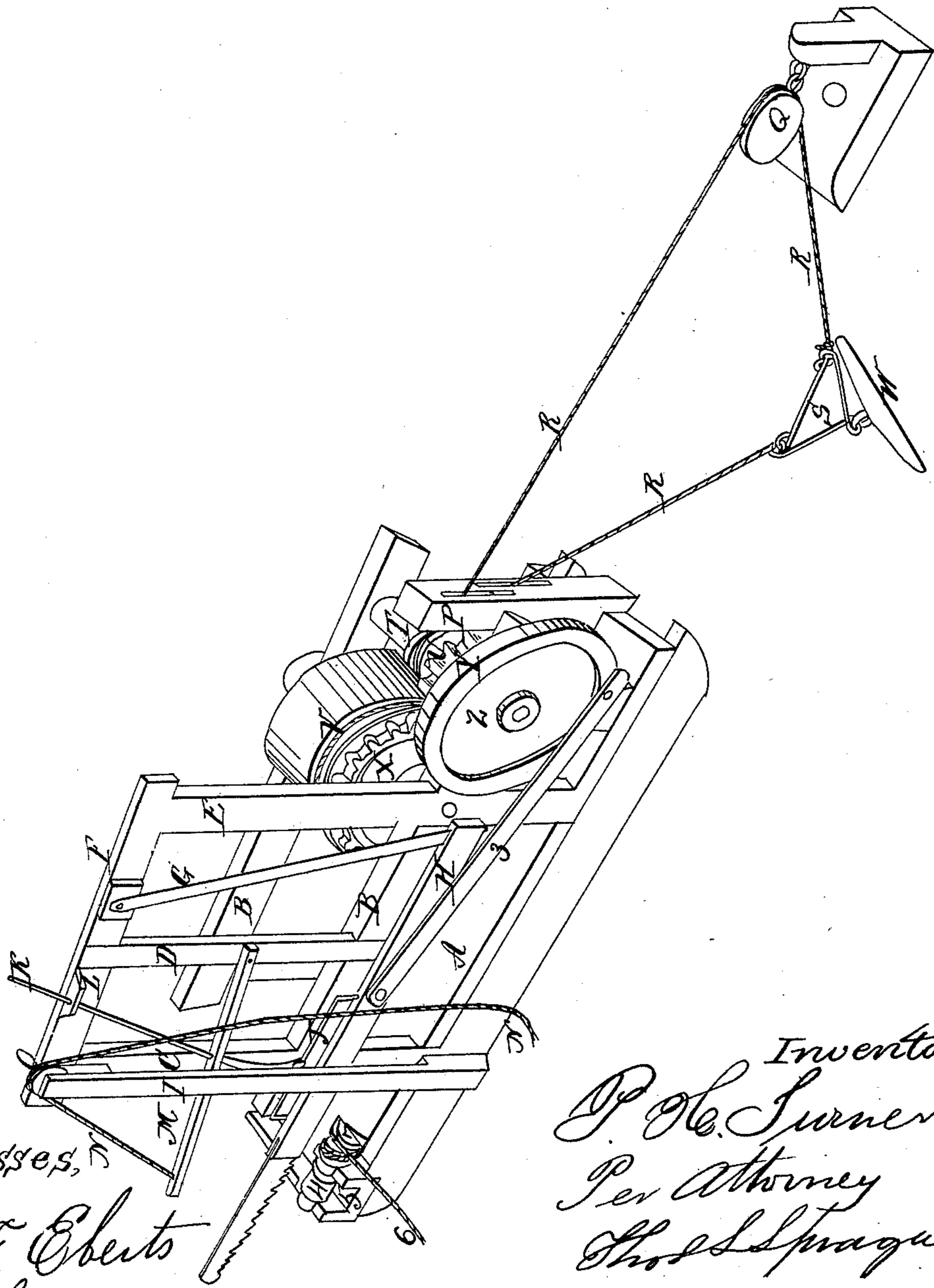


P.H. Turner.

Sawing Mach.

N^o 90,320.

Patented May 18, 1869.



Witnesses,

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PETER H. TURNER, OF MADISON, WISCONSIN

Letters Patent No. 90,320, dated May 18, 1869.

IMPROVEMENT IN SAWING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern :

Be it known that I, PETER H. TURNER, of Madison, in the county of Dane, and State of Wisconsin, have invented a new and useful Improvement in Sawing-Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a perspective view of the machine in operation.

