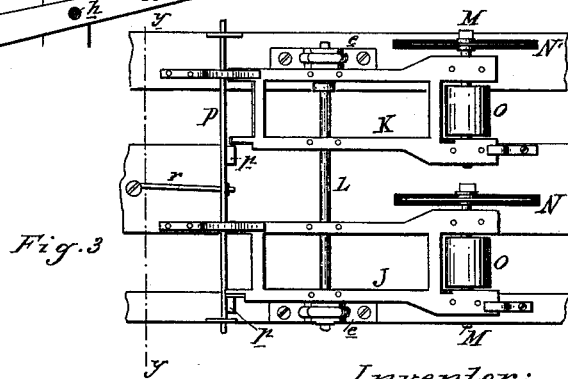
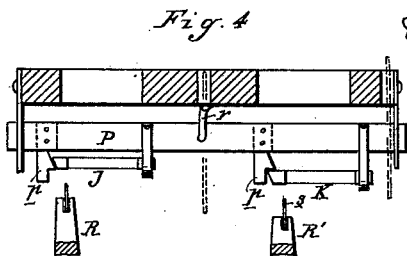
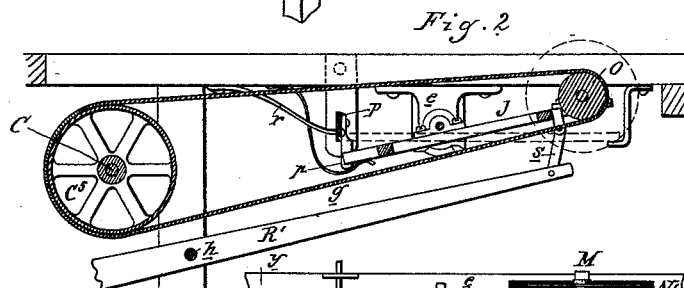
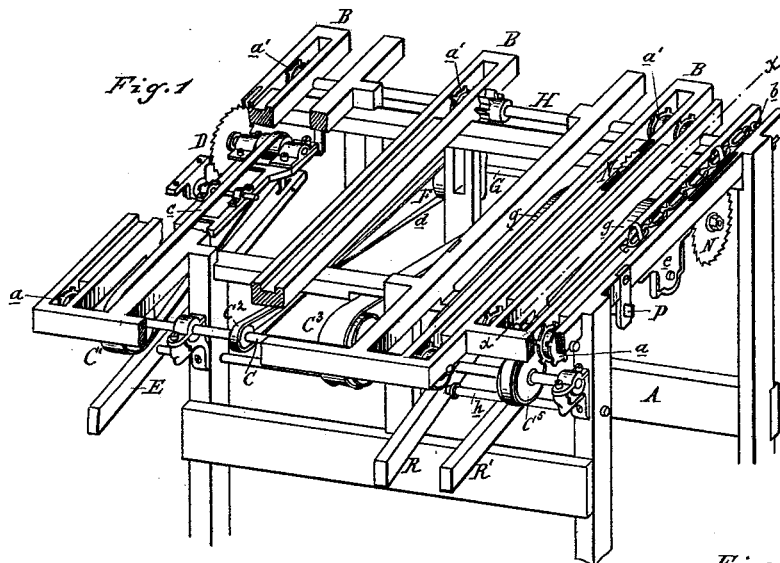


J. G. EMERY.
Lumber-Trimming Machine.

No. 218,005.

Patented July 29, 1879.



Attest:

A. B. B. B.
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By atty
Thos. S. Sprague

UNITED STATES PATENT OFFICE.

JOHN G. EMERY, OF BAY CITY, MICHIGAN, ASSIGNOR OF ONE-HALF HIS
RIGHT TO MICHAEL GARLAND, OF SAME PLACE.

IMPROVEMENT IN LUMBER-TRIMMING MACHINES.

Specification forming part of Letters Patent No. **218,005**, dated July 29, 1879; application filed
April 2, 1879.

