

(No Model.)

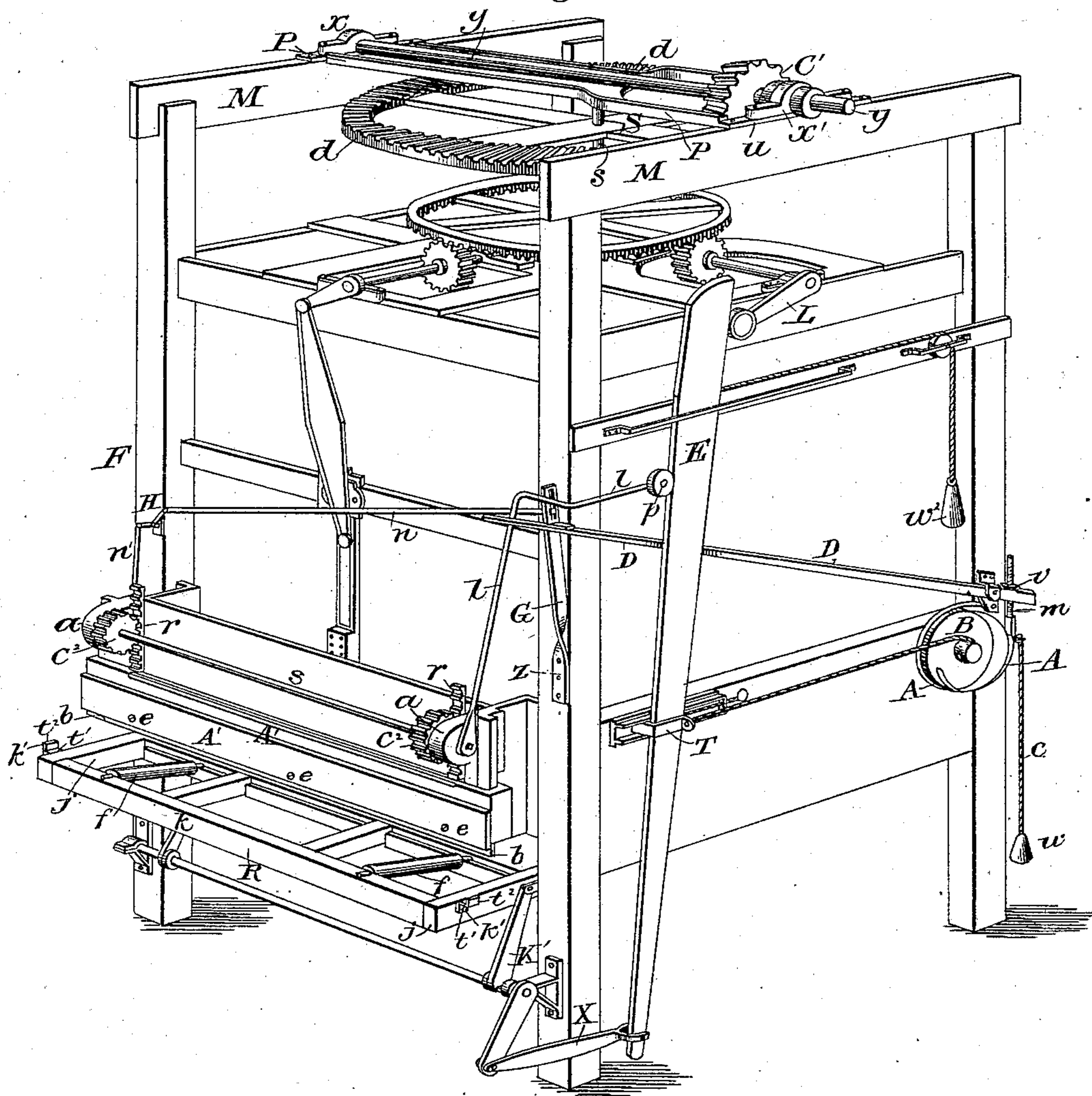
2 Sheets—Sheet 1.

H. MARTIN.
BRICK MACHINE.

No. 300,096.

Patented June 10, 1884.

Fig. 1.



Witnesses,
Geo. A. Lane
Chas. Carpenter.

Inventor;
Henry Martin
per H. M. R. Gerhart
His attorney

(No Model.)

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Fig. 2.

