

(No Model.)

2 Sheets—Sheet 1.

H. L. BALSON.

BRICK MACHINE.

No. 312,066.

Patented Feb. 10, 1885.

Fig. 1.

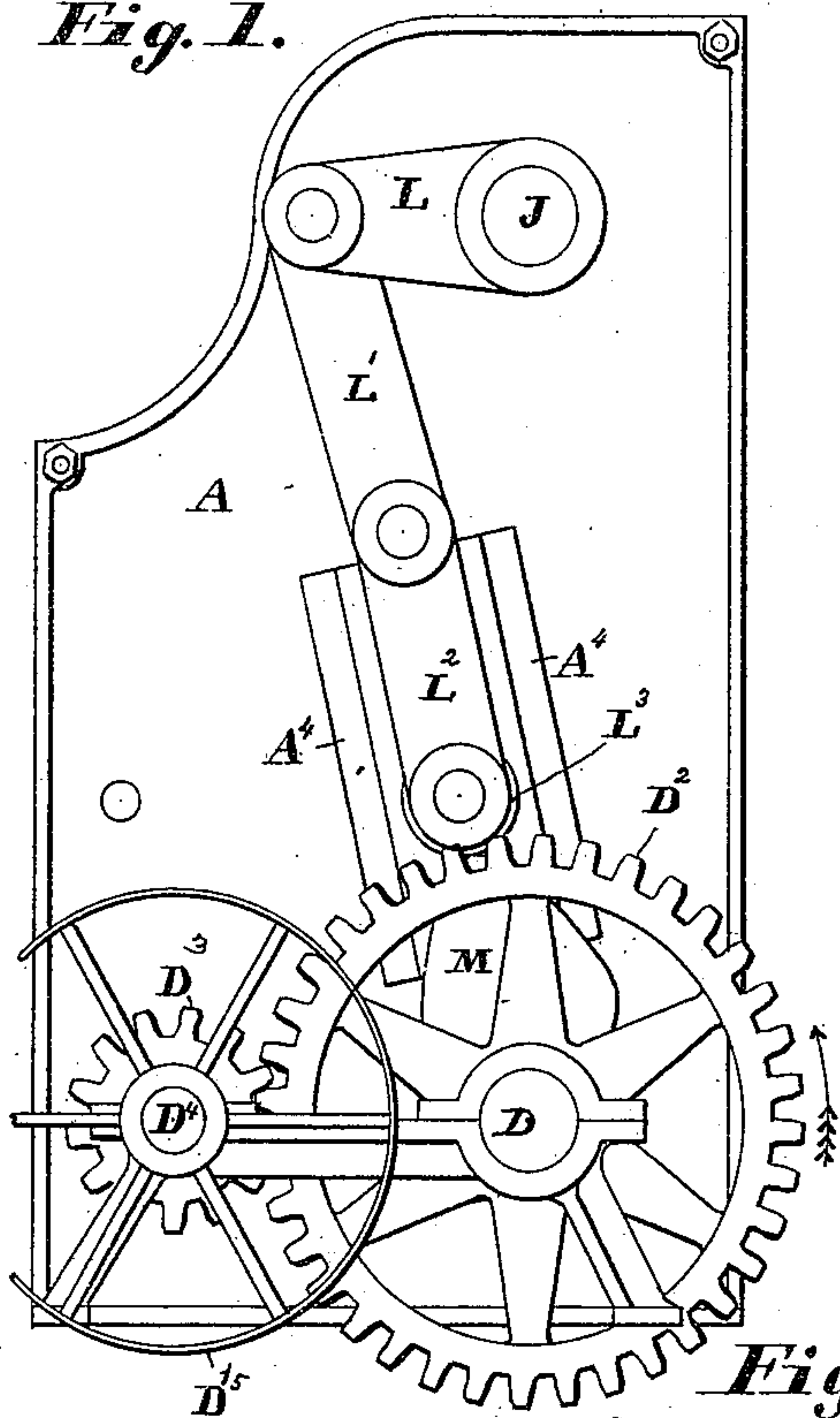


Fig. 3.