To all whom it may concern:

Be it known that I, JOHN G. EMERY, of Bay City, in the county of Bay and State of Michigan, have invented an Improvement in Lumber-Trimming Machines, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of machines designed for trimming lumber to various lengths, as may be desired.

The invention consists in constructing a suitable table, in which are hung upon proper arbors circular saws, said arbors and saws being arranged in suitable frames in such manner that the elevating of any given saw will simultaneously release the remaining saws, allowing them to drop below the face of the table, all as more fully hereinafter set forth.

In the drawings, Figure 1 is a perspective view. Fig. 2 is a sectional elevation on the line *xx* in Fig. 1. Fig. 3 is a bottom plan of the adjusting-frames. Fig. 4 is a section on the line *yy*, Fig. 3.

In the accompanying drawings, which form a part of this specification, A represents a suitable frame, across the top of which are secured the guide-channels B, in each end of which are secured the sprocket-wheels *a a'*, around which pass the carrier-chains *b*.

A shaft, C, is journaled in proper bearings longitudinally across the front of the frame A below the guide-channels. Upon this shaft are secured the pulleys C¹, C², C³, C⁴, (not shown,) and C⁵. From the pulley C¹ rotary motion is communicated to the saw D by means of a belt, *c*. This saw D is hung upon an arbor which is journaled in a vibrating frame pivoted in brackets below the bed of the machine, and is raised or depressed by means of a lever, E.

A belt, *d*, leading from the pulley C² to a pulley, F, mounted on a shaft, G, at the rear of the machine, communicates, through proper pinions, motion to the shaft H, journaled in bearings at the rear of the machine, and upon which shaft the sprocket-wheels *a'* are secured, and by these means a rearward travel of the carrier-chains is obtained.

At the right hand of the machine, and be-

low the bed thereof, I hang two frames, J K, upon a rod, L, said rod being supported in brackets *e*, secured to the under side of the table. In the rear ends of these frames I journal the arbors M, which carry the saws N N' and the pulleys O, from the latter of which pass belts *g* to the pulleys C⁴ and C⁵ upon the shaft C, and through which motion is communicated to the saws.

At the front ends of these frames J K, I place a spring latch-bar, P, from which depend the latch-lugs *p*, said latch-bar being acted upon by the spring *r*. Levers R R', hung upon a rod, *h*, have their longer or inner ends secured or attached to the frames J K by means of links *s*.

The operation of my improvement is as follows, premising first, however, that the saws N' and N are set twelve feet and fourteen feet, respectively, from the saw D, which trims one end of the board.

The lumber that is to be trimmed is piled convenient to the front of the machine. A board is placed longitudinally upon the bed of the machine, and is carried rearward by the chain-carriers into contact with the saws, thus trimming off both ends simultaneously. Should a board be placed upon the machine that will cut a fourteen-foot board to advantage, the operator depresses the lever R', which elevates the saw N and its frame so that the saw projects above the plane of the table, while the rear end of the frame, coming in contact with the lug *p*, forces the same, together with the latch-bar, aside until the end of the frame engages with the hook on the lug, the spring *r* operating upon the latch-bar to enforce such engagement. At the same time the latch is disengaged from the frame K, which then drops of its own gravity, carrying the saw N' below the plane of the table, leaving the machine free to operate in cutting a fourteen-foot board. Should it now become necessary to cut a twelve-foot board, the lever R is depressed, which elevates its saw, while the saw just in use drops, the operation of parts being the same as just described.

What I claim as my invention is—

1. In a lumber-trimming machine, the com-

bination, with the saw D, for cutting off one end of the lumber, of the saws N N', mounted at different distances from the saw D in pivoted frames controlled by levers for trimming the other end of the lumber, substantially as described and shown.

2. In a lumber-trimming machine, the combination of the independently-pivoted saw-

frames K with the levers R R' and spring-latch P p, whereby the raising of one frame will cause the other frame to drop, substantially as described and shown.

JOHN G. EMERY.

Witnesses:

H. S. SPRAGUE,
A. BARTHEL.