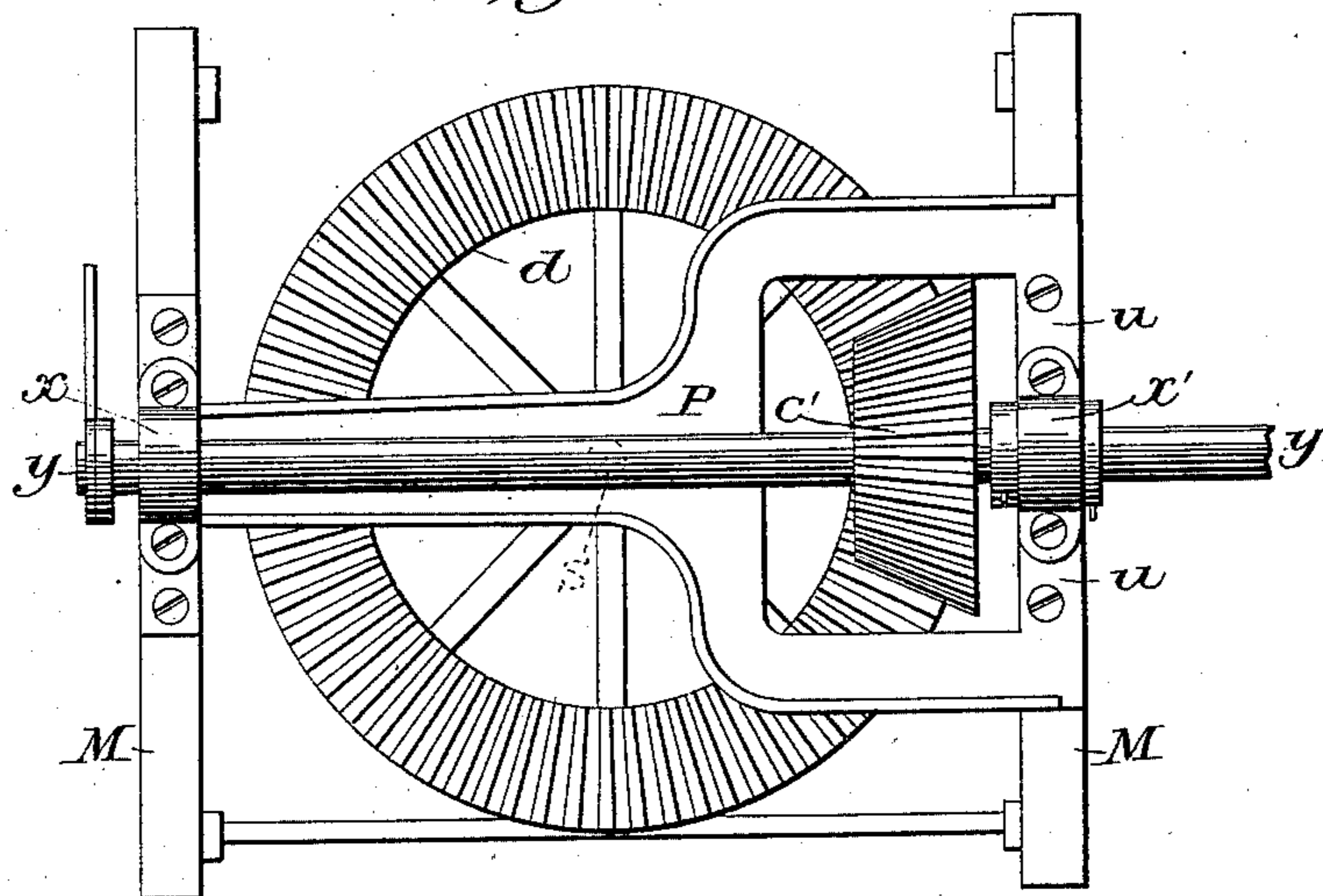


Fig. 3.

