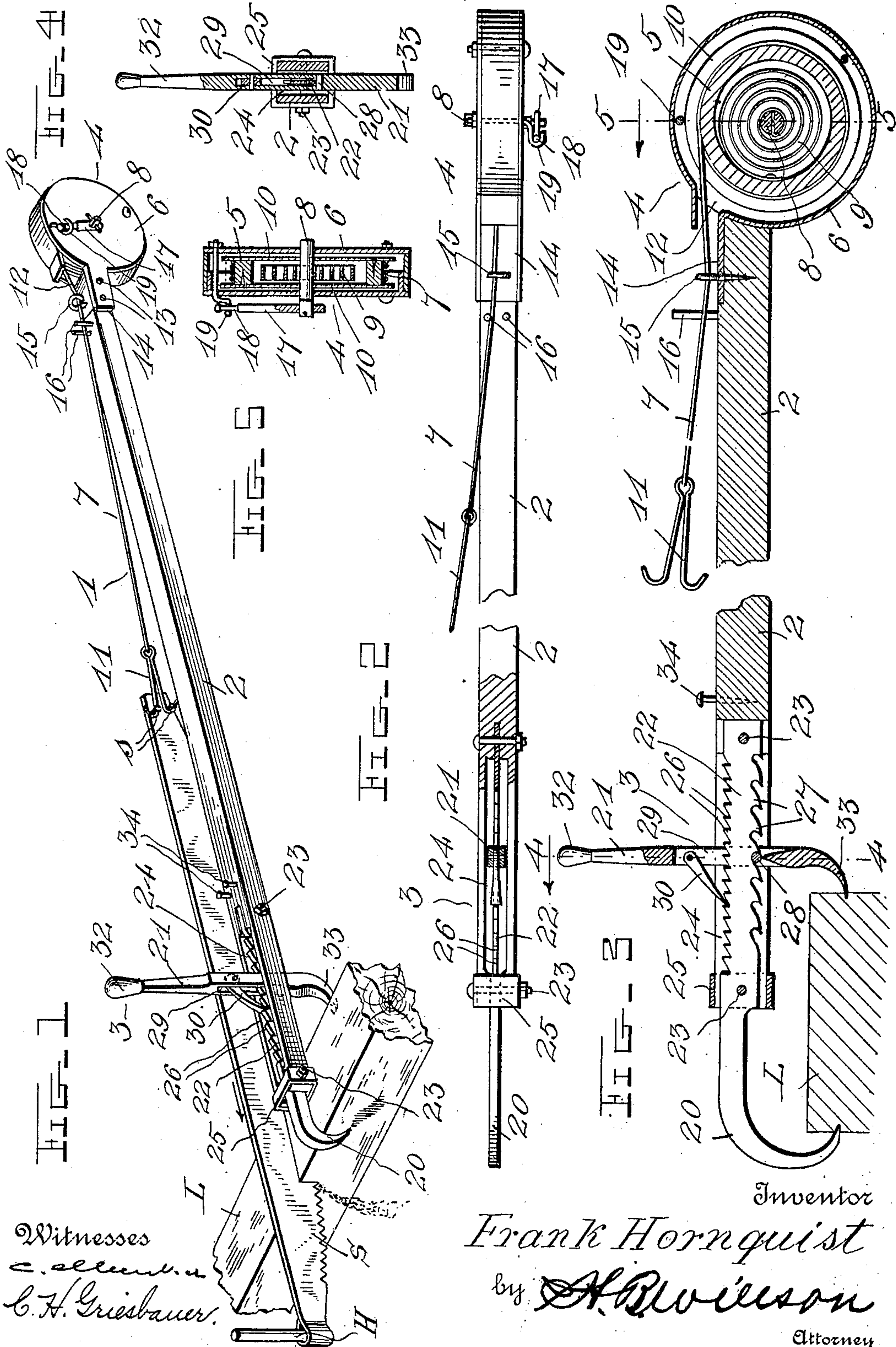


No. 825,836.

PATENTED JULY 10, 1906.

F. HORNQUIST.
SAWING MACHINE.

APPLICATION FILED SEPT. 29, 1905.



Witnesses
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FRANK HORNQUIST, OF JOHNSONBURG, PENNSYLVANIA.

SAWING-MACHINE.

No. 825,836.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed September 29, 1905. Serial No. 280,621.

To all whom it may concern:

Be it known that I, FRANK HORNQUIST, a citizen of the United States, residing at Johnsonburg, in the county of Elk and State of Pennsylvania, have invented certain new and useful Improvements in Sawing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in wood-sawing machines, and more particularly to an attachment for use in connection with a double-handle drag-saw or the like whereby the saw may be operated by one man instead of two, as is now required.

The object of the invention is to provide a simple, durable, inexpensive, and efficient device or attachment which will hold and feed one end of a saw, while a single person may operate its other end to cut logs, standing trees, and other timber.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved saw attachment, showing the manner in which the same is used. Fig. 2 is a top plan view with parts broken away of the same. Fig. 3 is a longitudinal sectional view, on an enlarged scale; and Figs. 4 and 5 are detail transverse sectional views taken, respectively, on the lines 4 4 and 5 5 in Fig. 3.

