M. VANOSDOL.

POST-DRIVER.

No. 192,036. Patented June 12, 1877.

FIG. 1.

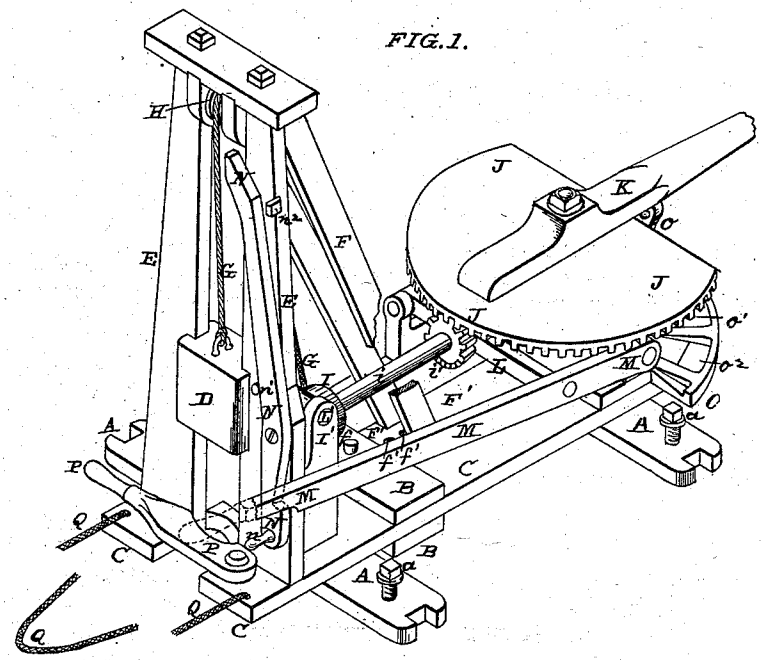


FIG. 3.

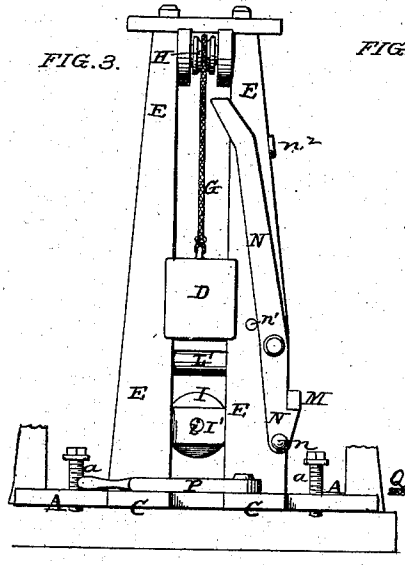


FIG. 2.

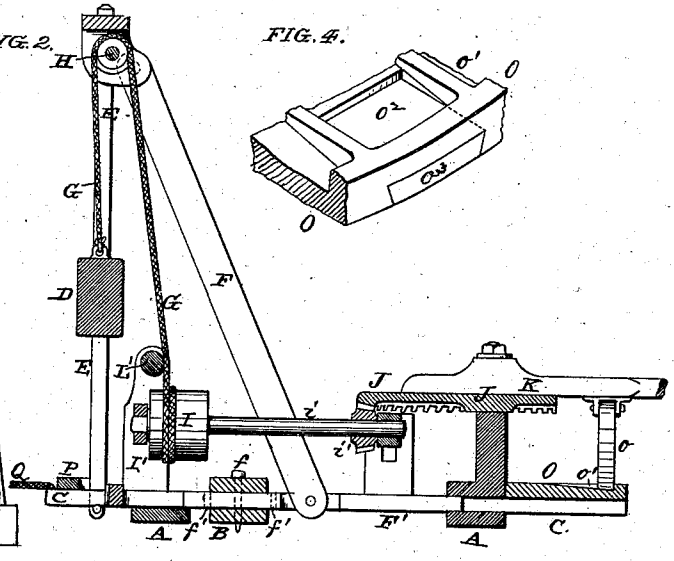


FIG. 4.

ATTEST:

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UNITED STATES PATENT OFFICE.

MADISON VANOSDOL, OF IVANHOE, MISSOURI.

IMPROVEMENT IN POST-DRIVERS.

Specification forming part of Letters Patent No. **192,036**, dated June 12, 1877; application filed March 29, 1877.

To all whom it may concern:

Be it known that I, MADISON VANOSDOL, of Ivanhoe, Shelby county, State of Missouri, have invented certain Improvements in Mounted Post-Drivers, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a longitudinal section. Fig. 3 is a front view. Fig. 4 is a detail rear perspective view.

