

(No Model.)

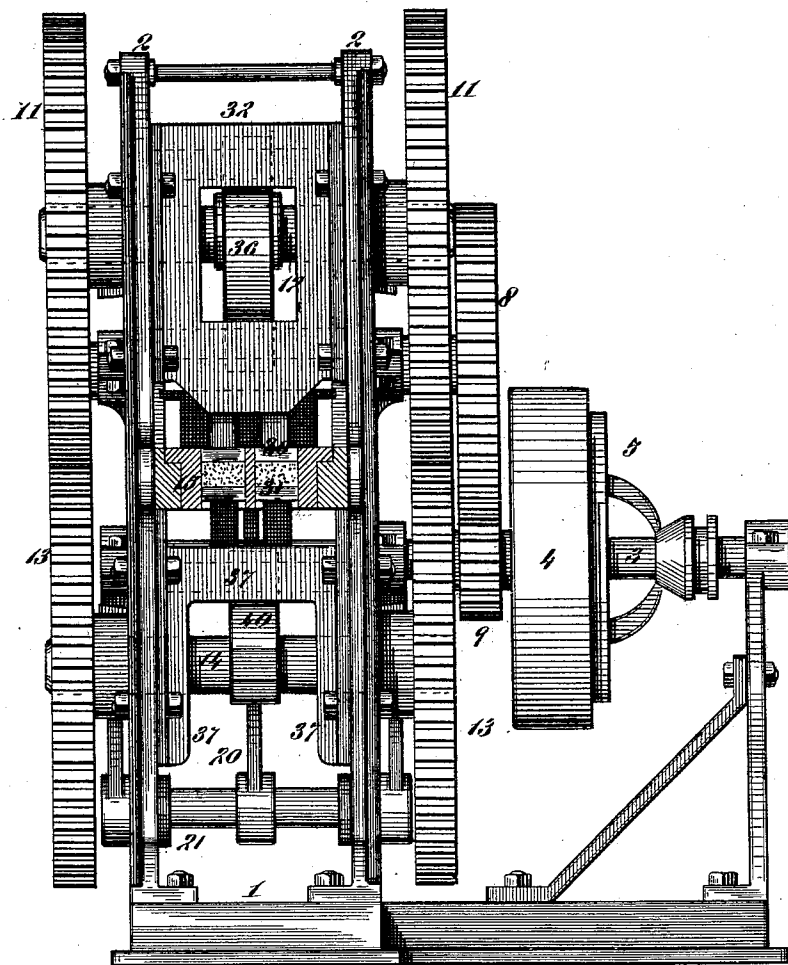
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G. ISAACS.
BRICK MACHINE.

No. 484,319.

Patented Oct. 11, 1892.

Fig. I.



Attest:
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Edward D. Knight

Inventor:
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(No Model.)

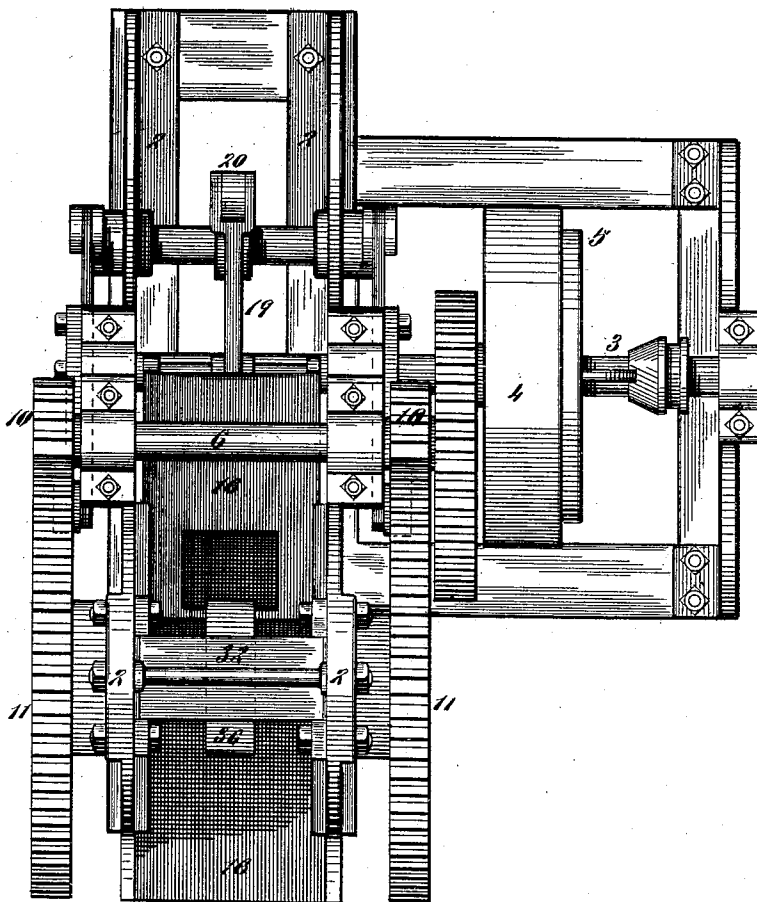
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Fig. II.



