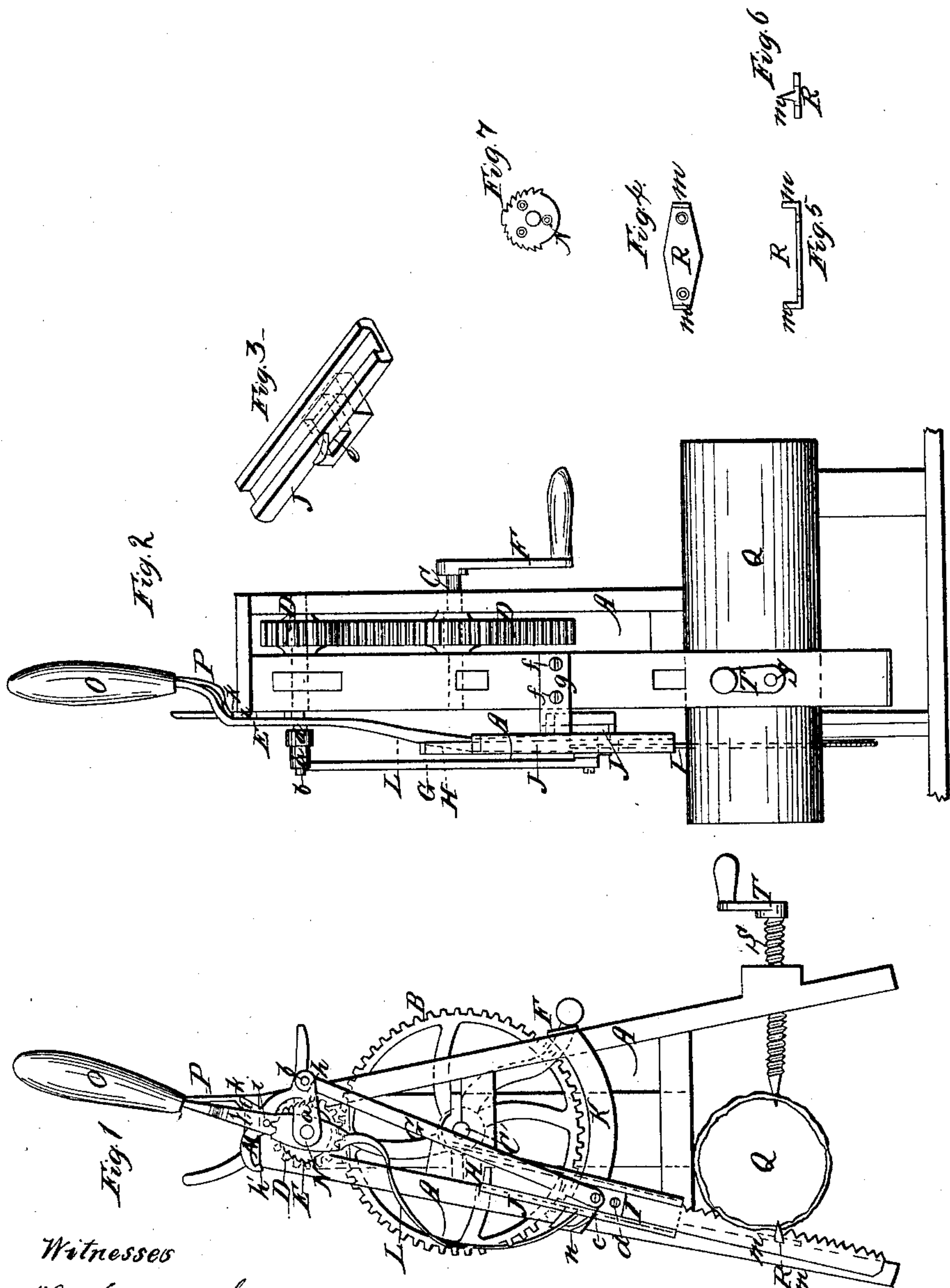


G. L. Wilcox,

Drag Saw.

No 57,612.

Patented Aug. 28, 1866.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE L. WILLCOX, OF HEBRON, CONNECTICUT.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 57,612, dated August 28, 1866.

