(No Model.)

S. G. HARRIS.

POST DRIVER.

No. 495,800. Patented Apr. 18, 1893.

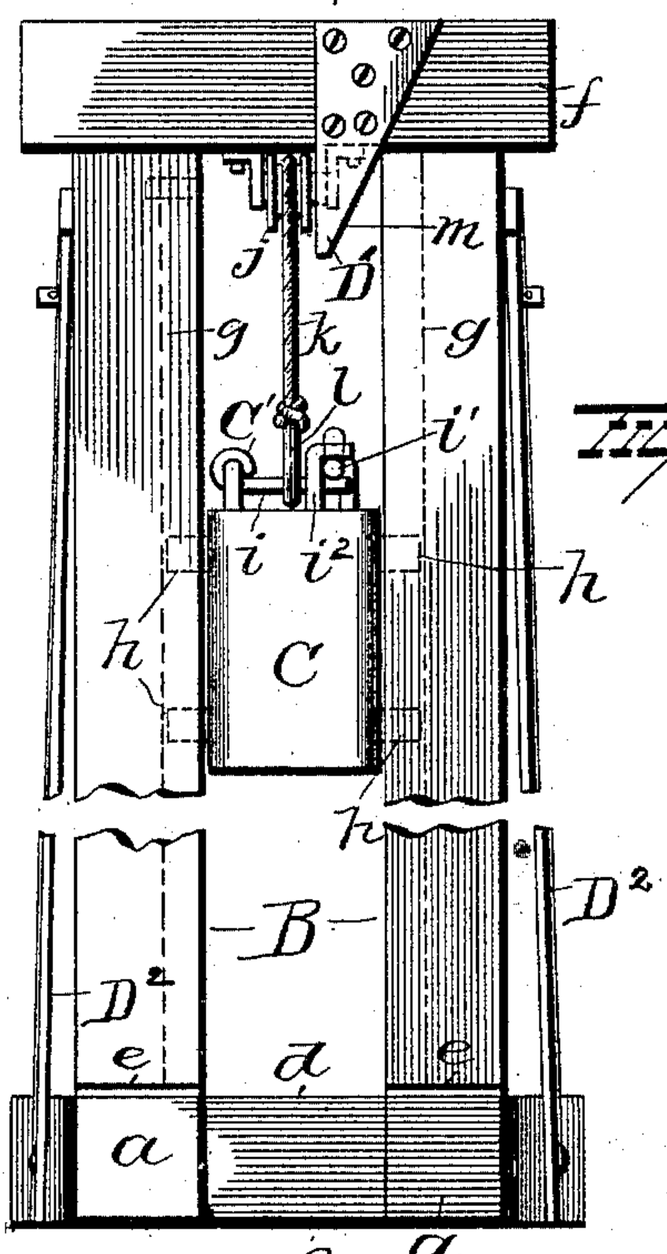


Fig. 3.

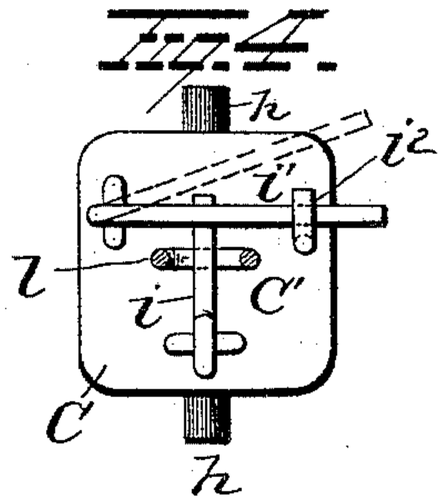
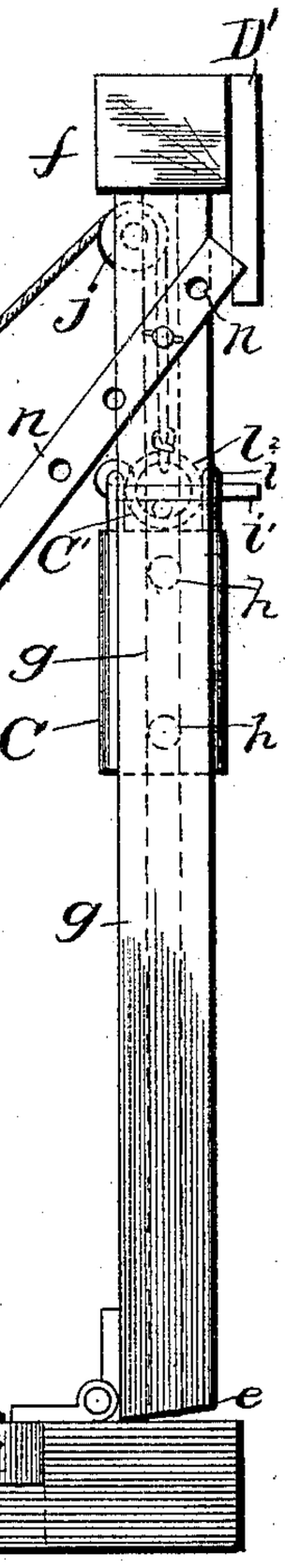


Fig. 1.



