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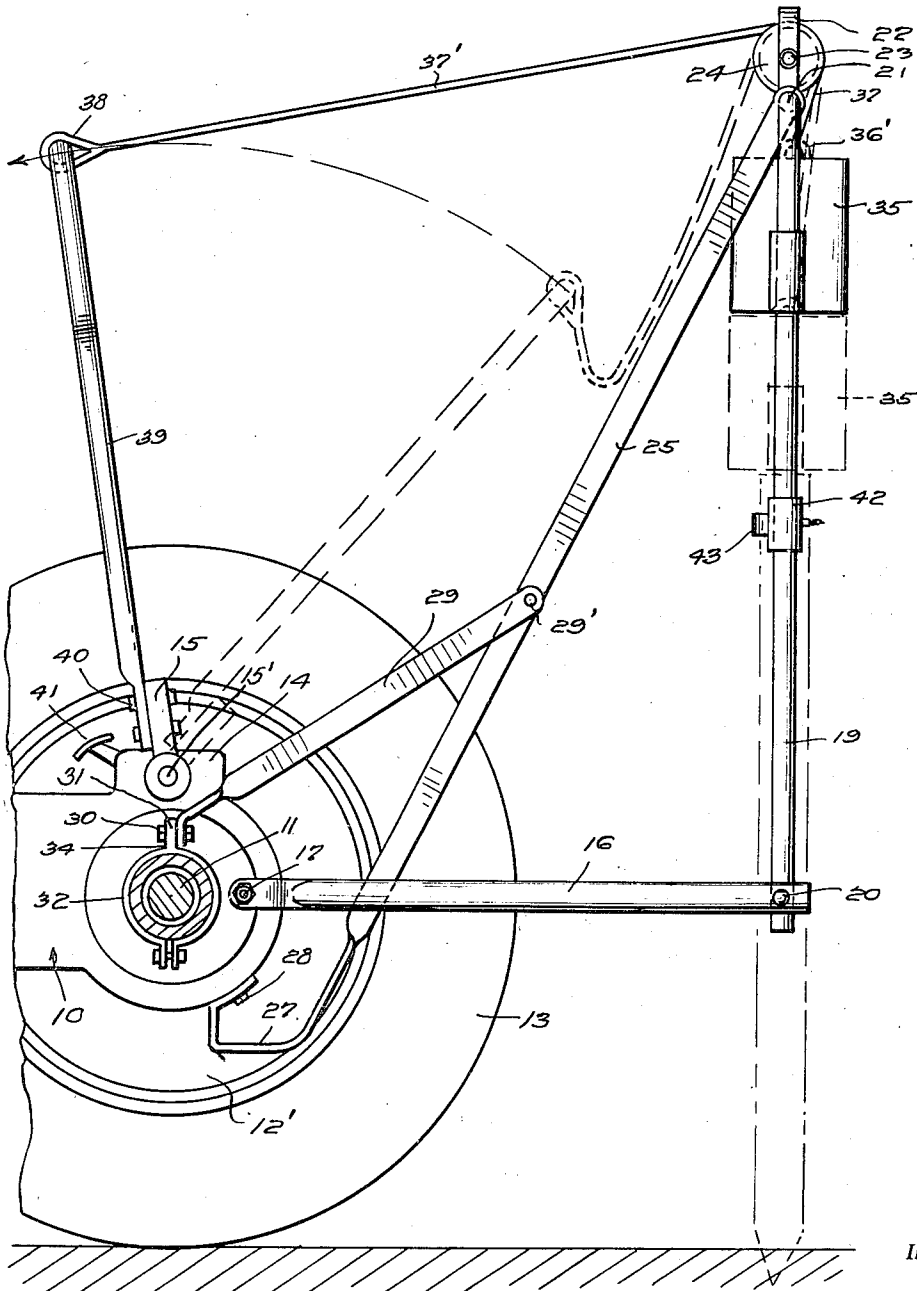
G. E. CUTRER