Referring more particularly to the drawings, L denotes a log or other piece of timber to be sawed, S denotes a saw of any form and construction, which may have a handle H at one or both of its ends, and the numeral 1 denotes my improved attachment or device for yieldably supporting one end of the saw, so that it may be operated by one man. The device or attachment 1 consists of a straight bar 2, a clamping means 3 at one end of said bar to engage the log or timber to be sawed, and a yieldable saw-supporting means 4 at the other end of said bar. This saw-supporting means 4 is preferably of the form shown, which comprises a spring-actuated drum 5, mounted within a casing 6 and having wound upon its periphery a strap or other flexible connection 7, which has one of its ends detachably connected to one end of the saw S. The winding-drum 5 is hollow and is loosely

mounted upon a shaft 8, which extends through bearings formed in the opposite sides of the cylindrical casing 6. Within the hollow portion of the drum is an actuating-spring 9. The latter is coiled about the shaft and has one of its ends secured thereto and its opposite end to the drum 5, as shown. The periphery of the drum is flanged at its sides, as shown at 10, in order to guide the strap or cord 7, which has one of its ends secured to the periphery of the drum and its other end attached, preferably, by a double hook 11 to headed studs upon the end of the saw. The strap or cord 7 passes through an opening 12, formed in the periphery of the casing, which is secured upon the end of the rod 2 by securing the latter, as shown at 13, in a socket 14, formed at a suitable point on said casing. The strap passes through a guide-eye 15, provided on the socket 14, and between two guide-lugs 16, provided on the adjacent end of the bar 2. In order to wind up the coil-spring to give the strap sufficient tension to properly support and feed the saw, I provide upon one of the outer ends of the shaft 8 a crank-arm 17. The latter has a notched outer end 18, which is adapted to engage a pivot catch or hook 19, provided upon the casing, as clearly shown in the drawings.

The log-engaging means 3 at the opposite end of the bar 2 preferably consists of a stationary hook or claw 20 and an adjustably-pivoted claw-lever 21. As shown, the hook 20 is formed at one end of a metal bar 22, which is secured by means of bolts 23 in a recess 24, formed in the end of the bar 2. The outermost bolt 23 passes through a surrounding band 25, which is adapted to strengthen the divided or slotted end of the bar 2, as shown. That portion of the metal bar 22 which is within the slot or recess 24 is of less thickness than the width of said slot and is formed along its opposite edges with rack-teeth 26 and 27, the former being small and the latter large, as clearly shown in Fig. 3 of the drawings. The teeth 27 are adapted to be engaged by a pin 28, provided in a slot 29, formed in the claw-lever 21 and through which the reduced end of the metal bar 22 extends. Owing to this connection, it will be seen that the lever 21 is adjustably mounted in the slot 24 of the bar 2, the adjustment being effected by engaging the pin 28 with any one of the notches or teeth 27. The lever is held in an adjusted position by means of a dog or pawl 30, which is pivoted in the slot

29 and adapted to engage the rack-teeth 26. At one end of the lever 21 is a handpiece 32, and at its opposite end is a claw 33, which coacts with the hook or claw 20 to clamp the rod 2 securely upon the log or piece of timber to be sawed. By mounting the claw-lever 21 in the manner shown it will be seen that it may be engaged with a log or piece of timber of any size or shape. Adjacent to the inner end of the slot 24 are provided two headed studs 34, which may be engaged by the double hook upon the end of the strap 7 when the device is not in use.

The operation of the invention will be readily understood upon reference to Fig. 1 of the drawings. It will be seen that when the bar 2 is clamped at one of its ends upon the log L and the strap or cord 7 is attached to the end of the saw S the latter may be readily operated by a person standing adjacent to the log and grasping the handle H. The use of this attachment dispenses with the necessity of two men and permits one person to operate the saw almost as efficiently as two can. By adjusting the tension of the spring which actuates the winding-drum 5 the device may be adjusted to a saw of any size and for either weak or strong persons. It will hold and feed the saw so that it will cut a straight kerf and may be used upon any kind of saw.

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

1. A device of the character described com-

prising a bar, means for attaching the end of the same to a log or the like, a casing at the other end of said bar, a shaft journaled in said casing, a hollow drum mounted to revolve upon said shaft in said casing, a flexible connection wound upon said drum, means for attaching one end of said connection to a saw, a guide for said connection, a spring within said drum having one end attached thereto and its other end to said shaft, a crank-arm upon one of the ends of said shaft, and a swinging catch upon said casing adjacent to said crank-arm, substantially as described.

2. A device of the character described comprising a bar, means for yieldably supporting a saw at one end of said bar, a metal bar secured in a slot in the opposite end of the first-mentioned bar and having its outer end bent and tapered to form a log-engaging hook, rack-teeth upon the opposite edges of that portion of said metal bar within said slot, a slotted claw-lever slidable upon the toothed portion of said metal bar, a pin in the slotted portion of said lever adapted to engage one edge of said metal bar, and a pivoted pawl upon said lever adapted to engage the teeth on the opposite edge of the metal bar.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK HORNQUIST.

Witnesses:

JOHN P. NELSON,
AXEL NELSON.