

(No Model.)

W. E. DAMON.
BRICK MACHINE.

No. 555,805.

Patented Mar. 3, 1896.

FIG. I

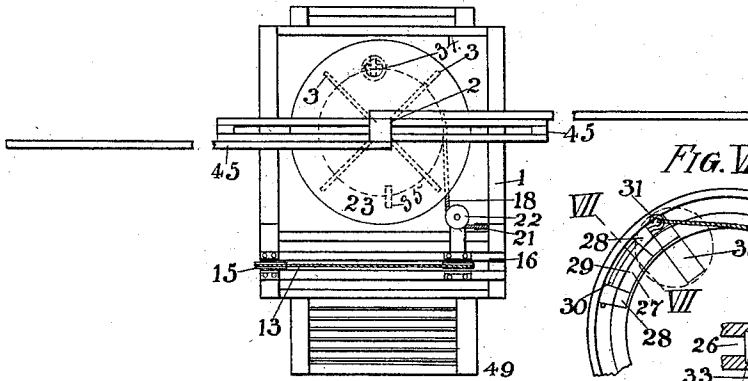


FIG. VII

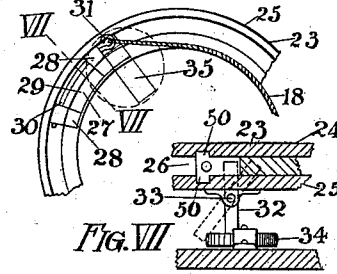


FIG. II

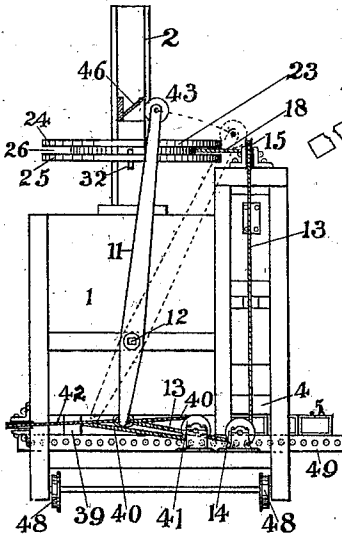


FIG. III

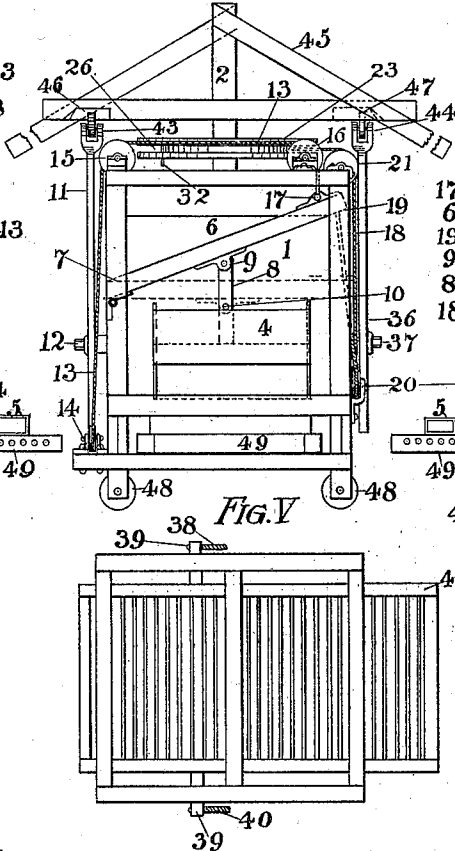


FIG. VII

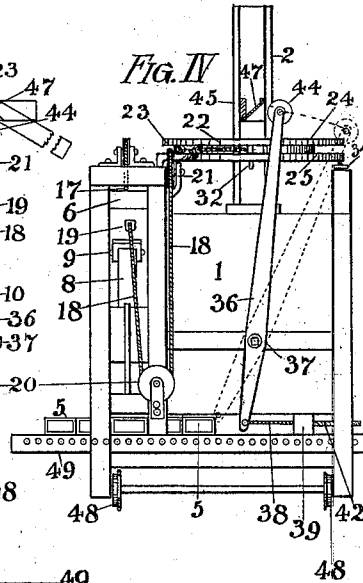
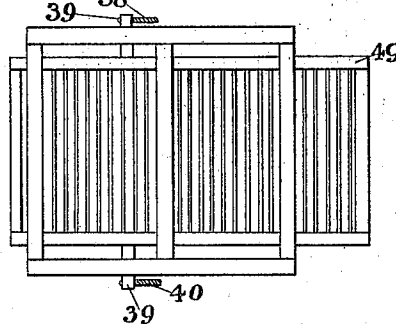


FIG. V



Witnesses

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WILLIAM EDGAR DAMON, OF POMONA, CALIFORNIA.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 555,805, dated March 3, 1896.

Application filed June 18, 1895. Serial No. 553,215. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM EDGAR DAMON, of Pomona, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Brick-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in brick-machines, and my invention consists in certain features of novelty hereinafter described and claimed.

Figure I is a top view. Fig. II is a side elevation showing the lever for raising the plunger. Fig. III represents a front elevation. Fig. IV represents a side elevation showing the means for forcing the plunger downward. Fig. V is a bottom view. Fig. VI is a detail view of the wheel and trip mechanism for depressing the plunger. Fig. VII represents a broken transverse section taken on line VII VII, Fig. VI.

Referring to the drawings, 1 represents the box or receiver in which the clay is thoroughly mixed and prepared for the molds.

2 represents a vertical post suitably journaled at the center of the receiver, said post having secured thereto a series of radial arms 3 adapted to mix the clay. After the clay is mixed to the right consistency, it is permitted to pass out from the bottom of the receiver beneath the plunger 4, and is pressed by the same into the molds 5.

