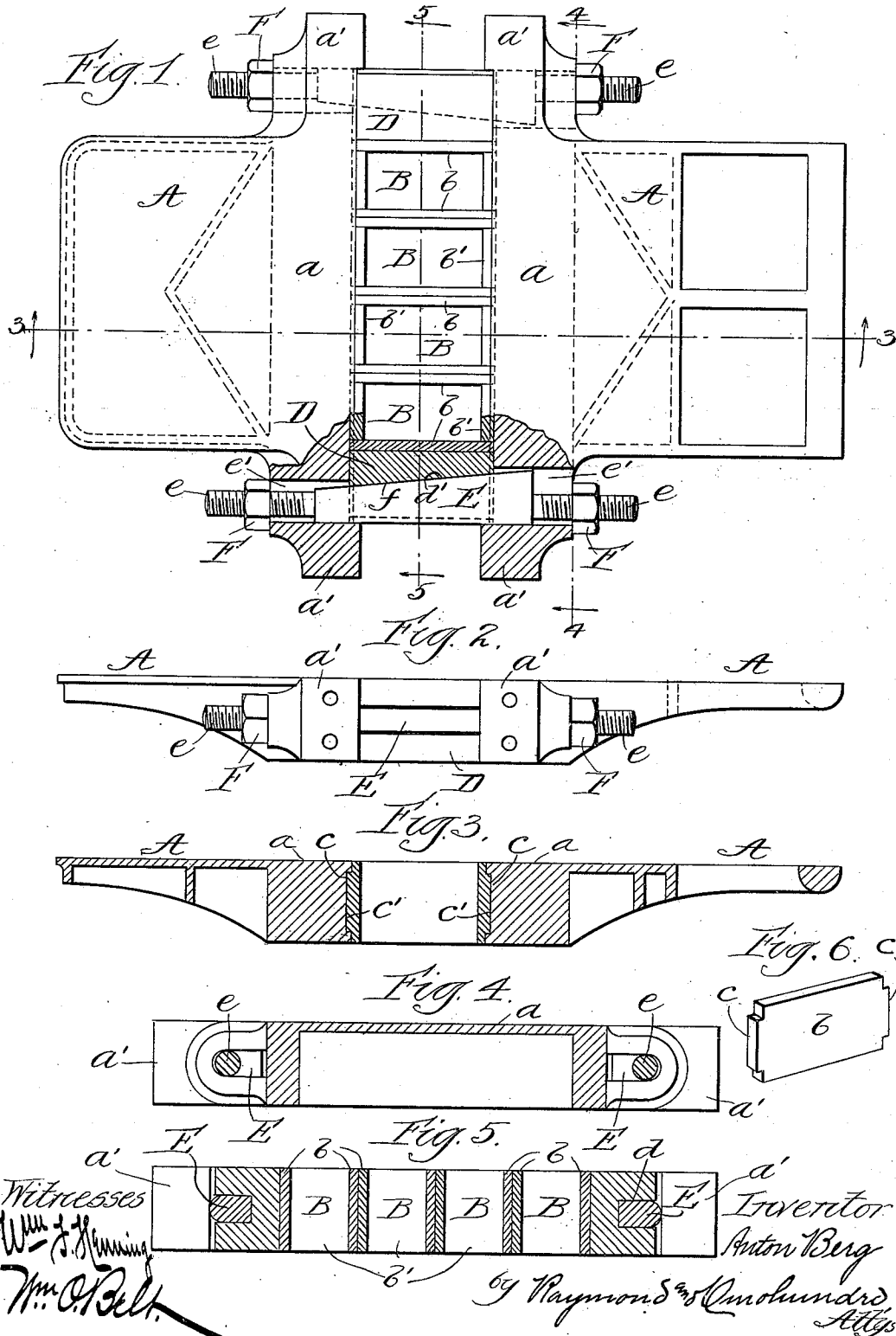


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MOLD FOR BRICK MACHINES.

(Application filed July 20, 1896.)

(No Model.)



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*Fig. 6. c*  
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# UNITED STATES PATENT OFFICE.

