(No Model.)

J. B. ROLLINS.

SAWING MACHINE.

No. 442,398. Patented Dec. 9, 1890.

Fig. 1.

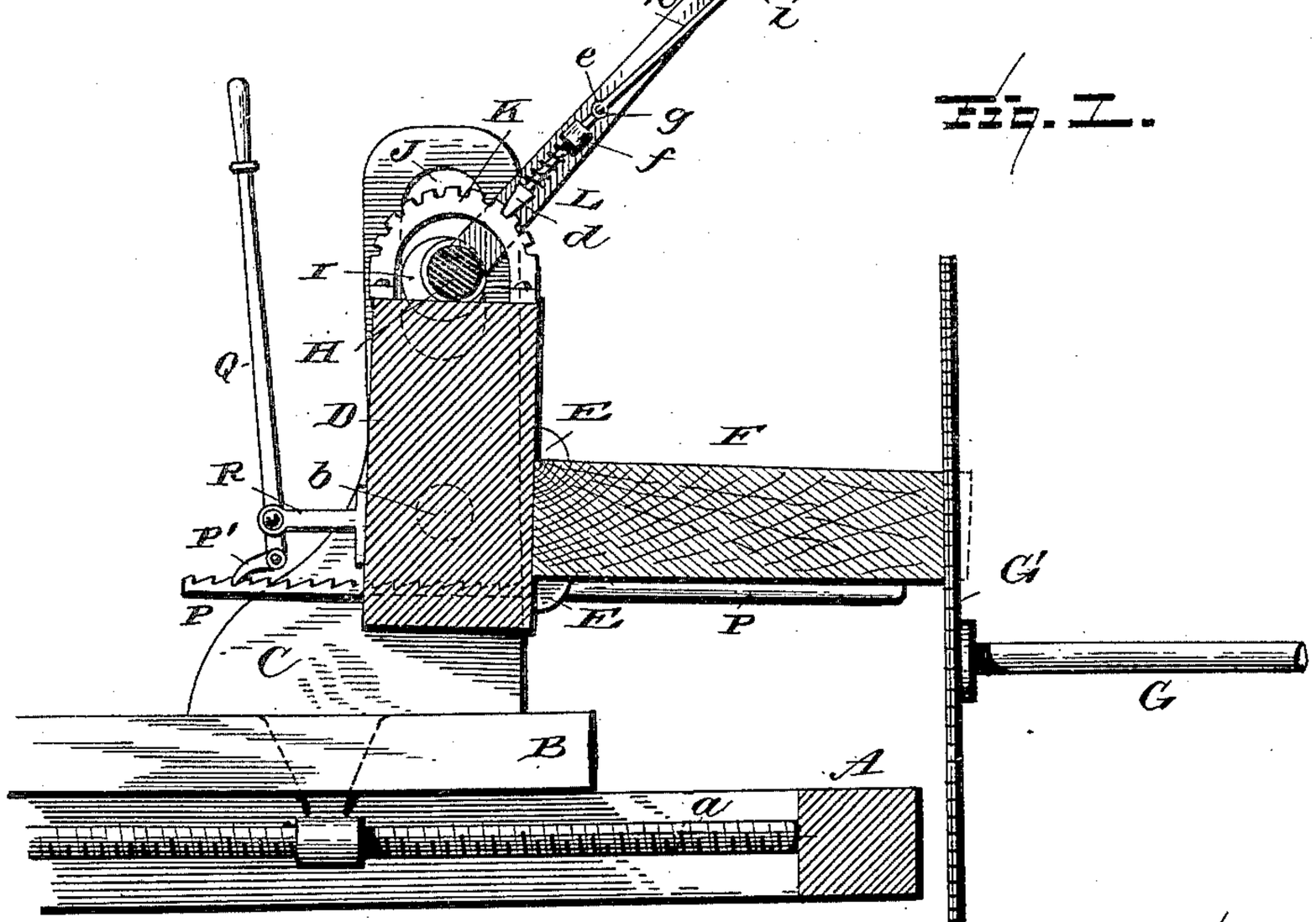


Fig. 2.

