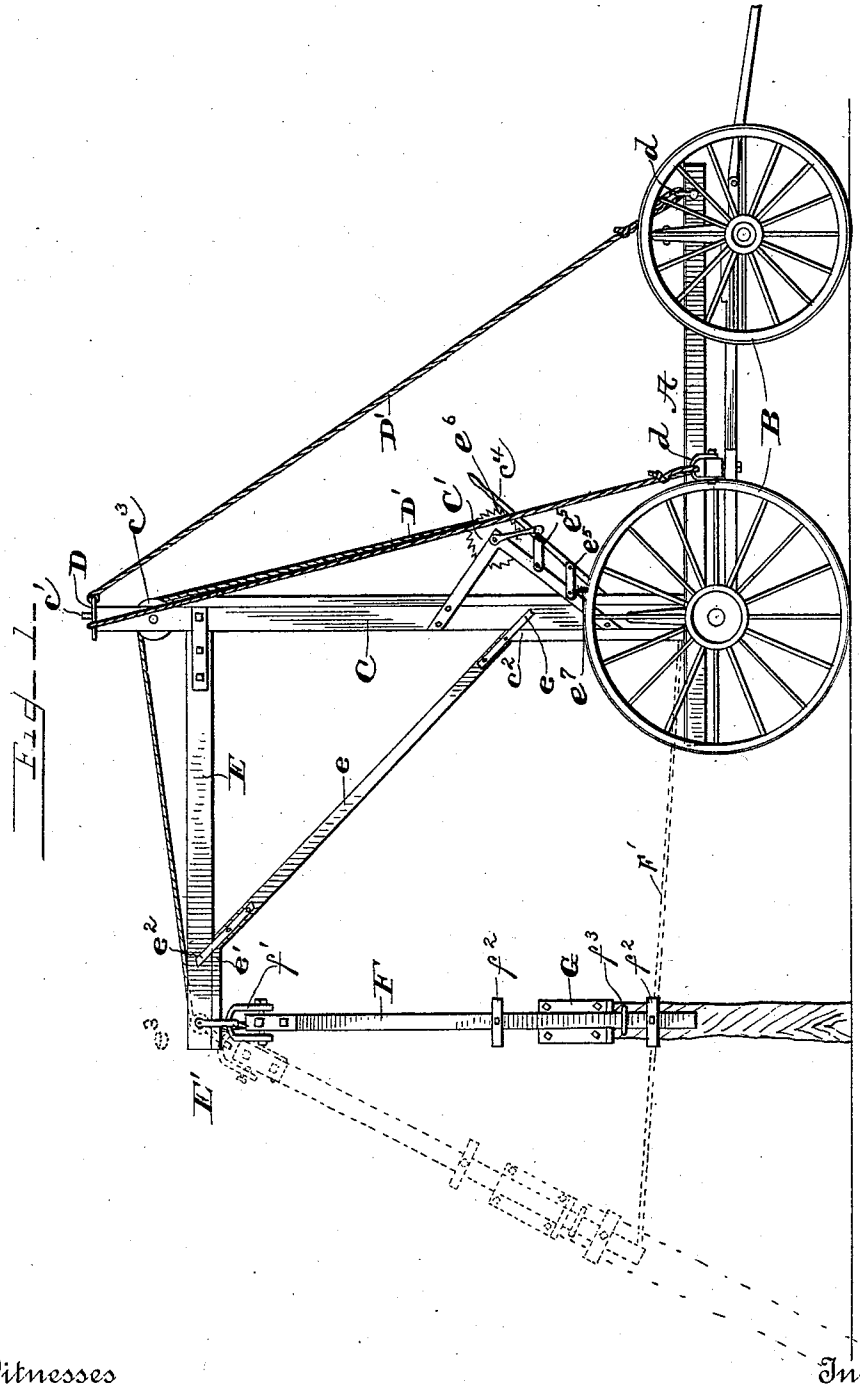
(No Model.) 2 Sheets—Sheet 1

E. P. ROGERS.

POST DRIVER.

No. 456,163. Patented July 21, 1891.



Witnesses

G. A. Taubenschmidt.

J. D. Kingsbury

Inventor

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

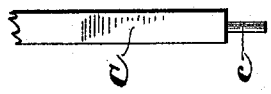


Fig. 3.

