(No Model.) 2 Sheets—Sheet 1.

M. C. JACKSON.

WAGON JACK.

No. 481,713. Patented Aug. 30, 1892.

Fig. 1.

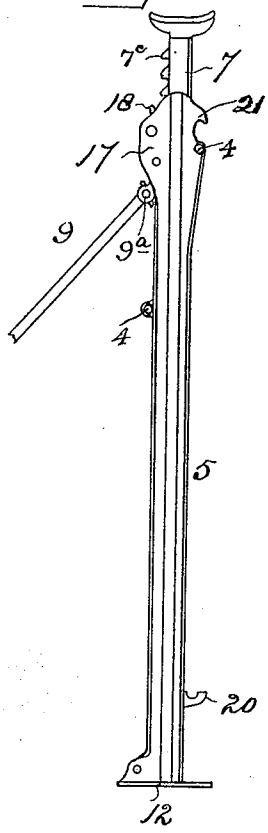


Fig. 3.

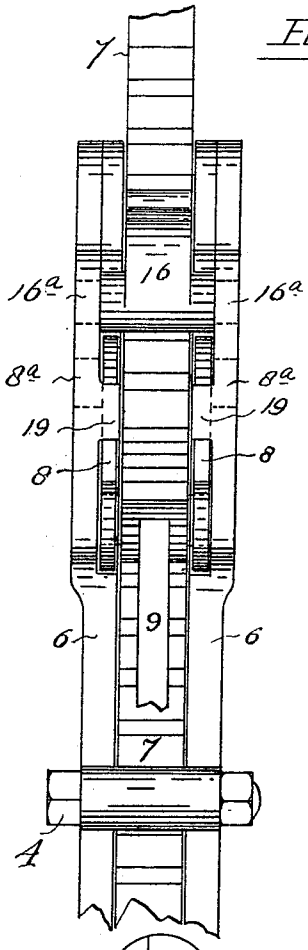
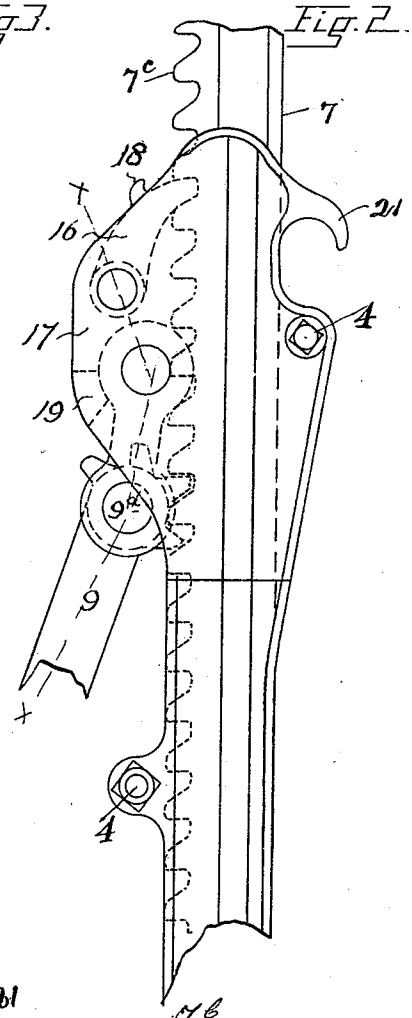


Fig. 2.



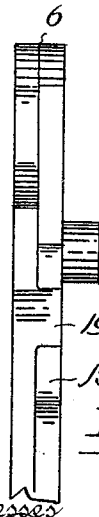


Fig. 5.

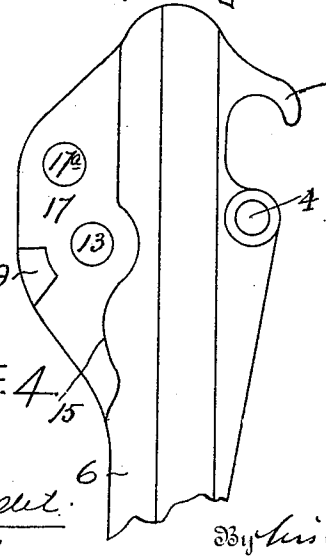


Fig. 4.

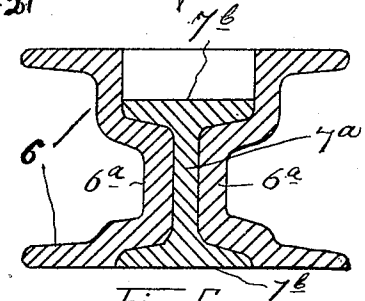


Fig. 6.

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(No Model.) 2 Sheets—Sheet 2.

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WAGON JACK.

No. 481,713. Patented Aug. 30, 1892.

