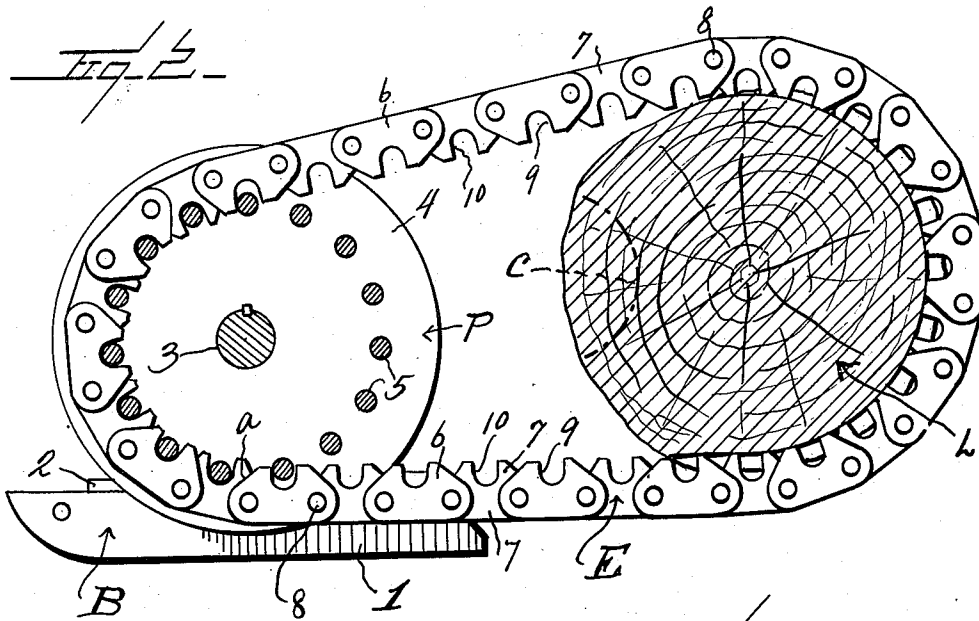
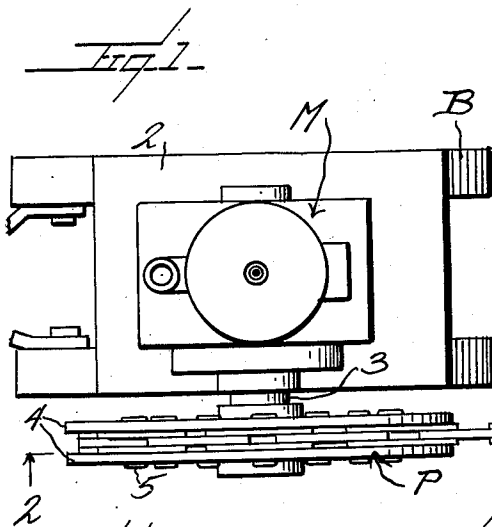
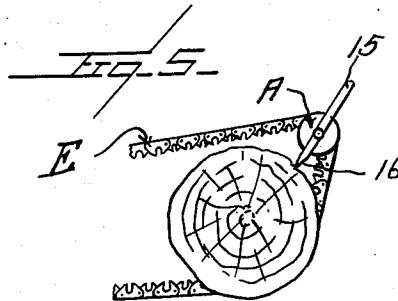
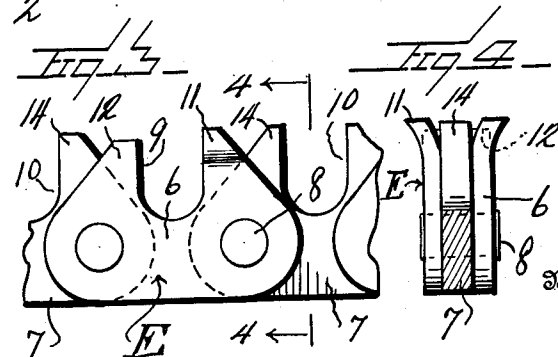
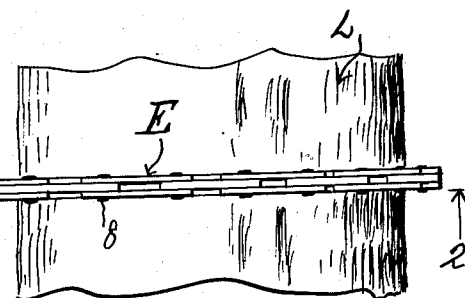


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J. ZANDECKI
LOG CUTTING MACHINE
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LOG CUTTING MACHINE

John Zandecki, Alpha, Wash.

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1 Claim. (Cl. 143—135)

This invention relates to a log cutting machine, and it is an object of the invention to provide a device of this kind including an articulated sawing element adapted to travel around the log to be cut, and wherein the machine is of a portable type whereby the slack within the sawing element can be readily taken up during the sawing operation.