The frame of the machine is composed of transverse bars A B and longitudinal bars C. The bars A rest on the axle-bars of the wagon, and have their ends notched to fit the wagon-standards. E are the hammer-guides or uprights, pivoted at their lower ends to the longitudinal bars C. D is the hammer or battering-ram, preferably made of cast-iron, having wooden or other cleats or blocks bolted to it at opposite sides to form guide-flanges to guide the hammer on the slides E.

F are braces pivoted to the upper end of the uprights or slides E, secured at their lower ends to a sliding block, F′, in the main frame. This sliding block is adjustable in the main frame, and is secured in place by a pin, *f*, passing through one of a series of holes, *f′*. By this means the uprights or guides can be moved into an inclined position, either forward or backward, so as to enable the hammer to strike at any angle required in relation to the machine, so as to suit it for use upon hilly ground.

The transverse bar A, resting on the hind axle-bar and fitting between the wagon-standards, is provided with vertical screws *a*, one on each side of the uprights E. They (the screws) pass through this bar, and their lower ends are fitted into an iron socket sunk into the axle-bar. They also pass through a fixed nut in the transverse bar. They may be from one inch in diameter upward, and may be of any length desired, ranging, say, from twelve to eighteen inches in length.

The office these screws perform is to raise the frame supporting the machine, either on the right or left, in order to keep the uprights or guides E in a perpendicular position when working over hilly or sidling land. These screws are turned by a horizontal crank or wrench at their upper end.

G is a chain or rope by which the hammer D is raised. This rope is attached to the hammer, and passes over a pulley, H, secured to the top of the uprights E, and its other end is attached to the winding-drum I, journaled in standards I′, secured to the main frame.

The shaft *i* of the winding-drum carries at the front end a pinion, *i′*, which gears with and is driven by a segment gear-wheel, J, operated by a hand or horse lever, K.

The front bearing of the shaft *i* is in a pivoted lever, L, the end of which is supported by a pivoted lever, M, that engages in the notch of a latch-lever, N, pivoted to the hammer-guides E, while said lever M is held in its upper position by the latch-lever N, the pinion *i′* is in gear with a segment-gear, J, and on turning said gear J in either direction the rope G will be wound upon the drum I to raise the hammer D, and when the hammer is about reaching its upper position it strikes the upper end of the pivoted latch-lever N from the lever M, which then drops and ungears the pinion *i′*, and allows the hammer to fall.

The latch-lever N is provided with a handle, *n*, by which to disengage it at any time from lever M so as to allow the hammer to drop from any desired height. n^1 n^2 are stops limiting the movement of the latch-lever N.

Retrograde movement of the segment-wheel J is prevented by a pivoted dog, *o*, which engages one of a series of recesses, o^1, in the semicircular plate, O, secured to the frame of the machine. In cases where the gear-segment J is turned only one-third around, as in operating by hand, it is required that the dog *o* be reversed at each movement of J, and for this purpose the recesses o^2 o^2 are provided with sliding bottoms o^3, which are removed so as to let the dog pass through these recesses in reversing the movement of the segment. P is the post-holder, pivoted to the frame A B, and having a notched or scalloped recess formed in its inner edge to hold the post in position.

Q is a looped chain or rope attached to the main frame. This is used for the purpose of measuring the spaces for setting the post before driving—for instance, if it is desired that the posts should be driven eight feet apart,

the looped rope will be made of the required length, and placed over the post just driven, so that the wagon can only move forward just eight feet. By this arrangement the posts are placed exactly the same distance apart, and the trouble of measuring the spaces dispensed with. L′ is an idler guiding-drum for guiding the rope G onto the winding-drum.

To operate the machine the lever M is lifted up and engaged in the notch of the latch-lever N. This brings the pinion *i* into gear with the segment-gear J. Turning the end of the lever K either to the right or left, turns the drum I and raises the hammer D until it strikes the upper end of the latch-lever N to disengage it from the the lever M, which then drops, and in its fall ungears the winding-drum's gear-connections, and the hammer is allowed to fall.

I claim as my invention—

1. The drum-shaft *i*, having pinion *i′*, and supported by pivoted lever L, in combination with the latch-lever N and driving-gear J, as and for the purpose described.

2. In a post-driver, the latch-lever N, having a handle, *n*, so as to enable it to be disengaged by hand from lever M when desired, for the purpose set forth.

3. The operating segment-gear J and handle K, in combination with dog *o*, and recessed plate O for holding the lever at any desired position, as set forth.

4. The semicircular plate O, having two of its recesses, o^2 o^2, provided with removable sliding bottom o^3, as and for the purpose set forth.

5. The main frame A B C, in combination with a pivoted post-holder, P, having notched or scalloped inner edge, as and for the purpose set forth.

6. The driving-gear J, pinion *i′*, winding-drum I, and rope G, in combination with the idler-drum L′, pulley H, and hammer D, all constructed and arranged as and for the purpose set forth.

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Witnesses:
H. B. DIMS,
H. C. OGLE.