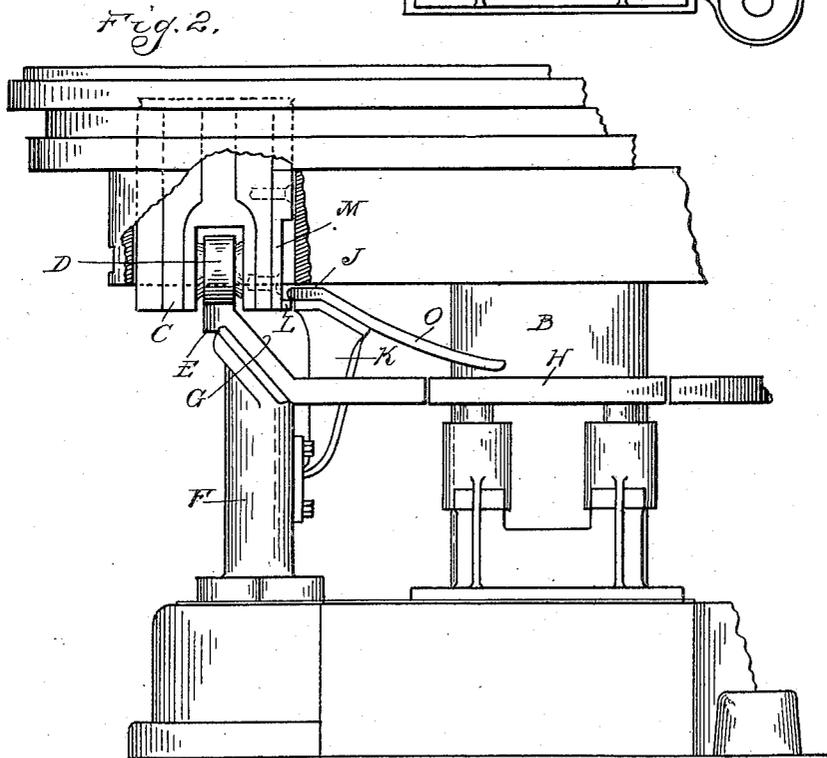
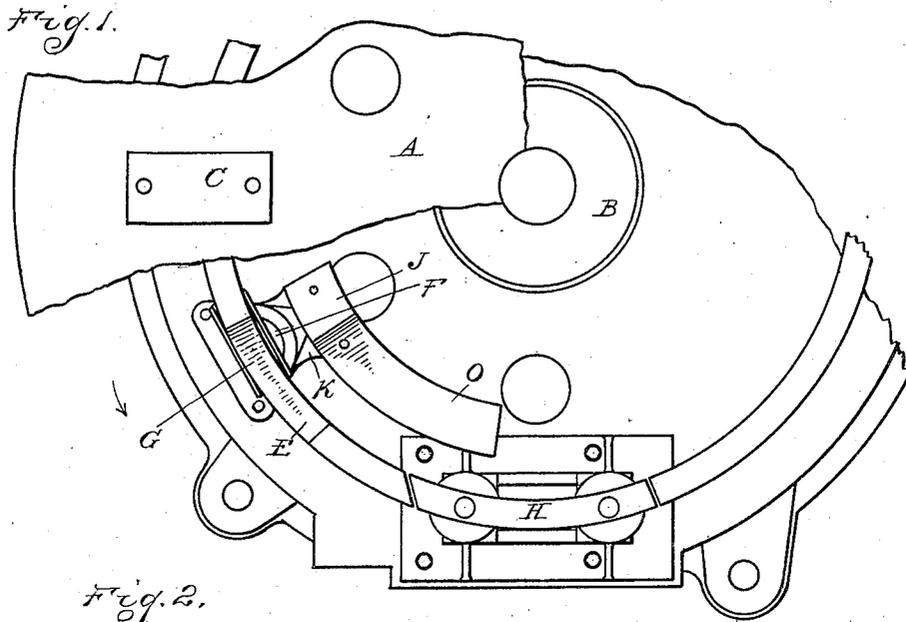


No. 791,007.

