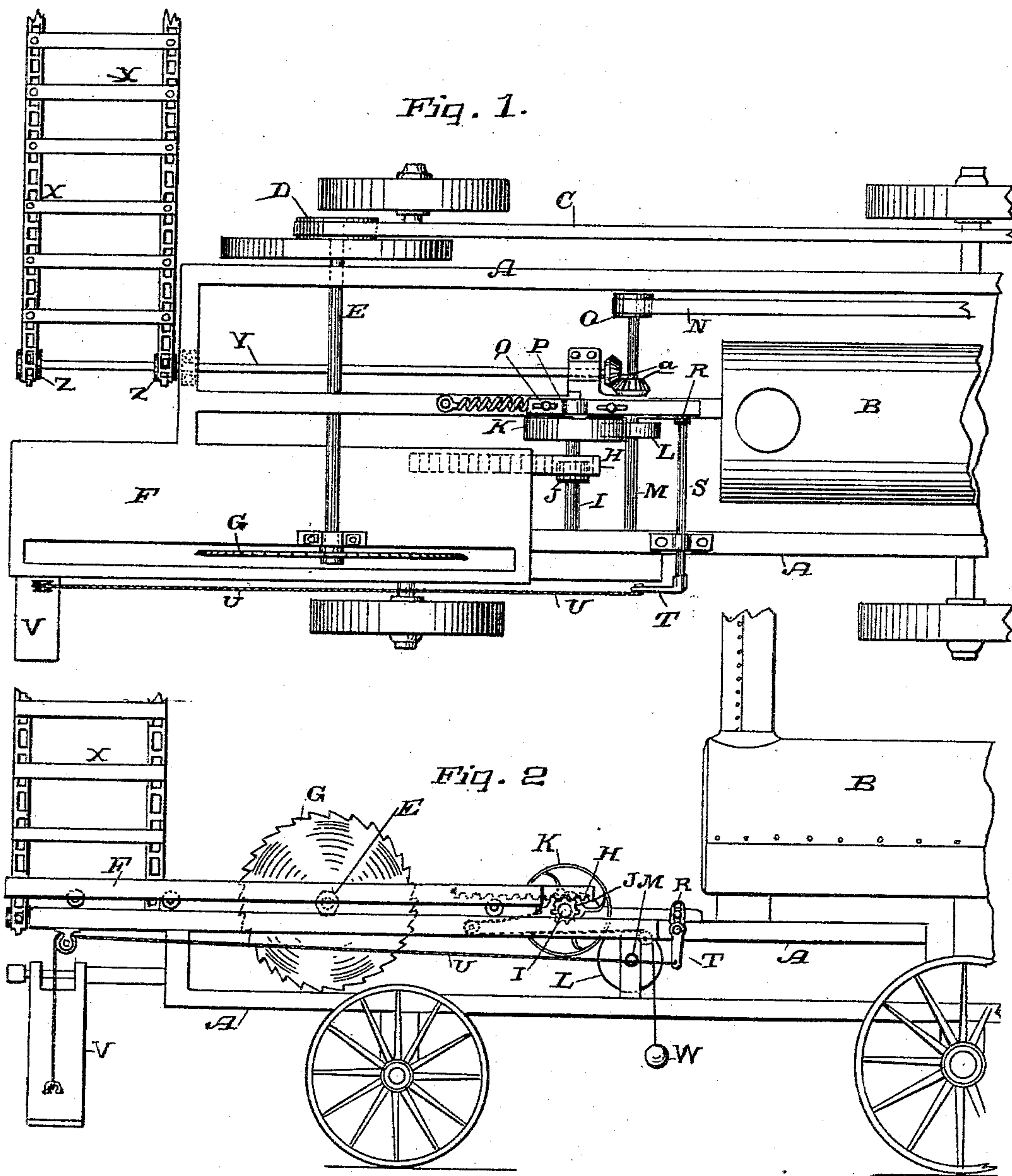


(No Model.)

M. W. LIPE.  
WOOD SAWING MACHINE.

No. 414,421.

Patented Nov. 5, 1889.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

MILON W. LIPE, OF SAN JOSÉ, CALIFORNIA.

## WOOD-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 414,421, dated November 5, 1889.

Application filed December 22, 1888. Serial No. 294,372. (No model.)

