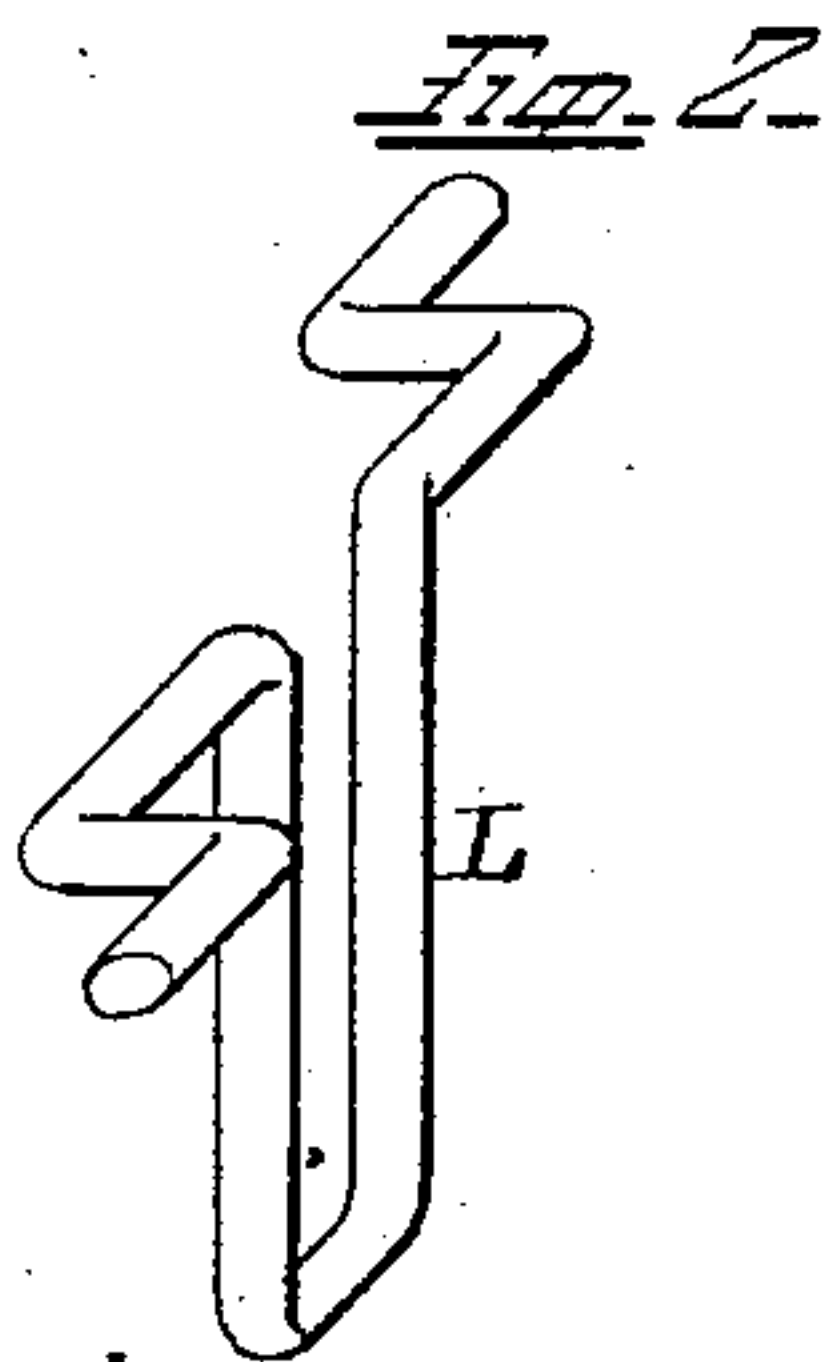
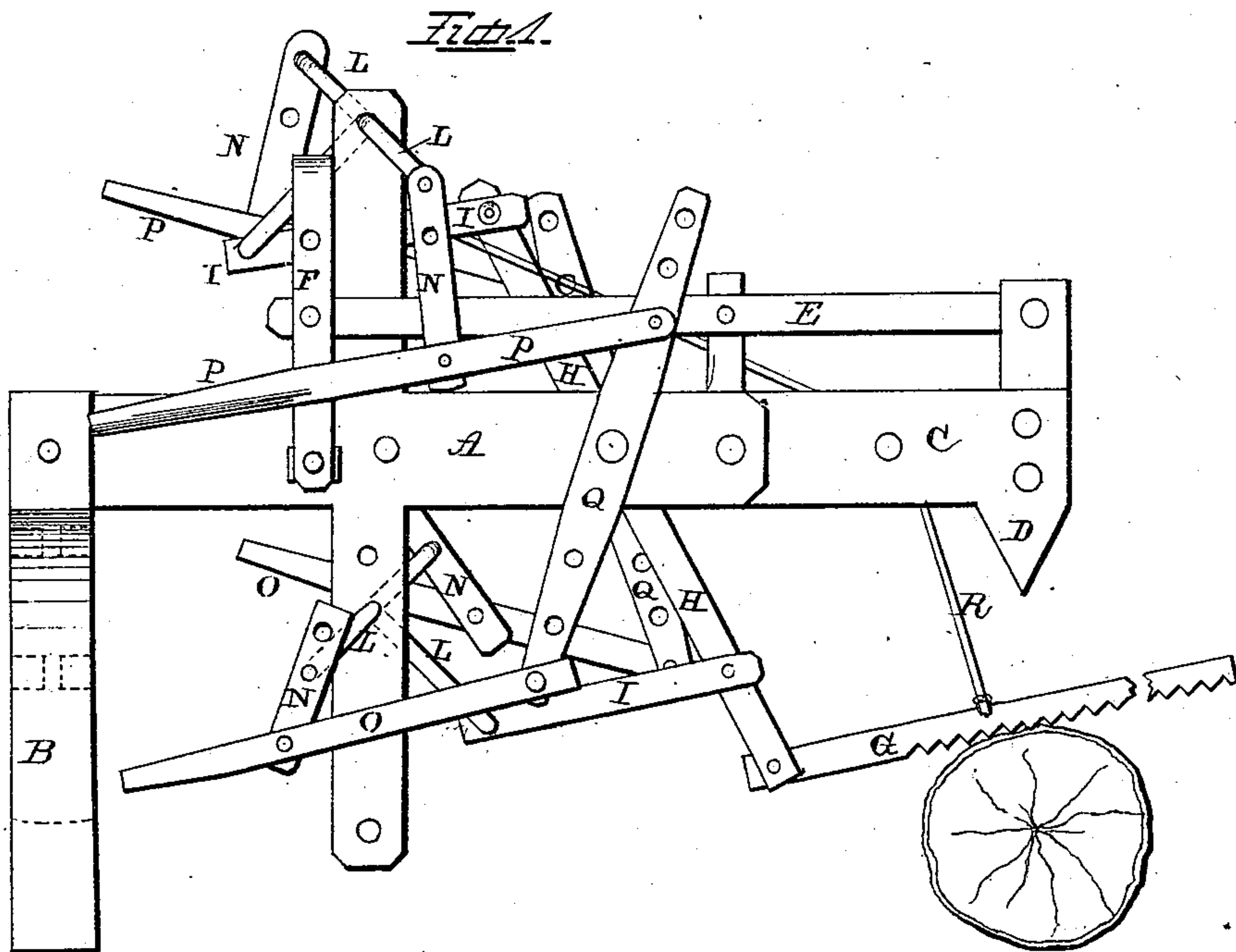


