

L. J. Cobb.

Resawing Machine.

No 103,568.

Patented May 31, 1870.

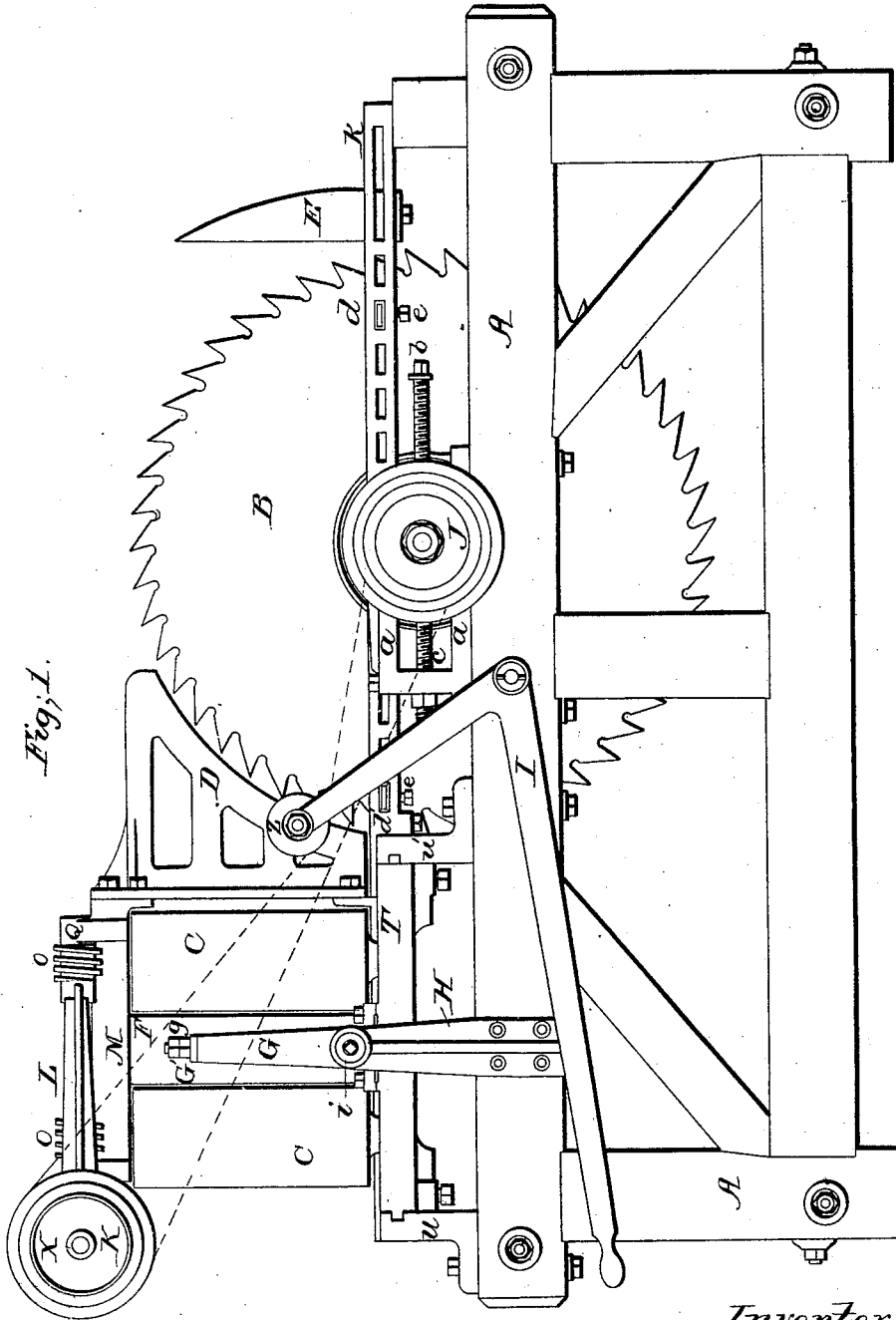


Fig. 1.

