

G. KAWASAKI.

SAW.

APPLICATION FILED FEB. 24, 1911.

1,046,800.

Patented Dec. 10, 1912.

2 SHEETS—SHEET 1.

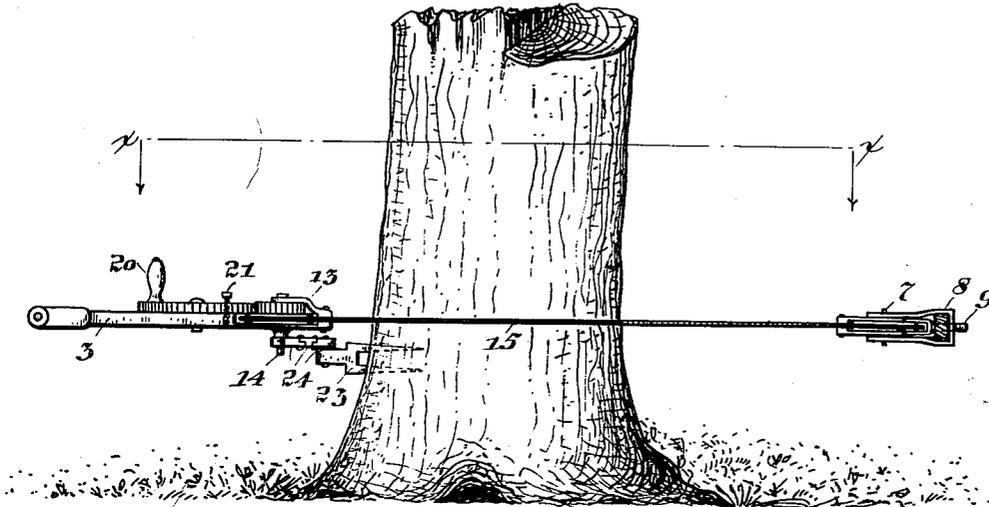


Fig. 1.

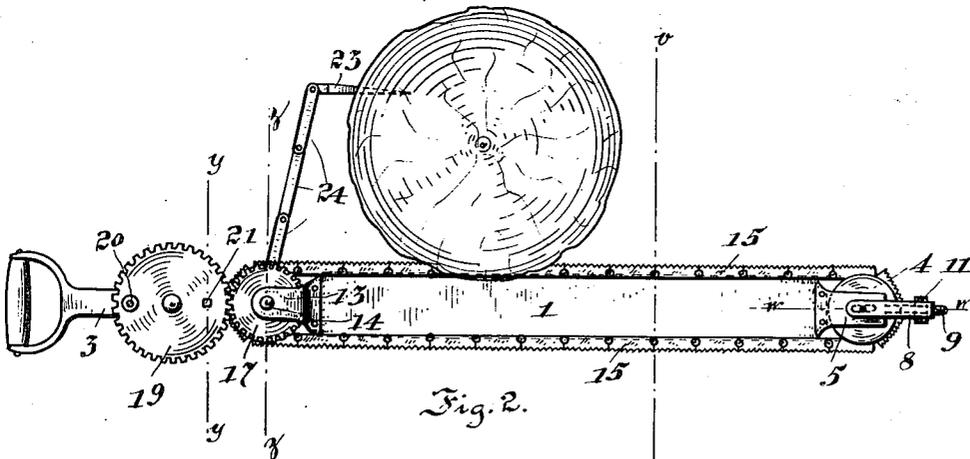


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

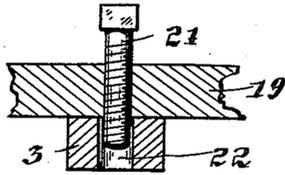


Fig. 3.

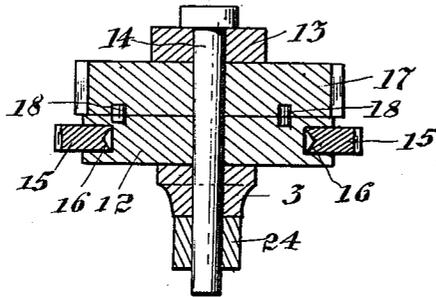


Fig. 4.



Fig. 5.

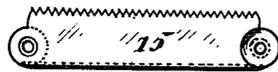


Fig. 6.

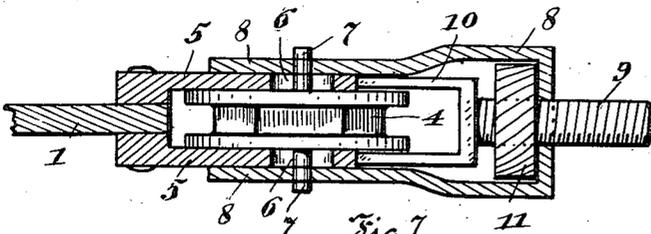


Fig. 7.

