No. 886,376. PATENTED MAY 5, 1908.

V. LANDHOLM.

FENCE MAKING DEVICE.

APPLICATION FILED APR. 1, 1907.

3 SHEETS—SHEET 1.

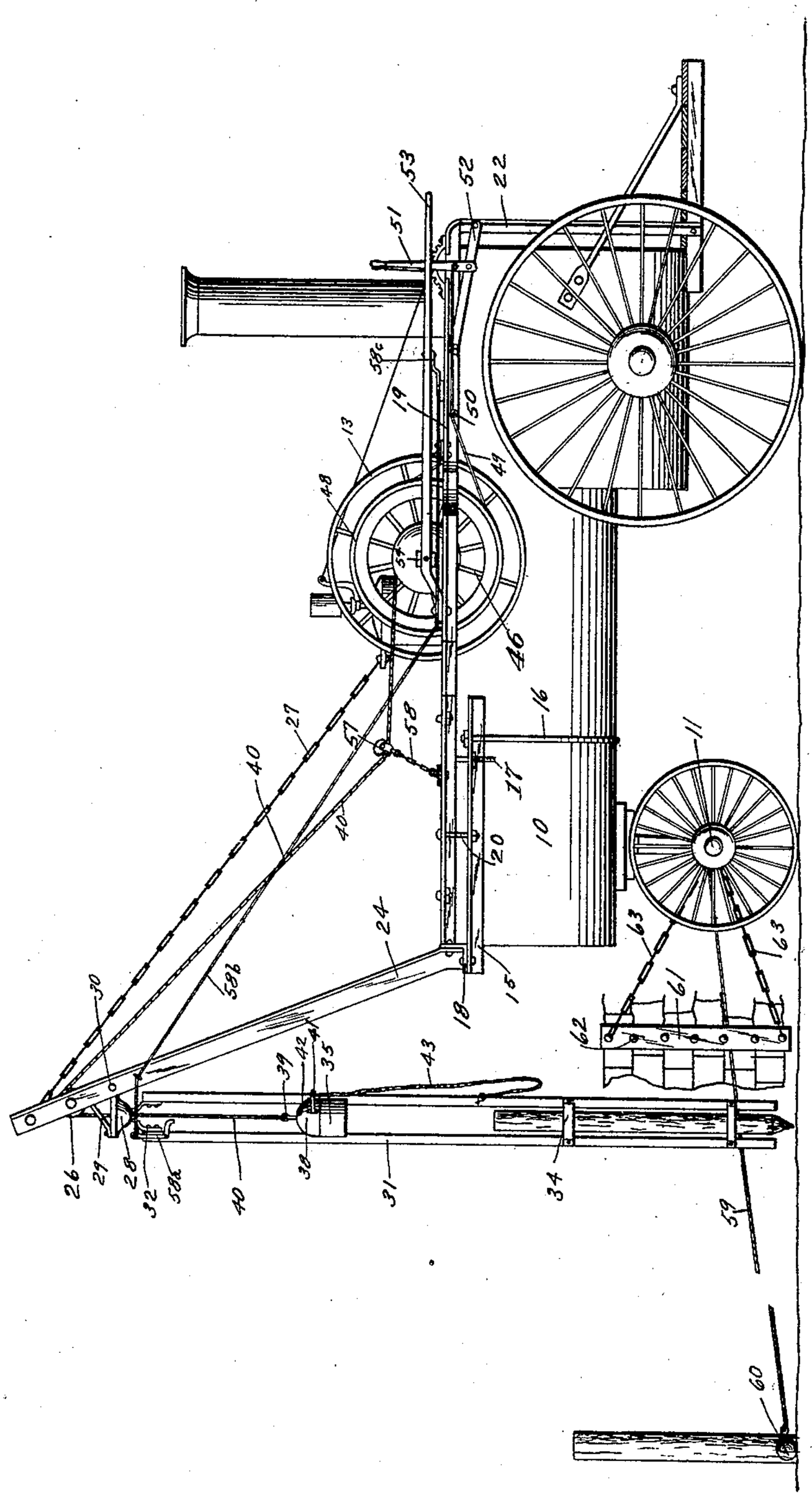

Fig. 1

Witnesses.
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3 SHEETS—SHEET 2.