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C. H. West
W. B. Bond

Inventor,
L. J. Cobb

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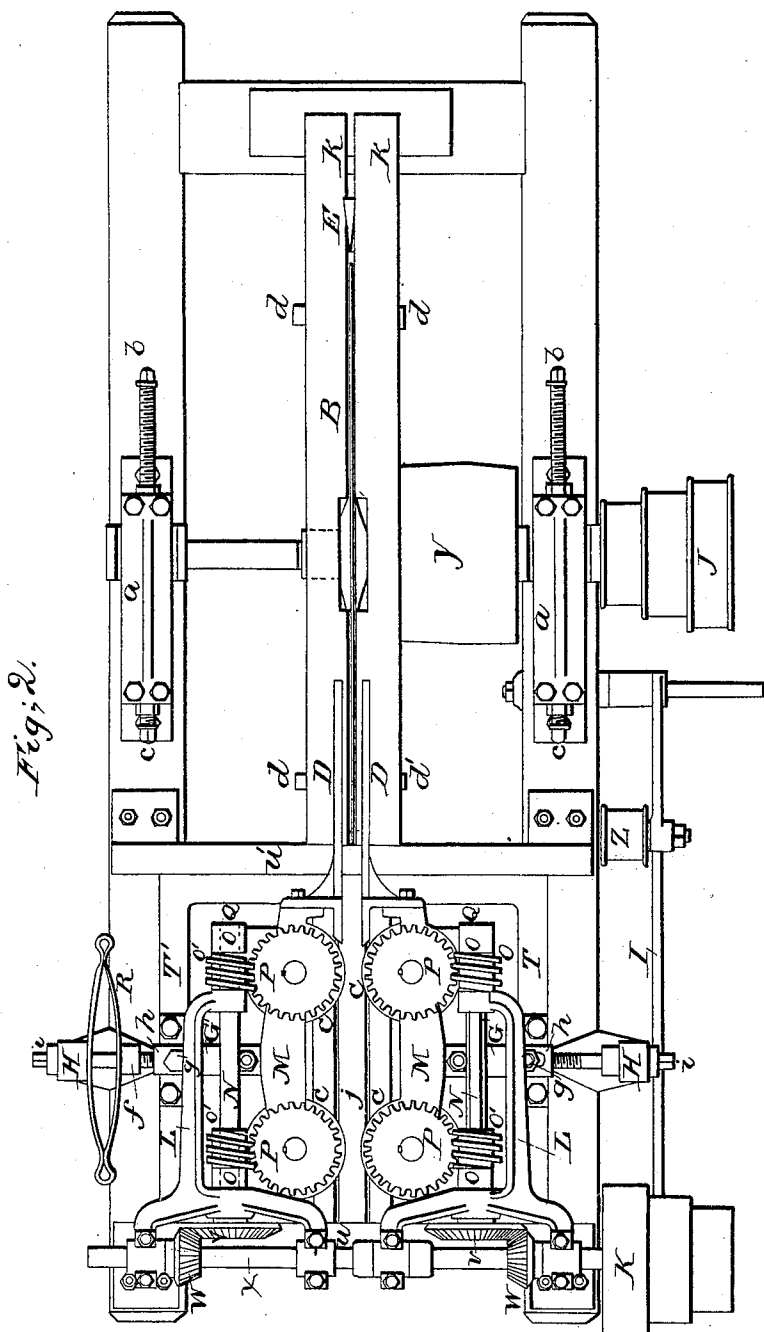


Fig. 2.

