S. P. BROWER.

Machines for Sawing Laths.

No. 134,846. Patented Jan. 14, 1873.

Fig. 1.

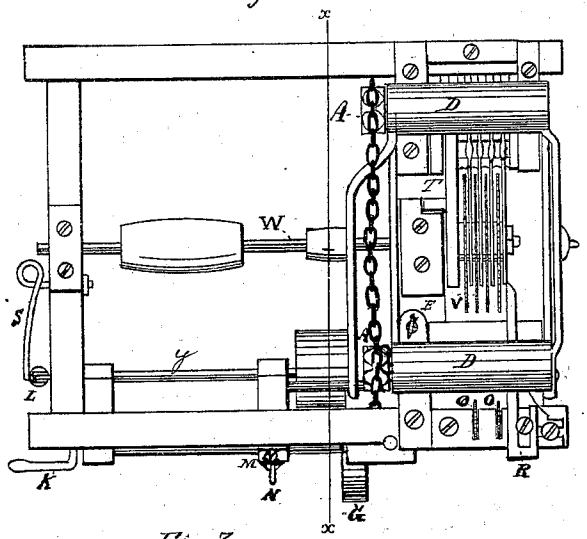


Fig. 2.

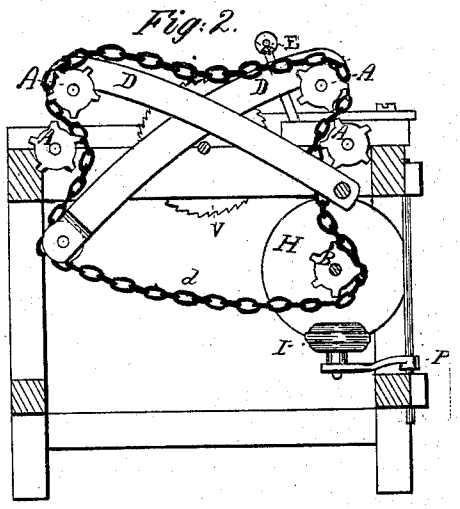


Fig. 3.

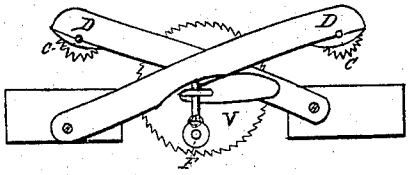


Fig. 4.

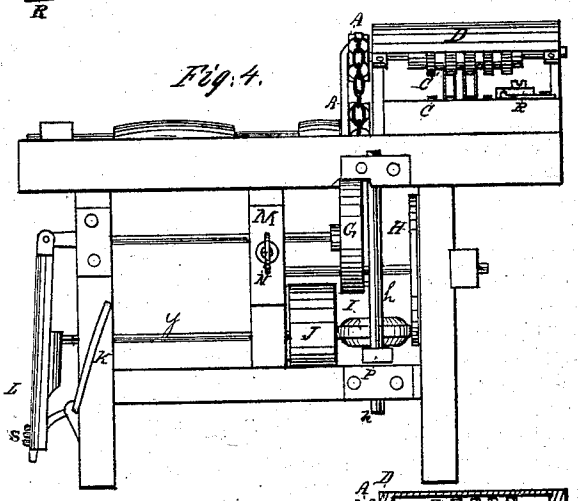


Fig. 6.

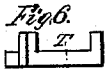


Fig. 8

Fig. 9.

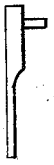


Fig. 7.

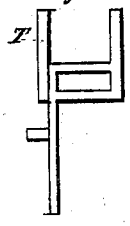


Fig. 10.

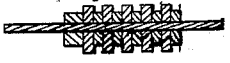


Fig. 11.

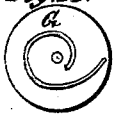
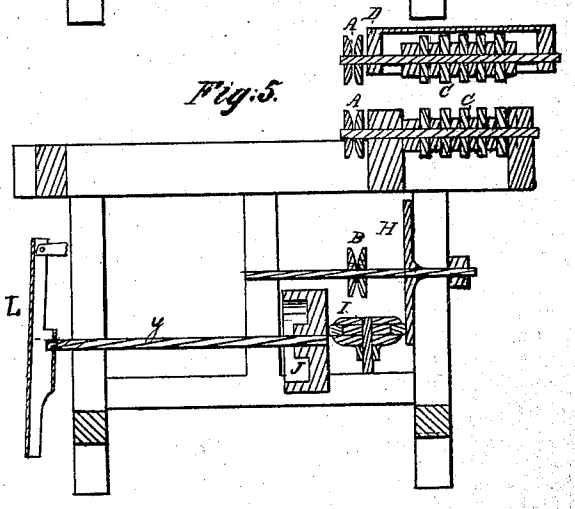


Fig. 12.

Fig. 13.

Fig. 5.



Witnesses

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Inventor

S. P. Brower

UNITED STATES PATENT OFFICE.

SAMUEL P. BROWER, OF GLEN'S FALLS, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM H. KNOX.

IMPROVEMENT IN MACHINES FOR SAWING LATHS.

Specification forming part of Letters Patent No. **134,846**, dated January 14, 1873.