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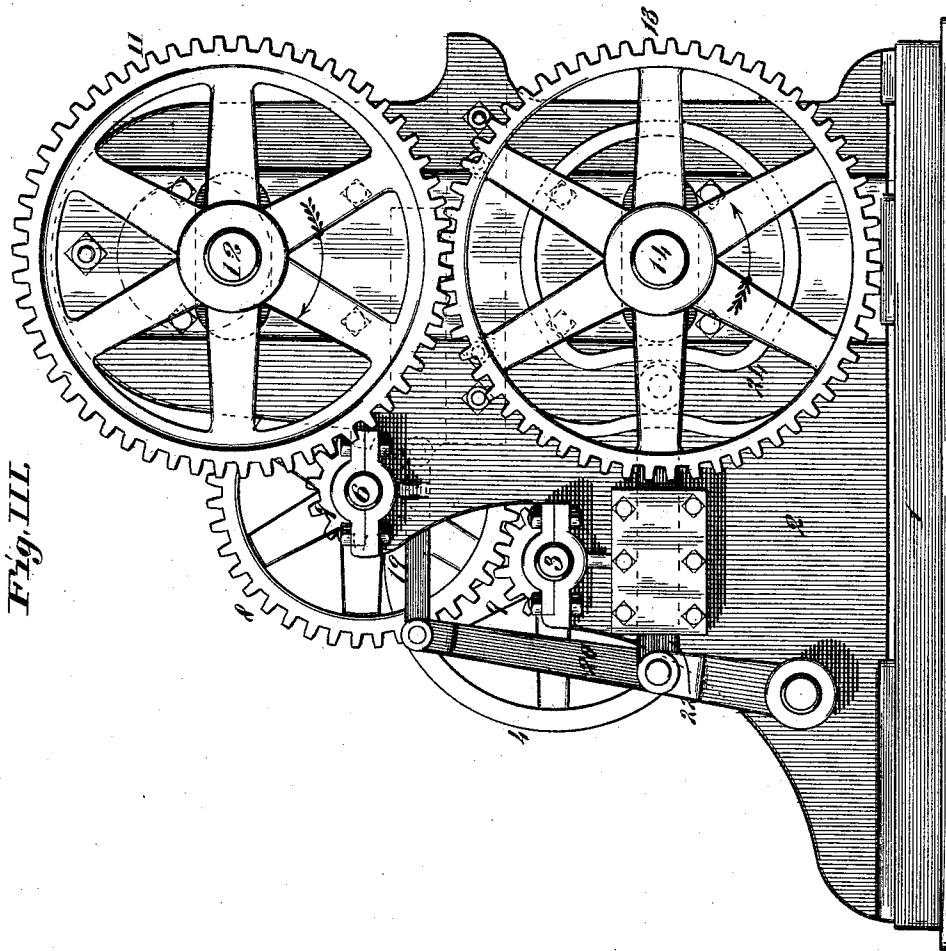
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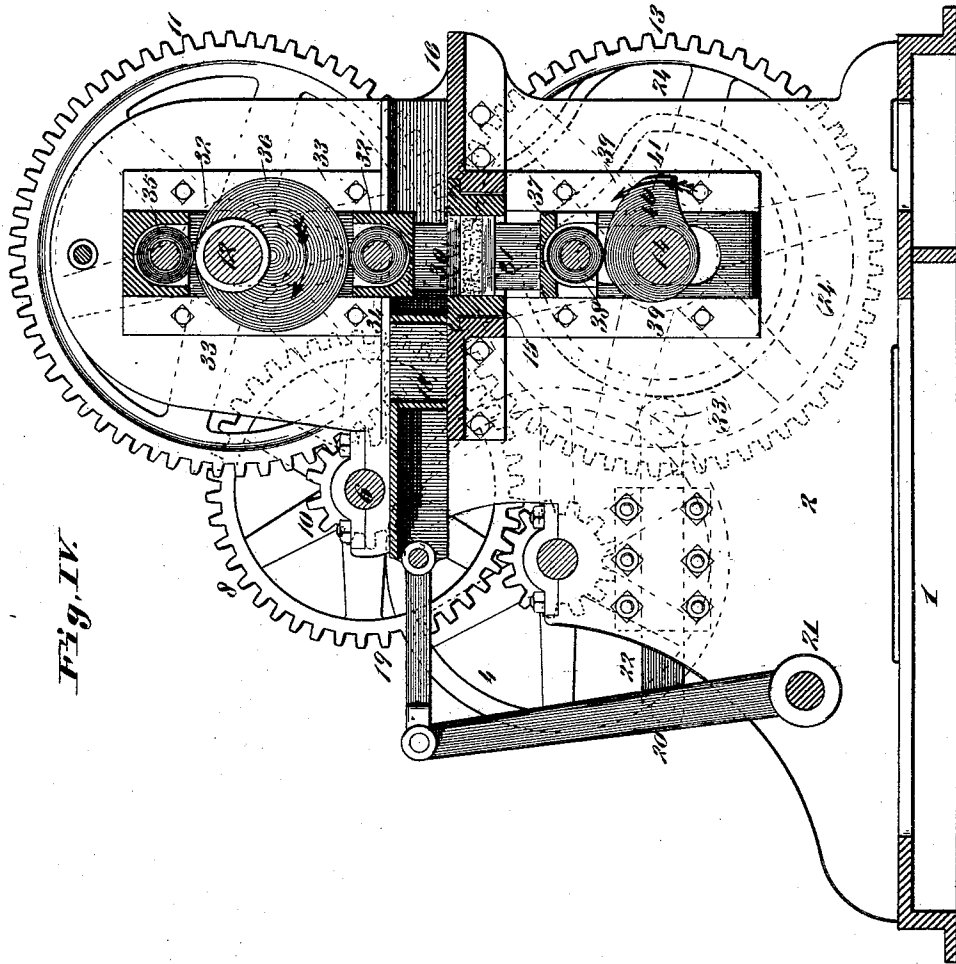