Witnesses;
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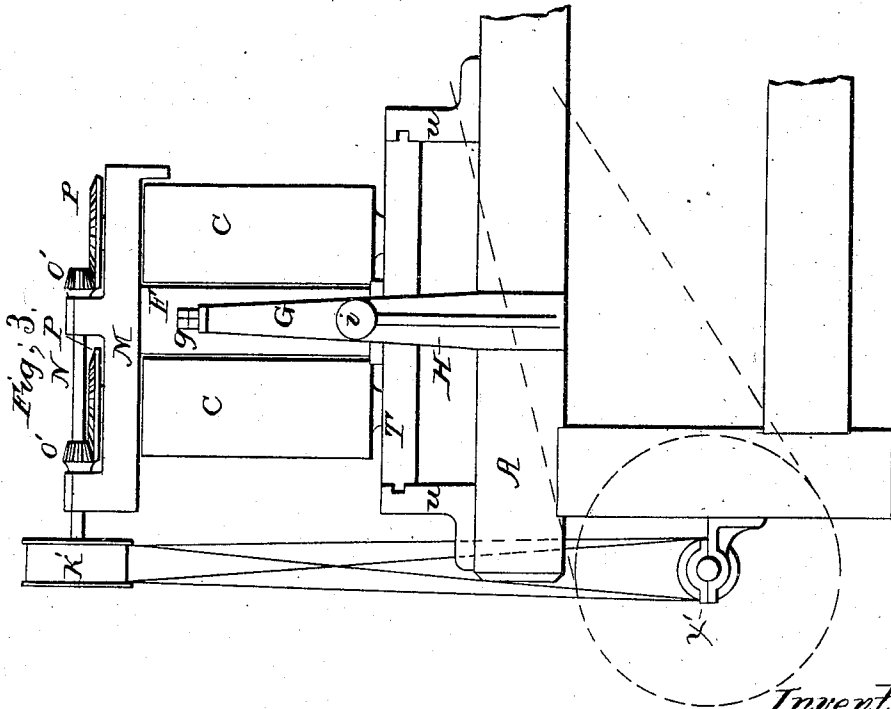
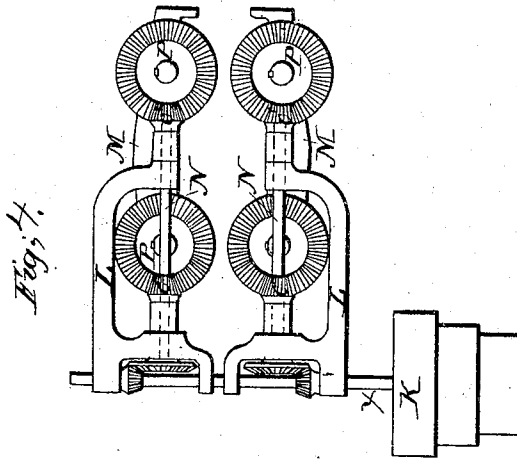
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Sheet 3-3, Sheets.

Resawing Machine.

No 103,568.

Patented May 31, 1870.



Witnesses:
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LUCIUS J. COBB, OF CHICAGO, ILLINOIS.

Letters Patent No. 103,568, dated May 31, 1870.

IMPROVEMENT IN RESAWING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LUCIUS J. COBB, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Resawing Planks, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents a side elevation.

Figure 2, a top or plan view.

Figure 3, a modification of the mode of belting the machine; and

Figure 4, a modification of the gearing by which the feed-rollers are operated.

The nature of my invention consists in an improved mode of operating the feed-rollers, and in the several combinations hereinafter set forth.

To enable others skilled in the art to make and use my invention, I will proceed to describe the improved machine.

The frame A is made of wood or iron, as may be desired, and, when made of wood, is seven feet long and four feet wide for a forty-inch saw. When made of iron, the size can be reduced, and it will vary according to the size of the saw to be used.

The saw B is made very thin, and is attached to its shaft in any of the usual modes, and is placed in the middle of the machine, between the bars *k k*.

The shaft is supported in sliding journal-boxes, which are fitted to the inside of the frame *a*, and are held in said frame by having the ends project beyond the sides thereof with a flange, or by being made V-shaped, so as to correspond with a projection fitting them inside of the frame *a*.

At each end of these frames or boxes *a*, I insert long screws, *b* and *c*, the inner ends of which press against the journal-boxes, and, by means of these screws, the saw can be moved forward or backward, and also accurately adjusted to the line of cutting.

When the machine is first set up, the screws *c* will be run in nearly their entire length, and the screws *b* drawn out, as shown, so that, as the saw wears away, by unscrewing *c* and screwing *b*, the saw-teeth are kept in the same position relative to the pressure-bars or jaws D.