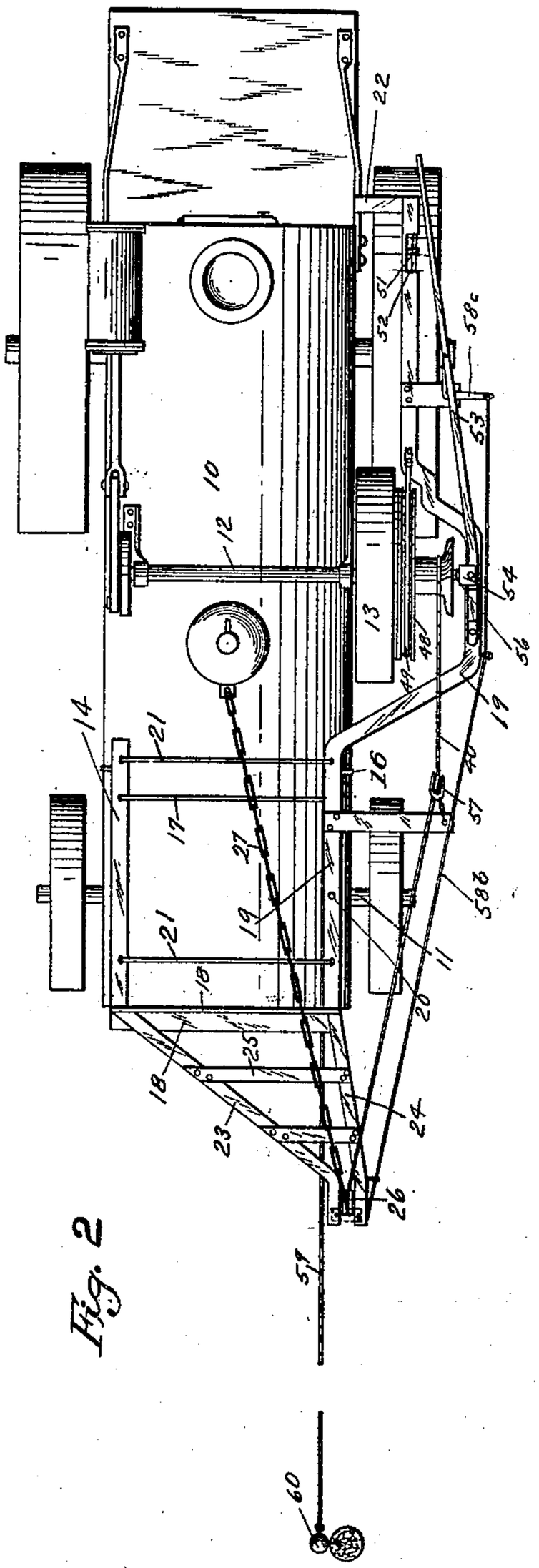

Fig. 2

Witnesses.
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3 SHEETS—SHEET 3.

