

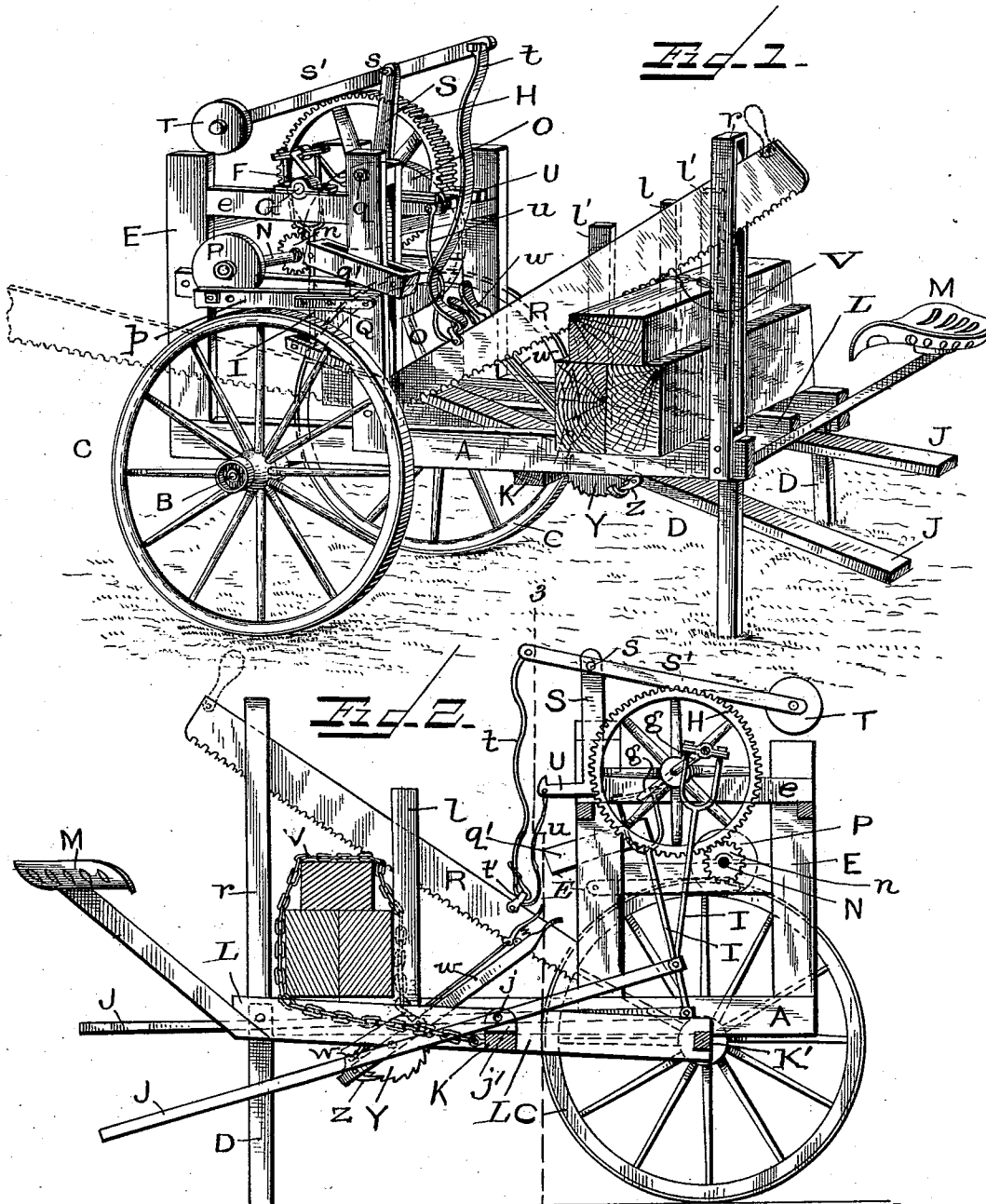
(No Model.)

2 Sheets—Sheet 1.

J. JILEK. SAWING MACHINE.

No. 521,317.

Patented June 12, 1894.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN JILEK, OF MONTICELLO, IOWA.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 521,317, dated June 12, 1894.

Application filed September 25, 1893. Serial No. 486,447. (No model.)

To all whom it may concern:

Be it known that I, JOHN JILEK, a citizen of the United States, residing at Monticello, in the county of Jones and State of Iowa, have invented a new and useful Sawing-Machine, of which the following is a specification.

The invention relates to sawing machines; and it has for its object to provide certain improvements in portable sawing machines, whereby the same can be carried from point to point to saw heavy logs as well as small timber.

To this end the invention primarily contemplates an improved portable sawing machine, which can be readily operated by one or more persons to rapidly and efficiently saw logs, or timber which can be placed on the frame of the machine.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings:—Figure 1 is a perspective view of a sawing machine constructed in accordance with this invention. Fig. 2 is a central vertical longitudinal sectional view thereof. Fig. 3 is a vertical transverse sectional view on the line 3—3 of Fig. 2. Fig. 4 is a detail in perspective of the swinging weight arm.

Referring to the accompanying drawings:—A represents an elongated portable frame carrying at one end the axle B, on the spindles of which are journaled the wheels C, which provide for the transportation of the machine from place to place, while at the other forward end of the frame are pivoted the folding supporting legs D, which when let down support the frame A, in a horizontal position ready for the operation of sawing. Arising from the opposite side bars of the frame A, in front and rear of the axle B, are the frame uprights E, which support a supplemental frame e.

