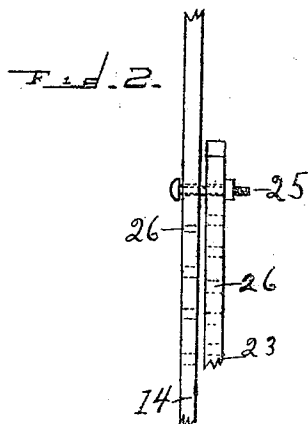
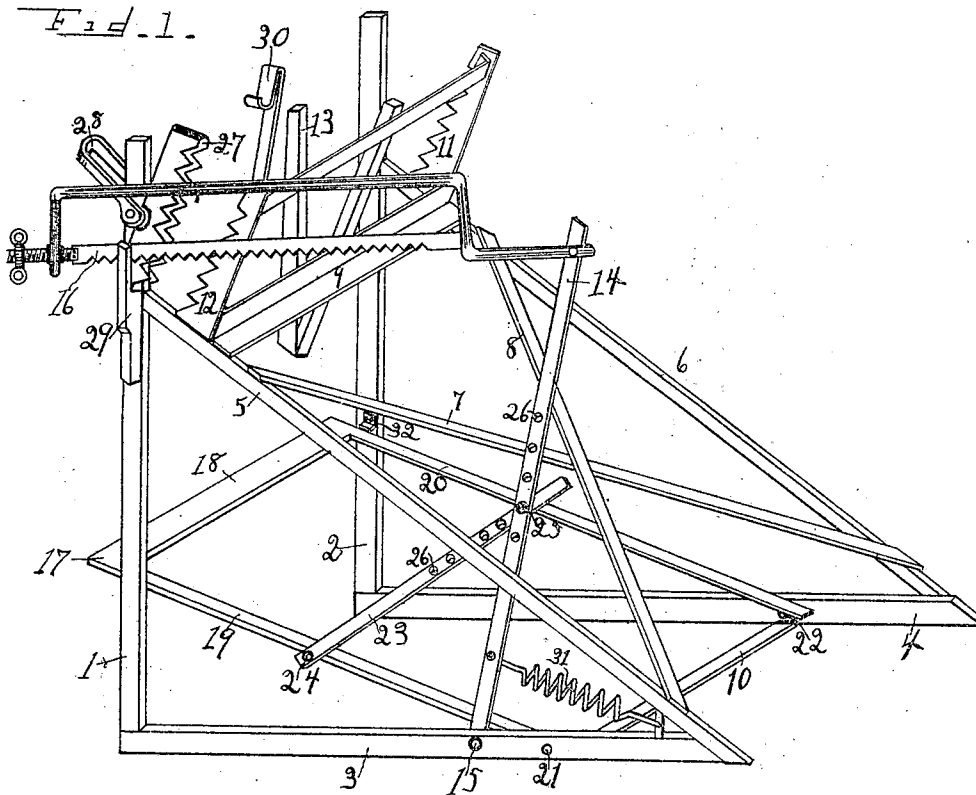


No. 819,703.

PATENTED MAY 1, 1906.

N. McASLAN.
PORTABLE SAWING MACHINE.
APPLICATION FILED MAY 11, 1905.



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UNITED STATES PATENT OFFICE.

NORMAN McASLAN, OF NEOLA, IOWA.

PORTABLE SAWING-MACHINE.

No. 819,703.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed May 11, 1905. Serial No. 259,991.

To all whom it may concern:

Be it known that I, NORMAN McASLAN, a citizen of the United States, residing at Neola, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Portable Sawing-Machines, of which the following is a specification.

My invention relates to improvements in portable sawing-machines for sawing logs, kindling or fire wood, and is adapted to the sawing of either hard or soft woods; and it consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

The object of my invention is to provide a means by which the operator may accomplish effective sawing without assuming a stooping posture and with the least outlay of physical effort, means for the effective holding of crooked timber or kindling-wood by the bundle in a stationary or locked position for sawing, and to produce a machine which is economical in construction and efficient in operation.

With these objects in view my invention presents novel features of construction and arrangement of parts substantially as described herein and illustrated by the drawings, wherein—

Figure 1 is a perspective view of my complete invention. Fig. 2 is a vertical rear view of the levers 14 and 23, showing the stroke-regulating means.