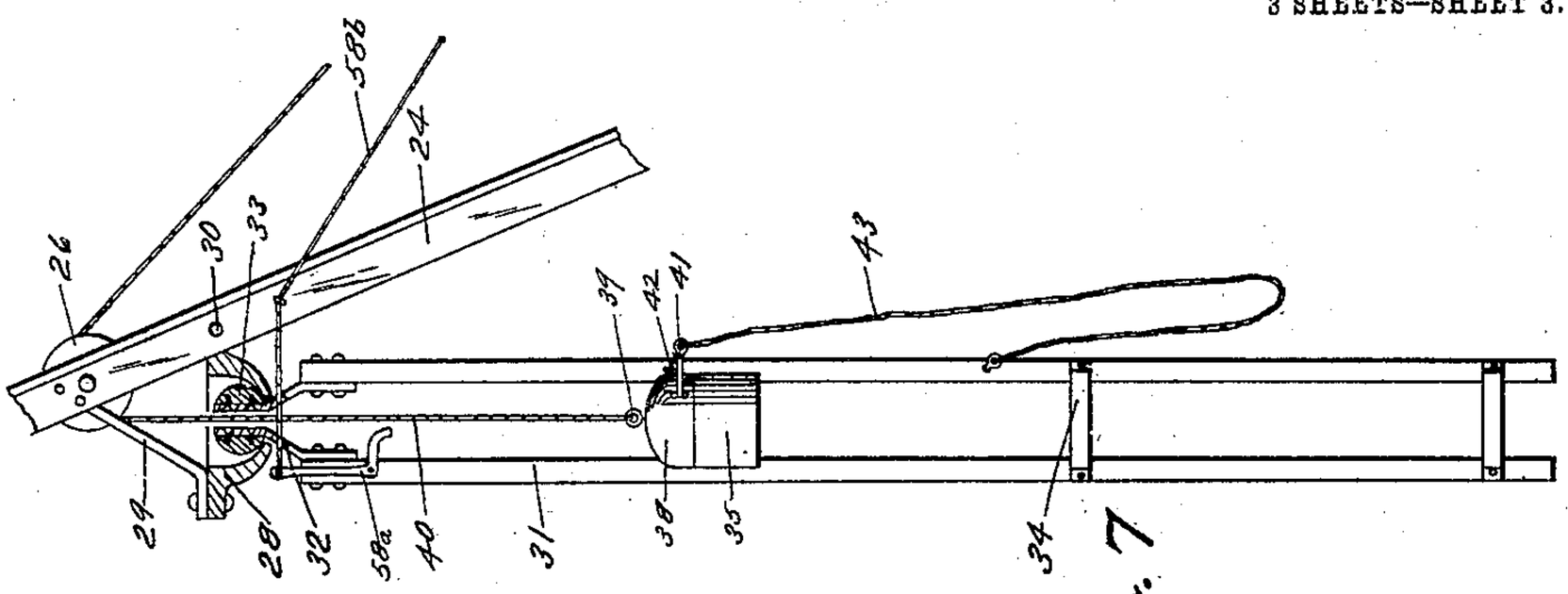

Fig. 7

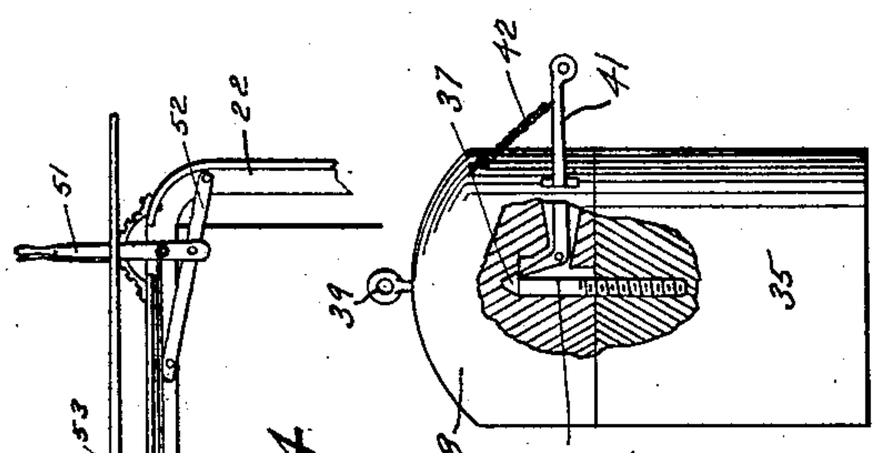

Fig. 4

Fig. 5

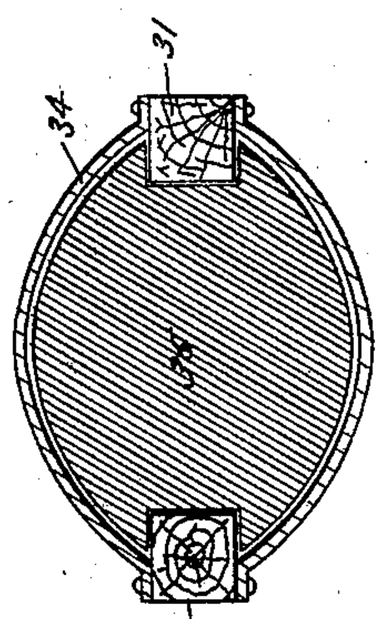

Fig. 6

