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POWER-OPERATED FENCE POST DRIVER

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FIG. 1.

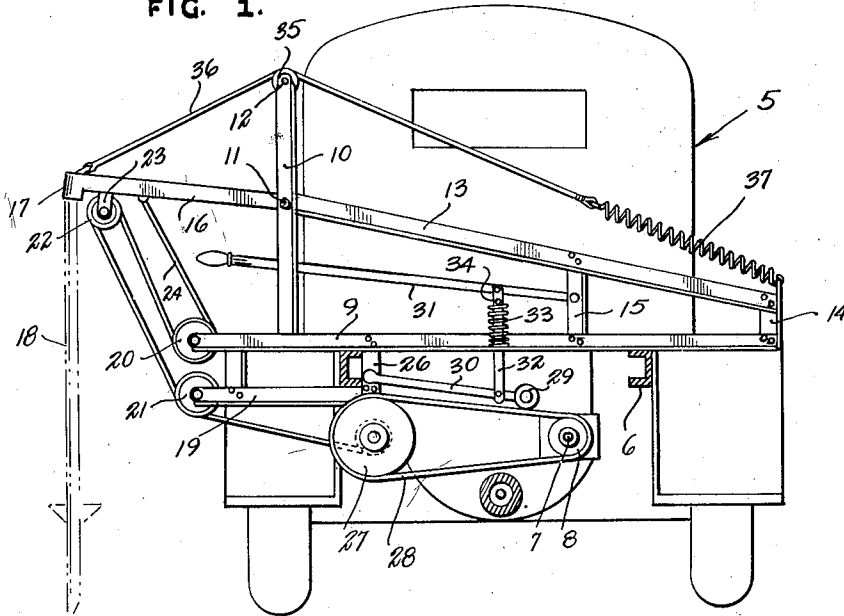
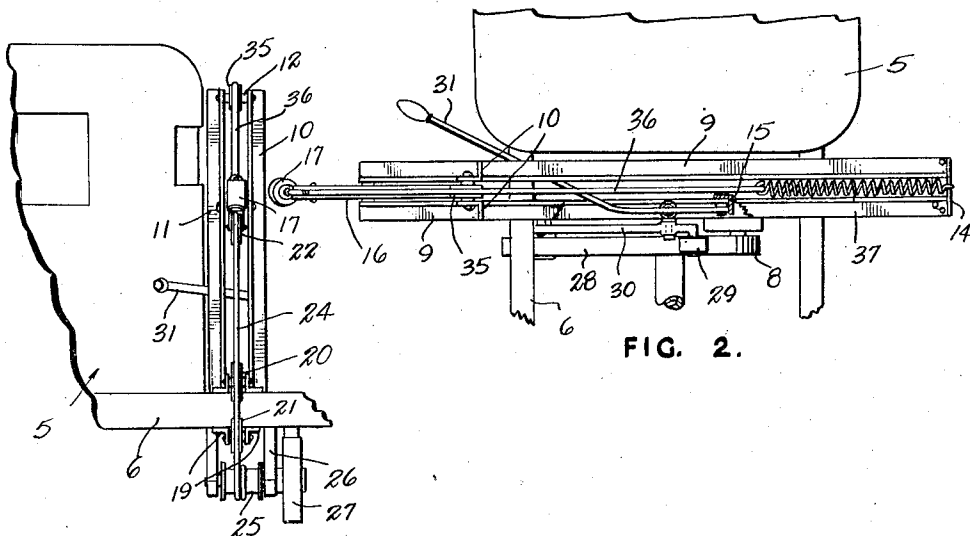


FIG. 2.

FIG. 3

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## UNITED STATES PATENT OFFICE

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## POWER-OPERATED FENCE POST DRIVER

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5 Claims. (Cl. 254—128)

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The present invention relates to new and useful improvements in apparatus for driving fence posts and the like, and more particularly to a power-operated apparatus of this character capable of being readily moved along a fence for driving the fence posts into the ground quickly, easily and effectively.

An important object of the present invention is to provide a fence post-driving apparatus adapted for mounting on a motor-driven vehicle equipped with a power take-off to utilize the power take-off as a source of energy for driving the posts.

More specifically, the invention embodies an arm pivoted on the vehicle and including a driving head adapted for engaging the upper end of the fence post to drive the post into the ground upon a lowering movement of the arm and providing a winch driven by the power take-off of the vehicle for winding the cable thereon and connecting the cable to the arm to exert downward pressure thereon for accomplishing the post-driving action.

It is also an object of the invention to provide spring means connected to the arm to raise the arm following completion of the post-driving action.

A still further object is to provide an apparatus of this character of simple and practical construction, which is strong and durable, efficient and reliable in operation and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a rear elevational view with parts broken away and shown in section.

Figure 2 is a top plan view.

Figure 3 is a side elevational view.

Referring now to the drawing in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates the motor-driven vehicle of conventional construction and which includes the channel iron frame members 6 and a power take-off shaft 7 to which a pulley 8 is secured.

A pair of channel iron frame members 9 are secured to the vehicle frame member 6 transversely of the vehicle and to which a pair of angle iron posts 10 are secured, the posts being secured

at their lower ends adjacent the outer ends of the frame members 9.

A pin 11 extends between the posts 10 intermediate their upper and lower ends and a pin 12 extends between the upper ends of the posts.

A pair of angle iron brace rods 13 extend rearwardly from the posts 10 in the region of the pin 11 and are connected to the rear ends of the frame members 9 by means of a bracket member 14. Vertical braces 15 also extend between the frame members 9 and the brace rods 13.