J. B. RICKARD.  
Sawing-Machine.

No. 226,791.

Patented April 20, 1880.



Witnesses  
W. W. Mortimer.  
W. H. Kern

Inventor  
Jas. B. Rickard,  
per  
F. A. Lehmann, Atty

# UNITED STATES PATENT OFFICE.

JAMES B. RICKARD, OF UNION CITY, MICHIGAN.

## SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 226,791, dated April 20, 1880.

Application filed February 26, 1880.

*To all whom it may concern:*

Be it known that I, JAS. B. RICKARD, of Union City, in the county of Branch and State of Michigan, have invented certain new and useful Improvements in Sawing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in that class of sawing-machines in which the saw is operated by means of hand-levers and treadles; and it consists in the combination of a cranked partially-revolving shaft to which the hand-levers are connected, and which shaft, in turn, is fastened to the upper end of the lever which moves the saw, and a similar cranked partially-revolving shaft which is attached to the treadles and the lower end of the lever, the hand-levers and treadles being connected together, as will be more fully described hereinafter.

Figure 1 is a side elevation of my invention. Fig. 2 is a perspective of one of the cranks.

A represents a suitable frame-work, which is supported at its front end by the log or other body being sawed and at its rear end by the legs B. In order to attach this frame to the log, there is jointed to its front end the pivoted frame C, which has the sharp points D for entering the log, and which frame is operated by the lever E, which extends back to the operator. The rear end of this lever is held in a perforated loop, F, so that the lever can be held in any desired position.

The saw G has its rear end pivoted to the lower end of the operating-lever H, which is pivoted in the frame A, and which lever is moved back and forth at its two ends by means of the connecting-rods I, which rods have their rear ends fastened to the cranked partially-revolving shafts L. These shafts are journaled in the frame A, and each one has its two ends turned in opposite directions. Fast-

ened to these oppositely-turned ends are the connecting-rods N, which unite the ends of these shafts with the foot-levers O and hand-levers P. The forward ends of these hand-levers and treadles are pivoted to separate and distinct levers Q, which are pivoted upon the outer sides of the frame A, and which levers, though pivoted upon the same rod as the lever which operates the saw, have no connection therewith. Both ends of these levers Q have a series of holes made through them, so that the ends of the levers or treadles can be adjusted up or down, so as to have a longer or a shorter stroke, as may be desired.

The connecting-rods which unite the hand-levers and treadles to the cranked shafts are also provided with a series of holes, so as to give a longer or a shorter stroke, as may be desired.

By working the hand-levers and treadles alternately up and down the saw can be made to cut with great ease and rapidity.

Connected to the saw, and passing up through suitable guides and pulleys in the frame, is a suitable cord or chain, R, by means of which the saw can be raised from or lowered to the log at will.

The rear end of the frame forms a seat upon which the operator sits while at work.

Having thus described my invention, I claim—

The combination of the hand-levers P and treadles O, which are connected to the cranked shafts L by the connecting-rods N, and which are pivoted at their front ends to the levers Q, and the connecting-rods I, leading from the cranks to the lever H, which operates the saw, substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of February, 1880.

JAMES B. RICKARD.

Witnesses:

JAMES PRICE,  
HARVEY RICKARD.