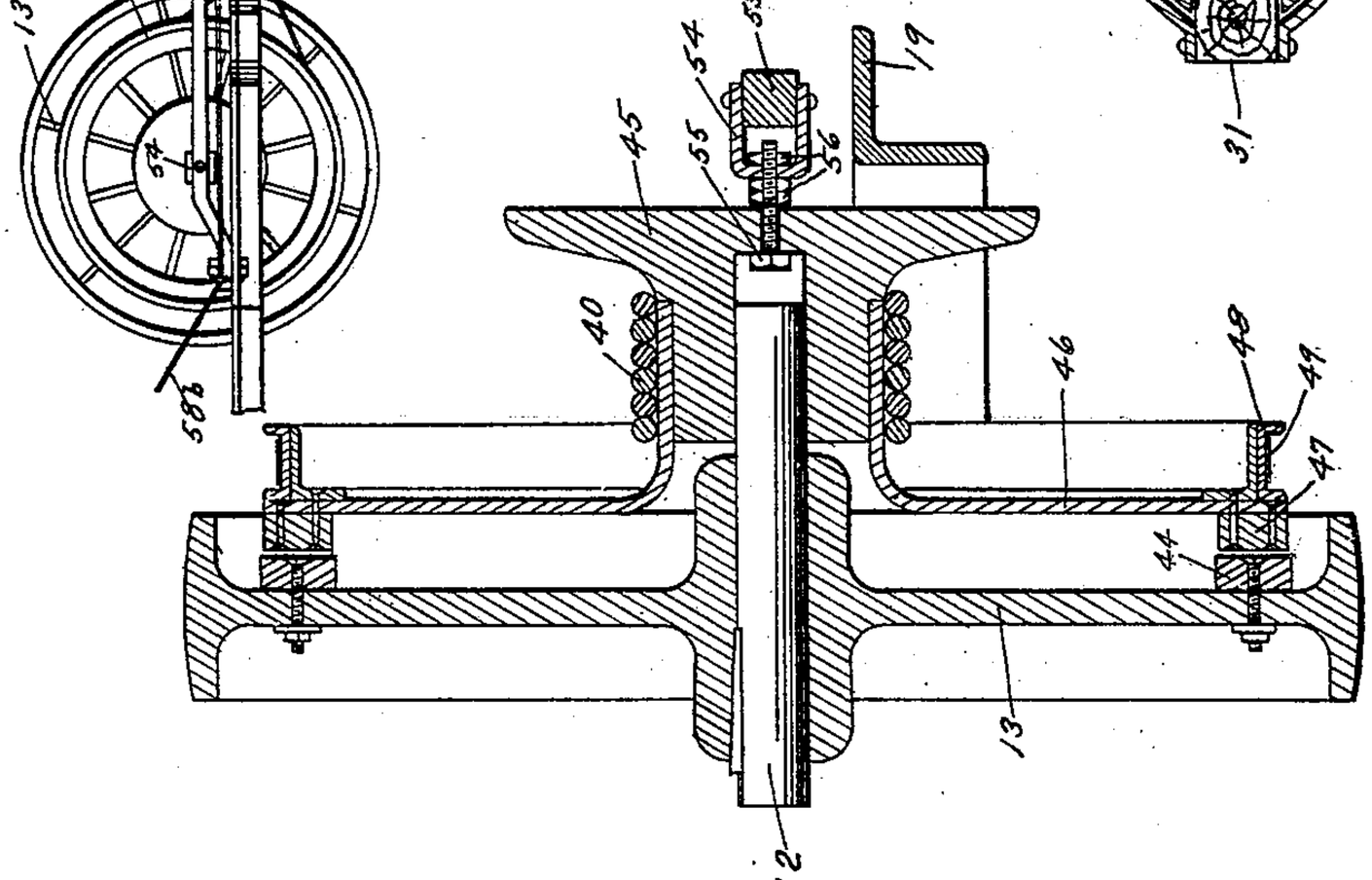

Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

VICTOR LANDHOLM, OF WESTPOINT, NEBRASKA.

FENCE-MAKING DEVICE.