6 represents a bar having one of its ends free and the other end pivoted to the side of the receiver at 7.

8 represents a link having its upper end pivoted at 9 to the under side of the bar 6, and its lower end pivoted at 10 to the upper side of the plunger.

11 represents the lever for raising the plunger, said lever being fulcrumed to the receiver at 12 and having a rope or cable 13 secured to its lower end, said rope engaging suitable bearing-pulleys 14, 15 and 16, and having its opposite end secured to the free end of the pivoted bar 6 at 17. The plunger when released by the lever 11 drops on the plastic clay and presses the same to some extent into the molds, but the final pressure is performed by a device which I will now describe.

18 represents a rope or cable attached at 19 to the free end of the bar 6, said rope engaging suitable bearing-pulleys 20, 21 and 22.

23 represents a wheel secured rigidly to the central post 2, said wheel having upper and lower peripheral flanges 24 25, with an intervening circumferential groove 26.

27 represents a clip operating in the groove 26, said clip consisting of end portions 28, connected by a curved connecting portion 29.

30 represents a bolt connecting the two end portions near their outer side, said bolt having a hook 31 on its rear end adapted to receive the free end of the rope 18, which depresses the plunger.

32 represents a pin pivoted at 33 to the under side of the wheel 23 and having its upper end extending up into the groove 26 of said wheel, (see Fig. VII,) said pin having over one-half of its length extending below its pivotal point, and remains normally in an upright position, as shown in full lines in Fig. VII.

34 represents a wheel journaled to the frame of the receiver and located in the path of the pin 32. As the lower end of the pin strikes the wheel 34 said pin is canted over, as shown in dotted lines, Fig. VII, the upper end of the pin passing into a recess 35 in the wheel 23, leaving the groove 26 entirely clear from obstruction.

36 represents a lever fulcrumed to the opposite side of the receiver to which the lever 11, which raises the plunger, is fulcrumed, said lever 36 being fulcrumed to the receiver at 37 and having its lower end connected by a rope 38 with a feed-bar 39, said bar serving to feed the molds forward. The lever 11 also has a rope 40 attached to its lower end, said rope passing over a pulley 41 and having its opposite end secured to one end of the bar 39.

42 represents a rope having one of its ends secured to the lower end of the lever 11, said rope extending to the rear of the receiver passing over suitable bearing-pulleys and having its opposite end secured to the center of the feed-bar 39. The levers 11 36 have rollers 43 44 suitably journaled at their upper ends.

45 represents the sweep to which horses may be hitched to furnish the necessary power to operate the machine. The sweep is secured to the central post 2 and is provided

on its opposite sides with cams 46 47, which as the sweep moves in a circle come in contact with the rollers 43 44 on the levers 11 36.

48 represents trucks by which the machine may be moved from place to place when mounted on a suitable track.

49 represents the usual support for the molds.

The operation is as follows: As the sweep revolves the cams thereon will cause the levers to rock forward simultaneously, thus causing lever 11, through its connection with the plunger, to raise the same, and causing both levers to move the feed-bar 39 forward, forcing an empty mold under the plunger and the full mold out. Then as the cams pass out of engagement with the levers the falling of the plunger will cause lever 11 to travel back to its normal position. Said lever pulling on the rope 42 will pull the feed-bar 39 back to its normal position, which also forces the lever 36 back to its normal position and leaving space in front of the feed-bar for the insertion of a fresh mold. At the same time lever 11 is released and the plunger dropped. The pin 32 in the wheel 23 will come in contact with the clip 27, to which the rope 18 is attached, and as the wheel 23 continues to revolve the rope 18 will be drawn around with the wheel and cause the plunger to force the clay into the molds. At the proper time the lower end of the pivoted pin 32 will come in contact with the wheel 34, thus causing the upper end of said pin to be canted inward in the slot 35 and releasing the clip, which allows the rope 18 to slacken and permits the lever 11 to again raise the plunger ready for the operation to be repeated twice to every revolution of the sweep, there being two of the pivoted pins 32 for this purpose. The flanges 24 25 of the wheel 23 are provided with grooves 50, into which a portion of the clip 27 extends, in order to form a guide for the clip and to retain it within the groove 26.

I claim as my invention—

1. In a brick-machine the combination of a clay-receiver, a plunger, a lever for raising the plunger, a sweep, a wheel operated by the sweep, trip mechanism in connection with the wheel and a flexible connection between the trip mechanism and plunger, substantially as set forth.

2. In a brick-machine the combination of a clay-receiver, a plunger, means for raising the plunger, a sweep, a grooved wheel operated by the sweep, a clip working loosely in the grooved wheel, a pivoted pin in the wheel for engaging the clip, means for throwing said pin out of engagement with the clip, and a flexible connection between the clip and plunger, substantially as set forth.

3. In a brick-machine the combination of a clay-receiver, a plunger, means for raising the plunger, a sweep, a grooved wheel operated by the sweep, a clip working loosely in the grooved wheel, a pin pivoted in the wheel for engaging the clip, a trip-wheel located in the path of said pin for throwing the pin out of engagement with the clip, and a flexible connection between the clip and plunger, substantially as set forth.

4. In a brick-machine the combination of a clay-receiver, a central post journaled in the receiver, means for revolving said post, a grooved wheel secured to said post, a clip having guides and working loosely in said grooved wheel, pins pivoted to the said wheel and extending below the same, a wheel located in the path of said pins for tripping the same, a bar having one of its ends hinged to the clay-receiver, a plunger, a pivoted link connecting the bar with the plunger, means for raising said plunger and a flexible connection between the plunger and said clip, substantially as set forth.

WILLIAM EDGAR DAMON.

Witnesses:

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