(No Model.)

W. H. YAGEL.

DRAG SAW.

No. 343,096. Patented June 1, 1886.

Fig. 1.

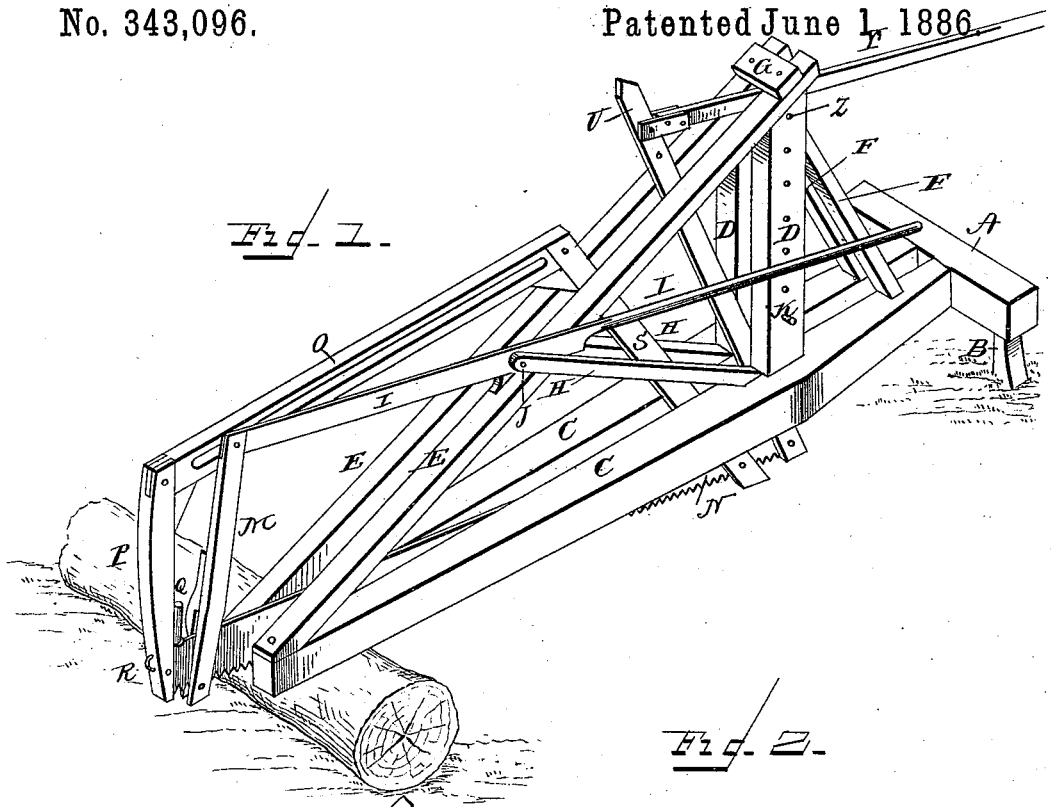


Fig. 2.

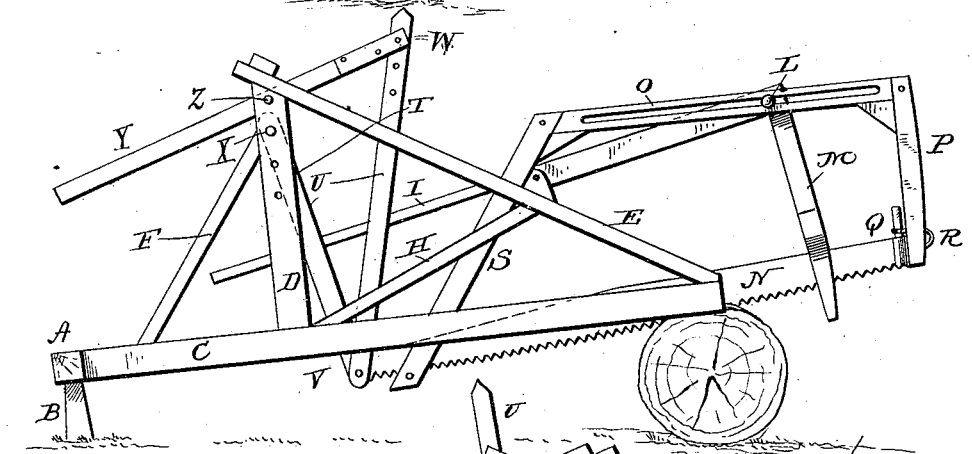
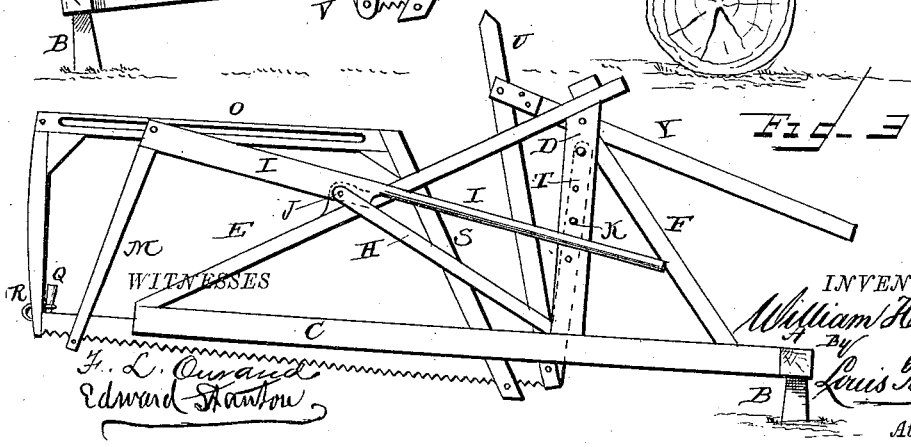


Fig. 3.