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## MOLD FOR BRICK-MACHINES.

SPECIFICATION forming part of Letters Patent No. 607,787, dated July 19, 1898.

Application filed July 20, 1896. Serial No. 599,780. (No model.)

*To all whom it may concern:*

Be it known that I, ANTON BERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Molds for Machines for Making Bricks, Tiles, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to certain new and useful improvements in sectional molds for brick-presses; and its primary object is to provide a sectional mold all the sides of which may be simultaneously adjusted to maintain the proper dimensions of the mold-space.

A further object of the invention is to provide a sectional mold, the walls of the molding-space being removable and adapted to be adjusted so that the proper area and dimensions of the molding-space may be preserved after the parts have been worn and then planed down and trued in a manner common in the art, and a still further object of the invention is to provide removable sides and ends adapted to be assembled to form the molding-spaces and means for clamping the sides and ends together in a firm and rigid manner.

My invention consists in certain peculiar novel features of construction and arrangement of parts, which will be fully hereinafter described and claimed in connection with the accompanying drawings, in which—

Figure 1 is a top plan view of a mold-table embodying my invention and partly in section to show the adjusting means. Fig. 2 is a side elevation of the mold-table. Fig. 3 is a sectional view on the line 3 3 of Fig. 1. Fig. 4 is a transverse sectional view on the line 4 4 of Fig. 1. Fig. 5 is also a transverse sectional view taken through the center of the molds on the line 5 5 of Fig. 1, and Fig. 6 is a perspective view of one of the sides of the mold.

My invention may be embodied in a single mold; but for the purpose of illustrating a common form I have shown in the drawings a mold comprising four compartments, each of which is of substantially the same dimensions and constructed in the same manner, as shown.

Referring particularly to the drawings, A designates the mold-table, which may be of

any preferred form and size, my invention not being limited to any particular form of table, as it can be embodied in tables of various descriptions. The mold-table is formed in two parts, as shown in the drawings, and has the two sides *a*, which are provided with extensions *a'* beyond the sides of the table proper. These sides *a* are of substantially the same form and size and they constitute the sides of the mold, the compartments of the mold being located between them.

Each compartment B of the mold comprises the side plates *b* and the end plates *b'*, the said end plates being located between the side plates. The ends of the side plates are provided with tongues C, which fit in grooves *c* on the inner opposing faces of the mold-side *a*, and the end plates *b'* are also provided with tongues *c'*, which fit in the same grooves, so that the end plates and side plates will be maintained in their proper relative position in the mold.

At each end of the mold is an end block D, which is provided with tongues adapted to fit and slide in the grooves *c* on the inner faces of the sides *a*, and each end block is provided with a groove *d* in its outer face, having a beveled vertical side *d'*. A wedge E is arranged to operate in the groove *d* in each of the end blocks D, and these wedges are provided with threaded bolts *e* at each end, which project through openings *e'* in the extensions *a'* and carry the adjusting-nuts F. These nuts F bear upon the sides of the extensions and are operated to adjust the wedges E for the purpose of tightening the side plates and end plates which form the compartments in the mold.

The side plates and end plates *b b'* are made of metal, preferably having smooth faces, and as these faces become worn from constant use the plates may be removed and planed down or otherwise trued. The plates are then replaced in the mold in the manner described, and it will be observed that when the sides *a* and end blocks D of the mold are simultaneously adjusted and tightened, by operating the wedges E the plates *b b'* will be forced tightly together and the same dimensions of each compartment preserved, it being understood that the end plates *b'* and the side plates *b* will be moved inwardly by

the operation of the wedges E to compensate for the loss of thickness in the plates when they are trued. The operation of adjustment of all plates is simultaneous, and by refer-  
 5 ence to the drawings it will be observed that the adjacent side plates of two compartments abut against each other, and the end plates of each compartment are arranged between the side plates, so that the movement and ad-  
 10 justment of all plates in the mold is simulta-  
 neous.