This device belongs to a class of machines used for sawing off logs of wood, by horse-power, and is so constructed as to be operated by the walk, back and forward, of a horse which is attached to both ends of a rope.

This rope, which passes over a shaft and a drum, suitably geared together, carrying a wheel, with a wrist-pin upon it, to which a saw-pitman is pivoted, also passes over a snatch-block, firmly secured to some point at a distance from the machine.

As the horse walks from the machine to the snatch-block, he unwinds the rope from the shaft and drum, before spoken of, causes them to revolve, and in turn to rotate the wheel, and give proper motion to the saw.

In returning from the snatch-block to the machine, an opposite revolution is given to the said shaft and drum, and, by the means above stated, the same motion as before to the saw.

A more particular description of this device is as follows, viz:

A suitable platform, A, upon runners, for convenience of transportation, has a frame, B B, of parallel bars, upon proper standards, from the front side of which rise the standards C, D, and E, connected at the top by the tie-beam F.

To this tie-beam is suspended a pendulum, G, its lower end pivoted to the rear end of the saw-pitman H, which works between the standard C and the vertical guide I, attached to the front of the standard C.

To the upper side of the saw-pitman a yoke, J, is attached, which vibrates easily in an eye, in the lower end of the hanger K, whose upper end oscillates freely in the guide L, on the front side of the tie-beam F.

M is a lever, working between the standard C and guide I, whose inner end is pivoted to the standard D, and has pivoted to it the hanger K, by means of which the saw is raised, when necessary, through the cord N, attached to the end of said lever M, and passing over the sheave O, which works between the top of the standard C and guide I.

At a proper distance from, and in line with the guide-standard P, which is at the rear end of the platform, and fastened to the cross-bar of the same, a stake is driven into the ground, to which is attached the snatch-block Q, through which is reeved the rope R, one end of which is secured to a ring in one of the acute angles of the triangular clevis S, and from thence is led through the snatch-block aforesaid, through the upper slot in the guide-standard P, over a grooved pulley U, on the shaft T, which is journalled to the rear end of frame B B; thence down, under and around over the grooved drum V, which lies behind said shaft T, and is journalled to frame B B; thence under the grooved pulley U, out through the lower slot in the guide-standard P, and its end secured to the ring in the other acute-angled clevis S, in a ring, on the obtuse angle of which is secured a whiffle-tree W, to which the horse is attached.

At the front end of the drum V is secured a spur-gear, X, which meshes with and rotates a pinion, Y, on the shaft T, on the outer end of which a face-plate, Z, is provided, with a wrist-pin, from which a reciprocating motion is given to the saw-pitman H, through the connecting-rod 3.

A roller, 4, is journalled into the transverse frame 5, hinged to the front of the platform, upon which the log is placed in sawing, and is fed up by uncoiling a rope, 6, from a drum, 7, on the end of the said roller shaft.

In operating this machine, the horse is attached to the whiffle-tree W, and walks continually from the rear end of the machine to the snatch-block Q, and back again, and the triangular shape of the clevis S, and the method of attachment of the rope R, to its corners, prevents any fouling of said rope, when the horse turns.

By the travel of the horse, and the alternate rotary motion thus given to the shaft T and the drum V and wheel Z, with its wrist-pin, the lever 3, in connection with the pendulum C, gives an oscillating movement to the saw-pitman H, and drives the saw in a proper manner.

The log to be sawn lies upon the roller 4, and is fed up to the saw by drawing on the rope 6, which is wound around the drum 7, upon the shaft 5.

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

The employment and arrangement of the triangular clevis S, in connection with the rope R, snatch-block Q, and whiffle-tree W, substantially as and for the purpose described.

Also, the arrangement and employment of the guide-standard P, grooved drum V, provided with spur-gear X, and the shaft T, provided with the grooved pulley

U, pinion Y, and face-plate Z, substantially as described and for the purposes specified.

Also, the combination of the above-named parts with the connecting-rod 3, saw-pitman H, vertical guide I, yoke J, hanger K, guide L, lifting-lever M, cord N, sheave O, pendulum G, platform A, frame B B, standards C, D, and E, transverse frame 5, roller 4, drum 7, and feed-rope 6, in connection with

any proper drag-saw, when constructed, arranged, and operating substantially as herein described and for the purposes above set forth.

PETER H. TURNER.

Witnesses:

GEORGE E. WOODWARD,
FRANK H. TURNER.