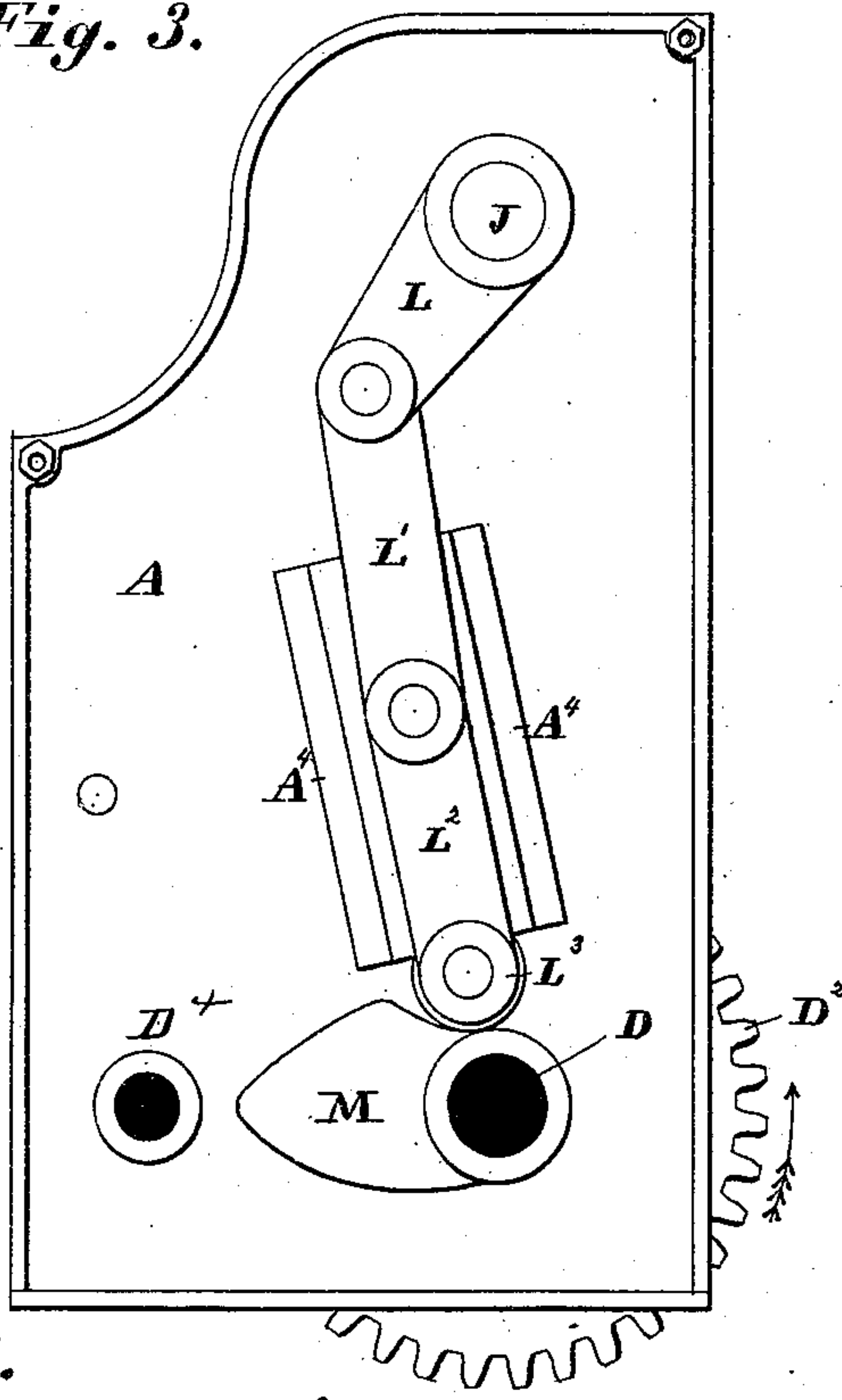