WITNESSES

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DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 343,096, dated June 1, 1886.

Application filed March 15, 1886. Serial No. 195,204. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. YAGEL, a citizen of the United States, and a resident of Deer Lick, in the county of Williams and State of Ohio, have invented certain new and useful Improvements in Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved sawing-machine. Fig. 2 is a side view of the same, and Fig. 3 is a similar view seen from the other side.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of sawing-machines for sawing logs with a crosscut-saw, in which a crosscut-saw is secured in a frame, which may be reciprocated and slightly rocked by suitable connection to a lever, which is pivoted between uprights projecting from two beams or sills, which rest with their free ends upon the log to be sawed; and it consists in the improved construction and combination of parts of such a machine, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a block or cross-piece, which is preferably provided with feet B B, by means of which it may be rested upon the ground; and C C are two parallel beams or sills projecting forward from the block. These sills are provided with two uprights, D D, from the tops of which project two forwardly-inclined braces, E E, while two rearwardly-inclined braces, F F, project to the rear ends of the sills from the uprights, the forward ends of the forwardly-inclined braces being secured to the forward ends of the sills. The upper ends of the forward braces are connected by means of a cross-piece or cap-piece, G, and the middles of the forward braces are supported by means of two forwardly and upwardly projecting brace-arms or supports, H H, the rear lower ends of which bear against the lower ends of the uprights, being secured to the sills. A lever, I, is pivoted upon a bolt, J, projecting laterally from the middle of one of the forward braces, and the rear end of this lever may be retained under a pin or plug, K, inserted into the lower end of one of the uprights, and the forward end of this lever is formed with a laterally-projecting pin or bolt, L, and with a downwardly-projecting arm, M, having its lower end bifurcated.

The frame of the saw N is formed by a longitudinally-slotted top piece, O, which slides with its slot upon the pin or bolt of the lifting-lever, and of a downwardly-projecting front piece, P, to the lower end of which the handle Q of the saw is secured by means of an eye or socket, R, and a rearwardly-inclined rear piece, S. The rear portion of the saw is secured in the lower end of the rear frame-piece, and two arms, T and U, have their lower bifurcated ends straddling each other and the end of the saw, and are pivoted upon a bolt, V, passing through their ends and through the end of the saw. The upper end of the suspending-arm T is pivoted upon a pin, W, passing through a pair of a series of perforations, X, in the uprights, and the operating-arm U is pivoted at its upper end to the forward end of an operating-lever, Y, which is pivoted upon a pin, Z, inserted through a pair of the perforations in the uprights.

It will be seen that by rocking the operating-lever the saw may be reciprocated and slightly rocked, the supporting-arm swinging forward and back, and the saw-frame will be guided by the slotted top piece sliding upon the pin of the lifting-lever, and the bifurcated arm of the lifting-lever guiding and supporting the saw-blade, straddling the same, and bearing against its sides.

The forward ends of the sills rest upon the log to be sawed, while the block rests with its feet upon the ground, and this block is preferably kept steady upon the ground by the weight of the sawyer, who will stand upon the block and rear ends of the sills, and it will be seen that the weight of the saw will allow it to feed itself into the kerf as the sawing progresses, the rear end of the lifting-lever rising gradually.

When starting the kerf in the log, the rear end of the lifting-lever may be raised, so as to force the saw to bite in the log, and so as to

guide it, preventing the saw from jumping off and from commencing upon several kerfs; but after the sawing has commenced and the cut has reached some depth no further guidance is necessary until the sawing is finished, when the saw may be raised out of the cut by the lifting-lever, which may have its rear end secured under the plug or pin in the lower portion of the upright, which will retain the rear end of the lever depressed and the forward end raised, so as to bring the edge of the saw within the forward ends of the sills.

The stroke of the saw may be increased in length by changing the pivotal bolt of the supporting-arm to a pair of perforations farther down upon the uprights, and may be decreased by reversing the said performance, the operating-lever remaining pivoted at the same place.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a sawing-machine, the combination of a saw-frame having means for reciprocating it, and having a longitudinally-slotted top piece with a lever pivoted upon the frame of the machine, and having a laterally-projecting pin at its forward end, upon which the slotted top piece slides, and having a downwardly-projecting bifurcated arm projecting from the forward end straddling the saw-blade, as and for the purpose shown and set forth.

2. In a sawing-machine, the combination of a saw-frame having means for guiding and raising it, a pair of uprights having each a series of corresponding perforations, a supporting-arm having its upper end pivoted upon a bolt fitting in the perforations, and having its lower end pivoted to the rear end of the saw, an operating-lever pivoted upon a bolt fitting in the perforations of the upright above the pivotal bolt of the supporting-arm, and an operating-arm pivoted to the forward end of the lever and to the rear end of the saw, as and for the purpose shown and set forth.

3. In a sawing-machine, the combination of a frame composed of two parallel sills having their rear ends connected by a base or block, and provided with two upright posts having registering perforations and braced by forwardly and rearwardly projecting braces, a lifting-lever pivoted at the side of the middle of one of the forward braces and formed at its forward end with a laterally-projecting pin and a downwardly-projecting bifurcated guide-arm, a saw-frame having a longitudinally-slotted top piece sliding upon the bolt of the lifting-lever, and having the guiding-arm straddling the blade, a supporting-arm pivoted upon a bolt fitting in the perforations of the uprights and pivoted at its lower end to the rear end of the saw-blade, an operating-lever pivoted upon a bolt in the perforations of the uprights above the supporting-arm, and an operating-arm pivoted at its upper end to the forward end of the operating-lever, and at its lower end to the rear end of the saw, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM H. YAGEL.

Witnesses:
DAVID MARTIN,
DANIEL G. SMOOT.