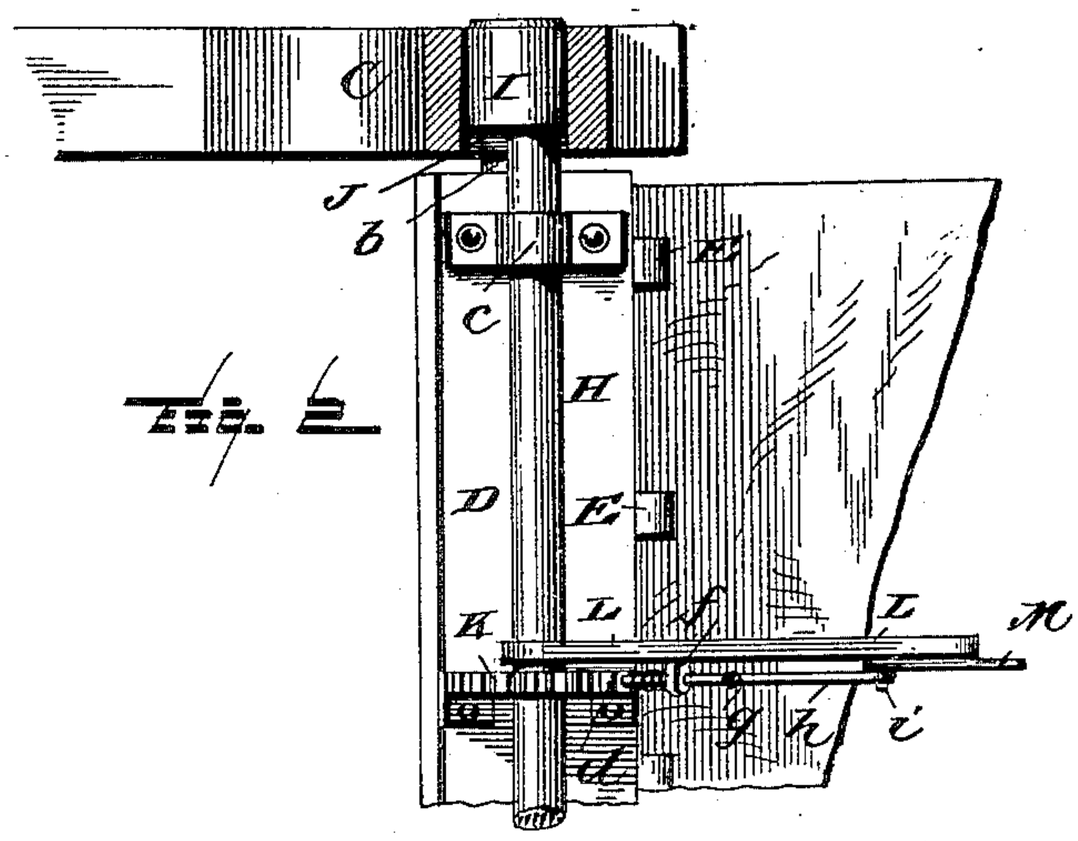
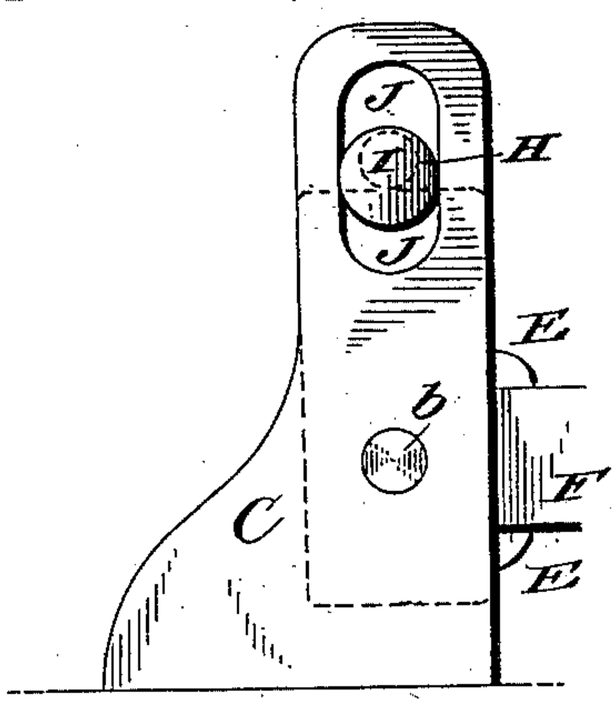


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN B. ROLLINS, OF CARROLLTON, KENTUCKY.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 442,398, dated December 9, 1890.

Application filed March 29, 1890. Serial No. 345,822. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. ROLLINS, a citizen of the United States, residing at Carrollton, in the county of Carroll, State of Kentucky, have invented certain new and useful Improvements in Sawing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in sawing-machines; and it has for its object to provide mechanism for tilting the stay-log for the purpose of sawing beveled boards from the piece of timber to be sawed, making at all times boards of the same bevel and thickness.