Of course when the spacing-plates *b* and *b'* are planed down or the sizes of the compart-  
 15 ments are changed the plungers of the brick-  
 press must be correspondingly adjusted to register with the changed position of the compartments or changed to correspond with the changed sizes of the compartments.

The wedges E are adjusted very easily by  
 20 operating the nuts F, and great pressure can be brought to bear upon the side plates and end plates *b b'* by the simultaneous adjust-  
 ment of the sides *a* and end blocks D of the mold, this simultaneous adjustment being ac-  
 25 complished by reason of the fact that the nuts F bear against the outer faces of the ex-  
 tensions *a'*, and the wedges E, to which the bolts *e*, carrying said nuts, are secured, operate in the grooves and bear against the beveled  
 30 vertical side *d'*, the wedges of course having correspondingly beveled faces *f* to bear against the beveled sides *d'* of the end blocks.

By reason of the fact that the adjacent side  
 35 plates of two adjoining compartments are located back to back these side plates may be reversed when the operating-faces of said side plates become worn, so that inner abut-  
 ting faces, which are perfectly straight and  
 40 smooth, may be made the operating-faces, thereby saving much time and expense, which would be required to plane them down in the manner customary in the art.

In order that brick-machines may be used  
 45 for the purpose of making bricks or tiles of different sizes and shapes, it is necessary that the mold should be constructed in such a manner that it may be readily changed or altered to correspond with the brick it is in-  
 50 tended to produce. With my improved mold it will be observed that bricks of any size within the limits of the adjustments can be made by simply inserting the proper sides and ends for the compartments, and if dies  
 55 are provided in the mold or on the plungers an ornamental brick may be made of any size desired. It is obvious that the size of the compartments can be enlarged or decreased, as desired, and in view of the fact that these  
 60 compartments are adjustable laterally and longitudinally of the mold-table they can be readily disposed in their proper position relative to the plungers. As the compartments are built up side by side and against each  
 65 other and are adjustable simultaneously, the proper positions of the compartments with relation to each other will always be maintained.

Independent adjustments of each compart-  
 ment are therefore unnecessary.

With this construction, whether a single or  
 70 multiple mold is used, the spacing-plates will absolutely limit the movements of the sides and ends of the mold toward each other, and the stopping of the movement of the sides  
 75 will not prevent the continued movement of the ends, nor will the stopping of the move-  
 ment of the ends toward each other prevent the continued movement of the sides toward  
 80 each other until the movement of all of the plates is stopped and limited by engagement  
 with the spacing-plates. In other words, referring to Fig. 1 of the drawings, one of each  
 85 of the intermediate pairs of spacing-plates *b* might be removed and the space occupied  
 thereby could be taken up without adjusting  
 or changing the distance between the sides *a*  
 90 *a*. So, also, all of the plates *b* might be removed and substituted by either larger or  
 shorter plates without any change whatever in the position of the ends D of the mold.  
 All of this would be equally true if the mold were but a single-compartment mold, for the  
 95 mold can be made wider or narrower by the use of longer or shorter transverse spacing-  
 plates without any change whatever in the length of the mold, or the length of the mold  
 might be increased or decreased without any change whatever in the width of the mold.  
 100 So, also, both the length and breadth of the mold, by the use of the proper spacing-plates,  
 may be changed indefinitely between the maximum and minimum sizes it is possible  
 to produce. All this comes about by the ad-  
 105 justability of the sides and the independent adjustability of the end blocks, which enables  
 the mold to assume any dimensions fixed by the spacing-plates used, and no matter what  
 change in the spacing-plates (which deter-  
 110 mines the length and breadth of the mold) is made the mold will always lock up tight  
 in any adjusted position, locking one set of  
 spacing-plates just as firmly as the other.

I am aware that changes in the form and  
 115 proportion of parts and in the details of construction of my invention may be made with-  
 out departing from the spirit and without sac-  
 120 rificing the advantages thereof, and I there-  
 fore reserve the right to make all such changes as fairly fall within the spirit and scope of my  
 invention.