PATENTED MAY 30, 1905.

E. D. CHURCH
BRICK PRESS.
APPLICATION FILED APR. 4, 1904.



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UNITED STATES PATENT OFFICE.

EDGAR D. CHURCH, OF SAGINAW, MICHIGAN, ASSIGNOR TO AMERICAN SANDSTONE BRICK MACHINERY CO., OF SAGINAW, MICHIGAN.

BRICK-PRESS.

SPECIFICATION forming part of Letters Patent No. 791,007, dated May 30, 1905.

Application filed April 4, 1904. Serial No. 201,452.

To all whom it may concern:

Be it known that I, EDGAR D. CHURCH, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Brick-Presses, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to machines for pressing brick of that type in which a rotary table is provided with a series of mold-pockets and plungers in said pockets, which are raised and lowered during the rotation of the table, the arrangement being such that at one point of the rotation the plungers are depressed to permit of filling the pockets with the plastic material and at another point in the rotation the plungers are raised to compress the material in the pockets against a stationary abutment, while at a third point the plungers are further raised to eject the brick from the pocket. With machines of this type it is usual to actuate the plunger by means of a cam-track over which the plunger travels during the movement of the table. This track is so fashioned as to impart the requisite movement to the plunger, and the latter is supported on the track by an antifriction-roll. The plunger is actuated by the track positively only in an upward direction, but is returned by gravity wherever the track is depressed. Such a construction will operate satisfactorily under normal conditions; but at times, if the plastic material is too wet, the plunger will stick when in its upper position, with the result that the pockets do not open to receive a new charge of plastic material.

It is the object of the present invention to overcome this difficulty by providing means for positively depressing the plunger in case of any sticking, while at the same time the normal operation of the plunger is accomplished solely by its traveling support upon the cam-track.

The invention therefore consists in the pe-

culiar construction, arrangement, and combination of parts by which said object is accomplished.

In the drawings, Figure 1 is a plan view of a portion of the machine, the rotary table being broken away to illustrate the mechanism beneath. Fig. 2 is a side elevation of the machine.

A is the rotary table, which is mounted upon a single post or pillar B.

C represents the plungers, which slidingly engage the vertical mold apertures or pockets in the table. The lower ends of these plungers are preferably bifurcated and have arranged between the bifurcations an antifriction-roll D, which is adapted to travel upon the track E. This track is supported upon a series of posts or other supports F, and at one point in the track is arranged the downward incline G, which permits of the depression of the plunger to open the mold-pocket for receiving a new charge. Beyond this depressed portion of the track is a vertically-adjustable track-section H, the function of which is to determine the exact position of the plunger at the time of cutting off the plastic material in the pocket from the material in the filling-hopper.

With the parts as thus far described, the rotation of the table being in the direction indicated by the arrow, the plungers will be in their highest position when traveling over that portion of the track E immediately in advance of the incline G, and normally when they pass into engagement with said incline the plungers will be lowered to open the mold-pockets. To guard against the possibility of the plungers sticking in the pockets, so as not to descend when the incline G is reached, I have arranged a positive-acting device for depressing the plungers. As shown, this consists of a flange J, which is arranged adjacent to the track E and preferably is secured to a bracket K, which is attached to a post F, supporting the track. This flange J is adjacent to the inner side of the plunger C, which latter is

provided with a lug or projecting shoulder L, adapted to pass beneath the forward end of the plunger. The shoulder L is preferably formed upon a section M, which is screwed or otherwise secured to the inner edge of the plunger. The flange J is of such shape and is so positioned as to just clear the lug L when the roll D travels in close contact with the track E and incline G therein. When, however, the plunger sticks, so that the roll D does not follow the downward incline G, the lug L will contact with the inclined portion O of the flange J, which will positively draw it downward upon the flange and cause its depression.

