

(No Model.)

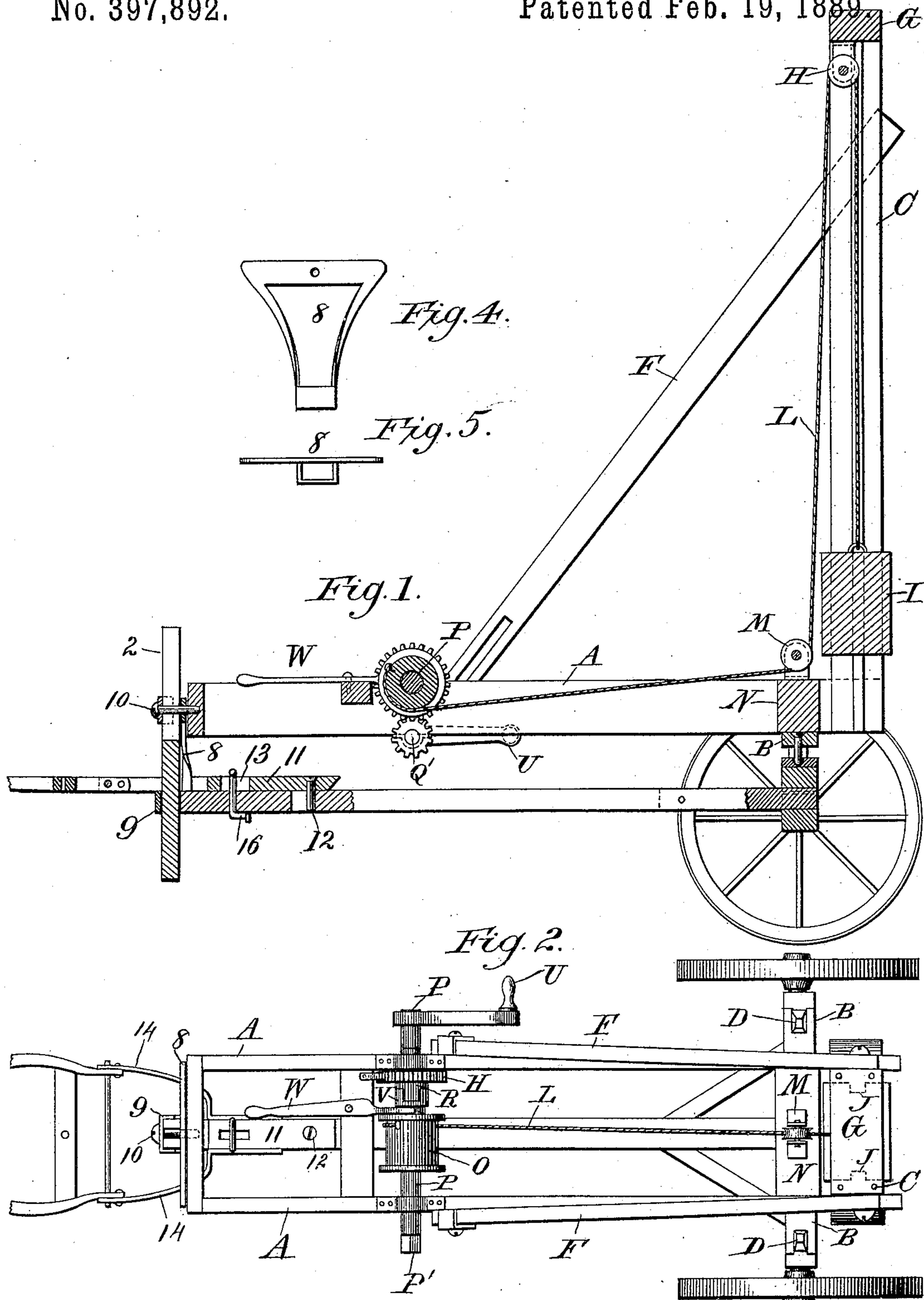
2 Sheets—Sheet 1.

I. W. BRADSHAW.

POST DRIVER.

No. 397,892.

Patented Feb. 19, 1889.



Witnesses:
C. C. Craig,
J. M. Preble.

Inventor.

Ira Wayne Bradshaw

(No Model.)