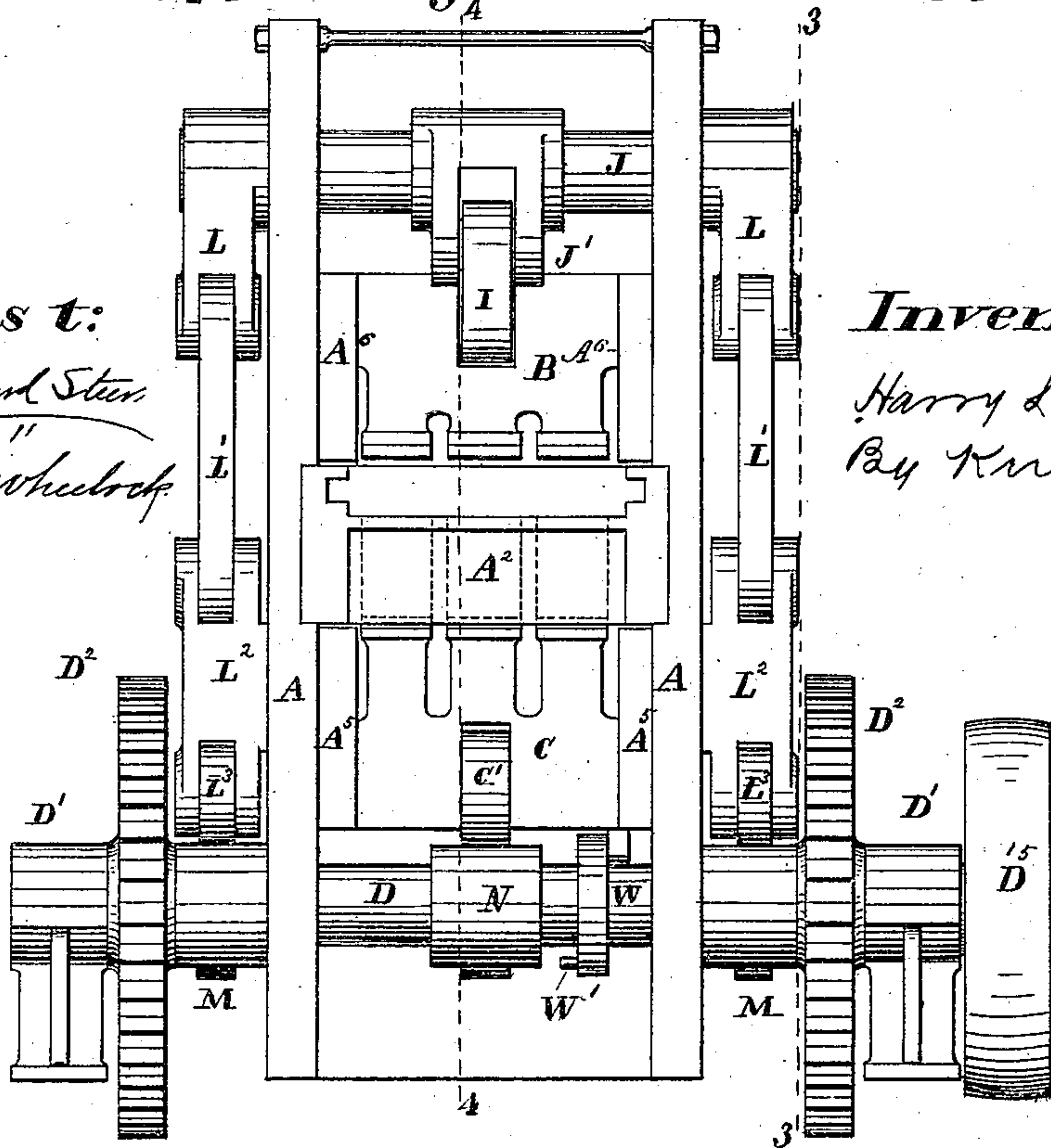


