E. C. TAPP.

STUMP SAWING MACHINE.

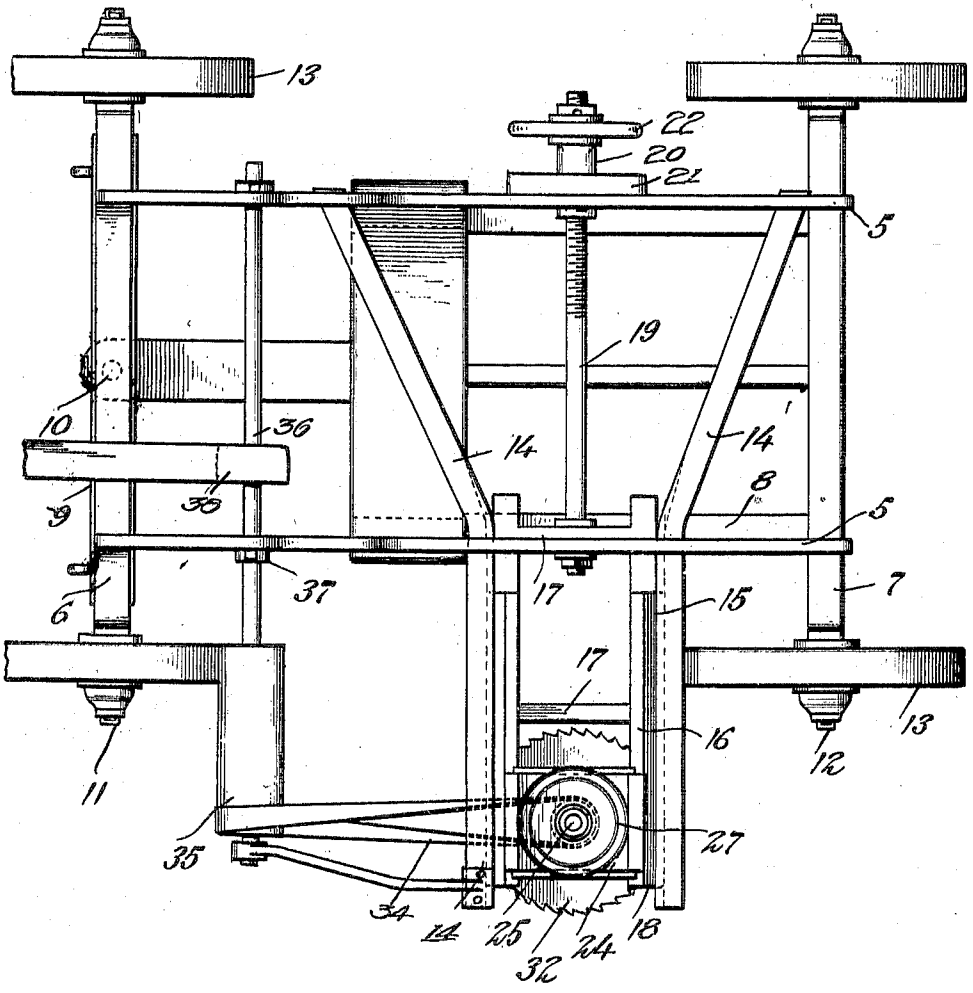
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1,067,076.

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2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