A post-driving arm 16 is pivoted at its inner end to the pin 11 and projects laterally outwardly at one side of the vehicle 5 and is formed at its outer end with a downwardly extending cup-like socket 17 in which the upper end of a fence post 18 is received.

A pair of angle iron frame members 19 are also secured at their inner ends to one of the vehicle frame members 6 and extend horizontally in spaced parallel relation below the frame members 9.

An upper pulley 20 is journaled on the ends of the frame 9 beneath the arm 16 and a lower pulley 21 is journaled on the ends of the frame members 19 below the pulley 20. A pulley 22 is also journaled in a hanger 23 below the arm 16 adjacent the outer end of the arm.

A cable 24 has one end attached to the under side of the arm 16 and extends downwardly under the pulley 20 and thence upwardly over the pulley 22 and downwardly around the pulley 21 for winding on a winch or drum 25 journaled on a hanger 26 extending downwardly from the frame members 9 and inner ends of the frame members 19. To one end of the drum 25 is secured a pulley 27 driven from the pulley 8 by a belt 28.

A belt tightener pulley 29 is journaled at one end of an arm 30 pivoted on the hanger bracket 26 for riding on the upper flight of the belt 28, the arm 30 being connected to a lever 31 by means of a link 32. The lever is pivoted to the vertical brace 15 and is urged in an upward position to release the belt tightener from the belt by a coil spring 33 mounted on the link 32 with its lower end resting on one of the frame members 9 and its upper end engaging a pin 34 carried by the link.

A pulley 35 is journaled on the pin 12 at the top of the post 10 and over which a cable 36 is trained with one end of the cable attached to the outer end of the arm 16 and the other end of the cable 36 attached to the bracket 14 by means of a coil spring 37.

In the operation of the device, when the lever 31

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is moved downwardly to tighten the belt 28 by the belt tightener pulley 29, the drum 25 will be rotated to wind the cable 24 thereon whereby to hold the arm 16 downwardly and force the post 18 into the ground. When the driving of the post is completed, the belt tightener is released and the arm 16 is then raised by the cable 36 and spring 37 to unwind the cable 24 from the drum 25 and the arm is then ready to repeat its driving operation.

It is believed that the details of construction, manner of use and advantages of the device will be readily understood from the foregoing without further detailed explanation.

It is to be understood, however, that even though I have herein shown and described a preferred embodiment of my invention, the same is susceptible of certain changes fully comprehended by the spirit of the invention as herein described, and the scope of the appended claims.

Having thus described the invention, what is claimed is:

1. A post-driving apparatus comprising a support adapted for mounting on a power-operated vehicle having a power take-off, said support including a post, an arm pivotally mounted on said post, one end of the arm engaging a post to be driven in the ground, a winch operatively connected to the power take-off of the vehicle, and a cable connecting the arm to the winch for winding thereon to move the arm downwardly.

2. A post-driving apparatus comprising a support adapted for mounting on a power-operated vehicle having a power take-off, said support including a post, an arm pivotally mounted on said post, one end of the arm engaging a post to be driven in the ground, a winch operatively connected to the power take-off of the vehicle, and a cable connecting the arm to the winch for winding thereon to move the arm downwardly, and spring means attached to the arm for raising said arm.

3. A post-driving apparatus for motor-driven vehicles having a power take-off, said apparatus comprising a frame mounted transversely of said vehicle, a post rising from the frame adjacent one side of the vehicle, an arm pivoted at one end to the post and projecting outwardly at said one side of the vehicle for engaging a post to be driven into the ground, a drum rotatably supported by the frame, drive means between the drum and the power take-off and normally inactive, manual control means for placing the drum in driving engagement with the power take-off, a cable connecting the arm to the drum for winding the

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cable on the drum to lower the arm, a pulley journaled on top of the post, and a spring-biased cable extending over the pulley and connecting the arm to a part of the frame to return the arm to its raised position.

4. A power-operated post-driving apparatus for mounting on a motor vehicle having a shaft driven from said motor and a pulley secured to said shaft providing a power take-off, comprising a support structure adapted to be secured to said vehicle, an arm providing a lever pivotally mounted on said supporting structure, said arm having an end projecting from said vehicle for engaging a post to be driven in the ground, driving means between said pulley and said arm for moving said end thereof downwardly to force a post into the ground, means for operatively connecting and disconnecting said driving means from said pulley, and spring means for elevating said end of said arm upon the disconnection of said driving means from said pulley.

5. A power-operated post-driving apparatus for mounting on a motor-driven vehicle having a shaft driven from said motor and a power pulley secured to said shaft providing a power take-off, comprising a support structure adapted to be secured to said vehicle, an arm providing a lever pivotally mounted on said supporting structure, said arm having an end projecting from said vehicle for engaging a post to be driven into the ground, a driven pulley, a belt for driving said driven pulley from said power pulley, a cable drum mounted for rotation with said driven pulley, a cable connected to said drum for winding thereon and connected to said arm to move the same downwardly for forcing a post into the ground, means for tightening and loosening said belt for operatively connecting and disconnecting said driven pulley from said power pulley, and spring means for elevating said end of said arm upon the loosening of said belt.

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#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

| Number    | Name     | Date          |
|-----------|----------|---------------|
| 363,706   | Welsh    | May 24, 1887  |
| 1,251,667 | Hunter   | Jan. 1, 1918  |
| 2,244,899 | Smith    | June 10, 1941 |
| 2,316,747 | Stephens | Apr. 13, 1943 |
| 2,402,393 | Griffith | June 18, 1946 |