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

1. A sectional mold comprising a pair of ad-  
 125 justable sides, a pair of end blocks independ-  
 ently adjustably arranged between said sides,  
 spacing-plates arranged between said sides  
 and end blocks and means for forcing said  
 130 sides and end blocks toward each other, sub-  
 stantially as described.

2. A sectional mold comprising a pair of ad-  
 justable sides, a pair of independently-ad-  
 justable end blocks arranged between said  
 sides, spacing-plates arranged between said

sides and end blocks and means for forcing said sides and end blocks toward each other and locking the same in any adjusted position, substantially as described.

5 3. A sectional mold comprising a pair of sides, a pair of end blocks adjustably arranged between said sides, spacing-plates arranged between said sides and end blocks, and wedges interposed between the sides and end blocks  
10 for simultaneously forcing the same together, substantially as described.

4. A sectional mold comprising a pair of sides, a pair of end blocks adjustably arranged between said sides, spacing-plates arranged between said sides and end blocks,  
15 wedges working through and supported in the sides and engaging the end blocks so as to force the same toward each other, screw-threaded extensions on said wedges and nuts  
20 working on said extensions for operating the wedges, substantially as described.

5. A sectional mold, comprising a pair of sides, end blocks arranged between said sides, means for simultaneously adjusting the sides  
25 and end blocks and spacing-plates forming two or more compartments arranged between said sides and end blocks and simultaneously adjustable laterally, substantially as described.

6. A sectional mold, comprising a pair of sides, end blocks arranged between said sides, means for simultaneously adjusting the sides  
30 and end blocks and spacing-plates forming two or more compartments arranged between the sides and end blocks and simultaneously adjustable laterally and longitudinally, substantially as described.

7. A sectional mold, comprising spacing-plates forming two or more compartments arranged side by side, a pair of sides and end  
40 blocks arranged around said compartments and holding the plates forming the same in their proper relation to each other, and adjusting devices adapted to draw the sides and  
45 force the end blocks toward each other, respectively, and against the spacing-plates, substantially as described.

8. A sectional mold comprising a pair of sides having end extensions, end blocks arranged between said sides, and provided with  
50 grooves having a beveled vertical face, spacing-plates arranged between said sides and ends of the molds to form the compartments, the wedges operating in the grooves in the  
55 end blocks of the mold and against the be-

eled sides thereof, and means for moving said wedges to adjust the sides and ends of the mold simultaneously, substantially as described.

9. A sectional mold, comprising a pair of sides, having end extensions thereon, grooved  
60 end blocks arranged between said sides, spacing-plates forming the compartments between the sides and end blocks of the mold, wedges arranged to operate in grooves in the  
65 end blocks and against the vertical beveled sides of said grooves, threaded bolts on the ends of said wedges extending through openings in the extensions on the sides, and the  
70 nuts carried by said bolt and bearing against the outer faces of the sides, substantially as described.

10. A sectional mold, comprising a pair of grooved sides having end extensions thereon, end blocks arranged between said sides and  
75 provided with grooves having a beveled vertical side, spacing-plates provided with tongues arranged to fit in grooves on the inner faces of said sides, other spacing-plates forming, with the first-mentioned plates, the mold-  
80 compartments and provided with tongues on their ends to fit in the grooves in the inner faces of said sides, the wedges arranged to operate in the grooves in the end blocks and  
85 provided with beveled sides to engage the beveled vertical sides of said grooves, bolts on the ends of said wedges projecting through openings in the extensions on the sides, and  
90 nuts on said bolts adapted to be operated to move the wedges and adjust the sides and end blocks of the mold simultaneously, substantially as described.

11. A sectional mold, comprising a pair of grooved sides, end blocks arranged between said sides, means for adjusting the same  
95 simultaneously, spacing-plates *b* provided with tongues on their ends adapted to fit in the grooves on the inner faces of said sides, spacing-plates *b'* forming, with the first-mentioned plates, the compartments of the mold and  
100 provided with tongues to fit in the grooves in said sides, the adjacent side plates of two adjoining compartments being arranged back to back, and end plates of each compartment being arranged between the side plates of that  
105 compartment, substantially as described.

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Witnesses:

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