I construct an angular framework by use of the upright posts 1 and 2 upon the horizontal skids 3 and 4, connecting their upper and lower ends, respectively, by the inclined members 5 and 6, so that the posts 1 and 2 will respectively approximate a right angle with the skids 3 and 4, and I suitably space these apart in an upright position and by use of the cross-braces 7 and 8 and the braces 9 and 10 cause the entire frame to become sufficiently rigid to sustain the weight of the object to be sawed and to withstand all vibrations from the operation of sawing.

Rigidly upon the upper part of the framework I construct the stationary toothed jaws 11 and 12 to aid in the firm holding and support of the log or other object to be sawed, and the central support 13 I employ for the same purpose, and upon the skid 3 I mount the lever 14, pivotally hung at 15, so that its upper end, as well as the saw 16, to which it is pivotally attached, may have a swinging

movement toward and away from the toothed jaw 12.

The treadle 17 consists of the horizontally-disposed foot-piece 18 and the side levers 19 and 20, these side levers being pivotally hung at 21 and 22, so that the free end of the treadle may have a vertical movement from the base of the frame to the stop-block 32.

In order that the foot-treadle may be operative in causing the forward-and-backward movement of the saw, I construct the connecting-lever 23 pivotally hung upon the side lever at 24 and connect the lever 23 with the lever 14 by means of a plug or bolt 25.

By means of the spiral spring 31 the treadle is raised after being moved downward, the saw being also drawn backward by operation of the spring.

In order that the length of the stroke of the saw may be regulated at will, I employ a series of longitudinal openings 26 upon the levers 14 and 23, so that the operator may enlarge or decrease the angle of the lever 19 with the lever 14 and may arrange these openings so that they will come in horizontal alinement with each other, the levers 19 and 14 being at varying and selected angles, and by use of the bolt or plug 25, placed through the selected openings thus brought into alinement, the length of the saw-stroke is lengthened or shortened at will.

In order that the log or object to be sawed may be secured beyond any lateral movement from action of the saw, I construct the swinging toothed jaw 27, its lower end pivotally hung upon the vertical post 1, adapted to be pressed forward toward the toothed jaw 12, thereby contacting with the object to be sawed, the power for this pressure being supplied by the eccentric 28, and I employ the saw-guide 29 to prevent the dropping of the forward end of the saw after the completion of a single sawing, and when not in use the saw may be hung upon the hook 30. In order that the spring may cause the treadle to ascend to a uniform height, I construct the stop-blocks 32 upon the vertical posts 1 and 2.

It is evident that while the length of stroke of the treadle is uniform the responsive movement of the saw either backward or forward will vary in length according to the degree of the angle selected by the operator of the levers 19 and 14 and that this length of saw-stroke is always under the control of the operator, this being a greatly-desired feature of adjustment in order to meet the differences

in the fibers of soft or hard woods. It is also evident that the use of the eccentric and toothed jaws affords a ready and effective means for holding several separate parcels of wood at one time, such as kindling-wood strips, upon the frame for the purpose of being sawed and of securely locking these objects beyond lateral movement or vibrations caused by the saw and of securing in the same manner bent or crooked timbers, so that the saw may make and continue a true alinement during the process of sawing.

The invention presents a machine easily constructed and of small comparative expense and calculated to utilize to the greatest advantage the labor employed in its operation. The stooping position incident to wood-sawing is avoided, and the only effort required by the operator is that of causing the downward movement of the treadle, as is apparent.

What I claim as my invention is—

1. In a portable sawing-machine, the combination, of a saw, a saw-lever, a sawbuck, a spring, a pivotally-mounted treadle-frame, a link, and a suitable frame to sustain the parts in operative position; said saw to be pivotally mounted upon said saw-lever, said link being pivotally mounted upon the saw-lever and treadle-frame; said saw-lever being pivotally mounted and adapted to swing upon said pivotal mounting under control of the link and treadle-frame so that a downward pressure upon said treadle-frame will produce a forward movement of the saw, and being under control of the spring so that the resiliency of said spring will produce a backward movement of the saw and an upward movement of the treadle-frame.