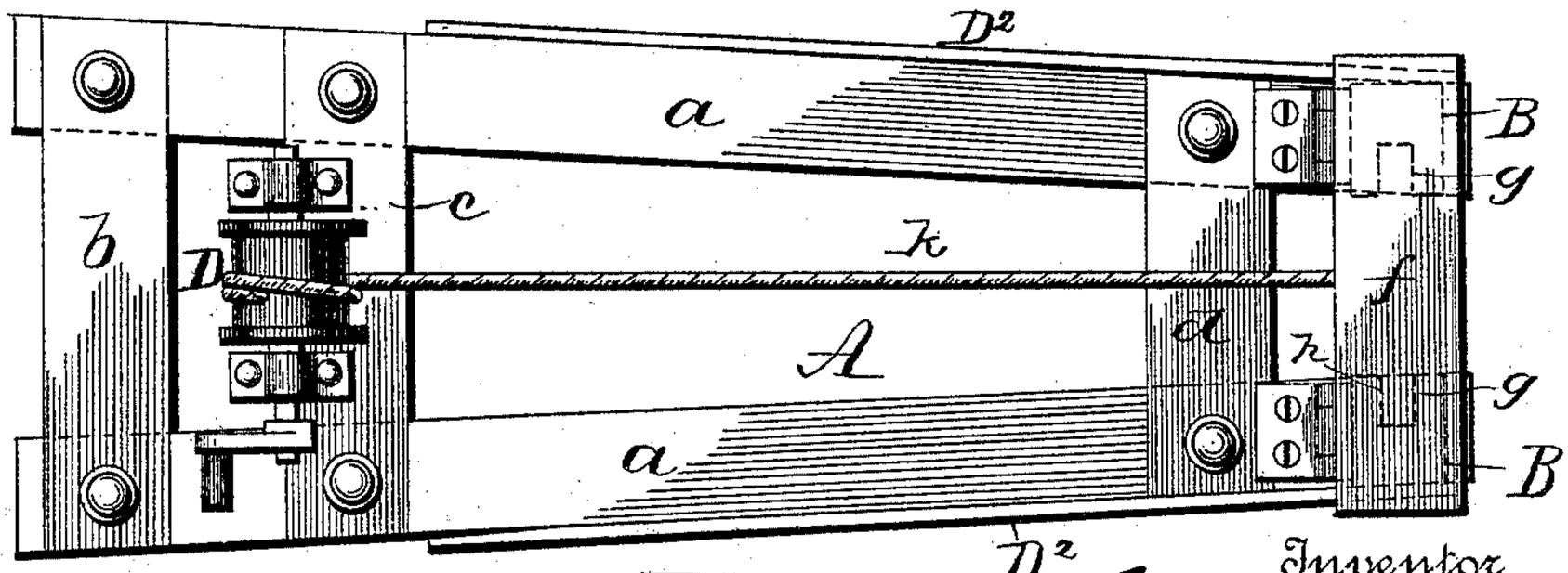


Fig. 2.

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UNITED STATES PATENT OFFICE.

STEPHEN G. HARRIS, OF CYNTHIANA, INDIANA, ASSIGNOR OF ONE-HALF TO K. W. HARRIS, OF ALVIN, TEXAS.

POST-DRIVER.

SPECIFICATION forming part of Letters Patent No. 495,800, dated April 18, 1893.

Application filed December 3, 1892. Serial No. 453,966. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN G. HARRIS, a resident of Cynthiana, in the county of Posey and State of Indiana, have invented certain new and useful Improvements in Post-Drivers; 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 an improvement in machines for driving fence or other posts,—the object of the invention being to so construct the machine that it can be placed on the running gear of a vehicle in such manner that it can be readily adjusted to operate on posts at either side of the longitudinal axis of the vehicle.

A further object is to so construct the machine that it can be readily and quickly adjusted to operate on posts when they are driven in level ground in a hill or incline.

A further object is to produce a post driving machine which shall be simple in construction, easy to operate and effectual in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view illustrating my improved machine in side elevation. Fig. 2 is a plan view. Fig. 3 is an end view. Fig. 4 is a detail.

A represents the base of the machine, and comprises two timbers *a*, *a* disposed at an angle to each other so that one end of the frame or base A will be wider than the other, and said timbers *a*, *a* are rigidly connected together by means of cross bars *b*, *c*, *d*.