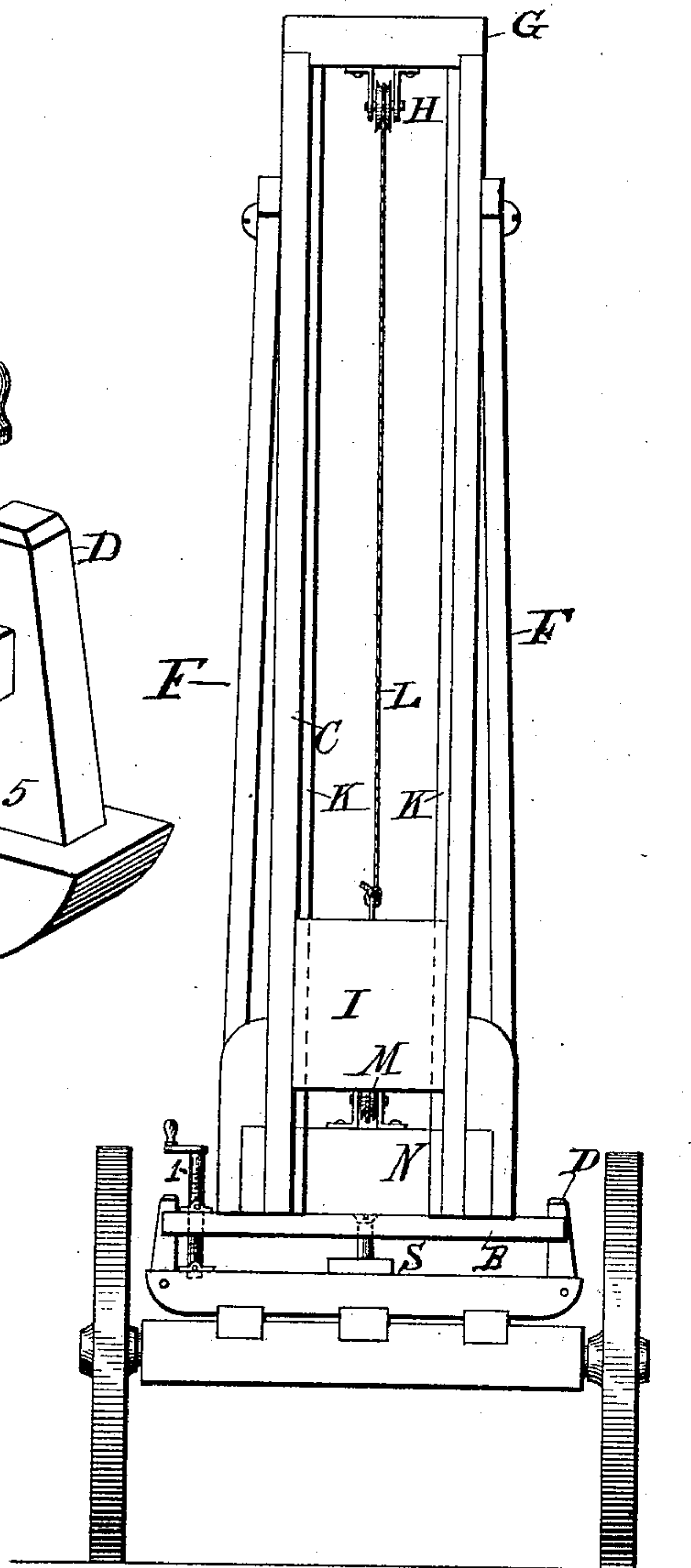
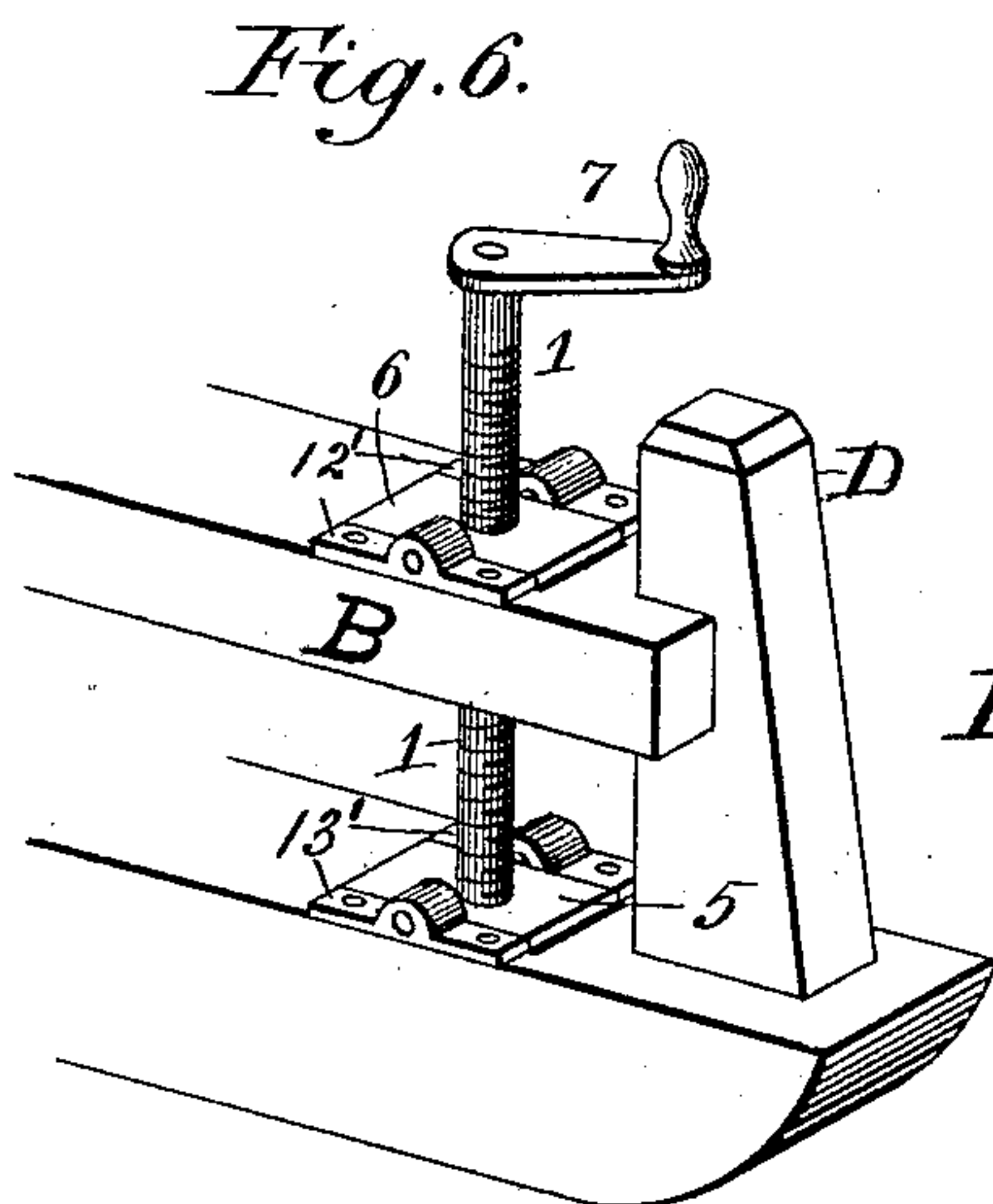
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Fig. 3.