The flange J extends from its point of support on the bracket K to a point where it will be above the lug L when the flange is in engagement with the vertically adjustable track-section H. To permit of the adjustment of said track-section, the flange J is formed of spring metal, so that where the section H is raised and the roll D mounts thereon the flange J will spring upward to permit of the passage of the lug L. It will be understood from the description given that this attachment effectually prevents the sticking of the plungers and at the same time permits the mechanism to operate in the normal manner where there is no sticking.

The other parts of the press may be of suitable construction, but as they form no part of the present invention are not fully illustrated in the drawings.

I claim—

1. In a brick-press the combination with a rotary table having a vertical mold-pocket therein and a plunger slidingly fitting said pocket, of a cam-track upon which the lower end of said plunger is supported and over which it travels, said track having an adjustable depression therein for permitting said plunger to be lowered, and an adjustable flange arranged adjacent to said depressed portion adapted to positively actuate said plunger to compel the descent thereof.

2. In a brick-machine the combination with a rotary table having a mold-pocket therein and a plunger slidingly fitting said pocket, of a track arranged below said table, with which the lower end of said plunger engages and over which it travels, said track having a depressed portion, and a post for supporting said track adjacent to said depressed portion, a supporting-bracket screwed to said post, and a flange secured to said bracket adapted to engage with said plunger and positively actuate the same and compel its descent.

3. In a brick-press the combination with a rotary table having a mold-pocket therein and a plunger slidingly fitting said pocket, of a track arranged beneath said table with which

the lower end of said plunger engages and over which it is adapted to travel, said track having a depressed portion therein, an inclined flange within the track arranged adjacent to the depressed portion thereof, and an outwardly-extended lug on said plunger adapted to clear said flange when said plunger maintains its contact with said track, and to engage said flange and to cooperate therewith for positively depressing the plunger whenever the latter fails to lower by gravity.

4. In a brick-press the combination with a rotary table, having mold-pockets therein and a plunger slidingly fitting said pocket, of a track arranged beneath said table, with which the lower end of said plunger engages and over which it is adapted to travel, said track having an inclined depression therein, and post supporting said track, a bracket on said post and an inclined flange supported at its upper end on said bracket and arranged adjacent to the incline in said track, the lower end of said flange being free from support and being adapted to flex, an antifriction-roll on said plunger in traveling contact with said track, and a lug on said plunger for engaging with said flange, whereby said plunger is positively depressed.

5. The combination with a rotary table, having a mold-pocket therein and a plunger slidingly fitting said pocket, of a track arranged beneath said table, an antifriction-roll on the lower end of said plunger travelingly engaging said track, said track having an inclined depression therein, an adjustable track-section adjacent to said inclined depression, an inclined flange supported at its upper end adjacent to the incline in said track, the lower end of said flange being free from support and extending adjacent to said adjustable track-section, being adapted to resiliently flex, and a lug on said plunger adapted to engage said flange to positively depress said plunger, said flange being adapted to flex to permit the disengagement of said lug therefrom.

6. In a brick-press the combination with a rotary table having a vertical mold-pocket therein and a plunger slidingly fitting said pocket, of a cam-track upon which the lower end of said plunger is supported and over which it travels, said track having an adjustable depression therein for permitting said plunger to be lowered, and a flexible flange arranged adjacent to said depressed portion adapted to positively actuate said plunger to compel the descent thereof.

7. In a brick-press, the combination with a rotary table having a vertical mold-pocket therein and a plunger slidingly fitting said pocket, said pocket being bifurcated at its lower end, a roller arranged within said bifurcated portion, and a lug extending outwardly

from one of the furcations thereof, in combination with a cam-track upon which the lower end of said plunger is supported and over which the roller travels, said track having an adjustable depression therein for permitting said plunger to be lowered, and a flexible flange arranged adjacent to the said depressed portion adapted to engage said lug to

positively actuate said plunger to compel the descent thereof.

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

EDGAR D. CHURCH.

Witnesses:

TERESA MALONE,
C. M. EXCELL.