Fig. 2.

Attest:

Edmund Steen

Geo. L. Wheelock



Inventor:

Harry L. Balson

By Knight Bros
attys

H. L. BALSON.

BRICK MACHINE.

No. 312,066.

Patented Feb. 10, 1885.

Fig. 4.

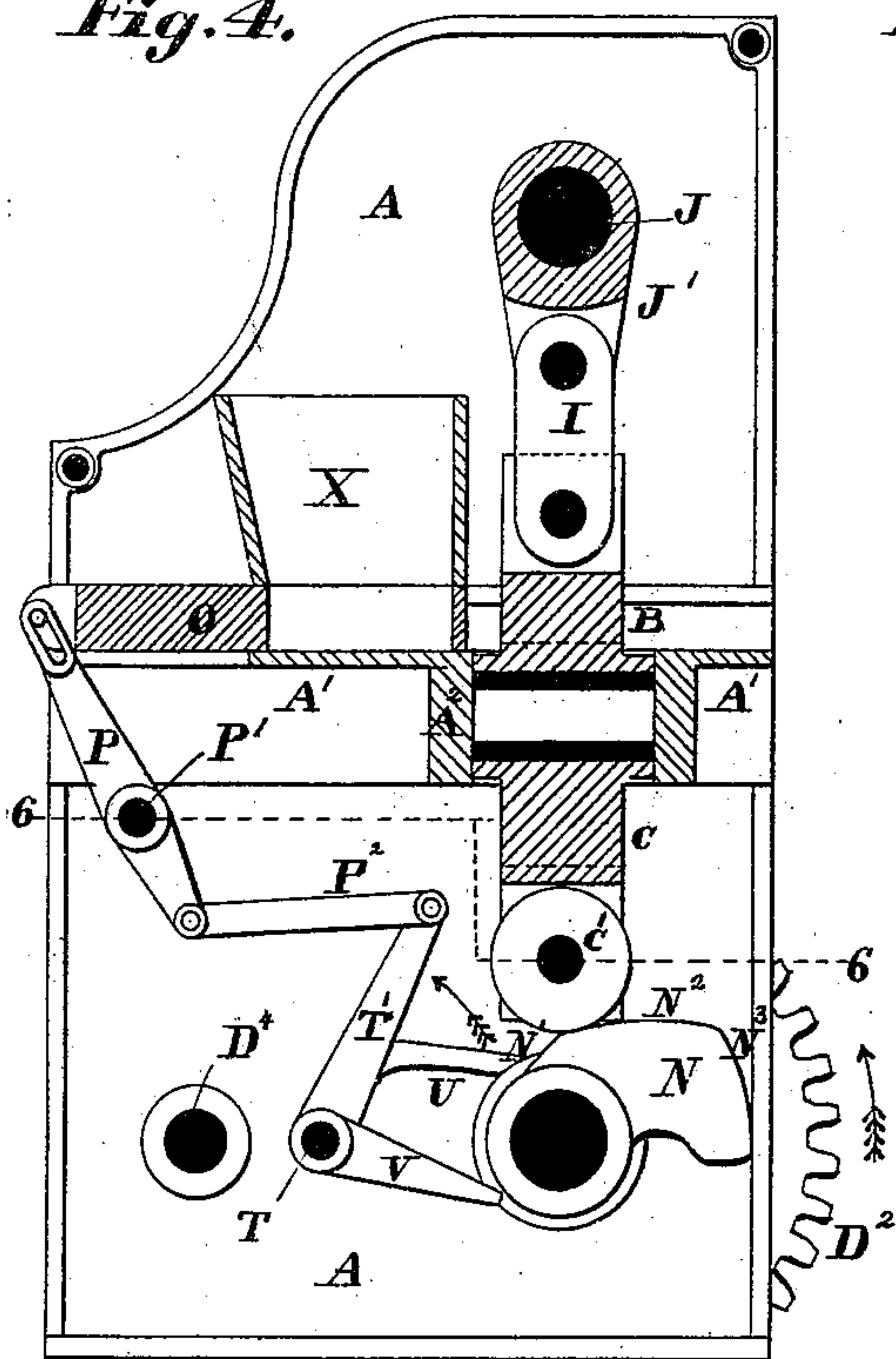


Fig. 5.