Witnesses:

Inventor.

J. M. Ferebee.
C. A. Craig.

I. W. Bradshaw.

UNITED STATES PATENT OFFICE.

IRA WAYNE BRADSHAW, OF RICHLAND CENTRE, WISCONSIN.

POST-DRIVER.

SPECIFICATION forming part of Letters Patent No. 397,892, dated February 19, 1889.

Application filed August 16, 1888. Serial No. 282,936. (No model.)

To all whom it may concern:

Be it known that I, IRA WAYNE BRADSHAW, a citizen of the United States, residing at Richland Centre, in the county of Richland and State of Wisconsin, have invented a new and useful Improvement in Post-Drivers, of which the following is a specification.

Figure 1 is a longitudinal section of my invention. Fig. 2 is a plan view, and Fig. 3 is a front elevation, of the same. Figs. 4 and 5 are respectively a front and a plan view of the triangular brace. Fig. 6 is a detail perspective view of the journaled plates and screw.

The special object of my invention is to combine certain instrumentalities with the two hind wheels of a wagon in such a way that posts may be driven into the ground at the desired distance apart, while the mechanism may be conveniently moved from place to place, and that in the construction of my invention the expense shall be so small as to bring my machine into general and practical use.

The invention will be explained in connection with a wagon which has two hind wheels and a reach, reference being made to the accompanying drawings. I use a common frame, the beams A A of which are about sixteen inches apart about three and one-half feet from one end, and under the frame I bolt fast to the frame a false or frame bolster, B, the ends of which project on each side of the wagon-stakes, thus keeping the frame in its proper place. Hoisting-racks C are pivoted to bearing-blocks E on the back end of the frame, and are supported by two braces, F, the upper ends of which are pivoted to the sides of the uprights and the lower ends secured to the sides of the frame. The racks are provided with a cap-plate, G, on top, under which, between two uprights, is a pulley, H. The hammer is provided on each side with a groove, which fits loosely over the guides of the rack and causes the hammer in its fall to strike exactly where it is intended. A rope, L, is made fast to the hammer, passed over the rack-pulley, brought down under another pulley, M, upon the cross-beam N, near the foot of the racks and bearing-blocks, and then made fast to a spool or pulley on the windlass-shaft P.