Hinged to the timbers *a*, *a* at the smaller end of the frame A, are two uprights B, B, preferably having their lower ends beveled as at *e* Fig. 1, and connected at their upper ends by a cross bar *f*. Each upright B has a groove *g* in its inner edge, which grooves serve as ways for arms or lugs *h* projecting laterally from a drop or plunger C. On the top of the drop or plunger C a latch mechanism C′ is located. In constructing said latch mechanism, two latch bars *i*, *i′* are pivotally connected to the top of the drop or plunger C and adapted to be disposed at right angles to each other, and in proximity to the point where the free ends of said latch bars meet, an inverted L-shaped arm i^2 is secured to the top of the drop or plunger. A pulley *j* is carried by a suitable bracket secured to the cross bar *f*, and over this pulley a cord or rope *k* passes, said cord or rope having an eye or ring *l* secured to its end. In attaching this loop or ring with the latch mechanism, it is slipped over the latch bar *i*, and the latch bar *i′* is then made to project over the end of the latch bar *i* and under the laterally projecting arm of the L-shaped arm i^2, and thus the cord or rope *k* will be attached to the drop or plunger. The other end of the rope *k* is extended to the opposite end of the machine and wound upon and secured to a windlass D located in proximity to the larger end of the frame or base A. A plate or arm D′ is secured to and adapted to depend or project downwardly from the cross bar *f*, said plate or arm having an inclined edge *m*. Now it will be seen that when the windlass is operated to wind the rope *k* thereon, the drop or plunger C will be elevated to the top of the uprights B, B. When the inclined edge of the plate or arm D′ is reached, the latch bar *i′* will engage said inclined edge of the plate and be thereby forced from under the L-shaped arm i^2, thus releasing the latch bar *i* and consequently the ring or loop *l* carried by the rope *k*, and permitting the drop or plunger C to fall upon the top of the post to be driven. When it is desired to again operate the machine to cause the drop or plunger to again fall on the post, the loop or ring *l* will be connected with the latch machine as above explained and the windlass again operated. This operation is kept up until the post is driven into the ground to the desired extent. Should it be desired to impart a light blow to the post when it shall have been nearly driven to the desired extent, the windlass may be operated to partially raise the drop or plunger and then the windlass will be released to permit the plunger to fall without being detached from the rope.

The machine will preferably be located on

the running gear of a vehicle and will be so disposed thereon that the larger end of the frame A will be at the front end of said running gear and just sufficient to fill the space between the usual standards located at the sides of said running gear,—the smaller end being therefore at the rear of the running gear or vehicle. Thus it will be seen that the rear end of the machine, which carries the uprights between which the plunger operates, may be moved laterally so that the plunger will be directly over the post to be driven, should said post be more or less out of line with the longitudinal axis of the vehicle.

The uprights B, B, will be maintained in their proper upright position by means of braces D^2, extending from said uprights to the timbers comprising the base or frame A. The lower ends (or upper ends if preferred) of the braces are provided with a series of perforations *n* for the reception of the retaining pin or bolt, whereby said braces may be secured to retain the uprights B, B, at an angle greater or less than a right angle so as to render the machine capable of being employed for driving posts in a hill or incline.

The machine constructed and arranged as above set forth is very simple, easy to operate and is effectual in the performance of its functions.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a machine for driving posts, the combination with a base or frame larger at one end than at the other, of uprights hinged to the smaller end of said base or frame, a drop or plunger adapted to operate between said uprights, a latch mechanism carried by said drop or plunger, a rope adapted to be attached to said latch mechanism, a plate or arm projecting from the frame and having an inclined edge for tripping the latch mechanism, a windlass for winding said rope to elevate the drop or plunger, and braces for retaining the uprights in proper position, substantially as set forth.

2. In a machine for driving posts, the combination with a base or frame larger at one end than at the other, of uprights hinged to the smaller end of the frame, a drop or plunger adapted to operate between said uprights, a latch mechanism carried by said drop or plunger, a rope adapted to be attached to said latch mechanism, a plate or arm projecting from the frame and having an inclined edge for tripping said latch mechanism, a windlass for winding said rope to elevate the drop or plunger, and adjustable braces for retaining the uprights at the desired angle relatively to the base or frame, substantially as set forth.

3. The combination with a main frame, guide frame, and windlass, of a drop or plunger, a pair of latch bars pivoted to the drop or plunger, means for retaining them in place to hold the flexible attachment thereon, and an arm or plate in position to release these latch bars when the drop or plunger is raised to a certain height, substantially as set forth.

4. In a machine for driving posts, the combination with uprights, a plunger adapted to operate between said uprights and a cross bar connecting said uprights at their tops, of latch bars pivotally connected to said plunger and disposed at an angle to each other, a rope, an eye or ring carried by said rope and adapted to receive one of said latch bars, an arm secured to the plunger and adapted to receive one of said latch bars so as to prevent the escape of the ring or loop from the other latch bar, and an inclined plate or arm carried by said cross bar and adapted to be struck by one of said latch bars, whereby to release the loop or ring from the other latch bar and permit the plunger to fall, substantially as set forth.

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

STEPHEN G. HARRIS.

Witnesses:
A. J. FARRIS,
A. W. MONTGOMERY.