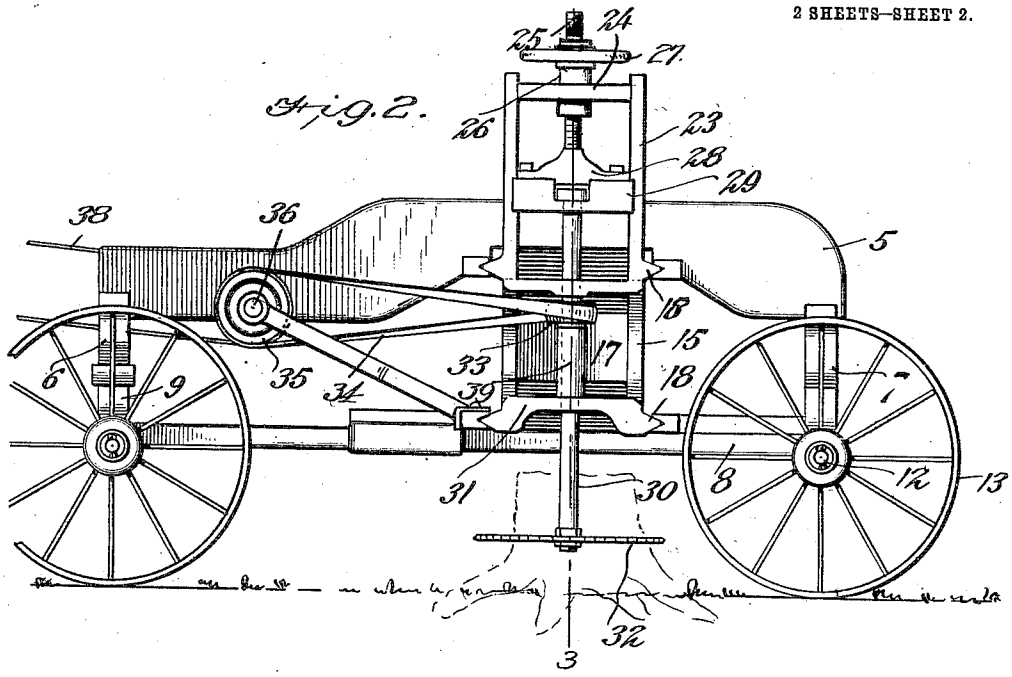
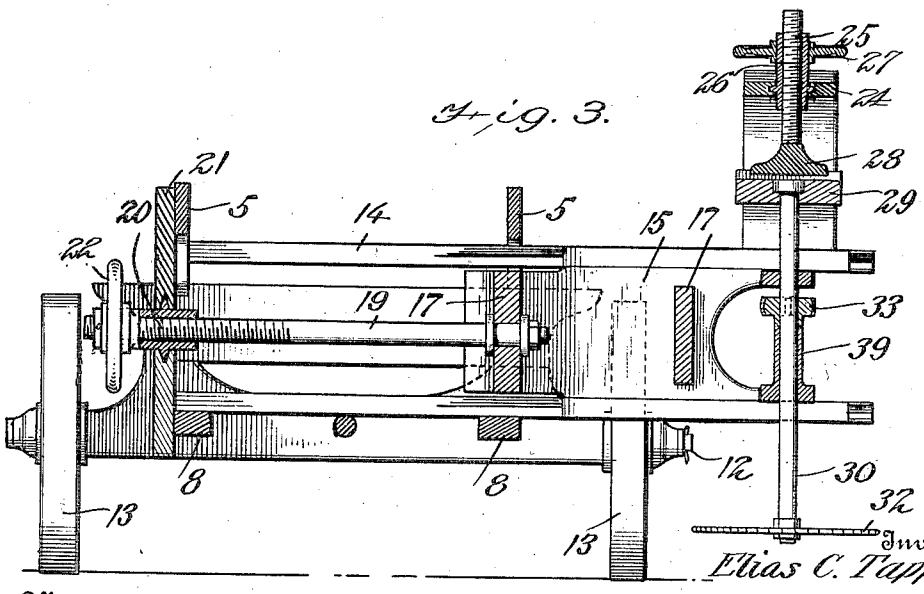


Fig. 3.



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UNITED STATES PATENT OFFICE.

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STUMP-SAWING MACHINE.

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To all whom it may concern:

Be it known that I, ELIAS C. TAPP, a citizen of the United States, residing at Monette, in the county of Craighead and State of Arkansas, have invented new and useful Improvements in Stump-Sawing Machines, of which the following is a specification.

The invention relates to a sawing machine and more particularly to the class of stump saws.

The primary object of the invention is the provision of a machine of this character in which a rotary saw will be mounted in a carriage which is adapted to be adjusted laterally with respect to the frame of a movable vehicle and also can be vertically raised and lowered thereby permitting the proper positioning of the saw relative to the stump to be cut so that the said stump may be sawed at the desired height from the ground.

Another object of the invention is the provision of a machine of this character in which the vehicle may be run over the ground surface to the desired point or location of the stump to be sawed the saw being operated from power derived from an ordinary traction engine and is readily and easily adjusted for the convenience of the operator of the machine.

A further object of the invention is the provision of a machine of this character which is simple in construction thoroughly reliable and efficient in operation and inexpensive in manufacture.

With these and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a top plan view of a machine constructed in accordance with the invention. Fig. 2 is a side elevation thereof. Fig. 3 is a vertical, transverse, sectional view through the machine.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings by numerals the machine comprises a body frame including spaced parallel side boards 5 fixed to front and rear cross bolsters 6 and 7 respectively, the rear bolster being fixed to the rear hounds 8 while the front bolster has loosely connected thereto a front hound 9 by means of the usual king-bolt 10 so that the said front hound may turn in the ordinary manner. Mounted in the hounds are front and rear axles 11 and 12 respectively on the ends of which are journaled rotatable ground or traction wheels 13 so that the machine may be advanced from one locality to another thereby permitting it to be positioned in any point in a field.