On the latter I preferably use a spur-wheel, which is provided on one side with a half-clutch, R, and is made fast to the windlass-shaft. Below the spool or windlass-shaft is another shaft, P', provided with a pinion, as seen in Fig. 1, and diametrically-opposite crank-handles, so that two men may wind up the heavy hammer. The windlass spool or pulley is made to slide loosely on the windlass-shaft, and is provided on one side with the half or wheel clutch, which connects with another half-clutch made fast to the windlass-shaft. When it is desired to raise the hammer, a workman operates a hand-lever, W, so as to lock the half-clutches together and incidentally to the windlass. As soon as the hammer has reached the desired height, a reverse movement of the hand-lever disconnects the windlass-pulley from the windlass-clutch, allows the pulley to turn, and the hammer falls on the top or head of the post. I also use a pawl on the frame, which rests on the spur-wheel, dropping behind each cog, so that the windlass can never turn backward or the hammer fall till the clutches are disconnected.

In driving posts into the ground two special objects are to be obtained—viz., first, a plumb blow must be made, so as to drive the post erect; second, to regulate the blow to the hardness or softness of the ground. The latter I accomplish with the trip-lever. The first I secure by the use of a rocking pin, a screw-bolt, an adjusting-standard, and a pivoted triangular brace, all of which I will separately locate and explain. The iron rocking pin S is made fast to the center and under side of false or frame bolster B, and the lower end rests in a socket-casting secured to the center of wagon-bolster, thus allowing the frame and hoisting-rack to rock to the right or left to suit the ground. To regulate and control the rocking I use a screw-bolt, 1, swiveled in a journaled plate at the lower end, journaled in boxings 13' 13', which are secured to the upper side and near one end of the wagon-bolster, passing up through a threaded nut, 6, which is journaled in the boxings 12' 12', which are secured to the upper side of the false or frame bolster B and directly above the plate 5, the screw-bolt 1 being provided at the upper end with a crank,

7, by the use of which the end of the frame-bolster may be easily and quickly raised or lowered, thus adjusting the frame on sideling ground, thus allowing me to raise or lower the false or frame bolster at will. The adjusting-standard 2 has a slot in the upper end and is connected with a triangular brace, 8, the lower corner of which is made fast to the end of the wagon-reach and the center of upper side is pivoted to the center of the end of the frame. The lower end of the adjusting-standard passes down through a clevis, 9, made fast to the corner of the brace, and the upper end is secured to the center of the upper side of the brace by a clamp-screw, 10, the shank of which is made fast to the side of the brace, thus making a strong support for the end of the frame. The triangular brace 8, when used with a proper or suitable clamp-screw, secures the adjusting-standard 2 firmly to itself, and at the same time holds the end of the frame A A up and allows it to be rocked to either side by the use of the screw-bolt K, previously referred to, while by loosening the clamp the end of the frame may be raised or lowered to suit the inclination of the ground. In moving the machine from place to place I preferably use one horse and have provided a detachable thill-connector, 11. The thill-connector is a two-by-four-inch scantling about two feet long, and is provided with an iron pin, 12, projecting from under side of back end of the connector, while the other or front end has a slot, 13, in it and is firmly secured to two iron braces, 14 14, which are spread apart and the ends secured to the sides of the corners of a pair of thills.

The thill-connector is placed on the wagon-reach with the projecting pin in a slot in the reach, the two thill-braces straddling the triangular brace at the front end of the frame. In the wagon-reach near the front end is another iron pin, 16, with a reversible T on the upper end. The heavy hammer so nearly balances the frame on the axle that the front end of the frame may be easily raised with one hand. Placing the reversible T lengthwise of the wagon-reach, the end of the frame is easily raised till the pin in the reach passes through the slot in the thill-connector, when

a reverse turn of the T connects the thills to the wagon-reach and incidentally to the machine. While a post is being driven I preferably disconnect the thills from the front end of the reach, allowing the frame to rest on the adjusting-standard, which makes the end of the frame set firm and allows the horse to toss his head or slightly move his body and not affect the working of the machine. I also may carry two to four spools of barbed wire on the frame prepared to unwind as the post-driver moves along, so that a third man can tighten the wire while the two men drive the posts.

I am aware that prior to my invention post-drivers having pivoted racks, clutch-windlass, trip-lever, ratchet, and pawl have been made and used. I do not therefore claim such combination, broadly; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. The combination, in post-drivers having a pivoted rack, clutch-windlass, trip-lever, ratchet-wheel, and pawl, of the rocking pin with the upper end secured to the false or frame bolster, while the lower end rests in the socket secured to the wagon-bolster, and the screw-bolt swiveled in a journaled plate and threaded in a journaled nut and provided with a small crank, for the purposes set forth.

2. In post-drivers having pivoted racks, the combination of the adjusting-standard and triangular brace pivoted to the end of the frame and made fast to the end of the wagon-reach, thus connecting the end of the frame, the end of the wagon-reach, and the adjusting-standard securely together in such a way that the end of the frame may be raised or lowered or rocked to either side at will, as set forth.

3. In post-drivers mounted on two wheels, the thill-connector, in combination with the iron pin in front end of the wagon-reach and the reversible T on the upper end, all substantially as set forth.

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Witnesses:

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