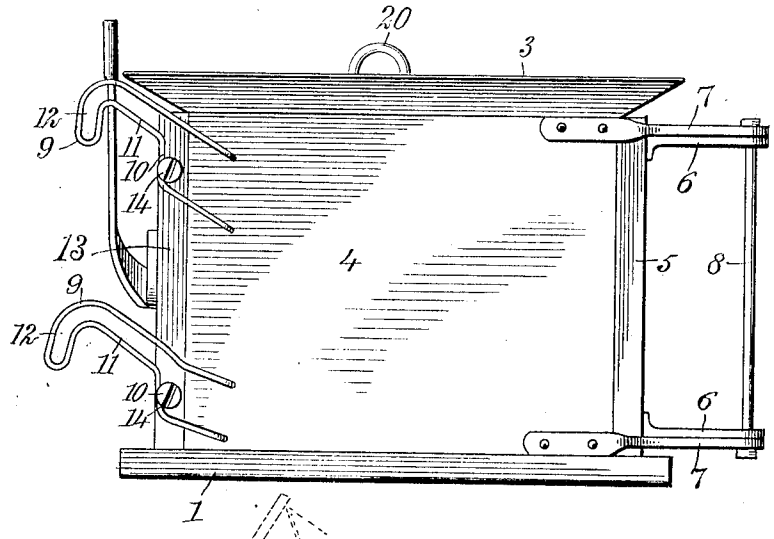
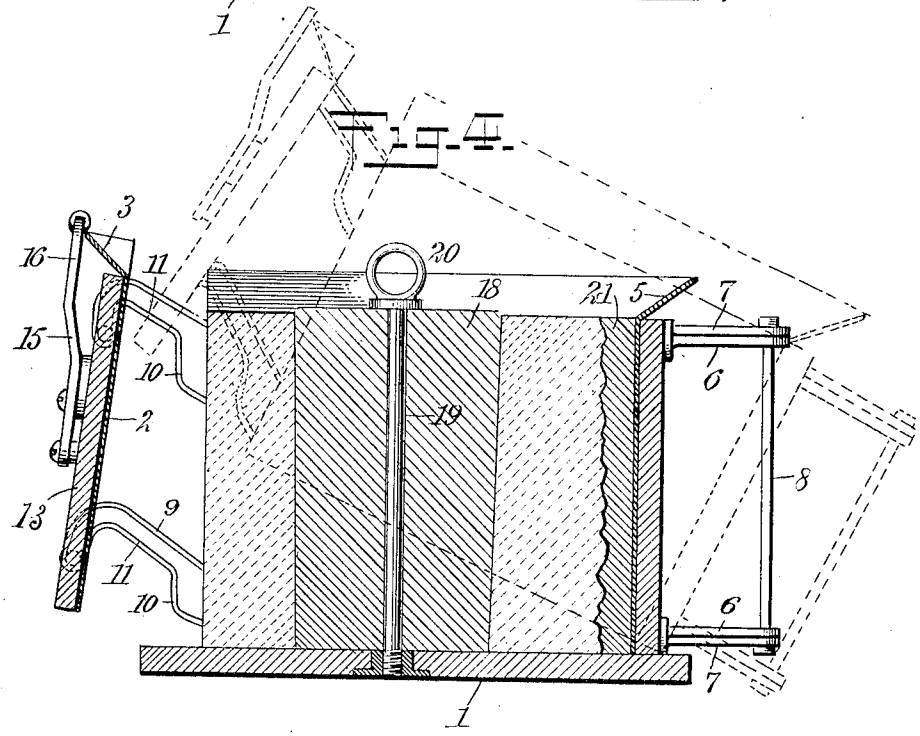


Fig. 4.



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PORTABLE MOLD.

No. 856,866. Specification of Letters Patent. Patented June 11, 1907.

Application filed October 22, 1906. Serial No. 339,968.

To all whom it may concern:

Be it known that I, WILLIAM LEMONT HART, a citizen of the United States, and a resident of West Liberty, in the county of Jasper and State of Illinois, have invented a new and Improved Portable Mold, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in portable molds, and especially that type of mold in which the side walls are removed when the molded block becomes firm enough to stand, said molded block being permitted to remain upon the base plate or pallet until thoroughly hardened.