2,392,027

ATTACHMENT FOR TRACTORS

Filed April 13, 1945

3 Sheets-Sheet 2



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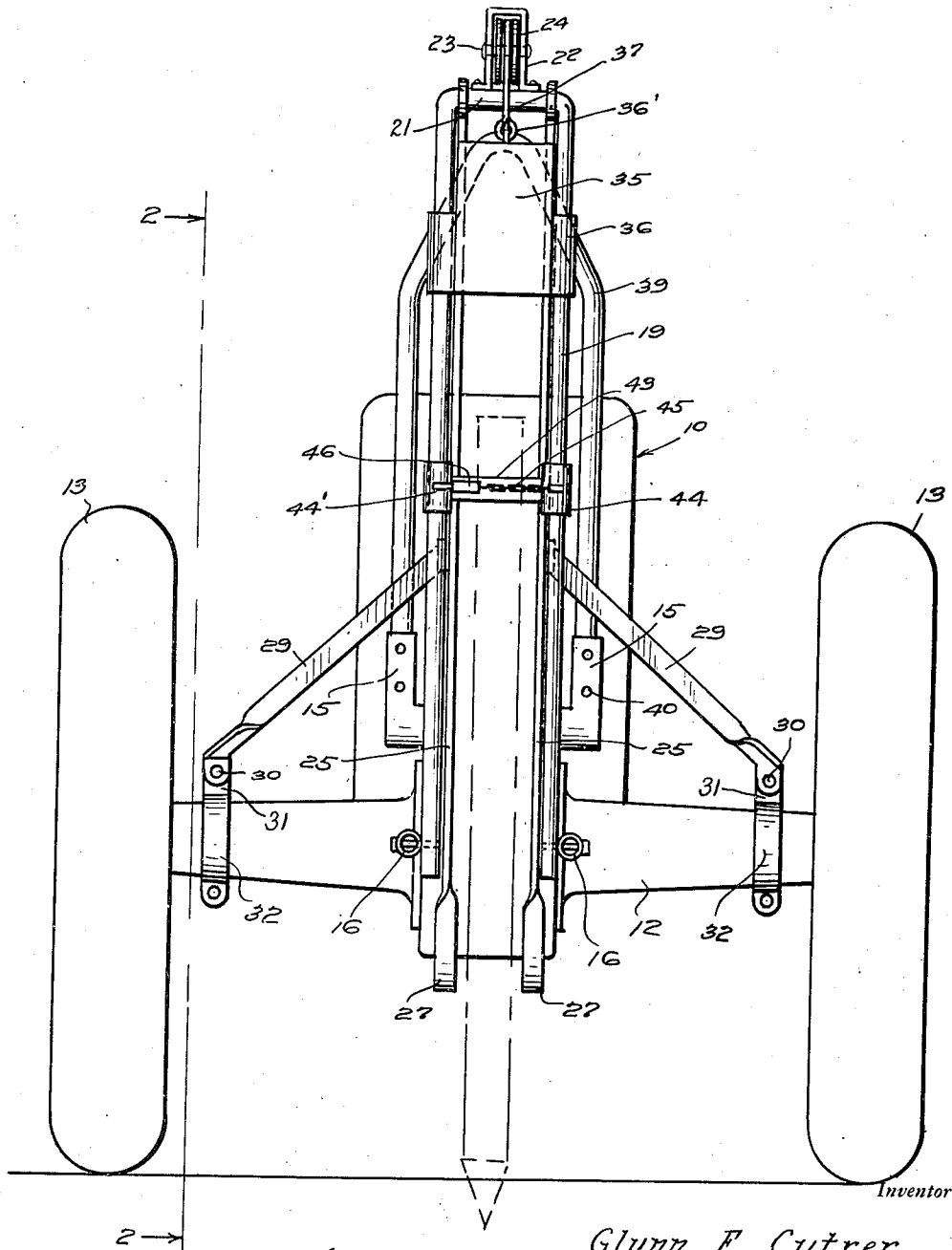
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3 Sheets-Sheet 1



