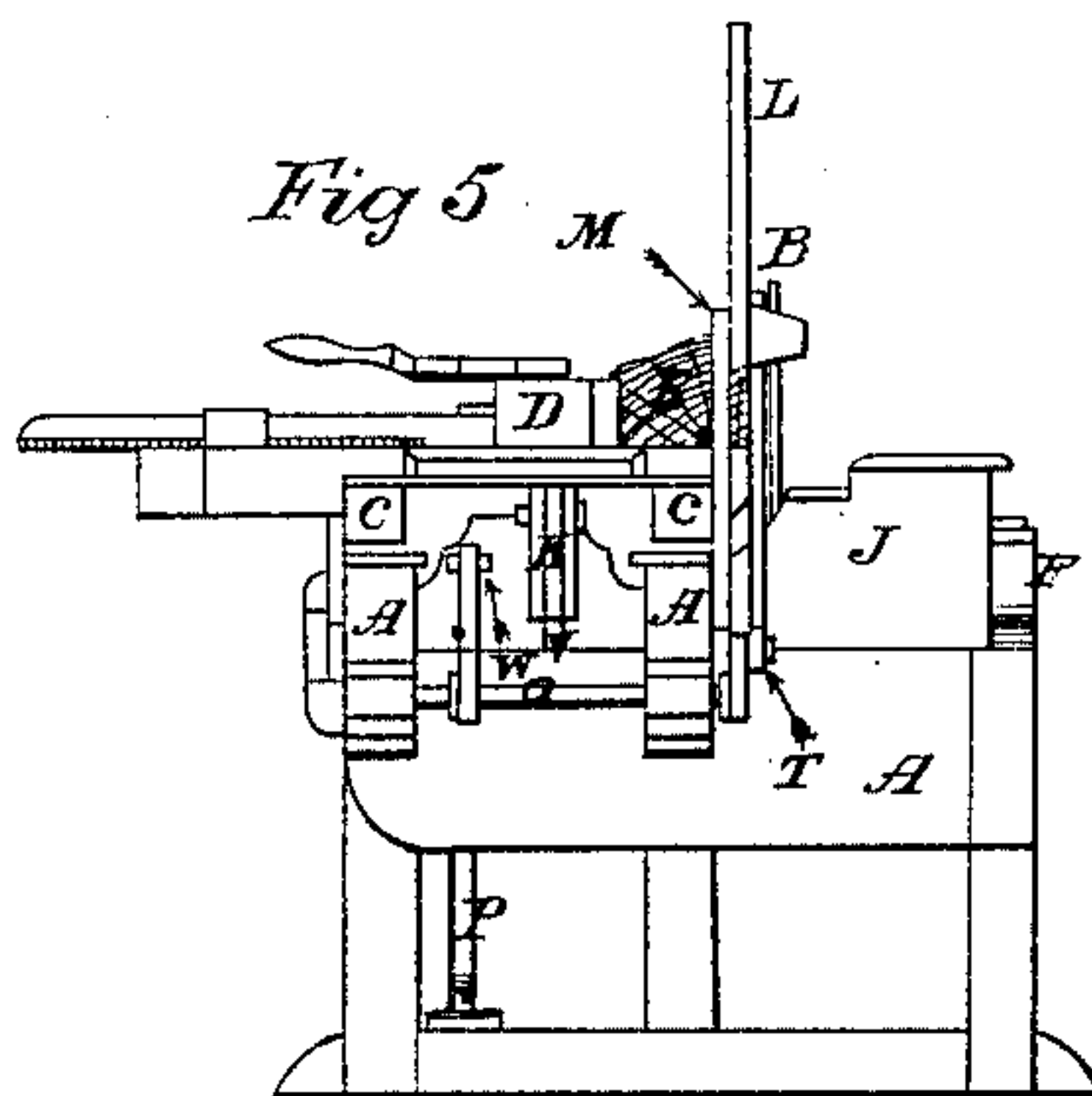