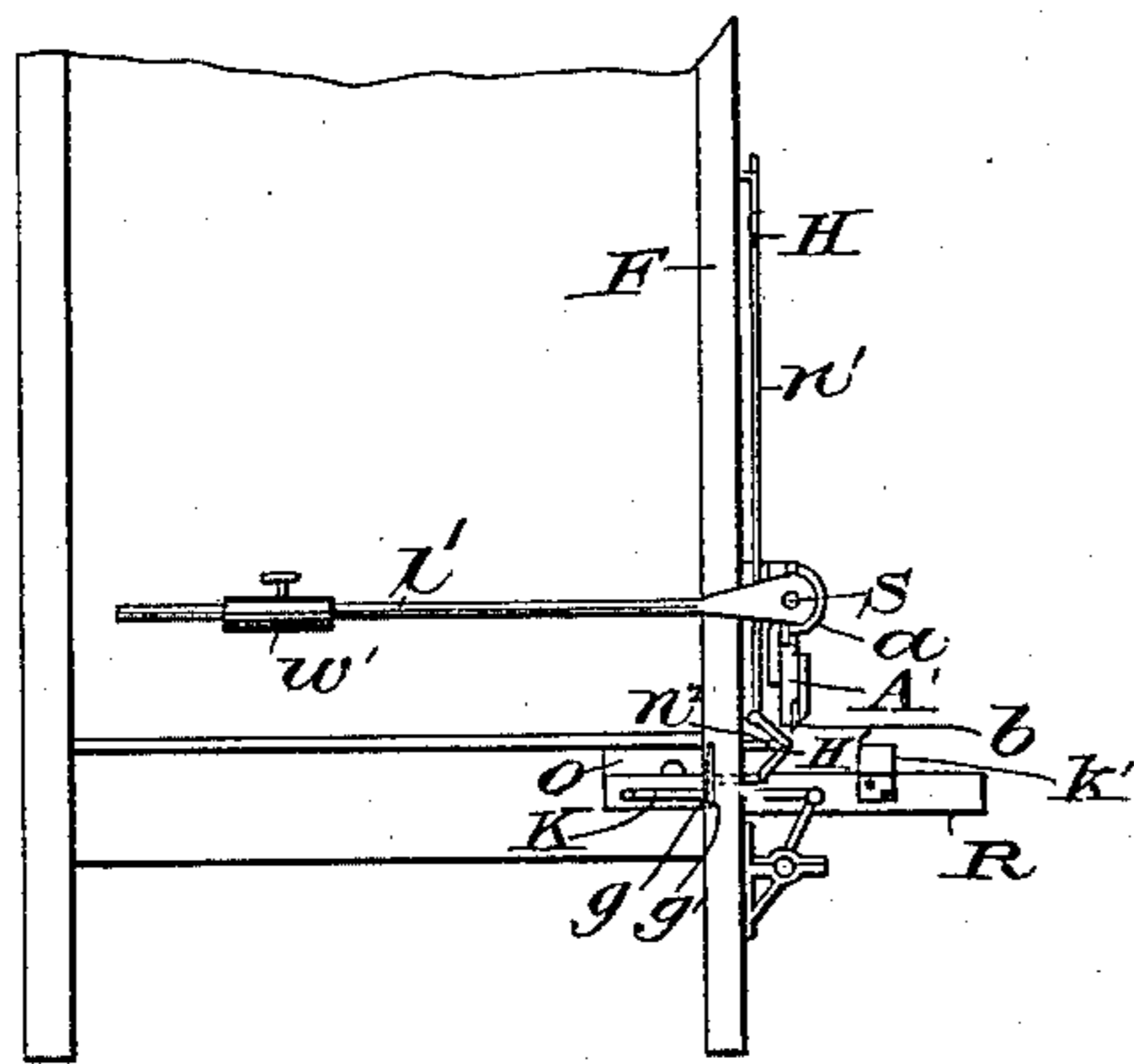


Fig. 4.

