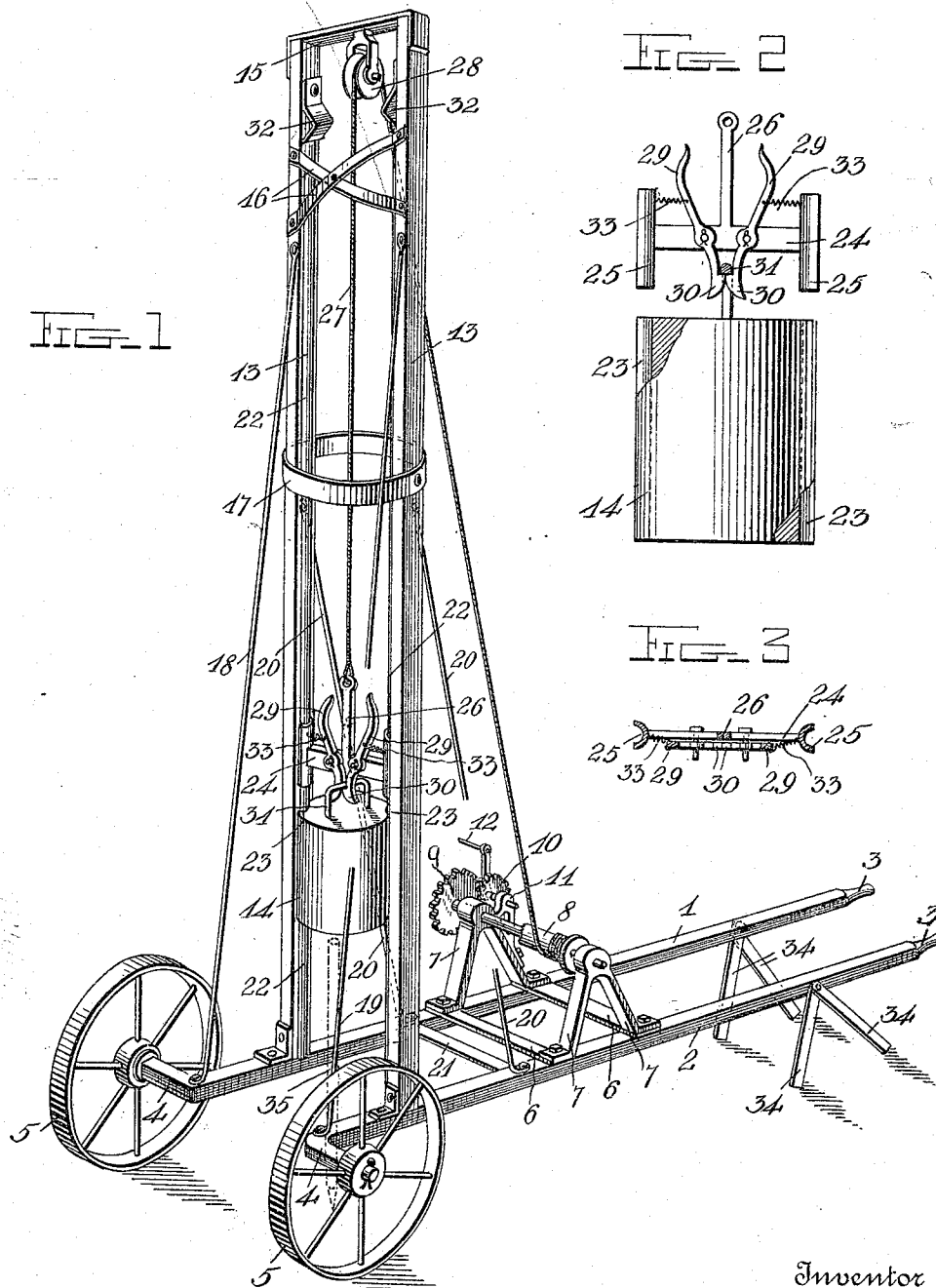


No. 858,322.

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C. BANDIMERE.
POST DRIVER.

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Witnesses
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POST-DRIVER.

No. 858,322.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES BANDIMERE, a citizen of the United States, residing at Carver, in the county of Carver and State of Minnesota, have invented certain new and useful Improvements in Post-Drivers; and I do 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.

This invention relates to post drivers, and has for its object to provide a device of this kind which will be simple and efficient and can be made so light as to be easily moved about by hand, or when it is to be transported a greater distance, it can be easily adjusted so as to be connected with a wagon and yet will be moved upon its own wheels.

It is a well known fact that a fence post or other kind which is driven into the ground will remain standing many years longer than a post which is inserted into a hole dug in the ground in the usual manner. It is also well known that where posts are driven by means of the ordinary sledge hammer, they are almost invariably split or splintered, and thereby damaged to a very marked degree, if not entirely ruined.

By using my invention, the post is not damaged in the manner above referred to, and it can be driven in less time, as five strokes from a weight weighing one hundred and fifty pounds when raised to the top of my improved driver and then dropped upon the post, will sink the post the required distance of two feet into the hardest kind of ground, whereas it would require at least forty strokes by hand with a sixteen pound hammer to accomplish the same result. Where the ground is not so hard, it is evident that fewer blows will accomplish the desired result.

My improved post driver is especially desirable in making new fences where the machine can be moved forward and the posts driven along the line upon which the fence is to be built, after which, the wires may be stretched in any desired manner. Where the machine is to be used for repairing old fences, the wires can be loosened from a few posts upon each side where the new post is to be driven and then forced back out of the way of the machine, when it is moved up into position for driving the new post.

Referring to the accompanying drawings, in which the same reference numerals indicate corresponding parts in each of the views in which they occur,—Figure 1 is a perspective view of a post driver embodying my invention; Fig. 2 is a side elevation of the catch and weight, partly in section; Fig. 3 is a transverse sectional view through the catch and the guides for supporting the weight.