Near the outer edge of the saw I insert or attach pressure-blocks or guides, *d*, to the bars *k*, which guides are held in place by the set-screws *e*, and, as they become worn, they are advanced so as to be kept in contact with the sides of the saw. The attachment will be simplified by making these guides of hard wood, with a screw-thread made upon them, and thereby save the intervention of a set-screw. By the use of

these guides, I am able to use a very thin saw of a large diameter, which is desirable in saving timber and in resawing wide boards, and by the use of these guides with the thin spreader or guide E, the "back-lash" or scraping of the rear teeth of the saw upon the boards is prevented.

The bars *k* are placed above the saw-shaft, and are supported in front by the cross-bar U, and at the rear by a tail-block, or by other suitable means.

At the front end of the machine two iron cross-bars U are located, and their inner faces are grooved, as shown at figs. 1 and 3.

In this groove, at the top, I first place a center bar, *j*, and on each side of this center bar a separate frame, T T'. On each of these frames T T' are placed the feed-rollers and the devices for operating them. These rollers are about seven inches in diameter and eighteen inches in length, and are provided with suitable bearings at the base in the frames T T', and at the top in the beam or bars M.

The bars M are supported and held by the posts F.

I adjust the space between the two sets of rollers by means of a post or bar, H, which is bolted to the main frame A, and provided, at its upper end, with a screw, *i*, which passes through it, and has its nut in an upright or post, G, the lower end of which is secured to the outer edge of the frame T.

From the upper end of this post G there is a vertical plate, G', passing to the supporting-post F.

At the outer end of this plate there is a slot, *h*, through which the screw *g* passes into the top of the post G, by means of which the feed-rollers can be adjusted with reference to the frames T, and, when properly adjusted, the screw *g* is turned down and the rollers are held as placed, and the rollers are adjusted with reference to the space between the two sets by means of the screws *i* of the posts H; and on one side I place a spring, R, or a weighted lever, so that the rollers will yield without breaking when required.

The feed-rollers are operated by means of the wheels P, on their upper ends, connecting with the worms or bevel gear-wheels O' on the shaft N.

The shaft N is supported by the arms O which project from the bar M, and are provided with suitable bearing-boxes.

This shaft also supports the loose arm or bar L.

The bars L, at their front ends, are branched, so as to furnish the supports of the shaft X, as shown, and, being pivotally connected with the shafts N, the bearings of the shaft X are self-adjusting, so that there can be no unusual friction or binding when the two sets of feed-rollers are moved toward or from each other, or one or both of them placed in an inclined position.

The collars of the wheels W rest against the bearings, so that the gearing, with the wheels V, is not disturbed by any movement of the feed.

The wheels W are made to revolve with the shaft by means of the usual slot and key, the key being so fitted that the shaft can slide through the wheels.

Power is applied, by means of a belt, to the drive-wheel Y, and communicated from the pulleys J to the pulley K by means of a belt.

Z is a belt-tightener, operated by the lever I.

If desired, the shaft X may be located on the main frame, as shown at fig. 3, and the shafts N operated from it by additional belts or bands. When this mode is used, a half-turn in opposite directions should be given to the bands.

The speed of the feed-rolls is adjusted by changing the band onto the different diameters of the wheels J and K. I design, in use, to use saws as large as sixty inches (five feet) in some of my machines, and, in that case, it will be necessary to use additional guides, *d*, above those shown, to keep the saw steady, and with such guides I can use saws of that diameter and three thirty-secondths of an inch in thickness, and saving about one-half of the power required to do the same

work with the machinery now in use. The jaws D are in common use.

The operation will be obvious from the description.

Having thus fully described my machine,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the wheels P, located at the top of the feed-rollers, with the worms or wheels O, shafts N and X, wheels V and W, and movable frames T and T', substantially as set forth.

2. The arms L, when supported on the shaft N, and provided with bearings for the shaft X, substantially as specified.

3. The combination of the movable frames T and T' with the posts H and screws *i*, for adjusting the space between the feed-rollers, so as to produce boards of equal thickness, substantially as described.

4. The plate or bar G', provided with the slot *h*, in combination with the standards G, post F, and cross-bar M, for adjusting the pitch of the feed-rollers, substantially as specified.

Witnesses:

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O. W. BOND.

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