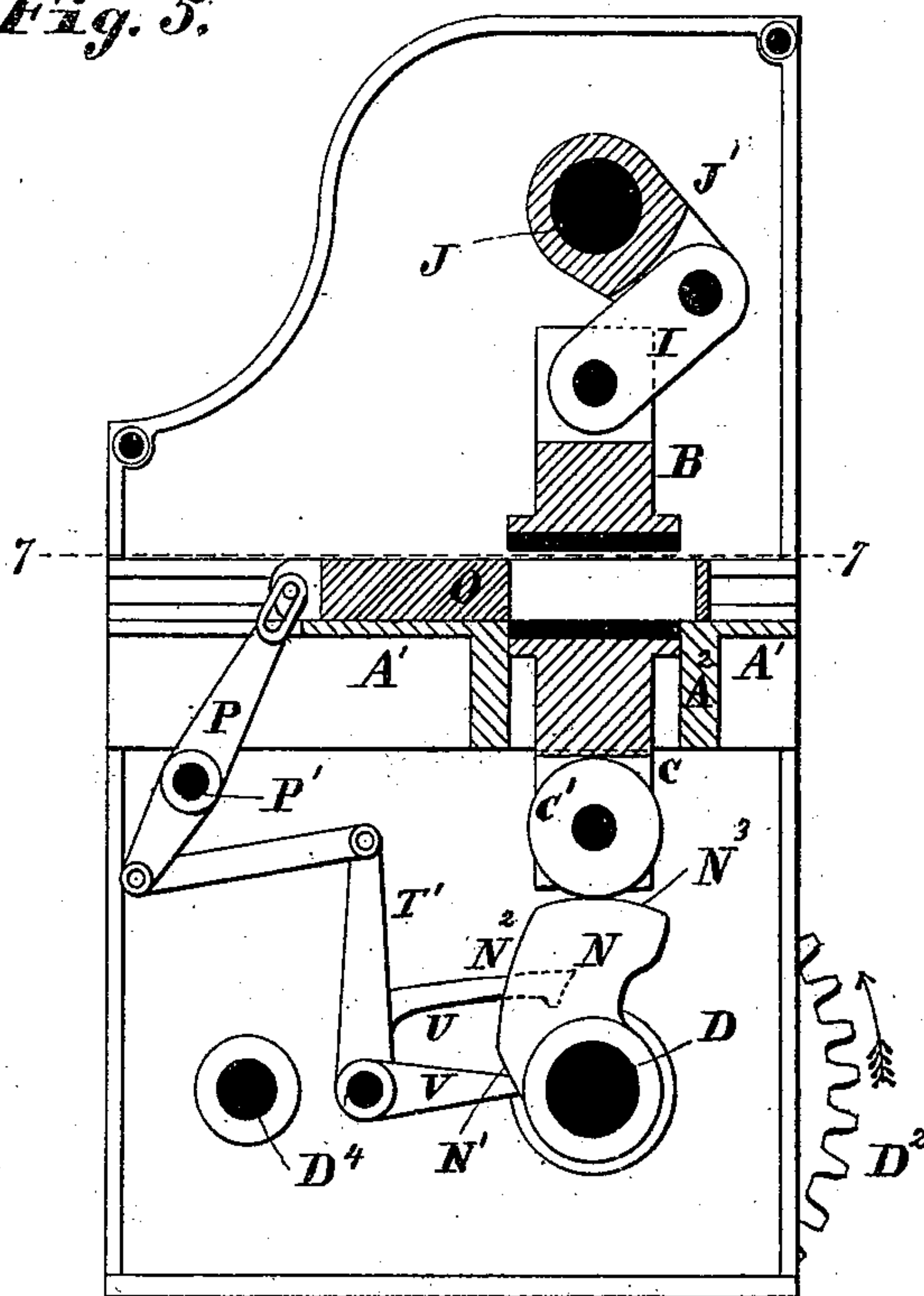


Fig. 6.