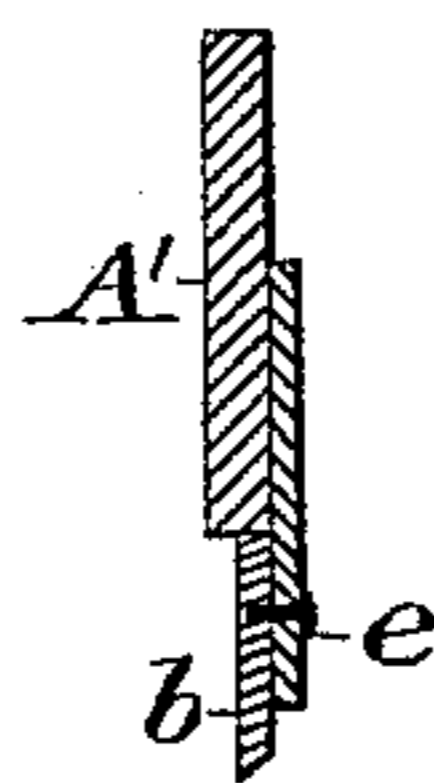
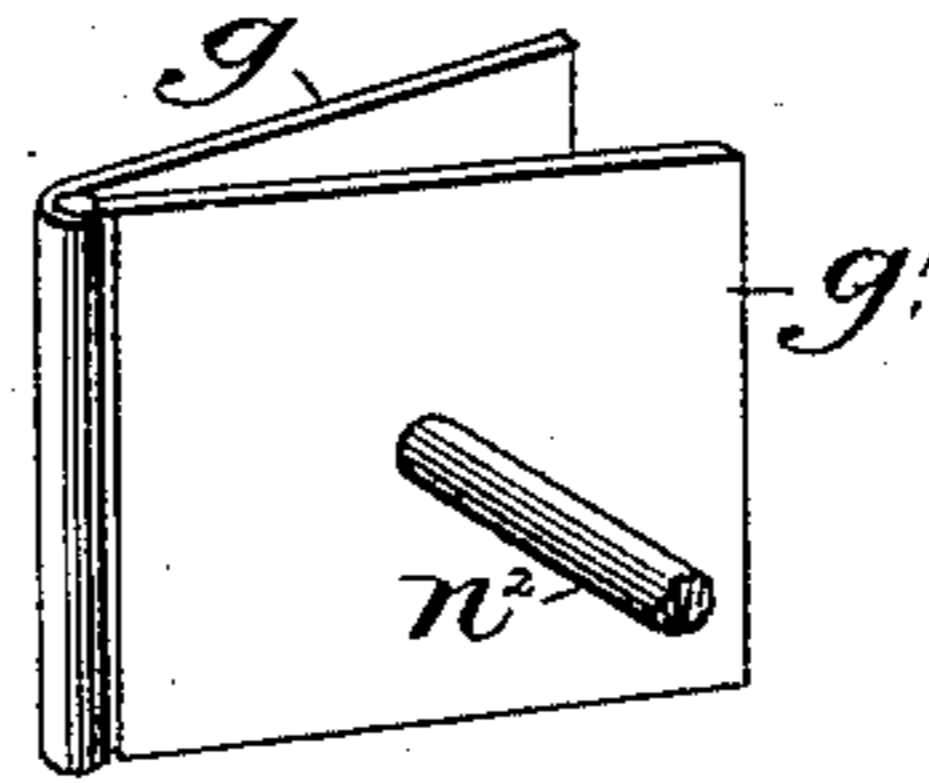


Fig. 5.



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His Attorney

UNITED STATES PATENT OFFICE.

HENRY MARTIN, OF LANCASTER, PENNSYLVANIA.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 300,096, dated June 10, 1884.

Application filed February 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY MARTIN, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Brick-Machines, of which the following is a specification.

My invention relates to improvements in a brick-machine upon which I have several patents, the latest being dated May 13, 1873, and numbered 138,754; and the objects of my improvements are, first, to improve the manner of attaching the friction-band to the lever with which it is connected; second, to strike the molds automatically; and, third, to protect the molds should they be caught in the machine. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my machine; Fig. 2, a view showing the top plate and connections; Fig. 3, a view showing the side opposite that on which the lever E works; Fig. 4, a section through the blade and the front of the gate A', and Fig. 5 a perspective of the jointed plates *g* and *g'*.

Similar letters refer to similar parts throughout the several views.

The main shaft S, with the machinery which it operates, is secured at the upper end by means of the plate P. This plate has journal-boxes *x x'* at each end, which carry the operating-shaft *y*. One end of the plate P is forked to permit the cog-wheel *c'*, attached to the shaft *y*, to engage the cog-wheel *d*, which is secured to and revolves the main shaft S, the forks being connected by the cross-plate *u*, which carries the journal-box *x'*. The plate P with the forked end and the cross-plate *u* constitute one piece, which is firmly fastened to the frame *m* of the machine. By this arrangement the cog-wheels of the main shaft S and the operating-shaft *y* are firmly held in their relative positions. The lever D operates a friction-wheel, B, having cord and weight *c w*, which regulates the movement of the sliding center T—the fulcrum of the lever E—by means of a friction-band, A. It is found that the band sometimes stretches to such an extent as to impair its action. To compensate for this stretching I have fastened the end of the lever D to the end of the band at-

tached to it by means of a screw and nut, the end *m* of the band A having a screw-thread cut in it and passing through an opening in the end of the lever, where it is secured by the nut V, enabling the band to be tightened when desirable.