Referring more particularly to the drawings, 1 and 2 indicate the handles of the post driver, by means of which the machine may be moved from place to place, and upon which are mounted the operative portions of the machine. The rear ends of the handles are preferably provided with or formed into hand holds 3, and the forward end of each handle is provided with a laterally extending stub axle 4, upon which are mounted the supporting wheels 5.

Intermediate the ends of the handles cross pieces 6 are secured at a suitable distance apart, and two inclined uprights 7 are secured to the handles at the ends of the cross pieces, and are joined together at their upper ends and provided with suitable bearings for the winding drum or reel 8. One end of the drum is provided with a pinion 9 with which a gear wheel 10 meshes, the wheel 10 being mounted in a bracket 11 upon one of the uprights 7 and provided with a crank or handle 12.

Secured to each handle at a short distance from its forward end is a guide or upright 13 which extends to the height from which it is desired to drop the weight 14, preferably about fourteen feet. The guides are secured together at their upper ends by a cross piece 15 which shall hold them directly parallel or at the same distance apart throughout their entire length. Cross braces 16 are preferably secured to the guides near the top, and a substantially circular or elliptical brace ring 17 is secured to the guides at a distance from the top, preferably slightly above their middles.

Two brace rods 18 and 19 are secured at their lower ends to the forward ends of the handles, and at their upper ends to the guides at or near the top. Two rods 20 are secured at their lower ends to the handles adjacent to a cross piece 21, and are secured to the guides at or near the ring 17, thereby holding the guides in an absolutely rigid vertical position.

The inner faces of the guides are formed or provided with ribs or projections 22 upon which the weight 14 is adapted to be moved, the weight being preferably elliptical in cross section and provided with grooves or notches 23 at its edges. A catch frame is also movably mounted upon the ribs 22 and consists of a block or cross piece 24 upon the ends of which are rigidly secured guide pieces 25, said guides being preferably formed from metal and semi-cylindrical in cross section. Rising from the center of the cross piece 24 is a standard 26, to the upper end of which the hoisting rope or cable 27 is permanently secured, the intermediate portion of the cable passing over a pulley 28 at the upper end of the guides 13, and having its other end adapted to be wound upon the drum or roller 8.

Pivotaly mounted upon the block 24 upon opposite sides of the standard 26, are two hooks or catches 29 which have their lower ends provided with hooks 30 that are adapted to engage with a bail 31 upon the upper end of the weight 14 and having their upper ends curved toward each other and adapted to engage with stops 32 at the upper ends of the guides 13 for automatically releasing the weight when it reaches the top of the guides. The upper ends of the arms or catches 29 are normally held away from each other, as by means of springs 33, which are connected to the arms above the pivotal points at one end and to the grooved guide strips 25 at the other.

In operating a post driver as above described, it is moved to the desired position by means of the handles and stationed there by means of adjustable legs 34 at the forward end of each handle. These legs are pivotaly mounted to the handles in any desired manner, so as to be open or extended away from each other at the bottoms and thereby brace the machine against movement in either direction. When the machine is being used upon uneven ground the legs can be opened to a greater or less extent, so as to cause the handles to occupy a substantially horizontal position. As the full length of the handles is about eight feet, a very slight movement of the legs will be sufficient to accomplish this result, and as the width of the frame is over two feet and the distance between the supporting wheels is still greater, the machine will be given sufficient bracing in all directions to prevent its overturning, and especially in view of the fact that the guides 13 or the center of gravity of the driver, will come between the wheels and the supports at the rear ends of the handles. Where the machine is to be transported for any considerable distance, the guides are preferably lowered into a horizontal position and fastened to a vehicle, as a wagon, which will cause the handles to stand vertically. This avoids the

liability there would be for the machine to tip over if the tall guides remained upright. After the machine has been properly positioned and the post 35 placed directly between the guides 13, the weight 14 is hoisted by turning the crank 12 until the arms 29 are brought into engagement with the stops 32 and thereby forced inward so as to release the hooks 30 from the bail 31, when the weight will descend and drive the post into the ground. This operation is repeated until the post has been sunk to the desired extent, preferably about two feet. The machine is then removed to another position and the same operation again repeated.

Having described my invention:—

1. In a post driver, two handles, the forward end of each of which is provided with a stub axle and the rear end with oppositely extending pivoted legs, a wheel on each axle, cross pieces rigidly secured to the handles intermediate their ends for rigidly spacing them apart, inclined uprights secured to the handles at the ends of said cross pieces, one of which is provided with a bracket, a roller mounted in the ends of said uprights, one end of which is provided with a pinion, a gear wheel mounted in said bracket and provided with means for rotating it, upright guides secured to said handles at a distance from their forward ends, a pulley at the upper ends of said guides, a weight between the guides, and a cable connected with said roller at one end and adapted to be detachably connected with the weight at the other and having its intermediate portion passed over said pulley.

2. In a post driver, two handles rigidly secured at a distance from each other, supporting wheels secured to the forward ends of said handles and adjustable legs to the rear end, a roller mounted upon the intermediate portions of said handles, an upright guide secured to each handle at a distance from its forward end, a cross piece and braces at the upper ends of said guide, a ring secured to the guides near their middles, two brace rods extending from said ring to the rear and connected at their lower ends with said handles, and two brace rods secured to the forward ends of the handles at their lower ends, and to the upper portions of the guides at their other ends, a pulley and stops at the upper ends of the guides, a weight between the guides, and a cable over said pulley having one end connected with said roller and its other end adapted to be detachably connected with said weight.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES BANDIMERE.

Witnesses:

WILLIAM A. ABRAHAMSON,
ANDREW G. GOODMANSON.