(No Model.)

T. J. FRAZIER.

MACHINE FOR TRIMMING LUMBER.

No. 306,393. Patented Oct. 14, 1884.

Fig 1.

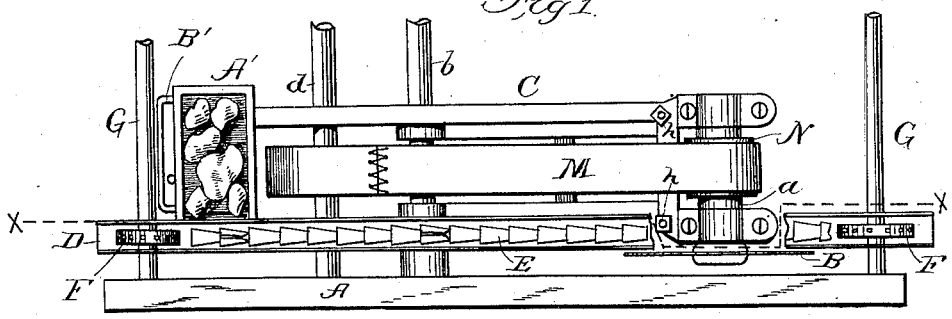


Fig 2.

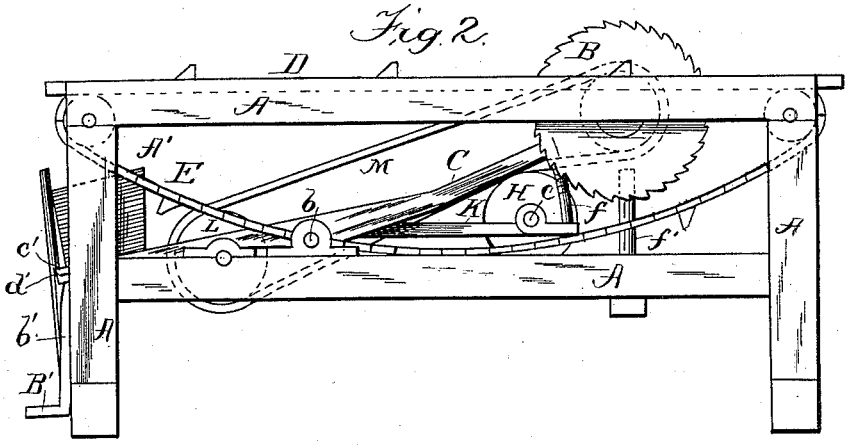
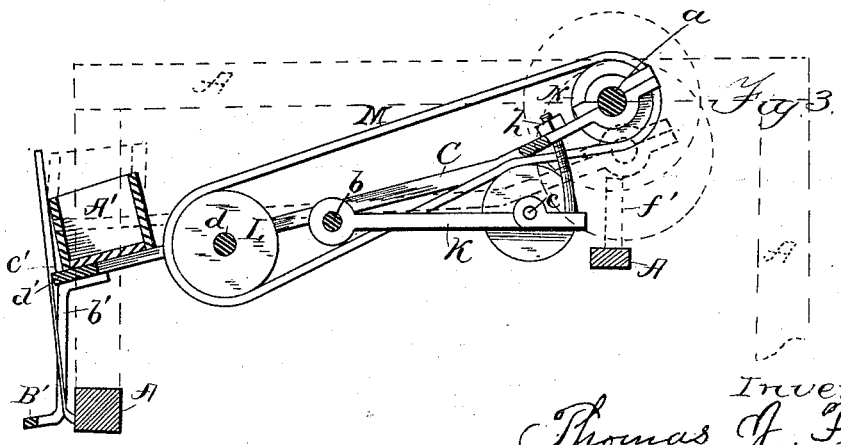


Fig 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS JEFFERSON FRAZIER, OF LYONS, IOWA.

MACHINE FOR TRIMMING LUMBER.

SPECIFICATION forming part of Letters Patent No. 306,393, dated October 14, 1884.

Application filed June 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. FRAZIER, a citizen of the United States of America, residing at Lyons, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Machines for Trimming Lumber, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention consists of a machine for trimming lumber, constructed, as hereinafter fully set forth, to occupy as small space as practicable.

In the drawings, Figure 1 is a top view of the machine. Fig. 2 is a side elevation. Fig. 3 is a longitudinal vertical section on line *x x* of Fig. 1.

A designates the frame of the machine.

B is a saw mounted on the arbor *a*, having its bearings on the upper portion of the tilting frame C, the middle portion of which is mounted on the shaft *b*, having its bearings on the frame A.

D is one of the boxes in which runs the carrying-chain E.

F designates sprocket-wheels mounted on the shaft G, having bearings on frame A.

H is a tightening-pulley mounted on a shaft, *c*, having bearings in a frame, K, which is pivoted on the shaft *b* between the bearings of the frame C.

L is the drive-pulley mounted on the shaft *d*.

M is the drive-belt running over the pulley L and the pulley N, which latter pulley is mounted on the saw-arbor *a*.

The frame K is connected with the tilting frame C by means of bolts *f*, the lower ends of which are secured in any suitable manner to the frame K near the pulley H, and the upper portions of the bolts are threaded and extended through the tilting frame, and are provided with set-nuts *h*.

A′ is a balance-weight box attached upon the outer end of the tilting frame.

B′ is a foot-bar formed upon the lower portion of the pendants *b′*, the upper portions of which are bent inward and fastened to the tilting frame.

C′ is a spring-lever rigidly attached at the bottom to the lower beam of the frame A. This lever is provided with a notch at *c′*, to catch over the projecting end *d′* of the tilting frame.

The box A′ is weighted to nearly balance the upper end of the tilting frame, so that slight pressure upon the foot-bar will raise the saw to the required position for trimming the lumber, and when the foot-bar is released the saw will descend, and that end of the frame will rest upon the stop-post *f′*.

It will be readily seen that pressure by the pulley H against the under side of the drive-band causes it to extend farther around the drive-pulley L and the saw-arbor pulley N, which increases the bearing-surface of the band on those pulleys, and hence increases the propelling power of the band.

By means of the pivoted frame K and the set bolts and nuts *f h* the pulley H is readily adjustable vertically, so as to regulate the pressure of the pulley and the tension of the band. By this construction I am enabled to use a shorter band and a smaller size machine without diminishing the propelling power of the machine.

The lumber to be trimmed is placed upon the machine and moved to the saw by the carrying-chains in the usual manner. By slight pressure upon the foot-bar the saw is raised to the required position for trimming the lumber, and the catch at *c′* on the lever C′ springs over the projecting end *d′* of the tilting frame, thus holding the saw in the raised position. When the saw is not required to be in operation, the lever is pulled outward sufficiently to release the catch *c′*, and the saw-frame descends and rests upon the stop-post *f′*.

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

1. In a lumber-trimming machine, the combination, with the weighted frame C, pivoted upon the shaft *b*, the saw-arbor *a*, mounted upon the inner end of the frame C, the pulleys L N, and the belt M, of the frame K, pivoted to the tilting-frame shaft *b*, the tightening-pulley H, mounted on the pivoted frame K, and the adjusting-rods *f*, connecting the inner portions of the pivoted frames, substantially as and for the purposes described.

2. In a lumber-trimming machine, the combination of the weighted pivoted frame C, carrying the saw-arbor *a*, the foot-bar B′, connected with the lower end of the tilting frame, and the notched spring-lever C′, located in position to hold in place the tilted frame, substantially as and for the purposes described.

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

THOMAS JEFFERSON FRAZIER.

Witnesses:
W. W. SANBORN,
H. F. BOWERS.