T. J. FRAZIER.

MACHINES FOR TRIMMING LUMBER.

No. 192,498. Patented June 26, 1877.

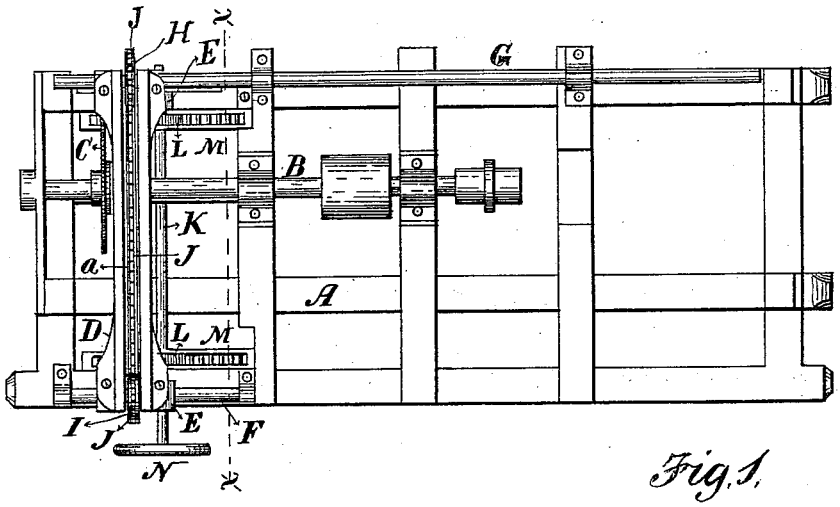

Fig. 1.

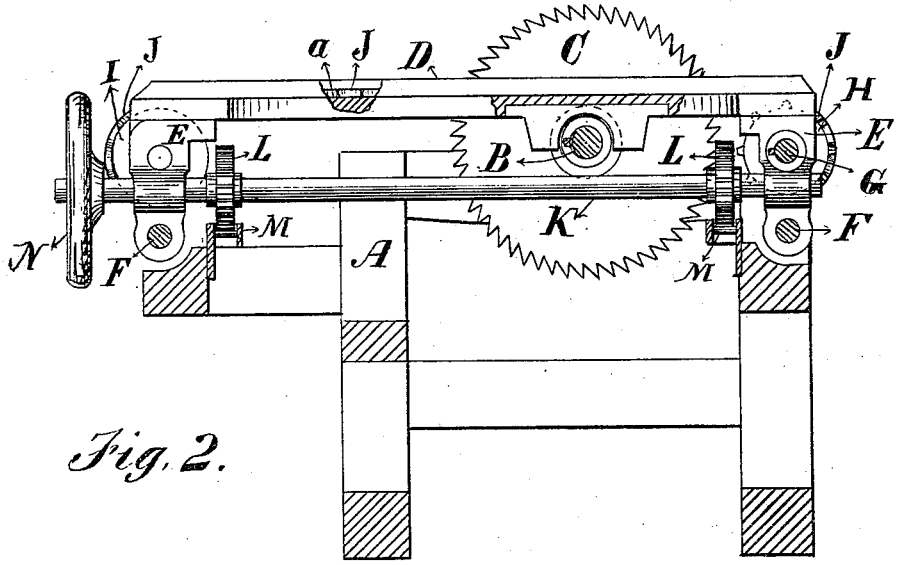

Fig. 2.

Attest.

W. B. Codies.

L. A. Bunting.

Inventor.,

Thomas J. Frazier.

By. Cobourn & Bond

Attys.

UNITED STATES PATENT OFFICE

THOMAS J. FRAZIER, OF LYONS, IOWA.

IMPROVEMENT IN MACHINES FOR TRIMMING LUMBER.

Specification forming part of Letters Patent No. **192,498**, dated June 26, 1877; application filed May 29, 1877.