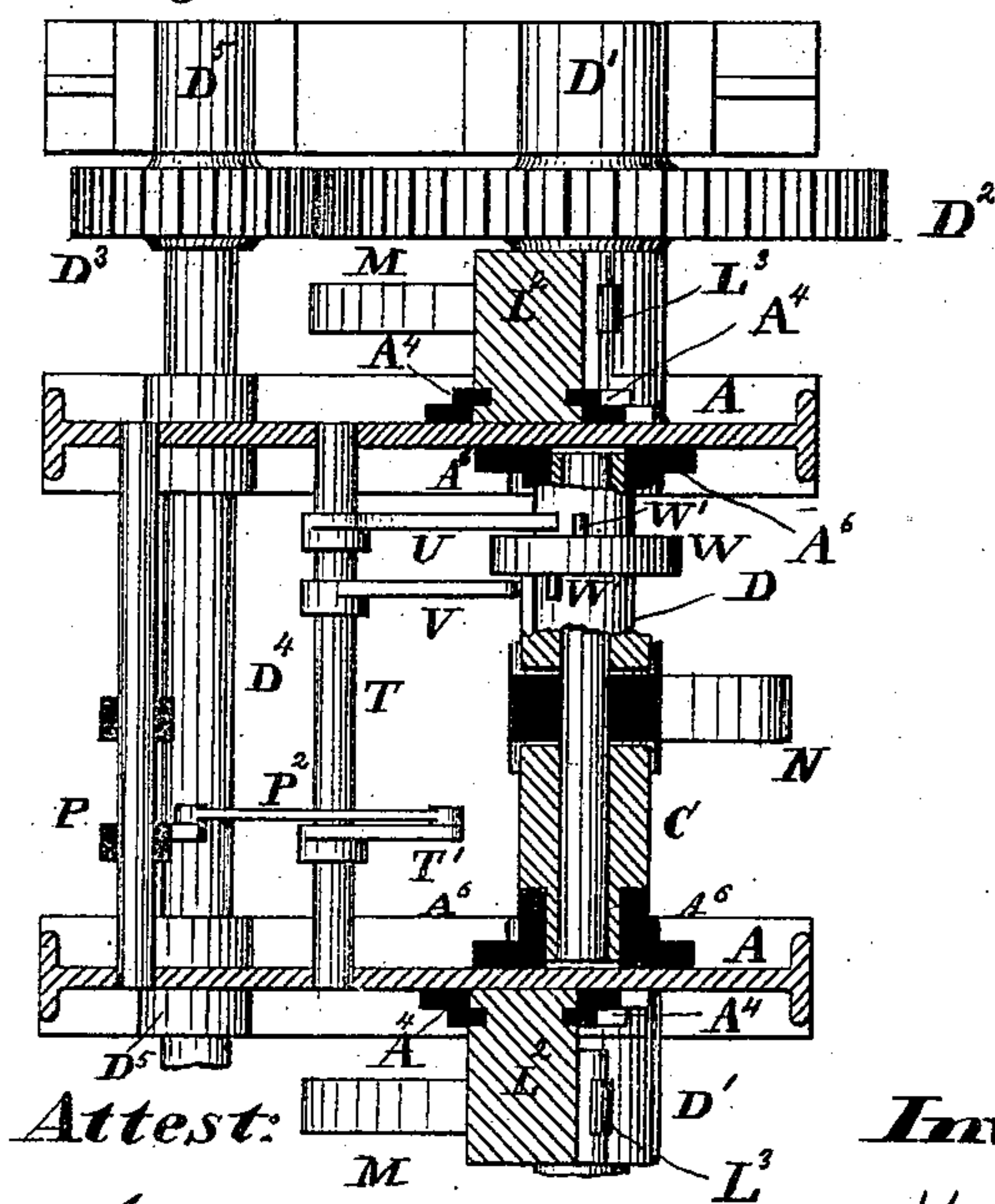