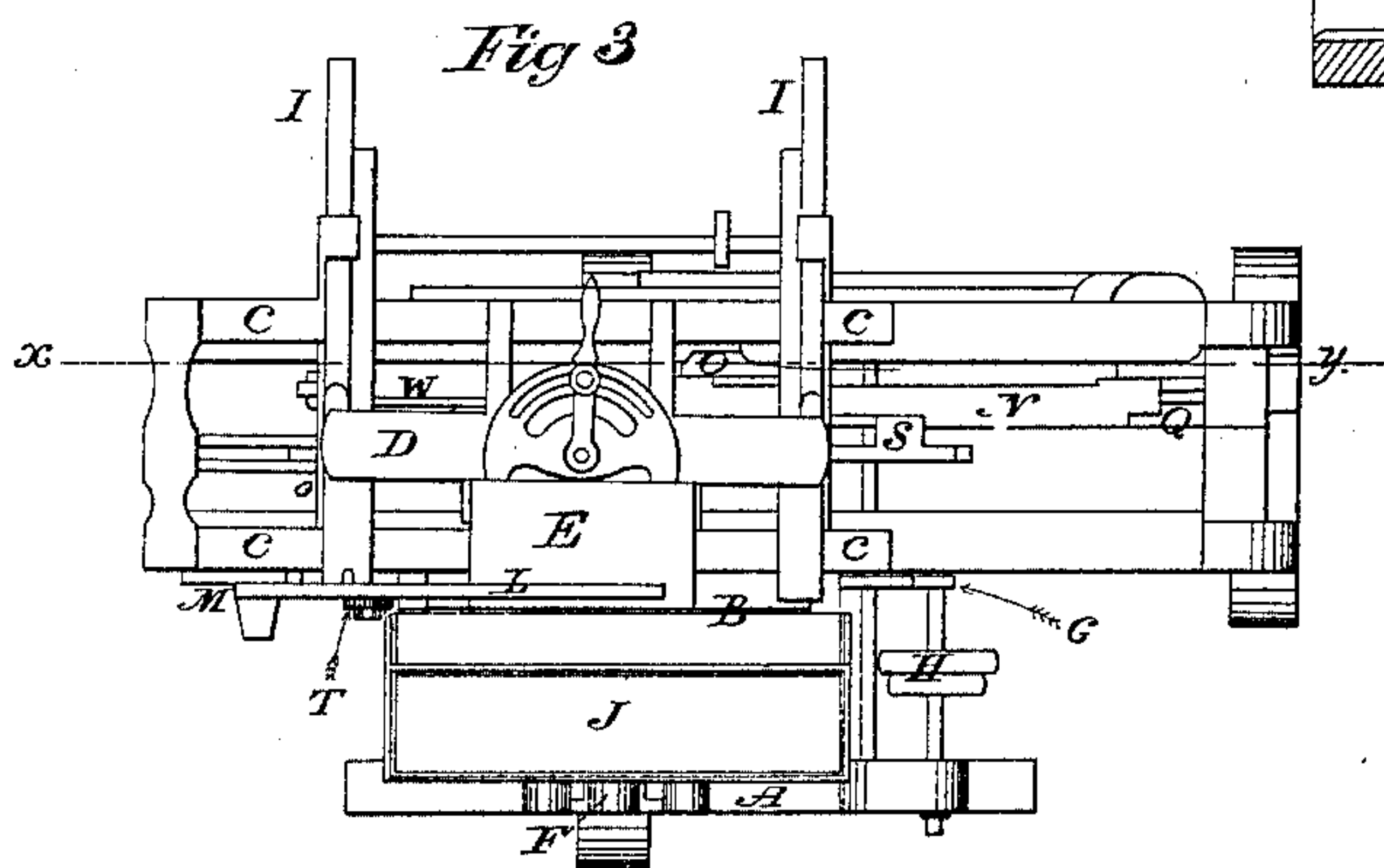
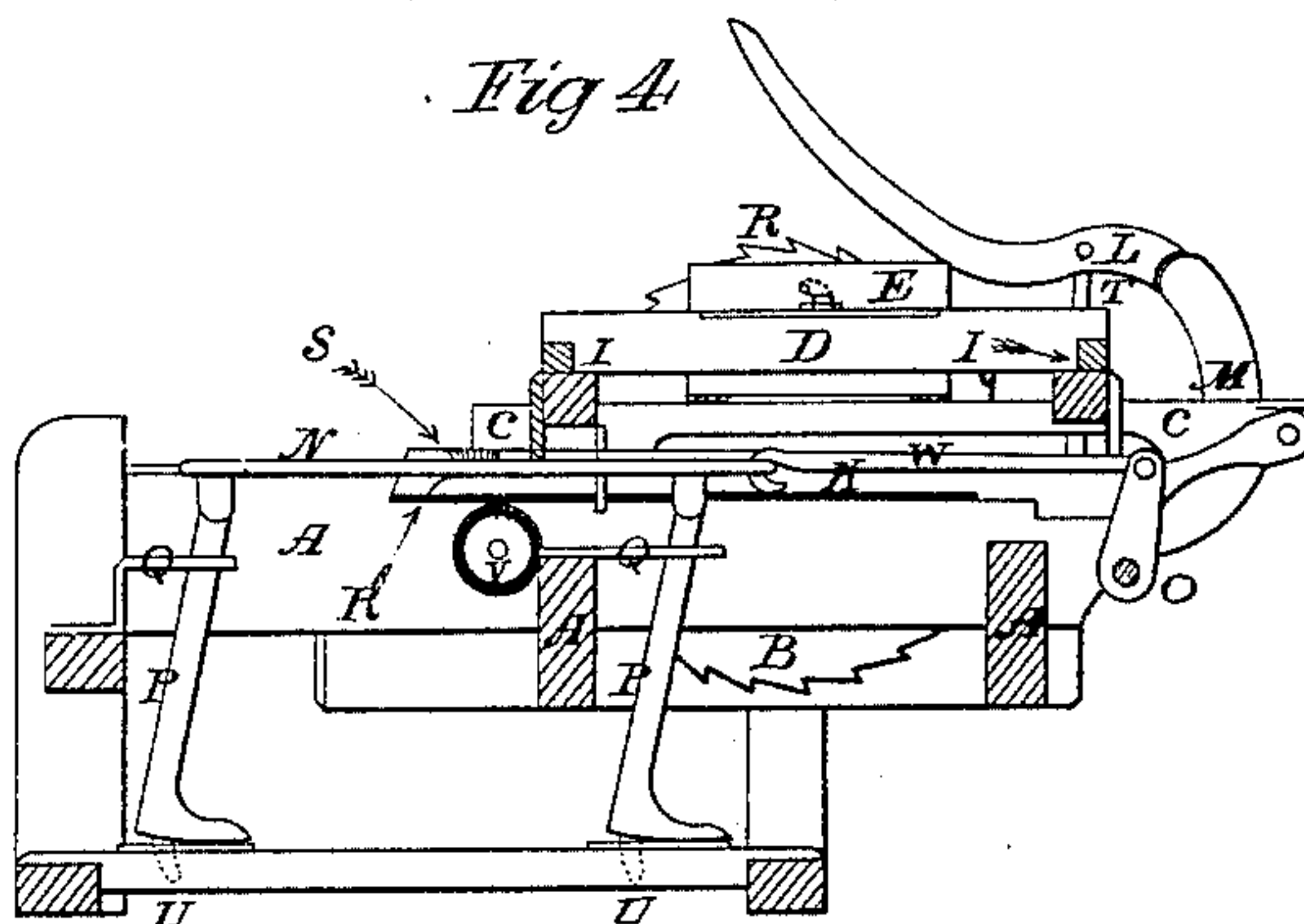