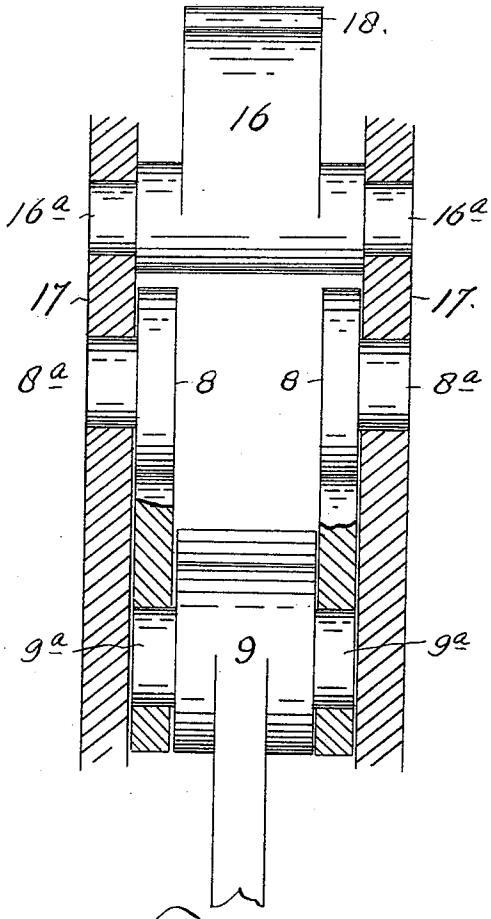

Fig. 10.

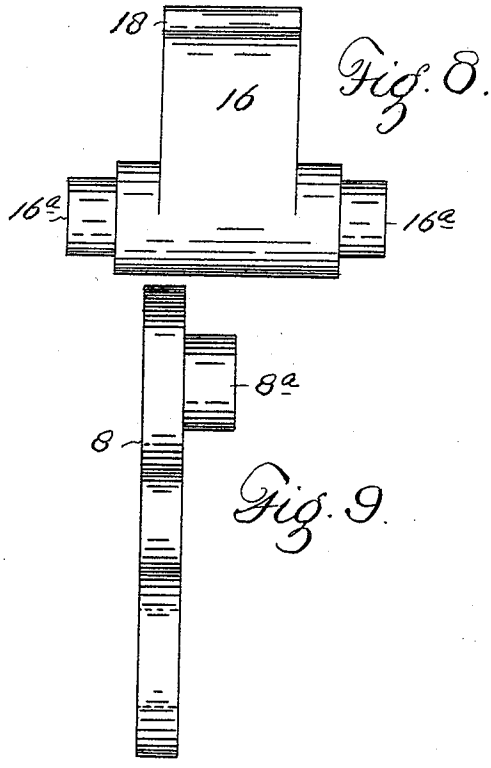

Fig. 8.

Fig. 9.

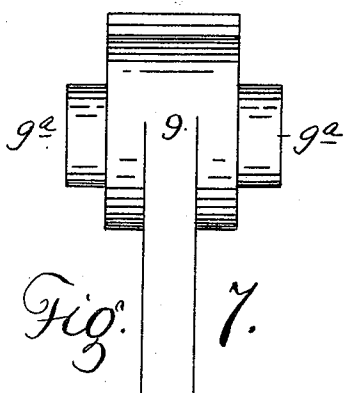

Fig. 7.

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UNITED STATES PATENT OFFICE.

MANETHO C. JACKSON, OF DENVER, COLORADO.

WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 481,713, dated August 30, 1892.

Application filed December 1, 1891. Serial No. 413,735. (No model.)

To all whom it may concern:

Be it known that I, MANETHO C. JACKSON, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Wagon-Jacks; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in wagon-jacks; and the object of the improvement is to provide a device of the class stated which shall be of simple construction, economical in cost, reliable, durable, and efficient in use, and wherein the parts are so assembled that all the requirements in a device of this class are fully met.

To these ends the invention consists of the features, arrangements, and combinations hereinafter described and claimed.

In the accompanying drawings is illustrated an embodiment of my improved wagon-jack.

Figure 1 of the drawings is a side elevation of the device. Fig. 2 is a fragmentary view in side elevation, on an enlarged scale, of the operating parts. Fig. 3 is a front view of the same. Fig. 4 is an inside view in elevation of the upper portion of one of the twin sections of the frame. Fig. 5 is an edge view of the same. Fig. 6 is a transverse section taken through the rack-bar and frame. Fig. 7 is a detail view of the pivoted extremity of the lever. Fig. 8 is a similar view of the locking-dog. Fig. 9 is a detail view showing one of the twin arms of the movable or oscillating fulcrum. Fig. 10 is a section taken on the line *x x*, Fig. 2.

In the views, similar reference-characters indicating corresponding parts or elements of the mechanism, let the numeral 5 designate the frame, in which is supported the cogged or toothed rack or ratchet-bar 7.