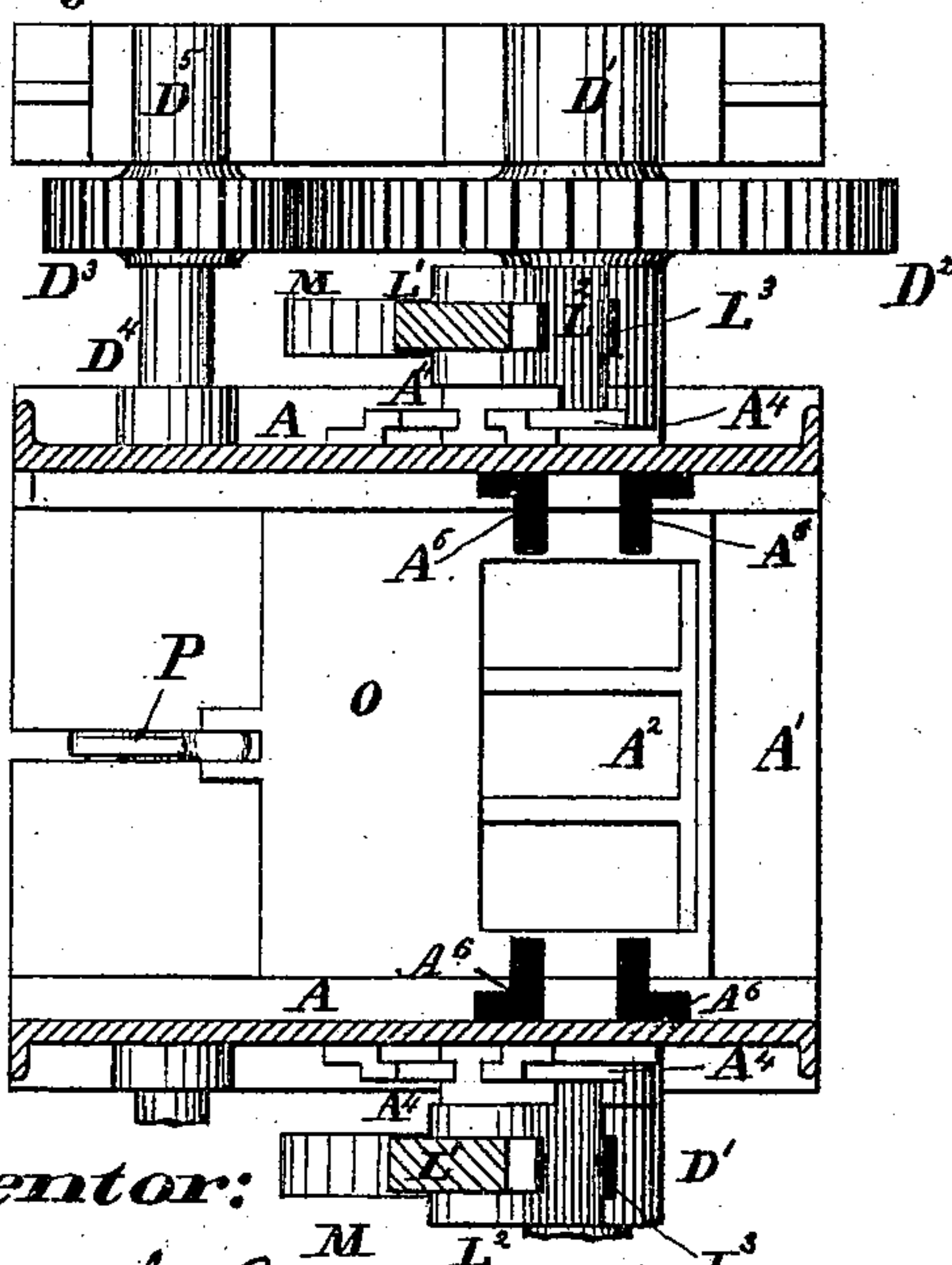