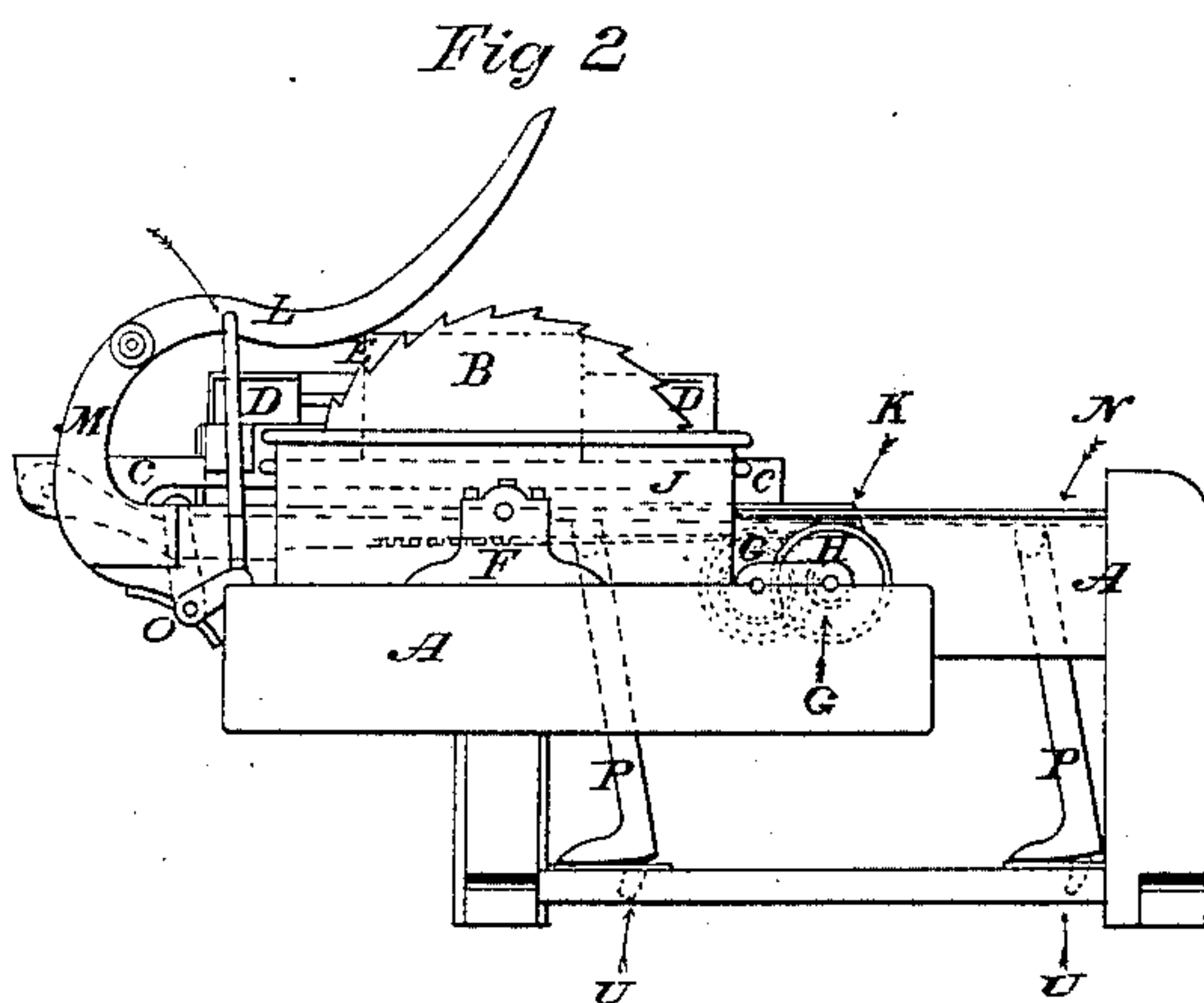