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UNITED STATES PATENT OFFICE.

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SAW.

1,046,800.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed February 24, 1911. Serial No. 610,525.

To all whom it may concern:

Be it known that I, GORO KAWASAKI, a subject of the Emperor of Japan, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Saws, of which the following is a specification.

My invention relates to improvements in saws and has for its object the provision of an improved saw adapted to be secured to a tree and employed for cutting down the tree.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 is an elevation showing a saw embodying my invention, in position for use, Fig. 2, a section taken on line $x-x$ of Fig. 1, Fig. 3, a partial section taken on line $y-y$ of Fig. 2, Fig. 4, a section taken on line $z-z$ of Fig. 2, Fig. 5, a section taken on line $v-v$ of Fig. 2, Fig. 6, an enlarged detail view of one of the links of the endless chain saw employed in my device, and Fig. 7, an enlarged section taken on line $w-w$ of Fig. 2, with the saw removed.

The preferred form of construction as illustrated in the drawings, comprises a guide blade 1 having V-shaped guide edges 2 as shown. At one end guide blade 1 is provided with a handle 3 riveted to the under side thereof and serving as a means for manipulating said guide. At its other end blade 1 is provided with a sprocket wheel 4 arranged coplanar with said blade. The sprocket wheel 4 is mounted between brackets 5 riveted to the upper and lower sides of blade 1 and provided with longitudinal slots 6 adapted to permit the passage of the ends of shaft 7 which carries sprocket wheel 4. The ends of shaft 7 are rotatably mounted in a yoke 8 embracing brackets 5 as shown in Fig. 7. A threaded adjusting screw 9 is slidably mounted in the yoke 8 and provided at its inner end with a fork 10 spanning sprocket wheel 4 and resting against the ends of brackets 5 as shown. An adjusting wheel 11 is threaded on screw 9 adjacent the inside of the head of the yoke 8 and serves as a means for adjusting the longitudinal position of sprocket wheel 4 relative to the blade 1. Another sprocket

wheel 12 is mounted on handle 3 coplanar with blade 1 between said handle and a bracket 13 riveted to the upper side of blade 1, a shaft 14 extending through the bracket 13 and handle 3 serving to secure said sprocket wheel in position as shown in Fig. 4. An endless chain saw 15 is mounted on sprocket wheels 4 and 12 and has the inner sides of each of its links provided with a V-shaped recess fitting the V-shaped edges of blade 1, said blade thus serving as a guide for said saw. A driving pinion 17 is rotatably mounted on shaft 14 above sprocket wheel 12 and is secured to sprocket wheel 12 by means of pins 18, as shown in Fig. 4. A driving gear 19 is rotatably mounted on handle 3 in mesh with pinion 17 and provided with a handle 20 for rotation thereof. The driving gear 19 also carries a threaded set screw 21 adapted to project from the under face thereof and engage a perforation or socket 22 provided in handle 3, said set screw thus serving as a means for locking the saw 15 against movement on blade 1. In order to support the saw in operative relation to a tree, I provide a fork 23 adapted to be driven into a tree and carrying a link support composed of three links 24 pivoted to the fork and to each other, as shown. At its outer end, the outermost link 24 is provided with a perforation or socket adapted to receive the protruding lower end of shaft 14 and thus serve as a support for the saw as shown in Figs. 1 and 2.

In use the fork 23 is driven into the side of a tree and the saw mounted upon the end of link support 24. Then the saw is applied to the side of a tree by means of handle 3 and the saw operated by means of handle 20, thus rapidly felling the tree. When it is desired to use the saw as an ordinary hand saw, said screw 21 is passed into socket 22, thus effectually locking the saw against movement on the blade 1. When it is desired to move fork 23 from the tree, a crowbar or other suitable lever is inserted in the fork against the outside of the tree and the fork readily removed thereby.

While I have illustrated and described the preferred form of construction as illustrated, this may be varied somewhat without departing from the spirit of the invention. I, therefore, do not wish to be limited to the exact details of construction as set forth, but desire to avail myself of such vari-

ations and modifications as come within the scope of the appended claim.

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

5 In a device of the character described, the combination with a blade; of a grooved wheel carried at one terminal thereof; a U-shaped bracket mounted at the opposite
10 terminal thereof having slots formed in the arms thereof; a shaft piercing said slots; a grooved pulley mounted upon said shaft and disposed between said arms; a yoke spanning said bracket and engaging the terminals of said shaft; a fork arranged within
15 said yoke spanning said grooved wheel and

bearing against the terminal of said bracket; a shank carried by said fork and projecting through the yoke aforesaid; a block mounted upon said shank between said yoke and fork for imparting movement to the former and said pulley wheel; and a saw operating over said grooved pulley and blade.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GORO KAWASAKI.

Witnesses:

HELEN F. LILLIS,
JOSHUA R. H. POTTS.