Fig. IV.

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UNITED STATES PATENT OFFICE.

GEORGE ISAACS, OF ST. LOUIS, MISSOURI.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 484,319, dated October 11, 1892.

Application filed November 21, 1891. Serial No. 412,621. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ISAACS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Brick-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to certain improvements in brick-machines; and it consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is an elevation, part in section, illustrative of my improved machine. Fig. II is a top or plan view. Fig. III is a side elevation. Fig. IV is a vertical section.

Referring to the drawings, 1 represents the bed-plate of the machine, and 2 the frame of the machine, which is supported on and secured to the bed-plate.

3 is the main shaft, provided with a driving-pulley 4 and a suitable clutch mechanism 5.

6 is a counter-shaft journaled to the frame at 7, and to which are secured cog-wheels 8, meshing into pinions 9, secured to the shaft 3. On the shaft 6 are pinions 10, meshing into cog-wheels 11 on a shaft 12, journaled to the frame 2. The cog-wheels 11 engage similar wheels 13 on a shaft 14, journaled to the frame 2.

15 represents the mold, which is supported in a table 16 of the machine.

18 is the charger, supported on the table 16 and connected by a link 19 to a lever 20, pivoted at 21 to the frame 2.

22 is a link on the lever 20, which extends inwardly and has a roller 23 on its inner end, which fits in a cam-groove 24 in one of the wheels 13, so that as the wheels 13 revolve the charger will be reciprocated back and forth to deposit clay in the mold and shove the last brick formed from over the lower plunger.

No novelty is claimed in the parts thus far described. I will now describe the feature of my machine to which my invention relates.

30 is the upper and 31 the lower plunger. The upper plunger is secured to or formed upon an open frame 32, held and guided in its vertical movement by strips 33, secured to the frame 2.

34 is a friction-roller at the lower end of the opening in the frame 32, and 35 is a friction-roller at the upper end of the opening. Between these rollers fits an eccentric 36, located in the opening of frame 32 on the shaft 12, and as the shaft revolves the eccentric moves the frame 32 up and down with an even or steady movement, carrying the plunger 30 with it. The lower plunger is formed upon or secured to a frame 37, provided with a friction-roller 38 and guided by strips 39, secured to the frame 2.

40 is a cam on the shaft 14, which bears against the friction-roller 38 to lift the lower plunger, which falls by gravity. The eccentric 36 and cam 40 are so formed and disposed that they act together in forcing the plungers toward each other to press the brick, and when the pressing operation is completed the parts are in the position shown in Fig. IV. In the further movement of the machine the eccentric 36, which has lowered the plunger by means of one side, commences to lift the plunger 30 by means of the other similar side, while the cam 40 continues to lift the plunger 31 until the brick is out of the mold, when the eccentric 36 will continue to lift the upper plunger, the lower plunger remaining at rest, while the radial part 41 of the cam 40 bears against the friction-roller 38, and during this time the charger moves forward, shoving the brick from over the lower plunger. Before the charger can return from over the mold the part 41 of the cam 40 leaves the roller 38 and the plunger drops, permitting the loose clay to fall from the charger into the mold. By so arranging the eccentric and cam that the plungers move upward together after the bricks are pressed the bricks are less likely to be broken or distorted than where the upper plunger leaves the brick while yet in the mold.

I claim as my invention—

The combination, in a brick-machine, of the mold-plungers, an open reciprocating frame carrying the upper plunger, an eccentric 36, located in the opening of the frame, having a circular bearing-surface and actuating the upper plunger, antifriction-rollers at both top and bottom of the opening of the frame, and a cam 40, having a radial part 41

and adapted to raise the lower plunger, said
eccentric and cam being so arranged with re-
spect to each other that they force the plun-
gers together in the act of pressing the brick,
5 then they cause the plungers to move to-
gether and lift the brick out of the mold,
then the upper plunger is given a further up-
ward movement by the eccentric, and finally

said lower plunger drops off the radial part 41
of said cam, substantially as and for the pur- 10
pose set forth.

GEORGE ISAACS.

In presence of—

E. S. KNIGHT,

A. M. EBERSOLE.