No. 862,123. PATENTED AUG. 6, 1907.

E. L. ADAMS.

PIPE MOLD.

APPLICATION FILED DEC. 6, 1906.

Fig. 1.

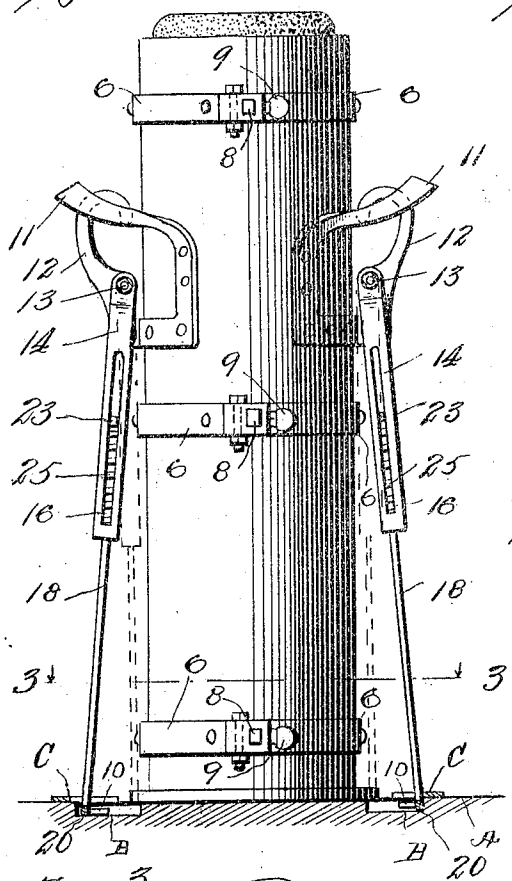


Fig. 2.

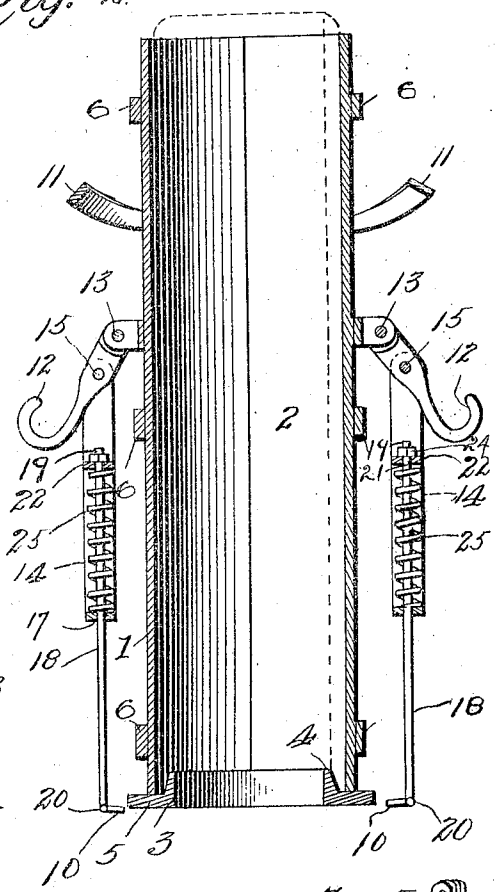


Fig. 3.

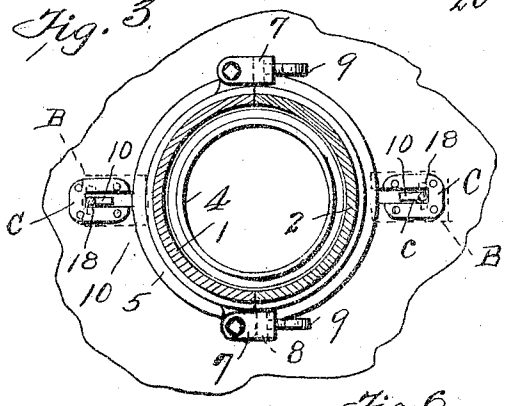


Fig. 4.