Fixed to the side boards 5 and the rear hound 8 are the inner diverging ends of pairs of upper and lower guide beams 14 the outer ends of which are arranged in parallel relation to each other and project laterally and outwardly beyond one side of the body frame, the inner edges of the outer parallel portions of the beams 14 being formed with guide grooves 15 in which is engaged a movable carriage comprising side plates 16 united by means of cross connecting bars 17, the top and bottom edges of the plates 16 being formed with out-turned guide runners 18 which slidably engage in the grooves 15 so that the carriage may be shifted inwardly and outwardly with respect to the body frame of the machine. Swiveled centrally in the innermost cross connecting piece 17 of the carriage is an adjusting screw or rod 19 threaded in a bearing or boss 20 fixed to a block 21 stationarily mounted upon one side board 5 and the hound 8, the outer end of the screw or rod 19 being provided with a hand crank 22 which when turned will operate the screw or rod 19 for the inward and outward adjustment of the carriage.

Integral with or mounted on the outer ends of the uppermost runners 18 is a vertical guide frame 23 through the top cross bar 24 of which is passed a vertical adjusting screw 25 on which is threaded a nut 26 formed with a hand crank 27, the inner end of the screw 25 being formed with a head 28 detachably connected to a guide block 29 slidably engaging the sides of the frame 23 and this block has centrally swiveled therein the upper of a rotatable saw shaft 30 which is journaled in the lower cross bar 24 of the frame 23 and also in a cross bridge piece 31 fixed to the outer ends of the lowermost runners 18 of the carriage, the said shaft 30 being designed for vertical sliding adjustment and having fixed to its lower end a circular saw 32, the shaft being operated in a manner presently described.

Keyed or splined upon the saw shaft 30 so that the latter may be vertically adjusted is a belt pulley 33 over which is trained an endless belt 34 the same being also trained over a wide belt pulley 35 fixed to a countershaft 36 journaled transversely on the body frame in bearings 37 formed on the side boards 5 of the said frame. Also trained over this wide pulley 35 is a driving belt 38 operated from a traction engine or other suitable source of power, it being seen that when the driving belt 38 is moved, motion will be imparted to the saw shaft 30 for operating the saw 32 which is adjusted the required height from the ground and is fed toward the stump for the sawing of the same. Rising from the bridge piece 31 and surrounding the saw shaft 30 is a stationary sleeve 39 forming a seat or bearing for the pulley 33 to limit the movement thereof longitudinally upon said shaft when the latter is being lowered in the frame 23. The adjustment of the shaft 30 is had by turning the nut 26 upon the screw 25; thus in this manner the saw 32 may be raised or lowered to the required distance, for adjusting it the proper height with respect to the ground.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction and operation of the invention will be clearly understood, and therefore, a more extended explanation is omitted.

What is claimed is:—

1. In a machine of the class described, a frame, pairs of upper and lower parallel guides fixed to the frame and projecting laterally beyond one side thereof, a movable carriage engaged in said guides, a bearing formed centrally of said carriage at the outer end thereof, a rotatable saw shaft journaled in said bearing, a disk saw mounted at the lower end of said shaft, a guide frame rising from the carriage in alinement with the bearing, a block slidably fitted in the guide frame, a swiveled head formed on the upper end of the shaft and engaged in the guide frame, an adjusting device supported by the guide frame and connected with the block for vertically adjusting the shaft, and means connected with the carriage and the first-named frame for permitting the shifting of the said carriage laterally thereof.

2. In a machine of the class described, a frame, pairs of upper and lower parallel guides fixed to the frame and projecting laterally beyond one side thereof, a movable carriage engaged in said guides, a bearing formed centrally of said carriage at the outer end thereof, a rotatable saw shaft journaled in said bearing, a disk saw mounted at the lower end of said shaft, a guide frame rising from the carriage in alinement with the bearing, a block slidably fitted in the guide frame, a swiveled head formed on the upper end of the shaft and engaged in the guide frame, an adjusting device supported by the guide frame and connected with the block for vertically adjusting the shaft, a bearing formed in the opposite side of the main frame, an adjusting screw engaged in said bearing and swiveled to the carriage, and a turning wheel threaded on the outer end of the adjusting screw and working against the bearing exteriorly of the first-named frame.

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

ELIAS C. TAPP.

Witnesses:
THOS. J. READ,
NEEDEHAM H. GRADY.