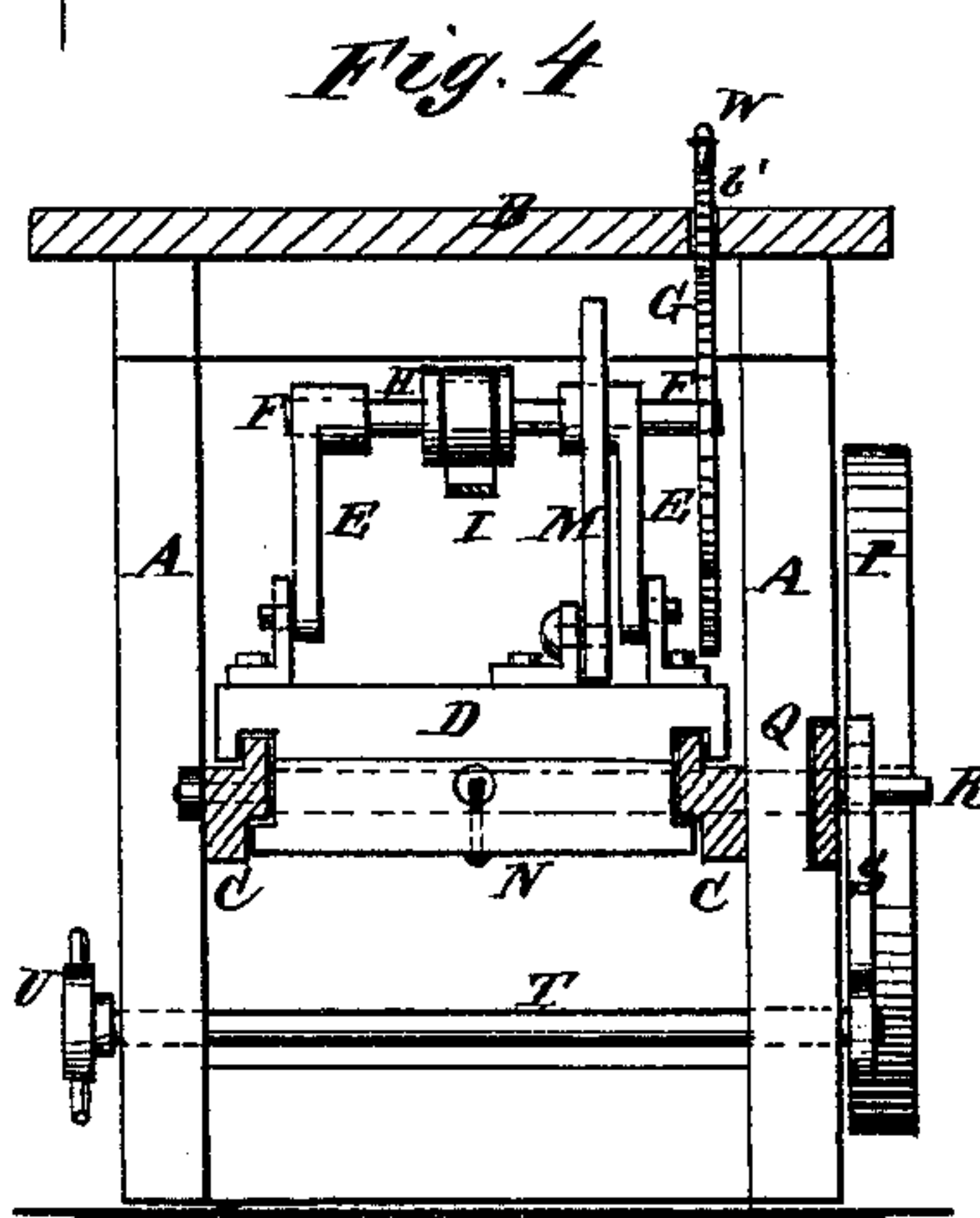