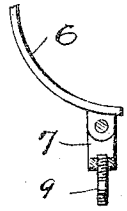
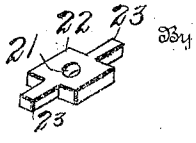


Fig. 5.

Fig. 6.



Witnesses

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PIPE-MOLD.

No. 862,123. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed December 6, 1906. Serial No. 346,675.

To all whom it may concern:

Be it known that I, EDWARD L. ADAMS, a citizen of the United States, residing at McLoud, in the county of Pottawatomie and Territory of Oklahoma, have invented certain new and useful Improvements in Pipe-Molds, of which the following is a specification.

This invention relates to new and useful improvements in pipe molds, and it has particular reference to a mold embodying separable sections.

The invention specifically comprises a mold for forming pipes or tiles in which detachably connected semi-circular sections are provided, and a pallet which may be clamped to said sections during one step of the operation of forming a pipe or tile.

The invention aims as a primary object to provide novel means for stripping the mold from the tile and aims by such means to eliminate a marked disadvantage of the art as ordinarily practiced, such disadvantage consisting in allowing the pipe or tile to become "set" before the pipe or tile can be removed from the mold, or before the mold can be stripped from said pipe or tile, as the case may be.

The invention aims as a further object to provide a mold of the above type which shall be simple in construction, inexpensive to manufacture and practical and efficient in use.

The detailed construction will appear in the course of the following description in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating like parts through the several views, wherein,

Figure 1 is a side elevation of a mold constructed in accordance with my invention, the parts thereof being assembled for use. Fig. 2 is a central longitudinal section thereof, showing the disengaged relation of locking elements to be hereinafter specifically referred to. Fig. 3 is a horizontal section on the line 3—3 of Fig. 1. Fig. 4 is a fragmentary plan view of an advantageous means for clamping the mold sections to one another in their assembled relation, and Figs. 5 and 6 are detailed perspective views of elements to be hereinafter specifically referred to.

In the practical embodiment of my invention I employ a mold, the body portion of which is constituted of co-extensive sections 1 and 2 of semi-circular cross section, which in their assembled relation rest upon and have connection with a pallet 3. The pallet 3 comprises a raised body portion having a beveled annular edge 4 and an annular flange 5 projecting outwardly from said body portion and upon which the sections 1 and 2 are seated. Said sections 1 and 2 are provided at correspondingly equi-distant points with straps 6. The straps 6 of the section 1 at their ends have pivotal connection with clamping yokes 7 which swing on vertical axes and adapted as shown in Figs. 1, 3 and 4 to engage horizontally projecting studs 8 provided upon the straps 6 of the section 2. For the purpose of effecting a positive locking engagement between the yokes 7 and the studs 8, a set screw 9 is threaded through the end of each of the yokes 7 and is designed to frictionally engage the adjacent stud 8.

The mold, in operation, rests upon a stationary object or floor A which is provided at diametrically opposite points with enlarged recesses B. The major portion of said recesses is closed by a U-shaped cap plate C between the legs of which is a recess c. The flange 5 of the pallet 3 partially overlies said recesses B.

The means for clamping the sections 1 and 2 to the floor A is designed to engage the cap plates C and to work in the recesses B and c. The said clamping means is also employed to lock or clamp the pallet 3 to the sections 1 and 2 in removing the mold and its product from the stationary object or floor A. Figs. 1 and 2 illustrate an advantageous embodiment of such means. The sections 1 and 2 are provided with strap handles 11 having extensions to which a lever 12 is pivoted as at 13. A stirrup 14 has its free ends pivoted as at 15 to the lever 12 at a point some distance above the stationary pivot 13 of said lever. This stirrup 14 is illustrated in detail in Fig. 5 and is formed in its side bars with vertical longitudinal slots 16. The lower cross bar of the stirrup 14 is provided with a central opening 17 through which is loosely projected a rod 18 having a threaded upper end 19 and having its lower end provided with an integral cross piece 20 extending on each side thereof and an extension 10 for engagement with the flange 5 of the pallet 3 as will be set forth. The upper end 19 of the rod 18 projects through a central opening 21 provided in a plate 22 having integral laterally extending arms 23 which project through the slots 16 in each of the side bars of the stirrup 14. The plate 22 is retained from displacement from the upper end of the rod 18, by a nut 24 threaded upon the upper ends of each of said bars 18. Between the plate 22 and the lower cross bar of the stirrup 14, an expansive coil spring 25 is interposed. The spring 25 surrounds the bar 18 and has its tension regulated by the proper rotation of the nut 24, the plate 22 serving as a follower and being held against rotation by the arms 23 which work in the slots 16 as guides.

