

M. T. FITZGERALD.
FENCE POST DRIVING MACHINE.
APPLICATION FILED SEPT. 20, 1910.

1,015,947.

Patented Jan. 30, 1912.

2 SHEETS—SHEET 1.

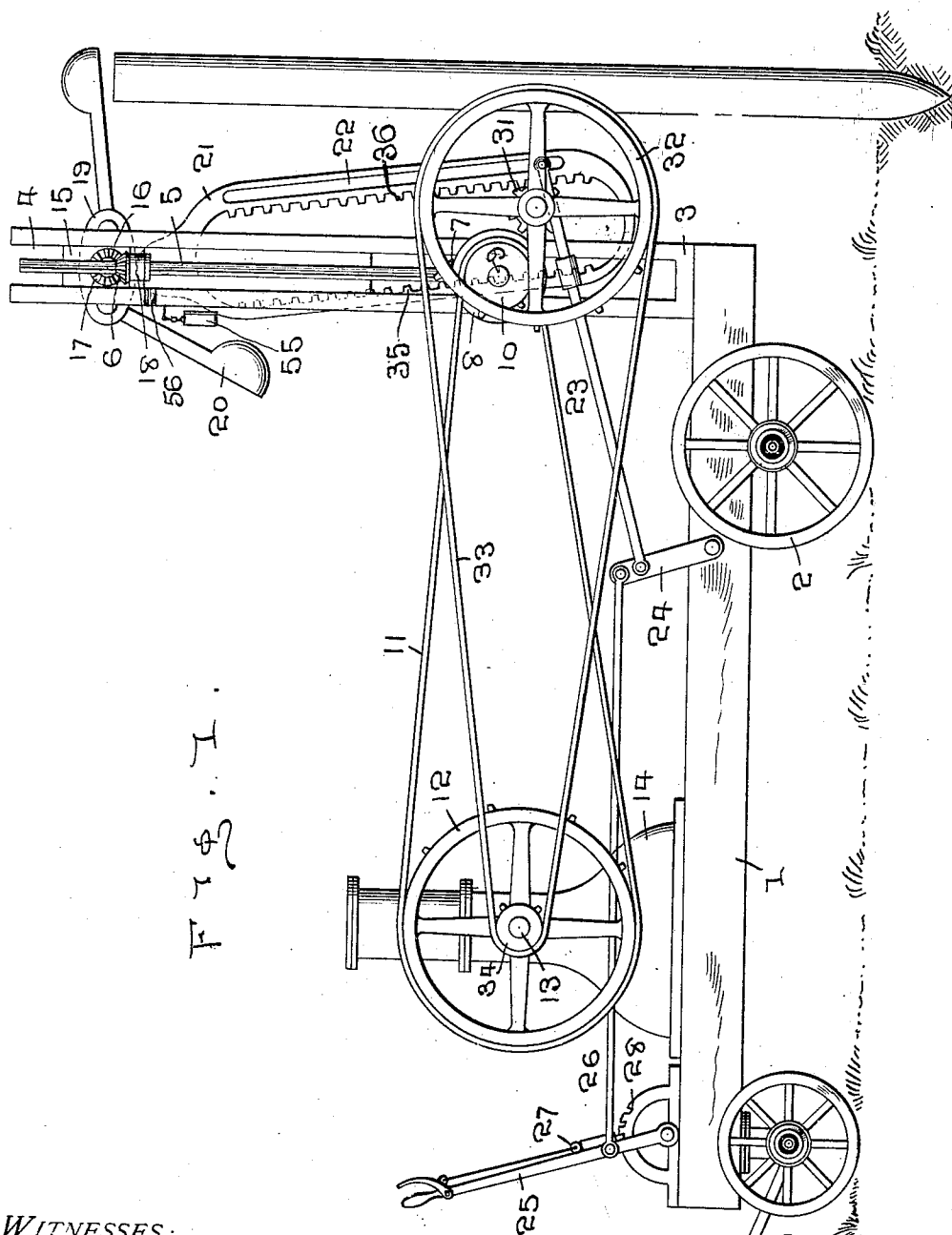


Fig. 1.