No. 886,376. Specification of Letters Patent. Patented May 5, 1908.

Application filed April 1, 1907. Serial No. 365,817.

To all whom it may concern:

Be it known that I, VICTOR LANDHOLM, a citizen of the United States, residing at Westpoint, in the county of Cuming and State of Nebraska, have invented a certain new and useful Fence-Making Attachment for Traction-Engines, of which the following is a specification.

The object of my invention is to provide a simple, durable and inexpensive device that may be quickly and easily attached to or detached from an ordinary traction engine whereby the power from the traction engine may be utilized in driving fence posts and in stretching and holding fence wire so that it may be attached to the posts after they are driven.

My invention consists in the construction, arrangement and combination of the various parts of the attachment, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 shows a side elevation of the complete device embodying my invention and applied to a traction engine. Fig. 2 shows a top or plan view of same. Fig. 3 shows an enlarged, detail, sectional view through the engine fly-wheel and the cable winding drum adjacent thereto. Fig. 4 shows a side view of part of the frame to be attached to a traction engine and the fly-wheel and winding drum and the band brake and the levers for controlling the winding drum and band brake. Fig. 5 shows an enlarged detail view partly in section of the post driving weight and a trip device therefor. Fig. 6 shows an enlarged, sectional view through the post driving weight and its supporting guides, and Fig. 7 shows an enlarged detail view partly in section of the post driving weight, the guides therefor, and the means for supporting the said guides.

Referring to the accompanying drawings, I have used the reference numeral 10 to indicate the body of the traction engine, 11 the front axle, 12 the fly-wheel shaft and 13 the fly-wheel. All of these parts are of the kind ordinarily used on traction engines and they of themselves form no part of my present invention. Mounted upon the sides of the traction engine body near its forward end and above its horizontal center are two longitudinal frame members 14 and 15 connected by a bolt 16 passing under the traction engine body and by a bolt 17 passing over the traction engine body. At the end of the traction engine body is a cross piece 18 connecting the frame members 14 and 15. Above the frame member 15 is a frame member 19 connected with the frame member 15 by the bolt 20 and also connected with the frame member 14 by the bolts 21. This frame member 19 extends rearwardly to the rear of the engine body and then downwardly at 22 to the rear platform of the engine to which it is attached, the said frame member 19 being inclined outwardly at its central portion to passing around and outside of the fly-wheel.

Mounted upon the cross piece 18 is a supporting arm composed of the upright members 23 and 24 and the cross pieces 25. Between the upper ends of the uprights 23 and 24, I have mounted a pulley 26 to support the post driving weight, as will hereinafter appear. The said uprights 23 and 24 are inclined laterally, as shown in Fig. 2, so that the pulley is substantially in line with the inner edge of the traction wheel of the traction engine on the left side thereof. The uprights 23 and 24 are supported against forward tilting movements by means of a chain 27 attached to the upper ends thereof and extended rearwardly and downwardly and attached to a part of the engine body. It is obvious that this frame may be quickly and easily attached to any of the traction engines and when attached will serve as a sufficient support for the post driving weight and other machinery, hereinafter described.

Supported by the supporting arms 23 and 24 is a cup-shaped bracket 28 by the brace arm 29 and the bolt 30. There is an opening in the bottom of the bracket. The post driving weight is guided by two parallel guides 31, each having at its top an arm 32 to which a hemispherical block 33 is attached. This block stands within the cup-shaped bracket 28 and permits a universal movement of the guides 31 relative to the cup-shaped bracket. The guide arms are held in proper position relative to each other by means of the braces 34. The weight is indicated by the numeral 35 and is provided with

grooves at its sides to receive the guides 31, as clearly shown in Fig. 6. Projecting from the top of the weight is a bolt 36 having a shoulder 37 at its top. Above the weight is a clutch block 38 having a loop 39 at its top to which the operating rope 40 is attached. It is also provided with a recess to receive the bolt 36.

Mounted in the block 38 is a lever 41 pivoted within the block and having one end projecting outwardly beyond the block. One end of the lever is designed to engage the shoulder 37 of the bolt 36 and thus hold the parts together. A spring 42 is provided for normally holding the lever in position in engagement with the shoulder 37. A trip rope 43 is attached to the lever 41 and to the upright 31 and when the trip rope is pulled downwardly, the lever is released from the shoulder 37 and the weight 35 permitted to drop.