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3 Sheets-Sheet 3

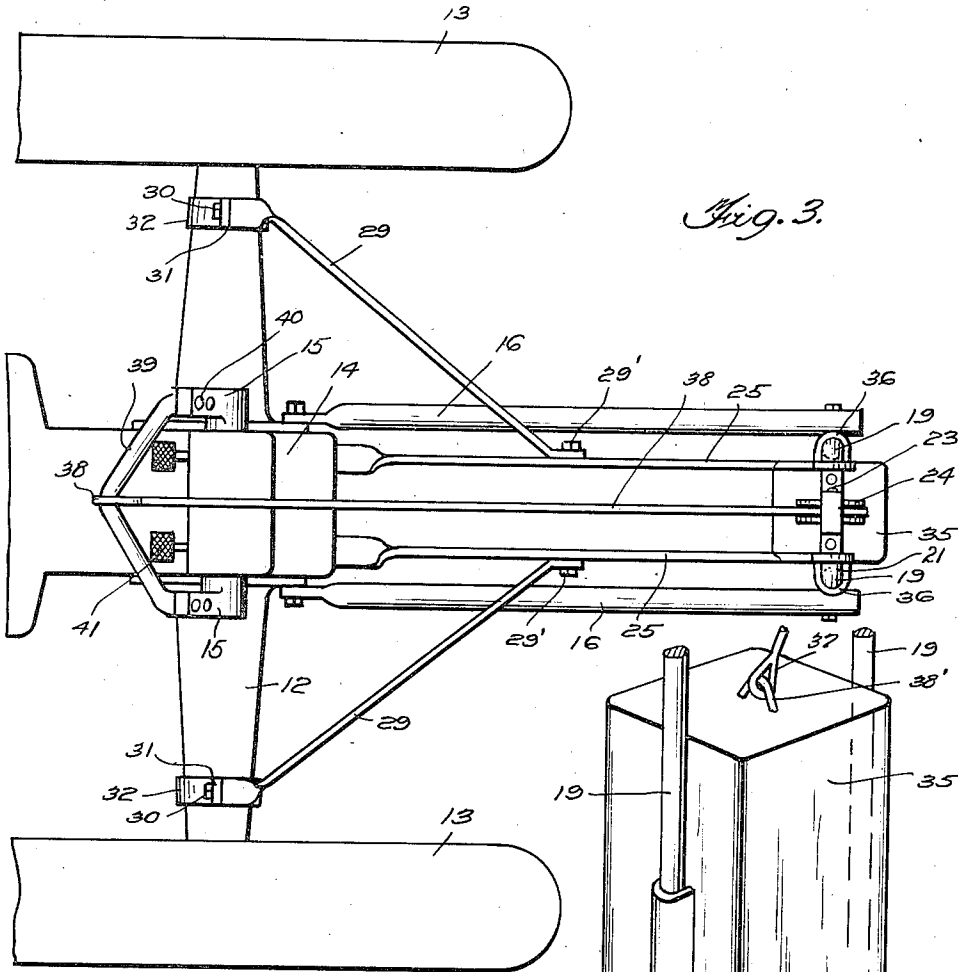


Fig. 3.

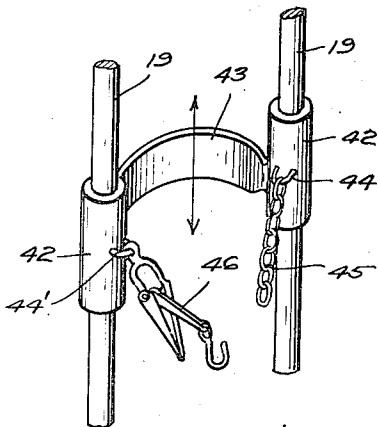


Fig. 4.

