J. LAMB.

Re-Sawing Machines.

No. 196,157. Patented Oct. 16, 1877.

Fig: 1.

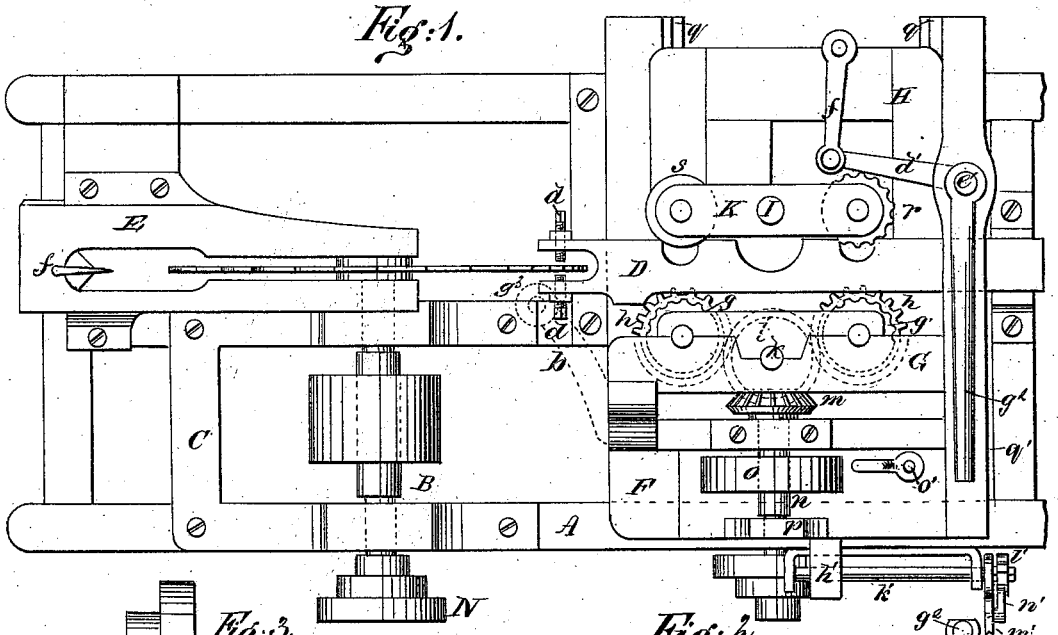


Fig: 3.

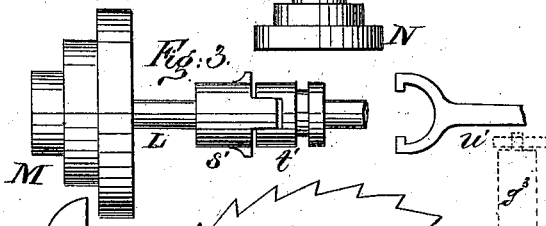


Fig: h.

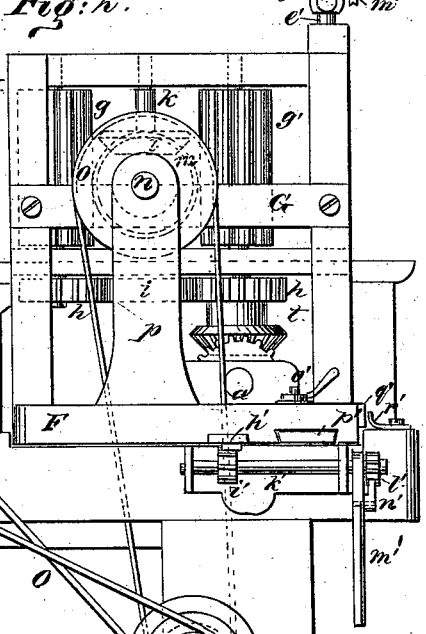
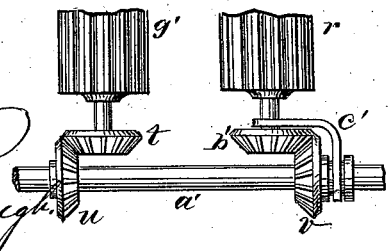


Fig: 4.



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JOHN LAMB, OF OTTAWA, ONTARIO, CANADA.

IMPROVEMENT IN RESAWING-MACHINES.

Specification forming part of Letters Patent No. **196,157**, dated October 16, 1877; application filed August 3, 1877.

To all whom it may concern:

Be it known that I, JOHN LAMB, of Ottawa, Province of Ontario and Dominion of Canada, have invented a new and Improved Resawing-Machine, of which the following is a specification:

Figure 1 is a plan view of my improved resawing-machine. Fig. 2 is a side elevation. Figs. 3 and 4 are detail views of portions of the feeding mechanism.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide a resawing-machine for resawing or splitting slabs, boards, or plank.