I have provided for raising and lowering the weight elevating rope 40 by power from the engine as follows: Mounted upon the spokes of the fly-wheel 13 is a friction rim 44. Slidingly mounted upon the shaft 12 of the fly-wheel is a drum 45 having arms 46 projecting laterally from it and supporting a friction rim 47 in position to engage the friction rim 44. These arms 46 also support a flange 48 around which is passed a band brake 49. This band brake has one end attached to the top of the frame member 19, as clearly shown in Fig. 1, and the band is passed upwardly over the rim 48 and then around the rim and over a pulley 50 on the under surface of the frame member 19 and its other end is attached to a lever 51 which is fulcrumed to a bracket 52 carried by the frame. I provide means for moving the friction rim 47 into or out of engagement with the friction rim 44 as follows: Fulcrumed to the top of the frame member 19 is a lever 53 having a yoke 54 connected with it, which yoke is attached by means of a bolt 55 to the drum 45. Lock nuts 56 are provided on said bolt for securing it to the yoke 54. The rear end of the lever 53 projects to position accessible from the platform at the rear of the engine. The weight operating rope 40 is fixed to and wound upon the drum 45 and it is passed under a direction pulley 57 attached to a chain 58 which is connected to the frame member 19. By this construction, the operator may by loosening the band brake and by holding the friction rim 47 into engagement with the friction rim 44, by means of the lever 53, quickly cause the rope 54 to be wound up and the weight elevated. Then the friction rim 47 is withdrawn from engagement with the friction rim on the fly-wheel and the band brake 49 tightened upon its flange 48, thus holding its weight in an elevated position. When it is desired to drive a post into the ground, the operator trips the weight by means of the rope 43, then he permits the weight block 38 to descend. This is done by releasing the band brake. The latch lever 41 will automatically engage the bolt of the weight and when this is done the weight may be again elevated in the manner described. I have provided for automatically stopping the winding up movement of the drum 45 when the weight has reached its upper limit of movement. This means comprises a bell crank lever 58^a, fulcrumed to one of the guides 31, and having one end projecting from the path in which the weight moves. The other end projects outwardly, and is attached to a rope 58^b. This rope extending to the bell crank lever 58^c, which is fulcrumed to the frame 19, and which is pivoted to the lever 53. The parts are so arranged that when the weight supporting block 38 strikes the lever 58^a, it will pull upon the rope 58^b in such manner as to throw the rear end of the lever 53 outwardly from the engine to thereby withdraw the friction rim 47 from engagement with the friction rim 44 on the fly-wheel, thus at once stopping the winding up movement of the drum 45. Previous to this operation, the weight 35 will have been dropped, either automatically by the rope 43, or by hand, and then the weight of the block 38 will be sufficient to permit the rope 40 to unwind and allow the block 38 to descend until it is again connected with the weight 35. Then the operator moves the lever 58 inwardly to throw the friction rims 47 and 44 into engagement whereby the weight will be again elevated.

For accurately measuring the distance between the posts, I have attached to the forward axle of the traction engine a rope 59 to which a marker weight 60 is attached. The length of this rope is such that when the said marker 60 is adjacent to the post previously driven the weight guides 31 will hang directly over the point where the next post is to be driven.

I have also provided means for stretching wire and holding it in position adjacent to the post last driven as follows: The numeral 61 indicates an upright bar having bolts 62 for connecting it to a woven wire fence or to the longitudinal strands of a wire fence. This bar 61 is connected by means of the chains 63 with the axle 11 of the traction engine.