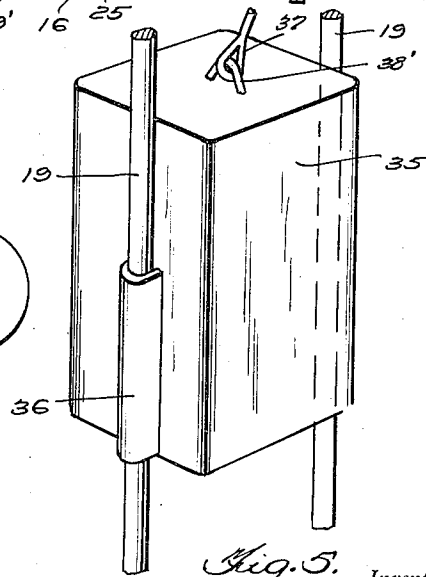


Fig. 5.

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UNITED STATES PATENT OFFICE

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ATTACHMENT FOR TRACTORS

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Application April 13, 1945, Serial No. 588,226

4 Claims. (Cl. 61-74)

This invention relates to an attachment for tractors, and more particularly to such an attachment adapted for the driving of posts, piles or the like.

A primary object of this invention is the provision of an improved attachment for tractors adapted to be utilized as a post or pile driver, and adapted to reduce to a minimum the time and effort required to set such articles, as for example, fence posts or the like.

An additional object of the invention is the provision of such a device which may be readily attached to any tractor embodying a power lift and operated thereby with a minimum of difficulty and power loss.

Another object of the invention is the provision of such a device provided with improved guide means, whereby the post or pile may be readily aligned under the driving block and readily positioned for driving the same.

A still further object of the invention resides in the provision of such a device which may be simply and economically attached to any existing tractor provided with a power lift operated thereby.

Further objects reside in the provision of such a device which will be sturdy and durable in construction, reliable and efficient in operation, and adapted to be constructed of a comparative minimum of operating parts.

Other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and disclosed in the accompanying drawings, wherein there is shown a preferred embodiment of this inventive concept.

In the drawings:

Figure 1 is a rear elevational view of one form of device embodying this inventive concept, shown in association with a tractor.

Figure 2 is a sectional view taken substantially along the line 2-2 of Figure 1 as viewed in the direction indicated by the arrows.

Figure 3 is a top plan view of the device shown in Figures 1 and 2.

Figure 4 is a fragmentary perspective view of a constructional detail.

Figure 5 is a fragmentary perspective view of the driving block comprising a portion of the mechanism and its associated guide means.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Having reference now to the drawings, there is generally indicated at 10 a fragment of a con-

ventional tractor including a rear axle 11 and rear driving wheels 12 provided with tires 13. The tractor is provided with a conventional power lifting device 14 including lift arms 15, attached to a shaft 15', and so arranged that rotation of the shaft will impart oscillatory motion to arms 15.

The attachment of the instant invention comprises a pair of horizontally extending arms 16 secured, as by bolts 17, to the tractor frame 10. The arms 16 terminate in guide rods 19 secured at their extremities, as by means of rivets 20, which guide rods extend upwardly vertically and terminate in inwardly turned portions 21 forming a journal 22 within which is rotatably mounted, as on an axle 23, a pulley 24. Angularly disposed reinforcing members 25 are fixedly secured to the upper extremities of the guide rods 19 and extend to form looped, relatively resilient portions 27, the extremities of which are secured, as by bolts 28, to the tractor frame. Auxiliary reinforcing members 29 are secured, as by bolts 30, to flanges 31 of rings 32 adapted to surround the axle 12 at spaced points adjacent the extremity thereof, and extend to intermediate portions of members 25 to which they are secured, as by rivets 29'.

A driving block 35 is provided with channel members 36 adapted to surround the guide rods 19 for vertical reciprocatory movement. The upper surface of the driving block 35 has embedded therein a loop 37 to which is adapted to be secured an eye 36 at the extremity of a lift cable 37' which extends over the pulley 24 and is looped, as at 38, about a U-shaped extension 39 secured, as by bolts 40, to the power lift arms 15. Suitable operating pedals 41 are provided for operating the power lift.