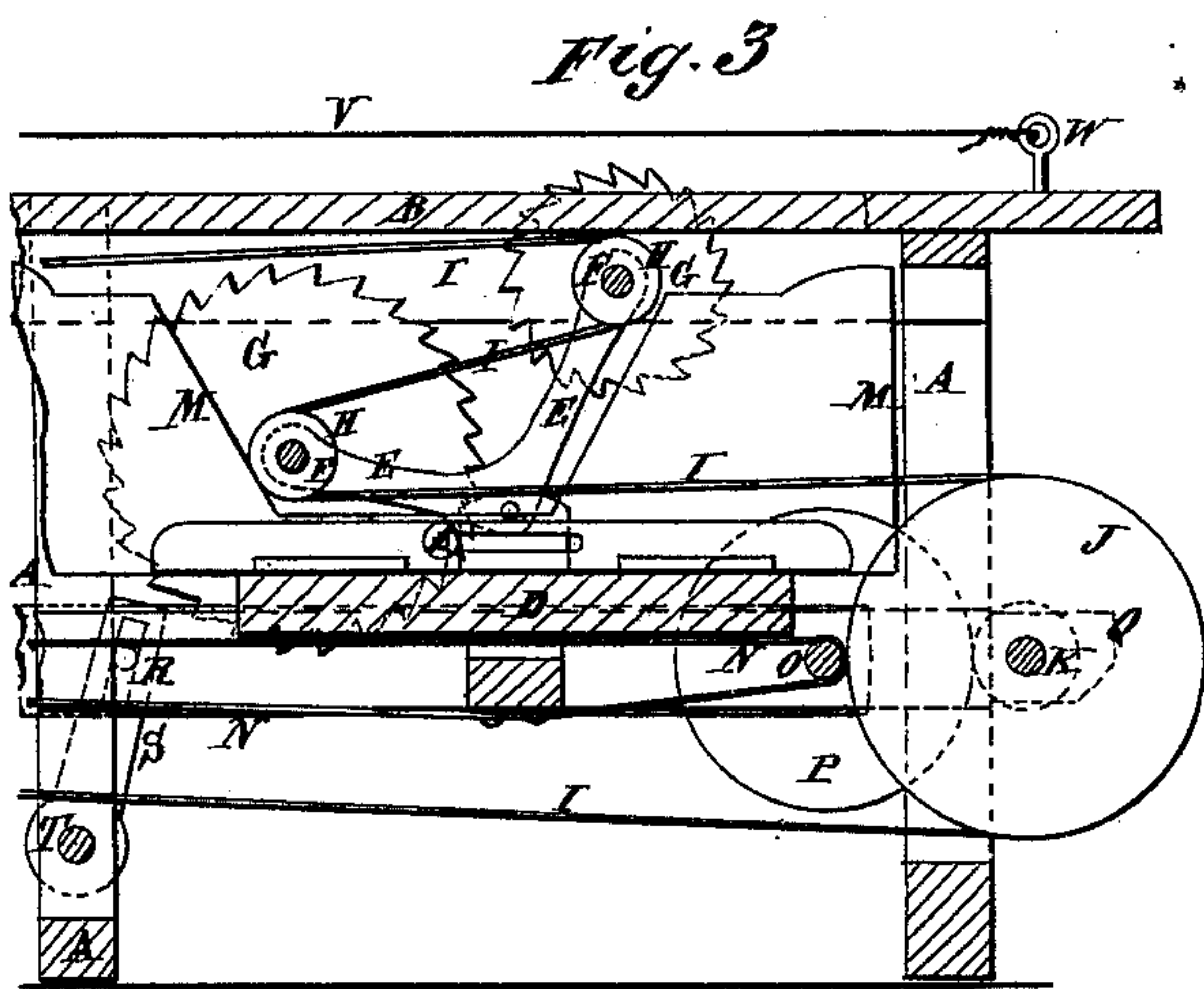
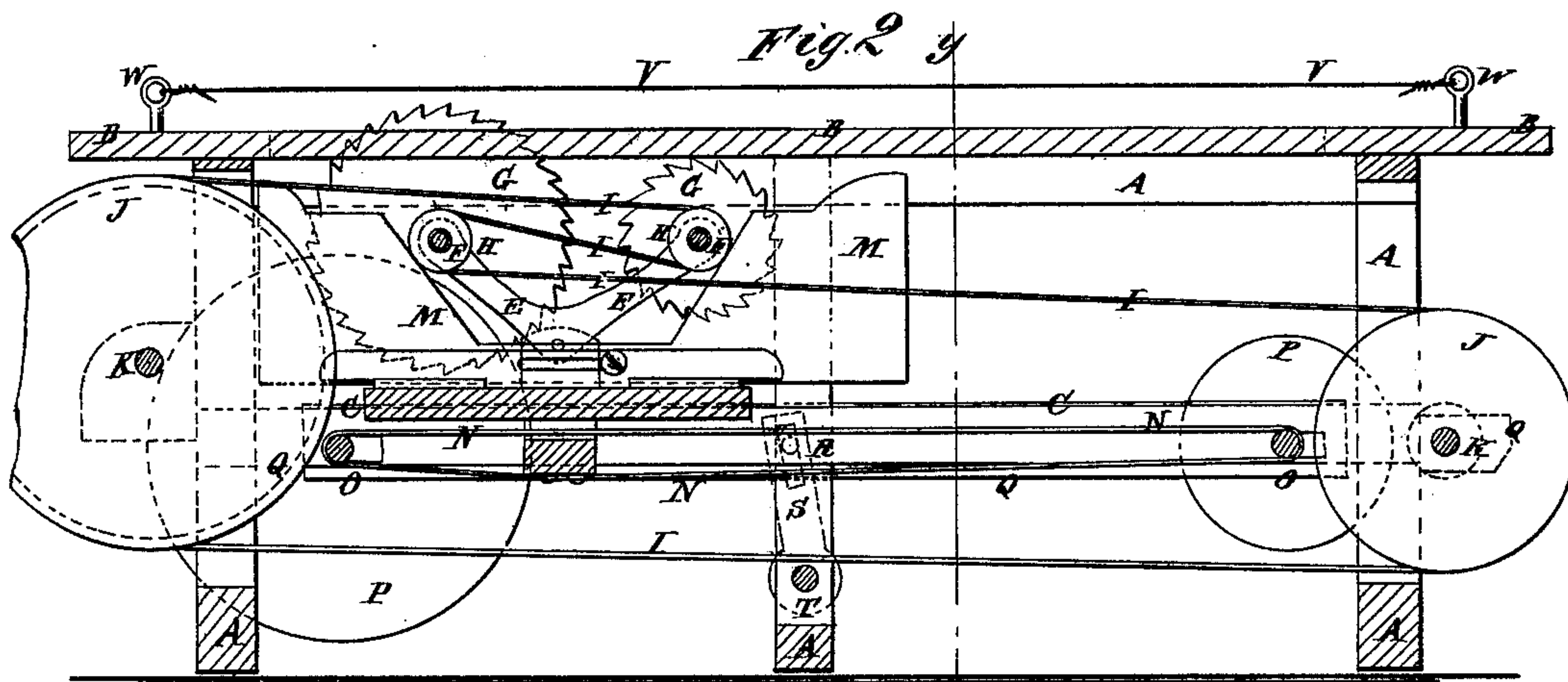