2. In a portable sawing-machine, the combination, of a saw, a saw-lever, a sawbuck, a spring, and a treadle-frame having a foot-piece and pivotally-mounted arms, a link, a suitable frame to sustain the coöperating parts in operative position, the saw-guide 29, the stop-block 32 upon the frame, and the saw-rest 30; said saw to be pivotally mounted upon the saw-lever, said link to be pivotally mounted upon the saw-lever and treadle-frame; said saw-lever being pivotally mounted, and adapted to swing upon its pivotal mounting under control of the link and treadle-frame to produce a forward movement of the saw, and being under control of the spring to produce a backward movement of the saw and upward movement of the treadle-frame.

3. In a portable sawing-machine, the combination, of a saw, a saw-lever, a sawbuck, a spring and a treadle-frame having a foot-piece and pivotally-mounted arms, a link, a frame having base members, upright members and inclined members; said saw to be pivotally mounted upon the saw-lever, said link being pivotally mounted upon the saw-

lever and treadle-frame; said saw-lever being pivotally mounted and adapted to swing upon its pivotal mounting under control of the link and treadle-frame to produce a forward movement of the saw, and being under control of the spring to produce a backward movement of the saw and upward movement of the treadle-frame.

4. A sawing-machine of the class described, in combination, comprising a saw, a saw-lever, a sawbuck having supporting-arms, a spring, a pivotally-mounted treadle-frame, a link, and a frame having base members, upright members and inclined members, each upright member being rigidly connected with a base member and mounted at substantially a right angle thereon, an inclined member being rigidly mounted upon each connected base member and upright member and joined therewith to produce triangularly-formed sides of said frame, each upright member extending upward and beyond the junction of the inclined members and upright members to form substantially vertical supporting-arms for said sawbuck; said saw to be pivotally mounted upon said saw-lever, said saw-lever being pivotally mounted and adapted to swing upon its pivotal mounting under control of the link and treadle-frame so that a downward pressure upon said treadle-frame will produce a forward movement of the saw, and being under control of the spring so that the resiliency of said spring will produce a backward movement of the saw and upward movement of the treadle-frame.

5. A sawing-machine of the class described, in combination, comprising a saw, a saw-lever, a sawbuck having toothed supporting-arms, said teeth to be disposed upon the inner surface of said supporting-arms, a spring, a treadle-frame having a foot-piece and pivotally-mounted arms, a link, a frame having base members, upright members and inclined members; said saw to be pivotally mounted upon the saw-lever, said link being pivotally mounted upon the saw-lever and treadle-frame; said saw-lever being pivotally mounted and adapted to swing upon its pivotal mounting under control of the link and treadle-frame so that a downward pressure upon said treadle-frame will produce a forward movement of the saw, and being under control of the spring so that the resiliency of said spring will produce a backward movement of the saw and upward movement of said treadle-frame; means to cause a pivotal connection of the link at varying lengthwise distances upon the body of the saw-lever, for the purpose of allowing the foot-piece of the treadle-frame to move in a plane of higher or lower altitude.

6. A sawing-machine of the class described, in combination, comprising a saw, a saw-lever, an eccentric lever, a sawbuck having

toothed and stationary supporting-arms, said teeth being disposed upon the inner surface of said arms, a spring, a pivotally-mounted treadle-frame, a link, a frame having base members, upright members and inclined members; said saw to be pivotally mounted upon the saw-lever, said link to be pivotally mounted upon the saw-lever and treadle-frame; said saw-lever being pivotally mounted and adapted to swing upon its pivot-
10 al mounting under control of the link and treadle-frame so that a downward pressure upon said treadle-frame will produce a forward movement of the saw, and being under
15 control of the spring so that the resiliency of said spring will produce a backward move-

ment of the saw and an upward movement of the treadle-frame; a pivotally-mounted and toothed lever upon a supporting-arm of said sawbuck, said toothed lever being oppositely
20 disposed to said toothed and stationary supporting-arms and adapted to have a swinging movement, under control of said eccentric lever, in a direction toward said oppositely-
25 disposed toothed and stationary supporting-arms.

In testimony whereof I have affixed my signature in presence of two witnesses.

NORMAN McASLAN.

Witnesses:

FRED H. WITT,

W. H. BOWEN.