The novelty resides in the peculiarities of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical cross-section through portions of a saw-mill with my invention. Fig. 2 is a top plan with parts in section and parts broken away, and Fig. 3 is an end elevation of one of the knees.

Like letters of reference indicate like parts in all the figures of the drawings.

Referring now to the details of the drawings by letter, A designates the carriage, B the head-blocks, C the knees, and D the stay-log, of a sawing-machine of known construction. The knees are adjustable on the head-block by screw-shaft *a* in the usual manner.

E are dogs on the stay-log D, and may be of any known or preferred form, and are designed for holding the piece of timber F, which is to be operated.

G is the saw-arbor arranged at right angles to the length of the stay-log and carrying the saw G′.

The stay-log D is pivoted to the knees by means of pivots *b*, so as to allow the stay-log to be moved thereupon at right angles to its length.

Journaled in suitable bearings *c* upon the top of the stay-log is the shaft H, which at its ends is provided or formed with eccentrics I, which work in openings J, formed in the upper ends of the knees.

K is an arched segment notched upon its upper face, as shown best in Fig. 1, and beneath which the shaft passes. L is a lever fast upon the shaft in proximity to this segment and carrying a spring-actuated dog or pawl *d*, arranged to engage the notches of said segment and hold the parts in their adjusted position. This pawl is carried by the arm *e*, which passes through suitable guides *f* on the lever, and the upper end of this rod is pivoted, as shown at *g*, to the link *h*, the upper end of which is pivoted at *i* to the short arm *j* of the lever M, as shown best in Fig. 1, said lever M being pivoted to the lever L, as at *k*. (Shown best in said Fig. 1.)

The operation will be readily understood, and is as follows: The piece of material F having been secured in position, as shown, the lever L is grasped, and at the same time the lever M, which releases the pawl from its engagement with the segment, when by turning said lever the shaft H is rotated, and by the engagement of the eccentric with the inner wall of the openings in the knees within which they are located the stay-log is caused to tilt, as indicated in Fig. 1, so that as the saw comes in contact with the timber it cuts the same upon a bevel, forming a tapered slab or piece of weather-boarding, as indicated by dotted lines in Fig. 1. Before the next cut the lever should be thrown into the opposite position, so as to tilt the stay-log, and consequently the timber F, upward. The inclination of the stay-log should be reversed after each board has been separated from the timber. It will of course be understood that the timber is to be set out the same distance for each board to be sawed. The operation of the eccentrics is to tilt the stay-log, so as to throw the edge of the timber to be sawed alternately above and below the center of a line from a right angle from the saw to the center of the trunnion or pivot upon which the stay-log swings on the knees.

P is a metallic bar arranged beneath the stay-log, as shown in Fig. 1, passing through an opening in the stay-log and adapted to ex-

tend beneath the timber being sawed to support the same. The other end of the bar is notched upon its upper face and is engaged by a pawl P′, carried by the lower end of the lever Q, which is pivoted on the lateral arm R on the stay-log. As each piece is sawed from the timber this bar P is moved back one or more notches, according to the thickness of the piece removed, so as to at all times keep it out of the path of the saw.

What I claim as new is—

1. The combination, with the knees and pivoted stay-log, of mechanism for alternately tilting the stay-log in opposite directions, the operative lever of said mechanism being mounted on the stay-log, substantially as described.

2. The combination, with the knees and the stay-log pivoted thereto, of means substantially as described, the operating-lever of which is mounted on the stay-log for alternately tilting the stay-log in opposite directions, and means for holding the same in its adjusted position, as set forth.

3. The combination, with the knees and the stay-log pivoted thereto, of the shaft extending lengthwise of the stay-log and journaled thereon and provided with eccentrics working in openings in the knees, substantially as specified.

4. The combination, with the knees and the stay-log therebetween and pivoted thereto at a point below its center, of the shaft extending lengthwise of the stay-log and journaled in bearings upon the upper face thereof, a lever connected with the shaft for rotating the same, and eccentrics upon the ends of the shafts, as and for the purpose specified.

5. The combination, with the knees having vertical openings in their upper ends, and the stay-log pivoted to and between the knees at a point below its center, of the shaft extending lengthwise thereof and journaled in bearings on the top of the stay-log, eccentrics upon the ends of said shaft working in and engaging the walls of the openings in the knees, the notched segment on the stay-log, the lever fast on the shaft, and a pawl carried by the shaft and engaging the segment, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. ROLLINS.

Witnesses:

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J. W. EASTERDAY.