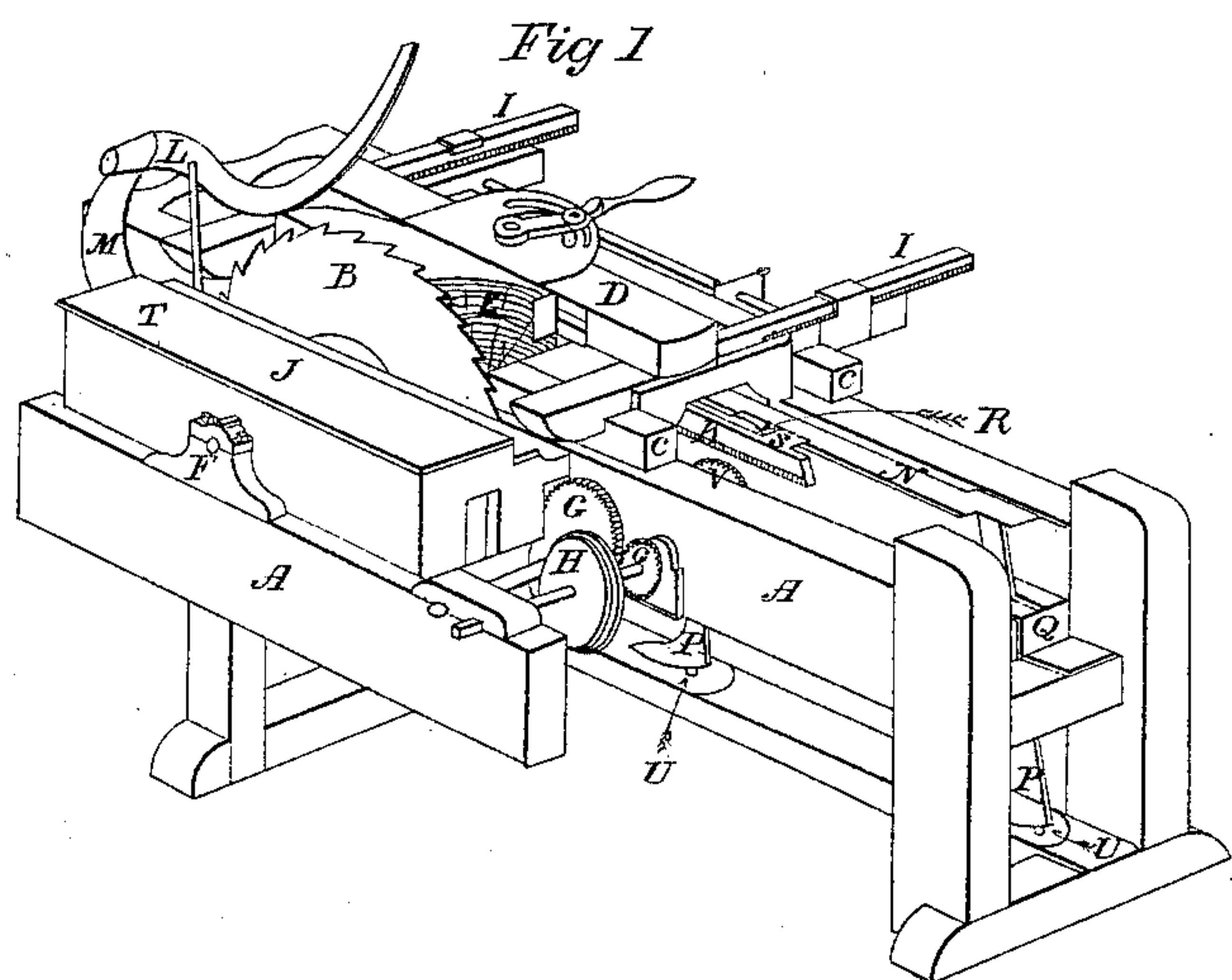