The object of my improved construction, is to provide means whereby the side walls of the mold may be removed by simply tipping them to one side and without raising the structure to a height above the molded material. The said walls may then be employed upon a second base plate or pallet.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, in which

Figure 1 is a plan view of the complete mold in its closed position and also showing in dotted lines the open position; Fig. 2 is a front elevation of the mold showing the parts in solid lines and in dotted lines for the closed and open positions; Fig. 3 is an end elevation of the mold in its closed position; and Fig. 4 is a vertical transverse section showing in full lines the mold in its open position, and showing in dotted lines the side walls partly removed from the base plate.

In the form of the invention illustrated, I employ the customary base plate or pallet 1, having the walls of the mold removably supported thereon. The walls are all of the same height, and each is provided with a metal face plate 2, terminating at its upper end in an outwardly diverging flange 3, which with the other flanges serves to form a hopper to direct the material into the mold. The two end walls 4 are substantially identical, and each is connected to the rear wall 5 by hinges, the pivot pins of which are supported at a considerable distance from the corners. The two hinge members 6 and 7 are connected to the rear and end walls, respectively, and extend outwardly therefrom at an obtuse angle. The pivot pins 8 extend from the upper hinge members to the lower ones, and by being located in the position referred to, the end walls may be moved away from the molded material, so that all parts will be at substantially the same distance therefrom. This prevents any possible binding or engagement of the end walls with the end of the molded material when the parts are opened up preparatory to removal.

Each of the end walls is provided with two brackets 9, formed of any suitable material, as, for instance, cast metal, and each bracket is provided with a slot having a shoulder 10, an inclined portion 11, and a recess or pocket 12. These brackets are secured to the upper surface of the end walls and extend directly forward in alinement with the outer surface of said end walls. The front wall 13 is not hinged to the end walls as is the back wall, but is provided with two lugs or projections 14 having enlarged heads and extending through the slots in the brackets 9. When the mold is in its closed position, the lugs are at the lower portions of the slots and in engagement with the shoulders 10, whereby the side wall is firmly held in the desired position. When in the open position, the front wall is raised in a vertical plane until the lugs reach the inclined portions of the slots in the brackets and the front wall may then be moved forward in a plane parallel to this, until the lugs 14 drop into the pockets or recesses 12, and the front wall is thus supported at a distance from its original position and substantially in a parallel plane thereto If desired, the lower bracket may be provided with a longer inclined portion than is the upper bracket, so that when the front wall is in its outermost position, it will be supported at an angle, as indicated in Fig. 4.

The front wall 13 is preferably made up of two parts, and means are provided for locking the two parts together or for opening them and holding them at the desired distance apart. For accomplishing this result, I provide a link 14^a, having one end pivotally connected to one member of the front wall and having the opposite end pivotally connected to a lever 15, which latter is pivotally connected to the opposite section. By moving the three pivot pins into alinement by means of a handle 16, carried by the lever 15, the parts are brought firmly together, while upon moving the handle 16 to the position shown in dotted lines in Fig. 2, the parts are separated and held at any desired distance apart.

The end of the lever 15 may, if desired, be provided with a wedge portion 17 adapted to engage with the link 14 and cause a binding effect when the parts are brought to the position shown in solid lines, whereby they will be less liable to be accidentally disconnected.

In the construction of hollow blocks a core 18 is secured to the pallet, preferably by means of a bolt 19 having a handle 20 at its upper end and extending downward through the core into a screw-threaded opening in the pallet. A suitable design plate 21 may, if desired, be either rigidly secured to the rear plate 5 or supported in engagement therewith, whereby any suitable design or printed matter may be molded into the surface of the block.