The improvement consists in the combination of adjustable feed-works with a circular saw, as hereinafter more fully described.

Referring to the drawing, A is a strong rectangular frame, having the central longitudinal timber *b*.

A saw-mandrel, B, of the usual form, is journaled in a cast-iron frame, C, mounted on the frame A.

A bed, D, is supported by standards *c* in front of the saw, and is provided with the guiding-screws *d*, for steadying the saw. A bed, E, is supported by the standard *e* at the rear of the saw, and to it the dividing-knife *f* is secured.

A frame, F, is placed in ways formed in the top of the frame A, and is capable of being moved in the said ways across the said frame.

In the vertical portion G of the frame F two fluted rollers, *g* g^1, are journaled, and their shafts are provided with spur-wheels *h*, placed either above or below the rollers, and take motion from a spur-wheel, *i*, on the shaft *k*, which is journaled in the part G of the frame F, and is provided with a bevel-wheel, *l*, that is engaged by a bevel-pinion, *m*, on shaft *n*, upon which a pulley, *o*, is secured. One end of the shaft *n* is journaled on the part G of the frame F, the other end in a standard, *p*, attached to the frame F.

A small standing roll, g^3, (shown in dotted lines,) is supported near the saw by arms that project from the vertical portion G of the frame F, and serves to support and guide the lumber as it is cut by the saw.

Ways *q* are formed in the frame F, in which a frame, H, is placed. A post, I, projects from the frame H, and upon it a frame, K, is placed, which is capable of oscillating thereon, and in which the fluted roller *r* and the plain roller *s* are journaled.

Motion is transmitted from the roller g^1 to the roller *r* through gearing consisting of a miter-wheel, *t*, placed on the shaft of the roller g^1, and two miter-wheels, *u v*, placed on the shaft *a'*, one end of which is journaled in the frame F, and the other end supported by the sliding frame H and a miter-wheel, *b'*, on the lower end of the shaft-roller *r*.

The wheel *v* is capable of moving longitudinally on the shaft *a'*, but is prevented from turning thereon by a slot in the shaft and spline on the wheel, and the said wheel is kept in gear with the wheel *b'* by a right-angled arm, *c'*, one end of which is bored and placed on the shaft of the roller, and the other end engages the grooved hub of the wheel *v*.

The frame H is moved in the ways *q* by a lever, *d'*, placed on the shaft *e'*, and connected with a stud on the said frame by a link, *f'*.

The shaft *e'* is journaled in the frame F, and is provided with the lever g^2, by which it is moved. Several holes are made in the frame F for receiving the shaft *e'*, to admit of adjusting it to boards of different thickness.

The frame F is provided with a rack, *h'*, that is engaged by a pinon, *i'*, on the shaft *k'*, that is journaled at the side of the frame A. On the end of this shaft a ratchet-wheel, *i*, is secured, between which and the journal-box that supports the shaft a lever, *m'*, is placed, which carries a pawl, *n'*, that may be employed in turning the shaft in either direction. A clamping-bolt, *o'*, extends through the frame F, and through a slotted plate, *p'*, attached to the frame A, and serves to clamp the frame F. A scale, *q'*, is attached to the frame F, and an index, *r'*, is fixed to the frame A, for convenience in adjusting the frame to the thickness of the boards to be sawed. A counter-shaft, L, is journaled in the frame A below the frame F, and provided with a loose pulley, *s'*, that is connected with the pulley *o* by a belt. The pulley *s'* is carried by a clutch, *t*, that may be moved longitudinally on the shaft L, but is prevented from turning thereon by a feather. The clutch is moved by a forked lever, *n'*, that

is pivoted in the frame A. Upon the outer end of the shaft L a cone-pulley, M, is placed, and a similar pulley, N, is placed on the saw-mandrel B. These pulleys are connected by a crossed belt, O.

The lumber to be sawed is introduced between the rollers g g^1 and r s, and is pressed against the rollers g g^1 by moving the frame H by means of the lever g^2, and it is carried forward against the saw by the rotation of the rollers. The pivoted frame K permits the rollers to follow the inequalities of the board or plank without straining the feeding mechanism.

The feed-motion may be adapted to different kinds of wood by shifting the belt o on the pulleys M N.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with saw C and bed D, of the rolls g^1 g^1, fluted and journaled in a cross sliding frame, F, and the rolls r s, arranged in a frame, K, the latter turning on a pivot, I, and in a sliding frame, H, as and for the purpose specified.

JOHN LAMB.

Witnesses:
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