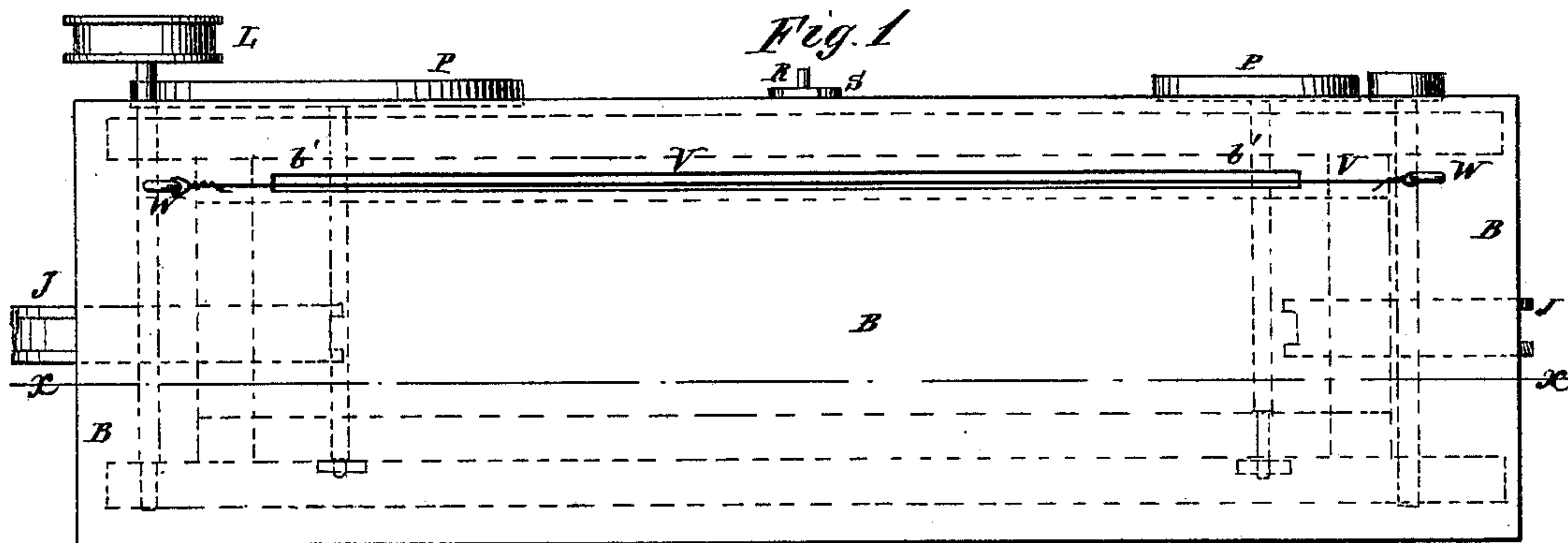