To all whom it may concern:

Be it known that I, SAMUEL P. BROWER, of Glen's Falls, in the county of Warren and State of New York, have invented certain Improvements in Machine for Sawing Laths; also furrowing pickets, barrel-staves, blind-slats, brush-backs, broom-handles, and all similar kinds of lumber; also for bolting up slabs and sawing laths—of which the following is a specification:

One part of my invention relates to the suspending of feeding-rollers in frames, provided with set-screws to regulate the elevation and depression of the feeding-rollers, for the purpose of feeding lumber to saws so as to produce laths, staves, and other similar kinds of lumber. Another part of my invention relates to the connecting of face-plates with the feeding-rollers, a chain or its equivalent passing around chain-pulleys for the purpose of giving motion to the feeding-rollers. Another part of my invention relates to the combination of a cam and hand-wheel with a shaft and brackets to support a friction-wheel between two face-plates for the purpose of varying the feed to correspond with the kind of work to be performed. Another part of my invention relates to a lever provided with an oil-cup or recess for holding oil and waste or sponge for the purpose of lubricating the end of the shaft that carries the face-plate, said lever being also provided with a spring, or its equivalent, for the purpose of pressing the face-plate against the friction-wheel; likewise a cam-lever, or its equivalent, for the purpose of pressing the face-plate from the friction-wheel, thereby stopping the feed. Another part of my invention relates to the combination of one or more toothed guide-rollers, one stationary and one adjustable feed-roller, and a gage arranged on the table so that the lumber is prevented from moving sidewise, and is carried forward to the saws on a direct line, as required. Another part of my invention relates to the introduction of a frame behind the saws, provided with adjustable fingers to extend between the saws, for the purpose of supporting blind-slats, brush-backs, and such kinds of lumber that are too short to enter the back rollers before leaving the front roller, it being also arranged so as to tip up out of the way for the purpose of removing the saws to sharpen them; but the frame and fingers can be left out of the machine when constructed for ordinary work.

Figure 1 is a plan of a machine embodying my invention. Fig. 2 is a vertical transverse section showing those parts of the machine which are at the right hand of the line *x x* drawn across Fig. 1. Fig. 3 is an elevation showing that end of the machine which is at the right hand in Fig. 1. Fig. 4 is a side elevation showing the front side of the machine. Fig. 5 is a section showing a line through the face-plates and friction. Figs. 6, 7, and 8 are a frame located back of the saws in Fig. 1 for the purpose of holding the fingers that extend between the saws. Fig. 9 is a representation of one of the fingers that extend between the saws for the purpose of supporting short lumber. Fig. 10 is a section of the feed-rollers, showing how they are constructed. Fig. 11 is a plan of a cam and hand-wheel for adjusting the feed. Fig. 12 is a plan of the toothed wheels for making the rollers. The object of this kind of roller is to remove the toothed wheels when they become dull from use, and substituting new and sharp ones, thereby saving time and expense. Fig. 13 is a plan of a toothed wheel set in the table to guide the lumber.

C C are feeding-rollers for holding the lumber down and feeding it to the saws V at the same time, and they are hung in frames D D, which are connected to the machine in such a manner that they will yield upwardly to pressure to adapt them to any inequalities in the thickness of the lumber. E is a check-screw to prevent the frame D from dropping too low. F is a set-screw to raise the back roller to allow the lumber to feed under it, and at the same time allow the front roller to drop down and take a thinner piece of lumber before the thick one leaves the machine. A A A A are chain-pulleys for giving motion to the feeding-rollers C C C C when it is necessary to have four rollers in the machine, which is the case when the machine is used for bolting up slabs and such kind of material in sawing cants for cutting into laths; but for sawing the lath, furrowing pickets, staves, and all kinds of lumber that have been previously

brought to a uniform thickness, the upper rollers are all that is required; consequently, machines constructed for that purpose will have the lower rollers left out and use but the upper rollers. *d* is a chain to transmit motion from chain-pulley B on the shaft of face-plate H to the feeding-rollers through chain-pulleys A A A A. I is a friction-wheel to connect, by friction face-plate and pulley J, with face-plate H. J is a face-plate and pulley attached to the shaft Y, and to be driven by a belt from a pulley on arbor W. L is a lever provided with a box having a recess for holding oil and waste or sponge for lubricating the end of the shaft of face-plate J, so placed as to move the shaft endwise, so that the pressure of spring S, or its equivalent, will hold the face-plate firmly against the friction-wheel I, thereby giving motion to the feed-works, also moving the face-plate from the friction-wheel, by the use of the cam-lever K, for the purpose of stopping the feed-works. G is a hand-wheel with a scroll on one side of it to receive a pin projecting from the guide-rod *h* to move the friction-wheel I to and from the center of the face-plates J and H, thereby giving the lumber the desired feed. M is a friction-box for holding the hand-wheel in proper position. N is a screw for tightening said friction-box so as to give the desired amount of friction. P is a bracket for supporting the friction-wheel I. T is a frame for holding the fingers to run between the saws for short lumber to rest on. Fig. 9 is one of the fingers. R is a gage for guiding the lumber directly to the saws. O is one or more sharp-edged or toothed wheels set in the table to guide the lumber in a straight line when sawing slabs and such kinds of lumber that have no straight edge to run against a gage.

Claims.

I claim as my invention—

1. The cross-levers D D carrying the feed-rollers C C, and adjusted by the set-screws E F, substantially as and for the purposes set forth.

2. The combination of the feeding-rollers C, chain-pulleys A and B, face-plates H and J, friction-wheel I, and chain *d*, or its equivalent, all substantially as and for the purposes herein set forth.

3. The combination of the cam G and its shaft, friction-box M, bracket P, shaft *h*, friction-wheel I, and face-plate H, all substantially as and for the purposes set forth.

4. The hinged lever and oil-cup L, in combination with the shaft Y and face-plate J, and operated by the cam-lever K, all substantially as set forth.

5. The combination of one or more guide-rollers, O, one stationary and one adjustable feed-roller, C, and the gage R, all substantially as set forth.

6. The frame T and fingers, as shown in Fig. 9, substantially as and for the purposes set forth.

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Witnesses:
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