*A.C. Sawyer,*  
*Sawing Shingles,*  
*No 20,174,* *Patented May 4, 1858.*



Witnesses:

*Lyman Ellsworth*  
*Lyman Badgley.*

Inventor:

*A.C. Sawyer*

# UNITED STATES PATENT OFFICE.

A. C. SAWYER, OF CANTON, NEW YORK.

## DEVICE BY WHICH THE WIDTH OF THE BOLT CHECKS THE FEED IN SHINGLE-MACHINES.

Specification of Letters Patent No. 20,174, dated May 4, 1858.

*To all whom it may concern:*

Be it known that I, A. C. SAWYER, of Canton, in the county of St. Lawrence and State of New York, have invented a new and useful Improvement in Shingle-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective, Fig. 2 is a front view, Fig. 3 a top view, Fig. 4 a longitudinal section (taken from  $x$  to  $y$  Fig. 3), and Fig. 5 an end view.

A is the frame, B the saw, C the carriage, D the head block, E a shingle bolt, F the pillow block for the saw arbor.

G, G, are the gears for the feed works. H a pulley to drive the feed works and driven by a cross band from the saw arbor.

I, I, are racks attached to the head block for giving the butt and point to the shingle.

J is a bonnet over the saw arbor. K a rack attached at one end to the carriage for the purpose of feeding it up to the saw.

L is a curved lever hanging by the side of the saw. M a standard to which the lever L is attached. N a race bar for the purpose of holding the rack (K) in gear with the feed works when feeding up, and for keeping it out of gear while gigging back. O a rock shaft with two arms one of which is attached to the race bar (N) through the rod W and the other to the lever L through the rod T.

P, P, are legs on which the race bar N is hung. These legs are held in place by the guides Q, Q, and the heel pieces U U.

R is a spring for the purpose of throwing the rack (K) out of gear.

S is an ear on the side of the rack (K) running over and under the race bar (N).

V is a pinion for driving the rack bar (K).

The object of this invention is, to adjust the travel of the carriage to the different widths of shingles, a wide shingle requiring

the carriage to travel farther to sever it from the bolt than a narrow one. To secure this object, the curved lever L is hung as near the saw as practicable in such a manner that the shingle bolt will raise it more or less (if above a certain width) as the carriage feeds up to the saw. The lever (L) is connected to the rock shaft (O) by the rod T. The rock shaft is connected to the race bar (N), by the rod W. As the lever (L) rises, it draws forward the race bar (N). In sawing narrow shingles, the lever (L) and its connections remain stationary, and the rack (K) is thrown out of the pinion (V) by the spring (R) when the carriage has fed up just far enough to cut the shingles from the bolt; the carriage is then drawn back by a weight or spring to set for another. The rack (K) being held above the pinion (V) by the ear (S) running over the race bar (N) until it gets to the end when it again drops into the pinion (V). As the shingle bolt increases in width it raises the lever (L) more or less which draws forward the race bar (N), thus keeping the rack (K) in gear a longer or shorter distance as the size of the bolt requires.

I do not claim the use of a race bar (N) nor do I claim or limit myself to the use of a rack and pinion feed, as a screw or chain could easily be substituted, nor do I limit myself to the particular place in which the lever L hangs whether before or after the saw, but—

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

The use of a lever (L) hanging by the side of the saw in such a manner that the bolt in running under it will raise or lower it and adjust the travel of the carriage, for the purpose, and in the manner substantially as set forth.

A. C. SAWYER.

Witnesses:

LYMAN ELLSWORTH,  
LUMAN BAILEY.