M. C. SALLEE.

CHAIN SAW MACHINE.

APPLICATION FILED JULY 3, 1911.

1,175,302. Patented Mar. 14, 1916.

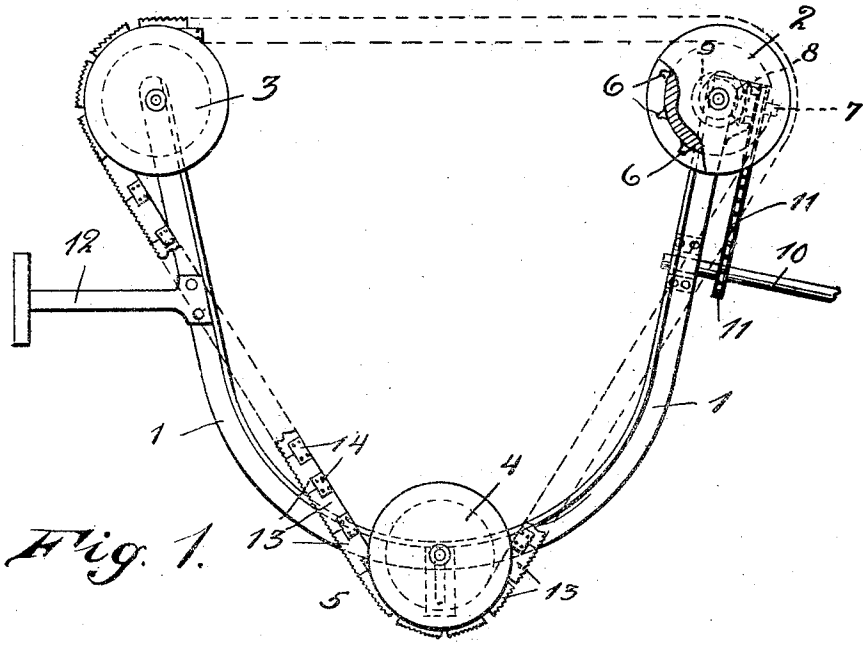

Fig. 1.

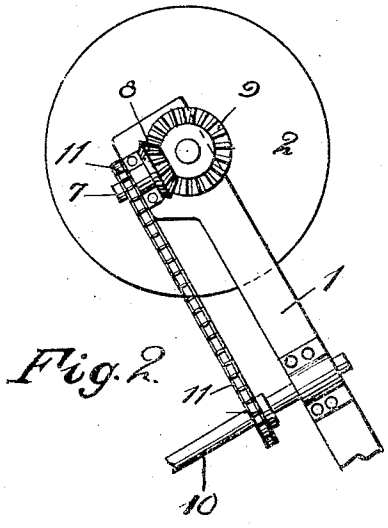

Fig. 2.

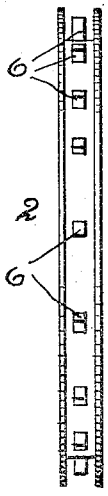

Fig. 3.

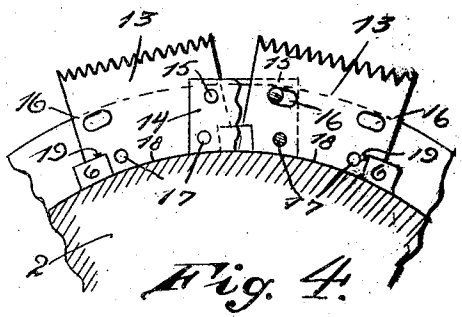

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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CHAIN-SAW MACHINE.

1,175,302. Specification of Letters Patent. Patented Mar. 14, 1916.

Application filed July 3, 1911. Serial No. 636,651.

To all whom it may concern:

Be it known that I, MAHLON C. SALLEE, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Chain-Saw Machines, of which the following is a specification.

My invention relates to sawing machines employing chain saws and has for one of its objects the provision of an improved construction of frame for the machine and improved means for regulating the tension of the saw.

Another object of my invention is the provision of an improved construction of chain saw.

Another object of my invention is the provision of an improved driving mechanism for the saw.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is a plan view of my improved sawing machine, Fig. 2, a detail view of the driving gear, Fig. 3, a detail view of the driving sprocket, and Fig. 4, a fragmental view of the saw chain.

In the drawings similar reference characters will be used to designate corresponding parts throughout the several views.

The frame 1 of my improved machine is as shown formed of an angle or T beam to insure rigidity with the least expenditure of material and having a substantial U-shape with flanged wheels 2 and 3 journaled on the ends of the beam and another flanged wheel 4 secured in a slot in arm 5 fastened at the curved middle portion of the beam and extended laterally therefrom. Wheel 2 is provided with sprocket teeth 6 spaced from its flanges.

7 indicates a stud shaft journaled on frame 1 and having a beveled gear wheel 8 secured thereto that meshes with a beveled pinion 9 secured to the spindle of sprocket wheel 2.

10 indicates a drive shaft journaled on frame 1, that is driven by any suitable power and 11 a chain and sprocket gearing connecting shaft 10 with stud shaft 7.

12 indicates an operating handle secured to frame 1.

The saw chain is made up of links 13 connected by plates 14 pivotally secured to the ends of the links and having pins or lugs 15 connecting them that ride in slots 16 in the links, said pins and slots serving to limit the pivotal movement of the links to a circle described by the periphery of the wheels 2, 3 and 4 so that in rounding these wheels the pull is exerted by the pins 15 and on the ends of the slots, as well as by the pivot pins 17. The inner edges of the links 13 are curved as shown at 18 to fit the periphery of the wheels 2, 3 and 4.

19 indicates notches in the two ends of the links 13 that combine with the plates 14 to form sockets to receive the teeth 6 of the sprocket wheel 2.

In operation the saw frame is supported in any suitable manner and is controlled by handle 12. Power is applied through shaft 10 and is transferred to the saw chain through gearing 11, stud shaft 7, beveled pinions 8 and 9 and sprocket wheel 2.

Having thus described my invention what I claim is—

A chain saw comprising links having slots adjacent each end and having right angled notches in their bottom ends, and plates connecting said links, said plates being pivoted to said links adjacent said right angled notches and having lugs adjacent their top for insertion in said slots.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

MAHLON C. SALLEE.

Witnesses:
MAYBELLE BAUMANN,
LIVINGSTON BAUMANN.