A. E. HOFFMAN.
MACHINES FOR EDGING LUMBER.

No. 176,531.

Patented April 25, 1876.



WITNESSES:

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ANDREW E. HOFFMAN, OF FORT WAYNE, INDIANA.

IMPROVEMENT IN MACHINES FOR EDGING LUMBER.

Specification forming part of Letters Patent No. **176,531**, dated April 25, 1876; application filed March 25, 1876.

To all whom it may concern:

Be it known that I, ANDREW E. HOFFMAN, of Fort Wayne, county of Allen, and State of Indiana, have invented a new and useful Improvement in Machines for Edging Lumber, of which the following is a specification:

Figure 1 is a top view of my improved machine. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is the same section as Fig. 2, but showing the saws at the other end of the machine. Fig. 4 is a vertical cross-section of the same, taken through the line *y y*, Fig. 2.

The object of this invention is to furnish an improved machine for edging lumber, which shall be so constructed as to greatly diminish the labor, and facilitate the operation, enabling much more work to be done in a given time than is possible with the old machines.

The invention consists in the combination of the carriage, the tilting frame, the two shafts, the two saws, the two pulleys, the band, the two pulleys, and the two shafts, to one of which the power is applied, with each other, and with the frame and table of the machine; in the combination of the band, the two shafts, the two friction-pulleys, and the connecting-bar with the carriage that carries the tilting frame and the two saws; in the combination of the notched sliding trip-plate with the carriage, the tilting frame, and the shafts that carry the two saws; and in the combination of the pin, the slotted arm, the shaft, and the cross-bar with the bar that connects the shafts of the friction-pulleys.

Similar letters of reference indicate corresponding parts.