In the operation of my improved mold, the parts are assembled in the position shown in solid lines in Figs. 1, 2 and 3, and the material of which the block is to be constructed is firmly packed in the space between the walls and the core or cores. After the material has become firm enough to stand, the handle 16 is moved to the position shown in dotted lines in Fig. 2, and the two parts of the front wall are supported in the position shown in dotted lines in Fig. 1. The end and front walls of the mold are now entirely free from the molded material, and the front wall is raised and moved outward into the position shown in Fig. 4. The lengths of the brackets are so proportioned that with the front wall at the outer end of the brackets, the structure may be tipped as illustrated in Fig. 4, and entirely removed from the finished block, without raising it in a vertical plane or running any risk of hitting the soft edges around the top and disfiguring or ruining the block. As the walls tip backward on a line parallel to the lower rear edge of the molded block, no lateral motion of the parts is possible and the structure may be freely tipped back and removed without any particular care being exercised. When the walls are thus removed, the handle 20 may be unscrewed and the cores removed from the interior of the block. The pallet and soft block may then be removed for drying or baking, as the case may be, and the side walls and molds immediately used in connection with another pallet or base plate for the forming of additional blocks.

The advantages resulting from the use of my improved mold will be readily apparent, especially the ease with which the parts may be removed without liability of contacting with the sides of the finished block.

Many changes in the form and construction of the device may be made without departing from the spirit of my invention.

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

1. A mold, comprising a pallet, walls supported upon said pallet and removable therefrom, two of said walls being hinged to one of the connecting walls, and means carried by said two walls, whereby the other connecting wall may be supported in a position substantially parallel to its normal position and at a distance therefrom.

2. A mold, comprising a base plate or pallet, walls carried thereby and removable therefrom, hinges connecting two of said walls with one of the connecting walls, brackets carried by the two above mentioned walls, and means carried by the other connecting wall adapted to engage with said brackets and hold said last mentioned wall in engagement with the two first mentioned walls or at a distance therefrom.

3. A mold, comprising a pallet, side and end walls supported thereon and removable therefrom, one of said side walls being hinged to said end walls, brackets carried by said end walls, and means carried by the other side wall adapted to engage with said brackets, whereby said side wall may be held in engagement with the end walls or in a substantially parallel plane at a distance therefrom.

4. A mold, comprising a base plate or pallet, end and side walls supported thereon, said end walls being hinged to one of the side walls, brackets carried by said end walls, said brackets extending outwardly therefrom and provided with shoulders, inclined portions and recesses, and projections carried by the other side wall and adapted to engage with said brackets.

5. A mold, comprising two parallel walls, a third wall connecting said parallel walls, metal brackets secured to said parallel walls and extending upwardly and outwardly therefrom, said brackets being provided with inclined portions and recesses, and lugs carried by said third wall and in engagement with said brackets, said brackets and lugs adapted to coöperate to hold said third wall in engagement with the parallel walls or at a distance therefrom and at a higher elevation.

6. A mold, comprising a base plate, a rectangular body portion supported thereon, hinges connecting one of said walls to the two adjacent walls, and means for connecting the opposite wall to the adjacent walls, whereby the last mentioned wall may be moved in an outward and upward direction to a position substantially parallel to its original position, and whereby the entire body may be removed from the base plate by rotating said body about the lower edge of the hinged wall, without interfering with the finished block.

7. A mold, comprising a base plate, a rear wall, a front wall made up of sections, end walls, hinges connecting said end walls and said rear wall, and means for securing said sections of the front wall in their open or closed position, said means comprising a le-

ver pivoted to one of said sections and a link pivoted to said lever and to the other of said sections.

8. A mold, comprising a base plate, a rear wall, a front wall made up of two sections, and end walls, hinges connecting said end walls and said rear wall, brackets and lugs for supporting said front wall in engagement with the end walls or at a distance therefrom, and means for separating the sections of the front wall.

9. A mold, comprising a base plate, a rear wall, a front wall made up of two sections, and end walls, hinges connecting the end walls and said rear wall, the pivot pins of said hinges being supported at a distance from said rear wall, and means for separating the sections of the front wall, said means comprising a lever pivoted to one of said sections, and a link pivoted to said lever and to the other of said sections.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM LEMONT HART.

Witnesses:

LEVI CLODFELTER,

H. G. HITCH.