*To all whom it may concern:*

Be it known that I, MILON W. LIPE, of San José, Santa Clara county, State of California, have invented an Improvement in Wood-Sawing Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a machine for sawing wood into short lengths and carrying away the severed lengths as fast as they are cut off; and it consists of the construction and combination of devices which I shall hereinafter fully describe and claim.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a top or plan view of the machine. Fig. 2 is a side elevation. Fig. 3 is an enlarged section showing more clearly the arrangement of the rack upon the carriage and the pinion by which it is driven, also the friction-wheels.

A is the frame, having a boiler B and suitable engine from which power is derived, and through the belt C is transferred to the pulley D upon the saw-arbor E, which is journaled upon the frame.

F is the movable table or carriage, mounted upon the frame A in suitable relation to the saw G. Beneath this carriage F is fixed a rack H. A shaft I is journaled across the frame A at a suitable point, so that it lies beneath the table F, and this shaft has fixed upon it a pinion J in such a position that the teeth of this pinion will engage with the teeth of the rack H, and when the shaft I is caused to revolve it will, through its pinion J and the rack H, act to move the carriage F forward, so that the wood which is laid upon this carriage will be fed to the saw G, so as to be cut without the operator exercising any pressure to force the stick against the saw, which labor becomes very irksome when continued for a long time.

In order to move the table F, or to stop it at will, a friction-wheel K is mounted upon a shaft I, and the second wheel L is fixed upon the shaft M, so that it may be brought into contact with the wheel K, or thrown out of contact at the pleasure of the operator. The shaft M is driven by a belt N from the engine, passing around a pulley O upon this

shaft, so that the shaft is kept in continuous motion.

In order to move the frictional wheel K into contact with the friction-wheel L, it is necessary to make one end of the shaft I movable, the other end being loose enough in its journal-box to allow of the slight movement necessary for this purpose. The end of the shaft I which is nearest to the friction-wheel K turns in a journal-box P, which is fitted upon the main frame A with slotted extensions, and pins pass through the slots in these extensions, as shown at Q, so that the box P may have a limited movement horizontally. When moved in one direction, it will bring the wheel K in contact with the moving pulley L, and thus rotate the shaft I and the pinion by which the carriage F is moved. In order to move this journal-box, the extension at the right of the box, as shown in Fig. 1, is connected by a pin with a slotted arm R, which projects upwardly from the shaft S, journaled upon the frame. The crank-arm T upon this shaft is connected by a rod or cord U with the treadle V.

The operation of this device will then be as follows: The end of the stick to be sawed is laid upon the table F, and the operator placing his foot upon the treadle V depresses it, thus pulling upon the crank-arm T and turning the shaft S. By turning this shaft the slotted arm R will act to draw the journal-box P, and with it the end of the shaft I and the wheel K, until the whole comes in contact with the rotating friction-wheel L, and thus turning the wheel K and the pinion J, which will act upon the rack H, and thus draw the table F along and advance the stick against the saw as fast as it is cut until it is severed. The operator then releases the treadle V, and by means of the weight W, connected with the carriage F in any suitable manner, and with direction-pulleys, this weight will act to return the carriage to its original position. The stick is then pushed along for a new cut, and the billet which has been cut off is moved by this action so as to fall upon the endless inclined carrier-belt X, the frame of which is journaled at the side of the frame A and close to the table F. A shaft Y, journaled upon the main frame A,



extends outward from this frame and has sprocket-wheels Z fixed upon it, so as to drive the chains of the endless belt X. The beveled pinions *a*—one upon the shaft Y and the  
5 other upon the shaft M—serve to give motion to this mechanism.

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

10 In a sawing-machine, a saw-arbor journaled upon the main frame, carrying the saw, a movable feed-table with a rack and a pinion mounted upon a shaft carrying a friction-wheel and movable so as to be engaged with  
15 or disengaged from a corresponding rotating

friction-wheel, as described, in combination with the crank-shaft, one end of which is connected with the movable box of the pinion-shaft and the other with a treadle, whereby contact between the two friction-wheels is  
20 made or broken, and a weight connected by a cord with the table so as to return it to its normal position after the friction-wheels have been disengaged, substantially as described.

In witness whereof I have hereunto set my  
hand. 25

MILON W. LIPE.

Witnesses:

LEWIS A. PARKHURST,  
W. A. PARKHURST.