In practical use the cross pieces 20 of the bars 18 are first engaged in the recesses B underneath the cap plate C and the sections 1 and 2 are then disposed with relation to one another as shown in Figs. 1 and 2. In such disposition said sections are clamped together by the yokes 7 and studs 8 in the manner described. The rods 18 having had their ends 20 engaged in the recesses B, the levers 12 are swung from the position of Fig. 2 to the position of Fig. 1. In such disposition the stirrup 14 is of course raised and has movement with relation to the bar 18 against the tension of the spring 25. The tension of said spring will also influence the bar 18 to frictionally engage the cap plate C and to hold the respective

sections 1 and 2 upon their stationary support. The core (not shown) is then inserted concentrically into the space defined by the assembled sections 1 and 2 and material of the pipe or tile is introduced in a plastic or semi-plastic state between said core and the inner surfaces of said sections 1 and 2. After said material has become sufficiently solid the mold and its product are removed to a place where the tile or pipe may be dried. This removal is effected by swinging the levers 12 to the position of Fig. 2 and moving the bars 18 with the foot out of engagement with the cap plate C into engagement with the underneath surface of the pallet 3. In such engagement the extensions 20 of the bars 18 will be engaged with the underneath surface of the flange 5 of said pallet. This position of the bars 18 is illustrated in dotted lines in Fig. 1. It will be observed that in both positions of said bars the levers will be drawn towards the mold sections and consequently accidental displacement of the said levers on their pivots 13 will be prevented. The beveled surface 4 of the body portion of the pallet 3 serves to give the proper conformation to the lower end of the pipe or tile and the upper end is correspondingly shaped by a suitable form. In disassembling the sections 1 and 2 from one another to strip them from the finished product, the levers 12 are again swung to the position of Fig. 2, which permits of the disengagement of the bars 18 from the pallet 3. The yokes 7 are then released and swung out of engagement from the studs 8, at which time the sections 1 and 2 may be detached from one another and from the pallet 3.

While the elements herein shown and described are well adapted to serve the functions set forth, it is obvious that various minor changes may be made in the proportions, shape and arrangement of the several parts without departing from the spirit and scope of the invention as defined in the appended claims.

Having fully described my invention I claim:

1. A mold of the type set forth comprising in combination with a stationary support, a pallet resting thereupon, detachably connected mold walls resting upon said pallet, pivotal members carried by each of said mold walls and means for operatively engaging said pivotal members with said stationary support or with said pallet to clamp said mold walls thereto.

2. A mold of the type set forth, comprising in combination with a stationary support detachably engaged walls, a pallet, said walls in their assembled relation being adapted to rest on said pallet, and clamping means carried by said walls adapted in one position to engage said support and in another position to engage said pallet.

3. A mold of the type set forth, comprising in combination with a stationary support a pallet, detachably engaged walls adapted in their assembled relation to rest on said pallet, pivoted clamping members carried by said walls and adapted for engagement in different positions with said support or said pallet to clamp said mold walls thereto, and means for fixing said clamping members in their engaged relation with either said support or said pallet.

4. A mold of the type set forth, comprising in combination with a stationary support a pallet, detachably engaged walls adapted in their assembled relation to rest on said pallet, pivoted clamping means carried by said walls and comprising yieldably connected members, said clamping means being adapted in different positions to engage said support or said pallet to clamp said mold walls thereto, and means for fixing said clamping members in their engaged relation with either said support or said pallet.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD L. ADAMS.

Witnesses:
L. S. EDWARDS,
W. J. NEWSOM.