To all whom it may concern:

Be it known that I, THOMAS J. FRAZIER, of Lyons, in the county of Clinton and State of Iowa, have invented a new and useful Improvement in Machines for Trimming Lumber, which is fully described in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan view of a trimming-machine containing my improvement, and Fig. 2 a transverse section of the same, taken on the line *x x*, Fig. 1.

My invention relates to machines for trimming the ends of lumber of different lengths, and is an improvement upon the mechanism shown and described in Letters Patent No. 138,505, issued May 6, 1873, and reissued September 22, 1874.

The invention consists in mounting a set of the transferring or carrying devices upon the end yoke or rest, which is adjustable laterally with the saw.

It also consists in the special construction and arrangement of the adjusting devices used in connection with the sliding yoke and saw.

In most respects the machine is constructed like that described in the Letters Patent above mentioned; hence it will be necessary here to explain only the changes in construction which constitute my improvement.

In the old machine the transferring devices, by means of which the lumber is carried over the machine against and past the saws, are stationary—that is, are not adjustable laterally along the machine. But the trimming-saws and end yokes or rests are capable of being moved back and forth along the machine to suit different lengths of lumber. It is evident, therefore, that at times a saw and rest will be removed some distance from the nearest transferring-chain, and hence there may be some unsteadiness or spring in the end of the lumber as it is presented to the saw, and this difficulty will increase as the range of adjustment is increased. This difficulty I obviate by mounting one of the transfer-chains directly on the yoke or rest, so that it is always close to the saw.

In the drawings, A represents the supporting-frame of the machine, and B the arbor or shaft on which the saws C are mounted at the ends of the machine, and secured by a spline and groove, so as to be adjustable thereon, as in the former patent. The yoke or rest D extends across the machine on the inside of the saw, and is attached at its ends to blocks E, supported on guide-rods F, on which they slide back and forth. The transferring-shaft G passes through the block E on that side of the machine, and on it, within a recess in the block, is a sprocket-wheel, H, secured to the shaft by spline and groove, so as to slide thereon. In the block at the other side of the machine a wheel, I, is journaled, which may be plain or provided with sprockets, as desired. A carrying or transferring chain, J, is passed around these wheels, and runs in a groove, *a*, in the upper side of the yoke, which is made sufficiently wide for this purpose. The yoke is constructed so as to embrace loosely, on its under side, the journal of the saw, so that any adjustment of the former will effect a corresponding movement of the latter, but without interfering with the revolution of the saw, and the transferring-chain will be carried with the rest always remaining in the same relation to the saw.

The adjustment of these parts is effected by means of a shaft, K, extending across the frame below the shaft B, and journaled in the blocks E. A toothed wheel, L, is fixed on each end of this shaft just inside the blocks, which engages with a rack, M, arranged just below it perpendicular to the line of the shaft. At the front of the machine is a hand-wheel, N, attached to the end of the shaft K, by means of which the latter is rotated, and thereby the yoke and saw adjusted back and forth, as desired.

A similar set of devices is arranged upon the other end of the machine, so that a like adjustment may be there made. Other devices may be employed for moving the rest and saw back and forth, provided always the transferring devices are carried on the rest. Between the yokes stationary transferrers are to be arranged, as in the former patent.

With this improvement I am enabled to present the ends of the lumber to the saws steadily and surely, and at the same time can give a much longer range to the adjustment of the saws than under the old construction.

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

1. The saws C, adjustable laterally, in combination with the yoke or rest D, extending across the frame by the side of the saw and adjustable therewith, and transferring devices for carrying the lumber across the machine, mounted on and moving with the yoke, substantially as and for the purpose set forth.

2. The adjustable yoke or rest D, in combination with the wheels H and I, and transferring-chain J, substantially as and for the purpose set forth.

3. The sliding yoke D, in combination with the shaft K connected thereto, toothed wheels L, fixed on said shaft, and the racks M, substantially as and for the purpose set forth.

THOMAS J. FRAZIER.

Witnesses:
W. W. STEVENS,
J. H. CHURCHER.