WITNESSES:

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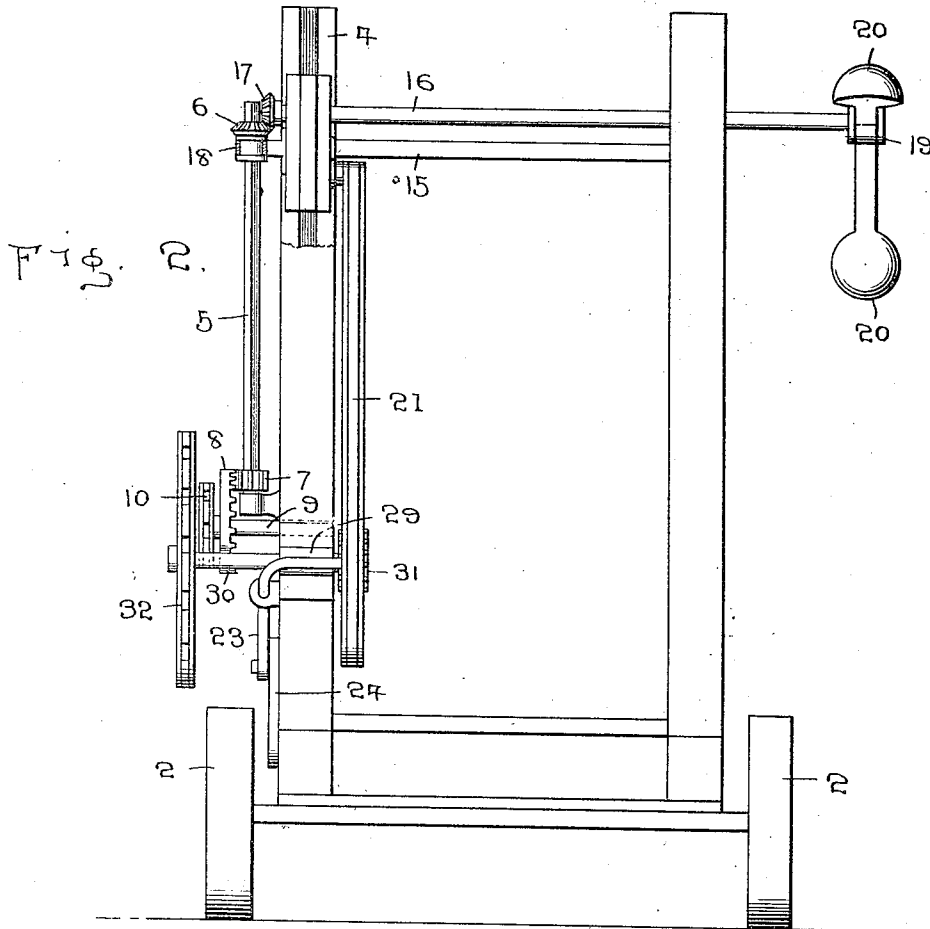
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UNITED STATES PATENT OFFICE.

MELVIN T. FITZGERALD, OF ROCK ELM, WISCONSIN.

FENCE-POST-DRIVING MACHINE.

1,015,947.

Specification of Letters Patent.

Patented Jan. 30, 1912.

Application filed September 20, 1910. Serial No. 582,911.

To all whom it may concern:

Be it known that I, MELVIN T. FITZGERALD, a citizen of the United States, residing at Rock Elm, in the county of Pierce and State of Wisconsin, have invented certain new and useful Improvements in Fence-Post-Driving Machines; and I do hereby 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 fence post driving machines and my object is to provide a pair of hammers and means to move the same with force into engagement with the upper end of a post.

A further object is to provide means for operating said hammers.

A further object is to provide means for raising and lowering the hammers.

A further object is to provide means for controlling the raising and lowering mechanism, and, a further object is to provide a truck upon which the driving mechanism is located.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the drawings forming a part of this specification, Figure 1 is a side elevation of my improved driving machine showing the same in operation and one of the hammers delivering a blow to a post, and, Fig. 2 is an end elevation thereof showing parts broken away.

In the drawings, 1 indicates a frame mounted on axles carrying wheels 2, whereby the same can be readily moved from place to place. Extending upwardly from one end of the frame are spaced uprights 3 provided with guideways 4 for the purpose later described. Mounted on one of the uprights 3 is a vertical shaft 5, on the upper end portion of which is slidably mounted a beveled gear 6, said gear 6 being feathered to permit vertical movement of the gear and at the same time cause the gear to rotate with the shaft. Secured to the lower end of the shaft 5 is a pinion 7, which meshes with the gear 8 carried by a shaft 9, which shaft also carries a sprocket wheel 10, over which passes a sprocket chain 11. The chain 11 also passes around a drive sprocket 12 mounted on the power shaft 13 of a suitable engine 14, which is mounted on the frame 1,

as clearly shown, and it will be seen that as the engine is rotated, the shaft 5 will be rotated through the medium of the gears, for the purpose later described.