A represents the frame, and B the top or table, of the machine. To the side parts of the frame A are attached ways C, upon which slides a block or carriage, D, to serve as a carriage for the saws. E is an angular frame, which is pivoted at its angle to the middle part of the block or carriage D, so that it may rock upon its pivot in the direction of the length of the machine. In the end parts of the frame E revolve two shafts, F, to one end of each of which is attached a saw, G. To the middle parts of the shafts F are attached pulleys H, around which passes the band I. The band I passes over one of the pulleys H without touching it, over and around the other

pulley, over and around the first pulley, and beneath the second pulley. The band I passes around the pulleys J, attached to the shafts K, which revolve in bearings attached to the ends of the frame A, and to the end of one of which is attached a pulley, L, to receive the driving-band. By this arrangement both saws G are revolved at the same time, but in opposite directions, and either saw may be projected through the slot *b'* in the table B into working position by turning the frame E upon its pivot, to raise one or the other end. M is the shifting-plate, the lower edge of which slides in a groove or between or along guides attached to the block or carriage D, and the movement of which is limited by a bolt or pin attached to it, and which passes through a slot in the said guide. The upper edge of the plate M has a notch made with inclined sides formed in it, which inclined sides rest against the shafts F of the rocking frame E. By this construction, as the block or carriage D reaches either end of the machine, the forward end of the plate M strikes against the end bar of the frame A, which moves the said plate upon the said carriage, and shifts the frame E, one of the shafts F sliding up and the other sliding down the inclines of the said plate M. The block or carriage D is drawn back and forth by the band N, the ends of which are attached to the under side of the said carriage D. The band N passes around the shafts O, which revolve in bearings attached to the frame A near its ends, and to one end of each of which is attached a friction-pulley, P. The bearings next to the pulleys P are slotted, so that the said ends may have sufficient lateral movement to throw their pulleys P into and out of contact with the shafts K, so that the said pulleys may be revolved from said shafts K by friction. The ends of the shafts O, to which the friction-pulleys P are attached, are connected and kept at the same distance apart by the bar Q, through holes in the ends of which the said shafts revolve. To the center of the bar Q is attached a pin, R, which passes through a short longitudinal slot in the arm S. The lower end of the arm S is rigidly attached to the end of a shaft, T, which revolves in bearings attached to the frame A, and to its other end, at the front of the machine, is

attached a cross-bar or equal-armed lever, U, in such a position that it may be operated by the sawyer with his foot, to throw the carriage into gear with either of the shafts K, according to the direction in which said carriage is to travel. V is a guide-wire placed directly over the slot in the table B, through which the saws project, and along which they travel. The ends of the wire V are attached to the end of pins or screws W, inserted in the table B at the ends of the said slot. The wire V, being above the lumber and directly over the saws, enables the sawyer to adjust his lumber from the front of the machine, and enables him to see exactly where the track of the saw will lead. In using the machine the lumber is laid upon the table B, and is pushed back into the proper position, as indicated by the guide-wire V. The carriage is then thrown into gear with the proper shaft K, and the saw traverses the lumber from end to end. As the saw leaves the lumber the lumber is turned over and adjusted into proper position to be operated upon by the return saw. As the carriage reaches the end of the frame A the other saw is raised, and the sawyer causes the carriage to move in the opposite direction by throwing it into gear with the other shaft K.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. The combination of the carriage D, the tilting frame E, the two shafts F, the two saws G, the two pulleys H, the band I, the two pulleys J, and the two shafts K, to one of which the power is applied, with each other, and with the frame A and table B, substantially as herein shown and described.

2. The combination of the band N, the two shafts O, the two friction-pulleys P, and the connecting-bar Q with the carriage D, that carries the tilting frame and the two saws, substantially as herein shown and described.

3. The combination of the notched sliding trip-plate M with the carriage D, the tilting frame E, and the shafts F, that carry the two saws G, substantially as herein shown and described.

4. The combination of the pin R, the slotted arm S, the shaft T, and the cross-bar U with the bar Q, that connects the shafts O of the friction-pulleys P, substantially as herein shown and described.

ANDREW E. HOFFMAN.

Witnesses:

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