As shown in the drawings, the frame 5 is for convenience of manufacture composed of twin sections 6 6, suitably connected by bolts 4. This frame may, however, be cast integral or in a single piece and the rack-bar 7 inserted. The sides of sections 6 are flanged at the base, forming a foot 12 of sufficient area to support the jack in an upright staple position under ordinary circumstances and for all practical purposes. The sides of sections 6 are provided with interiorly-projecting parts 6^a, which engage the web 7^a of bar 7. This web connects the front and rear flanges 7^b. This bar fits nicely and slides easily within the frame 5. The bar is provided on one side, which I will call its "face," with cogs or teeth 7^c, forming in effect a rack to engage counterpart cogs or teeth formed on the inner extremity of the lever 9, which is fulcrumed on arms 8, pivoted on sections 6 of the frame, by the use of lugs 8^a, formed integral with said arms 8 or attached thereto in any suitable manner and located within suitable apertures 13, formed in projections 17 of sections 6. It will also be observed that the lugs on which arms 8 are pivoted may be formed on the frame-sections and the apertures in the pivoted arms without departing in any manner from the spirit of the invention. The outer extremities of arms 8 are provided with apertures for the reception of lugs 9^a, formed on the cogged extremity of the lever. Arms 8 are of sufficient length to permit the teeth of the lever to engage the face of the rack-bar. The frame-sections are provided with shoulders 15, which engage the arms 8. These shoulders are so located that the teeth of the lever are not permitted to engage the bottom of the recesses formed between the cogs or teeth of the movable rack. By reason of this construction all rearward pressure or thrust upon the rack-bar and consequent friction between it and the frame are avoided. The manner of raising the rack-bar by the use of the lever will be readily understood. As this bar is raised it is automatically locked in position by the use of the dog 16, pivoted in the forward projections 17 of the frame. This dog, as shown in the drawings, is provided with lugs 16^a, which engage corresponding apertures 17^a, formed in the projections 17. The pivotal lugs for the dogs may also be formed interiorly in the frame and engage an aperture formed in the dog, or the dog may be supported or pivoted upon a bolt or pin passed through apertures in the frame and a corresponding aperture formed in the dog. The dog is thus pivoted on the frame in such

position that its hooked or locking extremity engages the rack-bar, and when once placed in position retains its place in engagement with the face of the bar by gravity and acts automatically in locking the bar as it is raised by repeated actions of the lever. This pivoted locking-dog is provided with a finger-hook 18, for convenience in lifting its engaging extremity out of the rack when it is desired to lower the load resting on the supporting rack-bar.

Projections 17 of the frame are provided with interiorly-projecting lugs 19, adapted to engage arms 8 and prevent them from moving outward too far from the rack. These lugs are, however, so located as to permit arms 8 to move outward sufficiently to disengage the toothed extremity of the lever from the face of the rack-bar, since after the rack-bar is forced upward by each downward movement of the lever-arm the engaging extremity of the lever must be released from the rack-bar and the outer arm raised preparatory to each succeeding upward thrust of the rack-bar. This disengagement is effected by drawing arms 8 out from the rack, as heretofore intimated. Arms 8 thus form an oscillating fulcrum for lever 9. The movable bar is provided with a rearwardly-projecting hook 20, to which may be connected anything—as the extremity of a wire, rope, &c.—which it is desired to tighten or of which it is necessary to increase the tension. Frame 5 is also provided with a hook 21. When utilized for wire-stretching purposes, the wire to be stretched is attached to hook 20, while the frame of the jack is connected by means of hook 21 with a post or other stationary object. The movable bar carrying hook 20 is then adjusted by the lever 9 the same as when used for lifting purposes, thus drawing the wire toward hook 21 or the stationary object to which it is attached. It will thus be seen that my improved jack may be employed for wire-stretching in fence-making and also utilized for hay-binding purposes.

Having thus described my invention, what I claim is—

1. The combination, with a suitable frame provided with a hook 21, of a movable rack-bar supported therein and having a hook 20, a lever fashioned to engage the face of said bar, a movable fulcrum located on the frame and supporting the lever, and a locking-dog pivoted on the frame and automatically locking the movable bar as it is released by the lever, whereby hooks 20 and 21 are made to approach each other, substantially as and for the purpose set forth.

2. In a wagon or lifting jack, the combination, with a suitable frame, of a movable rack-bar supported therein, a lever engaging the face of the movable bar and provided with an oscillating fulcrum pivoted on the frame at one extremity and to the lever at the opposite extremity, the frame being shouldered to engage said section and to prevent the teeth of the lever from engaging the bottoms of the recesses between the teeth of the rack, the frame being provided with an interiorly-projecting lug adapted to engage said fulcrum and to prevent its outer movement after the disengagement of the lever from the rack-bar, substantially as and for the purpose set forth.

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

MANETHO C. JACKSON.

Witnesses:
WM. MCCONNELL,
G. J. ROLLANDET.