Fig. 7.



Attest:

Edward Steer.

God's wheelock.

Inventor:

Harry L. Balsou

By Knight Bros

Atty

UNITED STATES PATENT OFFICE.

HARRY L. BALSON, OF DE SOTO, MISSOURI.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 312,066, dated February 10, 1885.

Application filed November 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, HARRY L. BALSON, of De Soto, in the county of Jefferson and State of Missouri, have invented a certain new and
5 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, and in which—

10 Figure 1 is a side view of my improved machine. Fig. 2 is an end view looking at the rear of the machine. Fig. 3 is a vertical section taken on line 3 3, Fig. 2. Fig. 4 is a vertical section taken on line 4 4, Fig. 2. Fig. 5
15 is a vertical section taken on the same line as Fig. 4, but showing the parts in different positions. Fig. 6 is a horizontal section taken on line 6 6, Fig. 4, and Fig. 7 is a similar view taken on line 7 7, Fig. 5.

20 My invention relates to an improved machine for making bricks; and it consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, A represents the
25 frame of the machine, having a table, A', in which is located the mold or molds A².

B represents an upper and C a lower plunger.

30 D represents the main drive-shaft, journaled in boxes D', and operated by a cog-wheel, D², thereon engaged by a pinion, D³, on a counter-shaft, D⁴, having a pulley, D⁵. The counter-shaft is journaled in boxes D⁵, secured to suitable supports, and it preferably
35 has a pinion, D³, on each end to engage the cog-wheels on the main shaft—one on each end. The main shaft may, however, be driven by any other suitable means. The upper plunger is connected by a link, I, to a crank,
40 J', on a rock-shaft, J, journaled in the upper part of the frame. On the outer ends of the rock-shaft are cranks L, connected by links L' to sliding blocks L², held to the sides of the frame A by strips A⁴, or by other suitable
45 means. On the lower ends of the blocks are friction-rollers L³, that bear against cams M on the main shaft D. As the shaft turns the blocks are raised from the position shown in Fig. 3 to the position shown in Fig. 1, which
50 causes the plunger B to be forced from the

position shown in Fig. 5 to the position shown in Fig. 4, and as the shaft continues to turn the cams M leave the blocks, which fall, causing the plunger to move back to its upper position. As the upper plunger is lowered the
55 lower plunger is raised by a cam, N, on the main shaft, and thus the bricks are pressed between them. The pressing movement of the lower plunger is caused by the part or face N' of the cam, so that when the parts
60 are in the position shown in Fig. 4 the pressing is done, and just at this point the upper plunger commences to recede or rise, and the lower plunger is made to follow it, to eject the bricks, by the part or face N² of the
65 cam, and then when the cam leaves the plunger it falls to its lower position; but the plunger is held in its upper position a short time by the part or face N³ of the cam. This is done to give the charger time to shove the
70 brick from over the mold.

O represents the charger sliding on the table A', to the rear end of which is connected the upper end of a lever, P, fulcrumed at P' to the frame A. The lower end of the lever is
75 connected by a link, P², to an arm, T', on a rock-shaft, T, to which is also secured two short levers, U and V. On the main shaft is a disk, W, with a pin, W', on each side, one of which comes against the lever U to raise it, as
80 shown by the arrow in Fig. 4, which advances the charger to the position shown in Fig. 5. As the shaft continues to revolve the other pin comes against the upper edge of the lever V, and by depressing it turns the rock-shaft
85 back, causing the charger to recede. The under edge of the lever U is so shaped that the pin, coming in contact with it, will cause it to be raised. The plunger C has a friction-roller, C', to receive the cam N. The frame
90 has flanges A⁶ to guide the plungers and hold them in place.

X represents a hopper located so as to be over the charger when it is in its normal position.
95

I claim as my invention—

1. In a brick-machine, the mold A² and upper plunger, B, in combination with the main shaft D, cam M, carried thereby, sliding block L², upon the lower end of which said 100

cam impinges, rock-shaft J, having cranks L and J', links L' and I, connecting said cranks with the sliding block L² and plunger B, respectively, the lower plunger, C, and the cam
5 N, arranged on said shaft D in such position relatively to the cam M as to commence its action immediately before the action of the latter ceases, as and for the purpose set forth.

2. In combination, the mold, the plungers
10 B C, the main shaft D, actuating the said plungers, substantially as described, the disk

W, secured to said shaft, and having pins W' projecting from opposite sides, the rock-shaft T, having arms U and V, against the under and upper faces of which said pins engage, 15 respectively, the charger O, and levers connecting said charger with the rock-shaft T, as described.

HARRY L. BALSON.

In presence of—

GEO. H. KNIGHT,
SAML. KNIGHT.