The device for striking the bricks consists of the lever-arm *l*, having the wheel or pulley *p*, which serves to engage the lever E as it swings forward. The lower end of the lever *l* is attached to the horizontal shaft S, which is held by the projecting supports *a a*, and carries a pinion, *c' c'*, inside of each of the supports *a*. These pinions engage with the racks *r r*, the lower ends of which are attached to the gate A'. The lower edge of this gate A' rests upon the outer edge of a mold, and, as the mold passes under it, strikes the surplus clay from the top thereof, being held down by the shifting weight *w'*, attached to the lever-arm *l'*, which arm extends back along that side of the machine on which it is placed. As the operating-crank L moves the lever E forward, it engages the wheel *p*, and, forcing it forward, raises the gate A', by means of the shaft S, pinions *c' c'*, and racks *r r*, just sufficiently to allow the outer edge of an empty mold to be pushed out under it freely by the connections K X. As soon as the crank L is freed from the lever E, said lever is drawn back by the weight *w'*, and the gate A' is forced down to strike the mold about to be discharged by the lever-arm *l'* and shifting weight *w'*.

Inside of the front plate, W, of the gate A' a steel or hard-metal blade, *b*, is fastened by means of the screws *e*, which serves more thoroughly to strike the surplus clay from the top of the mold. The empty molds are put into the machine endwise through the opening O, Fig. 3; but frequently, through the carelessness of the workmen or other causes, the molds catch against the post F and are liable to be crushed by the mechanism pushing them forward, which is operated by the lever E and connections K X. This difficulty is overcome by the workman using the lever D, as explained by my patent hereinbefore mentioned; but the same result is accomplished automatically by my new improvements. The lever D is held down by the bracket *f* of the spring-arm G, secured to the frame of the machine at Z, the spring-arm G being of sufficient length to have

considerable lateral spring about the point Z, and is connected with the plate *g* by means of the rods *n n' n²* and the cranks H H'. The plate *g* is hinged to *g'* in a position to be pressed against by any mold being carried forward which was not pushed sufficiently far into the machine, *g'* being secured to the post F on the sides next the opening O, and having an opening through it, by which the rod *n²* passes through in order to be secured to the plate *g*. In case a mold catches against the plate *g*, as it must when not pushed home into the machine, the plate is pushed forward, and, by means of the cranks H H' and rods *n n' n²*, draws the spring-arm G from the lever D, when the latter, being free, permits the action of the connection K X to be stopped, as described in the improvement in my machine in my patent before cited. As the molds pass from the machine under the gate A', they are supported by the table R. At the side of this table are placed knockers *k' k'*, consisting each of an angle-iron or of any rigid material shaped in the same way, in which the vertical plate is secured to the side of the table. A horizontal plate, *t'*, is on a line with the top of the table, and the vertical plate *t²* rises above the table. This table is formed of bars *j j* and a cross-piece, *k*.

Between the bars are placed rollers *q*. The advantage here is that the molds, when received from the gate, can be shaken from side to side, and striking against the knockers loosens the bricks in the mold and prevents them from sticking when emptied therefrom.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the lever-arm L, having the wheel or pulley *p*, the lever E, the shaft S, having the pinions *c²*, the supports *a a*, the gate A', having the racks *r r*, and the lever *l'*, having the weight *w'*, constructed and operated substantially as set forth.

2. The combination of the lever D, the friction-wheel B, and the friction-band A, the end *m* of which has a screw-thread cut in it, and is thereby attached to the end of the lever D by the nut V, in the manner and for the purpose specified.

3. The combination of the lever D with the arm G, having the bracket *f*, the rods *n n' n²*, the cranks H H', and the plate *g*, hinged to the plate *g'*, substantially as set forth.

HENRY MARTIN.

Witnesses:

GEO. A. LANE,

WM. R. GERHART.