Journaled in suitable boxes F, on the frame e, is the horizontal crank shaft G, having the oppositely disposed cranks g, arranged at both sides of the central gear wheel H, carried by said shaft between the cranks thereof. Connecting arms or links I are loosely

connected at their upper ends to the cranks g, of the crank shaft and at their lower ends to the inner ends of the long foot levers or treadles J. The foot levers or treadles J, are pivoted at j, in the brackets j', which are secured to the upper side of the horizontal cross bar or cleat K, connecting the opposite side bars of the frame A, intermediate of their ends. The said levers J, extend beyond their point of pivot or fulcrum to and beyond the front end of the frame A, and are arranged on opposite sides of the central combined seat and rest bar L. The combined seat and rest bar L, extends longitudinally of the entire frame and is firmly secured to the horizontal cross-bar or cleat K, and has arising therefrom in front of the frame e, the vertical rest or upright l, against which the wood to be sawed rests when placed on the front end of said bar L, and the front ends of the side bars of the frame A, from which also arise the auxiliary rests l', in a line with the rest of the bar L. An ordinary seat M, is supported above and from the extreme front end of the bar L, so that the operator can tread the levers J, so as to alternately vibrate the connecting arms or links I, and thereby communicate motion to the crank shaft G.

Adjacent to the crank shaft G, and journaled in suitable boxes on the frame e, is the horizontal counter shaft N. The counter shaft N, carries a small pinion or cog wheel n, meshing with the large gear wheel H, of the crank shaft, so that said counter shaft is driven and speeded from said gear wheel, and said counter shaft carries at one end the heavy balance wheel O, which serves the usual function of a balance wheel. At the other end of the counter-shaft N, is carried a crank-wheel P, to the crank of which is loosely connected at one end the pitman p, the other end of which is pivotally connected to the swinging saw arm Q. The swinging saw arm Q, is pivoted at q, at its upper end to one of the front frame uprights E, and is held steady in its vibration by the slotted guide q', secured to said upright so that the arm Q, can move therein. Pivoted at its inner end to the lower swinging end of the saw arm, is the straight saw R, which is designed to be raised onto the wood placed on the frame so that as the saw arm vibrates the said saw

will be reciprocated through the wood. The outer end of the reciprocating saw R, is held steady by one of the operators, and is itself guided in the slotted or looped guide *r*, embracing said saw and extending above the front end and at one side of the frame A above the plane of the upper ends of the rests *l* and *l'*, as clearly illustrated in the drawings. If it is desired to saw big logs or heavy timber, the position of the saw can be reversed as shown in dotted lines in Fig. 1, so that it will then extend and work from the rear end of the frame.

Pivoted at its lower end to one of the frame uprights E, opposite the saw arm is the swinging weight arm S, to the upper end of which is secured on the pivot *s*, the weight bar *s'*, carrying at one end the weight T, while to the other end of the same is attached the lifting cord or strap *t*, which is also connected to the top edge of the saw as at *t'*, and which while allowing the saw to be reciprocated through the wood, at the same time automatically lifts the saw up into position for sawing another section after it has passed through the wood. The weighted bar *s'*, is sufficiently heavy to elevate the saw when not in use. Projecting from the lower end of the swinging weight arm S, is the hook U, to which is attached one end of the auxiliary cord or strap *u*, which is also attached to the top edge of the saw, so that when the same has passed through the wood being sawed, it pulls on said hook and prevents the saw from dropping, while at the same time bringing the arm S, in position so that the bar *s'*, can drop into its lowest position.

As already stated, the wood to be sawed can be placed on the front end of the frame A, and the bar L, against the rests *l* and *l'*, and is securely chained or bound in position by means of the binding chain or rope V, one end of which is secured to the cross bar or cleat K, and being passed around the wood, the other end of the chain or rope is connected to the lever hook W, of the lever *w*. The lever *w*, is pivoted to the inside of one of the side bars of the frame A, and carries a pawl Z, which is designed to engage the teeth of the toothed segment Y, arranged adjacent to said lever, so that by means of said lever the chain or rope can be drawn tight and held so.

From the foregoing it is thought that the construction, operation and many advantages of the herein-described sawing machine will be readily apparent to those skilled in the

art, and it will of course be understood that changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a portable sawing machine, the combination of an elongated wheeled frame having a rest portion at one end and a series of vertical rests arising from said rest portion for the material to rest there-against, a supplemental frame supported on one end of the wheeled frame, a swinging saw arm pivoted at one end to one side of the supplemental frame, a slotted guide for said saw arm, a double crank shaft journaled on said supplemental frame and carrying a gear wheel, a counter shaft geared with the crank shaft and having a crank wheel at one end, a pitman connected to said crank wheel and to the swinging saw arm, extended treadles or foot levers pivotally mounted on the wheeled frame and extended beyond one end thereof, connecting arms connected to the inner ends of the treadles and to the cranks of the crank shaft, a reciprocating saw pivoted at one end to the swinging end of the saw arm, an upright slotted guide extended from one end of the wheeled frame above the plane of the vertical rests to accommodate the movement of the free end of the saw, an operator's seat supported above and between the extended ends of the treadles, and an automatic lifting device for the saw, substantially as set forth.

2. In a portable sawing machine, the combination of the frame, a swinging saw arm, means for swinging said arm, the reciprocating saw pivoted at one end to said saw arm, a swinging weight arm pivoted at its lower end to the frame opposite the saw arm and having a hook projecting from its lower end, a weighted bar arranged at the upper end of the arm, and cords or straps connected to one end of the weight bar and the top edge of the saw and to the hook and the saw, substantially as set forth.

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

JOHN JILEK.

Witnesses:

D. H. LIDDY,
P. H. CONNER.