In practical use and assuming that my improved attachment is connected to a traction engine in the manner shown and described, the fence making materials including the posts may be placed in a wagon and drawn by the traction engine in the ordinary way. The first post to be driven is placed between the weight guides 31 and held

therein by the braces 34, as shown in Fig. 1. The weight is elevated and permitted to drop in the manner before described, and thus drive the post into the ground. If there is any tendency for the post to incline in any direction, this may be corrected by moving the guides 31 to an upright position, which may easily be done on account of the universal movement permitted by their supporting devices. After the post is driven, the wire is secured to it and the bar 61 clamped to the wire. Then the engine is advanced and when the marker weight 30 stands adjacent to the post just driven, another post is placed between the guides 31 and driven in the same way. Then the engine is advanced still further until the wire is tightly stretched past the last post. The wire may then be secured to the last post and the above described operation repeated. By means of my improved attachment, a wire fence may be constructed quickly and with a slight amount of labor on the part of the operators. By having the weight supporting guides arranged at one side of the engine, the operator on the engine platform may easily place the engine in position where the fence posts will be driven in a perfectly straight line as he may when standing on the platform readily move the engine to position where the guides 31 will be directly in line with the post previously driven.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, therefor is—

1. In a device of the class described, the combination of a frame designed for detachable connection with a traction engine, an arm supported by said frame, guides carried by said arm and capable of swinging movement relative thereto, a weight slidingly supported by the said guides and means to be operated by the traction engine for raising said weight.

2. In a device of the class described, the combination of a frame designed to be detachably connected with a traction engine, an arm carried by said frame and extended upwardly and laterally to a point substantially in line with one of the traction wheels of the traction engine, guides pivotally supported by said arm and capable of swinging movement with relation thereto, a weight slidingly mounted in said guides and a winding device operated by the traction engine for raising said weight.

3. In a device of the class described, the combination of a frame to be attached to a traction engine, an arm projecting upwardly from said frame, a bracket carried by said arm, a weight guide mounted in said bracket and capable of universal movement with relation thereto, a weight between said guides mounted in the guide and means for elevating the weight.

4. In a device of the class described, the combination of a frame to be attached to a traction engine, an arm supported by the said frame and extended upwardly, a pulley carried by said arm, a cup-shaped bracket fixed to the arm, two connected guide bars spaced apart and each having a hemispherical block thereon within the cup-shaped bracket to support the guide bars and permit their universal movement relative to the bracket, a weight slidingly mounted between the guide bars and a rope fixed to the weight passed upwardly through the cup-shaped bracket and over said pulley and means for winding up said rope.

5. In a device of the class described, the combination of a traction engine having a fly-wheel thereon, a post driving weight, a rope for elevating it, a friction rim upon the fly-wheel, a winding drum carrying a friction rim and mounted adjacent to the fly-wheel, means for moving said friction rims into or out of engagement with each other, a flange carried by the winding drum, a band brake passed around said flange, said drum having the weight elevating rope wound upon it and a lever for controlling the movement of the drum toward the fly-wheel and a lever for controlling the band brake.

6. In a device of the class described, the combination of a traction engine having a fly-wheel, a post driving weight, a rope for elevating the weight, a drum having said rope wound thereon and slidingly mounted adjacent to the fly-wheel, arms on said drum extended laterally, a friction rim carried by said fly-wheel, a coacting friction rim carried by said arms, a band brake rim also carried by said arms, a band brake passed around said rim, a lever for controlling it and a lever for moving the drum toward or from the fly-wheel.

7. In a device of the class described, the combination of a traction engine, a post driving device carried by the traction engine and a marker fixed to the traction engine and comprising a rope having a weight thereon.

8. In a device of the class described, the combination of a pair of guide bars, a weight slidingly mounted between the guide bars, a bolt projecting upwardly from the weight and having a shoulder thereon, a block above the weight having a recess therein to receive the bolt, a spring actuated lever carried by the block to normally engage the shoulder of the bolt and connect the weight and block and a rope connected with said lever for withdrawing it from the shoulder.

9. In a device of the class described, the combination of a fly-wheel having a friction rim thereon, a drum having a friction rim

thereon and capable of movement toward or from the friction rim on the fly-wheel, a lever for controlling the movement of the drum, a weight, a rope fixed to the weight and wound upon said drum, a lever arranged in the path of the weight, and a lever connected with the handle of the lever for controlling the drum, and a rope for connecting said latter levers to automatically move the drum controlling lever, when the weight strikes the lever arranged in its path.

VICTOR LANDHOLM.

Witnesses:
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