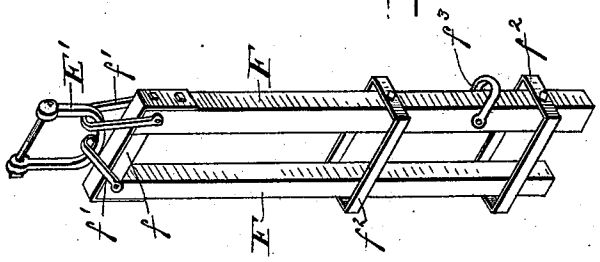
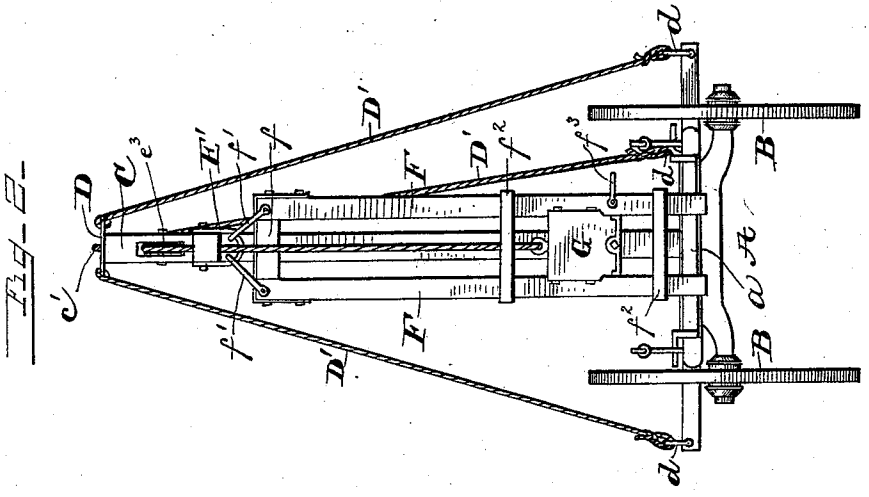


Fig. 2.



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UNITED STATES PATENT OFFICE.

ELIAS P. ROGERS, OF SPRINGFIELD, MISSOURI.

POST-DRIVER.

SPECIFICATION forming part of Letters Patent No. 456,163, dated July 21, 1891.

Application filed November 15, 1890. Serial No. 371,513. (No model.)

To all whom it may concern:

Be it known that I, ELIAS P. ROGERS, a citizen of the United States, residing at Springfield, in the county of Green and State of Missouri, 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 is an improvement in machines for driving posts; and it consists in the novel features of construction hereinafter fully described.

In the accompanying drawings I have illustrated one form in which I have contemplated embodying my invention applied to a machine for driving fence-posts, and the said invention is fully disclosed in the following description and claims.

Referring to the said drawings, Figure 1 is a side elevation of a machine for driving fence-posts embodying my invention. Fig. 2 is a rear elevation of the same, and Figs. 3 and 4 are details of parts of the devices.

The object of my invention is to provide a machine for driving posts of all kinds, which may be more readily adapted to different circumstances and kinds of work than the machines in common use.

Referring to the said drawings and the letters of reference marked thereon, A designates the frame-work of a truck provided in this instance with supporting-wheels B. One of the cross-bars *a* of the said truck-frame is provided with a central vertical aperture or recess, into which fits the lower pivot-pin *c* of the vertical standard C. (See Fig. 4.) The upper end of said standard is provided with a similar pivot-pin *c'*, which is engaged by an aperture in a plate D, to which are secured the guy-ropes or stays D' D' D', which maintain the standard C in its vertical position. The lower ends of the guy-ropes or stays are secured to the frame of the truck, preferably by means of clevises *d d d*.

The vertical standard C is provided with an outwardly-extending arm or jib E, preferably bolted to the said standard, and a brace *e* engages the standard and jib to support the outer extremity of the latter. In order to make the parts readily removable, in order that the device may be taken to pieces for transportation and for storage, I prefer to provide the jib adjacent to its outer end with a shoulder *e'* to be engaged by the brace *e*, and to provide the standard C with a similar shoulder c^2. The brace *e* is preferably provided at each end with arms e^2, which pass on opposite sides of the jib and standard, and when said brace is placed in position with its ends in engagement with the shoulders *e'* and c^2 it will effectively support the outer end of the jib, but is easily removable when it is desired to take the machine to pieces. The brace may, if desired, be further secured by bolts passing through the extending arms e^2 e^2 and the jib and standard; but this is not essential.