To all whom it may concern:

Be it known that I, GEORGE L. WILLCOX, of Hebron, in the county of Tolland and State of Connecticut, have invented a new and useful Improvement in Crosscut-Sawing Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings and to the letters of reference marked thereon.

The nature of my invention and improvement will be understood by the following description.

In the accompanying drawings, Figure 1 is a side view of the machine in connection with a log to be sawed into lengths. Fig. 2 is an end elevation of the same. Fig. 3 is a perspective view of the double guide-piece J. Figs. 4, 5, and 6 are a face, edge, and end view of the spur-plate R. Fig. 7 is a face view of the double ratchet N.

Like letters in all the figures indicate the same parts.

A is a frame, to which the several parts of the machine are attached. B is a gear-wheel on the driving-shaft C; and D, a pinion on the shaft E, which gears into the wheel.

F is a crank on the outer end of the shaft C, for propelling the same.

At the opposite side of the machine, on the end of the pinion-shaft D, there is a crank-arm, *a*, which has a wrist-pin, *b*, on which the upper end of the pitman G works. The lower end of the pitman is connected, by means of the pin *c*, with the slide H, to which the upper end of the saw I is rigidly attached in any convenient manner.

In the drawings the saw is represented in a slit in the end of the slide, and secured by means of the screw *d*. This arrangement provides for readily detaching the saw for filing and refastening it to the slide. The slide H has a reciprocating motion by means of the crank-arm *a*, above described, and slides in the vertical guide J, which has a lateral movement on the concentric guide-strip K, there being a cross-mortise, *e*, as seen in Fig. 3, which moves freely on said strip from one side of the machine to the other as the saw advances through the log. The guide-strip is fastened to the frame A by means of screws *f* in the arms *g* of the strip.

The saw is kept up to the log by means of the spring L, which bears against the edge of the guide-strip J. The upper end of the spring has a free movement on the end of the shaft E, and is kept tight by means of the dog *h* on one end of the double handle-piece M, the said dog catching in the teeth of the double ratchet N, which is permanently secured to the side of the frame A by means of screws. The dog *h'*, on the other end of the piece M, is for the purpose of securing the spring in position to hold the saw away from the log when not in action, the dog *h* being then free from the ratchet.

To suit the action of the two dogs *h* and *h'*, the teeth of the ratchet-plate N are made right and left, as more clearly seen in Fig. 7.

The dog-piece M is hung on the pivot *i* in the shank *j*, which projects upward from the spring L. On the end of the shank there is a handle, O, for placing the spring in position.

P is a wire spring, the upper end of which is inserted in the lower end of the handle O and the lower end in a conical hole, *k*, in the projection *l* of the piece M. By means of this spring either dog is held securely in position with the ratchet N, the said projection *l* in either case being thrown out of perpendicular, as represented in Fig. 1.

The operation is as follows: The machine being set on a log, Q, which is to be cut into lengths, the spurs *m m* on the plate R, which is seen in Fig. 1, and detached in Figs. 4, 5, and 6, are brought against one side of the log Q, and the point of the screw-rod S being forced into the other side of the log by means of the crank T on the outer end of the rod, the said spurs *m m* are also embedded in the log, and the machine is made fast to the log. Then the spring L is set to press sufficiently hard against the guide-piece J for the action of the saw I. The saw is then operated by turning the crank F by means of the connections therewith, above described. The spring is readjusted throughout the operation of the saw, as may be required, as the latter advances. When the log is sawed through the dog *h* is disengaged from the ratchet N, and the spring L is drawn back by means of the handle O, the bent wire *n*, which is connected to the guide-piece J, keeping up the connection of the spring therewith. The ma-

chine is then ready to be reset on the log for another operation.

Having thus fully described my improvement in crosscut-sawing machines, what I claim therein as new, and desire to secure by Letters Patent, is—

The arrangement of the double dog-piece M, ratchet N, handle O, and springs L and P with the guide-piece J, when arranged for joint op-

eration, substantially as described, and for the purposes specified.

In testimony that the above is my invention I have hereunto set my hand and affixed my seal this 14th day of June, 1866.

GEORGE L. WILLCOX. [L. S.]

Witnesses:

STEPHEN USTICK,
JOHN WHITE.