As best shown in Figure 4, guide means for the post to be driven are also provided and take the form of collars 42 slidable on the guide rods 19 and secured together, as by means of an arcuate flange 43. Suitable eyes 44 and 44' on the collars 42 support respectively a chain 45 and a clasp 46 adapted to surround the post to be driven and hold the same securely in position for driving.

From the foregoing the operation of the device should now be readily understandable. When it is desired to drive posts, as for example for a new fence, the tractor is simply run down the fence line and when the desired position for driving a post is reached, the post is placed between the guides 19 and secured in position, as by the chain 45 and the clasp 46, and the power

lifting device energized through the operation of one of the pedals 41 to move the extending arm 39 to the position disclosed in full lines in Figure 2. This movement through the cable 37' raises the driving block 35 to its uppermost position. When the power lift is released, the block, which in the preferred embodiment of the invention may weigh approximately 250 pounds, is released and falls striking the top of the post. The preferred height of the vertical guide members 19 may be in the neighborhood of ten to twelve feet, and accordingly, it will be readily understood that a relatively heavy impact is delivered to the post to drive the same. Under normal operating conditions, and dependent upon the condition of the soil into which the post is driven, it has been found that half a dozen repeated strokes are usually sufficient to drive a post to a sufficient depth to securely hold a fence. The tractor is then driven to the next post site and the operation is repeated.

Obviously, when it is desired to replace posts in an existing fence, the tractor may be readily backed up to any desired position, and the post driven in the manner previously described.

From the foregoing, it will now be seen that there is herein provided a device accomplishing all the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. In an attachment for a tractor having a power lift including an oscillatory arm, a supporting frame including horizontal supporting members and diagonally extending supports, each secured at one end of the tractor, guide rods extending vertically between the free ends of said horizontal and said diagonal supports, a driving block mounted for movement on said guide rods, a cable secured to said block, a pulley at the upper extremity of said guide rods over which said cable passes, and an extending member secured to said oscillating arm, the other end of said cable being secured to said arm.

2. In an attachment for a tractor having a power lift including an oscillatory arm, a sup-

porting frame including horizontal supporting members and diagonally extending supports, each secured at one end of the tractor, guide rods extending vertically between the free ends of said horizontal and said diagonal supports, a driving block mounted for movement on said guide rods, a cable secured to said block, a pulley at the upper extremity of said guide rods over which said cable passes, an extending member secured to said oscillating arm, the other end of said cable being secured to said arm, and post-guiding means between said guide rods.

3. In an attachment for a tractor having a power lift including an oscillatory arm, a supporting frame including horizontal supporting members and diagonally extending supports, each secured at one end of the tractor, guide rods extending vertically between the free ends of said horizontal and said diagonal supports, a driving block mounted for movement on said guide rods, a cable secured to said block, a pulley at the upper extremity of said guide rods over which said cable passes, an extending member secured to said oscillating arm, the other end of said cable being secured to said arm, and post-guiding means between said guide rods, said means including collars slidably surrounding said guide rods, an arcuate member extending between said collars, and releasable means securing said post against said arcuate member.

4. In an attachment for a tractor having a power lift including an oscillatory arm, a supporting frame including horizontal supporting members and diagonally extending supports, each secured at one end of the tractor, guide rods extending vertically between the free ends of said horizontal and said diagonal supports, a driving block mounted for movement on said guide rods, a cable secured to said block, a pulley at the upper extremity of said guide rods over which said cable passes, an extending member secured to said oscillating arm, the other end of said cable being secured to said arm, and post-guiding means between said guide rods, said means including collars slidably surrounding said guide rods, an arcuate member extending between said collars, and releasable means securing said post against said arcuate member, said last-mentioned means including a chain secured to one of said collars and a clasp secured to the other of said collars.

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