From the outer end of the jib E depends the hammer-guide, the lower end of which is capable of movement in all directions to drive a post at any angle and in front or rear or at either side of the same, as desired. This guide consists of the two rails F F, which are engaged by the hammer G; or they may be provided with a separate rail in their inner sides to be engaged by the grooved hammer, if desired. The upper ends of the rails F F are connected together by a cross-bar *f*, and said guide-rails are provided with two clevises *f' f'*, which are engaged by a clevis E' on the outer end of the jib E, as clearly shown in Figs. 2 and 3. I might employ curved irons bolted or screwed to the respective parts; but I prefer to use clevises, as it permits the parts to be taken apart more readily for storage or transportation when desired. This connection between the hammer-guide and the jib permits the lower end of the guide to be moved in any direction to direct the blow of the hammer, so as to drive a post at any angle which may be found necessary or desirable.

The hammer is of usual or any preferred construction, and is arranged to slide upon the guide-rail, as shown in the drawings. The lower ends of the rails F F are provided with two or more brackets or guides f^2, located in different horizontal planes for the post when it is first placed in position to be struck by the hammer. I further provide one or more handles f^3 on said guide-rails to

enable the said guides to be moved into any desired position.

The hammer is connected to a rope or other flexible connection, which passes up over a sheave e^3 in the outer end of the jib E, over a sheave c^3 in the head of standard C, and down to a windlass or drum C′, secured in brackets or arms from the vertical standard. The hammer may be raised by the windlass and tripped in any desired manner. I have shown the drum C′ provided with a ratchet and a pawl-lever c^4 for engaging said ratchet, which lever may be released by hand when the hammer has been elevated to the desired height to strike the required blow.

Any form of pawl and lever c^4 may be employed. I have shown a hand-lever e^4, connected to the braces which support the windlass by pivoted links e^5 e^5. When the pawl e^6 on said lever is in engagement with the ratchet of the windlass, these links e^5 e^5 are at an angle to the said lever e^4, and the lever is held in this position by a spring e^7. When the lever e^4 is depressed, the links assume a position substantially perpendicular to the lever and force said lever away from the ratchet of the windlass, and thereby release the same.

The operation of my improved device is obvious from the drawings and is as follows: A post is placed between the guide-rails within the brackets f^2, and the guides and post are placed at the desired angle at which it is desired to drive the post, or it may be driven in a vertical position, if desired. The standard C being swiveled, the jib may be swung around over the exact spot where it is desired to drive the post, and it is not necessary to accurately adjust the truck-frame. The construction will permit the lower end of the hammer-guide to be moved into any position, as before stated, and allow it to assume any desired inclined position. The windlass is operated to raise the hammer, and the latter is allowed to fall upon the head of the post in the usual manner.

In order to hold the hammer-guide in any desired inclined position, I may employ a support F′, as shown in dotted lines, Fig. 1, which has a portion adapted to engage the guide and a portion adapted to engage some fixed resistance, as the ground or a part of the truck-frame.

It is obvious that the machine can be taken to pieces very quickly and easily and placed upon the truck A for transportation or storage.

I do not limit the use of my invention to machines for driving fence-posts, as it may be employed in any other connections and in machines for driving posts or piles of any description where found convenient or desirable, and I do not limit myself to the exact details of construction herein shown and described, as slight variations therefrom could be made to suit the ideas of different constructors without departing from the spirit of my invention.

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

1. In a post-driver, the combination, with the pivoted standard, of the hammer-guide supported therefrom by a universal joint, said guide having its lower end movable laterally in all directions, substantially as described.

2. In a post-driver, the combination, with the hammer-guide provided with the coupling-clevises, of the support for said guide, having a clevis engaging those of the hammer-guide, substantially as described.

3. In a post-driver, the combination, with the vertical standard and jib, of a brace for said jib engaging shoulders on said jib and standard, but not being rigidly connected to either, whereby said parts may be quickly disengaged when desired, substantially as described.

4. In a post-driver, the combination, with the vertical standard and jib, of a brace for said jib engaging shoulders on said jib and standard, said brace being provided with projecting arms engaging the standard and jib, whereby the parts are removably secured in position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ELIAS P. ROGERS.

Witnesses:
HENRY PROSPERI,
J. JOHNSTON.