

*N<sup>o</sup> 61,042.*

*Patented Jan. 8, 1867.*



Fig 2.



Witnesses.

*Inventor:*

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J. L. BEERS, OF McALISTERVILLE, PENNSYLVANIA.

*Letters Patent No. 61,042, dated January 8, 1867.*

## IMPROVEMENT IN SAW-MILLS.

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, J. L. BEERS, of McAlisterville, in the county of Juniata, and State of Pennsylvania, have invented a new and improved Feed-Mechanism for Sawing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention.

Figure 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and useful improvement in the feed-mechanism of sawing machines, and it consists in the employment of two pawls and gearing arranged in such a manner that a continuous feed is obtained, and one which may be regulated to suit the speed of the cut of the saw as may be desired.

A represents a framing constructed in any proper manner to suit the working parts, and B represents a pitman which drives a reciprocating saw, said pitman being operated by a crank-wheel, *a*, at one end of a driving-shaft, C. This shaft C has a pinion, D, upon it, which gears into a wheel, E, the latter being double the size of the pinion D. The wheel E has a pitman, F, attached to it, and the upper end of said pitman is provided with a pin, *b*, which works in a slot, *c*, made longitudinally in an arm, G, which works on a pivot bolt, *d*, in the framing A. This arm G is of T shape, as shown clearly in fig. 1, and to each end of its inner part *c* there is attached a pawl, H. These pawls both engage with a ratchet, I, on a shaft, J, from which shaft motion is communicated to the log carriage by the usual rack and pinion or by any other suitable means. The pitman F is connected by a rod, K, with a lever, L, the upper end of which passes through a slot, *f*, in a horizontal plate, M, on the framing A, the plate M being notched at one side of the slot *f* to hold the lever L at any desired point. From the above description it will be seen that the pawls H H act alternately upon the ratchet I, one pawl moving the ratchet while the other is being drawn back, and *vice versa*. Thus a continuous feed movement is obtained, the log or article to be sawed being fed to the saw while the latter moves both up and down. The feed movement of the log, however, is slower than usual in consequence of the wheel E being double the size of the pinion D, and the speed of the feed movement may be varied, as desired, by adjusting the pitman F nearer to or further from the outer end of the arm G, a greater or less vibratory movement being given the arm G by this means, so that the speed of the feed may always be made commensurate with the speed of the cut of the saw.

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

Controlling the feed-motion by means of the lever L, rod K, pitman F, pin *b*, notched plate M, T shaped slotted arm G, pawls H H, arranged and operating substantially as described for the purpose specified.

J. L. BEERS.

Witnesses:

SAMUEL LEONARD,

WILLIAM DUNN.