It is also an object of the invention to provide a device of this kind including a portable power unit for driving an articulated sawing element, and wherein said sawing element comprises a plurality of links, alternate links constituting clean-out members.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved log cutting machine whereby certain important advantages are attained, as will be hereinafter more fully set forth.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:

Figure 1 is a view in top plan of a sawing machine constructed in accordance with an embodiment of my invention, and in operative engagement with a felled log, the log being fragmentarily illustrated;

Figure 2 is a vertical sectional view taken substantially on the line 2—2 of Figure 1, the preferred extent of sawing through the log being indicated by a broken line;

Figure 3 is an enlarged fragmentary elevational view of adjacent links comprised in the articulated sawing element;

Figure 4 is a detailed sectional view taken substantially on the line 4—4 of Figure 3; and

Figure 5 is a fragmentary elevational view illustrating the use of an idler sprocket in co-action with the articulated sawing element.

In the embodiment of the invention as herein disclosed, B denotes a portable body of a sled type and including the parallel runners 1 upon which is mounted a platform 2.

Carried on the platform 2 is a motor M, preferably of an internal combustion type, although I do not wish to be understood as limiting myself to any particular character of motor. The motor M includes a driven shaft 3 extending, as illustrated in Figure 1, to one side of the portable body or sled B, and fixed upon this shaft 3 for rotation therewith is a pulley P of a material diameter. As is illustrated in Figure 2, however, the diameter of the pulley P and the location of

the driven shaft 3 are such to maintain the pulley P free of contact with the surface on which the body or sled B is rested and travels.

As herein embodied, the pulley P comprises two disks 4 arranged side by side and which are tied or connected by the pins 5 bridging the space between the disks 4. These pins 5 are equi-distantly spaced and are annularly arranged around and concentric to the shaft 3.

The pulley P serves as a driving element for an articulated and endless sawing element E. This element E, as herein disclosed, comprises the flat links 6 and 7 in alternate relation. The links 6 are arranged in pairs with the links of each pair positioned side by side and the extremities of each link 7 extend between the links 6 of adjacent pairs and are pivotally connected by rivets 8. These rivets 8 are only lightly held in position so that any one of these rivets 8 can be readily removed to break the element E to allow the same to be initially disposed around the log L to be cut and, of course, such rivet 8 can be readily replaced in position to couple the element E so that the same will be continuous or endless.

The links 6 and 7 are of substantially the same length and of a material width, and the inner margins of the links 6 and 7 midway their ends are provided, respectively, with the deep recesses 9 and 10. These recesses 9 and 10 are of a depth to readily receive the pins 5 as the element E passes around the pulley P during the rotation of such pulley P, whereby the desired driving of the element E is obtained.

The ends of the links 6 and 7 have their inside portions inwardly beveled, as at a, resulting in each of the links 6 having a cutting tooth 11 and a forward gage tooth 12, and in each of the links 7 having spaced clean-out teeth 14.

The outer extremities of the cutting teeth 11 are laterally set as required to facilitate the desired cutting action of said teeth. It is also to be noted that the teeth 11 extend outwardly beyond the teeth 12, the shorter teeth 12 constituting gages to limit the extent of cutting penetration of the teeth 11, and thus prevent the element cutting into the log too fast.

It is also to be pointed out that by having the rivets 8 lightly placed, the various links 6 and 7 can be removed for sharpening and resetting the teeth 11, or giving such attention to all of the teeth as may be necessary.

In practice it has been found that the motor M need not be more than one horse power, and in cutting through a log as the element E penetrates the work it is only necessary to move the

body or sled B as required to maintain the element E under proper tension or to take up the slack which would otherwise occur as the element E cuts into the log. In cutting through a log it is preferred that the cut be not made entirely through the log, but to a point as approximately indicated by broken lines at c. This remaining portion can be readily chopped out by axe after the element E has been taken out.

In Figure 5 of the drawing is disclosed the use of an idler pulley A, preferably of the same construction as the pulley P, and around which the element may be directed. This pulley A is rotatably carried by an elongated supporting arm 15, one end of which being pointed, as at 16, to assure an effective mounting of the pulley A with respect to the log. This idler pulley A is used when it is desired to reduce the cutting contact of the element E with respect to the log and to also regulate the portion of the log with which the element E may have its cutting action. This pulley A, through its supporting arm 15, may also be used to take up the slack in the element E and when so used the body or sled B is staked down or otherwise tied or held against movement. It is believed to be obvious that with the use of the pulley A and its supporting arm 15 a pull-back

on the arm 15 will readily take up slack occurring in the element E and thus assure the element E having maximum cutting engagement with the work.

5 From the foregoing description it is thought to be obvious that a log cutting machine constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

10 A sawing rig including an endless articulated sawing element, a rotating driving means for said element, said element comprising a plurality of 15 flat links, said links being of material width and of substantially the same length, means for pivotally connecting the extremities of adjacent links, each of said links at substantially the longitudinal center having its inner marginal portion provided with a recess, the extremities of the 20 links at the inner marginal portion thereof being beveled toward the recess whereby the said inner marginal portion at opposite sides of the recess constitute cutting teeth and also teeth to engage 25 the driving member for the sawing element.

JOHN ZANDECKI.