Mounted within the guide-ways of the uprights 3 are slide blocks of a frame 15 carrying a horizontal shaft 16 provided with a beveled gear 17 meshing with the beveled gear 6, which is provided with a collar portion connected to the frame 15 by a strap 18, so that the gears will be held in mesh when the frame is moved up and down. The shaft 16 carries an elliptical member 19 provided with hammers 20, which are adapted to drive a post, as clearly shown in Fig. 1, when the shaft is rotated first one hammer and then the other coming into engagement with the top of the post. As the hammers are pivotally attached to the member 19, they will immediately rebound from the impact of the hammer with the post and as the member 19 is rotating the hammer delivering the blow, will readily pass by the post without again coming in engagement therewith.

In order to move the frame 15 up and down in the guideways, I provide a double rack member 21, which is pivotally connected at its upper end to the frame 15, and is provided with a longitudinal slot 22, in which is slidably mounted a roller carried by a link 23, which is pivotally connected to a lever 24 mounted upon the frame 1, and said lever is connected to a lever 25 by a rod 26, so that the double rack member can be swung for the purpose later described. The hand lever 25 carries a latch 27 adapted to engage a segmental rack 28 secured upon the frame 1 adjacent the lever 25, whereby the hand lever can be locked in its adjusted position.

Mounted in a suitable bearing 29 secured upon one of the uprights 3 is a shaft 30, which is provided with a pinion 31 at one end, adapted to mesh with the racks of the member 21, so as to raise and lower the frame, and it will be seen that by throwing said rack into engagement with the pinion, the same can be raised and lowered. Fixed on the other end of the shaft 30 is a sprocket wheel 32, over which passes a sprocket chain 33 carried by a sprocket 34 fixed on the drive shaft 13 of the engine, so that the shaft 30 will be rotated at the same time as the shaft 9 is rotated, whereby it is only necessary to throw one of the racks into

engagement with the pinion in order to raise and lower the frame 15.

In operating the rack member 21, when it is desired to lower the frame 15, the lever 25 is thrown to the position shown in Fig. 1 which will bring the rack teeth 35 into engagement with the pinion 31, thereby lowering the rack member 21 and the frame 15 at a speed in accordance with the speed at which the pinion 31 is driven. By means of the sprocket wheels 32 and 34 the speed of the pinion 31 is so regulated as to lower the frame 15 coincident to the downward movement of the post, thus maintaining the hammers at such position as to deliver the blow squarely on the end of the post. When it is desired to again elevate the frame 15, the lever 25 is thrown in the opposite direction from that shown in Fig. 1, which will swing the member 21 on its pivot and move the teeth 36 of the rack into engagement with the pinion 31, when the member 21 and the frame 15 attached thereto will be moved upwardly a proper distance. After the frame 15 has reached its upper limit, it is held in its elevated position by introducing a pin 55 through an opening 56 in one section of one of the uprights 3, the pin extending into the space between the sections of the upright and below the guide block of the frame, thus preventing the downward movement of the frame. The lever 25 is then moved so as to swing both sets of teeth out of engagement with the pinion 31 so that the rack member 21 will not be engaged by the pinion.

What I claim is:

1. A machine of the kind described, comprising a wheeled frame having uprights at one end, a frame slidably mounted in said uprights, a shaft carried by said frame, means for driving said shaft, hammers operated by said shaft, a double rack frame pivotally connected to the slidably mounted frame, a driven pinion adapted to mesh with the rack portions of said rack frame, and a lever for operating said rack frame.

2. In a machine of the kind described, the combination with a wheeled frame having an engine mounted thereon provided with a drive shaft, of a pair of uprights mounted on one end of said frame provided with guide-ways, a frame slidably mounted in said guide-ways, carrying a horizontal shaft provided with a beveled gear, a vertical shaft arranged along side of one of said uprights carrying a beveled gear meshing with said bevel gear, means for driving said vertical shaft from said engine, a double rack frame pivotally connected to the slidably mounted frame, a pinion adapted to engage the rack portions of said frame, means for driving said pinion from said engine, and means for shifting the position of said double rack frame in respect to the pinion.

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

MELVIN T. FITZGERALD.

Witnesses:

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J. H. GRASLIE.